WSCF Laboratory
PO Box 650 S3-30
Richland, WA 99352

May 7, 2014

Scot Fitzgerald
CH2M-HILL PRC
PO Box 1600
Richland, WA 99352

Dear Scot Fitzgerald,

FINAL RESULT FOR SAMPLE DELIVERY GROUP WSCF140647

Reference: (1) SOW, Mod 2, #36587, Release 3
(2) MSC-SD-CD-QAPP-017, current version, Waste Sampling & Characterization Facility Quality Assurance Program Plan

This letter contains the following information for sample delivery group WSCF140647

* Cover Sheet (Attachment 1)
* Narrative (Attachment 2)
* Analytical Results (Attachment 3)
* Sample Receipt Information (Attachment 4)

Very truly yours,

Electronically signed by Joseph Hale

For Lab Manager, Dan T. Smith

WSCF Analytical Lab

(509) 373-4804

Attachments 4

CC: w/Attachments

File/LB

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages

Including cover page

WSCF SAF Number Cross Reference

Group # WSCF140647
Data Deliverable Date 05/12/14

SAF #	Sample ID	Sample #	Matrix	Sampled	Received
S14-004	B2W8X6	140647001	WATER	04/09/14	04/09/14
S14-004	B2W8Y2	140647002	WATER	04/09/14	04/09/14
S14-004	B2W7X5	140647003	WATER	04/09/14	04/09/14
S14-004	B2W7W8	140647004	WATER	04/09/14	04/09/14
W14-004	B2W5D9	140647005	WATER	04/09/14	04/09/14
W14-004	B2W5F0	140647006	WATER	04/09/14	04/09/14
W14-004	B2W5Y2	140647007	WATER	04/09/14	04/09/14
W14-004	B2W5Y3	140647008	WATER	04/09/14	04/09/14
W14-004	B2W5Y4	140647009	WATER	04/09/14	04/09/14

ATTACHMENT 2

NARRATIVE

Consisting of 4 pages
Including cover page

Attachment 2
Narrative
WSCF140647

Introduction

Samples were received at the WSCF laboratory as referenced on the WSCF SAF Number Cross Reference table included in the final report. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), to Contract 39818, Revision 4, "WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

The narrative (Attachment 2) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 3) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information as applicable. Copies of the chain of custody and sample receipt documentation are included as Attachment 4.

It should be noted that the attached chain of custody was not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED". No anomaly was noted during sample receipt.

The following generic data qualifiers (i.e., B, C, D, J and U) may be applicable to this report, as appropriate.

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wet chemical analyses), as appropriate.
- **C** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were C flagged (applies to inorganic and wet chemical analyses).
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.
- **B (organic analyses)** – Analyte was detected in the blank and was evaluated. Affected sample results in the batch were B flagged.
- **U** – Analyzed for but not detected above limiting criteria. Relative Percent Difference (RPD) values associated with an analyte qualified with a "U" are not applicable.
- **o** – LCS recovery outside established laboratory acceptance limits.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report* for a complete listing of approved analytical methods.

Inorganic Comments

Attachment 2
Narrative
WSCF140647

Anions – Hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

ICP-AES Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Sodium and Calcium – Matrix Spike and Matrix Spike Duplicate recoveries are outside established laboratory limits. Affected sample results in this batch were "N" flagged.
- All other applicable QC controls are within the established limits.

ICP-MS Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Total Alkalinity – The hold time requirement for this analysis was met. A Duplicate and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Total Organic Carbon – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Total Organic Halides – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Organic Comments

Semi-VOA – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- All applicable QC controls are within the established limits.

Radiochemistry Comments

Narrative

Attachment 2
Narrative
WSCF140647

Rad Chem – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike (Matrix Spikes apply only to Tritium), Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

Tracers are used to determine chemical yield. RPD is monitored in sample duplicate and is not required for tracer recovery per SOW.

Gross Alpha / Gross Beta:

- All applicable QC controls are within the established limits.

Strontium-89/90:

- All applicable QC controls are within the established limits.

Tritium:

- All applicable QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by electronic signatures shown on the WSCF ANALYTICAL RESULTS REPORT.

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 52 pages
Including cover page

WSCF ANALYTICAL RESULTS REPORT

For

CH2M Hill Plateau Remediation

PO Box 1600
Richland, WA 99352

Attention: Scot Fitzgerald

Contract # MOA-FH-CHPRC-2008
Group # WSCF140647
Report Date May 7, 2014

Analytical: Electronically signed by Joseph Hale

Client Services: Electronically signed by Marisol Avila

Solid samples results that have a 'Percent Solid' test are reported on a "dry weight basis", except results of TCLP, Percent Solid, and Total Activity. If no `Percent Solid' test is reported then the results are reported on an "as received" basis.

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
231441	232162	5	BLANK	108645	BLANK		ICP-6010 - All possible metals
231441	232162	7	LCS	108647	LCS		ICP-6010 - All possible metals
231441	232162	8	SAMPLE	140647003	B2W7X5		ICP-6010 - All possible metals
231441	232162	9	MS	108648	B2W7X5(140647003MS)	140647003	ICP-6010 - All possible metals
231441	232162	10	MSD	108649	B2W7X5(140647003MSD	140647003	ICP-6010 - All possible metals
231441	232162	24	SAMPLE	140647004	B2W7W8		ICP-6010 - All possible metals
231441	232162	25	SAMPLE	140647006	B2W5F0		ICP-6010 - All possible metals
231541	231541	2	BLANK	108685	BLANK		Anions by Ion Chromatography (Water)
231541	231541	3	LCS	108686	LCS		Anions by Ion Chromatography (Water)
231541	231541	4	MS	108687	B2W6X1(140648001MS)	140648001	Anions by Ion Chromatography (Water)
231541	231541	5	MSD	108688	B2W6X1(140648001MSD	140648001	Anions by Ion Chromatography (Water)
231541	231541	8	SAMPLE	140647001	B2W8X6		Anions by Ion Chromatography (Water)
231541	231541	9	SAMPLE	140647002	B2W8Y2		Anions by Ion Chromatography (Water)
232380	232381	1	BLANK	109511	BLANK		Total Organic Halides
232380	232381	2	LCS	109512	LCS		Total Organic Halides
232380	232381	16	MS	109518	B2W5Y4(140647009MS)	140647009	Total Organic Halides
232380	232381	17	MSD	109519	B2W5Y4(140647009MSD	140647009	Total Organic Halides
232380	232381	18	SAMPLE	140647009	B2W5Y4		Total Organic Halides
232449	232450	1	BLANK	109534	BLANK		Total Organic Halides
232449	232450	2	LCS	109535	LCS		Total Organic Halides
232449	232450	22	MS	109543	B2W645(140642007MS)	140642007	Total Organic Halides
232449	232450	23	MSD	109544	B2W645(140642007MSD	140642007	Total Organic Halides
232449	232450	25	SAMPLE	140647005	B2W5D9		Total Organic Halides

Batch QC List

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
232449	232450	26	SAMPLE	140647007	B2W5Y2		Total Organic Halides
232449	232450	27	SAMPLE	140647008	B2W5Y3		Total Organic Halides
232555	232561	4	BLANK	109661	BLANK		3E-2008 ICP-MS 3 Elements
232555	232561	5	LCS	109662	LCS		3E-2008 ICP-MS 3 Elements
232555	232561	7	MS	109663	B2W820(140622007MS)	140622007	3E-2008 ICP-MS 3 Elements
232555	232561	8	MSD	109664	B2W820(140622007MSD	140622007	3E-2008 ICP-MS 3 Elements
232555	232561	22	SAMPLE	140647003	B2W7X5		3E-2008 ICP-MS 3 Elements
232555	232561	23	SAMPLE	140647004	B2W7W8		3E-2008 ICP-MS 3 Elements

Batch QC List

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140647

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
231444	232144	1	BLANK	108664	BLANK		SW-846 8270D Semivolatiles
231444	232144	2	LCS	108665	LCS		SW-846 8270D Semivolatiles
231444	232144	3	MS	108666	B2W5K4(140628003MS)	140628003	SW-846 8270D Semivolatiles
231444	232144	4	MSD	108667	B2W5K4(140628003MSD	140628003	SW-846 8270D Semivolatiles
231444	232144	10	SAMPLE	140647005	B2W5D9		SW-846 8270D Semivolatiles

