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FLUOR

Memorandum

M4W41-SLF-08-1142

To: H. Hampt E6-35 Date: October 13, 2008

From: S. L. Fitzgerald, Manager
WSCF Analytical Lab

cc: w/Attachments

T. F. Dale	S3-30	J. E. Trechter	S3-30
A. J. Kopriva	S3-30	S. J. Trent	E6-35
H. K. Meznarich	S3-30	File/LB	
P. D. Mix	S3-30		

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20081872 – SAF NUMBER F08-154

Reference:
(1) Groundwater Protection Program-Letter of Instruction, FH-EIS-2003-MEM-001, October 31, 2002

(2) HNF-SD-CD-QAPP-017, Rev. 9, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following attachments for sample delivery group WSCF20081872:

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

SLF/cmj

Attachments 4

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M4W41-SLF-08-1142

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20081872
Data Deliverable Date: 13-oct-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F08-154	B1WPT2	W08GR03538	WATER
	B1WPT4	W08GR03539	WATER
	B1WPT5	W08GR03540	WATER

M4W41-SLF-08-1142

ATTACHMENT 2

NARRATIVE

Consisting of 4 pages
Including cover page

Introduction

Three S&GRP samples were received at the WSCF Laboratory on August 28, 2008. With the exception of TDS analyses, samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter. TDS sample bottles (B1WPT2, B1WPT4 and B1WPT5) were shipped to an offsite laboratory for analysis.

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. Also included in Attachment 4, are copies of the COCs used for offsite shipment of TDS samples.

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 sample container.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report,* pages 13-14 for a complete listing of approved analytical methods.

Inorganic Comments

Ammonia – The hold time requirement for this analysis was met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 18 for QC details. 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.
- Duplicate Relative Percent Difference (RPD) exceeded established laboratory limits. No flags issued.

All other QC controls are within the established limits.

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 per GRP Letter of Instruction. See pages 19-20 for QC details. 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 per the GRP Letter of Instruction. See page 21 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1WPK2 (SDG# 20081861, SAF# F02-009).
- Calcium, Potassium, Magnesium, and Sodium – sample concentrations exceeded spiking levels by a factor of 4. Spike recoveries are not valid. Check standard was analyzed to ensure linearity, because the sample results were greater than the calibration standard.

All other QC controls are within the established limits.

pH – The hold time requirement for this analysis was met. A Duplicate and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See page 22 for QC details. Analytical Note(s):

- Duplicate QC was analyzed on a non-GRP sample.

All 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 per GRP Letter of Instruction. See page 23 for QC details. Analytical Note(s):

- Duplicates were analyzed on samples B1WPK0 (SDG# 20081861, SAF# F02-009) and B1WJR1 (SDG# 20081816).

All QC controls are within the established limits.

Total Dissolved Solids – Samples B1WPT2, B1WPT4 and B1WPT5 were shipped to an offsite laboratory for analysis.

Total Organic Carbon – The hold time requirement or this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Method Spike were analyzed with this delivery group per the GRP Letter of Instruction. See page 24 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate recoveries were less than established laboratory limits. Affected sample results were N 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. See pages 29-31 for QC details.

All QC controls are within the established limits.

I certify that this data package is in compliance with the LOI, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Analytical Manager and Client Services as verified by the following signatures.

Scot L. Fitzgerald
WSCF Analytical Laboratory Manager

Pauline D. Mix
WSCF Client Services

M4W41-SLF-08-1142

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 24 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical: S. Fitzgerald 10/13/08

Client Services: P.D. Mix 10/9/2008

All results are reported on an "as received" basis unless otherwise noted in the comment section.

This information is intended for the use of the addressee only. If the reader of this report is not the intended recipient or is not authorized by the recipient to receive the report, you are hereby notified that any dissemination, distribution or copying of this report is strictly prohibited. If you have received this report in error, please notify WSCF Laboratory immediately by telephone at (509) 373-7020 or (509) 531-8004. Information designation of this report is the responsibility of the customer.

Contract#: FH-EIS-2003-MEM-001
Report#: WSCF20081872
Report Date: 7-oct-2008
Report WGPP/ver. 5.2
Groundwater Remediation Program

