

WSCF Laboratory

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Richland, WA 99352
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Memorandum

To: Michael Neely
CH2M-HILL PRC
PO Box 1600
Richland, WA 99352

Date: January 14, 2009

From: WSCF Laboratory
WSCF Analytical Chemistry

CC:

Subject: FINAL RESULT FOR SAMPLE DELIVERY GROUP WSCF80055

F08-086

Reference: (1) MOA-FH-CHPRC-2008
(2) HNF-SD-CD-QAPP-017, Rev 9, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following information for sample delivery group WSCF80055

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

Electronically signed by Scot Fitzgerald
For Lab Manager

Attachments 4

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ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF Number Cross Reference

Group # WSCF80055
Data Deliverable Date 12/12/08

SAF #	Sample ID	Sample #	Matrix	Sampled	Received
F08-086	B1TRF1	80055001	WATER	10/28/08	10/28/08
F08-086	B1TRJ3	80055002	WATER	10/28/08	10/28/08
F08-086	B1TRN4	80055003	WATER	10/28/08	10/28/08
F08-086	B1TRK5	80055004	WATER	10/28/08	10/28/08
F08-086	B1TRK6	80055005	WATER	10/28/08	10/28/08

ATTACHMENT 2

NARRATIVE

Consisting of 3 pages
Including cover page

Introduction

Five S&GRP samples were received at the WSCF Laboratory on October 28, 2008. Samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Memorandum of Agreement (MOA-FH-CHPRC-2008, Rev.0)*, referenced in the cover letter.

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 stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving, indicating the presence of ice in the transport container.

Analytical Methodology for Requested Analyses

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

Inorganic Comments

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

- Sample results were D flagged if dilution(s) were required.
- Sample results that were less than the reportable limit, however greater than the method detection limit, were B flagged.

All 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):

- Sample results that were less than the reportable limit, however greater than the method detection limit, were B flagged.

All 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.

All QC controls are within the established limits.

Organic Comments

VOA – 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):

- Sample results that were less than the lowest calibration standard, however greater than the method detection limit, were J flagged.
- N-Hexane contamination detected in the Blank was evaluated and affected sample results in this batch were B flagged.

All other QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – There are no hold times associated with WSCF's radiochemical methods. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. Analytical Note(s):

- Gross Alpha – Duplicate Relative Percent Difference (RPD) exceeded established laboratory limits due to low sample activity. No flags issued.
- Neptunium-237 – Duplicate RPD exceeded established laboratory limits due to low sample activity. No flags issued.
- Uranium-234, 235 and 238 – Blank values are at MDA.
- Technetium-99 – Duplicate RPD exceeded established laboratory limits due to low sample activity. No flags issued.

All other QC controls are within the established limits.

I certify that this data package is in compliance with the MOA, 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 Laboratory Analytical Manager and Client Services.

ATTACHMENT 3
ANALYTICAL RESULTS

Consisting of 41 pages
Including cover page

WSCF ANALYTICAL RESULTS REPORT

For

CH2M Hill Plateau Remediation

PO Box 1600
Richland, WA 99352

Attention: Michael Neely

Contract # MOA-FH-CHPRC-2008
Group # WSCF80055
Report Date January 14, 2009

Analytical: Electronically signed by Scot Fitzgerald

Client Services: Electronically signed by Andrew Kopriva

All radiochemistry results are reported on an "as received" basis.

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Batch QC List

Attention Michael Neely
Department Inorganic

Group # WSCF80055
Project Number F08-086

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
5770	5770	2	LCS	1780	LCS		Anions by Ion Chromatography (Water)
5770	5770	10	BLANK	1793	BLANK		Anions by Ion Chromatography (Water)
5770	5770	13	DUP	1781	B1X705(80057006DUP)	80057006	Anions by Ion Chromatography (Water)
5770	5770	14	MS	1782	B1X705(80057006MS)	80057006	Anions by Ion Chromatography (Water)
5770	5770	15	MSD	1783	B1X705(80057006MSD)	80057006	Anions by Ion Chromatography (Water)
5770	5770	16	SAMPLE	80055001	B1TRF1		Anions by Ion Chromatography (Water)
5770	5770	17	SAMPLE	80055001	B1TRF1		Anions by Ion Chromatography (Water)
5770	5770	18	SAMPLE	80055003	B1TRN4		Anions by Ion Chromatography (Water)
5770	5770	19	SAMPLE	80055003	B1TRN4		Anions by Ion Chromatography (Water)
5810	5831	8	BLANK	1893	BLANK		ICP-6010 - All possible metals
5810	5831	9	LCS	1894	LCS		ICP-6010 - All possible metals
5810	5831	47	MS	1895	B1TRF1(80055001MS)	80055001	ICP-6010 - All possible metals
5810	5831	48	MSD	1896	B1TRF1(80055001MSD)	80055001	ICP-6010 - All possible metals
5810	5831	49	SAMPLE	80055001	B1TRF1		ICP-6010 - All possible metals
5810	5831	50	SAMPLE	80055003	B1TRN4		ICP-6010 - All possible metals
5810	5831	51	SAMPLE	80055004	B1TRK5		ICP-6010 - All possible metals
5810	5831	52	SAMPLE	80055005	B1TRK6		ICP-6010 - All possible metals
12887	13287	6	BLANK	2774	BLANK		ICP-2008 MS All possible metal
12887	13287	9	LCS	2777	LCS		ICP-2008 MS All possible metal
12887	13287	24	MS	2782	B1XC27(80032005MS)	80032005	ICP-2008 MS All possible metal
12887	13287	25	MSD	2783	B1XC27(80032005MSD)	80032005	ICP-2008 MS All possible metal
12887	13287	44	SAMPLE	80055001	B1TRF1		ICP-2008 MS All possible metal
12887	13287	46	SAMPLE	80055003	B1TRN4		ICP-2008 MS All possible metal

Batch QC List

Attention Michael Neely
Department Inorganic

Group # WSCF80055
Project Number F08-086

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
12887	13287	48	SAMPLE	80055004	B1TRK5		ICP-2008 MS All possible metal
12887	13287	50	SAMPLE	80055005	B1TRK6		ICP-2008 MS All possible metal

Batch QC List

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF80055
Project Number F08-086

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
10794	10795	3	BLANK	2602	BLANK		SW-846 8260B Volatiles, separate prep
10794	10795	4	LCS	2605	LCS		SW-846 8260B Volatiles, separate prep
10794	10795	5	MS	2603	B1TRF1(80055001MS)	80055001	SW-846 8260B Volatiles, separate prep
10794	10795	6	MSD	2604	B1TRF1(80055001MSD)	80055001	SW-846 8260B Volatiles, separate prep
10794	10795	7	SAMPLE	80055001	B1TRF1		SW-846 8260B Volatiles, separate prep
10794	10795	8	SAMPLE	80055002	B1TRJ3		SW-846 8260B Volatiles, separate prep
10794	10795	9	SAMPLE	80055003	B1TRN4		SW-846 8260B Volatiles, separate prep