Batch QC List

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF140647

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
231443	232048	1	BLANK	108659	BLANK		GAB Discrete analysis Alpha only
231443	232048	2	LCS	108660	LCS		GAB Discrete analysis Alpha only
231443	232048	3	SAMPLE	140647003	B2W7X5		GAB Discrete analysis Alpha only
231443	232048	4	DUP	108661	B2W7X5(140647003DUP	140647003	GAB Discrete analysis Alpha only
231443	232048	5	SAMPLE	140647004	B2W7W8		GAB Discrete analysis Alpha only
231443	232049	1	BLANK	108659	BLANK		GAB Discrete analysis Beta only
231443	232049	2	LCS	108660	LCS		GAB Discrete analysis Beta only
231443	232049	3	SAMPLE	140647003	B2W7X5		GAB Discrete analysis Beta only
231443	232049	4	DUP	108661	B2W7X5(140647003DUP	140647003	GAB Discrete analysis Beta only
231443	232049	5	SAMPLE	140647004	B2W7W8		GAB Discrete analysis Beta only
231445	231887	1	BLANK	108668	BLANK		Strontium 89/90 (GPC/GEA)
231445	231887	2	LCS	108669	LCS		Strontium 89/90 (GPC/GEA)
231445	231887	3	DUP	108670	B2V0K0(140611003DUP)	140611003	Strontium 89/90 (GPC/GEA)
231445	231887	8	SAMPLE	140647004	B2W7W8		Strontium 89/90 (GPC/GEA)
231536	231866	1	BLANK	108680	BLANK		Tritium by LSC
231536	231866	2	LCS	108681	LCS		Tritium by LSC
231536	231866	4	DUP	108682	B2W829(140641003DUP)	140641003	Tritium by LSC
231536	231866	5	MSPK	108683	B2W829(140641003MSP		Tritium by LSC
231536	231866	7	SAMPLE	140647003	B2W7X5		Tritium by LSC
231536	231866	8	SAMPLE	140647004	B2W7W8		Tritium by LSC

Batch QC List

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140647

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
231861	231861	1	LCS	108912	LCS		Total Alkalinity as mg/L CaCO3 (Water)
231861	231861	2	DUP	108913	B2W5D9(140647005DUP	140647005	Total Alkalinity as mg/L CaCO3 (Water)
231861	231861	3	SAMPLE	140647005	B2W5D9		Total Alkalinity as mg/L CaCO3 (Water)
231861	231861	6	LCS	108914	LCS		Total Alkalinity as mg/L CaCO3 (Water)
232553	232553	2	BLANK	109653	BLANK		Total Organic Carbon
232553	232553	3	LCS	109654	LCS		Total Organic Carbon
232553	232553	17	MS	109658	B2W643(140642005MS)	140642005	Total Organic Carbon
232553	232553	18	MSD	109659	B2W643(140642005MSD	140642005	Total Organic Carbon
232553	232553	22	SAMPLE	140647005	B2W5D9		Total Organic Carbon
232553	232553	23	SAMPLE	140647007	B2W5Y2		Total Organic Carbon
232553	232553	24	SAMPLE	140647008	B2W5Y3		Total Organic Carbon
232553	232553	25	SAMPLE	140647009	B2W5Y4		Total Organic Carbon

Method Reference

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory, industry methods or HEIS methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-505-411	Elemental Analysis by ICP Atomic Emission Spectroscopy (ICP AES)		
	EPA SW-846	6010C	Inductively Coupled Plasma-Atomic Emmision Spectrometry
	HEIS	6010_METALS_ICP	Inductively Coupled Plasma-Atomic Emmision Spectrometry
LA-505-412	Determination of Trace Elements in Waters & Wastes by ICP Mass Spectrometry		
	EPA-600/R-94-111	200.8	Determination of Trace Elements in Waters and Waste by Inductively Coupled Plasma
	HEIS	200.8_METALS_ICPMS	Determination of Trace Elements in Waters and Waste by Inductively Coupled Plasma, Mass Spec.
LA-523-444	Total Organic Halides Based on SW-846 Method 9020B		
	EPA SW-846	9020B	Total Organic Halides (TOX)
	HEIS	9020_TOX	Total Organic Halides (TOX)
LA-533-410	Anion Analysis by Ion Chromatography		
	EPA-600/R-94-111	300.0	Determination of Inorganic Anions by Ion Chromatography
	HEIS	300.0_ANIONS_IC	Determination of Inorganic Anions by Ion Chromatography

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

Method Reference

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140647

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory, industry methods or HEIS methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-523-456 Semivolatile Sample Analysis by SW-846 Method 8270D

EPA SW-846	8000B	Determinative Chromagraphic Separations
EPA SW-846	3510C	Separatory Funnel Liquid-Liquid Extraction
EPA SW-846	8270D	Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
EPA SW-846	3545	Pressurized Fluid Extraction (PFE)
HEIS	8270_SVOA_GCMS	Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry(GC/MS)

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

Method Reference

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF140647

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory, industry methods or HEIS methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-218-413	Tritium By Ion Removal Using Eichrom Resin Columns (Prep)		
	N/A	PREP METHOD	
LA-220-406	Strontium-89 and 90 in Aqueous Samples by SR-SPEC Separation		
	HEIS	SRTOT_SEP_PRECIP_GPC	Strontium 89/90, by Sr-Spec Sep.
LA-508-421	Operation of the Tri-Carb Model 2500TR Liquid Scintillation Analyzer		
	HEIS	ALPHA_LSC	A/B Liquid Scintillation
	HEIS	BETA_LSC	A/B Liquid Scintillation
	HEIS	TC99_3MDSK_LSC	TC99 by Liquid Scintillation
	HEIS	TRITIUM_EIE_LSC	Tritium, by Eichrome ion exchange, LSC
LA-548-401	Alpha and Beta in Liquid and Solid Samples - WSCF		
	N/A	PREP METHOD	
LA-508-415	Operation Of The Protean 2-Inch Alpha/Beta Counting System For Gross Alpha/ Beta Samples		
	HEIS	ALPHA_GPC	Gross Alpha by GPC
	HEIS	BETA_GPC	Gross Beta by GPC
	HEIS	SRTOT_SEP_PRECIP_GPC	Strontium beta isotopic, GPC

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

Method Reference

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140647

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory, industry methods or HEIS methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-531-411	Alkalinity		
	SM	2320	Alkalinity
	HEIS	2320_ALKALINITY	Alkalinity
LA-344-406	Total Organic Carbon (TOC) Based on SW-846		
	EPA SW-846	9060	Total Organic Carbon
	HEIS	9060_TOC	Total Organic Carbon

Note: A complete list of WSCF analytical procedures and reference regulatory or industry methods is available online at http://www7.rl.gov/rapidweb/AS-DOL/index.cfm

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Sample # 140647001
SAF# S14-004
Sample ID B2W8X6

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										04/09/14
Anions by Ion Chromatography (Water)										
Fluoride	16984-48-8	LA-533-410	BD	0.124		ug/mL	2	0.050	1.0	04/09/14
Chloride	16887-00-6	LA-533-410	D	21.1		ug/mL	2	0.12	0.80	04/09/14
Nitrite-N	NO2-N	LA-533-410	UD	<0.040		ug/mL	2	0.040	0.20	04/09/14
Nitrate-N	NO3-N	LA-533-410	D	8.38		ug/mL	2	0.040	0.20	04/09/14
Sulfate	14808-79-8	LA-533-410	D	127		ug/mL	2	0.22	1.1	04/09/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Sample # 140647002
SAF# S14-004
Sample ID B2W8Y2

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										04/09/14
Anions by Ion Chromatography (Water)										
Fluoride	16984-48-8	LA-533-410	BD	0.342		ug/mL	2	0.050	1.0	04/09/14
Chloride	16887-00-6	LA-533-410	D	9.08		ug/mL	2	0.12	0.80	04/09/14
Nitrite-N	NO2-N	LA-533-410	UD	<0.040		ug/mL	2	0.040	0.20	04/09/14
Nitrate-N	NO3-N	LA-533-410	D	1.25		ug/mL	2	0.040	0.20	04/09/14
Sulfate	14808-79-8	LA-533-410	D	136		ug/mL	2	0.22	1.1	04/09/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Sample # 140647003
SAF# S14-004
Sample ID B2W7X5