w13qlog v4.2 07-oct-2008 13:16:23

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20081872

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
37819	4	38244	42620	LCS		pH Direct Measurement
37819	8	38244	42620	SAMPLE	W08GR03538	pH Direct Measurement
37819	9	38244	42620	SAMPLE	W08GR03539	pH Direct Measurement
37819	10	38244	42620	SAMPLE	W08GR03540	pH Direct Measurement
37819	6	38244	42620	DUP	W08W000221	pH Direct Measurement
37829	2	38254	42626	BLANK		Anions by Ion Chromatography
37829	11	38254	42626	BLANK		Anions by Ion Chromatography
37829	22	38254	42626	BLANK		Anions by Ion Chromatography
37829	3	38254	42626	LCS		Anions by Ion Chromatography
37829	12	38254	42626	LCS		Anions by Ion Chromatography
37829	5	38254	42626	DUP	W08GR03517	Anions by Ion Chromatography
37829	6	38254	42626	MS	W08GR03517	Anions by Ion Chromatography
37829	7	38254	42626	MSD	W08GR03517	Anions by Ion Chromatography
37829	7	38254	42626	SPK-RPD	W08GR03517	Anions by Ion Chromatography
37829	14	38254	42626	DUP	W08GR03538	Anions by Ion Chromatography
37829	15	38254	42626	MS	W08GR03538	Anions by Ion Chromatography
37829	16	38254	42626	MSD	W08GR03538	Anions by Ion Chromatography
37829	13	38254	42626	SAMPLE	W08GR03538	Anions by Ion Chromatography
37829	16	38254	42626	SPK-RPD	W08GR03538	Anions by Ion Chromatography
37829	17	38254	42626	SAMPLE	W08GR03539	Anions by Ion Chromatography
37829	18	38254	42626	SAMPLE	W08GR03540	Anions by Ion Chromatography
37901	1	38329	42748	LCS		Total Alkalinity as mg/L CaCO3
37901	13	38329	42748	LCS		Total Alkalinity as mg/L CaCO3
37901	24	38329	42748	LCS		Total Alkalinity as mg/L CaCO3
37901	36	38329	42748	LCS		Total Alkalinity as mg/L CaCO3
37901	44	38329	42748	LCS		Total Alkalinity as mg/L CaCO3
37901	26	38329	42748	DUP	W08GR03517	Total Alkalinity as mg/L CaCO3
37901	41	38329	42748	SAMPLE	W08GR03538	Total Alkalinity as mg/L CaCO3
37901	42	38329	42748	SAMPLE	W08GR03539	Total Alkalinity as mg/L CaCO3
37901	43	38329	42748	SAMPLE	W08GR03540	Total Alkalinity as mg/L CaCO3
37901	3	38329	42748	DUP	W08P004191	Total Alkalinity as mg/L CaCO3
37914	1	38341	42754	BLANK		Total Organic Carbon
37914	2	38341	42754	METHSPIKE		Total Organic Carbon
37914	3	38341	42754	SPK-RSD		Total Organic Carbon
37914	4	38341	42754	MS	W08GR03538	Total Organic Carbon
37914	5	38341	42754	MSD	W08GR03538	Total Organic Carbon
37914	7	38341	42754	SAMPLE	W08GR03538	Total Organic Carbon
37914	5	38341	42754	SPK-RPD	W08GR03538	Total Organic Carbon
37914	8	38341	42754	SAMPLE	W08GR03539	Total Organic Carbon
37914	9	38341	42754	SAMPLE	W08GR03540	Total Organic Carbon
37988	3	38410	42823	BLANK		Ammonia (N) by IC
37988	12	38410	42823	BLANK		Ammonia (N) by IC
37988	1	38410	42823	LCS		Ammonia (N) by IC
37988	5	38410	42823	DUP	W08GR03538	Ammonia (N) by IC
37988	6	38410	42823	MS	W08GR03538	Ammonia (N) by IC
37988	7	38410	42823	MSD	W08GR03538	Ammonia (N) by IC
37988	4	38410	42823	SAMPLE	W08GR03538	Ammonia (N) by IC
37988	7	38410	42823	SPK-RPD	W08GR03538	Ammonia (N) by IC

37988	8	38410	42823	SAMPLE	W08GR03539	Ammonia (N) by IC
37988	9	38410	42823	SAMPLE	W08GR03540	Ammonia (N) by IC
37979	1	38336	42859	BLANK		ICP Metals Analysis, Grd H20 P
37979	2	38336	42859	LCS		ICP Metals Analysis, Grd H20 P
37979	4	38336	42859	MS	W08GR03519	ICP Metals Analysis, Grd H20 P
37979	5	38336	42859	MSD	W08GR03519	ICP Metals Analysis, Grd H20 P
37979	5	38336	42859	SPK-RPD	W08GR03519	ICP Metals Analysis, Grd H20 P
37979	9	38336	42859	SAMPLE	W08GR03538	ICP Metals Analysis, Grd H20 P
37979	10	38336	42859	SAMPLE	W08GR03539	ICP Metals Analysis, Grd H20 P
37979	11	38336	42859	SAMPLE	W08GR03540	ICP Metals Analysis, Grd H20 P

w13qlog v4.2 07-oct-2008 13:16:23

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20081872

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
37990	1	38413	42829	BLANK		Gross Alpha/Gross Beta (AB32)
37990	2	38413	42829	LCS		Gross Alpha/Gross Beta (AB32)
37990	3	38413	42829	DUP	W08GR03538	Gross Alpha/Gross Beta (AB32)
37990	4	38413	42829	SAMPLE	W08GR03538	Gross Alpha/Gross Beta (AB32)
37990	5	38413	42829	SAMPLE	W08GR03539	Gross Alpha/Gross Beta (AB32)
37990	6	38413	42829	SAMPLE	W08GR03540	Gross Alpha/Gross Beta (AB32)
37991	1	38412	42885	BLANK		Gross Alpha on Alpha Plateau
37991	2	38412	42885	LCS		Gross Alpha on Alpha Plateau
37991	3	38412	42885	DUP	W08GR03538	Gross Alpha on Alpha Plateau
37991	4	38412	42885	SAMPLE	W08GR03538	Gross Alpha on Alpha Plateau
37991	5	38412	42885	SAMPLE	W08GR03539	Gross Alpha on Alpha Plateau
37991	6	38412	42885	SAMPLE	W08GR03540	Gross Alpha on Alpha Plateau
37954	1	38378	43177	BLANK		Tritium by Liq Sct column prep
37954	2	38378	43177	LCS		Tritium by Liq Sct column prep
37954	4	38378	43177	DUP	W08GR03538	Tritium by Liq Sct column prep
37954	3	38378	43177	MS	W08GR03538	Tritium by Liq Sct column prep
37954	5	38378	43177	SAMPLE	W08GR03538	Tritium by Liq Sct column prep
37954	6	38378	43177	SAMPLE	W08GR03539	Tritium by Liq Sct column prep
37954	7	38378	43177	SAMPLE	W08GR03540	Tritium by Liq Sct column prep

WSCF
METHOD REFERENCES REPORT

Department: Inorganic

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 or industry 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 the 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-212-402	Determination of pH Direct Measurement	
	EPA SW-846 9040B	pH ELECTROMETRIC MEASUREMENT
	EPA-600/4-79-020 150.1	pH
	HEIS 150.1_PH	pH
	Standard Methods 4500	Determination of pH Direct Measurement - WSCF
LA-344-406	LA-344-406: TOTAL ORGANIC CARBON (TOC) BASED ON SW-846	
	EPA SW-846 9060	TOTAL ORGANIC CARBON
	HEIS 9060_TOC	Total Organic Carbon
LA-503-401	LA-503-401: ANALYSIS OF CATIONS BY ION CHROMATOGRAPHY	
	EPA-600/4-86-024 300.7	Dissolved Sodium, Ammonium, Potassium, and Calcium in Wet Deposition by Chemical
	HEIS 300.7_CATIONS_IC	Determination of Ammonium by Ion Chromatography
LA-505-411	LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE	
	HEIS 6010_METALS_ICP	Inductively Coupled Plasma-Atomic Emmision Spectrometry
LA-531-411	LA-531-411: ALKALINITY (TITRIMETRIC)	
	HEIS 2320B	Alkalinity
	Standard Methods 2320B	Alkalinity
LA-533-410	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 referenced regulatory or industry methods is available online at http://www2.rl.gov/phmc/as-dol.

