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EnviroTech
Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

HATHAWAY, LLC
PRELIMINARY RESPONSE TO
RWQCB SECTION 13267 ORDER
POND INFORMATION AND SAMPLING RESULTS

JASMIN OIL FIELD
QUINN LEASES
SECTION 15 T25S/R27E MDB&M

KERN FRONT OIL FIELD
DAVIES LEASE
SECTION 4 T28S/R27E MDB&M

POSO OIL FIELD
HATHAWAY USL LEASE
SECTION 20 T27S/R27E MDB&M

EDISON OIL FIELD
CROFTON COFFEE LEASE
SECTION 36 T29S/R29E MDB&M

DEVIL'S DEN OIL FIELD
FEE AND GRACE CAIRNS LEASES
SECTION 25 and 26 T25S/R18E MDB&M

Submitted:
December 8, 2015

Addendum:
December 16, 2015

Prepared by:

EnviroTech Consultants, Inc.

Kelsey Padilla, Geologist

M. Jane Ellis-McNaboe, PG

REGISTERED GEOLOGIST
M. JANE ELLIS-McNABOE
exp. 01/18
4127
STATE OF CALIFORNIA

EnviroTech
Consultants, Inc.

RECEIVED
DEC 18 2015
RWQCB-CVR
FRESNO, CALIF.

December 16, 2015

Mr. Ron Holcomb
Central Valley Regional Water Quality Control Board
1685 E Street,
Fresno, CA 93706

Subject: Hathaway, LLC, Response to 1 April 2015 13267 Order, Pond Technical Report Addendum

Mr. Holcomb:

Enclosed is the Technical Report Addendum submitted by EnviroTech Consultants, Inc. on behalf of Hathaway, LLC, as required by the CV-RWQCB Order Pursuant to California Water Code Section 13267, dated 1 April 2015.

If you have any questions or need further information, please feel free to call Mr. Chad Hathaway at (661) 393-2004. Additionally, you can contact EnviroTech Consultants on this matter; Kelsey Padilla at (661) 377-0073 x 20 or M. Jane Ellis-McNaboe at (661) 377-0073x 11.

Sincerely,

Kelsey Padilla, Geologist

cc: Chad Hathaway, Hathaway, LLC

5400 Rosedale Highway • Bakersfield, CA 93308 • Tel 661.377.0073 • Fax 661.377.0074

December 16, 2015

Certification Statement

RWQCB Order 13267, Pond Sampling Technical Report
Hathaway, LLC

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine an imprisonment for knowing violations.

12/16/15

Chad Hathaway, President/ CEO

Date

Hathaway, LLC
4205 Atlas Ct.
Bakersfield, CA 93308

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1.0 IDENTIFICATION OF DISCHARGES OF PRODUCED WATER TO LAND

The Regional Water Quality Control Board (RWQCB) identified the following lease owned and operated by Hathaway, LLC (Hathaway) to contain areas of waste water discharge.

TABLE 1-1: RWQCB IDENTIFIED WASTE WATER DISCHARGE AREAS

Oil Field	Lease	No. of Ponds	Sampling Information
Jasmin Oil Field	Quinn	7	Sampled by Hathaway, LLC

In addition to the ponds currently identified by the RWQCB, Hathaway identified ponds on five other leases listed in the table below.

TABLE 1-2: ADDITIONAL PONDS IDENTIFIED BY HATHAWAY, LLC

Oil Field	Lease	Latitude	Longitude	Assessor's Parcel Number	Status	Liquids Yes/No	Sampling Information
Edison Oil Field	Crofton Coffee	35.359263	-118.811400	388-060-23	Inactive	No	Dry; could not sample.
Kern Front Oil Filed	Davies	35.516168	-119.068714	481-030-14	Active	Yes	Sampled by EnviroTech
Devil's Den Oil Field	Fee A	35.729926	-119.991278	043-140-18	Active	Yes	Sampled by EnviroTech
	Fee A	35.729684	-119.991158	043-140-18	Active	Yes	Sampled by EnviroTech
	Fee B	35.728033	-119.989845	043-140-19	Active	Yes	Sampled by EnviroTech
	Fee B	35.727918	-119.989836	043-140-19	Active	Yes	Sampled by EnviroTech
Poso Creek Oil Field	Hathaway USL	35.571103	-119.091336	074-042-67	Active	Yes	Freshwater Pond for steam injection; not sampled

Maps of these ponds and surrounding leases are included in Attachments A - J. All of these ponds are owned and operated by Hathaway, LLC.

2.0 POND SAMPLING

Representative samples of wastewater were collected by Hathaway, LLC (Hathaway) from the Quinn Ponds #1-8, located in the Jasmin Field, on March 30, 2015 as required by Order 13267 dated April 1, 2015 (Attachment M). The eight ponds located on the Quinn Lease are in series; only one wastewater sample is required. Following wastewater sample collection, two of the ponds were combined into one, only seven ponds are located on the site plan and location map.

Hathaway also disclosed information regarding ponds that were not directly mentioned in the 13267 Order. Representative samples of wastewater were collected by EnviroTech Consultants, Inc. (EnviroTech) from the Davies pond on November 19, 2015 and from the Fee A and Fee B Ponds on November 20, 2015. The ponds on both Fee A and Fee B were in series, only one water sample was collected from each site.

All wastewater samples were collected directly from each pond. The samples were decanted into appropriate laboratory sampling containers and cooled with ice for storage and transportation to the laboratory under standard chain of custody procedures.

3.0 POND SAMPLING ANALYTICAL RESULTS

The Quinn Lease wastewater samples collected by Hathaway were received by Zalco Laboratories on March 30, 2015. Hathaway received the final analytical report for the Quinn Lease on April 24, 2015.

The samples collected by EnviroTech were received by BC Laboratories, Inc. on November 19 and 20, 2015. EnviroTech received the final laboratory analytical reports on December 14, 2015.

This report includes the final analytical results for the Quinn Lease, Fee A and Fee B Leases, and Davies Lease ponds. This amended report includes the final laboratory reports, including all radionuclide data.

The analytical results are summarized in the following tables; complete laboratory reports are included in Attachment N.

TABLE 3-1: GENERAL CHEMISTRY

Sample ID	Date Sampled	Total Dissolved Solids	Calcium	Magnesium	Potassium	Sodium	Alkalinity as CaCO3	Bicarbonate ion as HCO3	Carbonate as CO3	Hydroxide as OH	Methane
EPA Analytical Method		SM-2540C	200.7				2320B				RSK-175M
Units		mg/L									
Reporting limit		Reporting limits vary, see full analytical report.									
Davies	11-19-2015	**190**	**7.0**	**0.33**	**0.38**	**56**	**43**	**88**	<2.5	<1.4	<0.0010
Fee A Pond #1	11-20-2015	**15000**	**73**	**100**	**30**	**5400**	<5.0	**5400**	<5.0	<2.8	**0.039**
Fee B Pond #1	11-20-2015	**20000**	**89**	**160**	**35**	**6300**	<5.0	**4700**	<5.0	<2.8	**0.11**
Quinn Pond #1	3-3-2015	**410**	**8.8**	**0.21**	**2.4**	**120**	**160**	**160**	**1**	**0**	**0.654**

Bold = Analyte detected at or above minimum reporting limit.

TABLE 3-2: ANIONS

Sample ID	Date Sampled	Anions, Ion Chromatography			
		Bromide	Chloride	Nitrate as NO3	Sulfate
EPA Analytical Method		EPA-300.0			
Units		mg/L			
Reporting Limit		Reporting limit varies, see complete analytical report.			
Davies	11-19-2015	**0.13**	**27**	**0.73**	**37**
Fee A Pond #1	11-20-2015	**41**	**6100**	<22	**230**
Fee B Pond #1	11-20-2015	**42**	**9300**	<22	**19**
Quinn Pond #1	3-3-2015	**0.22**	**57**	<2.0	**57**

Bold = Analyte detected at or above minimum reporting limit.

TABLE 3-3: METALS

Sample ID	Date Sampled	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Chromium	Chromium (Hexavalent)	Cobalt	Copper	Iron	Lead
EPA Analytical Method		200.7	200.8			200.7		200.8	218.6	200.8		200.7	
Units		mg/L	ug/L			mg/L		ug/L	ug/L	ug/L		mg/L	
Reporting Limit		Reporting limit varies by sample. See complete analytical report.											
Davies	11-19-2015	**0.21**	**1.1**	**64**	<1.0	**0.048**	**0.23**	**8.4**	<0.20	**0.10**	**320**	**0.069**	**13**
Fee A Pond #1	11-20-2015	<10	**7.3**	**710**	<5.0	**9.1**	<5.0	<15	<0.20	**0.60**	**2.5**	**2.5**	<5.0
Fee B Pond #1	11-20-2015	<20	**8.2**	**13000**	<10	**25**	<10	<30	<0.20	<10	**5.8**	**1.1**	<10
Quinn Pond #1	3-3-2015	<0.20	<0.020	<0.10	<0.010	**0.79**	<0.010	<0.050	N/A	<0.10	<0.050	<0.1	<0.050

Bold = Analyte detected at or above minimum reporting limit.

N/A = Not currently available in analytical report.

TABLE 3-3: METALS Cont.

Sample ID	Date Sampled	Lithium	Molybdenum	Manganese	Nickel	Selenium	Silver	Strontium	Thallium	Vanadium	Zinc	Mercury
EPA Analytical Method		200.7	200.8	200.7	200.8			200.7		200.8		245.1
Units		mg/L	ug/L	mg/L	ug/L			mg/L		ug/L		ug/L
Reporting Limit		Reporting limit varies by sample. See complete analytical report.										
Davies	11-19-2015	<0.20	**1.7**	<0.010	**3.0**	**3.2**	<1.0	**0.063**	<1.0	**3.6**	**610**	<0.20
Fee A Pond #1	11-20-2015	**1.3**	**1.1**	**0.14**	**7.8**	**17**	<5.0	**4.9**	<5.0	<15	<50	**0.065**
Fee B Pond #1	11-20-2015	**1.6**	**18**	**0.18**	**14**	**10**	<10	**11**	<10	<30	<100	<0.20
Quinn Pond #1	3-3-2015	<0.10	<0.10	<0.030	<0.050	<0.5	<0.20	**0.14**	<0.50	<0.50	<0.50	<0.002

Bold = Analyte detected at or above minimum reporting limit.

TABLE 3-4: BTEX AND TPH

Sample ID	Date Sampled	Benzene	Ethylbenzene	Toluene	P&M-Xylenes	O-Xylenes	Xylenes, Total	TPH as Crude Oil: Diesel and Gasoline Range Organics (GC) C12-C40
EPA Analytical Method		82602B						8015B
Units		ug/L						
Reporting Limit		Varies, see laboratory report						
Davies	11-19-2015	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	**2000**
Fee A Pond #1	11-20-2015	<2.5	<2.5	<2.5	<2.5	<2.5	<5.0	**55000**
Fee B Pond #1	11-20-2015	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0	**9000**
Quinn Pond #1	3-3-2015	<5.00	<5.00	<5.00	<5.00	<5.00	**0**	**1.13**

Bold = Analyte detected at or above minimum reporting limit.

TABLE 3-5: SEMI-VOLATILE ORGANIC COMPOUNDS

Sample ID	Date Sampled	Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Naphthalene	Phenanthrene	Pyrene
EPA Analytical Method		8270C_SIM															
Units		ug/L															
Davies	11-19-2015	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Fee A Pond #1	11-20-2015	<0.50	<0.50	<0.50	**0.76**	<0.50	<0.50	<0.50	<0.50	**1.7**	<0.50	**0.28**	<0.50	<0.50	**0.62**	**0.33**	**1.0**
Fee B Pond #1	11-20-2015	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Quinn Pond #1	3-3-2015	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10

Bold = Analyte detected at or above minimum reporting limit.
Reporting limit varies by sample. See full analytic report.

TABLE 3-6: RADIONUCLIDES

Sample ID	Date Sampled	Gross Alpha	Gross Beta	Radium-226	Radium-228	Uranium
EPA Analytical Method		9310		9315_Ra226	9320_Ra228	6020A
Units		pCi/L				
Regulatory Threshold*		15		- -	5	20
Davies	11-19-2015	**0.322** ± 1.19	**0.707** ± 0.958	**0.146** ± 0.452	**13.9** ± 10.3	**1.1**
Fee A Pond #1	11-20-2015	**44.2** ± 76.6	**74.6** ± 81.1	**-2.177** ± 10.7	**17.9** ± 11.3	**0.97**
Fee B Pond #1	11-20-2015	**122** ± 95.0	**48.1** ± 67.4	**55.3** ± 14.7	**67.6** ± 18.7	<6.7
Quinn Pond #1	3-3-2015	**5.49** ± 2.220	**5.47** ± 1.70	0.29 ± 0.02	0.79 ± 0.23	0.41 ± 0.30

Bold = Analyte detected at or above minimum reporting limit.
Results are expressed as ± Total Uncertainty
Reporting limit varies by sample. See full analytic report.
* Title 22, Table 6443. MCL
-- No Regulatory Threshold

4.0 INFORMATION FOR EACH SURFACE IMPOUNDMENT

The ponds located at the Devil's Den "Fee" Leases, the Jasmin "Quinn" Lease, the Poso Creek "Hathaway USL" Lease, and the Kern Front "Davies" Lease will all remain active and operated by Hathaway, LLC. The pond at the Hathaway USL Lease is solely used as a freshwater pond and is supplied by a single water well located approximately 150 feet south of the pond. The pond located at the Edison "Crofton-Coffee" Lease is currently in the process of being abandoned and will no longer be used for wastewater generated during petroleum production.

The following table contains the required information for the all of the Hathaway, LLC ponds.

TABLE 4-1: SURFACE IMPOUNDMENT INFORMATION

Pond Identification	Surface Impoundment Dimensions (feet)			Location (NAD 83)	Assessor's Parcel Number of the Lease	Duration of discharge (months)	Volume of wastewater discharged per year (bbls)
Crofton Coffee	Length	Width	Depth	Latitude: 35.359263°	388-060-23	203	5,322
	117'	85'	8'	Longitude: -118.811400°			
Davies	Length	Width	Depth	Latitude: 35.516168°	481-030-14	219	98,318
	203'	131'	8'	Longitude: -119.068714°			
Fee A Pond #1	Length	Width	Depth	Latitude: 35.729926°	043-140-18	452	37,252
	57'	22'	8'	Longitude: -119.991278°			
Fee A Pond #2	Length	Width	Depth	Latitude: 35.729684°	043-140-18		
	74'	24'	8'	Longitude: -119.991158°			
Fee B Pond #1	Length	Width	Depth	Latitude: 35.728033°	043-140-19		
	47'	14'	8'	Longitude: -119.989845			
Fee B Pond #2	Length	Width	Depth	Latitude: 35.727918°	043-140-19		
	96'	43'	8'	Longitude: -119.989836°			
Hathaway USL	Length	Width	Depth	Latitude: 35.571103°	074-042-67	55	568,382
	375'	152'	10'	Longitude: -119.091336°			
Quinn Pond #1	Length	Width	Depth	Latitude: 35.756054°	051-101-41	467	3,227,319
	123'	62'	N/A	Longitude: -119.059122°			
Quinn Pond #2	Length	Width	Depth	Latitude: 35.756077°	051-101-41		
	120'	58'	N/A	Longitude: -119.059400°			

Quinn Pond #3	Length	Width	Depth	Latitude: 35.755012°	051-101-41	467	3,227,319
	189'	133'	N/A	Longitude: -119.059684°			
Quinn Pond #4	Length	Width	Depth	Latitude: 35.755215°	051-101-41		
	142'	52'	N/A	Longitude: -119.059196°			
Quinn Pond #5	Length	Width	Depth	Latitude: 35.754924°	051-101-41		
	138'	122'	N/A	Longitude: -119.059173°			
Quinn Pond #6	Length	Width	Depth	Latitude: 35.754081°	051-101-41		
	285'	467'	N/A	Longitude: -119.059678°			
Quinn Pond #7	Length	Width	Depth	Latitude: 35.754542°	051-101-41		
	93'	43'	N/A	Longitude: -119.058798°			

EXHIBIT A: QUINN POND MAP (JASMIN OIL FIELD)

Hathaway LLC

Legend

- Quinn Lease
- Pond #1
- Pond #2
- Pond #3
- Pond #4
- Pond #5
- Pond #6
- Pond #7

0 550 1,100 2,200 Feet

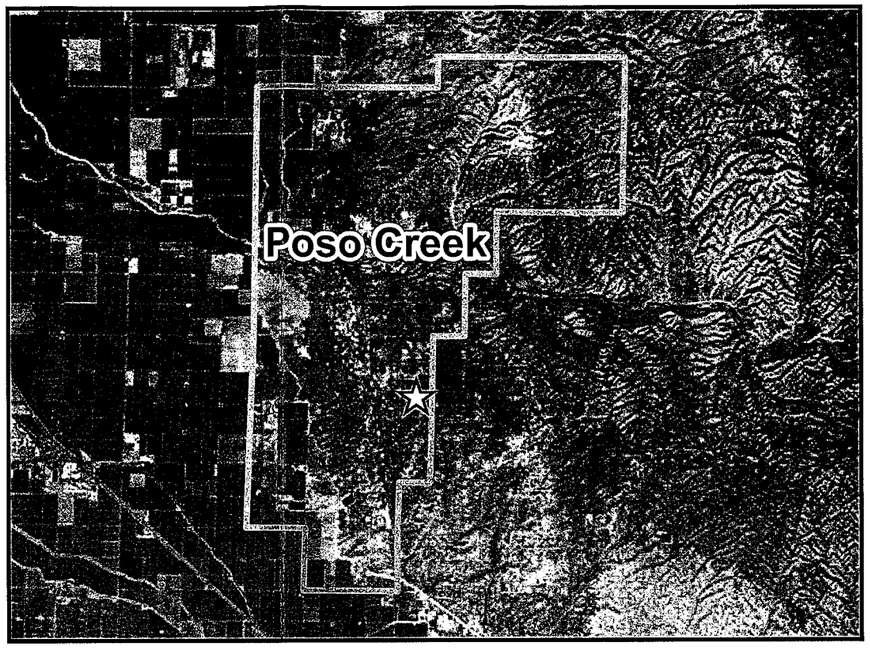
Prepared By: EnviroTech Consultants, Inc.	TITLE:	Quinn Ponds
	OIL FIELD:	Jasmin
	COUNTY:	Kern
Section/Township/Range	DRN BY:	Ashley Bylow
Section 15 - T25S/R27E	DATE:	December 2, 2015
	SCALE:	1 inch = 550 feet

EXHIBIT B: QUINN SITE MAP (JASMIN OIL FIELD)

Hathaway, LLC
Site Plan for Quinn Lease
*All ponds in series
Sample Taken from Quinn Pond #1
N
600 ft
Google earth
© 2015 Google

EXHIBIT C: DAVIES POND MAP (KERN FRONT/ POSO OIL FIELD)

Hathaway LLC



Legend

Davies Lease

Davies Pond

0 700 1,400 2,800 Feet

Prepared By: EnviroTech Consultants, Inc.	TITLE:	Davies Pond
	OIL FIELD:	Poso Creek
	COUNTY:	Kern
Section/Township/Range	DRN BY:	Ashley Bylow
Section 4 - T28S/R27E	DATE:	December 2, 2015
	SCALE:	1 inch = 700 feet

EXHIBIT D: DAVIES SITE MAP (KERN FRONT/ POSO OIL FIELD)

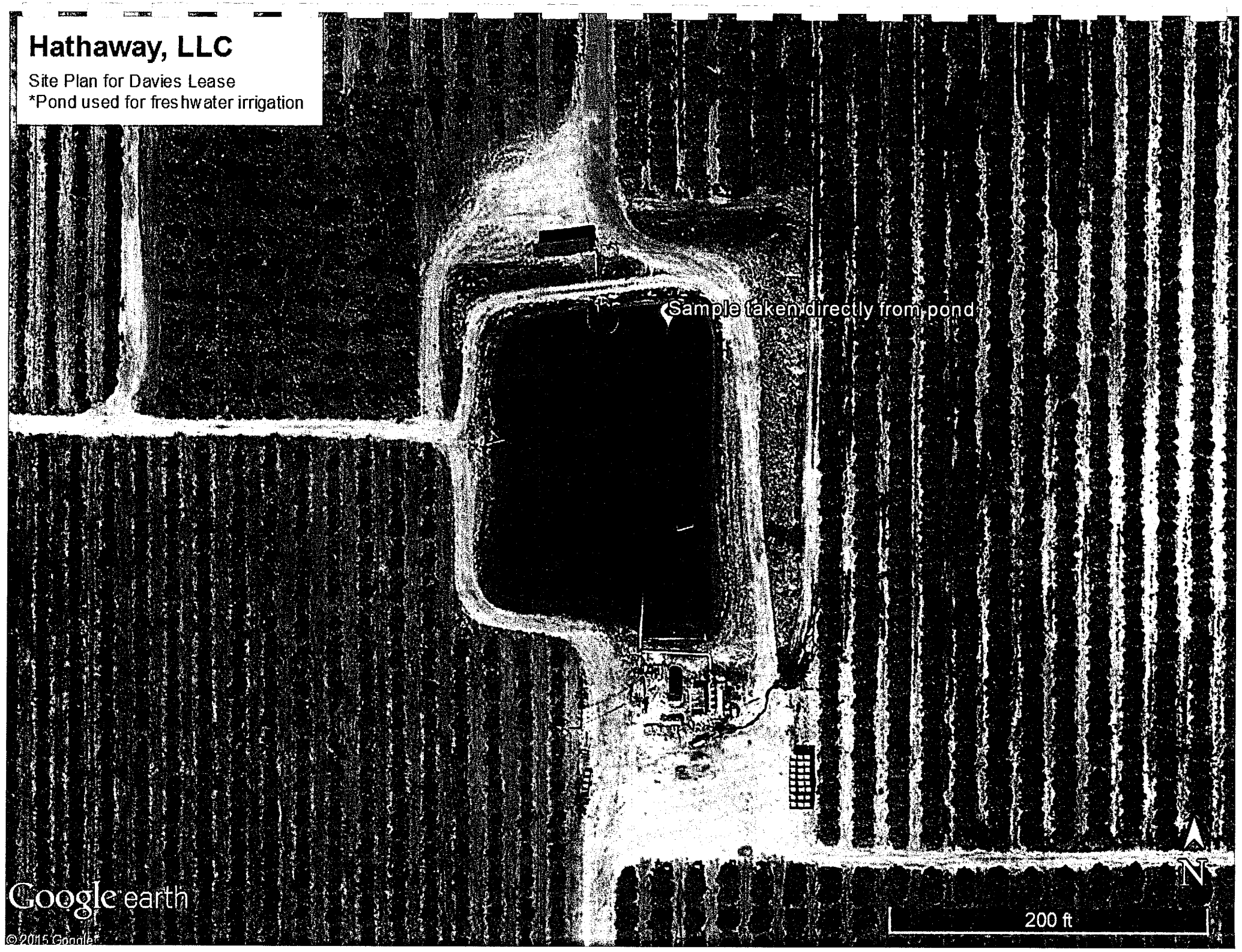
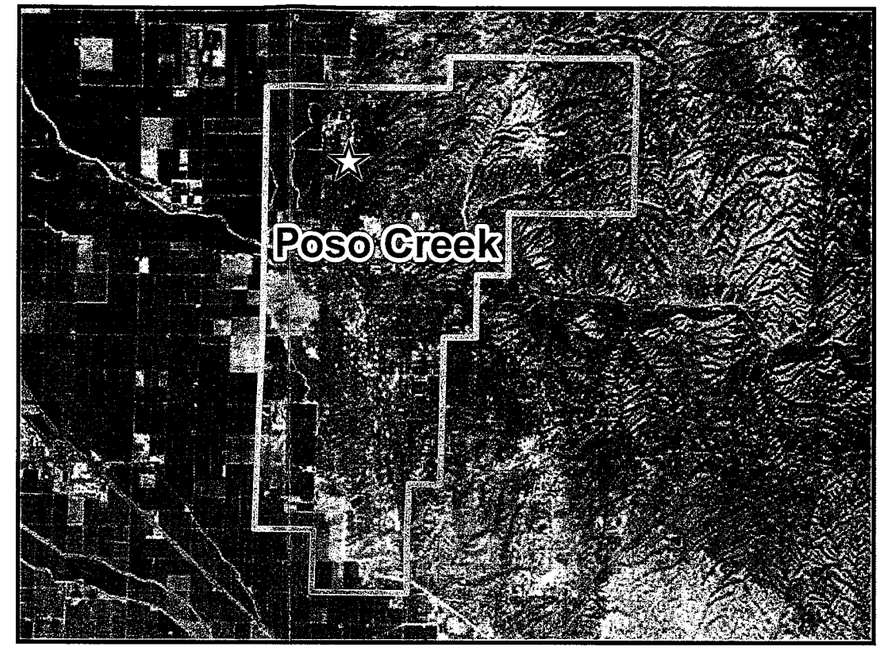

Hathaway, LLC
Site Plan for Davies Lease
*Pond used for freshwater irrigation
Sample taken directly from pond
N
200 ft
Google earth
© 2015 Google

EXHIBIT E: HATHAWAY USL POND Map (POSO OIL FIELD)

Hathaway LLC



Legend

USL Lease

USL Pond

0 200 400 800 Feet

Prepared By: EnviroTech Consultants, Inc.	TITLE:	USL Pond
	OIL FIELD:	Poso Creek
	COUNTY:	Kern
Section/Township/Range	DRN BY:	Ashley Bylow
Section 20 - T27S/R27E	DATE:	December 2, 2015
	SCALE:	1 inch = 200 feet

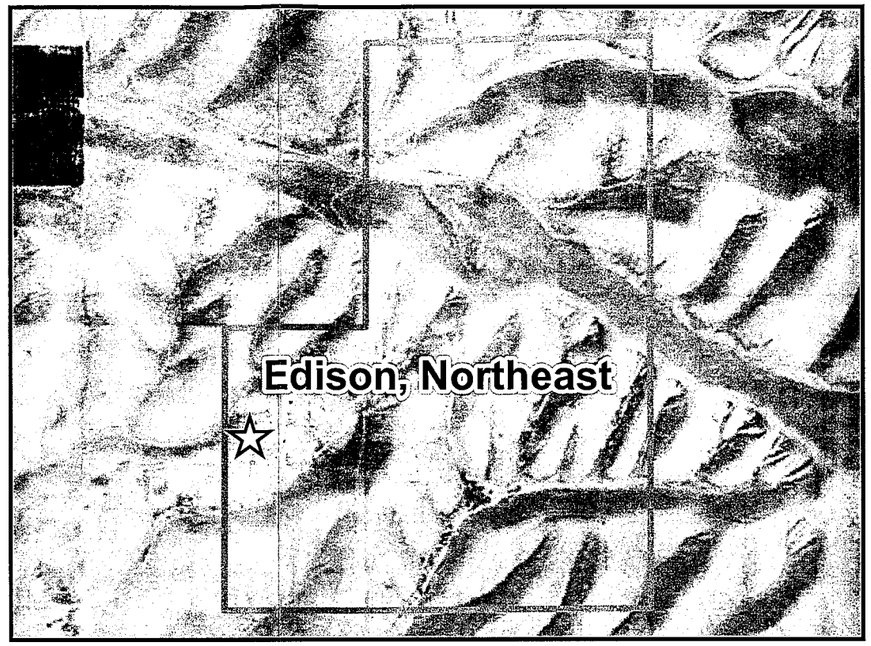
Hathaway, LLC

Site Plan for Hathaway USL Lease
*Pond used for freshwater for steam injection

EXHIBIT G: CROFTON COFFEE POND MAP (EDISON OIL FIELD)

EXHIBIT F: HATHAWAY USL SITE MAP (POSO OIL FIELD)

Hathaway LLC



Legend

Crofton Coffee Lease

Crofton Coffee Pond

0 150 300 600 Feet

Prepared By: EnviroTech Consultants, Inc.	TITLE:	Crofton Coffee Pond
	OIL FIELD:	Edison Northeast
	COUNTY:	Kern
Section/Township/Range	DRN BY:	Ashley Bylow
Section 36 - T29S/R29E	DATE:	December 2, 2015
	SCALE:	1 inch = 150 feet

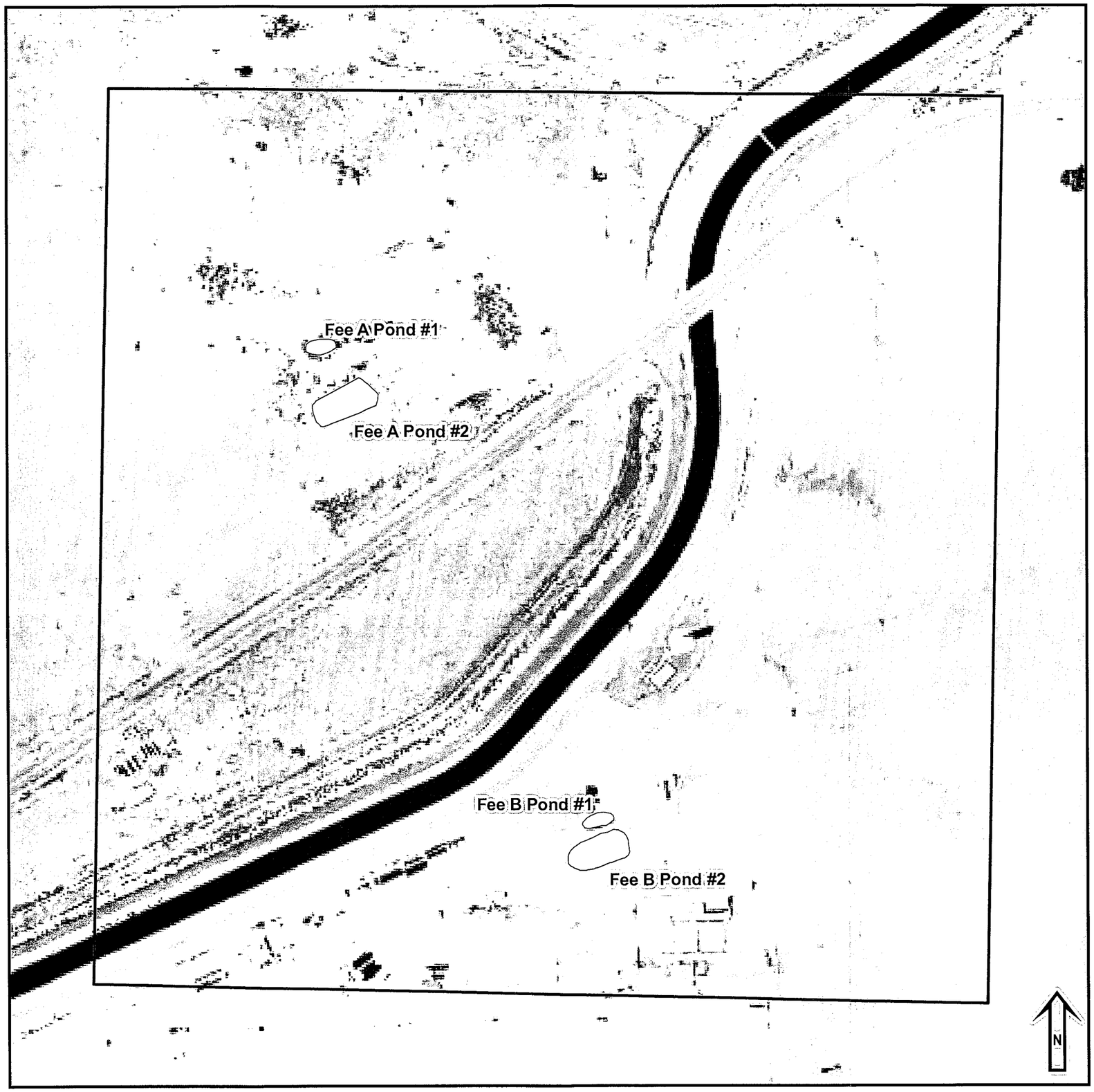
EXHIBIT H: CROFTON COFFEE SITE MAP (EDISON OIL FIELD)

Hathaway, LLC

Site Plan for Crofton Coffee Lease
*Pond is dry; no sample available

EXHIBIT I: FEE A AND B POND MAP (DEVIL'S DEN OIL FIELD)

Hathaway LLC



Legend

- Fee Lease
- Fee B Pond #2
- Fee A Pond #2
- Fee B Pond #1
- Fee A Pond #1

0 150 300 600 Feet

Prepared By: EnviroTech Consultants, Inc.	TITLE:	Fee Lease Ponds
	OIL FIELD:	Devils Den
	COUNTY:	Kern
Section/Township/Range	DRN BY:	Ashley Bylow
Section 25 - T25S/R18E	DATE:	December 2, 2015
	SCALE:	1 inch = 150 feet

EXHIBIT J: FEE A AND B SITE MAP (DEVIL'S DEN OIL FIELD)

Hathaway, LLC

Site Plan for Fee A and Fee B Leases

EXHIBIT K: COPY OF RWQCB ORDER 13267, 1 APRIL, 2015

CALIFORNIA
Water Boards

Central Valley Regional Water Quality Control Board

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

1 April 2015

Chad J. Hathaway
Hathaway LLC
P.O. Box 81385
Bakersfield, CA 93380

CERTIFIED MAIL
7014 3490 0001 7023 0421

CALIFORNIA WATER CODE DIRECTIVE PURSUANT TO SECTION 13267. You are legally obligated to respond to this Order. Please read this Order carefully.