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**04/22/14**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411		71.4		ug/L	1	40	50	04/22/14
Magnesium	7439-95-4	LA-505-411		14200		ug/L	1	60	750	04/22/14
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	5.0	04/22/14
Nickel	7440-02-0	LA-505-411	U	<10		ug/L	1	10	40	04/22/14
Potassium	7440-09-7	LA-505-411		7130		ug/L	1	250	4000	04/22/14
Silver	7440-22-4	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Sodium	7440-23-5	LA-505-411	N	28800		ug/L	1	100	500	04/22/14
Antimony	7440-36-0	LA-505-411	U	<20		ug/L	1	20	60	04/22/14
Barium	7440-39-3	LA-505-411		43.2		ug/L	1	4.0	20	04/22/14
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	5.0	04/22/14
Chromium	7440-47-3	LA-505-411		13.2		ug/L	1	5.0	10	04/22/14
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	04/22/14
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	8.0	04/22/14
Vanadium	7440-62-2	LA-505-411		27.1		ug/L	1	5.0	25	04/22/14
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Calcium	7440-70-2	LA-505-411	N	49300		ug/L	1	50	1000	04/22/14
Arsenic	7440-38-2	LA-505-411	U	<25		ug/L	1	25	30	04/22/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Sample # 140647003
SAF# S14-004
Sample ID B2W7X5

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep 3-Elements (W)										**04/30/14**
3E-2008 ICP-MS 3 Elements										
Arsenic	7440-38-2	LA-505-412	D	12.5		ug/L	2	0.40	4.0	05/05/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Sample # 140647004
SAF# S14-004
Sample ID B2W7W8

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**04/22/14**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411		145		ug/L	1	40	50	04/22/14
Magnesium	7439-95-4	LA-505-411		19000		ug/L	1	60	750	04/22/14
Manganese	7439-96-5	LA-505-411		11.2		ug/L	1	4.0	5.0	04/22/14
Nickel	7440-02-0	LA-505-411	U	<10		ug/L	1	10	40	04/22/14
Potassium	7440-09-7	LA-505-411		7570		ug/L	1	250	4000	04/22/14
Silver	7440-22-4	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Sodium	7440-23-5	LA-505-411	N	19900		ug/L	1	100	500	04/22/14
Antimony	7440-36-0	LA-505-411	U	<20		ug/L	1	20	60	04/22/14
Barium	7440-39-3	LA-505-411		43.7		ug/L	1	4.0	20	04/22/14
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	5.0	04/22/14
Chromium	7440-47-3	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	04/22/14
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	8.0	04/22/14
Vanadium	7440-62-2	LA-505-411	B	15.4		ug/L	1	5.0	25	04/22/14
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Calcium	7440-70-2	LA-505-411	N	64700		ug/L	1	50	1000	04/22/14
Arsenic	7440-38-2	LA-505-411	U	<25		ug/L	1	25	30	04/22/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Sample # 140647004
SAF# S14-004
Sample ID B2W7W8

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPMS Prep 3-Elements (W)										**04/30/14**
3E-2008 ICP-MS 3 Elements										
Arsenic	7440-38-2	LA-505-412	D	5.72		ug/L	2	0.40	4.0	05/05/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Sample # 140647005
SAF# W14-004
Sample ID B2W5D9

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**04/21/14**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	13.5		ug/L	1	5.0	15	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Sample # 140647006
SAF# W14-004
Sample ID B2W5F0

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICPAES Prep (W)										**04/22/14**
ICP-6010 - All possible metals										
Iron	7439-89-6	LA-505-411	U	<40		ug/L	1	40	50	04/22/14
Magnesium	7439-95-4	LA-505-411		14100		ug/L	1	60	750	04/22/14
Manganese	7439-96-5	LA-505-411	U	<4.0		ug/L	1	4.0	5.0	04/22/14
Nickel	7440-02-0	LA-505-411	U	<10		ug/L	1	10	40	04/22/14
Potassium	7440-09-7	LA-505-411		6970		ug/L	1	250	4000	04/22/14
Silver	7440-22-4	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Sodium	7440-23-5	LA-505-411	N	28900		ug/L	1	100	500	04/22/14
Antimony	7440-36-0	LA-505-411	U	<20		ug/L	1	20	60	04/22/14
Barium	7440-39-3	LA-505-411		43.6		ug/L	1	4.0	20	04/22/14
Cadmium	7440-43-9	LA-505-411	U	<4.0		ug/L	1	4.0	5.0	04/22/14
Chromium	7440-47-3	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Cobalt	7440-48-4	LA-505-411	U	<4.0		ug/L	1	4.0	20	04/22/14
Copper	7440-50-8	LA-505-411	U	<4.0		ug/L	1	4.0	8.0	04/22/14
Vanadium	7440-62-2	LA-505-411		26.2		ug/L	1	5.0	25	04/22/14
Zinc	7440-66-6	LA-505-411	U	<5.0		ug/L	1	5.0	10	04/22/14
Calcium	7440-70-2	LA-505-411	N	48400		ug/L	1	50	1000	04/22/14
Arsenic	7440-38-2	LA-505-411	U	<25		ug/L	1	25	30	04/22/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Sample # 140647007
SAF# W14-004
Sample ID B2W5Y2

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**04/21/14**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	12.0		ug/L	1	5.0	15	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Sample # 140647008
SAF# W14-004
Sample ID B2W5Y3

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**04/21/14**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	13.5		ug/L	1	5.0	15	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Sample # 140647009
SAF# W14-004
Sample ID B2W5Y4

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for TOX (W)										**04/21/14**
Total Organic Halides										
Total Organic Halides	59473-04-0	LA-523-444	B	13.4		ug/L	1	5.0	15	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the PQL(or EQL)but >= the IDL/MDL(Inorganic)
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
E - Analyte is an estimate, see comment section.
N - MS and/or MSD recovery outside control limits.

U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140647

Sample # 140647005
SAF# W14-004
Sample ID B2W5D9

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Preparation for 8270 (W) CLE										**04/14/14**
SW-846 8270D Semivolatiles										
4-Nitrophenol	100-02-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
Phenol	108-95-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
4-Chloro-3-methylphenol	59-50-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
Pentachlorophenol	87-86-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2-Chlorophenol	95-57-8	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,4-Dimethylphenol	105-67-9	LA-523-456	U	<1		ug/L	1	1	2	04/21/14
2,4-Dichlorophenol	120-83-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,4-Dinitrophenol	51-28-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
4,6-Dinitro-2-methylphenol	534-52-1	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2-Nitrophenol	88-75-5	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2-Methylphenol	95-48-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,4,5-Trichlorophenol	95-95-4	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
3 & 4 Methylphenol, Total	65794-96-9	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,4,6-Trichlorophenol	88-06-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
2,3,4,6-Tetrachlorophenol	58-90-2	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - Exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140647

Sample # 140647005
SAF# W14-004
Sample ID B2W5D9

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
2,6-Dichlorophenol	87-65-0	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14
Dinoseb(..dinitromethylphenol)	88-85-7	LA-523-456	U	<0.9		ug/L	1	0.9	1	04/21/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte was detected in both the BLANK and SAMPLE
D - Analyte was reported at a secondary dilution factor.
E - Exceeds the calibration range (GC/MS).
J - Analyte < lowest calibration but >= MDL.
N - Presumed evidence based on MS library search(GC/MS only)

T - MS/MSD recovery outside control limits(GC/MS only).
U - Analyzed for but not detected above limiting criteria.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF140647

Sample # 140647003
SAF# S14-004
Sample ID B2W7X5

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
GAB Prep for Discrete Analysis (W)										**04/18/14**
GAB Discrete analysis Alpha only										
Gross Alpha	12587-46-1	LA-508-415	U	0.61	1.7	pCi/L	1	3.0		04/22/14
GAB Discrete analysis Beta only										
Gross Beta	12587-47-2	LA-508-415		37	8.2	pCi/L	1	3.8		04/22/14
Tritium by LSC EICHROM WA/LIQ PREP										**04/10/14**
Tritium by LSC										
Tritium	10028-17-8	LA-508-421		1.4E4	2900	pCi/L	1	310		04/15/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - The associated QC sample Blank has a result > or = the MDA
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF140647

Sample # 140647004
SAF# S14-004
Sample ID B2W7W8

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
GAB Prep for Discrete Analysis (W)										**04/18/14**
GAB Discrete analysis Alpha only										
Gross Alpha	12587-46-1	LA-508-415	U	1.9	2.2	pCi/L	1	3.4		04/22/14
GAB Discrete analysis Beta only										
Gross Beta	12587-47-2	LA-508-415		470	94	pCi/L	1	3.9		04/22/14
Strontium 89/90 WATER/LIQUID PREP										**04/16/14**
Strontium 89/90 (GPC/GEA)										
Strontium-89_90	SR-RAD	LA-220-406	U	0.51	.58	pCi/L	1	0.93		04/19/14
Tritium by LSC EICHROM WA/LIQ PREP										**04/10/14**
Tritium by LSC										
Tritium	10028-17-8	LA-508-421		4800	1000	pCi/L	1	310		04/15/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - The associated QC sample Blank has a result > or = the MDA
U - Analyzed for but not detected above limiting criteria.
N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)

o - LCS recovery outside established laboratory acceptance limits.

