0100309

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

F11-063

Lot #: F1I070415
SDG #: SL1114

Mike Neely

CH2M Hill Plateau Remediation
PO Box 1500, MS B6-06
Richland, WA 99352

TESTAMERICA LABORATORIES, INC.

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DEC 06 2011
EDMC

Michael C. Franks
Project Manager

September 16, 2011

13715 Rider Trail North Earth City, MO 63045 **tel** 314.298.8566 **fax** 314.298.8757 **www.testamericainc.com**

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

CASE NARRATIVE

CH2MHill Plateau Remediation Company
P.O. Box 1600
MS B3-60
Richland, Washington 99352
September 16, 2011
Attention: Mike Neely

TestAmerica Laboratories, Inc.

SDG	: SL1114
Number of Samples	: one sample
Sample Matrix	: Water
Data Deliverable	: Summary
Date SDG Closed	: September 7, 2011

II. Introduction

On September 7, 2011, one water sample was received by TestAmerica - St. Louis for chemical analysis. The sample was received within temperature criteria. See the COC and CUR forms for documentation of any variations on receipt conditions and temperature. Upon receipt, the sample was given a laboratory Id to correspond with the specific client Id. Please refer to the Sample Summary sheets attached to this case narrative. This report is incomplete without the narrative.

The following SAFs are associated with this SDG: F11-063

III. Analytical Results/ Methodology

The analytical results for this report are presented by analytical test. Each set of data includes sample identification information, analytical results and the appropriate detection limits. All results are based upon samples as they were received, i.e. wet weight, unless otherwise noted on the data sheets. See the attached Methods Summary Form for the methods used in this SDG.

MS/MSD/Dup analysis was done per the client requirements. Analytical batches that did not contain matrix QC were analyzed with a LCS/LCS duplicate.

Deviation from Request: None

IV. Definitions

QCBLK-	Quality Control Blank, Method Blank
QCLCS-	Quality Control Laboratory Control Sample, Blank Spike
DUP-	Laboratory Duplicate
MS-	Matrix Spike
MSD-	Matrix Spike Duplicate

The term "Detection Limit" used in the analytical data report refers to either the lab's standard reporting limits or contractually required reporting limits, whichever is applicable.

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THE LEADER IN ENVIRONMENTAL TESTING

CH2M Hill Plateau Remediation Company

TestAmerica Laboratories, Inc.

September 16, 2011
SDG: SL1114

The following data qualifiers may be applicable to the results in this report, as appropriate.

- **B** – For inorganic analyses, the sample result is greater than the MDL but less than the RL.
- **B** – For organic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **J** – For organic analyses, the sample is estimated and less than the RL.
- **C** – For inorganic analyses, Method Blank contamination. The Method Blank contains the target analyte at a concentration above the MDL.
- **D** – For all analyses, the sample result was obtained from the analysis of a dilution.
- **N** – For inorganics and GC analyses, the spike/spike duplicate recoveries are outside QC limits.
- **T** – For GCMS analyses, the spike/spike duplicate recoveries are outside QC limits.

There were no observations or nonconformances for the following methods:

Pesticides
PAHs

I certify that this Summary Package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. The Laboratory Manager or a designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Reviewed and approved:

Michael Franks
St. Louis Project Manager

13715 Rider Trail North Earth City, MO 63045 **tel** 314.298.8566 **fax** 314.298.8757 **www.testamericainc.com**

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METHODS SUMMARY

SL1114

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Organochlorine Pesticides	SW846 8081A	SW846 3520C
Polynuclear Aromatic Hydrocarbons by HPLC	SW846 8310	SW846 3510

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

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SAMPLE SUMMARY

SL1114 : F1I070415

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
ML9EG	001	B2C7X6	09/01/11	13:15

