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FLUOR**Memorandum**

M4W41-SLF-08-1194

To: M. A. Neely B6-06 Date: October 27, 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 WSCF20082055; SAF NUMBER F08-154

Reference: (1) Memorandum of Agreement #MOA-FH-CHPRC-2008, Rev. 0, for the Performance & Payment of Services, dated October 1, 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 WSCF20082055:

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

SLF/grf

Attachments 4

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M4W41-SLF-08-1194

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20082055
Data Deliverable Date: 07-nov-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F08-154	B1WPV4	W08GR03862	WATER
	B1WPV5	W08GR03863	WATER

M4W41-SLF-08-1194

ATTACHMENT 2

NARRATIVE

Consisting of 4 pages
Including cover page

Introduction

Two S&GRP samples were received at the WSCF Laboratory on September 23, 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 sample container.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report*, pages 13 through 15, 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. See page 18 for QC details. Analytical Note(s):

- Sample results were D flagged if dilution(s) were required.
- Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1WPV4 (SDG# 20082055, SAF# F08-154).

All 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. See pages 19 through 20 for QC details. Analytical Note(s):

- Sample results were D flagged if dilution(s) were required.
- Nitrite-N – Matrix Spike recovery slightly exceeded established laboratory limits. Sample results were N flagged.
- Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TR46 (SDG# 20082037, SAF# F08-083).

All other 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. See page 21 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1TR48 (SDG# 20082037, SAF# F08-083).
- Sample results that were less than the reportable limit, however greater than the method detection limit, were B flagged.
- Calcium and Sodium 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. See page 22 for QC details. Analytical Note(s):

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. See page 23 for QC details. Analytical Note(s):

- Duplicates were analyzed on samples B1WPV4 of this SDG and B1X0V7 (SDG# 20082025).

All QC controls are within the established limits.

Total Dissolved Solids – The hold time requirement for this analysis was met. A Duplicate, Blank and Laboratory Control Sample were analyzed for this sample delivery group. See page 24 for QC details. Analytical Note(s):

- Duplicate QC was analyzed on sample# B1X6N8 (SDG# 20082012, SAF# F08-039).

All QC controls are within the established limits.

Total Organic Carbon – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Method Spike were analyzed with this delivery group. See page 25 for QC details. Analytical Note(s):

- Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1X1K4 (SDG# 20082013, SAF# F08-157).

All QC controls are within the established limits.

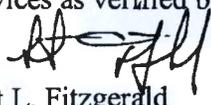
Radiochemistry Comments

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 through 31 for QC details. Analytical Note(s):

- Gross Alpha/Gross Beta – Duplicate QC was analyzed on sample# B1TR41 (SDG# 20082036, SAF# F08-083).
- Tritium – Duplicate and Matrix Spike were analyzed on sample# B1WPH0 (SDG# 20082033, SAF# F08-146).

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-08-1194

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 10/27/08

Client Services:

P.D. Mix 10/27/2008

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

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Contract#: FH-EIS-2003-MEM-001
Report#: WSCF20082055
Report Date: 23-oct-2008
Report WGPP/ver. 5.2
Groundwater Remediation Program