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140647

Sample # 140647005
SAF# W14-004
Sample ID B2W5D9

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										04/15/14
Total Alkalinity as mg/L CaCO3 (Water)										
Total Alkalinity as CaCO3	ALKALINITY	LA-531-411		89		mg/L	1	1	10	04/15/14
Carbonate	CO3ALKALINI	LA-531-411	U	<1		mg/L	1	1		04/15/14
Bicarbonate	71-52-3	LA-531-411		89		mg/L	1	1		04/15/14
Hydroxyl ion	84625-61-6	LA-531-411	U	<1		mg/L	1	1		04/15/14
										04/28/14
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	B	0.188		mg/L	1	0.10	0.30	04/28/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
Ignitability: <20C listed in the result field indicates sample ignited at room temperature. Maximum temperature tested for ignitability is at 100C

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140647

Sample # 140647007
SAF# W14-004
Sample ID B2W5Y2

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										04/28/14
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	B	0.194		mg/L	1	0.10	0.30	04/28/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
Ignitability: <20C listed in the result field indicates sample ignited at room temperature. Maximum temperature tested for ignitability is at 100C

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140647

Sample # 140647008
SAF# W14-004
Sample ID B2W5Y3

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										04/28/14
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	B	0.189		mg/L	1	0.10	0.30	04/28/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
Ignitability: <20C listed in the result field indicates sample ignited at room temperature. Maximum temperature tested for ignitability is at 100C

WSCF Analytical Results Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140647

Sample # 140647009
SAF# W14-004
Sample ID B2W5Y4

Matrix WATER
Sampled 04/09/14
Received 04/09/14

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
										04/28/14
Total Organic Carbon										
Total Organic Carbon	TOC	LA-344-406	B	0.183		mg/L	1	0.10	0.30	04/28/14

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor
+ - Indicates more than nine qualifier

B - Analyte < the RDL but >= the IDL/MDL.
C - Analyte was found in the Associated Blank. (Inorganic)
D - Analyte was reported at a secondary dilution factor.
N - MS and/or MSD sample recovery outside control limits.
U - Analyzed for but not detected above limiting criteria.

N - Spike Recovery is Outside Control Limits.
X,Y or Z - See comment detail and/or narrative.
PQL is equivalent to Estimated Quantitation Limit (EQL)
o - LCS recovery outside established laboratory acceptance limits.
Ignitability: <20C listed in the result field indicates sample ignited at room temperature. Maximum temperature tested for ignitability is at 100C

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Analytical Batch 231541 (QC Batch: 231541) **Test** Anions by Ion Chromatography (Water)
Associated Samples 140647001, 140647002

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #108685**							
Fluoride	16984-48-8		<0.025	ug/mL					U	04/09/14
Chloride	16887-00-6		<0.060	ug/mL					U	04/09/14
Nitrite-N	NO2-N		<0.020	ug/mL					U	04/09/14
Nitrate-N	NO3-N		<0.020	ug/mL					U	04/09/14
Sulfate	14808-79-8		<0.11	ug/mL					U	04/09/14
LCS			**QC Sample #108686**							
Fluoride	16984-48-8		0.920	ug/mL	92.9	90 - 110				04/09/14
Chloride	16887-00-6		1.91	ug/mL	96.6	90 - 110				04/09/14
Nitrite-N	NO2-N		1.02	ug/mL	104.7	90 - 110				04/09/14
Nitrate-N	NO3-N		0.893	ug/mL	100.9	90 - 110				04/09/14
Sulfate	14808-79-8		3.88	ug/mL	99	90 - 110				04/09/14
MS			**QC Sample #108687**							
			Original 140648001							
Fluoride	16984-48-8		0.863	ug/mL	86.3	80 - 120			BD	04/09/14
Chloride	16887-00-6		1.88	ug/mL	94	80 - 120			D	04/09/14
Nitrite-N	NO2-N		0.960	ug/mL	97.2	80 - 120			D	04/09/14
Nitrate-N	NO3-N		0.878	ug/mL	98.3	80 - 120			D	04/09/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Sulfate	14808-79-8		3.77	ug/mL	95.1	80 - 120			D	04/09/14
MSD			**QC Sample #108688**							
			Original 140648001					**Paired**	**108687**	
Fluoride	16984-48-8		0.917	ug/mL	91.7	80 - 120	5.70	20	BD	04/09/14
Chloride	16887-00-6		1.88	ug/mL	94.2	80 - 120	0.20	20	D	04/09/14
Nitrite-N	NO2-N		0.972	ug/mL	98.3	80 - 120	1.20	20	D	04/09/14
Nitrate-N	NO3-N		0.886	ug/mL	99.1	80 - 120	0.80	20	D	04/09/14
Sulfate	14808-79-8		3.82	ug/mL	96.5	80 - 120	0.40	20	D	04/09/14

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140647

Analytical Batch 231861 (QC Batch: 231861) **Test** Total Alkalinity as mg/L CaCO3 (Water)
Associated Samples 140647005

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #108912**							
Total Alkalinity as CaCO3	ALKALINITY		94	mg/L	93.8	80 - 120				04/15/14
DUP			**QC Sample #108913**							
			Original 140647005							
Total Alkalinity as CaCO3	ALKALINITY	89	88	mg/L			1.10	20		04/15/14
LCS			**QC Sample #108914**							
Total Alkalinity as CaCO3	ALKALINITY		96	mg/L	96.4	80 - 120				04/15/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF140647

Analytical Batch 231866 (QC Batch: 231536) **Test** Tritium by LSC
Associated Samples 140647003, 140647004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #108680**							
Tritium	10028-17-8		-66	pCi/L					U	04/15/14
LCS			**QC Sample #108681**							
Tritium	10028-17-8		3600	pCi/L	92.5	80 - 120				04/15/14
DUP			**QC Sample #108682**							
			Original 140641003							
Tritium	10028-17-8		1200	pCi/L			0.90	20		04/15/14
MSPK			**QC Sample #108683**							
Tritium	10028-17-8		20000	pCi/L	93	75 - 125				04/15/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF140647

Analytical Batch 231887 (QC Batch: 231445) **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 140647004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #108668**							
Strontium-89_90	SR-RAD		-0.042	pCi/L					U	04/19/14
LCS			**QC Sample #108669**							
Strontium-89_90	SR-RAD		38	pCi/L	102.8	80 - 120				04/19/14
DUP			**QC Sample #108670**							
			Original 140611003							
Strontium-89_90	SR-RAD		0.56	pCi/L			17.00	20	U	04/19/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF140647

Analytical Batch 232048 (QC Batch: 231443)
Associated Samples 140647003, 140647004

Test GAB Discrete analysis Alpha only

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit		RQ	Analyzed
BLANK			**QC Sample #108659**								
Gross Alpha	12587-46-1		-0.089	pCi/L						U	04/22/14
LCS			**QC Sample #108660**								
Gross Alpha	12587-46-1		56	pCi/L	94.8	80 - 120					04/22/14
DUP			**QC Sample #108661**								
			Original 140647003								
Gross Alpha	12587-46-1	0.61	1.2	pCi/L			68.80	20	*	U	04/22/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF140647

Analytical Batch 232049 (QC Batch: 231443)
Associated Samples 140647003, 140647004