Hathaway LLC (hereafter Discharger) has been identified as the owner or operator of petroleum production wastewater disposal ponds (ponds). A list of the ponds (and the leases and oil fields where they are located) that the California Regional Water Quality Control Board, Central Valley Region (Central Valley Water Board) identifies as under your control is presented in Attachment A. Ponds for the disposal of wastewater generated during the course of petroleum production have the potential to affect the quality of groundwater (a water of the State). Groundwater underlying the areas where your ponds are located have beneficial uses as identified in the Water Quality Control Plan for the Tulare Lake Basin (Basin Plan).

This order requires the collection and analysis of wastewater samples collected from each of the ponds listed in Attachment A to characterize the discharge. Each sample is to be analyzed for each of the constituents listed in Attachment B. These data are needed to comprehensively characterize wastewater in each pond and provide data needed to evaluate the threat to the quality of waters of the State. If more than one pond is connected in series (i.e., one pond drains directly to the next with no other source of inflow) then only the upstream pond must be sampled. This order is not intended to require the collection of duplicative data. If during the 12 months (one year) prior to the date of this order, samples required by this order have been analyzed from one or more of the ponds for the required constituents, that data can be submitted for the appropriate order requirements.

This order also requires Discharger to identify any discharge(s) of oil field wastewater to land that is not identified in Attachment A. Discharger must also collect and analyze wastewater samples in accordance with Attachment B from any additionally identified discharge to characterize the discharge.

The Central Valley Water Board's authority to require technical reports derives from Section 13267 of the California Water Code, which specifies, in part, that:

(pp) A regional Board ... in connection with any action relating to any plan or requirement authorized by this division, may investigate the quality of any waters of the State within its region.

(b)(1) In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefit to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.

The Central Valley Water Board is concerned about the potential impacts to water quality posed by the discharge of oil field produced waters in surface ponds. The technical information and reports required by this order are necessary to assess the potential threat to water quality. The need to understand the potential impacts to water quality justify the need for the information and reports required by this order. Based on the nature and possible consequences of the discharges of waste, the burden of providing the required information, including the reporting costs, bears a reasonable relationship to the need for the report, and the benefits to be obtained. Discharger is required to submit this information and reports because it is the operator of the ponds listed in Attachment A of this order.

The unauthorized discharge of waste containing oil field waste constituents to land, including unlined ponds, may result in the degradation of water quality and creates or threatens to create, a condition of pollution in groundwater. Significant concentrations of salinity (measured as TDS and EC), significant contributors to salinity such as chloride and sulfate, and boron are present in oil field wastewater. Other potential constituents such as, but not limited to, metals, radionuclides, and organic compounds pose a threat to water quality. The concentrations of these waste constituents in wastewater being discharged needs to be known to evaluate the threat. In addition, all locations where these discharges are occurring needs to be known.

Underlying groundwater can be degraded if mixed with oil field wastewater. Elevated concentrations of oil field waste constituents could impair the groundwater for municipal and domestic supply and agricultural supply uses.

Under the prescribed authority of California Water Code section 13267, the Central Valley Water Board directs Discharger to:

1. **By 15 June 2015**, submit a technical report containing the following information:

   A. Identification of any discharges of oil field produced waters to land, including but not limited to ponds, since April of 2014 that are not listed in Attachment A;

   B. Collect representative samples of wastewater within each of the ponds. Samples must be analyzed in accordance with the water quality analysis and reporting requirements contained in Attachment B to this Order;[1]

   If a representative sample cannot feasibly be collected from one or more of the sources discharging to a surface impoundment(s), then a comment will need to be added to the technical report required by this Order demonstrating that collection of a representative sample from a specific source is not feasible within the required timeframe, and propose an alternative sampling procedure and expeditious time schedule for obtaining a representative sample for each source. Alternative sampling procedures and time schedules are subject to approval by the Assistant Executive Officer of the Central Valley Regional Water Quality Control Board.

   C. All available information for each of the surface impoundment(s), including dimensions (i.e., length, width, and depth), latitude and longitude, Assessor's Parcel Numbers of the lease, duration of the discharge (in months), and the volume of wastewater discharged per year.

   D. A location map that includes the following information:

      i. All surface impoundment(s) at the Facility,
      ii. Include the boundary lines for all leases at the Facility, and
      iii. Legend with the name of the surface impoundment(s).

2. **By 15 April 2015**, Discharger needs to contact Dane S. Johnson of this office at (559) 445-5525 if you have received this Order and cannot collect the required samples.

[1] All previously obtained analytical data for oil field produced wastewater samples collected at the Facility, if any, with a description of the source and location for each analysis may be submitted in the alternative for re-running tests if the sample(s) was collected and analyzed within 12 months (one year) of the date of this order.

The technical report required by this Order must be submitted to the attention of:

Ronald Holcomb
Central Valley Water Board
1685 E Street
Fresno, CA 93706

Based on the information submitted in the technical report, additional information or action may be required.

With the report required by this Order, Discharger shall provide under penalty of perjury under the laws of California a "Certification" statement to the Central Valley Water Board. The "Certification" shall include the following signed statement:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

The Central Valley Water Board reserves the right to issue a Notice of Violation or pursue enforcement for Discharger's activities after reviewing the documentation provided in response to this Order.

The Technical Report is to be signed and stamped by a California Professional Engineer (Registered as a Civil Engineer) or a registered California Professional Geologist. Any laboratory analyses shall be performed by an analytical laboratory certified by the State of California for the analyses performed. Submissions pursuant to this Order shall include a statement by Discharger, or an authorized representative of Discharger, certifying (as described above) that the information submitted is true, complete, and accurate.

The failure to furnish the required report, or the submission of a substantially incomplete report or false information, is a misdemeanor, and may result in additional enforcement actions being taken against Discharger, including issuance of an Administrative Civil Liability Complaint pursuant to California Water Code section 13268. Liability may be imposed pursuant to California Water Code section 13268 in an amount not to exceed one thousand dollars ($1,000) for each day in which the violation occurs. All discharges to unpermitted ponds should cease pending review and submission of the technical information sought by this order.

Any person aggrieved by this action of the Central Valley Water Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with

California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must receive the petition by 5:00 p.m., within 30 days after the date of this directive, except that if the thirtieth day following the date of this directive falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

If you have any questions regarding this matter, please contact Doug Patteson of this office at (559) 445-5577 or at doug.patteson@waterboards.ca.gov.

Clay L. Rodgers

Clay L. Rodgers
Assistant Executive Officer

cc: Julie Macedo, Office of Enforcement, State Water Resources Control Board, Sacramento
Mike Toland, California Division of Oil, Gas, and Geothermal Resources, Bakersfield

ATTACHMENT A

The following table contains the names of oil fields and lease(s) and the corresponding number of ponds that the Central Valley Water Board has identified as active and under your control:

OPERATOR	OIL FIELD	LEASE	NO. OF PONDS
Hathaway LLC	Jasmin	Quinn	8

ATTACHMENT B

Water Quality Analysis

Wastewater samples collected from the ponds shall be analyzed by a laboratory certified by the Environmental Laboratory Accreditation Program using currently applicable United States Environmental Protection Agency-approved analytical methods for water for the following:

A. Total dissolved solids;

B. Metals listed in California Code of Regulations, title 22, section 66261.24. subdivision (a)(2)(A);

C. Benzene, toluene, ethylbenzene, and xylenes;

D. Total petroleum hydrocarbons as crude oil;

E. Polynuclear aromatic hydrocarbons (including acenaphthene, acenaphthylene, anthracene, benzo[a]anthracene, benzo[b]fluoranthene, benzo[a]pyrene, benzo[g,h,i]perylene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorine, indeno[1,2,3-cd]pyrene, naphthalene, phenanthrene, and pyrene);

F. Radionuclides listed under California Code of Regulations, title 22, Table 64442;

G. Major and minor cations (including sodium, potassium, magnesium, and calcium);

H. Major and minor anions (including nitrate, chloride, sulfate, carbonate, bicarbonate, and bromide);

I. Trace elements (including lithium, strontium, boron, iron, and manganese).

Reporting Requirements

Water Quality information shall be submitted in a technical report that includes at a minimum:

A. Site plan(s) with the location(s) of where the samples were collected;

B. A description of how the samples, representative of the pond contents, were collected;

Table(s) of analytical results organized by pond number with the data also submitted electronically as an Excel spreadsheet.

EXHIBIT L: LABORATORY ANALYTICAL REPORTS

ZALCO LABORATORIES, INC.
Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

(661) 395-0539
FAX (661) 395-3069

April 24, 2015

Michelle Ricker
Hathaway LLC
4205 Atlas Court
Bakersfield, CA 93308

TEL: (661) 393-2004
FAX: (661) 393-2009

Project ID:
RE: 1503332

Dear Michelle Ricker:

Zalco Laboratories, Inc. received 8 samples on 3/31/2015 for the analyses presented in the following report.

We appreciate your business and look forward to serving you in the future. Please feel free to call our office if you have any questions regarding these test results.

Sincerely,

Juan Magana
Project Manager
CC:Cynthia Allen

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C. Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.

ZALCO LABORATORIES, INC.
Analytical and Consulting Services
4309 Armour Avenue, Bakersfield, CA 93308
www.zalcolabs.com
(661) 395-0539 FAX (661) 395-3069

Hathaway LLC
4205 Atlas Court
Bakersfield CA 93308

Laboratory No: 1503332-01
Date Received: 3/31/2015
Date Reported: 5/1/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #1
Sampled by: Date: 3/31/2015 Time: 14:00
Report Notes:

COMPLETE GEOCHEM ANALYSIS

pH	8.29	Specific Gravity @ 60 F	1.000
Electrical Conductivity (EC) *(millimhos/cm @ 25 C)*	0.66	Resistivity (ohm meters @ 25 C)	15.15

Constituents	mg/L	meq/L	Reacting %
Calcium, Ca	8.8	0.44	3.45
Magnesium, Mg	0.21	0.017	0.14
Sodium, Na	120	5.2	40.99
Potassium, K	2.4	0.061	0.48
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	0.90	0.03	0.24
Bicarbonate, HCO3	160	2.62	20.58
Chloride, Cl	57	1.6	12.62
Sulfate, SO4	79	1.6	12.93
Sulfide, S	7.1		
Boron, B	0.79		
Barium, Ba	< 0.10		
Silica, SiO2	31		
Strontium, Sr	0.14		
Totals (Sum)	386	11.6	100

Total Dissolved Solids, (Gravimetric)	410		
Calculated Hardness, CaCO3	23		
Total Alkalinity, CaCO3	160		
Sodium Chloride, (total)	290		
		Primary Salinity	51.1
		Secondary Salinity	0
		Total Salinity	51.1
Cation/Anion Balance, %	8.0%		
Sodium, Na (Calculated), mg/L	148.93	Primary Alkalinity	31.84
Langelier Scale Index	0.16	Secondary Alkalinity	7.18
Stiff/Davis Stability Index	0.05	Total Alkalinity	39.02

Laboratory Authorization

ZALCO LABORATORIES, INC.
Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

(661) 395-0539
FAX (661) 395-3069

Hathaway LLC	Project: Master - 2015	Work Order No.: **1503332**
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: **1503332-01**	Collected By: William Moss
Client Sample ID: Jasmin Sump #1	Date Collected: 3/31/2015 2:00:00PM

Analyte	Results	PQL		Units	Flag	Method	Date Prepared	Date Analyzed	Init.
CAM, Toxicity (17 Metals)			*TTLC Limits*						
Antimony	<0.20	0.20	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Arsenic	<0.020	0.020	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Barium	<0.10	0.10	*10000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Beryllium	<0.010	0.010	*75*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cadmium	<0.010	0.010	*100*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Chromium	<0.050	0.050	*2500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cobalt	<0.10	0.10	*8000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Copper	<0.050	0.050	*2500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Lead	<0.050	0.050	*1000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Mercury	<0.0020	0.0020	*20*	mg/L		SW846 7470A	4/2/15	4/2/15	SS
Molybdenum	<0.10	0.10	*3500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Nickel	<0.050	0.050	*2000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Selenium	<0.05	0.05	*100*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Silver	<0.020	0.020	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Thallium	<0.50	0.50	*700*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Vanadium	<0.10	0.10	*2400*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Zinc	<0.050	0.050	*5000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Semivolatile Organic Compounds									
Pentachloronitrobenzene (PCNB)	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
a,a-Dimethylphenethylamine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acetophenone	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aldrin	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
alpha-BHC	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aniline	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aramite	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzaldehyde	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzidine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) pyrene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (b) fluoranthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (g,h,i) perylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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ZALCO LABORATORIES, INC.
Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

(661) 395-0539
FAX (661) 395-3069

Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: 1503332-01	Collected By: William Moss
Client Sample ID: Jasmin Sump #1	Date Collected: 3/31/2015 2:00:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Benzo (k) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzoic acid	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzyl alcohol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
beta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethoxy)methane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroisopropyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-ethylhexyl)phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Butyl benzyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chlorobenzilate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chrysene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
delta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-butyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-octyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diallate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz (a,h) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz(a,j)acridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenzofuran	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dieldrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan I	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan II	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan sulfate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin aldehyde	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Ethyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
gamma-BHC (Lindane)	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor epoxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative

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4309 Armour Avenue
Bakersfield, California 93308

(661) 395-0539
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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: **1503332** Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: **1503332-01**	Collected By: William Moss
Client Sample ID: Jasmin Sump #1	Date Collected: 3/31/2015 2:00:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Hexachlorobutadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorocyclopentadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloroethane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloropropene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Indeno(1,2,3-cd)pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isodrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isophorone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isosafrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Kepone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methapyrilene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methoxychlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-butylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-propylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodimethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomethylethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomorpholine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopiperidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopyrrolidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Naphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Nitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
o-Toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p-Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenacetin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDD	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDT	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDE	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pronamide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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Hathaway LLC	Project: Master - 2015	Work Order No.: **1503332**
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: **1503332-01**	Collected By: William Moss
Client Sample ID: Jasmin Sump #1	Date Collected: 3/31/2015 2:00:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Pyridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Safrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4,5-Tetrachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4-Trichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3,5-Trinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Naphthoquinone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,5,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,4,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,5-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,6-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dimethylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Acetylaminofluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Picoline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3 & 4-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: 1503332-01	Collected By: William Moss
Client Sample ID: Jasmin Sump #1	Date Collected: 3/31/2015 2:00:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

Surrogates	% Recovery	Recovery Limits	Flag	
2-Fluorophenol	27.7	0-67		4/2/15 13:51
Phenol-d6	20.9	0-57		4/2/15 13:51
Nitrobenzene-d5	43.8	0-95		4/2/15 13:51
2-Fluorobiphenyl	42.8	0-92		4/2/15 13:51
2,4,6-Tribromophenol	60.4	0-143		4/2/15 13:51
Terphenyl-d14	42.3	0-100		4/2/15 13:51

Volatile Organic Compounds								
m,p-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Benzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Xylenes, total	0.00		ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Ethylbenzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Toluene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
o-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP

Surrogates	% Recovery	Recovery Limits	Flag	
1,2-Dichloroethane-d4	105	89-165		4/1/15 14:15

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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-01	Collected By: William Moss
Client Sample ID: Jasmin Sump #1	Date Collected: 3/31/2015 2:00:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Volatile Organic Compounds								

Surrogates	% Recovery	Recovery Limits	Flag		
Toluene-d8	105	65-124			4/1/15 14:15
4-Bromofluorobenzene	115*	94-114	S-GC		4/1/15 14:15

Volatile Organic Contaminants (VOCs)								
Methane	1.00	0.000240	ppm		RSK-175	4/8/15	4/8/15	MO

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Hathaway LLC
4205 Atlas Court
Bakersfield CA 93308

Laboratory No: 1503332-02
Date Received: 3/31/2015
Date Reported: 4/21/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #2
Sampled by: Date: 3/31/2015 Time: 14:30
Report Notes:

COMPLETE GEOCHEM ANALYSIS

pH	8.26	Specific Gravity @ 60 F	1.000
Electrical Conductivity (EC) *(millimhos/cm @ 25 C)*	0.67	Resistivity (ohm meters @ 25 C)	14.93

Constituents	mg/L	meq/L	Reacting %
Calcium, Ca	9.0	0.45	3.7
Magnesium, Mg	0.2	0.016	0.14
Sodium, Na	120	5.2	43.03
Potassium, K	2.4	0.061	0.51
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	0	0	0
Bicarbonate, HCO3	160	2.62	21.61
Chloride, Cl	57	1.6	13.25
Sulfate, SO4	79	1.6	13.57
Sulfide, S	7.1		
Boron, B	0.78		
Barium, Ba	< 0.1		
Silica, SiO2	31		
Strontium, Sr	0.14		
Totals (Sum)	385	11.5	100

Total Dissolved Solids, (Gravimetric)	400		
Calculated Hardness, CaCO3	23		
Total Alkalinity, CaCO3	160		
Sodium Chloride, (total)	280		
		Primary Salinity	53.64
		Secondary Salinity	0
		Total Salinity	53.64
Cation/Anion Balance, %	7.0%		
Sodium, Na (Calculated), mg/L	134.62	Primary Alkalinity	33.44
Langelier Scale Index	0.14	Secondary Alkalinity	7.68
Stiff/Davis Stability Index	0.03	Total Alkalinity	41.12

Laboratory Authorization

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Bakersfield, California 93308

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: **1503332** Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: **1503332-02**	Collected By: William Moss
Client Sample ID: Jasmin Sump #2	Date Collected: 3/31/2015 2:30:00PM

Analyte	Results	PQL		Units	Flag	Method	Date Prepared	Date Analyzed	Init.
CAM, Toxicity (17 Metals)			*TTLC Limits*						
Antimony	<0.20	0.20	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Arsenic	<0.020	0.020	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Barium	<0.10	0.10	*10000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Beryllium	<0.010	0.010	*75*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cadmium	<0.010	0.010	*100*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Chromium	<0.050	0.050	*2500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cobalt	<0.10	0.10	*8000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Copper	<0.050	0.050	*2500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Lead	<0.050	0.050	*1000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Mercury	<0.0020	0.0020	*20*	mg/L		SW846 7470A	4/2/15	4/2/15	SS
Molybdenum	<0.10	0.10	*3500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Nickel	<0.050	0.050	*2000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Selenium	<0.05	0.05	*100*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Silver	<0.020	0.020	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Thallium	<0.50	0.50	*700*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Vanadium	<0.10	0.10	*2400*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Zinc	<0.050	0.050	*5000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Semivolatile Organic Compounds									
Pentachloronitrobenzene (PCNB)	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
a,a-Dimethylphenethylamine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acetophenone	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aldrin	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
alpha-BHC	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aniline	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aramite	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzaldehyde	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzidine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) pyrene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (b) fluoranthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (g,h,i) perylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: **1503332** Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: **1503332-02**	Collected By: William Moss
Client Sample ID: Jasmin Sump #2	Date Collected: 3/31/2015 2:30:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Benzo (k) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzoic acid	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzyl alcohol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
beta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethoxy)methane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroisopropyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-ethylhexyl)phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Butyl benzyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chlorobenzilate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chrysene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
delta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-butyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-octyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diallate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz (a,h) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz(a,j)acridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenzofuran	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dieldrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan I	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan II	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan sulfate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin aldehyde	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Ethyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
gamma-BHC (Lindane)	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor epoxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: 1503332-02	Collected By: William Moss
Client Sample ID: Jasmin Sump #2	Date Collected: 3/31/2015 2:30:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Hexachlorobutadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorocyclopentadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloroethane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloropropene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Indeno(1,2,3-cd)pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isodrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isophorone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isosafrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Kepone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methapyrilene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methoxychlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-butylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-propylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodimethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomethylethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomorpholine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopiperidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopyrrolidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Naphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Nitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
o-Toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p-Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenacetin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDD	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDT	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDE	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pronamide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: 1503332-02	Collected By: William Moss
Client Sample ID: Jasmin Sump #2	Date Collected: 3/31/2015 2:30:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Pyridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Safrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4,5-Tetrachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4-Trichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3,5-Trinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Naphthoquinone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,5,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,4,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,5-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,6-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dimethylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Acetylaminofluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Picoline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3 & 4-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-02	Collected By: William Moss
Client Sample ID: Jasmin Sump #2	Date Collected: 3/31/2015 2:30:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

Surrogates	% Recovery	Recovery Limits	Flag	
2-Fluorophenol	26.4	0-67		4/2/15 13:51
Phenol-d6	19.3	0-57		4/2/15 13:51
Nitrobenzene-d5	44.9	0-95		4/2/15 13:51
2-Fluorobiphenyl	45.8	0-92		4/2/15 13:51
2,4,6-Tribromophenol	63.6	0-143		4/2/15 13:51
Terphenyl-d14	43.8	0-100		4/2/15 13:51

Volatile Organic Compounds								
m,p-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Benzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Xylenes, total	0.00		ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Ethylbenzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Toluene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
o-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP

Surrogates	% Recovery	Recovery Limits	Flag	
1,2-Dichloroethane-d4	116	89-165		4/1/15 14:15

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: 1503332-02	Collected By: William Moss
Client Sample ID: Jasmin Sump #2	Date Collected: 3/31/2015 2:30:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Volatile Organic Compounds								
Surrogates	**% Recovery**	**Recovery Limits**	**Flag**					
Toluene-d8	105	65-124					4/1/15 14:15	
4-Bromofluorobenzene	116*	94-114	S-GC				4/1/15 14:15	
Volatile Organic Contaminants (VOCs)								
Methane	0.654	0.000240	ppm		RSK-175	4/8/15	4/8/15	MO

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Hathaway LLC
4205 Atlas Court
Bakersfield CA 93308

Laboratory No: 1503332-03
Date Received: 3/31/2015
Date Reported: 4/21/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #3
Sampled by: Date: 3/31/2015 Time: 13:15
Report Notes:

COMPLETE GEOCHEM ANALYSIS

pH	8.29	Specific Gravity @ 60 F...	1.000
Electrical Conductivity (EC) *(millimhos/cm @ 25 C)*	0.67	Resistivity (ohm meters @ 25 C)	14.93

Constituents	mg/L	meq/L	Reacting %
Calcium, Ca	8.7	0.43	3.61
Magnesium, Mg	0.20	0.016	0.14
Sodium, Na	120	5.2	43.36
Potassium, K	2.3	0.059	0.49
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	0	0	0
Bicarbonate, HCO3	160	2.62	21.77
Chloride, Cl	57	1.6	13.35
Sulfate, SO4	73	1.5	12.64
Sulfide, S	8.6		
Boron, B	0.77		
Barium, Ba	< 0.1		
Silica, SiO2	31		
Strontium, Sr	0.14		
Totals (Sum)	380	11.4	100

Total Dissolved Solids, (Gravimetric)	410		
Calculated Hardness, CaCO3	23		
Total Alkalinity, CaCO3	160		
Sodium Chloride, (total)	270		
		Primary Salinity	51.98
		Secondary Salinity	0
		Total Salinity	51.98
Cation/Anion Balance, %	7.0%		
Sodium, Na (Calculated), mg/L	133.32	Primary Alkalinity	35.72
Langelier Scale Index	0.16	Secondary Alkalinity	7.5
Stiff/Davis Stability Index	0.05	Total Alkalinity	43.22

Laboratory Authorization

ZALCO LABORATORIES, INC.
Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

(661) 395-0539
FAX (661) 395-3069

Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-03	Collected By: William Moss
Client Sample ID: Jasmin Sump #3	Date Collected: 3/31/2015 1:15:00PM

Analyte	Results	PQL		Units	Flag	Method	Date Prepared	Date Analyzed	Init.
CAM, Toxicity (17 Metals)			*TTLC Limits*						
Antimony	<0.20	0.20	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Arsenic	<0.020	0.020	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Barium	<0.10	0.10	*10000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Beryllium	<0.010	0.010	*75*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cadmium	<0.010	0.010	*100*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Chromium	<0.050	0.050	*2500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cobalt	<0.10	0.10	*8000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Copper	<0.050	0.050	*2500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Lead	<0.050	0.050	*1000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Mercury	<0.0020	0.0020	*20*	mg/L		SW846 7470A	4/2/15	4/2/15	SS
Molybdenum	<0.10	0.10	*3500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Nickel	<0.050	0.050	*2000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Selenium	<0.05	0.05	*100*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Silver	<0.020	0.020	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Thallium	<0.50	0.50	*700*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Vanadium	<0.10	0.10	*2400*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Zinc	<0.050	0.050	*5000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Semivolatile Organic Compounds									
Pentachloronitrobenzene (PCNB)	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
a,a-Dimethylphenethylamine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acetophenone	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aldrin	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
alpha-BHC	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aniline	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aramite	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzaldehyde	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzidine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) pyrene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (b) fluoranthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (g,h,i) perylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C. Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.