Page 1

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20082055

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
38136	4	38557	42976	LCS		pH Direct Measurement
38136	6	38557	42976	DUP	W08GR03862	pH Direct Measurement
38136	5	38557	42976	SAMPLE	W08GR03862	pH Direct Measurement
38136	7	38557	42976	SAMPLE	W08GR03863	pH Direct Measurement
38140	2	38560	42986	BLANK		Anions by Ion Chromatography
38140	12	38560	42986	BLANK		Anions by Ion Chromatography
38140	3	38560	42986	LCS		Anions by Ion Chromatography
38140	5	38560	42986	DUP	W08GR03840	Anions by Ion Chromatography
38140	6	38560	42986	MS	W08GR03840	Anions by Ion Chromatography
38140	7	38560	42986	MSD	W08GR03840	Anions by Ion Chromatography
38140	7	38560	42986	SPK-RPD	W08GR03840	Anions by Ion Chromatography
38140	10	38560	42986	SAMPLE	W08GR03862	Anions by Ion Chromatography
38140	11	38560	42986	SAMPLE	W08GR03863	Anions by Ion Chromatography
38163	2	38590	43020	BLANK		Tot Dissolved Solids 180C Dry
38163	1	38590	43020	LCS		Tot Dissolved Solids 180C Dry
38163	4	38590	43020	DUP	W08GR03782	Tot Dissolved Solids 180C Dry
38163	5	38590	43020	SAMPLE	W08GR03862	Tot Dissolved Solids 180C Dry
38163	6	38590	43020	SAMPLE	W08GR03863	Tot Dissolved Solids 180C Dry
38235	1	38656	43078	LCS		Total Alkalinity as mg/L CaCO3
38235	14	38656	43078	LCS		Total Alkalinity as mg/L CaCO3
38235	25	38656	43078	LCS		Total Alkalinity as mg/L CaCO3
38235	3	38656	43078	DUP	W08GR03862	Total Alkalinity as mg/L CaCO3
38235	2	38656	43078	SAMPLE	W08GR03862	Total Alkalinity as mg/L CaCO3
38235	4	38656	43078	SAMPLE	W08GR03863	Total Alkalinity as mg/L CaCO3
38235	7	38656	43078	DUP	W08P004444	Total Alkalinity as mg/L CaCO3
38173	1	38577	43108	BLANK		ICP Metals Analysis, Grd H2O P
38173	2	38577	43108	LCS		ICP Metals Analysis, Grd H2O P
38173	4	38577	43108	MS	W08GR03841	ICP Metals Analysis, Grd H2O P
38173	5	38577	43108	MSD	W08GR03841	ICP Metals Analysis, Grd H2O P
38173	5	38577	43108	SPK-RPD	W08GR03841	ICP Metals Analysis, Grd H2O P
38173	13	38577	43108	SAMPLE	W08GR03862	ICP Metals Analysis, Grd H2O P
38173	14	38577	43108	SAMPLE	W08GR03863	ICP Metals Analysis, Grd H2O P
38272	1	38693	43129	BLANK		Total Organic Carbon
38272	2	38693	43129	METHSPIKE		Total Organic Carbon
38272	3	38693	43129	SPK-RSD		Total Organic Carbon
38272	4	38693	43129	MS	W08GR03783	Total Organic Carbon
38272	5	38693	43129	MSD	W08GR03783	Total Organic Carbon
38272	5	38693	43129	SPK-RPD	W08GR03783	Total Organic Carbon
38272	9	38693	43129	SAMPLE	W08GR03862	Total Organic Carbon
38272	10	38693	43129	SAMPLE	W08GR03863	Total Organic Carbon
38296	3	38716	43148	BLANK		Ammonia (N) by IC
38296	10	38716	43148	BLANK		Ammonia (N) by IC
38296	1	38716	43148	LCS		Ammonia (N) by IC
38296	6	38716	43148	DUP	W08GR03862	Ammonia (N) by IC
38296	7	38716	43148	MS	W08GR03862	Ammonia (N) by IC
38296	8	38716	43148	MSD	W08GR03862	Ammonia (N) by IC

38296	5	38716	43148	SAMPLE	W08GR03862	Ammonia (N) by IC
38296	8	38716	43148	SPK-RPD	W08GR03862	Ammonia (N) by IC
38296	9	38716	43148	SAMPLE	W08GR03863	Ammonia (N) by IC

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20082055

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
38433	1	38855	43335	BLANK		Gross Alpha/Gross Beta (AB32)
38433	2	38855	43335	LCS		Gross Alpha/Gross Beta (AB32)
38433	3	38855	43335	DUP	W08GR03830	Gross Alpha/Gross Beta (AB32)
38433	12	38855	43335	SAMPLE	W08GR03862	Gross Alpha/Gross Beta (AB32)
38433	13	38855	43335	SAMPLE	W08GR03863	Gross Alpha/Gross Beta (AB32)
38154	1	38583	43340	BLANK		Tritium by Liq Sct column prep
38154	2	38583	43340	LCS		Tritium by Liq Sct column prep
38154	4	38583	43340	DUP	W08GR03825	Tritium by Liq Sct column prep
38154	3	38583	43340	MS	W08GR03825	Tritium by Liq Sct column prep
38154	14	38583	43340	SAMPLE	W08GR03862	Tritium by Liq Sct column prep
38154	15	38583	43340	SAMPLE	W08GR03863	Tritium by Liq Sct column prep
38439	1	38861	43359	BLANK		Gross Alpha on Alpha Plateau
38439	2	38861	43359	LCS		Gross Alpha on Alpha Plateau
38439	3	38861	43359	DUP	W08GR03830	Gross Alpha on Alpha Plateau
38439	12	38861	43359	SAMPLE	W08GR03862	Gross Alpha on Alpha Plateau
38439	13	38861	43359	SAMPLE	W08GR03863	Gross Alpha on Alpha Plateau