Test GAB Discrete analysis Beta only

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #108659**							
Gross Beta	12587-47-2		-1.2	pCi/L					U	04/22/14
LCS			**QC Sample #108660**							
Gross Beta	12587-47-2		240	pCi/L	97.3	80 - 120				04/22/14
DUP			**QC Sample #108661**							
			Original 140647003							
Gross Beta	12587-47-2	37	41	pCi/L			10.60	20		04/22/14

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140647

Analytical Batch 232144 (QC Batch: 231444) **Test** SW-846 8270D Semivolatiles
Associated Samples 140647005

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #108664**							
4-Nitrophenol	100-02-7		<1	ug/L					U	04/21/14
Phenol	108-95-2		<1	ug/L					U	04/21/14
4-Chloro-3-methylphenol	59-50-7		<1	ug/L					U	04/21/14
Pentachlorophenol	87-86-5		<1	ug/L					U	04/21/14
2-Chlorophenol	95-57-8		<1	ug/L					U	04/21/14
2,4-Dimethylphenol	105-67-9		<2	ug/L					U	04/21/14
2,4-Dichlorophenol	120-83-2		<1	ug/L					U	04/21/14
2,4-Dinitrophenol	51-28-5		<1	ug/L					U	04/21/14
4,6-Dinitro-2-methylphenol	534-52-1		<1	ug/L					U	04/21/14
2-Nitrophenol	88-75-5		<1	ug/L					U	04/21/14
2-Methylphenol	95-48-7		<1	ug/L					U	04/21/14
2,4,5-Trichlorophenol	95-95-4		<1	ug/L					U	04/21/14
3 & 4 Methylphenol, Total	65794-96-9		<1	ug/L					U	04/21/14
2,4,6-Trichlorophenol	88-06-2		<1	ug/L					U	04/21/14
2,3,4,6-Tetrachlorophenol	58-90-2		<1	ug/L					U	04/21/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140647

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
2,6-Dichlorophenol	87-65-0		<1	ug/L					U	04/21/14
Dinoseb(..dinitromethylphenol)	88-85-7		<1	ug/L					U	04/21/14
LCS			**QC Sample #108665**							
4-Nitrophenol	100-02-7		9.4	ug/L	31.2	5 - 88				04/21/14
Phenol	108-95-2		13	ug/L	44.4	18 - 89				04/21/14
4-Chloro-3-methylphenol	59-50-7		25	ug/L	84.2	62 - 109				04/21/14
Pentachlorophenol	87-86-5		17	ug/L	56.1	17 - 125				04/21/14
2-Chlorophenol	95-57-8		23	ug/L	76.1	55 - 109				04/21/14
2-Methylphenol	95-48-7		22	ug/L	74.1	59 - 107				04/21/14
2-Nitrophenol	88-75-5		24	ug/L	78.6	48 - 113				04/21/14
2,4-Dimethylphenol	105-67-9		25	ug/L	84.5	58 - 113				04/21/14
2,4-Dichlorophenol	120-83-2		23	ug/L	77.1	52 - 110				04/21/14
MS			**QC Sample #108666**							
			Original 140628003							
4-Nitrophenol	100-02-7		8.9	ug/L	31.3	15 - 57				04/21/14
Phenol	108-95-2		12	ug/L	42.7	24 - 65				04/21/14
4-Chloro-3-methylphenol	59-50-7		25	ug/L	87.5	56 - 115				04/21/14
Pentachlorophenol	87-86-5		18	ug/L	63.3	32 - 127				04/21/14
2-Chlorophenol	95-57-8		23	ug/L	82.9	52 - 113				04/21/14
2-Methylphenol	95-48-7		22	ug/L	77.2	46 - 114				04/21/14
2-Nitrophenol	88-75-5		25	ug/L	87.6	51 - 114				04/21/14

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140647

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
2,4-Dimethylphenol	105-67-9		25	ug/L	89.8	46 - 124				04/21/14
2,4-Dichlorophenol	120-83-2		24	ug/L	83.4	50 - 114				04/21/14
MSD			**QC Sample #108667**							
			Original 140628003						**Paired 108666**	
4-Nitrophenol	100-02-7	9.6		ug/L	34.1	15 - 57	8.60	20		04/21/14
Phenol	108-95-2	13		ug/L	45.6	24 - 65	6.50	20		04/21/14
4-Chloro-3-methylphenol	59-50-7	26		ug/L	90.3	56 - 115	3.10	20		04/21/14
Pentachlorophenol	87-86-5	20		ug/L	71.7	32 - 127	12.40	20		04/21/14
2-Chlorophenol	95-57-8	24		ug/L	85.1	52 - 113	2.60	20		04/21/14
2-Methylphenol	95-48-7	23		ug/L	83	46 - 114	7.10	20		04/21/14
2-Nitrophenol	88-75-5	26		ug/L	90.2	51 - 114	2.90	20		04/21/14
2,4-Dimethylphenol	105-67-9	26		ug/L	92.4	46 - 124	2.90	20		04/21/14
2,4-Dichlorophenol	120-83-2	24		ug/L	86	50 - 114	3.00	20		04/21/14

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Analytical Batch 232162 (QC Batch: 231441)
Associated Samples 140647003, 140647004, 140647006

Test ICP-6010 - All possible metals

Analyte	CAS #	Original Found	QC Found	Units	% Recov Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #108645**						
Iron	7439-89-6		<40	ug/L				U	04/22/14
Magnesium	7439-95-4		<60	ug/L				U	04/22/14
Manganese	7439-96-5		<4.0	ug/L				U	04/22/14
Nickel	7440-02-0		<10	ug/L				U	04/22/14
Potassium	7440-09-7		<250	ug/L				U	04/22/14
Silver	7440-22-4		<5.0	ug/L				U	04/22/14
Sodium	7440-23-5		<100	ug/L				U	04/22/14
Antimony	7440-36-0		<20	ug/L				U	04/22/14
Barium	7440-39-3		<4.0	ug/L				U	04/22/14
Cadmium	7440-43-9		<4.0	ug/L				U	04/22/14
Chromium	7440-47-3		<5.0	ug/L				U	04/22/14
Cobalt	7440-48-4		<4.0	ug/L				U	04/22/14
Copper	7440-50-8		<4.0	ug/L				U	04/22/14
Vanadium	7440-62-2		<5.0	ug/L				U	04/22/14
Zinc	7440-66-6		<5.0	ug/L				U	04/22/14
Calcium	7440-70-2		<50	ug/L				U	04/22/14
Arsenic	7440-38-2		<25	ug/L				U	04/22/14

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS			**QC Sample #108647**							
Iron	7439-89-6		996	ug/L	99.6	80 - 120				04/22/14
Magnesium	7439-95-4		9650	ug/L	96.5	80 - 120				04/22/14
Manganese	7439-96-5		983	ug/L	98.3	80 - 120				04/22/14
Nickel	7440-02-0		995	ug/L	99.5	80 - 120				04/22/14
Potassium	7440-09-7		9870	ug/L	98.7	80 - 120				04/22/14
Silver	7440-22-4		977	ug/L	97.7	80 - 120				04/22/14
Sodium	7440-23-5		9610	ug/L	96.1	80 - 120				04/22/14
Antimony	7440-36-0		997	ug/L	99.7	80 - 120				04/22/14
Barium	7440-39-3		981	ug/L	98.1	80 - 120				04/22/14
Cadmium	7440-43-9		982	ug/L	98.2	80 - 120				04/22/14
Chromium	7440-47-3		991	ug/L	99.1	80 - 120				04/22/14
Cobalt	7440-48-4		999	ug/L	99.9	80 - 120				04/22/14
Copper	7440-50-8		979	ug/L	97.9	80 - 120				04/22/14
Vanadium	7440-62-2		985	ug/L	98.5	80 - 120				04/22/14
Zinc	7440-66-6		1000	ug/L	100.4	80 - 120				04/22/14
Calcium	7440-70-2		19600	ug/L	98.1	80 - 120				04/22/14
Arsenic	7440-38-2		1030	ug/L	102.8	80 - 120				04/22/14
MS			**QC Sample #108648**							
			Original 140647003							
Iron	7439-89-6	71.4	945	ug/L	94.5	75 - 125				04/22/14
Magnesium	7439-95-4	14200	7790	ug/L	77.9	75 - 125				04/22/14
Manganese	7439-96-5	<4.0	951	ug/L	95.1	75 - 125				04/22/14