WSCF
METHOD REFERENCES REPORT

Department: Radiochemistry

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 or industry 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 the 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-508-415 LA-508-415: OPERATION OF THE PROTEAN 2-INCH ALPHA/BETA COUNTING SYSTEM FOR GROSS

HEIS	**ALPHA_GPC**	GROSS ALPHA GPC
HEIS	**BETA_GPC**	GROSS BETA GPC
HEIS	**SRTOT_SEP_PRECIP_GPC**	Strontium 89/90

LA-508-421 LA-508-421: OPERATION OF THE TRI-CARB MODEL 2500TR LIQUID SCINTILLATION ANALYZER

HEIS	**ALPHA_LSC**	A/B Liquid Scintilillation
HEIS	**BETA_LSC**	A/B Liquid Scintilallation
HEIS	**TC99_3MDSK_LSC**	TC99 by Liquid Scintillation
HEIS	**TRITIUM_EIE_LSC**	Tritium Liquid Scintillation

Note: A complete list of WSCF analytical procedures and referenced regulatory or industry methods is available online at http://www2.rl.gov/phmc/as-dol.

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-154
Sample # W08GR03538
Client ID: B1WPT2 TRENT WSCF

Matrix: WATER

Group #: WSCF20081872
Department: Inorganic
Sampled: 08/28/08
Received: 08/28/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Chloride	16887-00-6	LA-533-410	B	0.0848	mg/L			1.00	0.047		08/28/08
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0128	mg/L			1.00	0.013		08/28/08
Nitrogen in Nitrate	NO3-N	LA-533-410	B	0.0173	mg/L			1.00	0.012		08/28/08
Sulfate	14808-79-8	LA-533-410	U	< 0.132	mg/L			1.00	0.13		08/28/08
ICP Metals Analysis, Grd H20 P Prep											**09/09/08**
ICP Metals Analysis, Grd H20 P											
Magnesium	7439-95-4	LA-505-411	U	< 50.0	ug/L			1.00	50		09/14/08
Potassium	7440-09-7	LA-505-411		533	ug/L			1.00	1.7e+02		09/14/08
Sodium	7440-23-5	LA-505-411		163	ug/L			1.00	51		09/14/08
Calcium	7440-70-2	LA-505-411	U	< 73.0	ug/L			1.00	73		09/14/08
Nitrogen in ammonium											
Nitrogen in ammonium	NH4-N	LA-503-401	B	0.0100	mg/L			1.00	9.3e-03		09/12/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411	U	< 1.00	mg/L			1.00	1.0		09/03/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406	NU	< 0.300	mg/L			1.00	0.30		09/09/08
pH Measurement											
pH Measurement	PH	LA-212-402		6.82	unitless			1.00	0.010		08/28/08

MDL = Minimum Detection Limit
RQ = Result Qualifier
TP Err = Total Propagated Error
DF = Dilution Factor

B - The analyte < the RDL but > = the IDL/MDL (inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

• - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-154
Sample # W08GR03539
Client ID: B1WPT4 TRENT WSCF

Matrix: WATER

Group #: WSCF20081872
Department: Inorganic
Sampled: 08/28/08
Received: 08/28/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Chloride	16887-00-6	LA-533-410	D	70.5	mg/L			3.00	0.14		08/28/08
Nitrogen in Nitrite	NO2-N	LA-533-410	D	0.341	mg/L			3.00	0.038		08/28/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	8.99	mg/L			3.00	0.036		08/28/08
Sulfate	14808-79-8	LA-533-410	D	215	mg/L			20.00	2.6		08/28/08
ICP Metals Analysis, Grd H20 P Prep											**09/09/08**
ICP Metals Analysis, Grd H20 P											
Magnesium	7439-95-4	LA-505-411		2.88e+04	ug/L			1.00	50		09/14/08
Potassium	7440-09-7	LA-505-411		1.66e+04	ug/L			1.00	1.7e+02		09/14/08
Sodium	7440-23-5	LA-505-411		3.03e+04	ug/L			1.00	51		09/14/08
Calcium	7440-70-2	LA-505-411		9.98e+04	ug/L			1.00	73		09/14/08
Nitrogen in ammonium											
Nitrogen in ammonium	NH4-N	LA-503-401	BD	0.0471	mg/L			5.00	0.047		09/12/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		74.0	mg/L			1.00	1.0		09/03/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406	N	5.93	mg/L			1.00	0.30		09/09/08
pH Measurement											
pH Measurement	PH	LA-212-402		7.93	unitless			1.00	0.010		08/28/08

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

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U - Analyzed for but not detected above limiting criteria(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-154
Sample # W08GR03540
Client ID: B1WPT5 TRENT WSCF

Matrix: WATER

Group #: WSCF20081872
Department: Inorganic
Sampled: 08/28/08
Received: 08/28/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Chloride	16887-00-6	LA-533-410	D	70.0	mg/L			3.00	0.14		08/28/08
Nitrogen in Nitrite	NO2-N	LA-533-410	BD	0.279	mg/L			3.00	0.038		08/28/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	9.07	mg/L			3.00	0.036		08/28/08
Sulfate	14808-79-8	LA-533-410	D	216	mg/L			20.00	2.6		08/28/08
ICP Metals Analysis, Grd H20 P Prep											**09/09/08**
ICP Metals Analysis, Grd H20 P											
Magnesium	7439-95-4	LA-505-411		2.84e+04	ug/L			1.00	50		09/14/08
Potassium	7440-09-7	LA-505-411		1.25e+04	ug/L			1.00	1.7e+02		09/14/08
Sodium	7440-23-5	LA-505-411		2.93e+04	ug/L			1.00	51		09/14/08
Calcium	7440-70-2	LA-505-411		9.90e+04	ug/L			1.00	73		09/14/08
Nitrogen in ammonium											
Nitrogen in ammonium	NH4-N	LA-503-401	DU	< 0.0466	mg/L			5.00	0.047		09/12/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		74.0	mg/L			1.00	1.0		09/03/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406	N	5.91	mg/L			1.00	0.30		09/09/08
pH Measurement											
pH Measurement	PH	LA-212-402		7.96	unitless			1.00	0.010		08/28/08