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 Emission Spectrometry
LA-519-422	LA-519-422: TOTAL DISSOLVED SOLIDS DRIED AT 180 C EPA-600/4-79-020 160.1 Residual, Filterable HEIS 160.1_TDS Residual, Filterable
LA-531-411	LA-531-411: ALKALINITY (TITRIMETRIC) HEIS 2320B Alkalinity Standard Methods 2320B Alkalinity

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>.

Report Date: 23-oct-2008
Report#: WSCF20082055
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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-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>.

Report Date: 23-oct-2008
Report#: WSCF20082055
Report WGPPM/5.2

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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	Protium 89/90
LA-508-421	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 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>.

Report Date: 23-oct-2008

Report#: WSCF20082055

Report WGPPM/5.2

Page 1

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-154
Sample # W08GR03862
Client ID: B1WPV4

GPP TRENT
WSCF

Matrix: WATER

Group #: WSCF20082055
Department: Inorganic
Sampled: 09/23/08
Received: 09/23/08

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	41.3	mg/L			10.00	0.47		09/23/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DN	0.192	mg/L			2.00	0.026		09/23/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	6.20	mg/L			2.00	0.024		09/23/08
Sulfate	14808-79-8	LA-533-410	D	118	mg/L			2.00	0.26		09/23/08
ICP Metals Analysis, Grd H20 P Prep											09/25/08
ICP Metals Analysis, Grd H20 P											
Magnesium	7439-95-4	LA-505-411		1.87e+04	ug/L			1.00	50		09/29/08
Potassium	7440-09-7	LA-505-411		1.55e+04	ug/L			1.00	1.7e+02		09/29/08
Sodium	7440-23-5	LA-505-411		2.98e+04	ug/L			1.00	51		09/29/08
Calcium	7440-70-2	LA-505-411		5.48e+04	ug/L			1.00	73		09/29/08
Nitrogen in ammonium											
Nitrogen in ammonium	NH4-N	LA-503-401	D	0.287	mg/L			2.00	0.019		10/02/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		88.0	mg/L			1.00	1.0		09/26/08
Total dissolved solids											
Total dissolved solids	TDS	LA-519-422		329	mg/L			1.00	9.0		09/24/08
Total organic carbon											
Total organic carbon	TOC	LA-344-408		2.57	mg/L			1.00	0.30		09/29/08
pH Measurement											
pH Measurement	PH	LA-212-402		7.78	unitless			1.00	0.010		09/23/08

MDL = Minimum Detection Limit

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

D - Analyte was identified at a secondary dilution factor

N - Spike sample recovery is outside control limits.(inorg)

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

Report WGPP/ver. 5.2

Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-154
Sample # W08GR03863
Client ID: B1WPV5

GPP TRENT
WSCF

Matrix: WATER

Group #: WSCF20082055
Department: Inorganic
Sampled: 09/23/08
Received: 09/23/08

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	41.9	mg/L			10.00	0.47		09/23/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DN	0.209	mg/L			2.00	0.026		09/23/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	6.19	mg/L			2.00	0.024		09/23/08
Sulfate	14808-79-8	LA-533-410	D	118	mg/L			2.00	0.26		09/23/08
ICP Metals Analysis, Grd H20 P Prep											
ICP Metals Analysis, Grd H20 P											
Magnesium	7439-95-4	LA-505-411		1.83e +04	ug/L			1.00	50		09/29/08
Potassium	7440-09-7	LA-505-411		1.51e +04	ug/L			1.00	1.7e +02		09/29/08
Sodium	7440-23-5	LA-505-411		2.91e +04	ug/L			1.00	51		09/29/08
Calcium	7440-70-2	LA-505-411		5.30e +04	ug/L			1.00	73		09/29/08
Nitrogen in ammonium											
Nitrogen in ammonium	NH4-N	LA-503-401	D	0.269	mg/L			2.00	0.019		10/02/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		88.0	mg/L			1.00	1.0		09/26/08
Total dissolved solids											
Total dissolved solids	TDS	LA-519-422		417	mg/L			1.00	9.0		09/24/08
Total organic carbon											
Total organic carbon	TOC	LA-344-406		2.41	mg/L			1.00	0.30		09/29/08
pH Measurement											
pH Measurement	PH	LA-212-402		7.83	unitless			1.00	0.010		09/23/08

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

D - Analyte was identified at a secondary dilution factor

N - Spike sample recovery is outside control limits.(inorg)

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

Report WGPP/ver. 5.2

Groundwater Remediation Program

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20082055
 Matrix: WATER
 Test: Ammonia (N) by IC

Sample Date: 09/23/08
 Receive Date: 09/23/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
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Lab ID: W08GR03862
BATCH QC ASSOCIATED WITH SAMPLE

DUP	Ammonia (N) by IC	7664-41-7	0.2728		RPD			5.286	20.000		10/02/08
MS	Ammonia (N) by IC	7664-41-7	0.4942	99.237	% Recov	80.000	120.000				10/02/08
MSD	Ammonia (N) by IC	7664-41-7	0.47775	95.934	% Recov	80.000	120.000				10/02/08
SPK-RPD	Ammonia (N) by IC	7664-41-7	95.934		RPD			3.385	20.000		10/02/08

BATCH QC

BLANK	Ammonia (N) by IC	7664-41-7	<9.32e-3	n/a	mg/L	0.000	0.002			U	10/02/08
BLANK	Ammonia (N) by IC	7664-41-7	<9.32e-3	n/a	mg/L	0.000	0.002			U	10/02/08
LCS	Ammonia (N) by IC	7664-41-7	100.0361	100.036	% Recov	80.000	120.000				10/02/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20082055
 Matrix: WATER
 Test: Anions by Ion Chromatography

Sample Date: 09/22/08
 Receive Date: 09/22/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03840											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Chloride	16887-00-6	59.0548		RPD			0.217	20.000		09/23/08
DUP	Nitrogen in Nitrite	NO2-N	<2.56e-2		RPD			n/a	20.000	U	09/23/08
DUP	Nitrogen in Nitrate	NO3-N	10.3353		RPD			3.272	20.000		09/23/08
DUP	Sulfate	14808-79-8	95.2863		RPD			0.096	20.000		09/23/08
MS	Chloride	16887-00-6	0.9842	98.915	% Recov	80.000	120.000				09/23/08
MS	Nitrogen in Nitrite	NO2-N	0.592	120.325	% Recov	80.000	120.000				09/23/08
MS	Nitrogen in Nitrate	NO3-N	0.39421	88.388	% Recov	80.000	120.000				09/23/08
MS	Sulfate	14808-79-8	1.80204	91.941	% Recov	80.000	120.000				09/23/08
MSD	Chloride	16887-00-6	0.96698	97.184	% Recov	80.000	120.000				09/23/08
MSD	Nitrogen in Nitrite	NO2-N	0.58075	118.039	% Recov	80.000	120.000				09/23/08
MSD	Nitrogen in Nitrate	NO3-N	0.42597	95.509	% Recov	80.000	120.000				09/23/08
MSD	Sulfate	14808-79-8	1.87541	95.684	% Recov	80.000	120.000				09/23/08
SPK-RPD	Chloride	16887-00-6	97.184		RPD			1.765	20.000		09/23/08
SPK-RPD	Nitrogen in Nitrite	NO2-N	118.039		RPD			1.918	20.000		09/23/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	95.509		RPD			7.745	20.000		09/23/08
SPK-RPD	Sulfate	14808-79-8	95.684		RPD			3.990	20.000		09/23/08
BATCH QC											
BLANK	Chloride	16887-00-6	<4.69e-2	n/a	mg/L	0.000	0.030			U	09/23/08
BLANK	Chloride	16887-00-6	<4.69e-2	n/a	mg/L	0.000	0.030			U	09/23/08
BLANK	Nitrogen in Nitrite	NO2-N	<1.28e-2	n/a	mg/L	0.000	0.020			U	09/23/08
BLANK	Nitrogen in Nitrite	NO2-N	<1.28e-2	n/a	mg/L	0.000	0.020			U	09/23/08
BLANK	Nitrogen in Nitrate	NO3-N	<1.21e-2	n/a	mg/L	0.000	0.040			U	09/23/08
BLANK	Nitrogen in Nitrate	NO3-N	<1.21e-2	n/a	mg/L	0.000	0.040			U	09/23/08
BLANK	Sulfate	14808-79-8	<0.132	n/a	mg/L	0.000	0.200			U	09/23/08
BLANK	Sulfate	14808-79-8	<0.132	n/a	mg/L	0.000	0.200			U	09/23/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20082055
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Chloride	16887-00-6	194.8565	96.944	% Recov	80.000	120.000				09/23/08
LCS	Nitrogen in Nitrite	NO2-N	101.1646	101.775	% Recov	80.000	120.000				09/23/08
LCS	Nitrogen in Nitrate	NO3-N	92.6982	102.884	% Recov	80.000	120.000				09/23/08
LCS	Sulfate	14808-79-8	395.4352	99.857	% Recov	80.000	120.000				09/23/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20082055
 Matrix: WATER
 Test: ICP Metals Analysis, Grd H2O P

Sample Date: 09/22/08
 Receive Date: 09/22/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
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Lab ID: W08GR03841
BATCH QC ASSOCIATED WITH SAMPLE

MS	Calcium	7440-70-2	3600	360.000	% Recov	75.000	125.000			*	09/29/08
MS	Potassium	7440-09-7	9662	96.620	% Recov	75.000	125.000				09/29/08
MS	Magnesium	7439-95-4	860	86.000	% Recov	75.000	125.000				09/29/08
MS	Sodium	7440-23-5	-4980	-498.000	% Recov	75.000	125.000			*	09/29/08
MSD	Calcium	7440-70-2	450	45.000	% Recov	75.000	125.000			*	09/29/08
MSD	Potassium	7440-09-7	9802	98.020	% Recov	75.000	125.000				09/29/08
MSD	Magnesium	7439-95-4	890	89.000	% Recov	75.000	125.000				09/29/08
MSD	Sodium	7440-23-5	-1880	-188.000	% Recov	75.000	125.000			*	09/29/08
SPK-RPD	Calcium	7440-70-2	45.000		RPD			155.556	20.000	*	09/29/08
SPK-RPD	Potassium	7440-09-7	98.020		RPD			1.439	20.000		09/29/08
SPK-RPD	Magnesium	7439-95-4	89.000		RPD			3.429	20.000		09/29/08
SPK-RPD	Sodium	7440-23-5	-188.000		RPD			-90.379	20.000	*	09/29/08

BATCH QC

BLANK	Calcium	7440-70-2	<73	n/a	ug/L					U	09/29/08
BLANK	Potassium	7440-09-7	<170	n/a	ug/L					U	09/29/08
BLANK	Magnesium	7439-95-4	<50	n/a	ug/L					U	09/29/08
BLANK	Sodium	7440-23-5	<51	n/a	ug/L					U	09/29/08
LCS	Calcium	7440-70-2	1174	117.400	% Recov	80.000	120.000				09/29/08
LCS	Potassium	7440-09-7	10290	102.900	% Recov	80.000	120.000				09/29/08
LCS	Magnesium	7439-95-4	1019	101.900	% Recov	80.000	120.000				09/29/08
LCS	Sodium	7440-23-5	1051	105.100	% Recov	80.000	120.000				09/29/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20082055
 Matrix: WATER
 Test: pH Direct Measurement

Sample Date: 09/23/08
 Receive Date: 09/23/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03862											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	pH Direct Measurement	PH	7.8		RPD			0.257	20.000		09/23/08
BATCH QC											
LCS	pH Direct Measurement	PH	8.01	1.001	Ratio	0.900	1.100				09/23/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20082055
 Matrix: WATER
 Test: Total Alkalinity as mg/L CaCO3

Sample Date: 09/23/08
 Receive Date: 09/23/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03862											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Alkalinity as mg/L CaCO3	ALKALINITY	84.03		RPD			4.103	20.000		09/26/08
Lab ID: W08P004444											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Alkalinity as mg/L CaCO3	ALKALINITY	76.72		RPD			0.714	20.000		09/26/08
BATCH QC											
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	31.45	105.537	%Recover	80.000	120.000				09/26/08
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	32.06	107.584	%Recover	80.000	120.000				09/26/08
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	32.28	108.322	%Recover	80.000	120.000				09/26/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20082055
 Matrix: WATER
 Test: Tot Dissolved Solids 180C Dry

Sample Date: 09/18/08
 Receive Date: 09/18/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03782											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tot Dissolved Solids 180C Dry	TDS	14310		RPD			2.689	5.000		09/24/08
BATCH QC											
BLANK	Tot Dissolved Solids 180C Dry	TDS	<9	n/a	mg/L	0.000	300.000			U	09/24/08
LCS	Tot Dissolved Solids 180C Dry	TDS	592	95.484	%rec	80.000	120.000				09/24/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20082055
 Matrix: WATER
 Test: Total Organic Carbon

Sample Date: 09/18/08
 Receive Date: 09/18/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
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Lab ID: W08GR03783
BATCH QC ASSOCIATED WITH SAMPLE

MS	Total Organic Carbon	TOC	1.507	100.467	% Recov	75.000	125.000				09/29/08
MSD	Total Organic Carbon	TOC	1.485	99.000	% Recov	75.000	125.000				09/29/08
SPK-RPD	Total Organic Carbon	TOC	99.000		RPD			1.471	20.000		09/29/08

BATCH QC

BLANK	Total Organic Carbon	TOC	<0.045	n/a	mg/L	0.000	300.000			U	09/29/08
METHSPIKE	Total Organic Carbon	TOC	2.129	106.450	% Recov	80.000	120.000				09/29/08
SPK-RSD	Total Organic Carbon	TOC	0.7810	0.781	% RSD	0.000	20.000				09/29/08

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F08-154

Group #: WSCF20082055
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-AES: [Samples W08GR3862-3863] No zirconium present in the LCS standard. Sample results <5X MDL; "B" flag. Check standard used to ensure sodium, calcium, and magnesium linearity because sample results are greater than the calibration standard.

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 # W08GR03862
Client ID: B1WPV4

GPP TRENT
WSCF

Matrix: WATER

Group #: WSCF20082055
Department: Radiochemistry
Sampled: 09/23/08
Received: 09/23/08

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		1.50	pCi/L	+ -0.885	pCi/L	1.00	1.0		10/20/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		15.0	pCi/L	+ -2.25	pCi/L	1.00	1.6		10/16/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	13.0	pCi/L	+ -93.3	pCi/L	1.00	2.2e+02		10/18/08

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

D - Analyte was identified at a secondary dilution factor
 N - Spike sample recovery is outside control limits.(inorg)

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

Report WGPP/ver. 5.2
 Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F08-154
Sample # W08GR03863
Client ID: B1WPV5

GPP TRENT
WSCF

Matrix: WATER

Group #: WSCF20082055
Department: Radiochemistry
Sampled: 09/23/08
Received: 09/23/08

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		1.80	pCi/L	+ -1.12	pCi/L	1.00	1.3		10/20/08
Gross Alpha/Gross Beta (AB32)											
Gross beta	12587-47-2	LA-508-415		17.0	pCi/L	+ -2.72	pCi/L	1.00	2.1		10/16/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	46.0	pCi/L	+ -148	pCi/L	1.00	2.2e +02		10/18/08

MDL=Minimum Detection Limit

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

D - Analyte was identified at a secondary dilution factor

N - Spike sample recovery is outside control limits.(inorg)

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

Report WGPP/ver. 5.2

Groundwater Remediation Program

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20082055
 Matrix: WATER
 Test: Gross Alpha on Alpha Plateau

Sample Date: 09/22/08
 Receive Date: 09/22/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03830											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Gross alpha on alpha plateau	12587-46-1	2.0		RPD			13.953	20.000		10/20/08
BATCH QC											
BLANK	Gross alpha on alpha plateau	12587-46-1-ap	U2.7	n/a	pCi/L	-100.000	100.000				10/20/08
LCS	Gross alpha on alpha plateau	12587-46-1-ap	38.8	100.155	% Recov	80.000	120.000				10/20/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20082055
 Matrix: WATER
 Test: Gross Alpha/Gross Beta (AB32)

Sample Date: 09/22/08
 Receive Date: 09/22/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03830											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Gross beta	12587-47-2	13.4		RPD			6.498	20.000		10/16/08
BATCH QC											
BLANK	Gross beta	12587-47-2	U-1.0E-01	n/a	pCi/L	-10.000	10.000				10/16/08
LCS	Gross beta	12587-47-2	123	109.626	% Recov	80.000	120.000				10/16/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20082055
 Matrix: WATER
 Test: Tritium by Liq Sct column prep

Sample Date: 09/20/08
 Receive Date: 09/22/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08GR03825											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tritium	10028-17-8	8.6E +02		RPD			14.255	20.000		10/18/08
MS	Tritium	10028-17-8	20308	90.537	% Recov	75.000	125.000				10/18/08
BATCH QC											
BLANK	Tritium	10028-17-8	U-8.0E +01	n/a	pCi/L	-10.000	1000.000				10/18/08
LCS	Tritium	10028-17-8	3010	89.082	% Recov	80.000	120.000				10/18/08

M4W41-SLF-08-1194

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 4 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

*File
VIS
11/07/08*

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 122543/ES10
Group#: 20082055
Project#: F08-154
Proj Mgr: Steve Trent E6-35
Phone: 373-5869

The following samples were received from you on 09/23/08. 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
W08GR03862	B1WPV4	GPP @AB-32 ALKALI	TRENT Water @ALPHA NH4-IC	09/23/08
W08GR03863	B1WPV5	GPP @AB-32 ALKALI	TRENT Water @ALPHA NH4-IC	09/23/08

Test Acronym Description

Test Acronym	Description
@AB-32	Gross Alpha/Gross Beta (AB32)
@ALPHA	Gross Alpha on Alpha Plateau
@GPP6010	ICP Metals Analysis, Grd H2O 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
TDS-30	Tot Dissolved Solids 180C Dry
TOC-30	Total Organic Carbon

COLLECTOR <i>W.B.B. Besterman</i>	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C6826, I-001	PROJECT DESIGNATION Liquid Effluent Retention Facility (LERF) Sampling		SAF NO. F08-154	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO. <i>HNF-15-491-2</i>	ACTUAL SAMPLE DEPTH <i>206</i>	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*	POSSIBLE SAMPLE HAZARDS/ REMARKS	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
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Whipe X=Other	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)	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
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1WPV3 <i>20082055</i>	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 - 1060;	Gross Alpha (Gross alpha) Gross Beta (Gross beta)	Tribium - H3;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1WPV4	W-60358 WATER	9/23/08	10:10	-	-	-	-	-	-	-	-

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		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}
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	
<i>Besterman</i>	9/23/08	<i>[Signature]</i>	9-23-8/1315	
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	

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

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COLLECTOR WEBB, Briston	COMPANY CONTACT TRENT, SJ	TELEPHONE NO. 373-5869	PROJECT COORDINATOR WIDRIG, DL	PRICE CODE 7N	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION C6826, I-001-D	PROJECT DESIGNATION Liquid Effluent Retention Facility (LERF) Sampling		SAF NO. F08-154	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO. HWP-N-491-2	ACTUAL SAMPLE DEPTH 206'	COA 122543E510	METHOD OF SHIPMENT GOVERNMENT VEHICLE	
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	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
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	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)	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
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1WPV5	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	Cations (IC) - 300.7 (Nitrogen in ammonium)	2320_ALKALINIT Y (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									
B1WPV5 W08600383	WATER	9/23/08	10:10	X	X	X	X	X	X	X	X	X

CHAIN OF POSSESSION	SIGN/ PRINT NAMES
RELINQUISHED BY/REMOVED FROM D. THE... / B... 9/23/08 1315	RECEIVED BY/STORED IN [Signature] 9-23-08 (3/5)
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN

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

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