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Nickel	7440-02-0	<10	921	ug/L	92.1	75 - 125				04/22/14
Potassium	7440-09-7	7130	9580	ug/L	95.8	75 - 125				04/22/14
Silver	7440-22-4	<5.0	937	ug/L	93.7	75 - 125				04/22/14
Sodium	7440-23-5	28800	5940	ug/L	59.4	75 - 125			N	04/22/14
Antimony	7440-36-0	<20	964	ug/L	96.4	75 - 125				04/22/14
Barium	7440-39-3	43.2	930	ug/L	93	75 - 125				04/22/14
Cadmium	7440-43-9	<4.0	942	ug/L	94.2	75 - 125				04/22/14
Chromium	7440-47-3	13.2	917	ug/L	91.7	75 - 125				04/22/14
Cobalt	7440-48-4	<4.0	976	ug/L	97.6	75 - 125				04/22/14
Copper	7440-50-8	<4.0	939	ug/L	93.9	75 - 125				04/22/14
Vanadium	7440-62-2	27.1	922	ug/L	92.2	75 - 125				04/22/14
Zinc	7440-66-6	<5.0	926	ug/L	92.6	75 - 125				04/22/14
Calcium	7440-70-2	49300	13500	ug/L	67.7	75 - 125			N	04/22/14
Arsenic	7440-38-2	<25	999	ug/L	99.9	75 - 125				04/22/14
MSD			**QC Sample #108649**							
			Original 140647003					**Paired**	**108648**	
Iron	7439-89-6	71.4	957	ug/L	95.7	75 - 125	1.20	20		04/22/14
Magnesium	7439-95-4	14200	8130	ug/L	81.3	75 - 125	1.50	20		04/22/14
Manganese	7439-96-5	<4.0	971	ug/L	97.1	75 - 125	2.10	20		04/22/14
Nickel	7440-02-0	<10	952	ug/L	95.2	75 - 125	3.30	20		04/22/14
Potassium	7440-09-7	7130	9830	ug/L	98.3	75 - 125	1.40	20		04/22/14
Silver	7440-22-4	<5.0	968	ug/L	96.8	75 - 125	3.30	20		04/22/14
Sodium	7440-23-5	28800	6580	ug/L	65.8	75 - 125	1.80	20	N	04/22/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Antimony	7440-36-0	<20	964	ug/L	96.4	75 - 125	0.00	20		04/22/14
Barium	7440-39-3	43.2	953	ug/L	95.3	75 - 125	2.30	20		04/22/14
Cadmium	7440-43-9	<4.0	956	ug/L	95.6	75 - 125	1.50	20		04/22/14
Chromium	7440-47-3	13.2	944	ug/L	94.4	75 - 125	2.80	20		04/22/14
Cobalt	7440-48-4	<4.0	959	ug/L	95.9	75 - 125	1.80	20		04/22/14
Copper	7440-50-8	<4.0	966	ug/L	96.6	75 - 125	2.80	20		04/22/14
Vanadium	7440-62-2	27.1	948	ug/L	94.8	75 - 125	2.80	20		04/22/14
Zinc	7440-66-6	<5.0	951	ug/L	95.1	75 - 125	2.60	20		04/22/14
Calcium	7440-70-2	49300	14400	ug/L	72.1	75 - 125	1.40	20	N	04/22/14
Arsenic	7440-38-2	<25	1010	ug/L	100.8	75 - 125	0.90	20		04/22/14

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Analytical Batch 232381 (QC Batch: 232380) **Test** Total Organic Halides
Associated Samples 140647009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #109511**							
Total Organic Halides	59473-04-0		<5.0	ug/L					U	04/21/14
LCS			**QC Sample #109512**							
Total Organic Halides	59473-04-0		379	mg/L	94.7	80 - 120				04/21/14
MS			**QC Sample #109518**							
			Original 140647009							
Total Organic Halides	59473-04-0	13.4	37.8	ug/L	94.5	75 - 125				04/21/14
MSD			**QC Sample #109519**							
			Original 140647009					**Paired**	**109518**	
Total Organic Halides	59473-04-0	13.4	42.1	ug/L	105.2	75 - 125	8.00	20		04/21/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Analytical Batch 232450 (QC Batch: 232449)
Associated Samples 140647005, 140647007, 140647008

Test Total Organic Halides

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #109534**							
Total Organic Halides	59473-04-0		<5.0	ug/L					U	04/21/14
LCS			**QC Sample #109535**							
Total Organic Halides	59473-04-0		379	mg/L	94.7	80 - 120				04/21/14
MS			**QC Sample #109543**							
			Original 140642007							
Total Organic Halides	59473-04-0		40.4	ug/L	101	75 - 125				04/21/14
MSD			**QC Sample #109544**							
			Original 140642007					**Paired**	**109543**	
Total Organic Halides	59473-04-0		37.6	ug/L	94	75 - 125	5.10	20		04/21/14

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Wet Chemistry

Group # WSCF140647

Analytical Batch 232553 (QC Batch: 232553) **Test** Total Organic Carbon
Associated Samples 140647005, 140647007, 140647008, 140647009

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #109653**							
Total Organic Carbon	TOC		<0.045	mg/L					U	04/28/14
LCS			**QC Sample #109654**							
Total Organic Carbon	TOC		2.05	mg/L	102.4	80 - 120				04/28/14
MS			**QC Sample #109658**							
			Original 140642005							
Total Organic Carbon	TOC		2.15	mg/L	107.4	75 - 125				04/28/14
MSD			**QC Sample #109659**							
			Original 140642005					**Paired**	**109658**	
Total Organic Carbon	TOC		2.12	mg/L	106.2	75 - 125	0.90	20		04/28/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Inorganic

Group # WSCF140647

Analytical Batch 232561 (QC Batch: 232555) **Test** 3E-2008 ICP-MS 3 Elements
Associated Samples 140647003, 140647004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #109661**							
Arsenic	7440-38-2		<0.20	ug/L					U	05/05/14
LCS			**QC Sample #109662**							
Arsenic	7440-38-2		34.9	ug/L	87.2	85 - 115				05/05/14
MS			**QC Sample #109663**							
			Original 140622007							
Arsenic	7440-38-2		37.7	ug/L	94.1	70 - 130				05/05/14
MSD			**QC Sample #109664**							
			Original 140622007						**Paired 109663**	
Arsenic	7440-38-2		34.0	ug/L	85	70 - 130	8.50	20		05/05/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Radiochemistry

Group # WSCF140647

Analytical Batch 231887 (QC Batch: 231445) **Test** Strontium 89/90 (GPC/GEA)
Associated Samples 140647004

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #108668**							
Strontium Nitrate	10042-76-9			mg	81	25 - 105				04/19/14
LCS			**QC Sample #108669**							
Strontium Nitrate	10042-76-9			mg	85.1	25 - 105				04/19/14
DUP			**QC Sample #108670**							
			Original 140611003							
Strontium Nitrate	10042-76-9			mg	73.6	25 - 105	n/a			04/19/14
SAMPLE			**Sample #140647004**							
Strontium Nitrate	10042-76-9			mg	86	25 - 105				04/19/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140647

Analytical Batch 232144 (QC Batch: 231444) **Test** SW-846 8270D Semivolatiles
Associated Samples 140647005

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			**QC Sample #108664**							
2-Fluorophenol	367-12-4				70.5	34 - 103				04/21/14
Phenol-d5	4165-62-2				49.1	10 - 93				04/21/14
Nitrobenzene-d5	4165-60-0				89	49 - 133				04/21/14
2-Methylnaphthalene-d10	7297-45-2				92	60 - 135				04/21/14
2-Fluorobiphenyl	321-60-8				94.4	48 - 132				04/21/14
2,4,6-Tribromophenol	118-79-6				67.4	33 - 134				04/21/14
Fluoranthene-d10	93951-69-0				97.5	62 - 139				04/21/14
Terphenyl-d14	98904-43-9				92.6	56 - 138				04/21/14
LCS			**QC Sample #108665**							
2-Fluorophenol	367-12-4				62.9	34 - 103				04/21/14
Phenol-d5	4165-62-2				43.7	10 - 93				04/21/14
Nitrobenzene-d5	4165-60-0				84.3	49 - 133				04/21/14
2-Methylnaphthalene-d10	7297-45-2				88.4	60 - 135				04/21/14
2-Fluorobiphenyl	321-60-8				82.6	48 - 132				04/21/14
2,4,6-Tribromophenol	118-79-6				79.9	33 - 134				04/21/14