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

B - The analyte < the RDL but >= the IDL/MDL (inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081872
Matrix: WATER
Test: Ammonia (N) by IC

Sample Date: 08/28/08
Receive Date:08/28/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03538											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Ammonia (N) by IC	7664-41-7	1.47e-2		RPD			38.057	20.000 *		09/12/08
MS	Ammonia (N) by IC	7664-41-7	0.4454	89.438	% Recov	80.000	120.000				09/12/08
MSD	Ammonia (N) by IC	7664-41-7	0.48	96.386	% Recov	80.000	120.000				09/12/08
SPK-RPD	Ammonia (N) by IC	7664-41-7	96.386		RPD			7.478	20.000		09/12/08
BATCH QC											
BLANK	Ammonia (N) by IC	7664-41-7	<9.32e-3	n/a	mg/L	0.000	0.002			U	09/12/08
BLANK	Ammonia (N) by IC	7664-41-7	<9.32e-3	n/a	mg/L	0.000	0.002			U	09/12/08
LCS	Ammonia (N) by IC	7664-41-7	95.6038	95.604	% Recov	80.000	120.000				09/12/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081872
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date: 08/27/08
Receive Date:08/27/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03517											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Chloride	16887-00-6	187.3897		RPD			0.149	20.000		08/28/08
DUP	Nitrogen in Nitrate	NO3-N	<1.2221		RPD			n/a	20.000	U	08/28/08
DUP	Sulfate	14808-79-8	7000.8685		RPD			5.418	20.000		08/28/08
MS	Chloride	16887-00-6	0.87507	87.947	% Recov	80.000	120.000				08/28/08
MS	Nitrogen in Nitrate	NO3-N	0.45533	102.092	% Recov	80.000	120.000				08/28/08
MS	Sulfate	14808-79-8	1.750559	89.314	% Recov	80.000	120.000				08/28/08
MSD	Chloride	16887-00-6	0.918412	92.303	% Recov	80.000	120.000				08/28/08
MSD	Nitrogen in Nitrate	NO3-N	0.45234	101.422	% Recov	80.000	120.000				08/28/08
MSD	Sulfate	14808-79-8	2.257246	115.166	% Recov	80.000	120.000				08/28/08
SPK-RPD	Chloride	16887-00-6	92.303		RPD			4.833	20.000		08/28/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	101.422		RPD			0.658	20.000		08/28/08
SPK-RPD	Sulfate	14808-79-8	115.166		RPD			25.286	20.000 *		08/28/08
Lab ID: W08GR03538											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Chloride	16887-00-6	7.19e-2		RPD			16.465	20.000		08/28/08
DUP	Nitrogen in Nitrite	NO2-N	<1.28e-2		RPD			n/a	20.000	U	08/28/08
DUP	Nitrogen in Nitrate	NO3-N	2.01e-2		RPD			14.973	20.000		08/28/08
DUP	Sulfate	14808-79-8	<0.132		RPD			n/a	20.000	U	08/28/08
MS	Chloride	16887-00-6	0.9446	94.935	% Recov	80.000	120.000				08/28/08
MS	Nitrogen in Nitrite	NO2-N	0.4981	101.240	% Recov	80.000	120.000				08/28/08
MS	Nitrogen in Nitrate	NO3-N	0.4571	102.489	% Recov	80.000	120.000				08/28/08
MS	Sulfate	14808-79-8	1.9276	98.347	% Recov	80.000	120.000				08/28/08
MSD	Chloride	16887-00-6	0.9485	95.327	% Recov	80.000	120.000				08/28/08
MSD	Nitrogen in Nitrite	NO2-N	0.4827	98.110	% Recov	80.000	120.000				08/28/08
MSD	Nitrogen in Nitrate	NO3-N	0.4936	110.673	% Recov	80.000	120.000				08/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081872
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date: 08/28/08
Receive Date:08/28/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Sulfate	14808-79-8	1.9473	99.352	% Recov	80.000	120.000				08/28/08
SPK-RPD	Chloride	16887-00-6	95.327		RPD			0.412	20.000		08/28/08
SPK-RPD	Nitrogen in Nitrite	NO2-N	98.110		RPD			3.140	20.000		08/28/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	110.673		RPD			7.679	20.000		08/28/08
SPK-RPD	Sulfate	14808-79-8	99.352		RPD			1.017	20.000		08/28/08

BATCH QC

BLANK	Chloride	16887-00-6	<4.69e-2	n/a	mg/L	0.000	0.030			U	08/28/08
BLANK	Chloride	16887-00-6	<4.69e-2	n/a	mg/L	0.000	0.030			U	08/28/08
BLANK	Chloride	16887-00-6	<4.69e-2	n/a	mg/L	0.000	0.030			U	08/28/08
BLANK	Nitrogen in Nitrite	NO2-N	<1.28e-2	n/a	mg/L	0.000	0.020			U	08/28/08
BLANK	Nitrogen in Nitrite	NO2-N	<1.28e-2	n/a	mg/L	0.000	0.020			U	08/28/08
BLANK	Nitrogen in Nitrite	NO2-N	<1.28e-2	n/a	mg/L	0.000	0.020			U	08/28/08
BLANK	Nitrogen in Nitrate	NO3-N	<1.21e-2	n/a	mg/L	0.000	0.040			U	08/28/08
BLANK	Nitrogen in Nitrate	NO3-N	<1.21e-2	n/a	mg/L	0.000	0.040			U	08/28/08
BLANK	Nitrogen in Nitrate	NO3-N	<1.21e-2	n/a	mg/L	0.000	0.040			U	08/28/08
BLANK	Sulfate	14808-79-8	<0.132	n/a	mg/L	0.000	0.200			U	08/28/08
BLANK	Sulfate	14808-79-8	<0.132	n/a	mg/L	0.000	0.200			U	08/28/08
BLANK	Sulfate	14808-79-8	<0.132	n/a	mg/L	0.000	0.200			U	08/28/08
LCS	Chloride	16887-00-6	194.7975	96.914	% Recov	80.000	120.000				08/28/08
LCS	Chloride	16887-00-6	194.4152	96.724	% Recov	80.000	120.000				08/28/08
LCS	Nitrogen in Nitrite	NO2-N	98.5052	99.100	% Recov	80.000	120.000				08/28/08
LCS	Nitrogen in Nitrite	NO2-N	99.2774	99.877	% Recov	80.000	120.000				08/28/08
LCS	Nitrogen in Nitrate	NO3-N	92.7021	102.888	% Recov	80.000	120.000				08/28/08
LCS	Nitrogen in Nitrate	NO3-N	93.4	103.663	% Recov	80.000	120.000				08/28/08
LCS	Sulfate	14808-79-8	395.9691	99.992	% Recov	80.000	120.000				08/28/08
LCS	Sulfate	14808-79-8	392.9152	99.221	% Recov	80.000	120.000				08/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081872
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 08/27/08
Receive Date:08/27/08