Batch QC List

Attention Michael Neely
Department Radiochemistry

Group # WSCF80055
Project Number F08-086

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
5822	5919	1	BLANK	1923	BLANK		Strontium 89/90 (GPC/GEA)
5822	5919	2	LCS	1924	LCS		Strontium 89/90 (GPC/GEA)
5822	5919	4	DUP	1925	B1V7W8(80071003DUP)	80071003	Strontium 89/90 (GPC/GEA)
5822	5919	6	SAMPLE	80055001	B1TRF1		Strontium 89/90 (GPC/GEA)
5822	5919	7	SAMPLE	80055003	B1TRN4		Strontium 89/90 (GPC/GEA)
5836	5956	1	BLANK	1983	BLANK		Tritium by LSC
5836	5956	2	LCS	1984	LCS		Tritium by LSC
5836	5956	3	DUP	1985	B1TRF1(80055001DUP)	80055001	Tritium by LSC
5836	5956	4	MS	1986	B1TRF1(80055001MS)	80055001	Tritium by LSC
5836	5956	5	SAMPLE	80055001	B1TRF1		Tritium by LSC
5836	5956	6	SAMPLE	80055003	B1TRN4		Tritium by LSC
5874	5917	1	BLANK	2054	BLANK		TC99 by Liquid Scintillation
5874	5917	2	LCS	2055	LCS		TC99 by Liquid Scintillation
5874	5917	3	DUP	2056	B1X624(80045018DUP)	80045018	TC99 by Liquid Scintillation
5874	5917	4	MS	2057	B1X624(80045018MS)	80045018	TC99 by Liquid Scintillation
5874	5917	12	SAMPLE	80055001	B1TRF1		TC99 by Liquid Scintillation
5874	5917	13	SAMPLE	80055003	B1TRN4		TC99 by Liquid Scintillation
13690	14990	1	BLANK	2805	BLANK		Gross Alpha/Gross Beta
13690	14990	2	LCS	2806	LCS		Gross Alpha/Gross Beta
13690	14990	3	DUP	2807	B1TRF1(80055001DUP)	80055001	Gross Alpha/Gross Beta
13690	14990	4	SAMPLE	80055001	B1TRF1		Gross Alpha/Gross Beta
13690	14990	5	SAMPLE	80055001	B1TRF1		Gross Alpha/Gross Beta
13690	14990	6	SAMPLE	80055003	B1TRN4		Gross Alpha/Gross Beta

Batch QC List

Attention Michael Neely
Department Radiochemistry

Group # WSCF80055
Project Number F08-086

QC Batch	Analytical Batch	S#	Type	Sample #	Client Sample#	Original	Test
13690	14990	7	SAMPLE	80055003	B1TRN4		Gross Alpha/Gross Beta
16188	16488	1	NpDUP	2931	B1TRF1(80055001NpDU	80055001	Neptunium (AEA)
16188	16488	3	SAMPLE	80055001	B1TRF1		Neptunium (AEA)
16188	16488	5	SAMPLE	80055003	B1TRN4		Neptunium (AEA)
16188	16488	6	BLANK	2928	BLANK		Neptunium (AEA)
16188	16488	8	NpSPK	2930	NpSPK		Neptunium (AEA)
16188	16488	9	NDUPSK	2932	NDUPSK		Neptunium (AEA)
16188	16488	10	NpSPK	2933	NpSPK		Neptunium (AEA)
16189	16487	1	DUP	2936	B1TRF1(80055001DUP)	80055001	Uranium (AEA)
16189	16487	2	SAMPLE	80055001	B1TRF1		Uranium (AEA)
16189	16487	5	SAMPLE	80055003	B1TRN4		Uranium (AEA)
16189	16487	6	BLANK	2934	BLANK		Uranium (AEA)
16189	16487	7	LCS	2935	LCS		Uranium (AEA)

Method Reference

Attention Michael Neely
Department Inorganic

Group # WSCF80055
Project Number F08-086

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 Emission 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
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 Michael Neely
Department Organic, Volatiles

Group # WSCF80055
Project Number F08-086

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-523-455	Volatile Sample Analysis by SW-846 Method 8260B		
	EPA SW-846	8000B	Determinative Chromographic Separations
	EPA SW-846	8260B	Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
	HEIS	8260_VOA_GCMS	Volatile 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 Michael Neely
Department Radiochemistry

Group # WSCF80055
Project Number F08-086

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-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-508-415	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
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-508-471	Determination Of Uranium, Plutonium, And Americium
HEIS	UIISO_IE_PRECIP_AEA Uranium Iso, Alpha Spec
LA-904-400	Thorium, Neptunium, Plutonium, Americium, and Uranium In Soil and Water Using Eichrom Column Separation
HEIS	NP237_IE_PRECIP_AEA Neptunium-237, Iso, Alpha Spec.

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 Michael Neely
 Department Inorganic

Group # WSCF80055
 Project Number F08-086

Sample # 80055001
 SAF# F08-086
 Sample ID B1TRF1

Matrix WATER
 Sampled 10/28/08
 Received 10/28/08

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										10/28/08
Anions by IC										
Fluoride	16984-48-8	LA-533-410	B	0.174		ug/mL	1	0.02	0.20	10/28/08
Nitrate-N	NO3-N	LA-533-410	D	6.21		ug/mL	2	0.02	0.20	10/28/08
Nitrite-N	NO2-N	LA-533-410	U	<0.01		ug/mL	1	0.01	0.10	10/28/08
ICP Prep										10/30/08
ICP-AES										
Antimony	7440-36-0	LA-505-411	U	<60		ug/L	1	60	280	11/03/08
Arsenic	7440-38-2	LA-505-411	U	<80		ug/L	1	80	390	11/03/08
Cadmium	7440-43-9	LA-505-411	U	<4		ug/L	1	4	20	11/03/08
Chromium	7440-47-3	LA-505-411	U	<10		ug/L	1	10	20	11/03/08
Lead	7439-92-1	LA-505-411	U	<40		ug/L	1	40	220	11/03/08
Manganese	7439-96-5	LA-505-411		33.2		ug/L	1	4	20	11/03/08
Nickel	7440-02-0	LA-505-411	U	<6		ug/L	1	6	30	11/03/08
Thallium	7440-28-0	LA-505-411	U	<40		ug/L	1	40	180	11/03/08
Vanadium	7440-62-2	LA-505-411	B	11.3		ug/L	1	10	60	11/03/08
Zinc	7440-66-6	LA-505-411	U	<9		ug/L	1	9	45	11/03/08
ICPMS Prep										11/18/08
ICP-MS										

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

B - Analyte < the RDL 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 sample recovery outside control limits.

M - Duplicate precision criteria not met.
 U - Analyzed for but not detected above limiting criteria.
 X, Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
 Department Inorganic

Group # WSCF80055
 Project Number F08-086

Sample # 80055001
 SAF# F08-086
 Sample ID B1TRF1

Matrix WATER
 Sampled 10/28/08
 Received 10/28/08

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Uranium	7440-61-1	LA-505-412		4.44		ug/L	1	0.05	0.20	11/18/08

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

B - Analyte < the RDL 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 sample recovery outside control limits.