* - QC result out of range n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140647

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Fluoranthene-d10	93951-69-0				96.2	62 - 139				04/21/14
Terphenyl-d14	98904-43-9				85.3	56 - 138				04/21/14
MS			**QC Sample #108666**							
			Original 140628003							
2-Fluorophenol	367-12-4				63.4	34 - 103				04/21/14
Phenol-d5	4165-62-2				42.1	10 - 93				04/21/14
Nitrobenzene-d5	4165-60-0				94.2	49 - 133				04/21/14
2-Methylnaphthalene-d10	7297-45-2				95.8	60 - 135				04/21/14
2-Fluorobiphenyl	321-60-8				94.7	48 - 132				04/21/14
2,4,6-Tribromophenol	118-79-6				86.4	33 - 134				04/21/14
Fluoranthene-d10	93951-69-0				97.9	62 - 139				04/21/14
Terphenyl-d14	98904-43-9				92.9	56 - 138				04/21/14
MSD			**QC Sample #108667**							
			Original 140628003					**Paired**	**108666**	
2-Fluorophenol	367-12-4				67	34 - 103	n/a			04/21/14
Phenol-d5	4165-62-2				45.5	10 - 93	n/a			04/21/14
Nitrobenzene-d5	4165-60-0				94.7	49 - 133	n/a			04/21/14
2-Methylnaphthalene-d10	7297-45-2				97.7	60 - 135	n/a			04/21/14
2-Fluorobiphenyl	321-60-8				95.3	48 - 132	n/a			04/21/14
2,4,6-Tribromophenol	118-79-6				89.2	33 - 134	n/a			04/21/14
Fluoranthene-d10	93951-69-0				99.3	62 - 139	n/a			04/21/14
Terphenyl-d14	98904-43-9				94	56 - 138	n/a			04/21/14

* - QC result out of range

n/a - Not Applicable

Quality Control Report

Attention Scot Fitzgerald
Department Organic, Semivolatiles

Group # WSCF140647

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
SAMPLE			**Sample #140647005**							
2-Fluorophenol	367-12-4				59.3	34 - 103				04/21/14
Phenol-d5	4165-62-2				39	10 - 93				04/21/14
Nitrobenzene-d5	4165-60-0				79	49 - 133				04/21/14
2-Methylnaphthalene-d10	7297-45-2				84.3	60 - 135				04/21/14
2-Fluorobiphenyl	321-60-8				85.5	48 - 132				04/21/14
2,4,6-Tribromophenol	118-79-6				59	33 - 134				04/21/14
Fluoranthene-d10	93951-69-0				90.4	62 - 139				04/21/14
Terphenyl-d14	98904-43-9				87.2	56 - 138				04/21/14

* - QC result out of range n/a - Not Applicable

ATTACHMENT4

SAMPLE RECEIPT

Consisting of 8 pages
Including cover page

Sample Receipt

Waste Sampling and Characterization Facility
P.O. Box 650 S3-30, Richland WA 99352
Phone: (509) 373-7005/FAX: (509) 372-0456

ACKNOWLEDGEMENT OF SAMPLES RECEIVED

WSCF Laboratory
PO Box 650 S3-30
Richland, WA 99352

ATTN: Scot Fitzgerald

Customer Code: CHPRC
CACN: 401647
Work Order #: 140647
Customer Work ID: S14-004-337
Due Date: 05/12/2014 **(R031)**

The following samples were received from you on 4/9/2014 11:25:00 AM. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact WSCF Client Services. Thank you for using Waste Sampling and Characterization Facility.

Sample #	Sample ID	Matrix	Collected	Received
140647001	B2W8X6	WATER	4/9/2014 10:20	4/9/2014 11:25

Procedure	Compound List
Anions by Ion Chromatography (Water)	F,Cl,NO2,NO3,SO4

Sample #	Sample ID	Matrix	Collected	Received
140647002	B2W8Y2	WATER	4/9/2014 09:11	4/9/2014 11:25

Procedure	Compound List
Anions by Ion Chromatography (Water)	F,Cl,NO2,NO3,SO4

Sample #	Sample ID	Matrix	Collected	Received
140647003	B2W7X5	WATER	4/9/2014 09:11	4/9/2014 11:25

Procedure	Compound List
3E-2008 ICP-MS 3 Elements	As
GAB Discrete analysis Alpha only	Alpha
GAB Discrete analysis Beta only	Beta
ICP-6010 - All possible metals	6010 ICP Common
Tritium by LSC	H3

Sample #	Sample ID	Matrix	Collected	Received
140647004	B2W7W8	WATER	4/9/2014 10:20	4/9/2014 11:25

Procedure	Compound List
3E-2008 ICP-MS 3 Elements	As
GAB Discrete analysis Alpha only	Alpha
GAB Discrete analysis Beta only	Beta
ICP-6010 - All possible metals	6010 ICP Common
Strontium 89/90 (GPC/GEA)	SR89/90
Tritium by LSC	H3

Sample #	Sample ID	Matrix	Collected	Received
140647005	B2W5D9 (W14-004)	WATER	4/9/2014 09:11	4/9/2014 11:25

Procedure	Compound List
SW-846 8270D Semivolatiles	8270 Phenolic GC Common
Total Alkalinity as mg/L CaCO3 (Water)	Alkalinity,Carbonate,Bicarbonate,Hydroxyl Ion
Total Organic Carbon	TOC
Total Organic Halides	TOX

Sample Receipt

Waste Sampling and Characterization Facility
P.O. Box 650 S3-30, Richland WA 99352
Phone: (509) 373-7005/FAX: (509) 372-0456

Sample #	Sample ID	Matrix	Collected	Received
140647006	B2W5F0 (W14-004)	WATER	4/9/2014 09:11	4/9/2014 11:25
Procedure		**Compound List**		
ICP-6010 - All possible metals		6010 ICP Common		
Sample #	**Sample ID**	**Matrix**	**Collected**	**Received**
140647007	B2W5Y2 (W14-004)	WATER	4/9/2014 09:11	4/9/2014 11:25
Procedure		**Compound List**		
Total Organic Carbon		TOC		
Total Organic Halides		TOX		
Sample #	**Sample ID**	**Matrix**	**Collected**	**Received**
140647008	B2W5Y3 (W14-004)	WATER	4/9/2014 09:11	4/9/2014 11:25
Procedure		**Compound List**		
Total Organic Carbon		TOC		
Total Organic Halides		TOX		
Sample #	**Sample ID**	**Matrix**	**Collected**	**Received**
140647009	B2W5Y4 (W14-004)	WATER	4/9/2014 09:11	4/9/2014 11:25
Procedure		**Compound List**		
Total Organic Carbon		TOC		
Total Organic Halides		TOX		

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S14-004-337**

Page 1 of 1

Collector JC Fulton CHPRC	**Contact/Requester** Karen Waters-Husted	**Telephone No.** 509-376-4650	
SAF No. S14-004	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code** 300071ES20	
Project Title SURV, APRIL 2014	**Logbook No.** HNF-N-506 68/3	**Ice Chest No.** N/A	
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.** N/A	
Protocol SURV	**Priority:** 31 Days **PRIORITY**	**Offsite Property No.** N/A	

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 458.1.

140647

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

Site Wide Generator Knowledge Information Form applies.
The CAAN for analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2W8X6	N	W	APR 09 2014	1020	1x500-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool-4C

Relinquished By: JC Fulton CHPRC — Print: L.D. WALL — Sign: — Date/Time: APR 09 2014 1100

Received By: L.D. WALL — Print: L.D. WALL — Sign: — Date/Time: APR 09 2014 1100

Relinquished By: L.D. WALL — Sign: L.D. WALL — Date/Time: 4/9/14 1125

Received By: — Sign: — Date/Time: 4/9/14 1125

Relinquished By — Date/Time — Received By — Date/Time

FINAL SAMPLE DISPOSITION — Disposal Method (e.g., Return to customer, per lab procedure, used in process) — Disposed By — Date/Time

PRINTED 0 3/11/2014

* Matrix: S = Soil, SE = Sediment, SO = Solid, SL = Sludge, W = Water, O = Oil, A = Air, DS = Drum Solids, DL = Drum Liquids, T = Tissue, WI = Wipe, L = Liquid, V = Vegetation, X = Other

A-6004-842 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S14-004-343

Page 1 of 1

Collector JC Fulton CHPRC	**Contact/Requester** Karen Waters-Husted	**Telephone No.** 509-376-4650	
SAF No. S14-004	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code** 300071ES20	
Project Title SURV, APRIL 2014	**Logbook No.** HNF-N-506 [illegible]	**Ice Chest No.** N/A	
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.** N/A	
Protocol SURV	**Priority: 31 Days** **PRIORITY**	**Offsite Property No.** N/A	

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 458.1.