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

SL1114 WL 094

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F11-063-135	PAGE 1 OF 1
COLLECTOR Rosanne Rust Christenson	COMPANY CONTACT RADLOFF, AW	TELEPHONE NO. 376-4554	PROJECT COORDINATOR RADLOFF, AW	PRICE CODE 7C AIR QUALITY ☐	Data Turnaround 15 Days / 15 Days
SAMPLING LOCATION C8189 (199-N-187); I-026	PROJECT DESIGNATION 100 Area Remedial Investigation/Feasibility Analysis - 100-NR-2 - Groundw		SAF NO. F11-063		
ICE CHEST NO. GWS-110	FIELD LOGBOOK NO. HNF-N-503-2 pg 117	ACTUAL SAMPLE DEPTH 87.6-90.1	COA 300104ES10	METHOD OF SHIPMENT FEDERAL EXPRESS	ORIGINAL
SHIPPED TO TestAmerica St. Louis	OFFSITE PROPERTY NO. SEE PTR		BILL OF LADING/AIR BILL NO. SEE PTR 7951-5593-1815		

MATRIX*
A=Air
DL=Drum Liquids
DS=Drum Solids
L=Liquid
O=Oil
S=Soil
SE=Sediment
T=Tissue
V=Vegetation
W=Water
WI=Wipe
X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS
Contains Radioactive Material at concentrations that may or may not be regulated for transportation per 49 CFR / IATA Dangerous Goods Regulations but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	Cool~4C	Cool~4C
HOLDING TIME	14/40 Days	7/40 Days
TYPE OF CONTAINER	aG	aG
NO. OF CONTAINER(S)	3	3
VOLUME	1L	1L
SAMPLE ANALYSIS	PAHs - 8310 (100 Area RI/FS);	Pesticides - 8081 (100 Area RI/FS);

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B2C7X6	WATER	9-1-11	1315	✓	✓

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CHAIN OF POSSESSION	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM: Larry Rosanne Larry Rosanne 9-1-11 1535	RECEIVED BY/STORED IN: MO-413 SSU-R1 9-1-11 1535	
RELINQUISHED BY/REMOVED FROM: MO-413 SSU-R1 SEP 06 2011 0900	RECEIVED BY/STORED IN: M.A. White M.A. White SEP 06 2011 0900	
RELINQUISHED BY/REMOVED FROM: M.A. White M.A. White SEP 06 2011 1400	RECEIVED BY/STORED IN: FEDEX	
RELINQUISHED BY/REMOVED FROM: FedEx	RECEIVED BY/STORED IN: Brian Daniels 9/7/11 0945	
RELINQUISHED BY/REMOVED FROM:	RECEIVED BY/STORED IN:	
RELINQUISHED BY/REMOVED FROM:	RECEIVED BY/STORED IN:	
RELINQUISHED BY/REMOVED FROM:	RECEIVED BY/STORED IN:	

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

PRINTED ON 3/9/2011

A-6003-618 (REV 2)

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Print page | Close

FedEx

Detailed Results

Tracking no.: 795155931815 Select time format: 12H

Delivered

Delivered
Signed for by: S.WILSON

Shipment Dates	Destination
Ship date Sep 6, 2011	EARTH CITY, MO
Delivery date Sep 7, 2011 9:30 AM	Signature Proof of Delivery

Shipment Options

Hold at FedEx Location
Hold at FedEx Location service is not available for this shipment.

Shipment Facts

Service type	Priority Overnight	Delivered to	Shipping/Receiving
Weight	56.0 lbs/25.4 kg	Reference	3D230 / 300104/ ES10 PTR3075

Shipment Travel History

Select time zone: Local Scan Time

All shipment travel activity is displayed in local time for the location

Date/Time	Activity	Location	Details
Sep 7, 2011 9:30 AM	Delivered	EARTH CITY, MO	
Sep 7, 2011 7:55 AM	On FedEx vehicle for delivery	EARTH CITY, MO	
Sep 7, 2011 7:51 AM	At local FedEx facility	EARTH CITY, MO	
Sep 7, 2011 6:38 AM	At destination sort facility	BERKELEY, MO	
Sep 7, 2011 5:49 AM	Departed FedEx location	MEMPHIS, TN	
Sep 6, 2011 5:47 PM	Left FedEx origin facility	PASCO, WA	
Sep 6, 2011 3:19 PM	Picked up	PASCO, WA	
Sep 6, 2011 2:32 PM	Shipment information sent to FedEx		

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

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CUR Form #: 0 9 4

Lot #(s): 415 416 417 418

CONDITION UPON RECEIPT FORM

Client: CHPRC

Quote No: 88491 / 88739 / ~~88~~ 89147 / 89424

COC/RFA No: see below

Initiated By: BD Date: 9/7/11 Time: 0945

Shipping Information

Shipper: FedEx UPS DHL Courier Client Other: _____ Multiple Packages: Y N

Shipping # (s):*		Sample Temperature (s):**	
1. 7951 5593 1815	6.	1. 2	6.
2. 7974 8426 0952	7.	2. 2	7.
3.	8.	3.	8.
4.	9.	4.	9.
5.	10.	5.	10.