Lab ID: W08GR03519

BATCH QC ASSOCIATED WITH SAMPLE

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MS	Calcium	7440-70-2	750	75.000	% Recov	75.000	125.000				09/14/08
MS	Potassium	7440-09-7	-1830000	-18300.000	% Recov	75.000	125.000		•		09/14/08
MS	Magnesium	7439-95-4	-880	-88.000	% Recov	75.000	125.000		•		09/14/08
MS	Sodium	7440-23-5	-140000	-14000.000	% Recov	75.000	125.000		•		09/14/08
MSD	Calcium	7440-70-2	800	80.000	% Recov	75.000	125.000				09/14/08
MSD	Potassium	7440-09-7	-1800000	-18000.000	% Recov	75.000	125.000		•		09/14/08
MSD	Magnesium	7439-95-4	-550	-55.000	% Recov	75.000	125.000		•		09/14/08
MSD	Sodium	7440-23-5	-116000	-11600.000	% Recov	75.000	125.000		•		09/14/08
SPK-RPD	Calcium	7440-70-2	80.000		RPD			6.452	20.000		09/14/08
SPK-RPD	Potassium	7440-09-7	-18000.000		RPD			-1.653	20.000 •		09/14/08
SPK-RPD	Magnesium	7439-95-4	-55.000		RPD			-46.154	20.000 •		09/14/08
SPK-RPD	Sodium	7440-23-5	-11600.000		RPD			-18.750	20.000 •		09/14/08

BATCH QC

BLANK	Calcium	7440-70-2	<73	n/a	ug/L					U	09/14/08
BLANK	Potassium	7440-09-7	<170	n/a	ug/L					U	09/14/08
BLANK	Magnesium	7439-95-4	<50	n/a	ug/L					U	09/14/08
BLANK	Sodium	7440-23-5	<51	n/a	ug/L					U	09/14/08
LCS	Calcium	7440-70-2	983	98.300	% Recov	80.000	120.000				09/14/08
LCS	Potassium	7440-09-7	10310	103.100	% Recov	80.000	120.000				09/14/08
LCS	Magnesium	7439-95-4	960.5	96.050	% Recov	80.000	120.000				09/14/08
LCS	Sodium	7440-23-5	977.5	97.750	% Recov	80.000	120.000				09/14/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081872
Matrix: WATER
Test: pH Direct Measurement

Sample Date: 08/27/08
Receive Date:08/27/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08W000221											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	pH Direct Measurement	PH	5.79		RPD			3.396	20.000		08/28/08
BATCH QC											
LCS	pH Direct Measurement	PH	8.05	1.006	Ratio	0.900	1.100				08/28/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20081872
Matrix: WATER
Test: Total Alkalinity as mg/L CaCO3

Sample Date: 08/27/08
Receive Date:08/27/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03517											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Alkalinity as mg/L CaCO3	ALKALINITY	6561		RPD			2.929	20.000		09/03/08
Lab ID: W08P004191											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Alkalinity as mg/L CaCO3	ALKALINITY	157.5		RPD			4.651	20.000		09/03/08
BATCH QC											
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	32.11	107.752	%Recove	80.000	120.000				09/03/08
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	32.40	108.725	%Recove	80.000	120.000				09/03/08
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	31.59	106.007	%Recove	80.000	120.000				09/03/08
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	31.73	106.477	%Recove	80.000	120.000				09/03/08
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	31.82	106.779	%Recove	80.000	120.000				09/03/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20081872
Matrix: WATER
Test: Total Organic Carbon

Sample Date: 08/28/08
Receive Date:08/28/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03538											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Total Organic Carbon	TOC	1.397	69.850	% Recov	75.000	125.000		*		09/09/08
MSD	Total Organic Carbon	TOC	1.401	70.050	% Recov	75.000	125.000		*		09/09/08
SPK-RPD	Total Organic Carbon	TOC	70.050		RPD			0.286	20.000		09/09/08
BATCH QC											
BLANK	Total Organic Carbon	TOC	<0.045	n/a	mg/L	0.000	300.000			U	09/09/08
METHSPIKE	Total Organic Carbon	TOC	2.133	106.650	% Recov	80.000	120.000				09/09/08
SPK-RSD	Total Organic Carbon	TOC	0.4148	0.415	% RSD	0.000	20.000				09/09/08

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-154

Group #: WSCF20081872
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		TOC: MS/MSD low at ~70%Rec. but LCS and CCVs good. gar IC Cation - Sample dup RPD out of limits for ammonia in sample W08GR03538; Analyte concentration in sample below calibration range. DTS ICP-AES: [Samples W08GR3538-3540] No zirconium present in the LCS standard. Calcium, magnesium, sodium, and potassium sample results exceed spiking level by a factor of 4 so spike recoveries are not valid. Check standard used to ensure calcium, magnesium, and sodium linearity because sample results are greater than the calibration stendard.