M - Duplicate precision criteria not met.
 U - Analyzed for but not detected above limiting criteria.
 X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
 Department Inorganic

Group # WSCF80055
 Project Number F08-086

Sample # 80055003
 SAF# F08-086
 Sample ID B1TRN4

Matrix WATER
 Sampled 10/28/08
 Received 10/28/08

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Anions by IC										10/28/08
Anions by IC										
Fluoride	16984-48-8	LA-533-410	B	0.161		ug/mL	1	0.02	0.20	10/28/08
Nitrate-N	NO3-N	LA-533-410	D	6.20		ug/mL	2	0.02	0.20	10/28/08
Nitrite-N	NO2-N	LA-533-410	U	<0.01		ug/mL	1	0.01	0.10	10/28/08
ICP Prep										10/30/08
ICP-AES										
Antimony	7440-36-0	LA-505-411	U	<60		ug/L	1	60	280	11/03/08
Arsenic	7440-38-2	LA-505-411	U	<80		ug/L	1	80	390	11/03/08
Cadmium	7440-43-9	LA-505-411	U	<4		ug/L	1	4	20	11/03/08
Chromium	7440-47-3	LA-505-411	B	10.9		ug/L	1	10	20	11/03/08
Lead	7439-92-1	LA-505-411	U	<40		ug/L	1	40	220	11/03/08
Manganese	7439-96-5	LA-505-411		39.7		ug/L	1	4	20	11/03/08
Nickel	7440-02-0	LA-505-411	U	<6		ug/L	1	6	30	11/03/08
Thallium	7440-28-0	LA-505-411	U	<40		ug/L	1	40	180	11/03/08
Vanadium	7440-62-2	LA-505-411	U	<10		ug/L	1	10	60	11/03/08
Zinc	7440-66-6	LA-505-411	U	<9		ug/L	1	9	45	11/03/08
ICPMS Prep										11/18/08
ICP-MS										

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

B - Analyte < the RDL 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 sample recovery outside control limits.

M - Duplicate precision criteria not met.
 U - Analyzed for but not detected above limiting criteria.
 X, Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
Department Inorganic

Group # WSCF80055
Project Number F08-086

Sample # 80055003
SAF# F08-086
Sample ID B1TRN4

Matrix WATER
Sampled 10/28/08
Received 10/28/08

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Uranium	7440-61-1	LA-505-412		4.60		ug/L	1	0.05	0.20	11/18/08

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

B - Analyte < the RDL but >= the IDL/MDL. (Inorganic)
 C - Analyte was found in the Associated Blank. (Inorganic)
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 X, Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
 Department Inorganic

Group # WSCF80055
 Project Number F08-086

Sample # 80055004
 SAF# F08-086
 Sample ID B1TRK5

Matrix WATER
 Sampled 10/28/08
 Received 10/28/08

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep										10/30/08
ICP-AES										
Antimony	7440-36-0	LA-505-411	U	<60		ug/L	1	60	280	11/03/08
Arsenic	7440-38-2	LA-505-411	U	<80		ug/L	1	80	390	11/03/08
Cadmium	7440-43-9	LA-505-411	U	<4		ug/L	1	4	20	11/03/08
Chromium	7440-47-3	LA-505-411	B	10.9		ug/L	1	10	20	11/03/08
Lead	7439-92-1	LA-505-411	U	<40		ug/L	1	40	220	11/03/08
Manganese	7439-96-5	LA-505-411		33.5		ug/L	1	4	20	11/03/08
Nickel	7440-02-0	LA-505-411	U	<6		ug/L	1	6	30	11/03/08
Thallium	7440-28-0	LA-505-411	U	<40		ug/L	1	40	180	11/03/08
Vanadium	7440-62-2	LA-505-411	U	<10		ug/L	1	10	60	11/03/08
Zinc	7440-66-6	LA-505-411	U	<9		ug/L	1	9	45	11/03/08
ICPMS Prep										11/18/08
ICP-MS										
Uranium	7440-61-1	LA-505-412		4.45		ug/L	1	0.05	0.20	11/18/08

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

B - Analyte < the RDL 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 sample recovery outside control limits.

M - Duplicate precision criteria not met.
 U - Analyzed for but not detected above limiting criteria.
 X, Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
 Department Inorganic

Group # WSCF80055
 Project Number F08-086

Sample # 80055005
 SAF# F08-086
 Sample ID B1TRK6

Matrix WATER
 Sampled 10/28/08
 Received 10/28/08

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
ICP Prep										10/30/08
ICP-AES										
Antimony	7440-36-0	LA-505-411	U	<60		ug/L	1	60	280	11/03/08
Arsenic	7440-38-2	LA-505-411	U	<80		ug/L	1	80	390	11/03/08
Cadmium	7440-43-9	LA-505-411	U	<4		ug/L	1	4	20	11/03/08
Chromium	7440-47-3	LA-505-411	U	<10		ug/L	1	10	20	11/03/08
Lead	7439-92-1	LA-505-411	U	<40		ug/L	1	40	220	11/03/08
Manganese	7439-96-5	LA-505-411		40.4		ug/L	1	4	20	11/03/08
Nickel	7440-02-0	LA-505-411	U	<6		ug/L	1	6	30	11/03/08
Thallium	7440-28-0	LA-505-411	U	<40		ug/L	1	40	180	11/03/08
Vanadium	7440-62-2	LA-505-411	U	<10		ug/L	1	10	60	11/03/08
Zinc	7440-66-6	LA-505-411	U	<9		ug/L	1	9	45	11/03/08
ICPMS Prep										11/18/08
ICP-MS										
Uranium	7440-61-1	LA-505-412		4.40		ug/L	1	0.05	0.20	11/18/08

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

B - Analyte < the RDL 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 sample recovery outside control limits.

M - Duplicate precision criteria not met.
 U - Analyzed for but not detected above limiting criteria.
 X, Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
 Department Organic, Volatiles

Group # WSCF80055
 Project Number F08-086

Sample # 80055001
 SAF# F08-086
 Sample ID B1TRF1

Matrix WATER
 Sampled 10/28/08
 Received 10/28/08

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
8260 Prep										
SW-846 8260B										
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Benzene	71-43-2	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Bromodichloromethane	75-27-4	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Carbon tetrachloride	56-23-5	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Chlorobenzene	108-90-7	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Dibromochloromethane	124-48-1	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Methylene chloride	75-09-2	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Tetrachloroethene	127-18-4	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Toluene	108-88-3	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Trichloroethene	79-01-6	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Vinyl chloride	75-01-4	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
n-Hexane	110-54-3	LA-523-455	JB	4.14		ug/L	1	1.0	5.0	10/30/08

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 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 - The calibration exceeds the calibration range (GC/MS).
 J - Analyte < lowest calibration but >= MDL.
 N - Presumptive compound based on MS Library search.