*Numbered shipping lines correspond to Numbered Sample Temp lines

**Sample must be received at 4°C ± 2°C- If not, note contents below. Temperature variance does NOT affect the following: Metals-Liquid; Rad tests- Liquid or Solids; Perchlorate

Condition (Circle "Y" for yes, "N" for no and "N/A" for not applicable):

1.	Y N	Are there custody seals present on the cooler?	8.	Y N	Are there custody seals present on bottles?
2.	Y N N/A	Do custody seals on cooler appear to be tampered with?	9.	Y N N/A	Do custody seals on bottles appear to be tampered with?
3.	Y N	Were contents of cooler frisked after opening, but before unpacking?	10.	Y N N/A	Was sample received with proper pH[1]? (If not, make note below)
4.	Y N	Sample received with Chain of Custody?	11.	Y N N/A	Containers for C-14, H-3 & I-129/131 marked with "Do Not Preserve" label?
5.	Y N N/A	Does the Chain of Custody match sample ID's on the container(s)?	12.	Y N	Sample received in proper containers?
6.	Y N	Was sample received broken?	13.	Y N N/A	Headspace in VOA or TOX liquid samples? (If Yes, note sample ID's below)
7.	Y N	Is sample volume sufficient for analysis?	14.	Y N N/A	Was Internal COC/Workshare received?

[1] For DOE-AL (Pantex, LANL, Sandia) sites, pH of ALL containers received must be verified, EXCEPT VOA, TOX, Oil & Grease and soils.

Notes: COCs
F11-063-135
F11-057-094
S11-067-487
W11-009-080

Corrective Action:

☐ Client Contact Name: _____ Informed by: _____

☐ Sample(s) processed "as is"

☐ Sample(s) on hold until: _____ If released, notify: _____

Project Management Review: [signature] Date: 09-11-11

THIS FORM MUST BE COMPLETED AT THE TIME THE ITEMS ARE BEING CHECKED IN. IF ANY ITEM IS COMPLETED BY SOMEONE OTHER THAN THE INITIATOR, THEN THAT PERSON IS REQUIRED TO APPLY THEIR INITIAL AND THE DATE NEXT TO THAT ITEM.

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PESTICIDES

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CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2C7X6

GC Semivolatiles

Lot-Sample #...: F1I070415-001 **Work Order #...:** ML9EG1AC **Matrix.....:** WATER
Date Sampled...: 09/01/11 **Date Received..:** 09/07/11
Prep Date.....: 09/08/11 **Analysis Date..:** 09/13/11
Prep Batch #...: 1251123
Dilution Factor: 1 **Method.....:** SW846 8081A

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Aldrin	ND	0.050	ug/L	0.010
alpha-BHC	ND	0.050	ug/L	0.010
beta-BHC	ND	0.050	ug/L	0.013
delta-BHC	ND	0.050	ug/L	0.010
gamma-BHC (Lindane)	ND	0.050	ug/L	0.010
alpha-Chlordane	ND	0.050	ug/L	0.010
gamma-Chlordane	ND	0.050	ug/L	0.010
4,4'-DDD	ND	0.050	ug/L	0.010
4,4'-DDE	ND	0.050	ug/L	0.010
4,4'-DDT	ND	0.050	ug/L	0.010
Dieldrin	ND	0.050	ug/L	0.010
Endosulfan I	ND	0.050	ug/L	0.010
Endosulfan II	ND	0.050	ug/L	0.010
Endosulfan sulfate	ND	0.050	ug/L	0.010
Endrin	ND	0.050	ug/L	0.017
Endrin aldehyde	ND	0.050	ug/L	0.010
Endrin ketone	ND	0.050	ug/L	0.010
Heptachlor	ND	0.050	ug/L	0.010
Heptachlor epoxide	ND	0.050	ug/L	0.017
Methoxychlor	ND	2.0	ug/L	0.010
Toxaphene	ND	2.0	ug/L	0.66