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample
VALTEST - Test Validation
LOGTEST - Login for Tests
TESTDATA - Test Data Entry

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-154
Sample # W08GR03538
Client ID: B1WPT2 TRENT WSCF

Matrix: WATER

Group #: WSCF20081872
Department: Radiochemistry
Sampled: 08/28/08
Received: 08/28/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415	U	0.180	pCi/L	+-0.313	pCi/L	1.00	0.54		09/14/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415	U	0.960	pCi/L	+-0.854	pCi/L	1.00	1.4		09/11/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	-210	pCi/L	+-210	pCi/L	1.00	2.3e+02		10/01/08

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

B - The analyte < the RDL but > = the IDL/MDL (inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-154
Sample # W08GR03539
Client ID: B1WPT4 TRENT WSCF

Matrix: WATER

Group #: WSCF20081872
Department: Radiochemistry
Sampled: 08/28/08
Received: 08/28/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415	U	0.850	pCi/L	+-1.88	pCi/L	1.00	3.4		09/14/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		18.0	pCi/L	+-5.58	pCi/L	1.00	7.4		09/11/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	-120	pCi/L	+-149	pCi/L	1.00	2.3e+02		10/01/08

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

B - The analyte < the RDL but > = the IDL/MDL (inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-154
Sample # W08GR03540
Client ID: B1WPT5 TRENT WSCF

Matrix: WATER

Group #: WSCF20081872
Department: Radiochemistry
Sampled: 08/28/08
Received: 08/28/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Gross Alpha on Alpha Plateau											
Gross alpha on alpha plateau	12587-46-1	LA-508-415	U	3.20	pCi/L	+-2.94	pCi/L	1.00	4.3		09/14/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		15.0	pCi/L	+-6.75	pCi/L	1.00	9.8		09/11/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	-33.0	pCi/L	+-244	pCi/L	1.00	2.3e+02		10/01/08

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
DF=Dilution Factor

B - The analyte < the RDL but > = the IDL/MDL (inorg)
N - Spike sample recovery is outside control limits.(inorg)
U - Analyzed for but not detected above limiting criteria.

D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20081872
Matrix: WATER
Test: Gross Alpha on Alpha Plateau

Sample Date: 08/28/08
Receive Date:08/28/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03538											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Gross alpha on alpha plateau	12587-46-1	U2.7E-01		RPD			n/a	20.000		09/14/08
BATCH QC											
BLANK	Gross alpha on alpha plateau	12587-46-1-ap	U1.8E-01	n/a	pCi/L	-100.000	100.000				09/14/08
LCS	Gross alpha on alpha plateau	12587-46-1-ap	37	95.607	% Recov	80.000	120.000				09/14/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081872
Matrix: WATER
Test: Gross Alpha/Gross Beta (AB32)

Sample Date: 08/28/08
Receive Date:08/28/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03538											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Gross beta	12587-47-2	1.7		RPD			n/a	20.000		09/11/08
BATCH QC											
BLANK	Gross beta	12587-47-2	U1.2	n/a	pCi/L	-10.000	10.000				09/11/08
LCS	Gross beta	12587-47-2	121	107.843	% Recov	80.000	120.000				09/11/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20081872
Matrix: WATER
Test: Tritium by Liq Sct column prep

Sample Date: 08/28/08
Receive Date:08/28/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03538											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tritium	10028-17-8	U-9.1E+01		RPD			n/a	20.000		10/01/08
MS	Tritium	10028-17-8	20813	92.590	% Recov	75.000	125.000				10/01/08
BATCH QC											
BLANK	Tritium	10028-17-8	U4.6E+01	n/a	pCi/L	-10.000	1000.000				10/01/08
LCS	Tritium	10028-17-8	3010.0	88.893	% Recov	80.000	120.000				10/01/08

M4W41-SLF-08-1142

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 8 pages
Including cover page

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

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program
Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 122543/ES10
Group#: 20081872
Project#: F08-154
Proj Mgr: Steve Trent E6-35
Phone: 373-5869

The following samples were received from you on 08/28/08. 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.

Sample#	Sample Id	Tests Scheduled		Matrix			Sample Date
W08GR03538	B1WPT2	TRENT		Water			08/28/08
		@AB-32	@ALPHA	@GPP6010	@H3-33	@IC-30	
		ALKALI	NH4-IC	PH-30	TOC-30		
W08GR03539	B1WPT4	TRENT		Water			08/28/08
		@AB-32	@ALPHA	@GPP6010	@H3-33	@IC-30	
		ALKALI	NH4-IC	PH-30	TOC-30		
W08GR03540	B1WPT5	TRENT		Water			08/28/08
		@AB-32	@ALPHA	@GPP6010	@H3-33	@IC-30	
		ALKALI	NH4-IC	PH-30	TOC-30		

Test Acronym Description

Test Acronym	Description
@AB-32	Gross Alpha/Gross Beta (AB32)
@ALPHA	Gross Alpha on Alpha Plateau
@GPP6010	ICP Metals Analysis, Grd H20 P
@H3-33	Tritium by Liq Sct column prep
@IC-30	Anions by Ion Chromatography
ALKALI	Total Alkalinity as mg/L CaCO3
NH4-IC	Ammonia (N) by IC
PH-30	pH Direct Measurement
TOC-30	Total Organic Carbon

Fluor Hanford Inc. 10/13/08

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F08-154-001

COLLECTOR: Rosaney Rust	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: WIDRIG, DL
PRICE CODE: 7N	DATA TURNAROUND: 45 Days / 45 Days	AIR QUALITY: ☐	
SAMPLING LOCATION: C6455, EB-I-001	PROJECT DESIGNATION: Liquid Effluent Retention Facility (LERF) Sampling	SAF NO.: F08-154	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-491-2 pg 2	ACTUAL SAMPLE DEPTH	COA: 122543ES10
METHOD OF SHIPMENT: GOVERNMENT VEHICLE	SHIPPED TO: Waste Sampling & Characterization 20081872	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, V=Vegitation, W=Water, WI=Wipe, X=Other