T - MS and/or MSD sample recovery outside control limits.
 U - Analyzed for but not detected above limiting criteria.
 X, Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
 Department Organic, Volatiles

Group # WSCF80055
 Project Number F08-086

Sample # 80055002
 SAF# F08-086
 Sample ID B1TRJ3

Matrix WATER
 Sampled 10/28/08
 Received 10/28/08

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
8260 Prep										10/30/08
SW-846 8260B										
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Benzene	71-43-2	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Bromodichloromethane	75-27-4	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Carbon tetrachloride	56-23-5	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Chlorobenzene	108-90-7	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Dibromochloromethane	124-48-1	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Methylene chloride	75-09-2	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Tetrachloroethene	127-18-4	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Toluene	108-88-3	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Trichloroethene	79-01-6	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Vinyl chloride	75-01-4	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
n-Hexane	110-54-3	LA-523-455	JB	4.13		ug/L	1	1.0	5.0	10/30/08

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 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 - The calibration exceeds the calibration range (GC/MS).
 J - Analyte < lowest calibration but >= MDL.
 N - Presumptive compound based on MS Library search.

T - MS and/or MSD sample recovery outside control limits.
 U - Analyzed for but not detected above limiting criteria.
 X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
Department Organic, Volatiles

Group # WSCF80055
Project Number F08-086

Sample # 80055003
SAF# F08-086
Sample ID B1TRN4

Matrix WATER
Sampled 10/28/08
Received 10/28/08

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
8260 Prep										10/30/08
SW-846 8260B										
1,1,2,2-Tetrachloroethane	79-34-5	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
1,1-Dichloroethene	75-35-4	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Benzene	71-43-2	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Bromodichloromethane	75-27-4	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Carbon tetrachloride	56-23-5	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Chlorobenzene	108-90-7	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Dibromochloromethane	124-48-1	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Methylene chloride	75-09-2	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Tetrachloroethene	127-18-4	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Toluene	108-88-3	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Trichloroethene	79-01-6	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
Vinyl chloride	75-01-4	LA-523-455	U	<1.0		ug/L	1	1.0	5.0	10/30/08
n-Hexane	110-54-3	LA-523-455	JB	3.69		ug/L	1	1.0	5.0	10/30/08

MDL = Minimum Detection
 RQ = Result Qualifier
 TP Err = Total Propagated
 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 - The calibration exceeds the calibration range (GC/MS).
 J - Analyte < lowest calibration but >= MDL.
 N - Presumptive compound based on MS Library search.

T - MS and/or MSD sample recovery outside control limits.
 U - Analyzed for but not detected above limiting criteria.
 X,Y or Z - See comment detail and/or narrative.

WSCF Analytical Results Report

Attention Michael Neely
Department Radiochemistry

Group # WSCF80055
Project Number F08-086

Sample # 80055001
SAF# F08-086
Sample ID B1TRF1

Matrix WATER
Sampled 10/28/08
Received 10/28/08

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Alpha/Beta Prep										11/21/08
Gross Alpha/Beta										
Gross Alpha	12587-46-1	LA-508-415		2.26	1.04	pCi/L	1	1.0		12/03/08
Gross Beta	12587-47-2	LA-508-415		15.0	2.5	pCi/L	1	2.2		12/03/08
H3 EICHROM										11/03/08
TRI-CARB LSC										
Tritium	10028-17-8	LA-508-421		8400	1720	pCi/L	1	210		11/05/08
SR-89/90										11/03/08
SR-89/90										
Strontium-89/90	SR-RAD	LA-220-406	U	-2.37	2.03	pCi/L	1	0.99		11/13/08
Tc-99										11/04/08
TRI-CARB LSC										
Technetium-99	14133-76-7	LA-508-421		22.0	5.8	pCi/L	1	5.9		11/04/08
Th/Pu/Am/U Teva										12/18/08
AEA Np-237										
Neptunium-237	13994-20-2	LA-904-400	U	0.140	.24	pCi/L	1	0.42		12/19/08
Uranium Iso										
Uranium-234	13966-29-5	LA-508-471		1.87	.5468	pCi/L	1	0.024		12/18/08
Uranium-235	15117-96-1	LA-508-471		0.0761	.05731	pCi/L	1	0.026		12/18/08

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

B - Analyte was detected in both the BLANK and SAMPLE
 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.

WSCF Analytical Results Report

Attention Michael Neely
Department Radiochemistry

Group # WSCF80055
Project Number F08-086

Sample # 80055001
SAF# F08-086
Sample ID B1TRF1

Matrix WATER
Sampled 10/28/08
Received 10/28/08

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Uranium-238	U-238	LA-508-471		1.71	.5043	pCi/L	1	0.064		12/18/08

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

B - Analyte was detected in both the BLANK and SAMPLE
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.

WSCF Analytical Results Report

Attention Michael Neely
 Department Radiochemistry

Group # WSCF80055
 Project Number F08-086

Sample # 80055003
 SAF# F08-086
 Sample ID B1TRN4

Matrix WATER
 Sampled 10/28/08
 Received 10/28/08

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Alpha/Beta Prep										11/21/08
Gross Alpha/Beta										
Gross Alpha	12587-46-1	LA-508-415		3.91	1.34	pCi/L	1	1.1		12/03/08
Gross Beta	12587-47-2	LA-508-415		19.9	2.97	pCi/L	1	2.2		12/03/08
H3 EICHROM										11/03/08
TRI-CARB LSC										
Tritium	10028-17-8	LA-508-421		8100	1660	pCi/L	1	210		11/05/08
SR-89/90										11/03/08
SR-89/90										
Strontium-89/90	SR-RAD	LA-220-406	U	-2.97	2.13	pCi/L	1	0.92		11/13/08
Tc-99										11/04/08
TRI-CARB LSC										
Technetium-99	14133-76-7	LA-508-421		21.0	27	pCi/L	1	5.9		11/04/08
Th/Pu/Am/U Teva										12/18/08
AEA Np-237										
Neptunium-237	13994-20-2	LA-904-400	U	0.0460	.2	pCi/L	1	0.42		12/19/08
Uranium Iso										
Uranium-234	13966-29-5	LA-508-471		1.90	.559	pCi/L	1	0.025		12/18/08
Uranium-235	15117-96-1	LA-508-471		0.123	.07761	pCi/L	1	0.028		12/18/08

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

B - Analyte was detected in both the BLANK and SAMPLE
 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.

WSCF Analytical Results Report

Attention Michael Neely
Department Radiochemistry

Group # WSCF80055
Project Number F08-086

Sample # 80055003
SAF# F08-086
Sample ID B1TRN4

Matrix WATER
Sampled 10/28/08
Received 10/28/08

Test Performed	CAS #	Method	RQ	Result	TP Err	Units	DF	MDL	PQL	Analyzed
Uranium-238	U-238	LA-508-471		1.65	.493	pCi/L	1	0.025		12/18/08

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

B - Analyte was detected in both the BLANK and SAMPLE
 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.