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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-03	Collected By: William Moss
Client Sample ID: Jasmin Sump #3	Date Collected: 3/31/2015 1:15:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Benzo (k) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzoic acid	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzyl alcohol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
beta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethoxy)methane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroisopropyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-ethylhexyl)phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Butyl benzyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chlorobenzilate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chrysene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
delta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-butyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-octyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diallate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz (a,h) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz(a,j)acridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenzofuran	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dieldrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan I	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan II	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan sulfate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin aldehyde	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Ethyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
gamma-BHC (Lindane)	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor epoxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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Bakersfield, California 93308

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FAX (661) 395-3069

Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: **1503332-03**	Collected By: William Moss
Client Sample ID: Jasmin Sump #3	Date Collected: 3/31/2015 1:15:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Hexachlorobutadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorocyclopentadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloroethane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloropropene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Indeno(1,2,3-cd)pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isodrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isophorone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isosafrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Kepone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methapyrilene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methoxychlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-butylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-propylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodimethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomethylethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomorpholine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopiperidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopyrrolidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Naphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Nitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
o-Toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p-Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenacetin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDD	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDT	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDE	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pronamide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: 1503332-03	Collected By: William Moss
Client Sample ID: Jasmin Sump #3	Date Collected: 3/31/2015 1:15:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Pyridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Safrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4,5-Tetrachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4-Trichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3,5-Trinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Naphthoquinone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,5,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,4,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,5-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,6-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dimethylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Acetylaminofluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Picoline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3 & 4-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-03	Collected By: William Moss
Client Sample ID: Jasmin Sump #3	Date Collected: 3/31/2015 1:15:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

Surrogates	% Recovery	Recovery Limits	Flag	
2-Fluorophenol	20.1	0-67		4/2/15 13:51
Phenol-d6	14.0	0-57		4/2/15 13:51
Nitrobenzene-d5	41.0	0-95		4/2/15 13:51
2-Fluorobiphenyl	40.7	0-92		4/2/15 13:51
2,4,6-Tribromophenol	57.2	0-143		4/2/15 13:51
Terphenyl-d14	37.3	0-100		4/2/15 13:51

Volatile Organic Compounds								
m,p-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Benzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Xylenes, total	0.00		ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Ethylbenzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Toluene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
o-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP

Surrogates	% Recovery	Recovery Limits	Flag	
1,2-Dichloroethane-d4	115	89-165		4/1/15 14:15

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Analytical & Consulting Services

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(661) 395-0539
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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-03	Collected By: William Moss
Client Sample ID: Jasmin Sump #3	Date Collected: 3/31/2015 1:15:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Volatile Organic Compounds								
Surrogates		**% Recovery**	**Recovery Limits**	**Flag**				
Toluene-d8		95.2	65-124				4/1/15 14:15	
4-Bromofluorobenzene		111	94-114				4/1/15 14:15	
Volatile Organic Contaminants (VOCs)								
Methane	0.694	0.000240	ppm		RSK-175	4/8/15	4/8/15	MO

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: 1503332-04	Collected By: William Moss
Client Sample ID: Jasmin Sump #4	Date Collected: 3/31/2015 12:40:00PM

Analyte	Results	PQL		Units	Flag	Method	Date Prepared	Date Analyzed	Init.
CAM, Toxicity (17 Metals)			*TTLC Limits*						
Antimony	<0.20	0.20	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Arsenic	<0.020	0.020	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Barium	<0.10	0.10	*10000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Beryllium	<0.010	0.010	*75*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cadmium	<0.010	0.010	*100*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Chromium	<0.050	0.050	*2500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cobalt	<0.10	0.10	*8000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Copper	<0.050	0.050	*2500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Lead	<0.050	0.050	*1000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Mercury	<0.0020	0.0020	*20*	mg/L		SW846 7470A	4/2/15	4/2/15	SS
Molybdenum	<0.10	0.10	*3500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Nickel	<0.050	0.050	*2000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Selenium	<0.05	0.05	*100*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Silver	<0.020	0.020	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Thallium	<0.50	0.50	*700*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Vanadium	<0.10	0.10	*2400*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Zinc	<0.050	0.050	*5000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Semivolatile Organic Compounds									
Pentachloronitrobenzene (PCNB)	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
a,a-Dimethylphenethylamine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acetophenone	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aldrin	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
alpha-BHC	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aniline	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aramite	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzaldehyde	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzidine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) pyrene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (b) fluoranthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (g,h,i) perylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: **1503332** Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: **1503332-04**	Collected By: William Moss
Client Sample ID: Jasmin Sump #4	Date Collected: 3/31/2015 12:40:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Benzo (k) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzoic acid	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzyl alcohol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
beta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethoxy)methane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroisopropyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-ethylhexyl)phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Butyl benzyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chlorobenzilate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chrysene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
delta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-butyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-octyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diallate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz (a,h) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz(a,j)acridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenzofuran	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dieldrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan I	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan II	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan sulfate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin aldehyde	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Ethyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
gamma-BHC (Lindane)	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor epoxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-04	Collected By: William Moss
Client Sample ID: Jasmin Sump #4	Date Collected: 3/31/2015 12:40:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Hexachlorobutadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorocyclopentadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloroethane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloropropene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Indeno(1,2,3-cd)pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isodrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isophorone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isosafrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Kepone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methapyrilene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methoxychlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-butylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-propylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodimethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomethylethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomorpholine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopiperidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopyrrolidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Naphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Nitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
o-Toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p-Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenacetin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDD	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDT	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDE	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pronamide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-04	Collected By: William Moss
Client Sample ID: Jasmin Sump #4	Date Collected: 3/31/2015 12:40:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Pyridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Safrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4,5-Tetrachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4-Trichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3,5-Trinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Naphthoquinone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,5,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,4,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,5-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,6-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dimethylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Acetylaminofluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Picoline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3 & 4-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

(661) 395-0539
FAX (661) 395-3069

Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-04	Collected By: William Moss
Client Sample ID: Jasmin Sump #4	Date Collected: 3/31/2015 12:40:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

Surrogates	% Recovery	Recovery Limits	Flag	
2-Fluorophenol	24.0	0-67		4/2/15 13:51
Phenol-d6	18.9	0-57		4/2/15 13:51
Nitrobenzene-d5	46.6	0-95		4/2/15 13:51
2-Fluorobiphenyl	46.5	0-92		4/2/15 13:51
2,4,6-Tribromophenol	62.8	0-143		4/2/15 13:51
Terphenyl-d14	40.9	0-100		4/2/15 13:51

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Volatile Organic Compounds								
m,p-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Benzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Xylenes, total	0.00		ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Ethylbenzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Toluene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
o-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP

Surrogates	% Recovery	Recovery Limits	Flag	
1,2-Dichloroethane-d4	99.6	89-165		4/1/15 14:15

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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-04	Collected By: William Moss
Client Sample ID: Jasmin Sump #4	Date Collected: 3/31/2015 12:40:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Volatile Organic Compounds								

Surrogates	% Recovery	Recovery Limits	Flag			
Toluene-d8	100	65-124			4/1/15 14:15	
4-Bromofluorobenzene	112	94-114			4/1/15 14:15	

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Volatile Organic Contaminants (VOCs)								
Methane	0.706	0.000240	ppm		RSK-175	4/8/15	4/8/15	MO

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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(661) 395-0539 FAX (661) 395-3069

Hathaway LLC
4205 Atlas Court
Bakersfield CA 93308

Laboratory No: 1503332-05
Date Received: 3/31/2015
Date Reported: 4/21/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #5
Sampled by: Date: 3/31/2015 Time: 12:10
Report Notes:

COMPLETE GEOCHEM ANALYSIS

pH	8.30	Specific Gravity @ 60 F	1.000
Electrical Conductivity (EC) *(millimhos/cm @ 25 C)*	0.66	Resistivity (ohm meters @ 25 C)	15.15

Constituents	mg/L	meq/L	Reacting %
Calcium, Ca	8.6	0.43	3.66
Magnesium, Mg	0.20	0.016	0.14
Sodium, Na	110	4.8	40.78
Potassium, K	2.3	0.059	0.5
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	1	0.02	0.17
Bicarbonate, HCO3	160	2.62	22.34
Chloride, Cl	57	1.6	13.7
Sulfate, SO4	59	1.2	10.48
Sulfide, S	6.3		
Boron, B	0.75		
Barium, Ba	< 0.1		
Silica, SiO2	31		
Strontium, Sr	0.14		
Totals (Sum)	355	10.7	100

Total Dissolved Solids, (Gravimetric)	390		
Calculated Hardness, CaCO3	22		
Total Alkalinity, CaCO3	160		
Sodium Chloride, (total)	270		
		Primary Salinity	48.36
		Secondary Salinity	0
		Total Salinity	48.36
Cation/Anion Balance, %	9.0%		
Sodium, Na (Calculated), mg/L	136.51	Primary Alkalinity	34.2
Langelier Scale Index	0.16	Secondary Alkalinity	7.6
Stiff/Davis Stability Index	0.05	Total Alkalinity	41.8

Laboratory Authorization

ZALCO LABORATORIES, INC.
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Hathaway LLC	Project: Master - 2015	Work Order No.: **1503332**
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: **1503332-05**	Collected By: William Moss
Client Sample ID: Jasmin Sump #5	Date Collected: 3/31/2015 12:10:00PM

Analyte	Results	PQL		Units	Flag	Method	Date Prepared	Date Analyzed	Init.
CAM, Toxicity (17 Metals)			*TTLC Limits*						
Antimony	<0.20	0.20	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Arsenic	<0.020	0.020	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Barium	<0.10	0.10	*10000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Beryllium	<0.010	0.010	*75*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cadmium	<0.010	0.010	*100*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Chromium	<0.050	0.050	*2500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cobalt	<0.10	0.10	*8000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Copper	<0.050	0.050	*2500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Lead	<0.050	0.050	*1000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Mercury	<0.0020	0.0020	*20*	mg/L		SW846 7470A	4/2/15	4/2/15	SS
Molybdenum	<0.10	0.10	*3500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Nickel	<0.050	0.050	*2000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Selenium	<0.05	0.05	*100*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Silver	<0.020	0.020	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Thallium	<0.50	0.50	*700*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Vanadium	<0.10	0.10	*2400*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Zinc	<0.050	0.050	*5000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Semivolatile Organic Compounds									
Pentachloronitrobenzene (PCNB)	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
a,a-Dimethylphenethylamine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acetophenone	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aldrin	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
alpha-BHC	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aniline	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aramite	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzaldehyde	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzidine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) pyrene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (b) fluoranthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (g,h,i) perylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-05	Collected By: William Moss
Client Sample ID: Jasmin Sump #5	Date Collected: 3/31/2015 12:10:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Benzo (k) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzoic acid	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzyl alcohol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
beta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethoxy)methane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroisopropyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-ethylhexyl)phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Butyl benzyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chlorobenzilate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chrysene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
delta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-butyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-octyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diallate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz (a,h) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz(a,j)acridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenzofuran	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dieldrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan I	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan II	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan sulfate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin aldehyde	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Ethyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
gamma-BHC (Lindane)	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor epoxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-05	Collected By: William Moss
Client Sample ID: Jasmin Sump #5	Date Collected: 3/31/2015 12:10:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Hexachlorobutadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorocyclopentadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloroethane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloropropene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Indeno(1,2,3-cd)pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isodrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isophorone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isosafrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Kepone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methapyrilene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methoxychlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-butylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-propylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodimethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomethylethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomorpholine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopiperidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopyrrolidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Naphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Nitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
o-Toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p-Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenacetin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDD	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDT	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDE	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pronamide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-05	Collected By: William Moss
Client Sample ID: Jasmin Sump #5	Date Collected: 3/31/2015 12:10:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Pyridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Safrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4,5-Tetrachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4-Trichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3,5-Trinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Naphthoquinone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,5,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,4,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,5-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,6-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dimethylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Acetylaminofluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Picoline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3 & 4-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-05	Collected By: William Moss
Client Sample ID: Jasmin Sump #5	Date Collected: 3/31/2015 12:10:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

Surrogates	% Recovery	Recovery Limits	Flag	
2-Fluorophenol	40.6	0-67		4/2/15 13:51
Phenol-d6	29.5	0-57		4/2/15 13:51
Nitrobenzene-d5	64.5	0-95		4/2/15 13:51
2-Fluorobiphenyl	71.0	0-92		4/2/15 13:51
2,4,6-Tribromophenol	103	0-143		4/2/15 13:51
Terphenyl-d14	63.4	0-100		4/2/15 13:51

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Volatile Organic Compounds								
m,p-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Benzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Xylenes, total	0.00		ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Ethylbenzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Toluene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
o-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP

Surrogates	% Recovery	Recovery Limits	Flag	
1,2-Dichloroethane-d4	96.1	89-165		4/1/15 14:15

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative

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Hathaway LLC	Project: Master - 2015	Work Order No.: **1503332**
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: **1503332-05**	Collected By: William Moss
Client Sample ID: Jasmin Sump #5	Date Collected: 3/31/2015 12:10:00PM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Volatile Organic Compounds								
Surrogates		**% Recovery**	**Recovery Limits**	**Flag**				
Toluene-d8		96.3	65-124				4/1/15 14:15	
4-Bromofluorobenzene		97.7	94-114				4/1/15 14:15	
Volatile Organic Contaminants (VOCs)								
Methane	0.570	0.000240	ppm		RSK-175	4/8/15	4/8/15	MO

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(661) 395-0539 FAX (661) 395-3069

Hathaway LLC
4205 Atlas Court
Bakersfield CA 93308

Laboratory No: 1503332-06
Date Received: 3/31/2015
Date Reported: 4/21/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #6
Sampled by: Date: 3/31/2015 Time: 11:45
Report Notes:

COMPLETE GEOCHEM ANALYSIS

pH	8.25	Specific Gravity @ 60 F	1.000
Electrical Conductivity (EC) *(millimhos/cm @ 25 C)*	0.67	Resistivity (ohm meters @ 25 C)	14.93

Constituents	mg/L	meq/L	Reacting %
Calcium, Ca	8.6	0.43	3.84
Magnesium, Mg	0.21	0.017	0.15
Sodium, Na	110	4.8	42.77
Potassium, K	2.3	0.059	0.53
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	0	0	0
Bicarbonate, HCO3	160	2.62	23.43
Chloride, Cl	58	1.6	14.62
Sulfate, SO4	61	1.3	11.36
Sulfide, S	5.5		
Boron, B	0.75		
Barium, Ba	< 0.1		
Silica, SiO2	31		
Strontium, Sr	0.14		
Totals (Sum)	356	10.8	100

Total Dissolved Solids, (Gravimetric)	390		
Calculated Hardness, CaCO3	22		
Total Alkalinity, CaCO3	160		
Sodium Chloride, (total)	260		
		Primary Salinity	51.96
		Secondary Salinity	0
		Total Salinity	51.96
Cation/Anion Balance, %	9.0%		
Sodium, Na (Calculated), mg/L	123.96	Primary Alkalinity	34.64
Langelier Scale Index	0.11	Secondary Alkalinity	7.98
Stiff/Davis Stability Index	0	Total Alkalinity	42.62

Laboratory Authorization

ZALCO LABORATORIES, INC.
Analytical & Consulting Services

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Bakersfield, California 93308

(661) 395-0539
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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: 1503332-06	Collected By: William Moss
Client Sample ID: Jasmin Sump #6	Date Collected: 3/31/2015 11:45:00AM

Analyte	Results	PQL	TTLC Limits	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
CAM, Toxicity (17 Metals)									
Antimony	<0.20	0.20	500	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Arsenic	<0.020	0.020	500	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Barium	<0.10	0.10	10000	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Beryllium	<0.010	0.010	75	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cadmium	<0.010	0.010	100	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Chromium	<0.050	0.050	2500	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cobalt	<0.10	0.10	8000	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Copper	<0.050	0.050	2500	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Lead	<0.050	0.050	1000	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Mercury	<0.0020	0.0020	20	mg/L		SW846 7470A	4/2/15	4/2/15	SS
Molybdenum	<0.10	0.10	3500	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Nickel	<0.050	0.050	2000	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Selenium	<0.05	0.05	100	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Silver	<0.020	0.020	500	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Thallium	<0.50	0.50	700	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Vanadium	<0.10	0.10	2400	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Zinc	<0.050	0.050	5000	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Semivolatile Organic Compounds									
Pentachloronitrobenzene (PCNB)	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
a,a-Dimethylphenethylamine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acetophenone	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aldrin	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
alpha-BHC	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aniline	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aramite	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzaldehyde	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzidine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) pyrene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (b) fluoranthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (g,h,i) perylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: 1503332-06	Collected By: William Moss
Client Sample ID: Jasmin Sump #6	Date Collected: 3/31/2015 11:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Benzo (k) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzoic acid	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzyl alcohol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
beta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethoxy)methane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroisopropyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-ethylhexyl)phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Butyl benzyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chlorobenzilate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chrysene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
delta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-butyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-octyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diallate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz (a,h) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz(a,j)acridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenzofuran	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dieldrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan I	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan II	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan sulfate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin aldehyde	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Ethyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
gamma-BHC (Lindane)	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor epoxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-06	Collected By: William Moss
Client Sample ID: Jasmin Sump #6	Date Collected: 3/31/2015 11:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Hexachlorobutadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorocyclopentadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloroethane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloropropene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Indeno(1,2,3-cd)pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isodrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isophorone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isosafrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Kepone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methapyrilene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methoxychlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-butylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-propylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodimethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomethylethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomorpholine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopiperidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopyrrolidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Naphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Nitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
o-Toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p-Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenacetin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDD	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDT	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDE	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pronamide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: 1503332-06	Collected By: William Moss
Client Sample ID: Jasmin Sump #6	Date Collected: 3/31/2015 11:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Pyridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Safrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4,5-Tetrachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4-Trichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3,5-Trinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Naphthoquinone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,5,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,4,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,5-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,6-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dimethylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Acetylaminofluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Picoline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3 & 4-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-06	Collected By: William Moss
Client Sample ID: Jasmin Sump #6	Date Collected: 3/31/2015 11:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

Surrogates	% Recovery	Recovery Limits	Flag	
2-Fluorophenol	25.4	0-67		4/2/15 13:51
Phenol-d6	19.0	0-57		4/2/15 13:51
Nitrobenzene-d5	40.4	0-95		4/2/15 13:51
2-Fluorobiphenyl	40.1	0-92		4/2/15 13:51
2,4,6-Tribromophenol	61.2	0-143		4/2/15 13:51
Terphenyl-d14	41.6	0-100		4/2/15 13:51

Volatile Organic Compounds								
m,p-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Benzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Xylenes, total	0.00		ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Ethylbenzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Toluene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
o-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP

Surrogates	% Recovery	Recovery Limits	Flag	
1,2-Dichloroethane-d4	115	89-165		4/1/15 14:15

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: 1503332-06	Collected By: William Moss
Client Sample ID: Jasmin Sump #6	Date Collected: 3/31/2015 11:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Volatile Organic Compounds								
Surrogates		**% Recovery**	**Recovery Limits**	**Flag**				
Toluene-d8		98.7	65-124				4/1/15 14:15	
4-Bromofluorobenzene		116*	94-114	S-GC			4/1/15 14:15	
Volatile Organic Contaminants (VOCs)								
Methane	0.506	0.000240		ppm	RSK-175	4/8/15	4/8/15	MO

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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(661) 395-0539 FAX (661) 395-3069

Hathaway LLC
4205 Atlas Court
Bakersfield CA 93308

Laboratory No: 1503332-07
Date Received: 3/31/2015
Date Reported: 4/21/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #7
Sampled by: Date: 3/31/2015 Time: 10:45
Report Notes:

COMPLETE GEOCHEM ANALYSIS

pH	8.26	Specific Gravity @ 60 F	1.000
Electrical Conductivity (EC) *(millimhos/cm @ 25 C)*	0.67	Resistivity (ohm meters @ 25 C)	14.93

Constituents	mg/L	meq/L	Reacting %
Calcium, Ca	8.8	0.44	3.87
Magnesium, Mg	0.21	0.017	0.15
Sodium, Na	120	5.2	45.97
Potassium, K	2.3	0.059	0.52
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	0	0	0
Bicarbonate, HCO3	160	2.62	23.08
Chloride, Cl	50	1.4	12.42
Sulfate, SO4	63	1.3	11.56
Sulfide, S	3.9		
Boron, B	0.77		
Barium, Ba	< 0.1		
Silica, SiO2	32		
Strontium, Sr	0.14		
Totals (Sum)	360	11	100

Total Dissolved Solids, (Gravimetric)	390		
Calculated Hardness, CaCO3	23		
Total Alkalinity, CaCO3	160		
Sodium Chloride, (total)	250		
		Primary Salinity	47.96
		Secondary Salinity	0
		Total Salinity	47.96
Cation/Anion Balance, %	4.0%		
Sodium, Na (Calculated), mg/L	117.35	Primary Alkalinity	45.02
Langelier Scale Index	0.13	Secondary Alkalinity	8.04
Stiff/Davis Stability Index	0.02	Total Alkalinity	53.06

Laboratory Authorization

ZALCO LABORATORIES, INC.
Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

(661) 395-0539
FAX (661) 395-3069

Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: **1503332** Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: **1503332-07**	Collected By: William Moss
Client Sample ID: Jasmin Sump #7	Date Collected: 3/31/2015 10:45:00AM

Analyte	Results	PQL		Units	Flag	Method	Date Prepared	Date Analyzed	Init.
CAM, Toxicity (17 Metals)			*TTLC Limits*						
Antimony	<0.20	0.20	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Arsenic	<0.020	0.020	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Barium	<0.10	0.10	*10000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Beryllium	<0.010	0.010	*75*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cadmium	<0.010	0.010	*100*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Chromium	<0.050	0.050	*2500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cobalt	<0.10	0.10	*8000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Copper	<0.050	0.050	*2500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Lead	<0.050	0.050	*1000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Mercury	<0.0020	0.0020	*20*	mg/L		SW846 7470A	4/2/15	4/2/15	SS
Molybdenum	<0.10	0.10	*3500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Nickel	<0.050	0.050	*2000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Selenium	<0.05	0.05	*100*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Silver	<0.020	0.020	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Thallium	<0.50	0.50	*700*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Vanadium	<0.10	0.10	*2400*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Zinc	<0.050	0.050	*5000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Semivolatile Organic Compounds									
Pentachloronitrobenzene (PCNB)	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
a,a-Dimethylphenethylamine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acetophenone	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aldrin	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
alpha-BHC	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aniline	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aramite	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzaldehyde	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzidine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) pyrene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (b) fluoranthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (g,h,i) perylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative

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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: **1503332** Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: **1503332-07**	Collected By: William Moss
Client Sample ID: Jasmin Sump #7	Date Collected: 3/31/2015 10:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Benzo (k) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzoic acid	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzyl alcohol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
beta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethoxy)methane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroisopropyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-ethylhexyl)phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Butyl benzyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chlorobenzilate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chrysene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
delta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-butyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-octyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diallate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz (a,h) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz(a,j)acridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenzofuran	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dieldrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan I	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan II	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan sulfate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin aldehyde	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Ethyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
gamma-BHC (Lindane)	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor epoxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
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Hathaway LLC 4205 Atlas Court Bakersfield, CA 93308	Project: Master - 2015 Project #: Attention: Michelle Ricker	Work Order No.: 1503332 Reported: 04/24/2015 Received: 03/31/2015 15:30

Lab Sample ID: 1503332-07	Collected By: William Moss
Client Sample ID: Jasmin Sump #7	Date Collected: 3/31/2015 10:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Hexachlorobutadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorocyclopentadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloroethane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloropropene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Indeno(1,2,3-cd)pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isodrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isophorone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isosafrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Kepone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methapyrilene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methoxychlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-butylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-propylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodimethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomethylethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomorpholine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopiperidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopyrrolidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Naphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Nitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
o-Toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p-Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenacetin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDD	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDT	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDE	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pronamide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC	Project: Master - 2015	Work Order No.: **1503332**
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: **1503332-07**	Collected By: William Moss
Client Sample ID: Jasmin Sump #7	Date Collected: 3/31/2015 10:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

Surrogates	% Recovery	Recovery Limits	Flag	
2-Fluorophenol	30.4	0-67		4/2/15 13:51
Phenol-d6	22.4	0-57		4/2/15 13:51
Nitrobenzene-d5	48.3	0-95		4/2/15 13:51
2-Fluorobiphenyl	52.2	0-92		4/2/15 13:51
2,4,6-Tribromophenol	74.7	0-143		4/2/15 13:51
Terphenyl-d14	49.1	0-100		4/2/15 13:51

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Volatile Organic Compounds								
m,p-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Benzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Xylenes, total	0.00		ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Ethylbenzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Toluene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
o-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP

Surrogates	% Recovery	Recovery Limits	Flag	
1,2-Dichloroethane-d4	108	89-165		4/1/15 14:15

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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-07	Collected By: William Moss
Client Sample ID: Jasmin Sump #7	Date Collected: 3/31/2015 10:45:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Volatile Organic Compounds								

Surrogates	% Recovery	Recovery Limits	Flag			
Toluene-d8	101	65-124				4/1/15 14:15
4-Bromofluorobenzene	112	94-114				4/1/15 14:15

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Volatile Organic Contaminants (VOCs)								
Methane	0.461	0.000240	ppm		RSK-175	4/8/15	4/8/15	MO

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(661) 395-0539 FAX (661) 395-3069

Hathaway LLC
4205 Atlas Court
Bakersfield CA 93308

Laboratory No: 1503332-08
Date Received: 3/31/2015
Date Reported: 4/21/2015

Attention: Michelle Ricker

Sample Identification: Jasmin Sump #8
Sampled by: Date: 3/31/2015 Time: 9:40
Report Notes:

COMPLETE GEOCHEM ANALYSIS

pH	7.96	Specific Gravity @ 60 F	1.000
Electrical Conductivity (EC) *(millimhos/cm @ 25 C)*	0.68	Resistivity (ohm meters @ 25 C)	14.71

Constituents	mg/L	meq/L	Reacting %
Calcium, Ca	8.8	0.44	3.86
Magnesium, Mg	0.27	0.022	0.2
Sodium, Na	120	5.2	45.91
Potassium, K	2.3	0.059	0.52
Iron, Fe (total)	< 0.1	0	0
Alkalinity as:			
Hydroxide, OH	0	0	0
Carbonate, CO3	0	0	0
Bicarbonate, HCO3	150	2.46	21.64
Chloride, Cl	54	1.5	13.39
Sulfate, SO4	74	1.5	13.56
Sulfide, S	1.6		
Boron, B	0.71		
Barium, Ba	< 0.1		
Silica, SiO2	29		
Strontium, Sr	0.14		
Totals (Sum)	365	11.2	100

Total Dissolved Solids, (Gravimetric)	430		
Calculated Hardness, CaCO3	22		
Total Alkalinity, CaCO3	150		
Sodium Chloride, (total)	250		
		Primary Salinity	53.9
		Secondary Salinity	0
		Total Salinity	53.9
Cation/Anion Balance, %	4.0%		
Sodium, Na (Calculated), mg/L	117.45	Primary Alkalinity	38.96
Langelier Scale Index	-0.2	Secondary Alkalinity	8.12
Stiff/Davis Stability Index	-0.31	Total Alkalinity	47.08

Laboratory Authorization

ZALCO LABORATORIES, INC.
Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

(661) 395-0539
FAX (661) 395-3069

Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-08	Collected By: William Moss
Client Sample ID: Jasmin Sump #8	Date Collected: 3/31/2015 9:40:00AM

Analyte	Results	PQL		Units	Flag	Method	Date Prepared	Date Analyzed	Init.
CAM, Toxicity (17 Metals)			*TTLC Limits*						
Antimony	<0.20	0.20	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Arsenic	<0.020	0.020	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Barium	<0.10	0.10	*10000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Beryllium	<0.010	0.010	*75*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cadmium	<0.010	0.010	*100*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Chromium	<0.050	0.050	*2500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Cobalt	<0.10	0.10	*8000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Copper	<0.050	0.050	*2500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Lead	<0.050	0.050	*1000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Mercury	<0.0020	0.0020	*20*	mg/L		SW846 7470A	4/2/15	4/2/15	SS
Molybdenum	<0.10	0.10	*3500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Nickel	<0.050	0.050	*2000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Selenium	<0.05	0.05	*100*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Silver	<0.020	0.020	*500*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Thallium	<0.50	0.50	*700*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Vanadium	<0.10	0.10	*2400*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Zinc	<0.050	0.050	*5000*	mg/L		SW846 6010B	4/1/15	4/1/15	SS
Semivolatile Organic Compounds									
Pentachloronitrobenzene (PCNB)	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
a,a-Dimethylphenethylamine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acenaphthylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Acetophenone	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aldrin	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
alpha-BHC	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aniline	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Aramite	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzaldehyde	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzidine	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) anthracene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (a) pyrene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (b) fluoranthene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzo (g,h,i) perylene	<10.0	10.0		ug/L		SW846 8270C	4/1/15	4/2/15	JMM

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative

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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-08	Collected By: William Moss
Client Sample ID: Jasmin Sump #8	Date Collected: 3/31/2015 9:40:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Benzo (k) fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzoic acid	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Benzyl alcohol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
beta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethoxy)methane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroethyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-chloroisopropyl)ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Bis(2-ethylhexyl)phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Butyl benzyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chlorobenzilate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Chrysene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
delta-BHC	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-butyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Di-n-octyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diallate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz (a,h) anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenz(a,j)acridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dibenzofuran	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dieldrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethyl phthalate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Diphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan I	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan II	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endosulfan sulfate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Endrin aldehyde	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Ethyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluoranthene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Fluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
gamma-BHC (Lindane)	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Heptachlor epoxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: **1503332-08**	Collected By: William Moss
Client Sample ID: Jasmin Sump #8	Date Collected: 3/31/2015 9:40:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Hexachlorobutadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachlorocyclopentadiene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloroethane	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Hexachloropropene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Indeno(1,2,3-cd)pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isodrin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isophorone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Isosafrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Kepone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methapyrilene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methoxychlor	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Methyl Methanesulfonate	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-butylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodi-n-propylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodimethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosodiphenylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomethylethylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosomorpholine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopiperidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
N-Nitrosopyrrolidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Naphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Nitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
o-Toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p-Dimethylaminoazobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pentachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenacetin	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDD	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDT	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
p,p-DDE	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Phenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pronamide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Pyrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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Hathaway LLC	Project: Master - 2015	Work Order No.: 1503332
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-08	Collected By: William Moss
Client Sample ID: Jasmin Sump #8	Date Collected: 3/31/2015 9:40:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
Pyridine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
Safrole	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4,5-Tetrachlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2,4-Trichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,2-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3,5-Trinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,3-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dichlorobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Dinitrobenzene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1,4-Naphthoquinone	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
1-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,5,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,3,4,6-Tetrachlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,5-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4,6-Trichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dimethylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,4-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dichlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2,6-Dinitrotoluene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Acetylaminofluorene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chloronaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Chlorophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylnaphthalene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Naphthylamine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
2-Picoline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3 & 4-Methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

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4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: 1503332-08	Collected By: William Moss
Client Sample ID: Jasmin Sump #8	Date Collected: 3/31/2015 9:40:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Semivolatile Organic Compounds								
3,3'-Dichlorobenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3,3'-Dimethylbenzidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Methylcholanthrene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
3-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4,6-Dinitro-2-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Aminobiphenyl	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Bromophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloro-3-methylphenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chloroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Chlorophenyl phenyl ether	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroaniline	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitrophenol	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
4-Nitroquinoline-1-oxide	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
5-Nitro-o-toluidine	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM
7,12-Dimethylbenz(a)anthracene	<10.0	10.0	ug/L		SW846 8270C	4/1/15	4/2/15	JMM

Surrogates	% Recovery	Recovery Limits	Flag	
2-Fluorophenol	32.4	0-67		4/2/15 13:51
Phenol-d6	24.0	0-57		4/2/15 13:51
Nitrobenzene-d5	53.9	0-95		4/2/15 13:51
2-Fluorobiphenyl	58.1	0-92		4/2/15 13:51
2,4,6-Tribromophenol	84.3	0-143		4/2/15 13:51
Terphenyl-d14	53.7	0-100		4/2/15 13:51

Volatile Organic Compounds								
m,p-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Benzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Xylenes, total	0.00		ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Methyl tert-Butyl Ether	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Ethylbenzene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
Toluene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP
o-Xylene	<5.00	5.00	ug/L		SW846 8260B	4/1/15	4/1/15	HLP

Surrogates	% Recovery	Recovery Limits	Flag	
1,2-Dichloroethane-d4	100	89-165		4/1/15 14:15

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C. Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.