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	103	(74 - 114)
Decachlorobiphenyl	106	(75 - 117)

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METHOD BLANK REPORT

GC Semivolatiles

Client Lot #...: SL1114 **Work Order #...:** ML97K1AA **Matrix.....:** WATER
MB Lot-Sample #: F1I080000-123

Prep Date.....: 09/08/11
Analysis Date..: 09/13/11 **Prep Batch #...:** 1251123
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Aldrin	ND	0.050	ug/L	SW846 8081A
alpha-BHC	ND	0.050	ug/L	SW846 8081A
beta-BHC	ND	0.050	ug/L	SW846 8081A
delta-BHC	ND	0.050	ug/L	SW846 8081A
gamma-BHC (Lindane)	ND	0.050	ug/L	SW846 8081A
alpha-Chlordane	ND	0.050	ug/L	SW846 8081A
gamma-Chlordane	ND	0.050	ug/L	SW846 8081A
4,4'-DDD	ND	0.050	ug/L	SW846 8081A
4,4'-DDE	ND	0.050	ug/L	SW846 8081A
4,4'-DDT	ND	0.050	ug/L	SW846 8081A
Dieldrin	ND	0.050	ug/L	SW846 8081A
Endosulfan I	ND	0.050	ug/L	SW846 8081A
Endosulfan II	ND	0.050	ug/L	SW846 8081A
Endosulfan sulfate	ND	0.050	ug/L	SW846 8081A
Endrin	ND	0.050	ug/L	SW846 8081A
Endrin aldehyde	ND	0.050	ug/L	SW846 8081A
Endrin ketone	ND	0.050	ug/L	SW846 8081A
Heptachlor	ND	0.050	ug/L	SW846 8081A
Heptachlor epoxide	ND	0.050	ug/L	SW846 8081A
Methoxychlor	ND	2.0	ug/L	SW846 8081A
Toxaphene	ND	2.0	ug/L	SW846 8081A

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	100	(74 - 114)
Decachlorobiphenyl	108	(75 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

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LABORATORY CONTROL SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: SL1114 **Work Order #...:** ML97K1AC **Matrix.....:** WATER
LCS Lot-Sample#: F1I080000-123
Prep Date.....: 09/08/11 **Analysis Date..:** 09/13/11
Prep Batch #...: 1251123
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Aldrin	**0.500**	**0.424**	ug/L	**85**	**SW846 8081A**
alpha-BHC	**0.500**	**0.447**	ug/L	**89**	**SW846 8081A**
beta-BHC	**0.500**	**0.444**	ug/L	**89**	**SW846 8081A**
delta-BHC	**0.500**	**0.520**	ug/L	**104**	**SW846 8081A**
gamma-BHC (Lindane)	**0.500**	**0.451**	ug/L	**90**	**SW846 8081A**
alpha-Chlordane	**0.500**	**0.485**	ug/L	**97**	**SW846 8081A**
gamma-Chlordane	**0.500**	**0.426**	ug/L	**85**	**SW846 8081A**
4,4'-DDD	**0.500**	**0.410**	ug/L	**82**	**SW846 8081A**
4,4'-DDE	**0.500**	**0.399**	ug/L	**80**	**SW846 8081A**
4,4'-DDT	**0.500**	**0.395**	ug/L	**79**	**SW846 8081A**
Dieldrin	**0.500**	**0.411**	ug/L	**82**	**SW846 8081A**
Endosulfan I	**0.500**	**0.412**	ug/L	**82**	**SW846 8081A**
Endosulfan II	**0.500**	**0.384**	ug/L	**77**	**SW846 8081A**
Endosulfan sulfate	**0.500**	**0.382**	ug/L	**76**	**SW846 8081A**
Endrin	**0.500**	**0.410**	ug/L	**82**	**SW846 8081A**
Endrin aldehyde	**0.500**	**0.360**	ug/L	**72**	**SW846 8081A**
Endrin ketone	**0.500**	**0.441**	ug/L	**88**	**SW846 8081A**
Heptachlor	**0.500**	**0.479**	ug/L	**96**	**SW846 8081A**
Heptachlor epoxide	**0.500**	**0.418**	ug/L	**84**	**SW846 8081A**
Methoxychlor	**0.500**	**0.380**	ug/L	**76**	**SW846 8081A**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	88	(70 - 120)
Decachlorobiphenyl	86	(74 - 121)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