Quality Control Report

Attention Michael Neely
 Department Inorganic

Group # WSCF80055
 Project Number F08-086

QC Batch 5770
 Associated Samples 80055001, 80055003

Test Anions by Ion Chromatography (Water)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
LCS		QC Sample #1780								
Fluoride	16984-48-8		0.983	ug/mL	96.4	90 - 110				10/28/08
Nitrite-N	NO2-N		0.926	ug/mL	92.7	90 - 110				10/28/08
Nitrate-N	NO3-N		0.869	ug/mL	96.6	90 - 110				10/28/08
DUP		QC Sample #1781								
		Original 80057006								
Fluoride	16984-48-8		0.102	ug/mL			9.35	20	BD	10/28/08
Nitrite-N	NO2-N		<0.026	ug/mL			0.00	20	UD	10/28/08
Nitrate-N	NO3-N		1.69	ug/mL			0.00	20	D	10/28/08
MS		QC Sample #1782								
		Original 80057006								
Fluoride	16984-48-8		1.14	ug/mL	101	80 - 120			D	10/28/08
Nitrite-N	NO2-N		0.859	ug/mL	86	80 - 120			D	10/28/08
Nitrate-N	NO3-N		2.53	ug/mL	93.1	80 - 120			D	10/28/08
MSD		QC Sample #1783								
		Original 80057006								
		Paired 1782								
Fluoride	16984-48-8		1.10	ug/mL	97.3	80 - 120	3.73	20	D	10/28/08
Nitrite-N	NO2-N		0.859	ug/mL	85.9	80 - 120	0.12	20	D	10/28/08
Nitrate-N	NO3-N		2.54	ug/mL	93.7	80 - 120	0.64	20	D	10/28/08
BLANK		QC Sample #1793								
Fluoride	16984-48-8		<0.023	ug/mL					U	10/28/08

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF80055
Project Number F08-086

Analyte	CAS #	Original Found	QC Found	Units	% RecovLimits	RPD	RPD Limit	RQ	Analyzed
Nitrite-N	NO2-N		<0.013	ug/mL				U	10/28/08
Nitrate-N	NO3-N		<0.012	ug/mL				U	10/28/08

Quality Control Report

Attention Michael Neely
 Department Inorganic

Group # WSCF80055
 Project Number F08-086

QC Batch 5810 Test ICP-6010 - All possible metals
 Associated Samples 80055001, 80055003, 80055004, 80055005

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK		QC Sample #1893								
Manganese	7439-96-5	<4.0		ug/L					U	11/03/08
Nickel	7440-02-0	<6.0		ug/L					U	11/03/08
Antimony	7440-36-0	<56		ug/L					U	11/03/08
Cadmium	7440-43-9	<4.0		ug/L					U	11/03/08
Chromium	7440-47-3	<13		ug/L					U	11/03/08
Vanadium	7440-62-2	<12		ug/L					U	11/03/08
Zinc	7440-66-6	<9.0		ug/L					U	11/03/08
Lead	7439-92-1	<45		ug/L					U	11/03/08
Thallium	7440-28-0	<36		ug/L					U	11/03/08
Arsenic	7440-38-2	<78		ug/L					U	11/03/08
LCS		QC Sample #1894								
Manganese	7439-96-5	978		ug/L	97.8	80 - 120				11/03/08
Nickel	7440-02-0	989		ug/L	98.9	80 - 120				11/03/08
Antimony	7440-36-0	947		ug/L	94.7	80 - 120				11/03/08
Cadmium	7440-43-9	995		ug/L	99.5	80 - 120				11/03/08
Chromium	7440-47-3	970		ug/L	97	80 - 120				11/03/08
Vanadium	7440-62-2	958		ug/L	95.8	80 - 120				11/03/08
Zinc	7440-66-6	992		ug/L	99.2	80 - 120				11/03/08
Lead	7439-92-1	1030		ug/L	103	80 - 120				11/03/08
Thallium	7440-28-0	968		ug/L	96.8	80 - 120				11/03/08

Quality Control Report

Attention Michael Neely
 Department Inorganic

Group # WSCF80055
 Project Number F08-086

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Arsenic MS	7440-38-2		976	ug/L	97.6	80 - 120				11/03/08
			QC Sample #1895							
			Original 80055001							
Manganese	7439-96-5	33.2	1000	ug/L	97.1	75 - 125				11/03/08
Nickel	7440-02-0	-1.5	945	ug/L	94.5	75 - 125				11/03/08
Antimony	7440-36-0	-4.8	944	ug/L	94.4	75 - 125				11/03/08
Cadmium	7440-43-9	1	959	ug/L	95.9	75 - 125				11/03/08
Chromium	7440-47-3	9.2	940	ug/L	94	75 - 125				11/03/08
Vanadium	7440-62-2	11.3	941	ug/L	94.1	75 - 125				11/03/08
Zinc	7440-66-6	-7.2	956	ug/L	95.6	75 - 125				11/03/08
Lead	7439-92-1	-28.3	970	ug/L	97	75 - 125				11/03/08
Thallium	7440-28-0	-21.2	925	ug/L	92.5	75 - 125				11/03/08
Arsenic MSD	7440-38-2	-34	912	ug/L	91.2	75 - 125				11/03/08
			QC Sample #1896							
			Original 80055001							
								Paired 1895		
Manganese	7439-96-5	33.2	1040	ug/L	100	75 - 125	2.94	20		11/03/08
Nickel	7440-02-0	-1.5	982	ug/L	98.2	75 - 125	3.84	20		11/03/08
Antimony	7440-36-0	-4.8	956	ug/L	95.6	75 - 125	1.26	20		11/03/08
Cadmium	7440-43-9	1	993	ug/L	99.3	75 - 125	3.48	20		11/03/08
Chromium	7440-47-3	9.2	980	ug/L	98	75 - 125	4.17	20		11/03/08
Vanadium	7440-62-2	11.3	970	ug/L	97	75 - 125	3.04	20		11/03/08
Zinc	7440-66-6	-7.2	990	ug/L	99	75 - 125	3.49	20		11/03/08
Lead	7439-92-1	-28.3	1010	ug/L	101	75 - 125	4.04	20		11/03/08
Thallium	7440-28-0	-21.2	924	ug/L	92.4	75 - 125	0.11	20		11/03/08
Arsenic	7440-38-2	-34	936	ug/L	93.6	75 - 125	2.60	20		11/03/08

Quality Control Report

Attention Michael Neely
 Department Organic, Volatiles

Group # WSCF80055
 Project Number F08-086

QC Batch 10794 Test SW-846 8260B Volatiles, separate prep
 Associated Samples 80055001, 80055002, 80055003

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK		QC Sample #2602								
1,1-Dichloroethene	75-35-4		<1.0	ug/L					U	10/30/08
Trichloroethene	79-01-6		<1.0	ug/L					U	10/30/08
Benzene	71-43-2		<1.0	ug/L					U	10/30/08
Toluene	108-88-3		<1.0	ug/L					U	10/30/08
Chlorobenzene	108-90-7		<1.0	ug/L					U	10/30/08
1,2-Dichloroethane	107-06-2		<1.0	ug/L					U	10/30/08
Dibromochloromethane	124-48-1		<1.0	ug/L					U	10/30/08
Tetrachloroethene	127-18-4		<1.0	ug/L					U	10/30/08
Carbon tetrachloride	56-23-5		<1.0	ug/L					U	10/30/08
Vinyl chloride	75-01-4		<1.0	ug/L					U	10/30/08
Methylene chloride	75-09-2		<1.0	ug/L					U	10/30/08
Bromodichloromethane	75-27-4		<1.0	ug/L					U	10/30/08
1,1,2,2-Tetrachloroethane	79-34-5		<1.0	ug/L					U	10/30/08
n-Hexane	110-54-3		5.63	ug/L						10/30/08
MS		QC Sample #2603								
		Original 80055001								
1,1-Dichloroethene	75-35-4	0	25.4	ug/L	102	75 - 125				10/30/08
Trichloroethene	79-01-6	0	20.4	ug/L	81.8	75 - 125				10/30/08
Benzene	71-43-2	0	22.5	ug/L	89.8	75 - 125				10/30/08
Toluene	108-88-3	0	22.5	ug/L	90.1	75 - 125				10/30/08
Chlorobenzene	108-90-7	0	23.2	ug/L	93	75 - 125				10/30/08