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

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HNO3 to pH <2	Cool~4C	H2SO4 to pH <2	Cool~4C	Cool~4C	None	HCl or H2SO4 to pH <2/Cool~4C	HNO3 to pH <2	None
TYPE OF CONTAINER	G/P	P	G/P	G/P	G/P	G/P	aGs*	G/P	P
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1	1
VOLUME	500mL	500mL	250mL	250mL	500mL	125mL	250mL	500mL	250mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 6010	SEE ITEM (2) IN SPECIAL INSTRUCTIONS IC	Cations (IC) - 300.7 (Nitrogen in ammonium)	2320_ALKALINITY (Alkalinity)	TDS (Total dissolved solids)	pH - 150.1;	TOC - 9060;	Gross Alpha (Gross alpha) Gross Beta (Gross beta)	Tritium - H3;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1WPT2 W086R03538	WATER	8-28-08	0845	✓	✓	✓	✓	✓	✓	✓	✓	✓

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosanne - Larry Rosanne	8-28-08/1115	T.A PRAZIM / Cicero: Stg in	8/28/08 1115
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

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1)ICP Metals - 6010B (TAL) {Calcium, Magnesium, Potassium, Sodium}
(2)IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate}

ICFD

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

A-6003-618(01/06)

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F08-154-004

COLLECTOR: Rosane, Rust	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: WIDRIG, DL
PRICE CODE: 7N	DATA TURNAROUND: 45 Days / 45 Days	AIR QUALITY: ☐	
SAMPLING LOCATION: C6455, I-001	PROJECT DESIGNATION: Liquid Effluent Retention Facility (LERF) Sampling	SAF NO.: F08-154	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-10-~~194~~-2 pg 2	ACTUAL SAMPLE DEPTH: 233'	COA: 122543ES10
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, V=Vegitation, W=Water, WI=Wipe, X=Other

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

SPECIAL HANDLING AND/OR STORAGE: Radioactive Tie To: B1WPT3

PRESERVATION	HNO3 to pH <2	Cool~4C	H2SO4 to pH <2	Cool~4C	Cool~4C	None	HCl or H2SO4 to pH <2/Cool~4C	HNO3 to pH <2	None
TYPE OF CONTAINER	G/P	P	G/P	G/P	G/P	G/P	aGs*	G/P	P
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1	1
VOLUME	500mL	500mL	250mL	250mL	500mL	125mL	250mL	500mL	250mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	Cations (IC) - 300.7 (Nitrogen in ammonium)	2320_ALKALINITY (Alkalinity)	TDS (Total dissolved solids)	pH - 150.1;	TOC - 9060;	Gross Alpha (Gross alpha) Gross Beta (Gross beta)	Tritium - H3;
				✓	✓	✓	✓	✓	✓

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1WPT4 3539	WATER	8-28-08	1010	✓	✓	✓	✓	✓	✓	✓	✓	✓
	LOT #			031628	031628	027994	027994	031628	030308	029468 ~~027994~~	031628	027994

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane	8-28-08 1115	TA FRAZIER	8/28/08 1115

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1)ICP Metals - 6010B (TAL) {Calcium, Magnesium, Potassium, Sodium}
(2)IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate}

ICED

LABORATORY SECTION — RECEIVED BY — TITLE — DATE/TIME

FINAL SAMPLE DISPOSITION — DISPOSAL METHOD — DISPOSED BY — DATE/TIME

A-6003-618(01/06)

Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F08-154-007

COLLECTOR: Rosane Rust	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: WIDRIG, DL
SAMPLING LOCATION: C6455, I-001-D	PROJECT DESIGNATION: Liquid Effluent Retention Facility (LERF) Sampling		SAF NO.: F08-154
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-491-2 pg 2	ACTUAL SAMPLE DEPTH: 233'	COA: 122543ES10
SHIPPED TO: Waste Sampling & Characterization	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A

PRICE CODE: 7N

AIR QUALITY: ☐

DATA TURNAROUND: 45 Days / 45 Days

METHOD OF SHIPMENT: GOVERNMENT VEHICLE

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

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

SPECIAL HANDLING AND/OR STORAGE
Radioactive Tie To: B1WPT3

PRESERVATION	HNO3 to pH <2	Cool~4C	H2SO4 to pH <2	Cool~4C	Cool~4C	None	HCl or H2SO4 to pH <2/Cool~4C	HNO3 to pH <2	None
TYPE OF CONTAINER	G/P	P	G/P	G/P	G/P	G/P	aGs*	G/P	P
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1	1
VOLUME	500mL	500mL	250mL	250mL	500mL	125mL	250mL	500mL	250mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	Cations (IC) - 300.7 (Nitrogen in ammonium)	2320_ALKALINITY (Alkalinity)	TDS (Total dissolved solids)	pH - 150.1;	TOC - 9060;	Gross Alpha (Gross alpha) Gross Beta (Gross beta)	Tritium - H3;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1WPT5 3540	WATER	8-28-08	1010	✓	✓	✓	✓	✓	✓	✓	✓	✓
LOT#				031628	031629	027994	027994	031628	030308	029468	031628	027994

CHAIN OF POSSESSION — **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosane Larry Rosane	8-28-08/ 1115	TA Pnazim Jewarity in	8/28/08 1115
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

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1)ICP Metals - 6010B (TAL) {Calcium, Magnesium, Potassium, Sodium}
(2)IC Anions - 300.0 {Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate}

ICED

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

A-6003-618(01/06)

Fluor Hanford Inc. 10/13/08

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F08-154-001

COLLECTOR: Rosaney Rust	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: WIDRIG, DL
PRICE CODE: 7N	DATA TURNAROUND: 45 Days / 45 Days	AIR QUALITY: ☐	
SAMPLING LOCATION: C6455, EB-I-001	PROJECT DESIGNATION: Liquid Effluent Retention Facility (LERF) Sampling	SAF NO.: F08-154	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-491-2 pg 2	ACTUAL SAMPLE DEPTH	COA: 122543ES10
METHOD OF SHIPMENT: GOVERNMENT VEHICLE	SHIPPED TO: TASL 9/2/08 ~~Waste Sampling & Characterization~~ 20081872	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, V=Vegitation, W=Water, WI=Wipe, X=Other