ZALCO LABORATORIES, INC.
Analytical & Consulting Services

4309 Armour Avenue
Bakersfield, California 93308

(661) 395-0539
FAX (661) 395-3069

Hathaway LLC	Project: Master - 2015	Work Order No.: **1503332**
4205 Atlas Court	Project #:	Reported: 04/24/2015
Bakersfield, CA 93308	Attention: Michelle Ricker	Received: 03/31/2015 15:30

Lab Sample ID: **1503332-08**	Collected By: William Moss
Client Sample ID: Jasmin Sump #8	Date Collected: 3/31/2015 9:40:00AM

Analyte	Results	PQL	Units	Flag	Method	Date Prepared	Date Analyzed	Init.
Volatile Organic Compounds								
Surrogates		**% Recovery**	**Recovery Limits**	**Flag**				
Toluene-d8		98.9	65-124				4/1/15 14:15	
4-Bromofluorobenzene		101	94-114				4/1/15 14:15	
Volatile Organic Contaminants (VOCs)								
Methane	0.190	0.000240		ppm	RSK-175	4/8/15	4/8/15	MO

NSS: Non Sufficient Sample H: Exceeds Analysis Hold Time TTLC: Total Threshold Limit Concentration STLC: Soluble Threshold Limit Concentration TCLP: Toxicity Characteristic Leaching Procedure MCL: Maximum Contaminant Level *: See Case Narrative
The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Note: Samples analyzed for regulatory purposes should be put on ice immediately after sampling and received by the laboratory at temperatures between 0-6°C. Microbiological analysis requires samples to be at least 4-10°C when received at the laboratory. For additional information regarding the limitations of the method(s) referred to, please call us at 661-395-0539.

ZALCO LABORATORIES, INC.

4309 Armour Avenue, Bakersfield, CA 93308 (661) 395-0539 FAX (661) 395-3069 www.zalcolabs.com

CHAIN OF CUSTODY, ID# 503332

Page 1 of 1

Zalco Lab # 503332

Client PO #

PROJECT ID:

QUOTE ID:

REPORT INFO	INVOICE INFO
Client: Hathaway LLC	Invoice To: Same as Client ☐
Address:	Address:
City, State, Zip:	City, State, Zip:
Attention: Michelle Ricker	Attention:
Phone: Results ☐	Phone:
Fax: Results ☐	Fax:
Email: Results ☐	Email:

SAMPLED BY: **EMPLOYED BY:**

Sample No.*	Sample Description	Date	Sample Time	Type*	# of Containers	Geochem 5	Gas Methane	Fix Methane	Radionuclides	8260C SW846	8015X				Temperature (C°)
1	Jasmin Comp # 1	3/31/15	1400	AQ	11	X	X	X	X	X	X				
2	2		1430												
3	3		1315												
4	4		1240												
5	5		1210												
6	6		1145												
7	7		1045												
8	8		0940												

COMMENTS:

Turnaround Time:
Routine _____ working days ☐

Rush By _____ working days

Send Copy to State of CA?
Yes ☐ No ☐

Attention To: _____

Send Copy to County?
Yes ☐ No ☐

County _____

Geochems Needed by 4/15/15 - FJ

The remainder by 4/30/15 - FJ

Logged In Sample Printed ☒ ☐

Scanned Short Hold Time ☐ ☐

RELINQUISHED By: Signature	PRINT	COMPANY	Date	Time	RECEIVED By: Signature	PRINT
W Moss	William Moss	Hathaway LLC	3/31/15	3:30	Felicia Johnson	F Johnson

NOTE: Samples are discarded 30 days after results unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client's expense.

*Sample Type Key: AQ-Aqueous; BS-Biosolid; DW-Drinking Water; GW-Ground Water; G-Gas; LPG-Liquid Petroleum Gas; OL-Oil; O-Other; P-Petroleum; S-Soil/Solid; ST-Storm Water; WW-Wastewater

*Sample No.: FOR OFFICE USE ONLY

Date of Report: 12/11/2015

Kelsey Padilla

Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Client Project:	HAT204 Pond Sampling
BCL Project:	DOGGR Injection - Formation Water
BCL Work Order:	1529855
Invoice ID:	B221138

Enclosed are the results of analyses for samples received by the laboratory on 11/20/2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kerrie S. Vaughan

Contact Person: Kerrie Vaughan
Client Services

Authorized Signature

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BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

BC Laboratories, Inc.

Chain of Custody Form

Report To:
Client: Enviro Tech Consultants
Attn: Kelsey Padilla
Street Address: 5609 Rosedale Hwy
City, State, Zip: Bakersfield, CA 93308
Phone: (661) 337-0073 x20 Fax:
Email Address: kpadilla@envirotechteam.com
Work Order #: HAT204

Project #: HAT204
Project Name: Pond Sampling
Sampler(s): K Padilla / G Brierley

Page ____ of ____

Analysis Requested

Please fax the back page of the completed chain of custody form to us at (661) 327-1918

Comments: See attachment for full analysis (also sent in email to Kenie Vaughan)

Sample #	Description	Date Sampled	Time Sampled	TDS	Title 22 metals	Major/minor cations/anions	BTEX	TPH ext-Diesel/Oil	PAHs	Methane	Bromide/Iodide	Alk/Chloride/Nitrate	Sulfate/Bromide	Sample Matrix: Soil	Sludge	Drinking Water	Ground Water	Waste Water	Other	Turnaround # of work days*	Are there any tests with holding times less than or equal to 48 hours? ☐ Yes ☐ No * Standard Turnaround = 10 work days — Notes
1.1	Fee A	11/20/15	0925	X	X	X	X	X	X	X	X	X	X					X		10	Bottle #: 16 total
1.2	Fee B	11/20/15	1005	X	X	X	X	X	X	X	X	X	X					X		10	Bottle #: 16 total

CHK BY DISTRIBUTION
MA | M | JRC | SLM
SUB-OUT LX

SHORT HOLDING TIME
Cr^{+6} NO_2 NO_3 OP SS
DO Cl_2 BOD MBAS COT

Billing ☒ Same as above
Client:
Address:
City: State Zip
Attn:
PO#:

EDF Required? Geotracker ☐ Yes ☐ No
Send Copy to State of CA? (EDT) ☐ Yes ☐ No

Global ID (Needed for EDF)
System # (Needed for EDT)

	Date	Time		Date	Time
1. Relinquished By	11/20/15	1140	1. Received By	11/20/15	1140
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

BC Laboratories, Inc. – 4100 Atlas Ct. – Bakersfield, CA 93308 – 661.327.4911 – Fax: 661.327.1918 – www.bclabs.com

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Chain of Custody and Cooler Receipt Form for 1529855 Page 2 of 3

BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 15-29855

SHIPPING INFORMATION
Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☑
BC Lab Field Service ☐ Other ☐ (Specify)_____

SHIPPING CONTAINER
Ice Chest ☑ None ☐ Box ☐
Other ☐ (Specify)_____

FREE LIQUID
YES ☐ NO ☐

Refrigerant: Ice ☑ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.97 Container: PE Thermometer ID: 208 Date/Time 11/20/15
Temperature: (A) 7.5 °C / (C) 7.0 °C Analyst Init DSC 1140

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES X48	FG		FG							
4oz / 8oz / 16oz PE UNPRES										
2oz Cr^{+6} 106	D		D							
QT INORGANIC CHEMICAL METALS 108	EJK		IJK							
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz	H		H							
PT CYANIDE 104										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PIA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK		A		A						
40ml VOA VIAL 096	ABC		ABC							
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL ~~504~~ unpreserved	N, O		NO							
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M 060	M		M							
QT EPA 8270 080	L		L							
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR X14	E		E							
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:
Sample Numbering Completed By: VS Date/Time: 11-20-15 1438 Rev 20 07/24/2015
A = Actual / C = Corrected
[S:\WPDoc\WordPerfect\LAB_DOCS\FORMS\SAMREC rev 20]

Notice To Operators
Water Sampling Protocols and Analyses of Injection and Formation Waters
May 18, 2015, Amended June 8, 2015
Page 4

Placing any required labels on the cooler, including the bill of lading with addresses and contact phone numbers).

Refer to the transporter's and laboratory's requirements for shipping liquid sample containers.

Analytical Methods

All injection wells and injection waters must conform to criteria for Class II well operations under the U.S. Safe Drinking Water Act. In order to conform to criteria under the U.S. Safe Drinking Water Act, the Division as well as the State Water Board requires that the water be sampled under strict quality assurance/quality control (QA/QC) sampling procedures and the samples be analyzed by a laboratory that is certified by the California Department of Public Health environmental laboratory accreditation program (ELAP), under proper chain-of-custody protocol, for the following analyses:

Analyses	EPA Method	Holding Time	Preservative	Sample Container
TDS	160.1	7 days	≤6°C	One liter plastic
CCR Title 22 Metals, Major and Minor Cations, and Trace Metals*	200.7/200.8	180 days	HNO_3	500 ml plastic
BTEX	8021	14 days	≤6°C, HCL, No HS	Three-40 ml VOA-glass vials
TPH for Crude Oil	8015(M) C_{10}-C_{44}	7 days	≤6°C	One liter amber glass
PAHs**	8310	7 days	≤6°C	One liter amber glass
Methane	RSK-175(M)	14 days	≤6°C, No HS	Two-40 ml VOA-glass vials
Radionuclides***	900.0 series	180 days	Varied #	Varied #
Alkalinity	310.2	14 days	≤6°C	500 ml plastic
Chloride	300	28 days	≤6°C	500 ml plastic
Nitrate	353.2	48 hours	≤6°C	500 ml plastic
Sulfate	300	28 days	≤6°C	500 ml plastic
Bromide	300	28 days	≤6°C	500 ml plastic

* Add Travel Blank

BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes
M = Modified
HCL = Hydrochloric Acid dilution (prepared and provided by laboratory)
HS = Head Space
ml = milliliter
PAH = Polynuclear Aromatic Hydrocarbons
TDS = Total Dissolved Solids
TPH = Total Petroleum Hydrocarbons
VOA = Volatile Organic Analysis
#confirm preservative and container requirements with laboratory conducting the analysis

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:35 Project: DOGGR Injection - Formation Water Project Number: HAT204 Pond Sampling Project Manager: Kelsey Padilla

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1529855-01	**COC Number:**	---	**Receive Date:**	11/20/2015 11:40
	Project Number:	---	**Sampling Date:**	11/20/2015 09:25
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Fee A	**Lab Matrix:**	Water
	Sampled By:	K.Padilla/G.Brierley	**Sample Type:**	Wastewater
1529855-02	**COC Number:**	---	**Receive Date:**	11/20/2015 11:40
	Project Number:	---	**Sampling Date:**	11/20/2015 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Travel Blank	**Lab Matrix:**	Water
	Sampled By:	---	**Sample Type:**	Trip Blank
1529855-03	**COC Number:**	---	**Receive Date:**	11/20/2015 11:40
	Project Number:	---	**Sampling Date:**	11/20/2015 10:05
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Fee B	**Lab Matrix:**	Water
	Sampled By:	K.Padilla/G.Brierley	**Sample Type:**	Wastewater
1529855-04	**COC Number:**	---	**Receive Date:**	11/20/2015 11:40
	Project Number:	---	**Sampling Date:**	11/20/2015 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Travel Blank	**Lab Matrix:**	Water
	Sampled By:	---	**Sample Type:**	Trip Blank

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1529855-01 | **Client Sample Name:** Fee A, 11/20/2015 9:25:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	2.5	0.42	EPA-8260B	ND	A01,Z1	1
Ethylbenzene	ND	ug/L	2.5	0.49	EPA-8260B	ND	A01,Z1	1
Toluene	ND	ug/L	2.5	0.46	EPA-8260B	ND	A01,Z1	1
Total Xylenes	ND	ug/L	5.0	1.8	EPA-8260B	ND	A01,Z1	1
p- & m-Xylenes	ND	ug/L	2.5	1.4	EPA-8260B	ND	A01,Z1	1
o-Xylene	ND	ug/L	2.5	0.41	EPA-8260B	ND	A01,Z1	1
1,2-Dichloroethane-d4 (Surrogate)	92.7	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	11/30/15	11/30/15 18:29	SE1	MS-V10	5	BYK2541

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

BCL Sample ID: 1529855-01 | **Client Sample Name:** Fee A, 11/20/2015 9:25:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Acenaphthene	ND	ug/L	0.50	0.17	EPA-8270C-SIM	ND	A01	1
Acenaphthylene	ND	ug/L	0.50	0.17	EPA-8270C-SIM	ND	A01	1
Anthracene	ND	ug/L	0.50	0.16	EPA-8270C-SIM	ND	A01	1
Benzo[a]anthracene	ND	ug/L	0.50	0.14	EPA-8270C-SIM	ND	A01	1
Benzo[b]fluoranthene	**0.76**	**ug/L**	**0.50**	**0.18**	**EPA-8270C-SIM**	ND	**A01**	1
Benzo[k]fluoranthene	ND	ug/L	0.50	0.18	EPA-8270C-SIM	ND	A01	1
Benzo[a]pyrene	ND	ug/L	0.50	0.17	EPA-8270C-SIM	ND	A01	1
Benzo[g,h,i]perylene	ND	ug/L	0.50	0.18	EPA-8270C-SIM	ND	A01	1
Chrysene	**1.7**	**ug/L**	**0.50**	**0.14**	**EPA-8270C-SIM**	ND	**A01**	1
Dibenzo[a,h]anthracene	ND	ug/L	0.50	0.26	EPA-8270C-SIM	ND	A01	1
Fluoranthene	**0.28**	**ug/L**	**0.50**	**0.13**	**EPA-8270C-SIM**	ND	**J,A01**	1
Fluorene	ND	ug/L	0.50	0.14	EPA-8270C-SIM	ND	A01	1
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.50	0.18	EPA-8270C-SIM	ND	A01	1
Naphthalene	**0.62**	**ug/L**	**0.50**	**0.20**	**EPA-8270C-SIM**	ND	**A01**	1
Phenanthrene	**0.33**	**ug/L**	**0.50**	**0.15**	**EPA-8270C-SIM**	ND	**J,A01**	1
Pyrene	**1.0**	**ug/L**	**0.50**	**0.20**	**EPA-8270C-SIM**	ND	**A01**	1
Nitrobenzene-d5 (Surrogate)	78.4	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM		A01	1
2-Fluorobiphenyl (Surrogate)	76.0	%	50 - 120 (LCL - UCL)		EPA-8270C-SIM		A01	1
p-Terphenyl-d14 (Surrogate)	89.1	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8270C-SIM	11/24/15	11/30/15 19:42	MK1	MS-B7	4.750	BYK2429

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Total Petroleum Hydrocarbons

BCL Sample ID: 1529855-01 | **Client Sample Name:** Fee A, 11/20/2015 9:25:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
TPH - Crude Oil	**55000**	**ug/L**	**5000**	**1400**	**EPA-8015B/FFP**	ND	**A01**	1
Tetracosane (Surrogate)	73.8	%	37 - 134 (LCL - UCL)		EPA-8015B/FFP		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B/FFP	11/24/15	12/01/15 09:02	MWB	GC-2	10	BYK2553

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Gas Testing in Water

BCL Sample ID: 1529855-01 | **Client Sample Name:** Fee A, 11/20/2015 9:25:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methane	0.039	mg/L	0.0010	0.00028	RSK-175M	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	12/02/15	12/02/15 13:16	JH2	GC-V1	1	BYL0151

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Water Analysis (General Chemistry)

BCL Sample ID: 1529855-01 | **Client Sample Name:** Fee A, 11/20/2015 9:25:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MCL	Lab Quals	Run #
Total Recoverable Calcium	**73**	**mg/L**	**1.0**	**0.14**	**EPA-200.7**		**A07**	1
Total Recoverable Magnesium	**100**	**mg/L**	**0.50**	**0.19**	**EPA-200.7**	50	**A07**	1
Total Recoverable Sodium	**5400**	**mg/L**	**5.0**	**0.51**	**EPA-200.7**		**A07**	1
Total Recoverable Potassium	**30**	**mg/L**	**10**	**1.0**	**EPA-200.7**		**A07**	1
Bicarbonate	**5400**	**mg/L**	**10**	**10**	**SM-2320B**			2
Carbonate	ND	mg/L	5.0	5.0	SM-2320B			2
Hydroxide	ND	mg/L	2.8	2.8	SM-2320B			2
Bromide	**41**	**mg/L**	**5.0**	**1.8**	**EPA-300.0**		**A07**	3
Chloride	**6100**	**mg/L**	**25**	**3.0**	**EPA-300.0**	600	**A07**	3
Nitrate as NO3	ND	mg/L	22	3.9	EPA-300.0	45	A07	3
Sulfate	**230**	**mg/L**	**50**	**5.0**	**EPA-300.0**	500	**A07**	3
Total Alkalinity	**27**	**Reacting %**	**0**	**0**	**Calc**			4
Total Dissolved Solids @ 180 C	**15000**	**mg/L**	**1000**	**1000**	**SM-2540C**	1500		5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	11/25/15	11/30/15 16:34	JRG	PE-OP2	10	BYK2362
2	SM-2320B	11/30/15	12/01/15 02:31	RML	MET-1	2	BYK2602
3	EPA-300.0	11/21/15	11/21/15 16:27	OLH	IC8	50	BYK2034
4	Calc	11/24/15	12/07/15 09:33	MSA	Calc	1	BYK2227
5	SM-2540C	11/25/15	11/25/15 13:00	CAD	MANUAL	100	BYK2333

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Metals Analysis

BCL Sample ID: 1529855-01 | **Client Sample Name:** Fee A, 11/20/2015 9:25:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MCL	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	0.20	0.055	EPA-218.6	10		1
Total Recoverable Aluminum	ND	mg/L	0.50	0.26	EPA-200.7	1	A07	2
Total Recoverable Antimony	ND	ug/L	10	0.55	EPA-200.8	6	A07	3
Total Recoverable Arsenic	**7.3**	**ug/L**	**10**	**3.5**	**EPA-200.8**	10	**J,A07**	3
Total Recoverable Barium	**710**	**ug/L**	**5.0**	**1.0**	**EPA-200.8**		**A07**	3
Total Recoverable Beryllium	ND	ug/L	5.0	0.70	EPA-200.8	4	A07	3
Total Recoverable Boron	**9.1**	**mg/L**	**1.0**	**0.10**	**EPA-200.7**		**A07**	2
Total Recoverable Cadmium	ND	ug/L	5.0	0.55	EPA-200.8	5	A07	3
Total Recoverable Chromium	ND	ug/L	15	2.5	EPA-200.8		A07	3
Total Recoverable Cobalt	**0.60**	**ug/L**	**5.0**	**0.50**	**EPA-200.8**		**J,A07**	3
Total Recoverable Copper	**2.5**	**ug/L**	**10**	**1.1**	**EPA-200.8**	1000	**J,A07**	3
Total Recoverable Iron	**2.5**	**mg/L**	**0.50**	**0.30**	**EPA-200.7**	0.3	**A07**	2
Total Recoverable Lead	ND	ug/L	5.0	0.50	EPA-200.8		A07	3
Total Recoverable Lithium	**1.3**	**mg/L**	**0.20**	**0.066**	**EPA-200.7**		**A07**	2
Total Recoverable Manganese	**0.14**	**mg/L**	**0.10**	**0.040**	**EPA-200.7**	0.05	**A07**	2
Total Recoverable Mercury	**0.065**	**ug/L**	**0.20**	**0.033**	**EPA-245.1**	2	**J**	4
Total Recoverable Molybdenum	**1.1**	**ug/L**	**5.0**	**0.55**	**EPA-200.8**		**J,A07**	3
Total Recoverable Nickel	**7.8**	**ug/L**	**10**	**0.95**	**EPA-200.8**		**J,A07**	3
Total Recoverable Selenium	**17**	**ug/L**	**10**	**0.95**	**EPA-200.8**	50	**A07**	3
Total Recoverable Silver	ND	ug/L	5.0	0.50	EPA-200.8		A07	3
Total Recoverable Strontium	**4.9**	**mg/L**	**0.10**	**0.010**	**EPA-200.7**		**A07**	2
Total Recoverable Uranium	**0.97**	**pCi/L**	**3.4**	**0.34**	**EPA-200.8**	20	**J,A07**	3
Total Recoverable Thallium	ND	ug/L	5.0	0.50	EPA-200.8	2	A07	3
Total Recoverable Vanadium	ND	ug/L	15	3.9	EPA-200.8		A07	3
Total Recoverable Zinc	ND	ug/L	50	8.5	EPA-200.8		A07	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	11/23/15	11/24/15 00:34	EMW	IC-4	1	BYK2177
2	EPA-200.7	11/25/15	11/30/15 16:34	JRG	PE-OP2	10	BYK2362
3	EPA-200.8	11/25/15	12/04/15 22:04	GPD	PE-EL2	5	BYK2366
4	EPA-245.1	11/30/15	12/01/15 12:58	MEV	CETAC1	1	BYK2568

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1529855-02 | **Client Sample Name:** Travel Blank, 11/20/2015 12:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	93.1	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.2	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	11/25/15	11/25/15 12:48	SE1	MS-V10	1	BYK2255

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:35 Project: DOGGR Injection - Formation Water Project Number: HAT204 Pond Sampling Project Manager: Kelsey Padilla

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1529855-03 | **Client Sample Name:** Fee B, 11/20/2015 10:05:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	102	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	103	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	11/25/15	11/25/15 15:39	SE1	MS-V10	1	BYK2255

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

BCL Sample ID: 1529855-03 | **Client Sample Name:** Fee B, 11/20/2015 10:05:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Acenaphthene	ND	ug/L	0.10	0.034	EPA-8270C-SIM	ND		1
Acenaphthylene	ND	ug/L	0.10	0.034	EPA-8270C-SIM	ND		1
Anthracene	ND	ug/L	0.10	0.031	EPA-8270C-SIM	ND		1
Benzo[a]anthracene	ND	ug/L	0.10	0.029	EPA-8270C-SIM	ND		1
Benzo[b]fluoranthene	ND	ug/L	0.10	0.037	EPA-8270C-SIM	ND		1
Benzo[k]fluoranthene	ND	ug/L	0.10	0.035	EPA-8270C-SIM	ND		1
Benzo[a]pyrene	ND	ug/L	0.10	0.034	EPA-8270C-SIM	ND		1
Benzo[g,h,i]perylene	ND	ug/L	0.10	0.035	EPA-8270C-SIM	ND		1
Chrysene	ND	ug/L	0.10	0.028	EPA-8270C-SIM	ND		1
Dibenzo[a,h]anthracene	ND	ug/L	0.10	0.053	EPA-8270C-SIM	ND		1
Fluoranthene	ND	ug/L	0.10	0.026	EPA-8270C-SIM	ND		1
Fluorene	ND	ug/L	0.10	0.029	EPA-8270C-SIM	ND		1
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.10	0.035	EPA-8270C-SIM	ND		1
Naphthalene	ND	ug/L	0.10	0.040	EPA-8270C-SIM	ND		1
Phenanthrene	ND	ug/L	0.10	0.030	EPA-8270C-SIM	ND		1
Pyrene	ND	ug/L	0.10	0.041	EPA-8270C-SIM	ND		1
Nitrobenzene-d5 (Surrogate)	96.5	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM			1
2-Fluorobiphenyl (Surrogate)	76.1	%	50 - 120 (LCL - UCL)		EPA-8270C-SIM			1
p-Terphenyl-d14 (Surrogate)	75.4	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8270C-SIM	11/24/15	11/30/15 14:58	MK1	MS-B7	0.970	BYK2429

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:35 Project: DOGGR Injection - Formation Water Project Number: HAT204 Pond Sampling Project Manager: Kelsey Padilla

Total Petroleum Hydrocarbons

BCL Sample ID: 1529855-03 | **Client Sample Name:** Fee B, 11/20/2015 10:05:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
TPH - Crude Oil	**9000**	**ug/L**	**500**	**140**	**EPA-8015B/FFP**	ND	**A55**	1
Tetracosane (Surrogate)	72.6	%	37 - 134 (LCL - UCL)		EPA-8015B/FFP			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B/FFP	11/24/15	12/02/15 02:47	MWB	GC-2	1	BYK2553

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:35 Project: DOGGR Injection - Formation Water Project Number: HAT204 Pond Sampling Project Manager: Kelsey Padilla

Gas Testing in Water

BCL Sample ID: 1529855-03 | **Client Sample Name:** Fee B, 11/20/2015 10:05:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methane	**0.11**	**mg/L**	**0.0010**	**0.00028**	**RSK-175M**	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	12/02/15	12/02/15 13:25	JH2	GC-V1	1	BYL0151

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Water Analysis (General Chemistry)

BCL Sample ID: 1529855-03 | **Client Sample Name:** Fee B, 11/20/2015 10:05:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MCL	Lab Quals	Run #
Total Recoverable Calcium	**89**	**mg/L**	**2.0**	**0.28**	**EPA-200.7**		**A07**	1
Total Recoverable Magnesium	**160**	**mg/L**	**1.0**	**0.38**	**EPA-200.7**	50	**A07**	1
Total Recoverable Sodium	**6300**	**mg/L**	**10**	**1.0**	**EPA-200.7**		**A07**	1
Total Recoverable Potassium	**35**	**mg/L**	**20**	**2.0**	**EPA-200.7**		**A07**	1
Bicarbonate	**4700**	**mg/L**	**10**	**10**	**SM-2320B**			2
Carbonate	ND	mg/L	5.0	5.0	SM-2320B			2
Hydroxide	ND	mg/L	2.8	2.8	SM-2320B			2
Bromide	**42**	**mg/L**	**5.0**	**1.8**	**EPA-300.0**		**A07**	3
Chloride	**9300**	**mg/L**	**25**	**3.0**	**EPA-300.0**	600	**A07**	3
Nitrate as NO3	ND	mg/L	22	3.9	EPA-300.0	45	A07	3
Sulfate	**19**	**mg/L**	**50**	**5.0**	**EPA-300.0**	500	**J,A07**	3
Total Alkalinity	**10**	**Reacting %**	**0**	**0**	**Calc**			4
Total Dissolved Solids @ 180 C	**20000**	**mg/L**	**1000**	**1000**	**SM-2540C**	1500		5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	11/25/15	11/30/15 16:52	JRG	PE-OP2	20	BYK2362
2	SM-2320B	11/30/15	12/01/15 02:45	RML	MET-1	2	BYK2602
3	EPA-300.0	11/21/15	11/21/15 16:45	OLH	IC8	50	BYK2034
4	Calc	11/24/15	12/07/15 09:33	MSA	Calc	1	BYK2227
5	SM-2540C	11/25/15	11/25/15 13:00	CAD	MANUAL	100	BYK2333