Quality Control Report

Attention Michael Neely
 Department Organic, Volatiles

Group # WSCF80055
 Project Number F08-086

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
MSD		QC Sample #2604								
		Original 80055001								
		Paired 2603								
1,1-Dichloroethene	75-35-4	0	23.0	ug/L	91.9	75 - 125	10.40	20		10/30/08
Trichloroethene	79-01-6	0	20.3	ug/L	81.4	75 - 125	0.49	20		10/30/08
Benzene	71-43-2	0	22.0	ug/L	87.9	75 - 125	2.14	20		10/30/08
Toluene	108-88-3	0	22.0	ug/L	87.8	75 - 125	2.59	20		10/30/08
Chlorobenzene	108-90-7	0	23.1	ug/L	92.5	75 - 125	0.54	20		10/30/08
LCS		QC Sample #2605								
1,1-Dichloroethene	75-35-4		24.5	ug/L	98.2	75 - 125				10/30/08
Trichloroethene	79-01-6		20.2	ug/L	81	75 - 125				10/30/08
Benzene	71-43-2		25.2	ug/L	101	75 - 125				10/30/08
Toluene	108-88-3		24.9	ug/L	99.8	75 - 125				10/30/08
Chlorobenzene	108-90-7		25.3	ug/L	101	75 - 125				10/30/08

Quality Control Report

Attention Michael Neely
Department Inorganic

Group # WSCF80055
Project Number F08-086

QC Batch 12887 **Test** ICP-2008 MS All possible metal
Associated Samples 80055001, 80055003, 80055004, 80055005

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK										
Uranium LCS	7440-61-1	<0.050		ug/L					U	11/18/08
Uranium MS	7440-61-1	40.0		ug/L	100	85 - 115				11/18/08
Uranium MSD	7440-61-1	42.6		ug/L	103	70 - 130				11/18/08
Uranium	7440-61-1	42.4		ug/L	102	70 - 130	0.98	20	Paired 2782	11/18/08

Quality Control Report

Attention Michael Neely
Department Radiochemistry

Group # WSCF80055
Project Number F08-086

QC Batch 5822
Associated Samples 80055001, 80055003

Test Strontium 89/90 (GPC/GEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK										
			QC Sample #1923							
Strontium-89/90 LCS	SR-RAD	0.103		pCi/L						11/13/08
			QC Sample #1924							
Strontium-89/90 DUP	SR-RAD	153		pCi/L	110.9	80 - 120				11/13/08
			QC Sample #1925							
			Original 80071003							
Strontium-89/90	SR-RAD	520		pCi/L			0.38	-20 - 20		11/05/08

Quality Control Report

Attention Michael Neely
Department Radiochemistry

Group # WSCF80055
Project Number F08-086

QC Batch 5836
Associated Samples 80055001, 80055003

Test Tritium by LSC

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			QC Sample #1983							
Tritium LCS	10028-17-8		75.0	pCi/L						11/05/08
			QC Sample #1984							
Tritium DUP	10028-17-8		2680	pCi/L	92.83	80 - 120				11/05/08
			QC Sample #1985							
			Original 80055001							
Tritium MS	10028-17-8	8400	7800	pCi/L			7.41	-20 - 20		11/05/08
			QC Sample #1986							
			Original 80055001							
Tritium	10028-17-8	8400	25800	pCi/L	76.67	75 - 125				11/05/08

Quality Control Report

Attention Michael Neely
 Department Radiochemistry

Group # WSCF80055
 Project Number F08-086

QC Batch 5874
 Associated Samples 80055001, 80055003

Test TC99 by Liquid Scintillation

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK										
				QC Sample #2054						
Technetium-99 LCS	14133-76-7		1.70	pCi/L QC Sample #2055						11/04/08
Technetium-99 DUP	14133-76-7		161	pCi/L QC Sample #2056 Original 80045018	101.4	80 - 120				11/04/08
Technetium-99 MS	14133-76-7		3.90	pCi/L QC Sample #2057 Original 80045018			210.53	-20 - 20 *		11/04/08
Technetium-99	14133-76-7		660	pCi/L	103.66	75 - 125				11/04/08

Quality Control Report

Attention Michael Neely
 Department Radiochemistry

Group # WSCF80055
 Project Number F08-086

QC Batch 13690
 Associated Samples 80055001, 80055003

Test Gross Alpha/Gross Beta

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK		QC Sample #2805								
Gross Alpha	12587-46-1		0.0450	pCi/L						12/03/08
Gross Beta	12587-47-2		-0.0790	pCi/L					U	12/03/08
LCS		QC Sample #2806								
Gross Alpha	12587-46-1		39.3	pCi/L	101.42	80 - 120				12/03/08
Gross Beta	12587-47-2		125	pCi/L	111.61	80 - 120				12/03/08
DUP		QC Sample #2807								
		Original 80055001								
Gross Alpha	12587-46-1	2.26	3.40	pCi/L			40.28	-20 - 20	* 1	12/03/08
Gross Beta	12587-47-2	15	16.1	pCi/L			7.07	-20 - 20		12/03/08

Quality Control Report

Attention Michael Neely
 Department Radiochemistry

Group # WSCF80055
 Project Number F08-086

QC Batch 16188
 Associated Samples 80055001, 80055003

Test Neptunium (AEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			QC Sample #2928							
Neptunium-237 NpSPK	13994-20-2		0.0840	pCi/L						12/19/08
			QC Sample #2930							
Neptunium-237 NpDUP	13994-20-2		57.0	pCi/L	99.36	75 - 125				12/19/08
			QC Sample #2931							
			Original 80055001							
Neptunium-237 NDUPSK	13994-20-2	.14	0.200	pCi/L			35.29	-20 - 20	* 1	12/19/08
			QC Sample #2932							
Neptunium-237 NpSPK	13994-20-2		47.9	pCi/L	83.5	25 - 102.5				12/19/08
			QC Sample #2933							
Neptunium-237	13994-20-2		55.8	pCi/L	97.14	75 - 125				12/19/08

Quality Control Report

Attention Michael Neely
 Department Radiochemistry

Group # WSCF80055
 Project Number F08-086

QC Batch 16189 Test Uranium (AEA)
 Associated Samples 80055001, 80055003

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK		QC Sample #2934								
Uranium-234	13966-29-5		0.0572	pCi/L						12/18/08
Uranium-235	15117-96-1		0.0268	pCi/L					1	12/18/08
Uranium-238	U-238		0.0164	pCi/L						12/18/08
LCS		QC Sample #2935								
Uranium-234	13966-29-5		8720	pCi/Sample						12/18/08
Uranium-235	15117-96-1		445	pCi/Sample						12/18/08
Uranium-238	U-238		8850	pCi/Sample	103.62	80 - 120				12/18/08
DUP		QC Sample #2936								
		Original 80055001								
Uranium-234	13966-29-5	1.87	1.92	pCi/L			2.64			12/18/08
Uranium-235	15117-96-1	.0761	0.128	pCi/L			50.86			12/18/08
Uranium-238	U-238	1.71	1.44	pCi/L			17.14	-20 - 20		12/18/08