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

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION	HNO3 to pH <2	Cool~4C	H2SO4 to pH <2	Cool~4C	Cool~4C	None	HCl or H2SO4 to pH <2/Cool~4C	HNO3 to pH <2	None
TYPE OF CONTAINER	G/P	P	G/P	G/P	G/P	G/P	aGs*	G/P	P
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1	1
VOLUME	500mL	500mL	250mL	250mL	500mL	125mL	250mL	500mL	250mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS 6010	SEE ITEM (2) IN SPECIAL INSTRUCTIONS IC	Cations (IC) - 300.7 (Nitrogen in ammonium)	2320_ALKALINITY (Alkalinity)	TDS (Total dissolved solids)	pH - 150.1;	TOC - 9060;	Gross Alpha (Gross alpha) Gross Beta (Gross beta)	Tritium - H3;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1WPT2 W086RW3S38	WATER	8-28-08	0845	✓	✓	✓	✓	✓	✓	✓	✓	✓

Shipped off Site

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rogers - Larry Rogers	8-28-08 1115	TA PNAZIM	8/28/08 1115
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
	9/2/08 1435		9/2/08 1435
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

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
(1)ICP Metals - 6010B (TAL) (Calcium, Magnesium, Potassium, Sodium)
(2)IC Anions - 300.0 (Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate)

ICFD

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

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F08-154-004	PAGE 1 OF 1
COLLECTOR Rosane, Rust	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 7N	DATA TURNAROUND
SAMPLING LOCATION C6455, I-001	PROJECT DESIGNATION Liquid Effluent Retention Facility (LERF) Sampling		SAF NO. F08-154	AIR QUALITY ☐	45 Days / 45 Days
ICE CHEST NO.	FIELD LOGBOOK NO. HNF-N-~~391~~-2 pg 2	ACTUAL SAMPLE DEPTH 233'	COA 122543ES10	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO TASL 9/2/08 ~~Waste Sampling & Characterization~~ JCS	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
V=Vegitation
W=Water
WI=Wipe
X=Other

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

SPECIAL HANDLING AND/OR STORAGE
Radioactive Tie To: B1WPT3

PRESERVATION	HNO3 to pH <2	Cool~4C	H2SO4 to pH <2	Cool~4C	Cool~4C	None	HCl or H2SO4 to pH <2/Cool~4C	HNO3 to pH <2	None
TYPE OF CONTAINER	G/P	P	G/P	G/P	G/P	G/P	~~AGS*~~	G/P	P
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1	1
VOLUME	500mL	500mL	250mL	250mL	500mL	125mL	250mL	500mL	250mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	Cations (IC) - 300.7 (Nitrogen in ammonium)	2320_ALKALINITY (Alkalinity)	TDS (Total dissolved solids)	pH - 150.1;	TOC - 9060;	Gross Alpha (Gross alpha) Gross Beta (Gross beta)	Tritium - H3;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1WPT4 3539	WATER	8-28-08	1010	✓	✓	✓	✓	✓	✓	✓	✓	✓
							Shipped		off		Site	
	LOT #			031628	031628	027994	027994	031628	030308	029468 ~~027994~~	031628	027994

CHAIN OF POSSESSION / **SIGN/ PRINT NAMES**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosene Larry Rosene	8-28-08 1115	TA FRAZIER	8/28/08 1115
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
	9/2/08 1435		9/2/08 1435
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

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
~~(1)ICP Metals - 6010B (TAL)~~ (Calcium, Magnesium, Potassium, Sodium)
~~(2)IC Anions - 300.0~~ (Chloride, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate)

ICED

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

Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F08-1S4-007	PAGE 1 OF 1
COLLECTOR: Rosane Rust	COMPANY CONTACT: TRENT, SJ	TELEPHONE NO.: 373-5869	PROJECT COORDINATOR: WIDRIG, DL	PRICE CODE: 7N	DATA TURNAROUND: 45 Days / 45 Days
SAMPLING LOCATION: C6455, I-001-D	PROJECT DESIGNATION: Liquid Effluent Retention Facility (LERF) Sampling		SAF NO.: F08-154	AIR QUALITY: ☐	
ICE CHEST NO.	FIELD LOGBOOK NO.: HNF-N-491-2 pg 2	ACTUAL SAMPLE DEPTH: 233'	COA: 122543ES10	METHOD OF SHIPMENT: GOVERNMENT VEHICLE	
SHIPPED TO: TASL ~~Waste Sampling & Characterization~~ 9/2/08 JCS	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, V=Vegitation, W=Water, WI=Wipe, X=Other

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

SPECIAL HANDLING AND/OR STORAGE
Radioactive Tie To: B1WPT3

PRESERVATION	HNO3 to pH <2	Cool~4C	H2SO4 to pH <2	Cool~4C	Cool~4C	None	HCl or H2SO4 to pH <2/Cool~4C	HNO3 to pH <2	None
TYPE OF CONTAINER	G/P	P	G/P	G/P	G/P	G/P	aGs*	G/P	P
NO. OF CONTAINER(S)	1	1	1	1	1	1	1	1	1
VOLUME	500mL	500mL	250mL	250mL	500mL	125mL	250mL	500mL	250mL
SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	Cations (IC) - 300.7 (Nitrogen in ammonium)	2320_ALKALINITY (Alkalinity)	TDS (Total dissolved solids)	pH - 150.1;	TOC - 9060	Gross Alpha (Gross Alpha) Gross Beta (Gross beta)	Tritium - H3;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1WPT5 3540	WATER	8-28-08	1010	✓	✓	✓	✓	✓	✓	✓	✓	✓
				Shipped off Site								
	LOT#			031628	031629	027994	027994	031628	030308	029468	031628	027994

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
Larry Rosson Larry Rosson	8-28-08/ 1115	TA Ramzim Jerez Jerez	8/28/08 1115
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
[illegible]	9/2/08 1435	[illegible]	9/2/08 14:35
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

SPECIAL INSTRUCTIONS

** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF.
~~(1)ICP Metals - 6010B (TAL)~~ {Calcium, Magnesium, Potassium, Sodium}
(2)~~IC Anions - 300.0 {Chloride~~, Nitrogen in Nitrate, Nitrogen in Nitrite, Sulfate}

ICED

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