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MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: SL1114 Work Order #...: ML9EG1AE-MS Matrix.....: WATER
MS Lot-Sample #: F1I070415-001 ML9EG1AF-MSD
Date Sampled...: 09/01/11 Date Received..: 09/07/11
Prep Date.....: 09/08/11 Analysis Date..: 09/13/11
Prep Batch #...: 1251123
Dilution Factor: 1

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Aldrin	ND	0.492	0.473	ug/L	96		SW846 8081A
	ND	0.493	0.498	ug/L	101	5.1	SW846 8081A
alpha-BHC	ND	0.492	0.490	ug/L	100		SW846 8081A
	ND	0.493	0.516	ug/L	105	5.2	SW846 8081A
beta-BHC	ND	0.492	0.493	ug/L	100		SW846 8081A
	ND	0.493	0.520	ug/L	105	5.3	SW846 8081A
delta-BHC	ND	0.492	0.530	ug/L	108		SW846 8081A
	ND	0.493	0.567	ug/L	115	6.7	SW846 8081A
gamma-BHC (Lindane)	ND	0.492	0.495	ug/L	101		SW846 8081A
	ND	0.493	0.525	ug/L	106	5.9	SW846 8081A
alpha-Chlordane	ND	0.492	0.546	ug/L	111		SW846 8081A
	ND	0.493	0.589	ug/L	119	7.6	SW846 8081A
gamma-Chlordane	ND	0.492	0.479	ug/L	97		SW846 8081A
	ND	0.493	0.518	ug/L	105	7.8	SW846 8081A
4,4'-DDD	ND	0.492	0.491	ug/L	100		SW846 8081A
	ND	0.493	0.546	ug/L	111	11	SW846 8081A
4,4'-DDE	ND	0.492	0.455	ug/L	92		SW846 8081A
	ND	0.493	0.502	ug/L	102	9.8	SW846 8081A
4,4'-DDT	ND	0.492	0.484	ug/L	98		SW846 8081A
	ND	0.493	0.540	ug/L	110	11	SW846 8081A
Dieldrin	ND	0.492	0.472	ug/L	96		SW846 8081A
	ND	0.493	0.513	ug/L	104	8.3	SW846 8081A
Endosulfan I	ND	0.492	0.462	ug/L	94		SW846 8081A
	ND	0.493	0.500	ug/L	101	7.9	SW846 8081A
Endosulfan II	ND	0.492	0.445	ug/L	90		SW846 8081A
	ND	0.493	0.494	ug/L	100	10	SW846 8081A
Endosulfan sulfate	ND	0.492	0.457	ug/L	93		SW846 8081A
	ND	0.493	0.511	ug/L	104	11	SW846 8081A
Endrin	ND	0.492	0.481	ug/L	98		SW846 8081A
	ND	0.493	0.525	ug/L	106	8.7	SW846 8081A
Endrin aldehyde	ND	0.492	0.440	ug/L	89		SW846 8081A
	ND	0.493	0.482	ug/L	98	9.1	SW846 8081A
Endrin ketone	ND	0.492	0.526	ug/L	107		SW846 8081A
	ND	0.493	0.597	ug/L	121	13	SW846 8081A
Heptachlor	ND	0.492	0.523	ug/L	106		SW846 8081A
	ND	0.493	0.585	ug/L	119	11	SW846 8081A
Heptachlor epoxide	ND	0.492	0.474	ug/L	96		SW846 8081A
	ND	0.493	0.507	ug/L	103	6.7	SW846 8081A
Methoxychlor	ND	0.492	0.462	ug/L	94		SW846 8081A
	ND	0.493	0.521	ug/L	106	12	SW846 8081A

(Continued on next page)

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MATRIX SPIKE SAMPLE DATA REPORT

GC Semivolatiles

Client Lot #...: SL1114 **Work Order #...:** ML9EG1AE-MS **Matrix.....:** WATER
MS Lot-Sample #: F1I070415-001 ML9EG1AF-MSD