Quality Control Report

Attention Michael Neely
Department Radiochemistry

Group # WSCF80055
Project Number F08-086

QC Batch 5822
Associated Samples 80055001, 80055003

Test Strontium 89/90 (GPC/GEA)

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			QC Sample #1923							
Strontium-85 LCS	13967-73-2				82.8	25 - 102.5				11/13/08
			QC Sample #1924							
Strontium-85 DUP	13967-73-2				83.7	25 - 102.5				11/13/08
			QC Sample #1925 Original 80071003							
Strontium-85 SAMPLE	13967-73-2				89.6	25 - 102.5	4.70			11/05/08
			Sample #80055001							
Strontium-85 SAMPLE	13967-73-2				84.9	25 - 102.5				11/13/08
			Sample #80055003							
Strontium-85	13967-73-2				91.3	25 - 102.5				11/13/08

Quality Control Report

Attention Michael Neely
 Department Organic, Volatiles

Group # WSCF80055
 Project Number F08-086

QC Batch 10794 Test SW-846 8260B Volatiles, separate prep
 Associated Samples 80055001, 80055002, 80055003

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			QC Sample #2602							
1,2-Dichloroethane-d4	17060-07-0				115	75 - 125				10/30/08
Toluene-d8	2037-26-5				95.3	75 - 125				10/30/08
4-Bromofluorobenzene	460-00-4				98.4	75 - 125				10/30/08
MS			QC Sample #2603							
			Original 80055001							
1,2-Dichloroethane-d4	17060-07-0				115	75 - 125				10/30/08
Toluene-d8	2037-26-5				94.8	75 - 125				10/30/08
4-Bromofluorobenzene	460-00-4				97.2	75 - 125				10/30/08
MSD			QC Sample #2604							
			Original 80055001							
			Paired 2603							
1,2-Dichloroethane-d4	17060-07-0				117	75 - 125	1.72	20		10/30/08
Toluene-d8	2037-26-5				94.6	75 - 125	0.21	20		10/30/08
4-Bromofluorobenzene	460-00-4				97.6	75 - 125	0.41	20		10/30/08
LCS			QC Sample #2605							
1,2-Dichloroethane-d4	17060-07-0				116	75 - 125				10/30/08
Toluene-d8	2037-26-5				96.2	75 - 125				10/30/08
4-Bromofluorobenzene	460-00-4				97.5	75 - 125				10/30/08
SAMPLE			Sample #80055001							
1,2-Dichloroethane-d4	17060-07-0				115	75 - 125				10/30/08

Quality Control Report

Attention Michael Neely
 Department Organic, Volatiles

Group # WSCF80055
 Project Number F08-086

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
Toluene-d8	2037-26-5				95.8	75 - 125				10/30/08
4-Bromofluorobenzene	460-00-4				99	75 - 125				10/30/08
SAMPLE										
Sample #80055002										
1,2-Dichloroethane-d4	17060-07-0				116	75 - 125				10/30/08
Toluene-d8	2037-26-5				96.1	75 - 125				10/30/08
4-Bromofluorobenzene	460-00-4				97.1	75 - 125				10/30/08
SAMPLE										
Sample #80055003										
1,2-Dichloroethane-d4	17060-07-0				117	75 - 125				10/30/08
Toluene-d8	2037-26-5				96.6	75 - 125				10/30/08
4-Bromofluorobenzene	460-00-4				97.2	75 - 125				10/30/08

Quality Control Report

Attention Michael Neely
 Department Radiochemistry

Group # WSCF80055
 Project Number F08-086

QC Batch 16189 Test Uranium (AEA)
 Associated Samples 80055001, 80055003

Analyte	CAS #	Original Found	QC Found	Units	% Recov	Limits	RPD	RPD Limit	RQ	Analyzed
BLANK			QC Sample #2934							
Uranium-232 Tracer LCS	14158-29-3				99.45	25 - 102.5				12/18/08
			QC Sample #2935							
Uranium-232 Tracer DUP	14158-29-3				99.88	25 - 102.5				12/18/08
			QC Sample #2936 Original 80055001							
Uranium-232 Tracer SAMPLE	14158-29-3				99.23	25 - 102.5	0.00			12/18/08
			Sample #80055001							
Uranium-232 Tracer SAMPLE	14158-29-3				93.68	25 - 102.5				12/18/08
			Sample #80055003							
Uranium-232 Tracer	14158-29-3				93.92	25 - 102.5				12/18/08

Analytical Comment Report

Attention Michael Neely

Group # WSCF80055

Project Number F08-086

Quality Control Comments

Department Radiochemistry

2807 B1TRF1(80055001DUP)

Analyte Gross Alpha - Gross Alpha/Gross Beta

[1] Duplicate RPD out-of-limits. RPD limit does not apply to results near the Minimum Detectable Concentration.

Department Radiochemistry

2931 B1TRF1(80055001NpDUP)

Analyte Neptunium-237 - Neptunium (AEA)

[1] Duplicate RPD out-of-limits. RPD limit does not apply to results near the Minimum Detectable Concentration.

Department Radiochemistry

2934 BLANK for HBN 16189 [RADP/1122]

Analyte Uranium-235 - Uranium (AEA)

[1] The blank is below MDC and is acceptable.

ATTACHMENT4

SAMPLE RECEIPT

Consisting of 8 pages
Including cover page

Sample Receipt

Waste Sampling and Characterization Facility
P.O. Box 1970 S3-30, Richland WA 99352
Phone: (509) 373-7004/FAX: (509) 373-7134

ACKNOWLEDGEMENT OF SAMPLES RECEIVED

WSCF Laboratory
PO Box 1000 S3-30
Richland, WA 99352

ATTN: Michael Neely

Customer Code: CHPRC
PO #: 122588/ES10
Work Order #: 80055
Profile #: F08-086-054
Proj. Mgr.:
Phone:

The following samples were received from you on 10/28/2008 1:14:03 PM. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Table with 5 columns: Sample #, Sample ID, Matrix, Collected, Received. Includes sub-section 'Tests scheduled' with detailed test names for each sample.

Test Acronym Description

Table with 2 columns: Test Acronym, Description. Lists various test codes and their corresponding descriptions.