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Metals Analysis

BCL Sample ID: 1529855-03 | **Client Sample Name:** Fee B, 11/20/2015 10:05:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MCL	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	0.20	0.055	EPA-218.6	10		1
Total Recoverable Aluminum	ND	mg/L	1.0	0.52	EPA-200.7	1	A07	2
Total Recoverable Antimony	ND	ug/L	20	1.1	EPA-200.8	6	A07	3
Total Recoverable Arsenic	**8.2**	**ug/L**	**20**	**7.0**	**EPA-200.8**	10	**J,A07**	3
Total Recoverable Barium	**13000**	**ug/L**	**20**	**4.2**	**EPA-200.8**		**A07**	4
Total Recoverable Beryllium	ND	ug/L	10	1.4	EPA-200.8	4	A07	3
Total Recoverable Boron	**25**	**mg/L**	**2.0**	**0.20**	**EPA-200.7**		**A07**	2
Total Recoverable Cadmium	ND	ug/L	10	1.1	EPA-200.8	5	A07	3
Total Recoverable Chromium	ND	ug/L	30	5.0	EPA-200.8		A07	3
Total Recoverable Cobalt	ND	ug/L	10	1.0	EPA-200.8		A07	3
Total Recoverable Copper	**5.8**	**ug/L**	**20**	**2.2**	**EPA-200.8**	1000	**J,A07**	3
Total Recoverable Iron	**1.1**	**mg/L**	**1.0**	**0.60**	**EPA-200.7**	0.3	**A07**	2
Total Recoverable Lead	ND	ug/L	10	1.0	EPA-200.8		A07	3
Total Recoverable Lithium	**1.6**	**mg/L**	**0.40**	**0.13**	**EPA-200.7**		**A07**	2
Total Recoverable Manganese	**0.18**	**mg/L**	**0.20**	**0.080**	**EPA-200.7**	0.05	**J,A07**	2
Total Recoverable Mercury	ND	ug/L	0.20	0.033	EPA-245.1	2		5
Total Recoverable Molybdenum	**18**	**ug/L**	**10**	**1.1**	**EPA-200.8**		**A07**	3
Total Recoverable Nickel	**14**	**ug/L**	**20**	**1.9**	**EPA-200.8**		**J,A07**	3
Total Recoverable Selenium	**10**	**ug/L**	**20**	**1.9**	**EPA-200.8**	50	**J,A07**	3
Total Recoverable Silver	ND	ug/L	10	1.0	EPA-200.8		A07	3
Total Recoverable Strontium	**11**	**mg/L**	**0.20**	**0.020**	**EPA-200.7**		**A07**	2
Total Recoverable Uranium	ND	pCi/L	6.7	0.67	EPA-200.8	20	A07	3
Total Recoverable Thallium	ND	ug/L	10	1.0	EPA-200.8	2	A07	3
Total Recoverable Vanadium	ND	ug/L	30	7.8	EPA-200.8		A07	3
Total Recoverable Zinc	ND	ug/L	100	17	EPA-200.8		A07	3

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	11/23/15	11/24/15 00:43	EMW	IC-4	1	BYK2177
2	EPA-200.7	11/25/15	11/30/15 16:52	JRG	PE-OP2	20	BYK2362
3	EPA-200.8	11/25/15	12/04/15 22:21	GPD	PE-EL2	10	BYK2366
4	EPA-200.8	11/25/15	12/06/15 00:03	GPD	PE-EL2	20	BYK2366
5	EPA-245.1	11/30/15	12/01/15 12:29	MEV	CETAC1	1	BYK2557

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1529855-04 | **Client Sample Name:** Travel Blank, 11/20/2015 12:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	97.0	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	102	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	99.3	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	11/25/15	11/25/15 13:07	SE1	MS-V10	1	BYK2255

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYK2255						
Benzene	BYK2255-BLK1	ND	ug/L	0.50	0.083	
Ethylbenzene	BYK2255-BLK1	ND	ug/L	0.50	0.098	
Toluene	BYK2255-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BYK2255-BLK1	ND	ug/L	1.0	0.36	
p- & m-Xylenes	BYK2255-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BYK2255-BLK1	ND	ug/L	0.50	0.082	
1,2-Dichloroethane-d4 (Surrogate)	**BYK2255-BLK1**	**93.7**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BYK2255-BLK1**	**101**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BYK2255-BLK1**	**107**	%	**80 - 120 (LCL - UCL)**		
QC Batch ID: BYK2541						
Benzene	BYK2541-BLK1	ND	ug/L	0.50	0.083	
Ethylbenzene	BYK2541-BLK1	ND	ug/L	0.50	0.098	
Toluene	BYK2541-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BYK2541-BLK1	ND	ug/L	1.0	0.36	
p- & m-Xylenes	BYK2541-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BYK2541-BLK1	ND	ug/L	0.50	0.082	
1,2-Dichloroethane-d4 (Surrogate)	**BYK2541-BLK1**	**96.3**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BYK2541-BLK1**	**100**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BYK2541-BLK1**	**100**	%	**80 - 120 (LCL - UCL)**		

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Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BYK2255										
Benzene	BYK2255-BS1	LCS	25.510	25.000	ug/L	102		70 - 130		
Toluene	BYK2255-BS1	LCS	27.100	25.000	ug/L	108		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BYK2255-BS1	LCS	9.4100	10.000	ug/L	94.1		75 - 125		
Toluene-d8 (Surrogate)	BYK2255-BS1	LCS	10.170	10.000	ug/L	102		80 - 120		
4-Bromofluorobenzene (Surrogate)	BYK2255-BS1	LCS	9.8000	10.000	ug/L	98.0		80 - 120		
QC Batch ID: BYK2541										
Benzene	BYK2541-BS1	LCS	25.860	25.000	ug/L	103		70 - 130		
Toluene	BYK2541-BS1	LCS	28.740	25.000	ug/L	115		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BYK2541-BS1	LCS	9.1900	10.000	ug/L	91.9		75 - 125		
Toluene-d8 (Surrogate)	BYK2541-BS1	LCS	10.090	10.000	ug/L	101		80 - 120		
4-Bromofluorobenzene (Surrogate)	BYK2541-BS1	LCS	9.8000	10.000	ug/L	98.0		80 - 120		

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Enviro Tech Consultants, Inc.
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Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2255	Used client sample: N										
Benzene	MS	1528561-51	ND	27.430	25.000	ug/L		110		70 - 130	
	MSD	1528561-51	ND	27.560	25.000	ug/L	0.5	110	20	70 - 130	
Toluene	MS	1528561-51	ND	29.930	25.000	ug/L		120		70 - 130	
	MSD	1528561-51	ND	30.010	25.000	ug/L	0.3	120	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1528561-51	ND	9.5100	10.000	ug/L		95.1		75 - 125	
	MSD	1528561-51	ND	9.4200	10.000	ug/L	1.0	94.2		75 - 125	
Toluene-d8 (Surrogate)	MS	1528561-51	ND	10.230	10.000	ug/L		102		80 - 120	
	MSD	1528561-51	ND	10.210	10.000	ug/L	0.2	102		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1528561-51	ND	9.9800	10.000	ug/L		99.8		80 - 120	
	MSD	1528561-51	ND	9.8200	10.000	ug/L	1.6	98.2		80 - 120	
QC Batch ID: BYK2541	Used client sample: N										
Benzene	MS	1528561-56	ND	26.750	25.000	ug/L		107		70 - 130	
	MSD	1528561-56	ND	27.900	25.000	ug/L	4.2	112	20	70 - 130	
Toluene	MS	1528561-56	ND	28.940	25.000	ug/L		116		70 - 130	
	MSD	1528561-56	ND	30.310	25.000	ug/L	4.6	121	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1528561-56	ND	9.3000	10.000	ug/L		93.0		75 - 125	
	MSD	1528561-56	ND	9.2400	10.000	ug/L	0.6	92.4		75 - 125	
Toluene-d8 (Surrogate)	MS	1528561-56	ND	9.9800	10.000	ug/L		99.8		80 - 120	
	MSD	1528561-56	ND	9.9200	10.000	ug/L	0.6	99.2		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1528561-56	ND	9.7500	10.000	ug/L		97.5		80 - 120	
	MSD	1528561-56	ND	9.7400	10.000	ug/L	0.1	97.4		80 - 120	

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYK2429						
Acenaphthene	BYK2429-BLK1	ND	ug/L	0.10	0.034	
Acenaphthylene	BYK2429-BLK1	ND	ug/L	0.10	0.034	
Anthracene	BYK2429-BLK1	ND	ug/L	0.10	0.031	
Benzo[a]anthracene	BYK2429-BLK1	ND	ug/L	0.10	0.029	
Benzo[b]fluoranthene	BYK2429-BLK1	ND	ug/L	0.10	0.037	
Benzo[k]fluoranthene	BYK2429-BLK1	ND	ug/L	0.10	0.035	
Benzo[a]pyrene	BYK2429-BLK1	ND	ug/L	0.10	0.034	
Benzo[g,h,i]perylene	BYK2429-BLK1	ND	ug/L	0.10	0.035	
Chrysene	BYK2429-BLK1	ND	ug/L	0.10	0.028	
Dibenzo[a,h]anthracene	BYK2429-BLK1	ND	ug/L	0.10	0.053	
Fluoranthene	BYK2429-BLK1	ND	ug/L	0.10	0.026	
Fluorene	BYK2429-BLK1	ND	ug/L	0.10	0.029	
Indeno[1,2,3-cd]pyrene	BYK2429-BLK1	ND	ug/L	0.10	0.035	
Naphthalene	BYK2429-BLK1	ND	ug/L	0.10	0.040	
Phenanthrene	BYK2429-BLK1	ND	ug/L	0.10	0.030	
Pyrene	BYK2429-BLK1	ND	ug/L	0.10	0.041	
Nitrobenzene-d5 (Surrogate)	**BYK2429-BLK1**	**87.1**	%	**40 - 130 (LCL - UCL)**		
2-Fluorobiphenyl (Surrogate)	**BYK2429-BLK1**	**65.1**	%	**50 - 120 (LCL - UCL)**		
p-Terphenyl-d14 (Surrogate)	**BYK2429-BLK1**	**84.2**	%	**40 - 130 (LCL - UCL)**		

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5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BYK2429										
Acenaphthene	BYK2429-BS1	LCS	0.87000	1.0000	ug/L	87.0		60 - 110		
Acenaphthylene	BYK2429-BS1	LCS	0.97000	1.0000	ug/L	97.0		60 - 120		
Anthracene	BYK2429-BS1	LCS	1.1100	1.0000	ug/L	111		60 - 130		
Benzo[a]anthracene	BYK2429-BS1	LCS	0.94000	1.0000	ug/L	94.0		60 - 130		
Benzo[b]fluoranthene	BYK2429-BS1	LCS	0.78000	1.0000	ug/L	78.0		50 - 130		
Benzo[k]fluoranthene	BYK2429-BS1	LCS	0.84000	1.0000	ug/L	84.0		60 - 120		
Benzo[a]pyrene	BYK2429-BS1	LCS	0.99000	1.0000	ug/L	99.0		60 - 120		
Benzo[g,h,i]perylene	BYK2429-BS1	LCS	0.52000	1.0000	ug/L	52.0		40 - 120		
Chrysene	BYK2429-BS1	LCS	0.67000	1.0000	ug/L	67.0		60 - 110		
Dibenzo[a,h]anthracene	BYK2429-BS1	LCS	0.46000	1.0000	ug/L	46.0		40 - 120		
Fluoranthene	BYK2429-BS1	LCS	0.99000	1.0000	ug/L	99.0		60 - 120		
Fluorene	BYK2429-BS1	LCS	0.92000	1.0000	ug/L	92.0		60 - 120		
Indeno[1,2,3-cd]pyrene	BYK2429-BS1	LCS	0.70000	1.0000	ug/L	70.0		40 - 130		
Naphthalene	BYK2429-BS1	LCS	0.84000	1.0000	ug/L	84.0		60 - 110		
Phenanthrene	BYK2429-BS1	LCS	0.90000	1.0000	ug/L	90.0		60 - 120		
Pyrene	BYK2429-BS1	LCS	1.0300	1.0000	ug/L	103		50 - 125		
Nitrobenzene-d5 (Surrogate)	BYK2429-BS1	LCS	3.9700	4.0000	ug/L	99.2		40 - 130		
2-Fluorobiphenyl (Surrogate)	BYK2429-BS1	LCS	3.2500	4.0000	ug/L	81.2		50 - 120		
p-Terphenyl-d14 (Surrogate)	BYK2429-BS1	LCS	3.6700	4.0000	ug/L	91.8		40 - 130		

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2429	Used client sample: N										
Acenaphthene	MS	1528561-40	ND	0.80750	1.0000	ug/L		80.8		60 - 110	
	MSD	1528561-40	ND	0.82320	1.0000	ug/L	1.9	82.3	30	60 - 110	
Acenaphthylene	MS	1528561-40	ND	0.88350	1.0000	ug/L		88.4		60 - 120	
	MSD	1528561-40	ND	0.88200	1.0000	ug/L	0.2	88.2	30	60 - 120	
Anthracene	MS	1528561-40	ND	0.96900	1.0000	ug/L		96.9		60 - 130	
	MSD	1528561-40	ND	0.98000	1.0000	ug/L	1.1	98.0	30	60 - 130	
Benzo[a]anthracene	MS	1528561-40	ND	0.84550	1.0000	ug/L		84.6		60 - 120	
	MSD	1528561-40	ND	0.85260	1.0000	ug/L	0.8	85.3	30	60 - 120	
Benzo[b]fluoranthene	MS	1528561-40	ND	0.72200	1.0000	ug/L		72.2		50 - 130	
	MSD	1528561-40	ND	0.74480	1.0000	ug/L	3.1	74.5	30	50 - 130	
Benzo[k]fluoranthene	MS	1528561-40	ND	0.78850	1.0000	ug/L		78.8		60 - 120	
	MSD	1528561-40	ND	0.79380	1.0000	ug/L	0.7	79.4	30	60 - 120	
Benzo[a]pyrene	MS	1528561-40	ND	0.82650	1.0000	ug/L		82.6		60 - 120	
	MSD	1528561-40	ND	0.87220	1.0000	ug/L	5.4	87.2	30	60 - 120	
Benzo[g,h,i]perylene	MS	1528561-40	ND	0.57000	1.0000	ug/L		57.0		40 - 120	
	MSD	1528561-40	ND	0.64680	1.0000	ug/L	12.6	64.7	30	40 - 120	
Chrysene	MS	1528561-40	ND	0.63650	1.0000	ug/L		63.6		60 - 110	
	MSD	1528561-40	ND	0.65660	1.0000	ug/L	3.1	65.7	30	60 - 110	
Dibenzo[a,h]anthracene	MS	1528561-40	ND	0.50350	1.0000	ug/L		50.4		40 - 120	
	MSD	1528561-40	ND	0.59780	1.0000	ug/L	17.1	59.8	30	40 - 120	
Fluoranthene	MS	1528561-40	ND	0.92150	1.0000	ug/L		92.2		60 - 120	
	MSD	1528561-40	ND	0.93100	1.0000	ug/L	1.0	93.1	30	60 - 120	
Fluorene	MS	1528561-40	ND	0.86450	1.0000	ug/L		86.4		60 - 120	
	MSD	1528561-40	ND	0.84280	1.0000	ug/L	2.5	84.3	30	60 - 120	
Indeno[1,2,3-cd]pyrene	MS	1528561-40	ND	0.69350	1.0000	ug/L		69.4		40 - 130	
	MSD	1528561-40	ND	0.71540	1.0000	ug/L	3.1	71.5	30	40 - 130	
Naphthalene	MS	1528561-40	ND	0.74100	1.0000	ug/L		74.1		60 - 110	
	MSD	1528561-40	ND	0.78400	1.0000	ug/L	5.6	78.4	30	60 - 110	
Phenanthrene	MS	1528561-40	ND	0.84550	1.0000	ug/L		84.6		60 - 120	
	MSD	1528561-40	ND	0.85260	1.0000	ug/L	0.8	85.3	30	60 - 120	
Pyrene	MS	1528561-40	ND	1.0450	1.0000	ug/L		104		50 - 125	
	MSD	1528561-40	ND	1.0094	1.0000	ug/L	3.5	101	30	50 - 125	
Nitrobenzene-d5 (Surrogate)	MS	1528561-40	ND	3.7050	4.0000	ug/L		92.6		40 - 130	
	MSD	1528561-40	ND	3.7044	4.0000	ug/L	0.0	92.6		40 - 130	
2-Fluorobiphenyl (Surrogate)	MS	1528561-40	ND	2.9260	4.0000	ug/L		73.2		50 - 120	
	MSD	1528561-40	ND	3.0478	4.0000	ug/L	4.1	76.2		50 - 120	

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:35 Project: DOGGR Injection - Formation Water Project Number: HAT204 Pond Sampling Project Manager: Kelsey Padilla

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2429	Used client sample: N										
p-Terphenyl-d14 (Surrogate)	MS	1528561-40	ND	3.7715	4.0000	ug/L		94.3		40 - 130	
	MSD	1528561-40	ND	3.6848	4.0000	ug/L	2.3	92.1		40 - 130	

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:35 Project: DOGGR Injection - Formation Water Project Number: HAT204 Pond Sampling Project Manager: Kelsey Padilla

Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYK2553						
TPH - Crude Oil	BYK2553-BLK1	ND	ug/L	500	140	
Tetracosane (Surrogate)	**BYK2553-BLK1**	**75.5**	**%**	**37 - 134 (LCL - UCL)**		

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:35 Project: DOGGR Injection - Formation Water Project Number: HAT204 Pond Sampling Project Manager: Kelsey Padilla

Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BYK2553										
Tetracosane (Surrogate)	BYK2553-BS1	LCS	76.300	100.00	ug/L	76.3		37 - 134		

Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
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Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2553	Used client sample: N										
Tetracosane (Surrogate)	MS	1528561-58	ND	76.715	100.00	ug/L		76.7		37 - 134	
	MSD	1528561-58	ND	80.430	100.00	ug/L	4.7	80.4		37 - 134	

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:35 Project: DOGGR Injection - Formation Water Project Number: HAT204 Pond Sampling Project Manager: Kelsey Padilla

Gas Testing in Water

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYL0151						
Methane	BYL0151-BLK1	ND	mg/L	0.0010	0.00028	

Enviro Tech Consultants, Inc.
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Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Gas Testing in Water

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BYL0151										
Methane	BYL0151-BS1	LCS	0.0096889	0.010843	mg/L	89.4		80 - 120		
	BYL0151-BSD1	LCSD	0.010670	0.010843	mg/L	98.4	9.6	80 - 120	20	

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYK2034						
Bromide	BYK2034-BLK1	ND	mg/L	0.10	0.035	
Chloride	BYK2034-BLK1	ND	mg/L	0.50	0.061	
Nitrate as NO3	BYK2034-BLK1	ND	mg/L	0.44	0.078	
Sulfate	BYK2034-BLK1	ND	mg/L	1.0	0.10	
QC Batch ID: BYK2227						
Total Alkalinity	**BYK2227-BLK1**	**0**	**Reacting %**	**0**	**0**	
QC Batch ID: BYK2333						
Total Dissolved Solids @ 180 C	BYK2333-BLK1	ND	mg/L	6.7	6.7	
QC Batch ID: BYK2362						
Total Recoverable Calcium	**BYK2362-BLK1**	**0.050769**	**mg/L**	**0.10**	**0.014**	**J**
Total Recoverable Magnesium	**BYK2362-BLK1**	**0.040998**	**mg/L**	**0.050**	**0.019**	**J**
Total Recoverable Sodium	BYK2362-BLK1	ND	mg/L	0.50	0.051	
Total Recoverable Potassium	BYK2362-BLK1	ND	mg/L	1.0	0.10	
QC Batch ID: BYK2602						
Bicarbonate	BYK2602-BLK1	ND	mg/L	5.0	5.0	
Carbonate	BYK2602-BLK1	ND	mg/L	2.5	2.5	
Hydroxide	BYK2602-BLK1	ND	mg/L	1.4	1.4	

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Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BYK2034										
Bromide	BYK2034-BS1	LCS	2.1270	2.0000	mg/L	106		90 - 110		
Chloride	BYK2034-BS1	LCS	51.832	50.000	mg/L	104		90 - 110		
Nitrate as NO3	BYK2034-BS1	LCS	22.913	22.134	mg/L	104		90 - 110		
Sulfate	BYK2034-BS1	LCS	103.02	100.00	mg/L	103		90 - 110		
QC Batch ID: BYK2333										
Total Dissolved Solids @ 180 C	BYK2333-BS1	LCS	590.00	586.00	mg/L	101		90 - 110		
QC Batch ID: BYK2362										
Total Recoverable Calcium	BYK2362-BS1	LCS	10.492	10.000	mg/L	105		85 - 115		
Total Recoverable Magnesium	BYK2362-BS1	LCS	10.474	10.000	mg/L	105		85 - 115		
Total Recoverable Sodium	BYK2362-BS1	LCS	10.589	10.000	mg/L	106		85 - 115		
Total Recoverable Potassium	BYK2362-BS1	LCS	10.004	10.000	mg/L	100		85 - 115		

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Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2034	Used client sample: N										
Bromide	DUP	529683-01RE'	0.40800	0.38400		mg/L	6.1		10		
	MS	529683-01RE'	0.40800	4.4182	4.0404	mg/L		99.3		80 - 120	
	MSD	529683-01RE'	0.40800	4.6747	4.0404	mg/L	5.6	106	10	80 - 120	
Chloride	DUP	529683-01RE'	54.552	54.568		mg/L	0.0		10		
	MS	529683-01RE'	54.552	160.84	101.01	mg/L		105		80 - 120	
	MSD	529683-01RE'	54.552	160.97	101.01	mg/L	0.1	105	10	80 - 120	
Nitrate as NO3	DUP	529683-01RE'	20.762	20.788		mg/L	0.1		10		
	MS	529683-01RE'	20.762	66.670	44.715	mg/L		103		80 - 120	
	MSD	529683-01RE'	20.762	67.046	44.715	mg/L	0.6	104	10	80 - 120	
Sulfate	DUP	529683-01RE'	488.90	488.27		mg/L	0.1		10		
	MS	529683-01RE'	488.90	677.91	202.02	mg/L		93.6		80 - 120	
	MSD	529683-01RE'	488.90	678.00	202.02	mg/L	0.0	93.6	10	80 - 120	
QC Batch ID: BYK2333	Used client sample: Y - Description: Fee A, 11/20/2015 09:25										
Total Dissolved Solids @ 180 C	DUP	1529855-01	15000	15300		mg/L	2.0		10		
QC Batch ID: BYK2362	Used client sample: N										
Total Recoverable Calcium	DUP	**1529973-01**	**150.48**	**153.64**		**mg/L**	**2.1**		**20**		
	MS	**1529973-01**	**150.48**	**170.51**	**10.000**	**mg/L**		**200**		**75 - 125**	**A03**
	MSD	**1529973-01**	**150.48**	**164.38**	**10.000**	**mg/L**	**3.7**	**139**	**20**	**75 - 125**	**A03**
Total Recoverable Magnesium	DUP	1529973-01	21.006	21.248		mg/L	1.1		20		
	MS	1529973-01	21.006	31.702	10.000	mg/L		107		75 - 125	
	MSD	1529973-01	21.006	30.678	10.000	mg/L	3.3	96.7	20	75 - 125	
Total Recoverable Sodium	DUP	**1529973-01**	**140.37**	**143.56**		**mg/L**	**2.2**		**20**		
	MS	**1529973-01**	**140.37**	**160.05**	**10.000**	**mg/L**		**197**		**75 - 125**	**A03**
	MSD	**1529973-01**	**140.37**	**154.75**	**10.000**	**mg/L**	**3.4**	**144**	**20**	**75 - 125**	**A03**
Total Recoverable Potassium	DUP	1529973-01	2.0083	2.0606		mg/L	2.6		20		
	MS	1529973-01	2.0083	12.304	10.000	mg/L		103		75 - 125	
	MSD	1529973-01	2.0083	12.044	10.000	mg/L	2.1	100	20	75 - 125	
QC Batch ID: BYK2602	Used client sample: N										
Bicarbonate	DUP	1529843-01	26.519	26.714		mg/L	0.7		10		
Carbonate	DUP	1529843-01	ND	ND		mg/L			10		
Hydroxide	DUP	1529843-01	ND	ND		mg/L			10		

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Metals Analysis

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYK2177						
Hexavalent Chromium	BYK2177-BLK1	ND	ug/L	0.20	0.055	
QC Batch ID: BYK2362						
Total Recoverable Aluminum	BYK2362-BLK1	ND	mg/L	0.050	0.026	
Total Recoverable Boron	BYK2362-BLK1	ND	mg/L	0.10	0.010	
Total Recoverable Iron	BYK2362-BLK2	ND	mg/L	0.050	0.030	
Total Recoverable Lithium	BYK2362-BLK1	ND	mg/L	0.020	0.0066	
Total Recoverable Manganese	**BYK2362-BLK1**	**0.0050017**	**mg/L**	**0.010**	**0.0040**	**J**
Total Recoverable Strontium	BYK2362-BLK1	ND	mg/L	0.010	0.0010	
QC Batch ID: BYK2366						
Total Recoverable Antimony	**BYK2366-BLK1**	**0.21100**	**ug/L**	**2.0**	**0.11**	**J**
Total Recoverable Arsenic	BYK2366-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Barium	BYK2366-BLK1	ND	ug/L	1.0	0.21	
Total Recoverable Beryllium	BYK2366-BLK2	ND	ug/L	1.0	0.14	
Total Recoverable Cadmium	BYK2366-BLK1	ND	ug/L	1.0	0.11	
Total Recoverable Chromium	BYK2366-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Cobalt	BYK2366-BLK1	ND	ug/L	1.0	0.10	
Total Recoverable Copper	BYK2366-BLK1	ND	ug/L	2.0	0.22	
Total Recoverable Lead	BYK2366-BLK1	ND	ug/L	1.0	0.10	
Total Recoverable Molybdenum	BYK2366-BLK1	ND	ug/L	1.0	0.11	
Total Recoverable Nickel	BYK2366-BLK1	ND	ug/L	2.0	0.19	
Total Recoverable Selenium	BYK2366-BLK1	ND	ug/L	2.0	0.19	
Total Recoverable Silver	BYK2366-BLK1	ND	ug/L	1.0	0.10	
Total Recoverable Uranium	BYK2366-BLK1	ND	pCi/L	0.67	0.067	
Total Recoverable Thallium	BYK2366-BLK1	ND	ug/L	1.0	0.10	
Total Recoverable Vanadium	BYK2366-BLK1	ND	ug/L	3.0	0.78	
Total Recoverable Zinc	BYK2366-BLK1	ND	ug/L	10	1.7	
QC Batch ID: BYK2557						
Total Recoverable Mercury	BYK2557-BLK1	ND	ug/L	0.20	0.033	
QC Batch ID: BYK2568						
Total Recoverable Mercury	BYK2568-BLK1	ND	ug/L	0.20	0.033	

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Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Metals Analysis

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BYK2177										
Hexavalent Chromium	BYK2177-BS1	LCS	19.596	20.000	ug/L	98.0		90 - 110		
QC Batch ID: BYK2362										
Total Recoverable Aluminum	BYK2362-BS1	LCS	1.0679	1.0000	mg/L	107		85 - 115		
Total Recoverable Boron	BYK2362-BS1	LCS	0.98337	1.0000	mg/L	98.3		85 - 115		
Total Recoverable Iron	BYK2362-BS2	LCS	1.0617	1.0000	mg/L	106		85 - 115		
Total Recoverable Lithium	BYK2362-BS1	LCS	0.21678	0.20000	mg/L	108		85 - 115		
Total Recoverable Manganese	BYK2362-BS1	LCS	0.53041	0.50000	mg/L	106		85 - 115		
Total Recoverable Strontium	BYK2362-BS1	LCS	0.53822	0.50000	mg/L	108		85 - 115		
QC Batch ID: BYK2366										
Total Recoverable Antimony	BYK2366-BS1	LCS	41.756	40.000	ug/L	104		85 - 115		
Total Recoverable Arsenic	BYK2366-BS1	LCS	99.827	100.00	ug/L	99.8		85 - 115		
Total Recoverable Barium	BYK2366-BS1	LCS	40.721	40.000	ug/L	102		85 - 115		
Total Recoverable Beryllium	BYK2366-BS2	LCS	43.899	40.000	ug/L	110		85 - 115		
Total Recoverable Cadmium	BYK2366-BS1	LCS	40.674	40.000	ug/L	102		85 - 115		
Total Recoverable Chromium	BYK2366-BS1	LCS	40.400	40.000	ug/L	101		85 - 115		
Total Recoverable Cobalt	BYK2366-BS1	LCS	40.566	40.000	ug/L	101		85 - 115		
Total Recoverable Copper	BYK2366-BS1	LCS	103.91	100.00	ug/L	104		85 - 115		
Total Recoverable Lead	BYK2366-BS1	LCS	98.974	100.00	ug/L	99.0		85 - 115		
Total Recoverable Molybdenum	BYK2366-BS1	LCS	39.498	40.000	ug/L	98.7		85 - 115		
Total Recoverable Nickel	BYK2366-BS1	LCS	99.998	100.00	ug/L	100		85 - 115		
Total Recoverable Selenium	BYK2366-BS1	LCS	95.295	100.00	ug/L	95.3		85 - 115		
Total Recoverable Silver	BYK2366-BS1	LCS	41.123	40.000	ug/L	103		85 - 115		
Total Recoverable Uranium	BYK2366-BS1	LCS	26.389	26.800	pCi/L	98.5		85 - 115		
Total Recoverable Thallium	BYK2366-BS1	LCS	39.969	40.000	ug/L	99.9		85 - 115		
Total Recoverable Vanadium	BYK2366-BS1	LCS	42.073	40.000	ug/L	105		85 - 115		
Total Recoverable Zinc	BYK2366-BS1	LCS	99.682	100.00	ug/L	99.7		85 - 115		
QC Batch ID: BYK2557										
Total Recoverable Mercury	BYK2557-BS1	LCS	1.0125	1.0000	ug/L	101		85 - 115		
QC Batch ID: BYK2568										
Total Recoverable Mercury	BYK2568-BS1	LCS	0.99500	1.0000	ug/L	99.5		85 - 115		

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Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Metals Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2177	Used client sample: N										
Hexavalent Chromium	DUP	1529924-01	5.2330	5.2000		ug/L	0.6		10		
	MS	1529924-01	5.2330	25.038	20.202	ug/L		98.0		90 - 110	
	MSD	1529924-01	5.2330	25.058	20.202	ug/L	0.1	98.1	10	90 - 110	
QC Batch ID: BYK2362	Used client sample: N										
Total Recoverable Aluminum	DUP	**1529973-01**	**0.026856**	**0.037535**		**mg/L**	**33.2**		**20**		**J,A02**
	MS	**1529973-01**	**0.026856**	**1.1187**	**1.0000**	**mg/L**		**109**		**75 - 125**	
	MSD	**1529973-01**	**0.026856**	**1.0662**	**1.0000**	**mg/L**	**4.8**	**104**	**20**	**75 - 125**	
Total Recoverable Boron	DUP	1529973-01	0.55988	0.54987		mg/L	1.8		20		
	MS	1529973-01	0.55988	1.6208	1.0000	mg/L		106		75 - 125	
	MSD	1529973-01	0.55988	1.5686	1.0000	mg/L	3.3	101	20	75 - 125	
Total Recoverable Iron	DUP	1529973-01	1.1953	1.1661		mg/L	2.5		20		
	MS	1529973-01	1.1953	2.2348	1.0000	mg/L		104		75 - 125	
	MSD	1529973-01	1.1953	2.1466	1.0000	mg/L	4.0	95.1	20	75 - 125	
Total Recoverable Lithium	DUP	1529973-01	0.024096	0.024763		mg/L	2.7		20		
	MS	1529973-01	0.024096	0.23385	0.20000	mg/L		105		75 - 125	
	MSD	1529973-01	0.024096	0.22844	0.20000	mg/L	2.3	102	20	75 - 125	
Total Recoverable Manganese	DUP	1529973-01	0.90807	0.91696		mg/L	1.0		20		
	MS	1529973-01	0.90807	1.4481	0.50000	mg/L		108		75 - 125	
	MSD	1529973-01	0.90807	1.4124	0.50000	mg/L	2.5	101	20	75 - 125	
Total Recoverable Strontium	DUP	**1529973-01**	**1.3562**	**1.3796**		**mg/L**	**1.7**		**20**		
	MS	**1529973-01**	**1.3562**	**1.9907**	**0.50000**	**mg/L**		**127**		**75 - 125**	**Q03**
	MSD	**1529973-01**	**1.3562**	**1.9213**	**0.50000**	**mg/L**	**3.5**	**113**	**20**	**75 - 125**	
QC Batch ID: BYK2366	Used client sample: N										
Total Recoverable Antimony	DUP	1530038-01	4.3750	4.3110		ug/L	1.5		20		
	MS	1530038-01	4.3750	43.972	40.000	ug/L		99.0		70 - 130	
	MSD	1530038-01	4.3750	45.022	40.000	ug/L	2.4	102	20	70 - 130	
Total Recoverable Arsenic	DUP	1530038-01	2.9610	2.6300		ug/L	11.8		20		
	MS	1530038-01	2.9610	102.12	100.00	ug/L		99.2		70 - 130	
	MSD	1530038-01	2.9610	105.08	100.00	ug/L	2.9	102	20	70 - 130	
Total Recoverable Barium	DUP	1530038-01	27.047	27.074		ug/L	0.1		20		
	MS	1530038-01	27.047	63.930	40.000	ug/L		92.2		70 - 130	
	MSD	1530038-01	27.047	64.831	40.000	ug/L	1.4	94.5	20	70 - 130	
Total Recoverable Beryllium	DUP	1530038-01	ND	ND		ug/L			20		
	MS	1530038-01	ND	39.000	40.000	ug/L		97.5		70 - 130	
	MSD	1530038-01	ND	41.066	40.000	ug/L	5.2	103	20	70 - 130	
Total Recoverable Cadmium	DUP	1530038-01	0.63100	0.64400		ug/L	2.0		20		J
	MS	1530038-01	0.63100	38.375	40.000	ug/L		94.4		70 - 130	
	MSD	1530038-01	0.63100	39.787	40.000	ug/L	3.6	97.9	20	70 - 130	

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5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Metals Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2366	Used client sample: N										
Total Recoverable Chromium	DUP	1530038-01	ND	ND		ug/L			20		
	MS	1530038-01	ND	37.343	40.000	ug/L		93.4		70 - 130	
	MSD	1530038-01	ND	37.832	40.000	ug/L	1.3	94.6	20	70 - 130	
Total Recoverable Cobalt	DUP	1530038-01	1.1630	1.1640		ug/L	0.1		20		
	MS	1530038-01	1.1630	37.726	40.000	ug/L		91.4		70 - 130	
	MSD	1530038-01	1.1630	37.994	40.000	ug/L	0.7	92.1	20	70 - 130	
Total Recoverable Copper	DUP	1530038-01	4.6800	4.5440		ug/L	2.9		20		
	MS	1530038-01	4.6800	98.328	100.00	ug/L		93.6		70 - 130	
	MSD	1530038-01	4.6800	101.41	100.00	ug/L	3.1	96.7	20	70 - 130	
Total Recoverable Lead	DUP	1530038-01	ND	ND		ug/L			20		
	MS	1530038-01	ND	96.891	100.00	ug/L		96.9		70 - 130	
	MSD	1530038-01	ND	101.06	100.00	ug/L	4.2	101	20	70 - 130	
Total Recoverable Molybdenum	DUP	**1530038-01**	**538.91**	**536.89**		**ug/L**	**0.4**		**20**		
	MS	**1530038-01**	**538.91**	**557.08**	**40.000**	**ug/L**		**45.4**		**70 - 130**	**A03**
	MSD	**1530038-01**	**538.91**	**574.80**	**40.000**	**ug/L**	**3.1**	**89.7**	**20**	**70 - 130**	
Total Recoverable Nickel	DUP	1530038-01	61.205	61.591		ug/L	0.6		20		
	MS	1530038-01	61.205	149.63	100.00	ug/L		88.4		70 - 130	
	MSD	1530038-01	61.205	149.98	100.00	ug/L	0.2	88.8	20	70 - 130	
Total Recoverable Selenium	DUP	1530038-01	37.773	38.407		ug/L	1.7		20		
	MS	1530038-01	37.773	131.47	100.00	ug/L		93.7		70 - 130	
	MSD	1530038-01	37.773	133.37	100.00	ug/L	1.4	95.6	20	70 - 130	
Total Recoverable Silver	DUP	1530038-01	ND	ND		ug/L			20		
	MS	1530038-01	ND	37.854	40.000	ug/L		94.6		70 - 130	
	MSD	1530038-01	ND	39.346	40.000	ug/L	3.9	98.4	20	70 - 130	
Total Recoverable Uranium	DUP	1530038-01	16.486	16.409		pCi/L	0.5		20		
	MS	1530038-01	16.486	43.355	26.800	pCi/L		100		70 - 130	
	MSD	1530038-01	16.486	44.850	26.800	pCi/L	3.4	106	20	70 - 130	
Total Recoverable Thallium	DUP	1530038-01	0.23000	0.22100		ug/L	4.0		20		J
	MS	1530038-01	0.23000	39.917	40.000	ug/L		99.2		70 - 130	
	MSD	1530038-01	0.23000	41.545	40.000	ug/L	4.0	103	20	70 - 130	
Total Recoverable Vanadium	DUP	1530038-01	107.20	107.09		ug/L	0.1		20		
	MS	1530038-01	107.20	142.96	40.000	ug/L		89.4		70 - 130	
	MSD	1530038-01	107.20	144.49	40.000	ug/L	1.1	93.2	20	70 - 130	
Total Recoverable Zinc	DUP	1530038-01	83.642	85.419		ug/L	2.1		20		
	MS	1530038-01	83.642	173.39	100.00	ug/L		89.7		70 - 130	
	MSD	1530038-01	83.642	174.31	100.00	ug/L	0.5	90.7	20	70 - 130	
QC Batch ID: BYK2557	Used client sample: N										

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:35
Project: DOGGR Injection - Formation Water
Project Number: HAT204 Pond Sampling
Project Manager: Kelsey Padilla

Metals Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2557	Used client sample: N										
Total Recoverable Mercury	DUP	1529760-01	ND	ND		ug/L			20		
	MS	1529760-01	ND	1.0250	1.0000	ug/L		102		70 - 130	
	MSD	1529760-01	ND	1.0225	1.0000	ug/L	0.2	102	20	70 - 130	
QC Batch ID: BYK2568	Used client sample: N										
Total Recoverable Mercury	DUP	**1529973-01**	**0.072500**	**0.050000**		**ug/L**	**36.7**		**20**		**J,A02**
	MS	**1529973-01**	**0.072500**	**1.0025**	**1.0000**	**ug/L**		**93.0**		**70 - 130**	
	MSD	**1529973-01**	**0.072500**	**1.0375**	**1.0000**	**ug/L**	**3.4**	**96.5**	**20**	**70 - 130**	

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December 10, 2015

Ms. Kerrie Vaughan
BC Laboratories
4100 Atlas Ct.
Bakersfield, CA 93308

RE: Project: 1529855
Pace Project No.: 30166470

Dear Ms. Vaughan:
Enclosed are the analytical results for sample(s) received by the laboratory on November 30, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carin A. Ferris

Carin Ferris
carin.ferris@pacelabs.com
Project Manager

Enclosures

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 1529855
Pace Project No.: 30166470

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: 1529855
Pace Project No.: 30166470

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30166470001	1529855-01	Water	11/20/15 09:25	11/30/15 09:35
30166470002	1529855-03	Water	11/20/15 10:05	11/30/15 09:35

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SAMPLE ANALYTE COUNT

Project: 1529855
Pace Project No.: 30166470

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30166470001	1529855-01	EPA 900.0	NEG	2
		EPA 903.1	WRR	1
		EPA 904.0	JLW	1
		ASTM D5811-95	LAL	1
		EPA 906.0	WRR	1
30166470002	1529855-03	EPA 900.0	NEG	2
		EPA 903.1	WRR	1
		EPA 904.0	JLW	1
		ASTM D5811-95	LAL	1
		EPA 906.0	WRR	1

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PROJECT NARRATIVE

Project: 1529855
Pace Project No.: 30166470

Method: EPA 900.0
Description: 900.0 Gross Alpha/Beta
Client: BC Laboratories
Date: December 10, 2015

General Information:
2 samples were analyzed for EPA 900.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 1529855
Pace Project No.: 30166470

Method: EPA 903.1
Description: 903.1 Radium 226
Client: BC Laboratories
Date: December 10, 2015

General Information:
2 samples were analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 1529855
Pace Project No.: 30166470

Method: EPA 904.0
Description: 904.0 Radium 228
Client: BC Laboratories
Date: December 10, 2015

General Information:
2 samples were analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: 1529855
Pace Project No.: 30166470

Method: **ASTM D5811-95**
Description: ASTM D5811 Sr 89/90 Eichrom
Client: BC Laboratories
Date: December 10, 2015

General Information:
2 samples were analyzed for ASTM D5811-95. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: RADC/27081

N2: The lab does not hold TNI accreditation for this parameter.

- 1529855-01 (Lab ID: 30166470001)
  - Strontium-90
- 1529855-03 (Lab ID: 30166470002)
  - Strontium-90
- BLANK (Lab ID: 991478)
  - Strontium-90

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 1529855
Pace Project No.: 30166470

Method: EPA 906.0
Description: 906.0 Tritium
Client: BC Laboratories
Date: December 10, 2015

General Information:
2 samples were analyzed for EPA 906.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 1529855
Pace Project No.: 30166470

Sample: 1529855-01 **Lab ID: 30166470001** Collected: 11/20/15 09:25 Received: 11/30/15 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, 18 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis.
• Sample Acceptance Policy Waiver on file from the client.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0	**44.2 ± 76.6 (143)** **C:NA T:NA**	pCi/L	12/09/15 07:33	12587-46-1	
Gross Beta	EPA 900.0	**74.6 ± 81.1 (146)** **C:NA T:NA**	pCi/L	12/09/15 07:33	12587-47-2	
Radium-226	EPA 903.1	**-2.177 ± 10.7 (17.1)** **C:NA T:90%**	pCi/L	12/08/15 12:47	13982-63-3	
Radium-228	EPA 904.0	**17.9 ± 11.3 (21.2)** **C:84% T:81%**	pCi/L	12/07/15 11:47	15262-20-1	
Strontium-90	ASTM D5811-95	**-2.30 ± 1.48 (2.88)** **C:85% T:NA**	pCi/L	12/04/15 08:41	10098-97-2	N2
Tritium	EPA 906.0	**101 ± 144 (242)** **C:NA T:NA**	pCi/L	12/05/15 10:24	10028-17-8	

Sample: 1529855-03 **Lab ID: 30166470002** Collected: 11/20/15 10:05 Received: 11/30/15 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, 18 mls of nitric acid were added to the sample to meet the sample preservation requirement of pH <2 for radiochemistry analysis.
• Sample Acceptance Policy Waiver on file from the client.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0	**122 ± 95.0 (161)** **C:NA T:NA**	pCi/L	12/09/15 07:33	12587-46-1	
Gross Beta	EPA 900.0	**48.1 ± 67.4 (122)** **C:NA T:NA**	pCi/L	12/09/15 07:33	12587-47-2	
Radium-226	EPA 903.1	**55.3 ± 14.7 (10.8)** **C:NA T:94%**	pCi/L	12/08/15 13:06	13982-63-3	
Radium-228	EPA 904.0	**67.6 ± 18.7 (20.5)** **C:83% T:81%**	pCi/L	12/07/15 11:48	15262-20-1	
Strontium-90	ASTM D5811-95	**-2.14 ± 1.29 (2.53)** **C:97% T:NA**	pCi/L	12/04/15 08:41	10098-97-2	N2
Tritium	EPA 906.0	**72.2 ± 142 (243)** **C:NA T:NA**	pCi/L	12/05/15 11:25	10028-17-8	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 1529855
Pace Project No.: 30166470

QC Batch: RADC/27079 Analysis Method: EPA 906.0
QC Batch Method: EPA 906.0 Analysis Description: 906.0 Tritium
Associated Lab Samples: 30166470001, 30166470002

METHOD BLANK: 991476 Matrix: Water
Associated Lab Samples: 30166470001, 30166470002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Tritium	-34.6 ± 134 (242) C:NA T:NA	pCi/L	12/05/15 01:13	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 1529855
Pace Project No.: 30166470

QC Batch: RADC/27069 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 30166470001, 30166470002

METHOD BLANK: 991466 Matrix: Water
Associated Lab Samples: 30166470001, 30166470002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.506 ± 0.353 (0.677) C:83% T:79%	pCi/L	12/07/15 11:44	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 1529855
Pace Project No.: 30166470

QC Batch: RADC/27081 Analysis Method: ASTM D5811-95
QC Batch Method: ASTM D5811-95 Analysis Description: ASTM D5811 Sr 89/90 Eichrom
Associated Lab Samples: 30166470001, 30166470002

METHOD BLANK: 991478 Matrix: Water
Associated Lab Samples: 30166470001, 30166470002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Strontium-90	0.00900 ± 0.366 (0.857) C:98% T:NA	pCi/L	12/04/15 08:34	N2

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 1529855
Pace Project No.: 30166470

QC Batch: RADC/27125 Analysis Method: EPA 900.0
QC Batch Method: EPA 900.0 Analysis Description: 900.0 Gross Alpha/Beta
Associated Lab Samples: 30166470001, 30166470002

METHOD BLANK: 993251 Matrix: Water
Associated Lab Samples: 30166470001, 30166470002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	0.081 ± 0.281 (0.652) C:NA T:NA	pCi/L	12/08/15 21:57	
Gross Beta	0.912 ± 0.539 (0.987) C:NA T:NA	pCi/L	12/08/15 21:57	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL - RADIOCHEMISTRY

Project: 1529855
Pace Project No.: 30166470

QC Batch: RADC/27037 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 30166470001, 30166470002

METHOD BLANK: 990408 Matrix: Water
Associated Lab Samples: 30166470001, 30166470002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.455 ± 0.386 (0.479) C:NA T:93%	pCi/L	12/08/15 12:35	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: 1529855
Pace Project No.: 30166470

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Act - Activity
Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)
(MDC) - Minimum Detectable Concentration
Trac - Tracer Recovery (%)
Carr - Carrier Recovery (%)
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

ANALYTE QUALIFIERS

N2 The lab does not hold TNI accreditation for this parameter.

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SUBCONTRACT ORDER
BC Laboratories
1529855

SENDING LABORATORY:
BC Laboratories
4100 Atlas Court
Bakersfield, CA 93308
Phone: 661-327-4911
FAX: 661-327-1918
Project Manager: Kerrie Vaughan

RECEIVING LABORATORY: PACEA
PACE Analytical
1638 Roseytown Road, Ste 2,3 &4
Greensburg, PA 15601
Phone: (724) 850-5600
FAX: (724) 850-5601

30166470

Analysis	Due	Expires	Comments
Sample ID: 1529855-01 Water	**Sampled:**	**11/20/15 09:25**	001
EPA 900.0 Gross Alpha/Beta	12/08/15 17:00	05/19/16 09:25	Analyze water phase only. Results needed by 12/8/2015.
EPA 903.0 Radium 226	12/08/15 17:00	05/19/16 09:25	Analyze water phase only. Results needed by 12/8/2015.
EPA 904.0 Radium 228	12/08/15 17:00	05/19/16 09:25	Analyze water phase only. Results needed by 12/8/2015.
EPA 905.0 Strontium-90	12/08/15 17:00	05/19/16 09:25	Analyze water phase only. Results needed by 12/8/2015.
EPA 906.0 Tritium	12/08/15 17:00	05/19/16 09:25	Analyze water phase only. Results needed by 12/8/2015.
Containers supplied: I, J, K, E			
Sample ID: 1529855-03 Water	**Sampled:**	**11/20/15 10:05**	002
EPA 900.0 Gross Alpha/Beta	12/08/15 17:00	05/19/16 10:05	Analyze water phase only. Results needed by 12/8/2015.
EPA 903.0 Radium 226	12/08/15 17:00	05/19/16 10:05	Analyze water phase only. Results needed by 12/8/2015.
EPA 904.0 Radium 228	12/08/15 17:00	05/19/16 10:05	Analyze water phase only. Results needed by 12/8/2015.
EPA 905.0 Strontium-90	12/08/15 17:00	05/19/16 10:05	Analyze water phase only. Results needed by 12/8/2015.
EPA 906.0 Tritium	12/08/15 17:00	05/19/16 10:05	Analyze water phase only. Results needed by 12/8/2015.
Containers supplied: I, J, K, E			

Released By	Date	Received By	Date
		R Bg Pace	11/20/15 0935
Released By	Date	Received By	Date

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PACEA

Page 1 of 1

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RTB

Sample Condition Upon Receipt

Pace Analytical

Client Name: BC

Project # 30166470

Courier: ☐ Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 1Z 965 376 03 6354 0517 1Z 965 376 03 0226 1928

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals Intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap X Bubble Bags ___ None ___ Other Ziplocs

Thermometer Used N/A Type of Ice: Wet Blue (None) ☐ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: N/A °C Correction Factor: N/A °C Final Temp: N/A °C

Date and initials of person examining contents: 11/30/15 RTB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	RTB 11/30/15 ☒Yes ☒No ☐N/A	3.
Sampler Name & Signature on COC:	☐Yes ☒No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☒No ☐N/A	5. Radons RTB 11/30/15
Short Hold Time Analysis (<72hr):	☒Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☒Yes ☐No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☐Yes ☒No ☐N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: WT	☒Yes ☐No ☐N/A	12.
All containers needing preservation have been checked.	☒Yes ☐No ☐N/A	13. Added 18.0 mL to samples requiring preservation. RTB 11/30/15 1300
All containers needing preservation are found to be in compliance with EPA recommendation. exceptions: VOA, coliform, TOC, O&G, Phenole	☐Yes ☒No ☐N/A RTB 11/30/15 ☒Yes ☒No	Initial when completed 11/30/15 RTB Lot # of added preservative DL15-1099
Samples checked for dechlorination:	☐Yes ☐No ☒N/A	14.
Headspace in VOA Vials (>6mm):	RTB 11/30/15 ☐Yes ☐No ☒N/A	15.
Trip Blank Present:	☐Yes ☐No ☒N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☒N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: ___ Date/Time: ___

Comments/ Resolution: ___

Project Manager Review: [signature] Date: 11/30/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

J:\QAQC\Master\Document Management\Sample Mgt\SCURF\FALLC003-09 SCUR Front 3Mar2015 Page 18 of 19

Pace Analytical

page 2

Project Number: 30166470
Client Name: BC

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil Kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other	Other
001	WT	1																							
002																			3						

SCURF Back (C016-4 15May2012).xls

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:35 Project: DOGGR Injection - Formation Water Project Number: HAT204 Pond Sampling Project Manager: Kelsey Padilla

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
A01	Detection and quantitation limits are raised due to sample dilution.
A02	The difference between duplicate readings is less than the quantitation limit.
A03	The sample concentration is more than 4 times the spike level.
A07	Detection and quantitation limits were raised due to sample dilution caused by high analyte concentration or matrix interference.
A55	Chromatogram not typical of crude oil.
Q03	Matrix spike recovery(s) is(are) not within the control limits.
Z1	50uL of antifoamer added to sample VOA.

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BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 12/11/2015

Kelsey Padilla

Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Client Project:	HAT 204, Hathaway Ponds
BCL Project:	DOGGR Injection - Formation Water
BCL Work Order:	1529656
Invoice ID:	B221133

Enclosed are the results of analyses for samples received by the laboratory on 11/19/2015. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kerrie S. Vaughan

Contact Person: Kerrie Vaughan
Client Services

Authorized Signature

Certifications: CA ELAP #1186; NV #CA00014; OR ELAP #4032-001; AK UST101

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BC Laboratories, Inc.

Chain of Custody Form

Page ____ of ____

Report To:
Client: EnviroTech Consultants
Attn: Kelsey Padilla
Street Address: 5400 Rosedale Hwy
City, State, Zip: Bakersfield, CA 93307
Phone: (661) 377-0077 ext 20 Fax:
Email Address: kpadilla@envirotechteam.com
Work Order #: HAT204

Project #: HAT204
Project Name: Hathaway Ponds
Sampler(s): K. Padilla / G. Brierley
15-29656

Analysis Requested

Please refer to the back of this page for complete analytical methods and reporting limits

Sample #	Description	Date Sampled	Time Sampled	TDS	Title 22 metals (major/minor cations/anions)	BTEX	TPH as crude oil	PAHs	Radionuclides	Alkalinity/Carbonate	Nitrate/Bromide	trace metals	Sample Matrix: Soil	Sludge	Drinking Water	Ground Water	Waste Water	Other	Turnaround # of work days*	Notes
-1	Davies	11/19/15	0850	X	X	X	X	X	X	X	X	X					X		10	16 bottles total

Comments: See Attachment for analysis (sent in prior email to Kernic Vaughn)

Are there any tests with holding times less than or equal to 48 hours? ☐ Yes ☒ No

* Standard Turnaround = 10 work days

SUB-OUT
DISTRIBUTION
CHKBX
11/19/15

SHORT HOLDING TIME
Cr^{+6} NO_2 NO_3 OP SS
DO Cl_2 BOD MBAS COT

Billing ☒ Same as above
Client:
Address:
City: State Zip
Attn:
PO#:

EDF Required? Geotracker ☐ Yes ☐ No
Send Copy to State of CA? (EDT) ☐ Yes ☐ No

Global ID (Needed for EDF)

System # (Needed for EDT)

Relinquished By	Date	Time	Received By	Date	Time
1. [signature]	11/19/15	1200	1. [signature]	11-19-15	12:00
2.			2.		
3.			3.		

BC Laboratories, Inc. – 4100 Atlas Ct. – Bakersfield, CA 93308 – 661.327.4911 – Fax: 661.327.1918 – www.bclabs.com

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BC LABORATORIES INC. COOLER RECEIPT FORM Page 1 Of 1

Submission #: 15-29656

SHIPPING INFORMATION
Fed Ex ☐ UPS ☐ Ontrac ☐ Hand Delivery ☒
BC Lab Field Service ☐ Other ☐ (Specify)

SHIPPING CONTAINER
Ice Chest ☒ None ☐ Box ☐
Other ☐ (Specify)

FREE LIQUID
YES ☐ NO ☐

Refrigerant: Ice ☒ Blue Ice ☐ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☒ Comments:

All samples received? Yes ☒ No ☐ All samples containers intact? Yes ☒ No ☐ Description(s) match COC? Yes ☒ No ☐

COC Received ☒ YES ☐ NO

Emissivity: 0.97 Container: DT PE Thermometer ID: 208 Date/Time 11-19-15 12:00
Temperature: (A) 6.3 °C / (C) 5.8 °C Analyst Init JD

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT PE UNPRES X48	G H									
4oz / 8oz / 16oz PE UNPRES										
2oz Cr+6 106	O JS 11-19									
QT INORGANIC CHEMICAL METALS M08	J K RL									
INORGANIC CHEMICAL METALS 4oz / 8oz / 16oz	I									
PT CYANIDE M04										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS	Cancelled									
40ml VOA VIAL TRAVEL BLANK JS 11-19 ~~0982~~	D E	A	094							
40ml VOA VIAL 096	ABC									
QT EPA 1664										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL ~~504~~ UMBC	D.E									
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz EPA 548										
QT EPA 549										
QT EPA 8015M 060	n									
QT EPA 8270 080	m									
8oz / 16oz / 32oz AMBER										
8oz / 16oz / 32oz JAR X14	F									
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
TEDLAR BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
SUMMA CANISTER										

Comments:
Sample Numbering Completed By: JS Date/Time: 11-19-15 1325 Rev 20 07/24/2015
A = Actual / C = Corrected [S:\WPDoc\WordPerfect\LAB_DOCS\FORMS\SAMREC rev 20]

15-2965L

Notice To Operators
Water Sampling Protocols and Analyses of Injection and Formation Waters
May 18, 2015, Amended June 8, 2015
Page 4

Placing any required labels on the cooler, including the bill of lading with addresses and contact phone numbers).

Refer to the transporter's and laboratory's requirements for shipping liquid sample containers.

Analytical Methods

All injection wells and injection waters must conform to criteria for Class II well operations under the U.S. Safe Drinking Water Act. In order to conform to criteria under the U.S. Safe Drinking Water Act, the Division as well as the State Water Board requires that the water be sampled under strict quality assurance/quality control (QA/QC) sampling procedures and the samples be analyzed by a laboratory that is certified by the California Department of Public Health environmental laboratory accreditation program (ELAP), under proper chain-of-custody protocol, for the following analyses:

Analyses	EPA Method	Holding Time	Preservative	Sample Container
TDS	160.1	7 days	≤6°C	One liter plastic
CCR Title 22 Metals, Major and Minor Cations, and Trace Metals*	200.7/200.8	180 days	HNO_3	500 ml plastic
BTEX	8021	14 days	≤6°C, HCL, No HS	Three-40 ml VOA-glass vials
TPH for Crude Oil	8015(M) C_{10}-C_{44}	7 days	≤6°C	One liter amber glass
PAHs**	8310	7 days	≤6°C	One liter amber glass
Methane	RSK-175(M)	14 days	≤6°C, No HS	Two-40 ml VOA-glass vials
Radionuclides***	900.0 series	180 days	Varied #	Varied #
Alkalinity	310.2	14 days	≤6°C	500 ml plastic
Chloride	300	28 days	≤6°C	500 ml plastic
Nitrate	353.2	48 hours	≤6°C	500 ml plastic
Sulfate	300	28 days	≤6°C	500 ml plastic
Bromide	300	28 days	≤6°C	500 ml plastic

* Add Travel Blank

BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes
M = Modified
HCL = Hydrochloric Acid dilution (prepared and provided by laboratory)
HS = Head Space
ml = milliliter
PAH = Polynuclear Aromatic Hydrocarbons
TDS = Total Dissolved Solids
TPH = Total Petroleum Hydrocarbons
VOA = Volatile Organic Analysis
#confirm preservative and container requirements with laboratory conducting the analysis

Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:34 Project: DOGGR Injection - Formation Water Project Number: HAT 204, Hathaway Ponds Project Manager: Kelsey Padilla

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1529656-01	**COC Number:**	---	**Receive Date:**	11/19/2015 12:00
	Project Number:	---	**Sampling Date:**	11/19/2015 08:50
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Davies	**Lab Matrix:**	Water
	Sampled By:	K.Padilla/G.Brierley	**Sample Type:**	Wastewater
1529656-02	**COC Number:**	---	**Receive Date:**	11/19/2015 12:00
	Project Number:	---	**Sampling Date:**	11/19/2015 00:00
	Sampling Location:	---	**Sample Depth:**	---
	Sampling Point:	Davies Travel Blank	**Lab Matrix:**	Water
	Sampled By:	---	**Sample Type:**	Trip Blank

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1529656-01 | **Client Sample Name:** Davies, 11/19/2015 8:50:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	94.9	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	101	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	11/23/15	11/23/15 18:16	SE1	MS-V10	1	BYK2007

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

BCL Sample ID: 1529656-01 | **Client Sample Name:** Davies, 11/19/2015 8:50:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Acenaphthene	ND	ug/L	0.10	0.034	EPA-8270C-SIM	ND		1
Acenaphthylene	ND	ug/L	0.10	0.034	EPA-8270C-SIM	ND		1
Anthracene	ND	ug/L	0.10	0.031	EPA-8270C-SIM	ND		1
Benzo[a]anthracene	ND	ug/L	0.10	0.029	EPA-8270C-SIM	ND		1
Benzo[b]fluoranthene	ND	ug/L	0.10	0.037	EPA-8270C-SIM	ND		1
Benzo[k]fluoranthene	ND	ug/L	0.10	0.035	EPA-8270C-SIM	ND		1
Benzo[a]pyrene	ND	ug/L	0.10	0.034	EPA-8270C-SIM	ND		1
Benzo[g,h,i]perylene	ND	ug/L	0.10	0.035	EPA-8270C-SIM	ND		1
Chrysene	ND	ug/L	0.10	0.028	EPA-8270C-SIM	ND		1
Dibenzo[a,h]anthracene	ND	ug/L	0.10	0.053	EPA-8270C-SIM	ND		1
Fluoranthene	ND	ug/L	0.10	0.026	EPA-8270C-SIM	ND		1
Fluorene	ND	ug/L	0.10	0.029	EPA-8270C-SIM	ND		1
Indeno[1,2,3-cd]pyrene	ND	ug/L	0.10	0.035	EPA-8270C-SIM	ND		1
Naphthalene	ND	ug/L	0.10	0.040	EPA-8270C-SIM	ND		1
Phenanthrene	ND	ug/L	0.10	0.030	EPA-8270C-SIM	ND		1
Pyrene	ND	ug/L	0.10	0.041	EPA-8270C-SIM	ND		1
Nitrobenzene-d5 (Surrogate)	94.3	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM			1
2-Fluorobiphenyl (Surrogate)	77.5	%	50 - 120 (LCL - UCL)		EPA-8270C-SIM			1
p-Terphenyl-d14 (Surrogate)	82.3	%	40 - 130 (LCL - UCL)		EPA-8270C-SIM			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8270C-SIM	11/23/15	11/30/15 12:58	MK1	MS-B7	0.960	BYK2379

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:34 Project: DOGGR Injection - Formation Water Project Number: HAT 204, Hathaway Ponds Project Manager: Kelsey Padilla

Total Petroleum Hydrocarbons

BCL Sample ID: 1529656-01 | **Client Sample Name:** Davies, 11/19/2015 8:50:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
TPH - Crude Oil	**2000**	**ug/L**	**500**	**140**	**EPA-8015B/FFP**	ND		1
Tetracosane (Surrogate)	73.3	%	37 - 134 (LCL - UCL)		EPA-8015B/FFP			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8015B/FFP	11/20/15	11/25/15 12:32	MWB	GC-13	1	BYK2095

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:34 Project: DOGGR Injection - Formation Water Project Number: HAT 204, Hathaway Ponds Project Manager: Kelsey Padilla

Gas Testing in Water

BCL Sample ID: 1529656-01 | **Client Sample Name:** Davies, 11/19/2015 8:50:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Methane	ND	mg/L	0.0010	0.00028	RSK-175M	ND		1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	RSK-175M	12/02/15	12/02/15 10:37	JH2	GC-V1	1	BYL0151

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Water Analysis (General Chemistry)

BCL Sample ID: 1529656-01 | **Client Sample Name:** Davies, 11/19/2015 8:50:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MCL	Lab Quals	Run #
Total Recoverable Calcium	**7.0**	**mg/L**	**0.10**	**0.014**	**EPA-200.7**			1
Total Recoverable Magnesium	**0.33**	**mg/L**	**0.050**	**0.019**	**EPA-200.7**	50		1
Total Recoverable Sodium	**56**	**mg/L**	**0.50**	**0.051**	**EPA-200.7**			1
Total Recoverable Potassium	**0.38**	**mg/L**	**1.0**	**0.10**	**EPA-200.7**		**J**	1
Bicarbonate	**88**	**mg/L**	**5.0**	**5.0**	**SM-2320B**			2
Carbonate	ND	mg/L	2.5	2.5	SM-2320B			2
Hydroxide	ND	mg/L	1.4	1.4	SM-2320B			2
Bromide	**0.13**	**mg/L**	**0.10**	**0.035**	**EPA-300.0**			3
Chloride	**27**	**mg/L**	**0.50**	**0.061**	**EPA-300.0**	600		3
Nitrate as NO3	**0.73**	**mg/L**	**0.44**	**0.078**	**EPA-300.0**	45		3
Sulfate	**37**	**mg/L**	**1.0**	**0.10**	**EPA-300.0**	500		3
Total Alkalinity	**43**	**Reacting %**	**0**	**0**	**Calc**			4
Total Dissolved Solids @ 180 C	**190**	**mg/L**	**20**	**20**	**SM-2540C**	1500		5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-200.7	11/23/15	11/23/15 18:21	JRG	PE-OP2	1	BYK2108
2	SM-2320B	11/30/15	11/30/15 14:59	RML	MET-1	1	BYK2595
3	EPA-300.0	11/20/15	11/21/15 06:06	OLH	IC8	1	BYK2033
4	Calc	11/19/15	12/02/15 10:19	MSA	Calc	1	BYK1867
5	SM-2540C	11/22/15	11/22/15 12:00	CAD	MANUAL	2	BYK2051

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:34 Project: DOGGR Injection - Formation Water Project Number: HAT 204, Hathaway Ponds Project Manager: Kelsey Padilla

Metals Analysis

BCL Sample ID: 1529656-01 | **Client Sample Name:** Davies, 11/19/2015 8:50:00AM, K.Padilla/G.Brierley

Constituent	Result	Units	PQL	MDL	Method	MCL	Lab Quals	Run #
Hexavalent Chromium	ND	ug/L	0.20	0.055	EPA-218.6	10		1
Total Recoverable Aluminum	**0.061**	**mg/L**	**0.050**	**0.026**	**EPA-200.7**	1		2
Total Recoverable Antimony	**0.21**	**ug/L**	**2.0**	**0.11**	**EPA-200.8**	6	J	3
Total Recoverable Arsenic	**1.1**	**ug/L**	**2.0**	**0.70**	**EPA-200.8**	10	J	4
Total Recoverable Barium	**64**	**ug/L**	**1.0**	**0.21**	**EPA-200.8**			4
Total Recoverable Beryllium	ND	ug/L	1.0	0.14	EPA-200.8	4		4
Total Recoverable Boron	**0.048**	**mg/L**	**0.10**	**0.010**	**EPA-200.7**		J	2
Total Recoverable Cadmium	**0.23**	**ug/L**	**1.0**	**0.11**	**EPA-200.8**	5	J	5
Total Recoverable Chromium	**8.4**	**ug/L**	**3.0**	**0.50**	**EPA-200.8**			4
Total Recoverable Cobalt	**0.10**	**ug/L**	**1.0**	**0.10**	**EPA-200.8**		J	4
Total Recoverable Copper	**320**	**ug/L**	**2.0**	**0.22**	**EPA-200.8**	1000		4
Total Recoverable Iron	**0.069**	**mg/L**	**0.050**	**0.030**	**EPA-200.7**	0.3		2
Total Recoverable Lead	**13**	**ug/L**	**1.0**	**0.10**	**EPA-200.8**			5
Total Recoverable Lithium	ND	mg/L	0.020	0.0066	EPA-200.7			2
Total Recoverable Manganese	ND	mg/L	0.010	0.0040	EPA-200.7	0.05		2
Total Recoverable Mercury	ND	ug/L	0.20	0.033	EPA-245.1	2		6
Total Recoverable Molybdenum	**1.7**	**ug/L**	**1.0**	**0.11**	**EPA-200.8**			4
Total Recoverable Nickel	**3.0**	**ug/L**	**2.0**	**0.19**	**EPA-200.8**			4
Total Recoverable Selenium	**3.2**	**ug/L**	**2.0**	**0.19**	**EPA-200.8**	50		4
Total Recoverable Silver	ND	ug/L	1.0	0.10	EPA-200.8			4
Total Recoverable Strontium	**0.063**	**mg/L**	**0.010**	**0.0010**	**EPA-200.7**			2
Total Recoverable Uranium	**1.1**	**pCi/L**	**0.67**	**0.067**	**EPA-200.8**	20		5
Total Recoverable Thallium	ND	ug/L	1.0	0.10	EPA-200.8	2		5
Total Recoverable Vanadium	**3.6**	**ug/L**	**3.0**	**0.78**	**EPA-200.8**			4
Total Recoverable Zinc	**610**	**ug/L**	**10**	**1.7**	**EPA-200.8**			5

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-218.6	11/21/15	11/21/15 04:29	OLH	IC-4	1	BYK2030
2	EPA-200.7	11/23/15	11/23/15 18:21	JRG	PE-OP2	1	BYK2108
3	EPA-200.8	11/24/15	12/05/15 17:09	GPD	PE-EL2	1	BYK2214
4	EPA-200.8	11/24/15	12/01/15 04:01	GPD	PE-EL3	1	BYK2214
5	EPA-200.8	11/24/15	12/05/15 01:24	GPD	PE-EL2	1	BYK2214
6	EPA-245.1	11/24/15	11/24/15 14:46	MEV	CETAC1	1	BYK2198

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Volatile Organic Analysis (EPA Method 8260B)

BCL Sample ID: 1529656-02 | **Client Sample Name:** Davies Travel Blank, 11/19/2015 12:00:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Benzene	ND	ug/L	0.50	0.083	EPA-8260B	ND		1
Ethylbenzene	ND	ug/L	0.50	0.098	EPA-8260B	ND		1
Toluene	ND	ug/L	0.50	0.093	EPA-8260B	ND		1
Total Xylenes	ND	ug/L	1.0	0.36	EPA-8260B	ND		1
p- & m-Xylenes	ND	ug/L	0.50	0.28	EPA-8260B	ND		1
o-Xylene	ND	ug/L	0.50	0.082	EPA-8260B	ND		1
1,2-Dichloroethane-d4 (Surrogate)	95.0	%	75 - 125 (LCL - UCL)		EPA-8260B			1
Toluene-d8 (Surrogate)	99.6	%	80 - 120 (LCL - UCL)		EPA-8260B			1
4-Bromofluorobenzene (Surrogate)	100	%	80 - 120 (LCL - UCL)		EPA-8260B			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8260B	11/25/15	11/25/15 11:13	SE1	MS-V10	1	BYK2255

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYK2007						
Benzene	BYK2007-BLK1	ND	ug/L	0.50	0.083	
Ethylbenzene	BYK2007-BLK1	ND	ug/L	0.50	0.098	
Toluene	BYK2007-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BYK2007-BLK1	ND	ug/L	1.0	0.36	
p- & m-Xylenes	BYK2007-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BYK2007-BLK1	ND	ug/L	0.50	0.082	
1,2-Dichloroethane-d4 (Surrogate)	**BYK2007-BLK1**	**94.3**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BYK2007-BLK1**	**99.1**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BYK2007-BLK1**	**107**	%	**80 - 120 (LCL - UCL)**		
QC Batch ID: BYK2255						
Benzene	BYK2255-BLK1	ND	ug/L	0.50	0.083	
Ethylbenzene	BYK2255-BLK1	ND	ug/L	0.50	0.098	
Toluene	BYK2255-BLK1	ND	ug/L	0.50	0.093	
Total Xylenes	BYK2255-BLK1	ND	ug/L	1.0	0.36	
p- & m-Xylenes	BYK2255-BLK1	ND	ug/L	0.50	0.28	
o-Xylene	BYK2255-BLK1	ND	ug/L	0.50	0.082	
1,2-Dichloroethane-d4 (Surrogate)	**BYK2255-BLK1**	**93.7**	%	**75 - 125 (LCL - UCL)**		
Toluene-d8 (Surrogate)	**BYK2255-BLK1**	**101**	%	**80 - 120 (LCL - UCL)**		
4-Bromofluorobenzene (Surrogate)	**BYK2255-BLK1**	**107**	%	**80 - 120 (LCL - UCL)**		

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BYK2007										
Benzene	BYK2007-BS1	LCS	27.980	25.000	ug/L	112		70 - 130		
Toluene	BYK2007-BS1	LCS	30.390	25.000	ug/L	122		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BYK2007-BS1	LCS	9.1600	10.000	ug/L	91.6		75 - 125		
Toluene-d8 (Surrogate)	BYK2007-BS1	LCS	10.160	10.000	ug/L	102		80 - 120		
4-Bromofluorobenzene (Surrogate)	BYK2007-BS1	LCS	10.040	10.000	ug/L	100		80 - 120		
QC Batch ID: BYK2255										
Benzene	BYK2255-BS1	LCS	25.510	25.000	ug/L	102		70 - 130		
Toluene	BYK2255-BS1	LCS	27.100	25.000	ug/L	108		70 - 130		
1,2-Dichloroethane-d4 (Surrogate)	BYK2255-BS1	LCS	9.4100	10.000	ug/L	94.1		75 - 125		
Toluene-d8 (Surrogate)	BYK2255-BS1	LCS	10.170	10.000	ug/L	102		80 - 120		
4-Bromofluorobenzene (Surrogate)	BYK2255-BS1	LCS	9.8000	10.000	ug/L	98.0		80 - 120		

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Volatile Organic Analysis (EPA Method 8260B)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2007	Used client sample: N										
Benzene	MS	1528561-42	ND	27.450	25.000	ug/L		110		70 - 130	
	MSD	1528561-42	ND	28.500	25.000	ug/L	3.8	114	20	70 - 130	
Toluene	MS	1528561-42	ND	29.790	25.000	ug/L		119		70 - 130	
	MSD	1528561-42	ND	30.850	25.000	ug/L	3.5	123	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1528561-42	ND	9.3300	10.000	ug/L		93.3		75 - 125	
	MSD	1528561-42	ND	9.4800	10.000	ug/L	1.6	94.8		75 - 125	
Toluene-d8 (Surrogate)	MS	1528561-42	ND	9.9200	10.000	ug/L		99.2		80 - 120	
	MSD	1528561-42	ND	10.170	10.000	ug/L	2.5	102		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1528561-42	ND	9.8700	10.000	ug/L		98.7		80 - 120	
	MSD	1528561-42	ND	10.050	10.000	ug/L	1.8	100		80 - 120	
QC Batch ID: BYK2255	Used client sample: N										
Benzene	MS	1528561-51	ND	27.430	25.000	ug/L		110		70 - 130	
	MSD	1528561-51	ND	27.560	25.000	ug/L	0.5	110	20	70 - 130	
Toluene	MS	1528561-51	ND	29.930	25.000	ug/L		120		70 - 130	
	MSD	1528561-51	ND	30.010	25.000	ug/L	0.3	120	20	70 - 130	
1,2-Dichloroethane-d4 (Surrogate)	MS	1528561-51	ND	9.5100	10.000	ug/L		95.1		75 - 125	
	MSD	1528561-51	ND	9.4200	10.000	ug/L	1.0	94.2		75 - 125	
Toluene-d8 (Surrogate)	MS	1528561-51	ND	10.230	10.000	ug/L		102		80 - 120	
	MSD	1528561-51	ND	10.210	10.000	ug/L	0.2	102		80 - 120	
4-Bromofluorobenzene (Surrogate)	MS	1528561-51	ND	9.9800	10.000	ug/L		99.8		80 - 120	
	MSD	1528561-51	ND	9.8200	10.000	ug/L	1.6	98.2		80 - 120	

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:34 Project: DOGGR Injection - Formation Water Project Number: HAT 204, Hathaway Ponds Project Manager: Kelsey Padilla

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYK2379						
Acenaphthene	BYK2379-BLK1	ND	ug/L	0.10	0.034	
Acenaphthylene	BYK2379-BLK1	ND	ug/L	0.10	0.034	
Anthracene	BYK2379-BLK1	ND	ug/L	0.10	0.031	
Benzo[a]anthracene	BYK2379-BLK1	ND	ug/L	0.10	0.029	
Benzo[b]fluoranthene	BYK2379-BLK1	ND	ug/L	0.10	0.037	
Benzo[k]fluoranthene	BYK2379-BLK1	ND	ug/L	0.10	0.035	
Benzo[a]pyrene	BYK2379-BLK1	ND	ug/L	0.10	0.034	
Benzo[g,h,i]perylene	BYK2379-BLK1	ND	ug/L	0.10	0.035	
Chrysene	BYK2379-BLK1	ND	ug/L	0.10	0.028	
Dibenzo[a,h]anthracene	BYK2379-BLK1	ND	ug/L	0.10	0.053	
Fluoranthene	BYK2379-BLK1	ND	ug/L	0.10	0.026	
Fluorene	BYK2379-BLK1	ND	ug/L	0.10	0.029	
Indeno[1,2,3-cd]pyrene	BYK2379-BLK1	ND	ug/L	0.10	0.035	
Naphthalene	BYK2379-BLK1	ND	ug/L	0.10	0.040	
Phenanthrene	BYK2379-BLK1	ND	ug/L	0.10	0.030	
Pyrene	BYK2379-BLK1	ND	ug/L	0.10	0.041	
Nitrobenzene-d5 (Surrogate)	**BYK2379-BLK1**	**102**	%	**40 - 130 (LCL - UCL)**		
2-Fluorobiphenyl (Surrogate)	**BYK2379-BLK1**	**85.2**	%	**50 - 120 (LCL - UCL)**		
p-Terphenyl-d14 (Surrogate)	**BYK2379-BLK1**	**112**	%	**40 - 130 (LCL - UCL)**		

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BYK2379										
Acenaphthene	BYK2379-BS1	LCS	0.86130	1.0000	ug/L	86.1		60 - 110		
Acenaphthylene	BYK2379-BS1	LCS	0.91080	1.0000	ug/L	91.1		60 - 120		
Anthracene	BYK2379-BS1	LCS	1.0098	1.0000	ug/L	101		60 - 130		
Benzo[a]anthracene	BYK2379-BS1	LCS	0.97020	1.0000	ug/L	97.0		60 - 130		
Benzo[b]fluoranthene	BYK2379-BS1	LCS	0.83160	1.0000	ug/L	83.2		50 - 130		
Benzo[k]fluoranthene	BYK2379-BS1	LCS	0.85140	1.0000	ug/L	85.1		60 - 120		
Benzo[a]pyrene	BYK2379-BS1	LCS	0.93060	1.0000	ug/L	93.1		60 - 120		
Benzo[g,h,i]perylene	BYK2379-BS1	LCS	0.63360	1.0000	ug/L	63.4		40 - 120		
Chrysene	BYK2379-BS1	LCS	0.65340	1.0000	ug/L	65.3		60 - 110		
Dibenzo[a,h]anthracene	BYK2379-BS1	LCS	0.68310	1.0000	ug/L	68.3		40 - 120		
Fluoranthene	BYK2379-BS1	LCS	0.97020	1.0000	ug/L	97.0		60 - 120		
Fluorene	BYK2379-BS1	LCS	0.92070	1.0000	ug/L	92.1		60 - 120		
Indeno[1,2,3-cd]pyrene	BYK2379-BS1	LCS	0.72270	1.0000	ug/L	72.3		40 - 130		
Naphthalene	BYK2379-BS1	LCS	0.85140	1.0000	ug/L	85.1		60 - 110		
Phenanthrene	BYK2379-BS1	LCS	0.89100	1.0000	ug/L	89.1		60 - 120		
Pyrene	BYK2379-BS1	LCS	0.99000	1.0000	ug/L	99.0		50 - 125		
Nitrobenzene-d5 (Surrogate)	BYK2379-BS1	LCS	3.9699	4.0000	ug/L	99.2		40 - 130		
2-Fluorobiphenyl (Surrogate)	BYK2379-BS1	LCS	3.3165	4.0000	ug/L	82.9		50 - 120		
p-Terphenyl-d14 (Surrogate)	BYK2379-BS1	LCS	3.5244	4.0000	ug/L	88.1		40 - 130		

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2379	Used client sample: N										
Acenaphthene	MS	1528561-50	ND	0.77000	1.0000	ug/L		77.0		60 - 110	
	MSD	1528561-50	ND	0.86330	1.0000	ug/L	11.4	86.3	30	60 - 110	
Acenaphthylene	MS	1528561-50	ND	0.83000	1.0000	ug/L		83.0		60 - 120	
	MSD	1528561-50	ND	0.92150	1.0000	ug/L	10.4	92.2	30	60 - 120	
Anthracene	MS	1528561-50	ND	0.95000	1.0000	ug/L		95.0		60 - 130	
	MSD	1528561-50	ND	0.99910	1.0000	ug/L	5.0	99.9	30	60 - 130	
Benzo[a]anthracene	MS	1528561-50	ND	0.89000	1.0000	ug/L		89.0		60 - 120	
	MSD	1528561-50	ND	0.90210	1.0000	ug/L	1.4	90.2	30	60 - 120	
Benzo[b]fluoranthene	MS	1528561-50	ND	0.74000	1.0000	ug/L		74.0		50 - 130	
	MSD	1528561-50	ND	0.76630	1.0000	ug/L	3.5	76.6	30	50 - 130	
Benzo[k]fluoranthene	MS	1528561-50	ND	0.81000	1.0000	ug/L		81.0		60 - 120	
	MSD	1528561-50	ND	0.82450	1.0000	ug/L	1.8	82.4	30	60 - 120	
Benzo[a]pyrene	MS	1528561-50	ND	0.87000	1.0000	ug/L		87.0		60 - 120	
	MSD	1528561-50	ND	0.90210	1.0000	ug/L	3.6	90.2	30	60 - 120	
Benzo[g,h,i]perylene	MS	1528561-50	ND	0.68000	1.0000	ug/L		68.0		40 - 120	
	MSD	1528561-50	ND	0.79540	1.0000	ug/L	15.6	79.5	30	40 - 120	
Chrysene	MS	1528561-50	ND	0.62000	1.0000	ug/L		62.0		60 - 110	
	MSD	1528561-50	ND	0.64990	1.0000	ug/L	4.7	65.0	30	60 - 110	
Dibenzo[a,h]anthracene	MS	1528561-50	ND	0.68000	1.0000	ug/L		68.0		40 - 120	
	MSD	1528561-50	ND	0.80510	1.0000	ug/L	16.8	80.5	30	40 - 120	
Fluoranthene	MS	1528561-50	ND	0.92000	1.0000	ug/L		92.0		60 - 120	
	MSD	1528561-50	ND	0.97000	1.0000	ug/L	5.3	97.0	30	60 - 120	
Fluorene	MS	1528561-50	ND	0.83000	1.0000	ug/L		83.0		60 - 120	
	MSD	1528561-50	ND	0.90210	1.0000	ug/L	8.3	90.2	30	60 - 120	
Indeno[1,2,3-cd]pyrene	MS	1528561-50	ND	0.68000	1.0000	ug/L		68.0		40 - 130	
	MSD	1528561-50	ND	0.80510	1.0000	ug/L	16.8	80.5	30	40 - 130	
Naphthalene	MS	1528561-50	ND	0.74000	1.0000	ug/L		74.0		60 - 110	
	MSD	1528561-50	ND	0.85360	1.0000	ug/L	14.3	85.4	30	60 - 110	
Phenanthrene	MS	1528561-50	ND	0.83000	1.0000	ug/L		83.0		60 - 120	
	MSD	1528561-50	ND	0.87300	1.0000	ug/L	5.0	87.3	30	60 - 120	
Pyrene	MS	1528561-50	ND	0.98000	1.0000	ug/L		98.0		50 - 125	
	MSD	1528561-50	ND	0.95060	1.0000	ug/L	3.0	95.1	30	50 - 125	
Nitrobenzene-d5 (Surrogate)	MS	1528561-50	ND	3.4800	4.0000	ug/L		87.0		40 - 130	
	MSD	1528561-50	ND	3.9576	4.0000	ug/L	12.8	98.9		40 - 130	
2-Fluorobiphenyl (Surrogate)	MS	1528561-50	ND	2.9600	4.0000	ug/L		74.0		50 - 120	
	MSD	1528561-50	ND	3.3271	4.0000	ug/L	11.7	83.2		50 - 120	

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:34 Project: DOGGR Injection - Formation Water Project Number: HAT 204, Hathaway Ponds Project Manager: Kelsey Padilla

Polynuclear Aromatic Hydrocarbons (EPA Method 8270C-SIM)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2379	Used client sample: N										
p-Terphenyl-d14 (Surrogate)	MS	1528561-50	ND	3.5900	4.0000	ug/L		89.8		40 - 130	
	MSD	1528561-50	ND	3.4629	4.0000	ug/L	3.6	86.6		40 - 130	

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:34 Project: DOGGR Injection - Formation Water Project Number: HAT 204, Hathaway Ponds Project Manager: Kelsey Padilla

Total Petroleum Hydrocarbons

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYK2095						
TPH - Crude Oil	BYK2095-BLK1	ND	ug/L	500	140	
Tetracosane (Surrogate)	**BYK2095-BLK1**	**77.8**	%	**37 - 134 (LCL - UCL)**		

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:34 Project: DOGGR Injection - Formation Water Project Number: HAT 204, Hathaway Ponds Project Manager: Kelsey Padilla

Total Petroleum Hydrocarbons

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BYK2095										
Tetracosane (Surrogate)	BYK2095-BS1	LCS	161.58	200.00	ug/L	80.8		37 - 134		

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:34 Project: DOGGR Injection - Formation Water Project Number: HAT 204, Hathaway Ponds Project Manager: Kelsey Padilla

Total Petroleum Hydrocarbons

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2095	Used client sample: N										
Tetracosane (Surrogate)	MS	1513811-93	ND	141.77	200.00	ug/L		70.9		37 - 134	
	MSD	1513811-93	ND	152.77	200.00	ug/L	7.5	76.4		37 - 134	

Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:34 Project: DOGGR Injection - Formation Water Project Number: HAT 204, Hathaway Ponds Project Manager: Kelsey Padilla

Gas Testing in Water

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYL0151						
Methane	BYL0151-BLK1	ND	mg/L	0.0010	0.00028	

Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:34 Project: DOGGR Injection - Formation Water Project Number: HAT 204, Hathaway Ponds Project Manager: Kelsey Padilla

Gas Testing in Water

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BYL0151										
Methane	BYL0151-BS1	LCS	0.0096889	0.010843	mg/L	89.4		80 - 120		
	BYL0151-BSD1	LCSD	0.010670	0.010843	mg/L	98.4	9.6	80 - 120	20	

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Water Analysis (General Chemistry)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYK1867						
Total Alkalinity	**BYK1867-BLK1**	**0**	**Reacting %**	**0**	**0**	
QC Batch ID: BYK2033						
Bromide	BYK2033-BLK1	ND	mg/L	0.10	0.035	
Chloride	BYK2033-BLK1	ND	mg/L	0.50	0.061	
Nitrate as NO3	BYK2033-BLK1	ND	mg/L	0.44	0.078	
Sulfate	BYK2033-BLK1	ND	mg/L	1.0	0.10	
QC Batch ID: BYK2051						
Total Dissolved Solids @ 180 C	BYK2051-BLK1	ND	mg/L	6.7	6.7	
QC Batch ID: BYK2108						
Total Recoverable Calcium	BYK2108-BLK1	ND	mg/L	0.10	0.014	
Total Recoverable Magnesium	BYK2108-BLK1	ND	mg/L	0.050	0.019	
Total Recoverable Sodium	**BYK2108-BLK1**	**0.085753**	**mg/L**	**0.50**	**0.051**	**J**
Total Recoverable Potassium	BYK2108-BLK1	ND	mg/L	1.0	0.10	
QC Batch ID: BYK2595						
Bicarbonate	BYK2595-BLK1	ND	mg/L	5.0	5.0	
Carbonate	BYK2595-BLK1	ND	mg/L	2.5	2.5	
Hydroxide	BYK2595-BLK1	ND	mg/L	1.4	1.4	

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Water Analysis (General Chemistry)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BYK2033										
Bromide	BYK2033-BS1	LCS	2.0650	2.0000	mg/L	103		90 - 110		
Chloride	BYK2033-BS1	LCS	52.109	50.000	mg/L	104		90 - 110		
Nitrate as NO3	BYK2033-BS1	LCS	23.024	22.134	mg/L	104		90 - 110		
Sulfate	BYK2033-BS1	LCS	103.97	100.00	mg/L	104		90 - 110		
QC Batch ID: BYK2051										
Total Dissolved Solids @ 180 C	BYK2051-BS1	LCS	575.00	586.00	mg/L	98.1		90 - 110		
QC Batch ID: BYK2108										
Total Recoverable Calcium	BYK2108-BS1	LCS	10.618	10.000	mg/L	106		85 - 115		
Total Recoverable Magnesium	BYK2108-BS1	LCS	10.786	10.000	mg/L	108		85 - 115		
Total Recoverable Sodium	BYK2108-BS1	LCS	10.292	10.000	mg/L	103		85 - 115		
Total Recoverable Potassium	BYK2108-BS1	LCS	10.070	10.000	mg/L	101		85 - 115		

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5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Water Analysis (General Chemistry)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2033	Used client sample: N										
Bromide	DUP	1529872-01	0.12900	0.12400		mg/L	4.0		10		
	MS	1529872-01	0.12900	2.2465	2.0202	mg/L		105		80 - 120	
	MSD	1529872-01	0.12900	2.2323	2.0202	mg/L	0.6	104	10	80 - 120	
Chloride	DUP	1529872-01	43.240	43.194		mg/L	0.1		10		
	MS	1529872-01	43.240	95.941	50.505	mg/L		104		80 - 120	
	MSD	1529872-01	43.240	96.309	50.505	mg/L	0.4	105	10	80 - 120	
Nitrate as NO3	DUP	1529872-01	ND	ND		mg/L			10		
	MS	1529872-01	ND	22.577	22.358	mg/L		101		80 - 120	
	MSD	1529872-01	ND	22.657	22.358	mg/L	0.4	101	10	80 - 120	
Sulfate	DUP	1529872-01	2.9430	2.9580		mg/L	0.5		10		
	MS	1529872-01	2.9430	104.92	101.01	mg/L		101		80 - 120	
	MSD	1529872-01	2.9430	105.29	101.01	mg/L	0.3	101	10	80 - 120	
QC Batch ID: BYK2051	Used client sample: N										
Total Dissolved Solids @ 180 C	DUP	1529639-01	785.00	775.00		mg/L	1.3		10		
QC Batch ID: BYK2108	Used client sample: Y - Description: Davies, 11/19/2015 08:50										
Total Recoverable Calcium	DUP	1529656-01	7.0465	6.9441		mg/L	1.5		20		
	MS	1529656-01	7.0465	17.543	10.000	mg/L		105		75 - 125	
	MSD	1529656-01	7.0465	17.398	10.000	mg/L	0.8	104	20	75 - 125	
Total Recoverable Magnesium	DUP	1529656-01	0.33481	0.33238		mg/L	0.7		20		
	MS	1529656-01	0.33481	11.105	10.000	mg/L		108		75 - 125	
	MSD	1529656-01	0.33481	11.071	10.000	mg/L	0.3	107	20	75 - 125	
Total Recoverable Sodium	DUP	1529656-01	55.510	54.559		mg/L	1.7		20		
	MS	1529656-01	55.510	65.203	10.000	mg/L		96.9		75 - 125	
	MSD	1529656-01	55.510	63.650	10.000	mg/L	2.4	81.4	20	75 - 125	
Total Recoverable Potassium	DUP	1529656-01	0.38216	0.34995		mg/L	8.8		20		J
	MS	1529656-01	0.38216	10.355	10.000	mg/L		99.7		75 - 125	
	MSD	1529656-01	0.38216	10.214	10.000	mg/L	1.4	98.3	20	75 - 125	
QC Batch ID: BYK2595	Used client sample: N										
Bicarbonate	DUP	1529646-03	567.98	569.09		mg/L	0.2		10		
Carbonate	DUP	1529646-03	ND	ND		mg/L			10		
Hydroxide	DUP	1529646-03	ND	ND		mg/L			10		

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Metals Analysis

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BYK2030						
Hexavalent Chromium	BYK2030-BLK1	ND	ug/L	0.20	0.055	
QC Batch ID: BYK2108						
Total Recoverable Aluminum	BYK2108-BLK1	ND	mg/L	0.050	0.026	
Total Recoverable Boron	**BYK2108-BLK1**	**0.019641**	**mg/L**	**0.10**	**0.010**	**J**
Total Recoverable Iron	BYK2108-BLK1	ND	mg/L	0.050	0.030	
Total Recoverable Lithium	BYK2108-BLK1	ND	mg/L	0.020	0.0066	
Total Recoverable Manganese	BYK2108-BLK1	ND	mg/L	0.010	0.0040	
Total Recoverable Strontium	BYK2108-BLK1	ND	mg/L	0.010	0.0010	
QC Batch ID: BYK2198						
Total Recoverable Mercury	BYK2198-BLK1	ND	ug/L	0.20	0.033	
QC Batch ID: BYK2214						
Total Recoverable Antimony	**BYK2214-BLK3**	**0.49300**	**ug/L**	**2.0**	**0.11**	**J**
Total Recoverable Arsenic	BYK2214-BLK1	ND	ug/L	2.0	0.70	
Total Recoverable Barium	BYK2214-BLK1	ND	ug/L	1.0	0.21	
Total Recoverable Beryllium	BYK2214-BLK1	ND	ug/L	1.0	0.14	
Total Recoverable Cadmium	BYK2214-BLK2	ND	ug/L	1.0	0.11	
Total Recoverable Chromium	BYK2214-BLK1	ND	ug/L	3.0	0.50	
Total Recoverable Cobalt	BYK2214-BLK1	ND	ug/L	1.0	0.10	
Total Recoverable Copper	BYK2214-BLK1	ND	ug/L	2.0	0.22	
Total Recoverable Lead	BYK2214-BLK2	ND	ug/L	1.0	0.10	
Total Recoverable Molybdenum	BYK2214-BLK1	ND	ug/L	1.0	0.11	
Total Recoverable Nickel	BYK2214-BLK1	ND	ug/L	2.0	0.19	
Total Recoverable Selenium	BYK2214-BLK1	ND	ug/L	2.0	0.19	
Total Recoverable Silver	BYK2214-BLK1	ND	ug/L	1.0	0.10	
Total Recoverable Uranium	BYK2214-BLK2	ND	pCi/L	0.67	0.067	
Total Recoverable Thallium	BYK2214-BLK2	ND	ug/L	1.0	0.10	
Total Recoverable Vanadium	BYK2214-BLK1	ND	ug/L	3.0	0.78	
Total Recoverable Zinc	BYK2214-BLK2	ND	ug/L	10	1.7	

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Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Metals Analysis

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BYK2030										
Hexavalent Chromium	BYK2030-BS1	LCS	19.833	20.000	ug/L	99.2		90 - 110		
QC Batch ID: BYK2108										
Total Recoverable Aluminum	BYK2108-BS1	LCS	1.0755	1.0000	mg/L	108		85 - 115		
Total Recoverable Boron	BYK2108-BS1	LCS	1.0283	1.0000	mg/L	103		85 - 115		
Total Recoverable Iron	BYK2108-BS1	LCS	1.1125	1.0000	mg/L	111		85 - 115		
Total Recoverable Lithium	BYK2108-BS1	LCS	0.21552	0.20000	mg/L	108		85 - 115		
Total Recoverable Manganese	BYK2108-BS1	LCS	0.53793	0.50000	mg/L	108		85 - 115		
Total Recoverable Strontium	BYK2108-BS1	LCS	0.49818	0.50000	mg/L	99.6		85 - 115		
QC Batch ID: BYK2198										
Total Recoverable Mercury	BYK2198-BS1	LCS	1.1300	1.0000	ug/L	113		85 - 115		
QC Batch ID: BYK2214										
Total Recoverable Antimony	BYK2214-BS3	LCS	41.789	40.000	ug/L	104		85 - 115		
Total Recoverable Arsenic	BYK2214-BS1	LCS	93.848	100.00	ug/L	93.8		85 - 115		
Total Recoverable Barium	BYK2214-BS1	LCS	38.932	40.000	ug/L	97.3		85 - 115		
Total Recoverable Beryllium	BYK2214-BS1	LCS	39.677	40.000	ug/L	99.2		85 - 115		
Total Recoverable Cadmium	BYK2214-BS2	LCS	39.574	40.000	ug/L	98.9		85 - 115		
Total Recoverable Chromium	BYK2214-BS1	LCS	39.720	40.000	ug/L	99.3		85 - 115		
Total Recoverable Cobalt	BYK2214-BS1	LCS	39.744	40.000	ug/L	99.4		85 - 115		
Total Recoverable Copper	BYK2214-BS1	LCS	101.82	100.00	ug/L	102		85 - 115		
Total Recoverable Lead	BYK2214-BS2	LCS	104.70	100.00	ug/L	105		85 - 115		
Total Recoverable Molybdenum	BYK2214-BS1	LCS	38.288	40.000	ug/L	95.7		85 - 115		
Total Recoverable Nickel	BYK2214-BS1	LCS	99.445	100.00	ug/L	99.4		85 - 115		
Total Recoverable Selenium	BYK2214-BS1	LCS	91.087	100.00	ug/L	91.1		85 - 115		
Total Recoverable Silver	BYK2214-BS1	LCS	39.693	40.000	ug/L	99.2		85 - 115		
Total Recoverable Uranium	BYK2214-BS2	LCS	25.404	26.800	pCi/L	94.8		85 - 115		
Total Recoverable Thallium	BYK2214-BS2	LCS	41.126	40.000	ug/L	103		85 - 115		
Total Recoverable Vanadium	BYK2214-BS1	LCS	39.162	40.000	ug/L	97.9		85 - 115		
Total Recoverable Zinc	BYK2214-BS2	LCS	98.490	100.00	ug/L	98.5		85 - 115		

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Metals Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2030	Used client sample: N										
Hexavalent Chromium	DUP	1529735-07	3.6660	3.6810		ug/L	0.4		10		
	MS	1529735-07	3.6660	24.298	20.202	ug/L		102		90 - 110	
	MSD	1529735-07	3.6660	24.243	20.202	ug/L	0.2	102	10	90 - 110	
QC Batch ID: BYK2108	Used client sample: Y - Description: Davies, 11/19/2015 08:50										
Total Recoverable Aluminum	DUP	1529656-01	0.060713	0.065278		mg/L	7.2		20		
	MS	1529656-01	0.060713	1.1126	1.0000	mg/L		105		75 - 125	
	MSD	1529656-01	0.060713	1.1028	1.0000	mg/L	0.9	104	20	75 - 125	
Total Recoverable Boron	DUP	1529656-01	0.047922	0.046616		mg/L	2.8		20		J
	MS	1529656-01	0.047922	1.0578	1.0000	mg/L		101		75 - 125	
	MSD	1529656-01	0.047922	1.0837	1.0000	mg/L	2.4	104	20	75 - 125	
Total Recoverable Iron	DUP	1529656-01	0.068756	0.062389		mg/L	9.7		20		
	MS	1529656-01	0.068756	1.1573	1.0000	mg/L		109		75 - 125	
	MSD	1529656-01	0.068756	1.1571	1.0000	mg/L	0.0	109	20	75 - 125	
Total Recoverable Lithium	DUP	1529656-01	ND	0.015418		mg/L			20		J
	MS	1529656-01	ND	0.20520	0.20000	mg/L		103		75 - 125	
	MSD	1529656-01	ND	0.20488	0.20000	mg/L	0.2	102	20	75 - 125	
Total Recoverable Manganese	DUP	1529656-01	ND	ND		mg/L			20		
	MS	1529656-01	ND	0.53625	0.50000	mg/L		107		75 - 125	
	MSD	1529656-01	ND	0.53011	0.50000	mg/L	1.2	106	20	75 - 125	
Total Recoverable Strontium	DUP	1529656-01	0.062782	0.062659		mg/L	0.2		20		
	MS	1529656-01	0.062782	0.55858	0.50000	mg/L		99.2		75 - 125	
	MSD	1529656-01	0.062782	0.54721	0.50000	mg/L	2.1	96.9	20	75 - 125	
QC Batch ID: BYK2198	Used client sample: N										
Total Recoverable Mercury	DUP	1529645-02	ND	ND		ug/L			20		
	MS	1529645-02	ND	1.0775	1.0000	ug/L		108		70 - 130	
	MSD	1529645-02	ND	1.0975	1.0000	ug/L	1.8	110	20	70 - 130	
QC Batch ID: BYK2214	Used client sample: N										
Total Recoverable Antimony	DUP	1529725-02	1.2900	ND		ug/L			20		
	MS	1529725-02	1.2900	44.850	40.000	ug/L		109		70 - 130	
	MSD	1529725-02	1.2900	44.300	40.000	ug/L	1.2	108	20	70 - 130	
Total Recoverable Arsenic	DUP	1529725-02	2.6400	2.9330		ug/L	10.5		20		
	MS	1529725-02	2.6400	93.939	100.00	ug/L		91.3		70 - 130	
	MSD	1529725-02	2.6400	94.529	100.00	ug/L	0.6	91.9	20	70 - 130	
Total Recoverable Barium	DUP	1529725-02	32.394	33.375		ug/L	3.0		20		
	MS	1529725-02	32.394	72.432	40.000	ug/L		100		70 - 130	
	MSD	1529725-02	32.394	75.001	40.000	ug/L	3.5	107	20	70 - 130	

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Enviro Tech Consultants, Inc.
5400 Rosedale Highway
Bakersfield, CA 93308

Reported: 12/11/2015 9:34
Project: DOGGR Injection - Formation Water
Project Number: HAT 204, Hathaway Ponds
Project Manager: Kelsey Padilla

Metals Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2214	Used client sample: N										
Total Recoverable Beryllium	DUP	1529725-02	ND	ND		ug/L			20		
	MS	1529725-02	ND	28.525	40.000	ug/L		71.3		70 - 130	
	MSD	1529725-02	ND	29.296	40.000	ug/L	2.7	73.2	20	70 - 130	
Total Recoverable Cadmium	DUP	1529725-02	ND	ND		ug/L			20		
	MS	1529725-02	ND	41.300	40.000	ug/L		103		70 - 130	
	MSD	1529725-02	ND	40.380	40.000	ug/L	2.3	101	20	70 - 130	
Total Recoverable Chromium	DUP	1529725-02	ND	ND		ug/L			20		
	MS	1529725-02	ND	36.689	40.000	ug/L		91.7		70 - 130	
	MSD	1529725-02	ND	37.117	40.000	ug/L	1.2	92.8	20	70 - 130	
Total Recoverable Cobalt	DUP	1529725-02	3.7210	3.7340		ug/L	0.3		20		
	MS	1529725-02	3.7210	37.187	40.000	ug/L		83.7		70 - 130	
	MSD	1529725-02	3.7210	37.876	40.000	ug/L	1.8	85.4	20	70 - 130	
Total Recoverable Copper	DUP	1529725-02	7.8700	7.5690		ug/L	3.9		20		
	MS	1529725-02	7.8700	100.61	100.00	ug/L		92.7		70 - 130	
	MSD	1529725-02	7.8700	100.60	100.00	ug/L	0.0	92.7	20	70 - 130	
Total Recoverable Lead	DUP	1529725-02	ND	ND		ug/L			20		
	MS	1529725-02	ND	93.090	100.00	ug/L		93.1		70 - 130	
	MSD	1529725-02	ND	92.310	100.00	ug/L	0.8	92.3	20	70 - 130	
Total Recoverable Molybdenum	DUP	1529725-02	211.23	211.20		ug/L	0.0		20		
	MS	1529725-02	211.23	254.88	40.000	ug/L		109		70 - 130	
	MSD	1529725-02	211.23	259.87	40.000	ug/L	1.9	122	20	70 - 130	
Total Recoverable Nickel	DUP	1529725-02	65.905	66.518		ug/L	0.9		20		
	MS	1529725-02	65.905	145.26	100.00	ug/L		79.4		70 - 130	
	MSD	1529725-02	65.905	148.36	100.00	ug/L	2.1	82.4	20	70 - 130	
Total Recoverable Selenium	DUP	1529725-02	ND	ND		ug/L			20		
	MS	1529725-02	ND	70.052	100.00	ug/L		70.1		70 - 130	
	MSD	1529725-02	ND	71.727	100.00	ug/L	2.4	71.7	20	70 - 130	
Total Recoverable Silver	DUP	1529725-02	ND	ND		ug/L			20		
	MS	1529725-02	ND	33.842	40.000	ug/L		84.6		70 - 130	
	MSD	1529725-02	ND	33.764	40.000	ug/L	0.2	84.4	20	70 - 130	
Total Recoverable Uranium	DUP	1529725-02	60.789	60.595		pCi/L	0.3		20		
	MS	1529725-02	60.789	91.582	26.800	pCi/L		115		70 - 130	
	MSD	1529725-02	60.789	90.564	26.800	pCi/L	1.1	111	20	70 - 130	
Total Recoverable Thallium	DUP	1529725-02	ND	ND		ug/L			20		
	MS	1529725-02	ND	37.200	40.000	ug/L		93.0		70 - 130	
	MSD	1529725-02	ND	37.050	40.000	ug/L	0.4	92.6	20	70 - 130	
Total Recoverable Vanadium	DUP	1529725-02	ND	ND		ug/L			20		
	MS	1529725-02	ND	38.899	40.000	ug/L		97.2		70 - 130	
	MSD	1529725-02	ND	39.447	40.000	ug/L	1.4	98.6	20	70 - 130	

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:34 Project: DOGGR Injection - Formation Water Project Number: HAT 204, Hathaway Ponds Project Manager: Kelsey Padilla

Metals Analysis

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BYK2214	Used client sample: N										
Total Recoverable Zinc	DUP	1529725-02	ND	ND		ug/L			20		
	MS	1529725-02	ND	236.46	100.00	ug/L		236		70 - 130	Q02
	MSD	1529725-02	ND	114.65	100.00	ug/L	69.4	115	20	70 - 130	Q02

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Greensburg, PA 15601
(724)850-5600

December 10, 2015

Ms. Kerrie Vaughan
BC Laboratories
4100 Atlas Ct.
Bakersfield, CA 93308

RE: Project: 1529656
Pace Project No.: 30166463

Dear Ms. Vaughan:
Enclosed are the analytical results for sample(s) received by the laboratory on November 30, 2015. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Carin A. Ferris

Carin Ferris
carin.ferris@pacelabs.com
Project Manager

Enclosures

NELAP ACCREDITED TNI LABORATORY

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

CERTIFICATIONS

Project: 1529656
Pace Project No.: 30166463

Pennsylvania Certification IDs

Georgia Certification #: C040
1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
L-A-B DOD-ELAP Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification
Connecticut Certification #: PH-0694
Delaware Certification
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: 90133
Louisiana DHH/TNI Certification #: LA140008
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: PA00091
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification
Missouri Certification #: 235
Montana Certification #: Cert 0082
Nebraska Certification #: NE-05-29-14
Nevada Certification #: PA014572015-1
New Hampshire/TNI Certification #: 2976
New Jersey/TNI Certification #: PA 051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Oregon/TNI Certification #: PA200002
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN2867
Texas/TNI Certification #: T104704188-14-8
Utah/TNI Certification #: PA014572015-5
USDA Soil Permit #: P330-14-00213
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Certification
Wyoming Certification #: 8TMS-L

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Greensburg, PA 15601
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SAMPLE SUMMARY

Project: 1529656
Pace Project No.: 30166463

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30166463001	1529656-01	Water	11/19/15 08:50	11/30/15 09:35

REPORT OF LABORATORY ANALYSIS

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(724)850-5600

SAMPLE ANALYTE COUNT

Project: 1529656
Pace Project No.: 30166463

Lab ID	Sample ID	Method	Analysts	Analytes Reported
30166463001	1529656-01	EPA 900.0	NEG	2
		EPA 903.1	WRR	1
		EPA 904.0	JLW	1
		ASTM D5811-95	LAL	1
		EPA 906.0	WRR	1

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PROJECT NARRATIVE

Project: 1529656
Pace Project No.: 30166463

Method: EPA 900.0
Description: 900.0 Gross Alpha/Beta
Client: BC Laboratories
Date: December 10, 2015

General Information:
1 sample was analyzed for EPA 900.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
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PROJECT NARRATIVE

Project: 1529656
Pace Project No.: 30166463

Method: EPA 903.1
Description: 903.1 Radium 226
Client: BC Laboratories
Date: December 10, 2015

General Information:
1 sample was analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 1529656
Pace Project No.: 30166463

Method: EPA 904.0
Description: 904.0 Radium 228
Client: BC Laboratories
Date: December 10, 2015

General Information:
1 sample was analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: 1529656
Pace Project No.: 30166463

Method: ASTM D5811-95
Description: ASTM D5811 Sr 89/90 Eichrom
Client: BC Laboratories
Date: December 10, 2015

General Information:
1 sample was analyzed for ASTM D5811-95. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:
Analyte Comments:

QC Batch: RADC/27081

N2: The lab does not hold TNI accreditation for this parameter.
- 1529656-01 (Lab ID: 30166463001)
  - Strontium-90
- BLANK (Lab ID: 991478)
  - Strontium-90

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: 1529656
Pace Project No.: 30166463

Method: EPA 906.0
Description: 906.0 Tritium
Client: BC Laboratories
Date: December 10, 2015

General Information:
1 sample was analyzed for EPA 906.0. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS
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Pace Analytical Services, Inc.
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 1529656
Pace Project No.: 30166463

Sample: 1529656-01 **Lab ID: 30166463001** Collected: 11/19/15 08:50 Received: 11/30/15 09:35 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Sample Acceptance Policy Waiver on file from the client.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Gross Alpha	EPA 900.0	**0.322 ± 1.19 (2.95)** **C:NA T:NA**	pCi/L	12/08/15 18:46	12587-46-1	
Gross Beta	EPA 900.0	**0.707 ± 0.958 (2.07)** **C:NA T:NA**	pCi/L	12/08/15 18:46	12587-47-2	
Radium-226	EPA 903.1	**0.146 ± 0.452 (0.876)** **C:NA T:83%**	pCi/L	12/08/15 12:48	13982-63-3	
Radium-228	EPA 904.0	**13.9 ± 10.3 (20.1)** **C:85% T:83%**	pCi/L	12/07/15 11:47	15262-20-1	
Strontium-90	ASTM D5811-95	**-1.12 ± 0.800 (1.54)** **C:89% T:NA**	pCi/L	12/04/15 08:41	10098-97-2	N2
Tritium	EPA 906.0	**-34.5 ± 134 (241)** **C:NA T:NA**	pCi/L	12/05/15 09:23	10028-17-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 1529656
Pace Project No.: 30166463

QC Batch: RADC/27079 Analysis Method: EPA 906.0
QC Batch Method: EPA 906.0 Analysis Description: 906.0 Tritium
Associated Lab Samples: 30166463001

METHOD BLANK: 991476 Matrix: Water
Associated Lab Samples: 30166463001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Tritium	-34.6 ± 134 (242) C:NA T:NA	pCi/L	12/05/15 01:13	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 1529656
Pace Project No.: 30166463

QC Batch: RADC/27069 Analysis Method: EPA 904.0
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228
Associated Lab Samples: 30166463001

METHOD BLANK: 991466 Matrix: Water
Associated Lab Samples: 30166463001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.506 ± 0.353 (0.677) C:83% T:79%	pCi/L	12/07/15 11:44	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 1529656
Pace Project No.: 30166463

QC Batch: RADC/27081 Analysis Method: ASTM D5811-95
QC Batch Method: ASTM D5811-95 Analysis Description: ASTM D5811 Sr 89/90 Eichrom
Associated Lab Samples: 30166463001

METHOD BLANK: 991478 Matrix: Water
Associated Lab Samples: 30166463001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Strontium-90	0.00900 ± 0.366 (0.857) C:98% T:NA	pCi/L	12/04/15 08:34	N2

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 1529656
Pace Project No.: 30166463

QC Batch: RADC/27125 Analysis Method: EPA 900.0
QC Batch Method: EPA 900.0 Analysis Description: 900.0 Gross Alpha/Beta
Associated Lab Samples: 30166463001

METHOD BLANK: 993251 Matrix: Water
Associated Lab Samples: 30166463001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Gross Alpha	0.081 ± 0.281 (0.652) C:NA T:NA	pCi/L	12/08/15 21:57	
Gross Beta	0.912 ± 0.539 (0.987) C:NA T:NA	pCi/L	12/08/15 21:57	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 1529656
Pace Project No.: 30166463

QC Batch: RADC/27037 Analysis Method: EPA 903.1
QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226
Associated Lab Samples: 30166463001

METHOD BLANK: 990408 Matrix: Water
Associated Lab Samples: 30166463001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.455 ± 0.386 (0.479) C:NA T:93%	pCi/L	12/08/15 12:35	

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(724)850-5600

QUALIFIERS

Project: 1529656
Pace Project No.: 30166463

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Act - Activity
Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)
(MDC) - Minimum Detectable Concentration
Trac - Tracer Recovery (%)
Carr - Carrier Recovery (%)
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

ANALYTE QUALIFIERS

N2 The lab does not hold TNI accreditation for this parameter.

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Date: 12/10/2015 10:28 AM

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SUBCONTRACT ORDER

BC Laboratories

1529656

SENDING LABORATORY:

BC Laboratories
4100 Atlas Ct
Bakersfield, CA 93308
Phone: 661-327-4911
Fax: 661-327-1918
Project Manager: Kerrie Vaughan

RECEIVING LABORATORY:

PACE Analytical $PACEA
1638 Roseytown Road, Ste 2,3 &4
Greensburg, PA 15601
Phone :(724) 850-5600
Fax: (724) 850-5601

30166463

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: 1529656-01	**Water**	**Sampled:11/19/15 08:50**	001	
om906.0w Tritium PACEA	12/07/15 17:00	05/18/16 08:50		Analyze water phase only. Results needed by 12/7/2015.
om905.0w Strontium-90 PACEA	12/07/15 17:00	05/18/16 08:50		Analyze water phase only. Results needed by 12/7/2015.
om904.0w Radium228 PACEA	12/07/15 17:00	05/18/16 08:50		Analyze water phase only. Results needed by 12/7/2015.
om903.0w Radium226 PACEA	12/07/15 17:00	05/18/16 08:50		Analyze water phase only. Results needed by 12/7/2015.
om900.0Mw Gross Alpha/Beta PACEA	12/07/15 17:00	05/18/16 08:50		Analyze water phase only. Results needed by 12/7/2015.

Containers Supplied: 3 - 1 Liter (Red), 1 - 500ml amber jar
J, K, L, F

Released By	Date	Received By	Date
[signature]	11.23.15	[signature] Pace	11/30/15 0935

Page 17 of 19
Page 1 of 1

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RTB

Sample Condition Upon Receipt

Pace Analytical

Client Name: BC

Project # 30166463

Courier: ☐ Fed Ex ☒ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 1Z 965 376 03 6229 4287 1Z 965 376 03 6145 6694

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals Intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

Packing Material: Bubble Wrap X Bubble Bags ___ None ___ Other ___

Thermometer Used N/A Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: N/A °C Correction Factor: N/A °C Final Temp: N/A °C

Date and initials of person examining contents: 11/30/15 RTB

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present:	☒Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☒Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☒Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☐Yes	☒No	☐N/A	4.
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr): RTB 11/30/15	☒Yes	☒No	☐N/A	6.
Rush Turn Around Time Requested: RTB 11/30/15	☒Yes	☒No	☐N/A	7.
Sufficient Volume:	☒Yes	☐No	☐N/A	8.
Correct Containers Used:	☒Yes	☐No	☐N/A	9.
-Pace Containers Used:	☒Yes	☐No	☐N/A	
Containers Intact:	☒Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☒N/A	11.
Sample Labels match COC:	☒Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: WT				
All containers needing preservation have been checked.	☒Yes	☐No	☐N/A	13. pH<2
All containers needing preservation are found to be in compliance with EPA recommendation.	☒Yes	☐No	☐N/A	RTB 11/30/15 0935
exceptions: VOA, coliform, TOC, O&G, Phenols	☒Yes	☐No		Initial when completed 11/30/15 RTB Lot # of added preservative
Samples checked for dechlorination:	☒Yes	☐No	☐N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	15.
Trip Blank Present:	☐Yes	☐No	☒N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: ___ Date/Time: ___

Comments/ Resolution: ___

Project Manager Review: [signature] Date: 11/30/15

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

J:\QAQC\Master\Document Management\Sample Mgt\SCURF\FALLC003-09 SCUR Front 3March2015 Page 18 of 19

Pace Analytical

page 2

Project Number: 3016664 63

Client Name: BC

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil Kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y N	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other	Other
001	WT	—																	3						

SCURF Back (C016-4 15May2012).xls

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Enviro Tech Consultants, Inc. 5400 Rosedale Highway Bakersfield, CA 93308	**Reported:** 12/11/2015 9:34 Project: DOGGR Injection - Formation Water Project Number: HAT 204, Hathaway Ponds Project Manager: Kelsey Padilla

Notes And Definitions

J	Estimated Value (CLP Flag)
MDL	Method Detection Limit
ND	Analyte Not Detected
PQL	Practical Quantitation Limit
Q02	Matrix spike precision is not within the control limits.

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