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Tetrachloro-m-xylene	101	(74 - 114)
	103	(74 - 114)
Decachlorobiphenyl	102	(75 - 117)
	105	(75 - 117)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

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PAHs

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CH2M Hill Plateau Remediation DOE RL

Client Sample ID: B2C7X6

HPLC

Lot-Sample #...: F1I070415-001 **Work Order #...:** ML9EG1AD **Matrix.....:** WATER
Date Sampled...: 09/01/11 **Date Received..:** 09/07/11
Prep Date.....: 09/08/11 **Analysis Date..:** 09/13/11
Prep Batch #...: 1251122
Dilution Factor: 1 **Method.....:** SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	5.0	ug/L	0.65
Acenaphthylene	ND	5.0	ug/L	0.40
Anthracene	ND	1.0	ug/L	0.020
Benzo(a)anthracene	ND	1.0	ug/L	0.063
Benzo(b)fluoranthene	ND	1.0	ug/L	0.051
Benzo(k)fluoranthene	ND	1.0	ug/L	0.074
Benzo(ghi)perylene	ND	1.0	ug/L	0.16
Benzo(a)pyrene	ND	1.0	ug/L	0.075
Chrysene	ND	1.0	ug/L	0.035
Dibenz(a,h)anthracene	ND	1.0	ug/L	0.15
Fluoranthene	ND	1.0	ug/L	0.18
Fluorene	ND	1.0	ug/L	0.071
Indeno(1,2,3-cd)pyrene	ND	1.0	ug/L	0.14
Naphthalene	ND	5.0	ug/L	0.20
Phenanthrene	ND	1.0	ug/L	0.30
Pyrene	ND	1.0	ug/L	0.083

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
p-Terphenyl	81	(60 - 98)

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METHOD BLANK REPORT

HPLC

Client Lot #...: SL1114 **Work Order #...:** ML97G1AA **Matrix.....:** WATER
MB Lot-Sample #: F1I080000-122

Prep Date.....: 09/08/11
Analysis Date..: 09/13/11 **Prep Batch #...:** 1251122
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	5.0	ug/L	SW846 8310
Acenaphthylene	ND	5.0	ug/L	SW846 8310
Anthracene	ND	1.0	ug/L	SW846 8310
Benzo(a)anthracene	ND	1.0	ug/L	SW846 8310
Benzo(b)fluoranthene	ND	1.0	ug/L	SW846 8310
Benzo(k)fluoranthene	ND	1.0	ug/L	SW846 8310
Benzo(ghi)perylene	ND	1.0	ug/L	SW846 8310
Benzo(a)pyrene	ND	1.0	ug/L	SW846 8310
Chrysene	ND	1.0	ug/L	SW846 8310
Dibenz(a,h)anthracene	ND	1.0	ug/L	SW846 8310
Fluoranthene	ND	1.0	ug/L	SW846 8310
Fluorene	ND	1.0	ug/L	SW846 8310
Indeno(1,2,3-cd)pyrene	ND	1.0	ug/L	SW846 8310
Naphthalene	ND	5.0	ug/L	SW846 8310
Phenanthrene	ND	1.0	ug/L	SW846 8310
Pyrene	ND	1.0	ug/L	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
p-Terphenyl	82	(60 - 98)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

RECEIVED SEPTEMBER 16, 2011

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: SL1114 **Work Order #...:** ML97G1AC **Matrix.....:** WATER
LCS Lot-Sample#: F1I080000-122
Prep Date.....: 09/08/11 **Analysis Date..:** 09/13/11
Prep Batch #...: 1251122
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Acenaphthene	**20.0**	**12.9**	**ug/L**	**64**	**SW846 8310**
Acenaphthylene	**40.0**	**26.2**	**ug/L**	**66**	**SW846 8310**
Anthracene	**2.00**	**1.44**	**ug/L**	**72**	**SW846 8310**
Benzo(a)anthracene	**2.00**	**1.48**	**ug/L**	**74**	**SW846 8310**
Benzo(b)fluoranthene	**4.00**	**3.01**	**ug/L**	**75**	**SW846 8310**
Benzo(k)fluoranthene	**2.00**	**1.49**	**ug/L**	**74**	**SW846 8310**
Benzo(ghi)perylene	**4.00**	**3.09**	**ug/L**	**77**	**SW846 8310**
Benzo(a)pyrene	**2.00**	**1.62**	**ug/L**	**81**	**SW846 8310**
Chrysene	**2.00**	**1.49**	**ug/L**	**74**	**SW846 8310**
Dibenz(a,h)anthracene	**4.00**	**2.88**	**ug/L**	**72**	**SW846 8310**
Fluoranthene	**4.00**	**2.93**	**ug/L**	**73**	**SW846 8310**
Fluorene	**4.00**	**2.71**	**ug/L**	**68**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**2.00**	**1.50**	**ug/L**	**75**	**SW846 8310**
Naphthalene	**20.0**	**12.2**	**ug/L**	**61**	**SW846 8310**
Phenanthrene	**2.00**	**1.47**	**ug/L**	**74**	**SW846 8310**
Pyrene	**2.00**	**1.55**	**ug/L**	**78**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
p-Terphenyl	78	(56 - 108)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