Sample Receipt

**Waste Sampling and Characterization Facility
P.O. Box 1970 S3-30, Richland WA 99352
Phone: (509) 373-7004/FAX: (509) 373-7134**

IC-W	Anions by IC (W)
IC-WQ	Anions by IC (QC-Water)
SR89/90-W	Strontium 89/90 (GPC) (W)
TC99-W	Technetium-99 (W)

Collector		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					*84-059		PAGE 1 OF 1					
COLLECTOR WCO Sampler <i>Ed Keener / Steve [unclear]</i>		COMPANY CONTACT Teet, SJ		TELEPHONE NO. 373-5869		PROJECT COORDINATOR WIDRIG, DL		PRICE CODE 7N		DATA TURNAROUND 45 Days / 45 Days				
SAMPLING LOCATION I-C5375-M		PROJECT DESIGNATION Aquifer Tube Installation Sampling and Analysis in the 200-PO-1 OU (Shord)			SAF NO. F08-086		AIR QUALITY <input type="checkbox"/>							
ICE CHEST NO.		FIELD LOGBOOK NO. <i>HVF-451-3</i>		ACTUAL SAMPLE DEPTH		COA 122588E510		METHOD OF SHIPMENT GOVERNMENT VEHICLE						
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A									
MATRIX* A-Air DL-Drum L-Liquid OS-Drum S-Solid L-Liquid O-Oil S-Soil SE-Sediment T-Tissue V-Vegetation W-Water WI-Wipe X-Other		POSIBLE 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)		PRESERVATION		HCl or H2SO4 to pH <2/ Cool to 4°C	HCl to pH <2	Cool to 4°C	HCl to pH <2	HCl to pH <2	HCl to pH <2	HCl to pH <2	HCl to pH <2	None
				TYPE OF CONTAINER		40L	500ml	500ml	50ml	1000ml	1000ml	1L	1L	250ml
				NO. OF CONTAINER(S)		1	1	1	1	1	1	1	1	1
				VOLUME		40L	500ml	500ml	50ml	1000ml	1000ml	1L	1L	250ml
		SPECIAL HANDLING AND/OR STORAGE		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS VOA	SEE ITEM (2) IN SPECIAL INSTRUCTIONS GUT? 6/10	SEE ITEM (3) IN SPECIAL INSTRUCTIONS IC	Gross Alpha (Gross Beta) (Gross Beta)	Uranium (Antimony, Arsenic, Lead, Thallium) (Uranium)	Arsenic-73P, Arsenic-75	Strontium-90, Strontium-90-90Sr	Tritium-3H	Total - No. 10
SAMPLE NO.		MATRIX*	SAMPLE DATE	SAMPLE TIME	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
BITRM 003		WATER	10-28-05	0925	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
CHAIN OF POSSESSION		SIGN/ PRINT NAMES			SPECIAL INSTRUCTIONS									
RELINQUISHED BY/REMOVED FROM <i>Ed Keener</i>		DATE/TIME 10-28-05 1305	RECEIVED BY/STORED IN <i>TA [unclear]</i>		DATE/TIME 10-28-05 1305	** The 200 Area SAGRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. (1)VOA - 82608 (TCL) (1,1,2,2-Tetrachloroethane, 1,2-Dichloroethane, Benzene, Bromodichloromethane, Carbon tetrachloride, Dibromochloromethane, Methylene chloride, Tetrachloroethane, Trichloroethene, Vinyl chloride) VOA - 82608 (Add-On) (Hexane) (2)ICP Metals - 6010B (TAL) (Antimony, Cadmium, Chromium, Manganese, Nickel, Vanadium, Zinc) ICP Metals - 6010B (Add-On) (Arsenic, Lead, Thallium) ICP/MS - 200.8 (Add-on) (Uranium) (3)IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite)								
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME									
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME									
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME									
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME									
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME									
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME									
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME									

ICED

Wednesday, October 28, 2008 9:24:37 AM
Page 5 of 7

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F08-086-056	PAGE 1 OF 1
COLLECTOR NCO Sampler <i>FD Kowser / Steve Stanetti</i>	COMPANY CONTACT Trent, SJ	TELEPHONE NO. 373-5868	PROJECT COORDINATOR WDRIG, DL	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days	
SAMPLING LOCATION I-C6375-H	PROJECT DESIGNATION Aquifer Tube Installation Sampling and Analysis in the 200-PO-1 OU (Shore)	SAF NO. F08-086	AIR QUALITY <input type="checkbox"/>			
ICE CHEST NO.	FIELD LOGBOOK NO.	ACTUAL SAMPLE DEPTH	COA 122588E10	METHOD OF SHIPMENT GOVERNMENT VEHICLE		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A				
MATRIX* A=Air OL=Drum L=Liquids DS=Drum S=Solids L=Liquid O=Oil S=Soil SE=Settlement 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)	PRESERVATION HNO3 to pH <2	TYPE OF CONTAINER QP	NO. OF CONTAINER(S) 1	VOLUME 500ml	SPECIAL HANDLING AND/OR STORAGE
						SAMPLE ANALYSIS SEE ITEM (1) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
BITRKS (P) <i>RM 9/25/05</i>	WATER	10-28-08	0925	✓		
CHAIN OF POSSESSION		SIGN/ PRINT NAMES			SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM <i>Ed Kowser</i>	DATE/TIME 10-28-08 1305	RECEIVED BY/STORED IN <i>TA #1921m Jones, Jigi</i>	DATE/TIME 10-28-08 1305	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. (1) ICP Metals - 6010B (TAL) (Antimony, Cadmium, Chromium, Manganese, Nickel, Vanadium, Zinc) ICP Metals - 6010B (Add-On) (Arsenic, Lead, Thallium) ICP/MS - 200.8 (Add-on) (Uranium)		
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME			

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				FOI-088-057	PAGE 1 OF 1
COLLECTOR NCO Sampler <i>ED Kauer/Steve Cur</i>	COMPANY CONTACT Trent, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIEDIG, DL		PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days	
SAMPLING LOCATION I-C6375-M	PROJECT DESIGNATION Aquifer Tube Installation Sampling and Analysis in the 200-PO-1 OU (Shore)		SAF NO. FOI-086	AIR QUALITY <input type="checkbox"/>			
ICE CHEST NO.	FIELD LOGBOOK NO. <i>11NF-N-451-3</i>	ACTUAL SAMPLE DEPTH	COA 122588ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE			
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A					
MATRIX* A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue Y=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)	PRESERVATION PH03 to pH <2	TYPE OF CONTAINER GP	NO. OF CONTAINER(S) 1	VOLUME 500mL	SPECIAL HANDLING AND/OR STORAGE	
		SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS				
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B1TRK6 (A) <i>Rem</i> <i>9/25/08</i>	WATER	<i>10-28-08</i>	<i>0925</i>				
CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS			
RELINQUISHED BY/REMOVED FROM <i>Ed Kauer/Steve Cur</i>	DATE/TIME <i>10-25-08 1305</i>	RECEIVED BY/STORED IN <i>TA Frazee</i>	DATE/TIME <i>10-28-08 1705</i>	** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKG applies to this SAF. (1) ICP Metals - 6010B (TAL) (Antimony, Cadmium, Chromium, Manganese, Nickel, Vanadium, Zinc) ICP Metals - 6010B (Add-On) (Arsenic, Lead, Thallium) ICP/MS - 200.8 (Add-on) (Uranium)			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME				
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME				
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME				
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME				
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME				
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME				
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				<i>Filtered <math>0.45 \mu m</math> Rem 9/25/08</i>			

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