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐

Site Wide Generator Knowledge Information Form applies.
The CACN for analytical work at WSCF is 401647.

Sample No	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2W8Y2	N	W	APR 09 2014	0911	1x500-mL P	300.0_ANIONS_IC: COMMON	48 Hours	Cool-4C

Relinquished By JC Fulton CHPRC	Sign	Date/Time APR 09 2014 1100	Received By	Print	Sign	Date/Time APR 09 2014 1100	Matrix *
Relinquished By	Date/Time	Received By			Date/Time	S = Soil DS = Drum Solids
Relinquished By	Date/Time 4/9/14 1125	Received By			Date/Time 4/9/14 1125	SE = Sediment DL = Drum Liquids SD = Solid T = Tissue SL = Sludge W1 = Wipe W = Water L = Liquid O = Oil V = Vegetation A = Air X = Other
Relinquished By	Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process):			Disposed By	Date/Time	

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A-6004-842 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # **S14-004-243**

Page 1 of 1

Collector JC Fulton CHPRC	**Contact/Requester** Karen Waters-Husted	**Telephone No.** 509-376-4650	
SAF No. S14-004	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code** 300071ES20	
Project Title SURV, APRIL 2014	**Logbook No.** HNF-N-506 LB-13	**Ice Chest No.** N/A	
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** GOVERNMENT VEHICLE	**Bill of Lading/Air Bill No.** N/A	
Protocol SURV	**Priority:** 31 Days **PRIORITY**	**Offsite Property No.** N/A	Total Activity Exemption: Yes ☑ No ☐

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 458.1.

SPECIAL INSTRUCTIONS **Hold Time**

Site Wide Generator Knowledge Information Form applies
The CAGN for analytical work at WSCF is 40-647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2W7X5	N	W	APR 09 2014	1011	1x500-mL G/P	200.8_METALS_ICPMS, Aseptic (1), 6010_METALS_ICP: COMMON	6 Months	HNO3 to pH <2
B2W7X5	N	W			1x500-mL G/P	ALPHA_GPC_DISCRETE: COMMON; BETA_GPC: COMMON	6 Months	HNO3 to pH <2
B2W7X5	N	W			1x60 mL G	TRITIUM_EE_LSC: COMMON	6 Months	None

Relinquished By JC Fulton CHPRC	Sig	Date/Time APR 09 2014 1100	Received By	Print	Sign	Date/Time APR 09 2014 1100	Matrix *
Relinquished By		Date/Time	Received By			Date/Time	SE = Sediment, SO = Solid, SL = Sludge, W = Water, O = Oil, A = Air, DS = Drum Solids, DL = Drum Liquids, T = Tissue, WI = Wipe, L = Liquid, V = Vegetation, X = Other
Relinquished By		Date/Time 4/9/14 1125	Received By			Date/Time 4/9/14 1125	S = Soil
Relinquished By		Date/Time	Received By			Date/Time	
Relinquished By		Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time	

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A-6004-842 (REV 2)

Sample Receipt

Chain of Custody

CH2MHill Plateau Remediation Company

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

C.O.C. # S14-004-240

Page 1 of 1

Collector: JC Fulton	Contact/Requester: Karen Waters-Husted	Telephone No.: 509-376-4550	
SAF No.: S14-004	Sampling Origin: Hanford Site	Purchase Order/Charge Code: 300071ES20	
Project Title: SURV, APRIL 2014	Logbook No.: HNF-N-506 68/3	Ice Chest No.: N/A	
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.: N/A	
Protocol: SURV	Priority: 31 Days **PRIORITY**	Offsite Property No.: N/A	

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 458.1.

SPECIAL INSTRUCTIONS Hold Time

Site Wide Generator Knowledge Information Form applies.
The CACN for analytical work at WSCF is 401647.

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2W7W8 4	N	W	APR 09 2014	1020	1x500-mL G/P	200.8_METALS_ICPMS_Asterisk (1); 6010_METALS_ICP: COMMON	6 Months	HNO3 to pH <2
B2W7W8	N	W			1x500-mL G/P	ALPHA_GPC_DISCRETE: COMMON; BETA_GPC COMMON	6 Months	HNO3 to pH <2
B2W7W8	N	W			1x1 L G/P	SRTOT_SEP_PRECIP_GPC: COMMON	6 Months	HNO3 to pH <2
B2W7W8 V	N	W	↓	↓	1x250-mL G	TRITIUM_EIE_LSC: COMMON	6 Months	None

Relinquished By: JC Fulton CHPRC	Sign:	Date/Time: APR 09 2014 1100	Received By: L.D. WALL	Print:	Sign:	Date/Time: APR 09 2014 1100
Relinquished By: L.D. WALL	Sign:	Date/Time: 4/9/14 1125	Received By:			Date/Time: 4/9/14 1125
Relinquished By:		Date/Time:	Received By:			Date/Time:
Relinquished By:		Date/Time:	Received By:			Date/Time:
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By		Date/Time

Matrix *: S = Soil; SE = Sediment; SO = Solid; SL = Sludge; W = Water; O = Oil; A = Air; DS = Drum Solids; DL = Drum Liquids; T = Tissue; WT = Wipe; L = Liquid; V = Vegetation; X = Other

PRINTED 04/11/2014

A-6004-842 (REV 2)

CH2MHill Plateau Remediation Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	C.O.C. # W14-004-047 Page 1 of 1

Collector	JC Fulton CHPRC	Contact/Requester	Karen Waters-Husted	Telephone No.	509-376-4550
SAF No.	W14-004	Sampling Origin	Hanford Site	Purchase Order/Charge Code	300071ES20
Project Title	RCRA, APRIL 2014	Logbook No.	HNF-N-505 16813	Ice Chest No.	N/A
Shipped To (Lab)	Waste Sampling & Characterization	Method of Shipment	GOVERNMENT VEHICLE	Bill of Lading/Air Bill No.	N/A
Protocol	RCRA	Priority:	31 Days **PRIORITY**	Offsite Property No.	N/A

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 458.1.

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
Site Wide Generator Knowledge Information Form applies
The CACN for analytical work at WSCF is 401647.

Sample No.	Filter	*	Date	Time	No/Type Container	Sample Analysis	Holding Time	Preservative
B2W5Y2 7	N	W	APR 0 9 2014	0911	1x1-L aGs*	8020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool~4C
B2W5Y2 ↓	N	W		1004	1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2W5F0 6	Y	W			1x500-mL C/P	6010_METALS_ICP: COMMON	6 Months	HNO3 to pH <2
B2W5Y4 9	N	W			1x1-L aGs*	8020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool~4C
B2W5Y4 ↓	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2W5D9 5	N	W			1x250-mL C/P	2320_ALKALINITY: GW 01	14 Days	Cool~4C
B2W5D9	N	W			4x1-L aG	8270_PHENOLIC_GC: COMMON	7/40 Days	Cool~4C
B2W5D9	N	W			1x1-L aGs*	8020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool~4C
B2W5D9 ↓	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool~4C
B2W5Y3 8	N	W			1x1-L aGs*	8020_TOX: COMMON	28 Days	H2SO4 to pH <2/Cool~4C
B2W5Y3 ↓	N	W			1x250-mL aG	9060_TOC: COMMON	28 Days	HCl or H2SO4 to pH <2/Cool~4C

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
JC Fulton CHPRC			APR 0 9 2014 1100	L.D. WALL	R.D. Wall		APR 0 9 2014 1100
L.D. WALL R.D. Wall			4/9/14 1125				4/9/14 1125
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Disposed By	Date/Time

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