RECEIVED SEPTEMBER 16, 2011

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: SL1114
MS Lot-Sample #: F1I070415-001
Date Sampled...: 09/01/11
Prep Date.....: 09/08/11
Prep Batch #...: 1251122
Dilution Factor: 1

Work Order #...: ML9EG1AG-MS
ML9EG1AH-MSD
Date Received..: 09/07/11
Analysis Date..: 09/13/11

Matrix.....: WATER

PARAMETER	SAMPLE AMOUNT	SPIKE AMT	MEASRD AMOUNT	UNITS	PERCNT RECVRY	RPD	METHOD
Acenaphthene	ND	20.0	15.1	ug/L	76		SW846 8310
	ND	19.5	14.4	ug/L	73	5.0	SW846 8310
Acenaphthylene	ND	39.9	30.4	ug/L	76		SW846 8310
	ND	39.1	28.7	ug/L	73	5.8	SW846 8310
Anthracene	ND	2.00	1.60	ug/L	80		SW846 8310
	ND	1.95	1.54	ug/L	79	4.1	SW846 8310
Benzo(a)anthracene	ND	2.00	1.63	ug/L	82		SW846 8310
	ND	1.95	1.57	ug/L	80	3.5	SW846 8310
Benzo(b)fluoranthene	ND	3.99	3.34	ug/L	84		SW846 8310
	ND	3.91	3.19	ug/L	82	4.6	SW846 8310
Benzo(k)fluoranthene	ND	2.00	1.65	ug/L	83		SW846 8310
	ND	1.95	1.60	ug/L	82	3.1	SW846 8310
Benzo(ghi)perylene	ND	3.99	3.42	ug/L	86		SW846 8310
	ND	3.91	3.25	ug/L	83	5.1	SW846 8310
Benzo(a)pyrene	ND	2.00	1.77	ug/L	89		SW846 8310
	ND	1.95	1.69	ug/L	87	4.8	SW846 8310
Chrysene	ND	2.00	1.65	ug/L	82		SW846 8310
	ND	1.95	1.57	ug/L	80	4.7	SW846 8310
Dibenz(a,h)anthracene	ND	3.99	3.20	ug/L	80		SW846 8310
	ND	3.91	3.08	ug/L	79	4.0	SW846 8310
Fluoranthene	ND	3.99	3.32	ug/L	83		SW846 8310
	ND	3.91	3.15	ug/L	81	5.3	SW846 8310
Fluorene	ND	3.99	3.09	ug/L	77		SW846 8310
	ND	3.91	2.95	ug/L	75	4.7	SW846 8310
Indeno(1,2,3-cd)pyrene	ND	2.00	1.67	ug/L	84		SW846 8310
	ND	1.95	1.57	ug/L	80	6.0	SW846 8310
Naphthalene	ND	20.0	15.1	ug/L	76		SW846 8310
	ND	19.5	14.5	ug/L	74	4.0	SW846 8310
Phenanthrene	ND	2.00	1.64	ug/L	82		SW846 8310
	ND	1.95	1.59	ug/L	81	3.0	SW846 8310
Pyrene	ND	2.00	1.69	ug/L	85		SW846 8310
	ND	1.95	1.63	ug/L	83	3.7	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
p-Terphenyl	88	(60 - 98)
	85	(60 - 98)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters