1216892

This package was received with pages 1-3 missing. WSCF20070494

Dayes
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M4W41-SLF-07-255

ATTACHMENT 2

NARRATIVE

Consisting of 4 pages
Including cover page

Rec 5/14/07

Sample Delivery Group	**WSCF20070494**
Sample Matrix	**Water**
Data Deliverable	**Summary Report**

Introduction

Twenty-two (22) groundwater samples were received at the WSCF Laboratory on March 23, 2007. Samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Letter of Instruction for Analytical Services for the Groundwater Remediation Project in support of the Performance Assessment Project*, 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. 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" and initialed 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 14 through 16, for a complete listing of approved analytical methods.

Inorganic Comments

Alkalinity – The hold time for this analysis was met. A Duplicate and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See page 37 for QC details. Analytical Note:

- Duplicate was analyzed on sample# B1MKW1 (SDG# 20070472).

All QC controls are within the established limits.

Anions – Hold time requirements 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 38 through 39 for QC details. Analytical Notes:

- B1MDD7 and B1MDC0 – Sample results for Fluoride were B flagged; results were less than the reportable limit, however greater than the method detection limit. Sample results for Chloride, Nitrogen in Nitrate and Sulfate were D flagged (@ 20X dilution).

- B1MDH9 – Sample results for Chloride and Nitrogen in Nitrate were D flagged (@ 20X dilution).

- B1MDY1 – Sample results were D flagged (@ 2X and 20X dilution).

All QC controls are within the established limits.

ICP-AES Metals – The hold time for this analysis was 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 pages 40 through 43 for QC details. Analytical Notes:

- Preparation Date: 19-apr-2007.

- Calcium and Magnesium – contamination detected in the blank was evaluated and there was not affect on sample results.

- Calcium, Magnesium and Sodium – insufficient spike concentrations. Sample concentrations were greater than four times the spike concentration. For results higher than the highest calibration standard, a high-level standard and an ICP interference check sample were analyzed to ensure acceptable sample results.

All other QC controls are within the established limits.

ICP-MS Metals – The hold time for this analysis was 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 44 for QC details. Analytical Note:

- Preparation Date: 11-apr-2007.

All QC controls are within the established limits.

TOC – The hold time for 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 45 for QC details.

All QC controls are within the established limits.

TOX – The hold time for this analysis was 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 46 for QC details. Analytical Note:

- B1MJL3, B1MJL8, B1MJL9 and B!MJM1 – Sample results were X flagged due to greater than 10% carbon column breakthrough.

All QC controls are within the established limits.

Organic Comments

VOA – The hold time for this analysis was 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 pages 52 through 54 for QC details. Analytical Note:

- B1LM38 – 4-Bromofluorbenzene (Surrogate) recovery was slightly less than established laboratory limits.

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 page 60 for QC details. Analytical Note:

- Duplicate and Matrix Spike were analyzed on sample# B1MDJ3 (SDG# 20070500).

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

Abbreviations

Hg – mercury
IC – ion chromatography
ICP – inductively coupled plasma
ICP/AES – ICP/atomic emission spectroscopy
ICP/MS – ICP/mass spectrometry
Total U – total uranium
AT/TB – total alpha/total beta
AEA – Alpha Energy Analysis
WTPH-G – Total Hydrocarbons-Gasoline

Am – americium
Cm - curium
Pu – plutonium
Np – neptunium
GEA – gamma energy analysis
H3 – Tritium
Sr – Strontium 89, 90
WTPH-D – Total Hydrocarbons-Diesel
TSS – Total Suspended Solids

M4W41-SLF-07-255

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 53 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

GPAP
Richland, WA 99352

Attention: DL Stewart K6-96

Analytical: S. Fitzgerald 5/8/07

Client Services: P.D. Mip 5/8/2007

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.

Report#: WSCF20070494
Report Date: 8-may-2007
Report WGPP/ver. 5.2
GPAP

w13qlog v4.2 08-may-2007 08:10:15

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20070494

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
31292	1	31669	35777	LCS		Total Alkalinity as mg/L CaCO3
31292	19	31669	35777	LCS		Total Alkalinity as mg/L CaCO3
31292	3	31669	35777	DUP	W07GR00426	Total Alkalinity as mg/L CaCO3
31292	8	31669	35777	DUP	W07P000551	Total Alkalinity as mg/L CaCO3
31292	20	31669	35777	SAMPLE	W07P000567	Total Alkalinity as mg/L CaCO3
31292	21	31669	35777	SAMPLE	W07P000572	Total Alkalinity as mg/L CaCO3
31292	22	31669	35777	SAMPLE	W07P000576	Total Alkalinity as mg/L CaCO3
31292	23	31669	35777	SAMPLE	W07P000577	Total Alkalinity as mg/L CaCO3
31292	24	31669	35777	SAMPLE	W07P000578	Total Alkalinity as mg/L CaCO3
31292	25	31669	35777	SAMPLE	W07P000579	Total Alkalinity as mg/L CaCO3
31292	26	31669	35777	SAMPLE	W07P000580	Total Alkalinity as mg/L CaCO3
31292	27	31669	35777	SAMPLE	W07P000583	Total Alkalinity as mg/L CaCO3
31292	28	31669	35777	SAMPLE	W07P000585	Total Alkalinity as mg/L CaCO3
31301	2	31678	35781	BLANK		Anions by Ion Chromatography
31301	11	31678	35781	BLANK		Anions by Ion Chromatography
31301	3	31678	35781	LCS		Anions by Ion Chromatography
31301	5	31678	35781	DUP	W07P000565	Anions by Ion Chromatography
31301	6	31678	35781	MS	W07P000565	Anions by Ion Chromatography
31301	7	31678	35781	MSD	W07P000565	Anions by Ion Chromatography
31301	4	31678	35781	SAMPLE	W07P000565	Anions by Ion Chromatography
31301	7	31678	35781	SPK-RPD	W07P000565	Anions by Ion Chromatography
31301	8	31678	35781	SAMPLE	W07P000574	Anions by Ion Chromatography
31301	9	31678	35781	SAMPLE	W07P000582	Anions by Ion Chromatography
31301	10	31678	35781	SAMPLE	W07P000585	Anions by Ion Chromatography
31361	1	31738	35834	BLANK		Total Organic Carbon
31361	2	31738	35834	METHSPIKE		Total Organic Carbon
31361	3	31738	35834	SPK-RSD		Total Organic Carbon
31361	4	31738	35834	MS	W07P000567	Total Organic Carbon
31361	5	31738	35834	MSD	W07P000567	Total Organic Carbon
31361	7	31738	35834	SAMPLE	W07P000567	Total Organic Carbon
31361	5	31738	35834	SPK-RPD	W07P000567	Total Organic Carbon
31361	8	31738	35834	SAMPLE	W07P000568	Total Organic Carbon
31361	9	31738	35834	SAMPLE	W07P000569	Total Organic Carbon
31361	10	31738	35834	SAMPLE	W07P000570	Total Organic Carbon
31361	11	31738	35834	SAMPLE	W07P000571	Total Organic Carbon
31500	1	31876	35946	BLANK		ICP-200.8 MS All possible meta
31500	2	31876	35946	LCS		ICP-200.8 MS All possible meta
31500	4	31876	35946	MS	W07P000574	ICP-200.8 MS All possible meta
31500	5	31876	35946	MSD	W07P000574	ICP-200.8 MS All possible meta
31500	3	31876	35946	SAMPLE	W07P000574	ICP-200.8 MS All possible meta
31500	5	31876	35946	SPK-RPD	W07P000574	ICP-200.8 MS All possible meta
31553	1	31928	35992	BLANK		Total Organic Halides
31553	5	31928	35992	LCS		Total Organic Halides
31553	2	31928	35992	MS	W07P000567	Total Organic Halides
31553	3	31928	35992	MSD	W07P000567	Total Organic Halides
31553	7	31928	35992	SAMPLE	W07P000567	Total Organic Halides
31553	3	31928	35992	SPK-RPD	W07P000567	Total Organic Halides
31553	8	31928	35992	SAMPLE	W07P000568	Total Organic Halides

31553	9	31928	35992	SAMPLE	W07P000569	Total Organic Halides
31553	10	31928	35992	SAMPLE	W07P000570	Total Organic Halides
31553	11	31928	35992	SAMPLE	W07P000571	Total Organic Halides
31615	1	31992	36145	BLANK		ICP Metals Analysis, Grd H20 P
31615	2	31992	36145	LCS		ICP Metals Analysis, Grd H20 P
31615	4	31992	36145	MS	W07P000564	ICP Metals Analysis, Grd H20 P
31615	5	31992	36145	MSD	W07P000564	ICP Metals Analysis, Grd H20 P
31615	3	31992	36145	SAMPLE	W07P000564	ICP Metals Analysis, Grd H20 P
31615	5	31992	36145	SPK-RPD	W07P000564	ICP Metals Analysis, Grd H20 P
31615	6	31992	36145	SAMPLE	W07P000573	ICP Metals Analysis, Grd H20 P
31615	7	31992	36145	SAMPLE	W07P000581	ICP Metals Analysis, Grd H20 P
31615	8	31992	36145	SAMPLE	W07P000584	ICP Metals Analysis, Grd H20 P

w13qlog v4.2 08-may-2007 08:10:15

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20070494

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			36200	BLANK		VOA Ground Water Protection
			36200	LCS		VOA Ground Water Protection
			36200	MS	W07P000574	VOA Ground Water Protection
			36200	MSD	W07P000574	VOA Ground Water Protection
			36200	SAMPLE	W07P000574	VOA Ground Water Protection
			36200	SPK-RPD	W07P000574	VOA Ground Water Protection
			36200	SURR	W07P000574	VOA Ground Water Protection
			36200	SAMPLE	W07P000575	VOA Ground Water Protection
			36200	SURR	W07P000575	VOA Ground Water Protection

w13qlog v4.2 08-may-2007 08:10:15

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20070494

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
31382	1	31759	36084	BLANK		Tritium by Liq Sct column prep
31382	4	31759	36084	LCS		Tritium by Liq Sct column prep
31382	5	31759	36084	SAMPLE	W07P000565	Tritium by Liq Sct column prep
31382	6	31759	36084	SAMPLE	W07P000566	Tritium by Liq Sct column prep
31382	7	31759	36084	SAMPLE	W07P000574	Tritium by Liq Sct column prep
31382	8	31759	36084	SAMPLE	W07P000582	Tritium by Liq Sct column prep
31382	3	31759	36084	DUP	W07P000590	Tritium by Liq Sct column prep
31382	2	31759	36084	MS	W07P000590	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-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-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-505-412 LA-505-412: DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY

EPA-600/R-94-111 200.8	DETERMINATION OF TRACE ELEMENTS IN WATERS AND WASTES BY INDUCTIVELY COUPLED PLAS
HEIS 200.8_METALS_ICPMS	Inductively Coupled Plasma - Mass Spectrometry

LA-523-444 LA-523-444: TOTAL ORGANIC HALIDES BASED ON SW-846 METHOD 9020B

EPA SW-846 9020B	TOTAL ORGANIC HALIDES (TOX)
HEIS 9020_TOX	Total Organic Halides based on SW846 Method 9020B

LA-531-411 LA-531-411: ALKALINITY (TITRIMETRIC)

EPA-600/4-79-020 310.1	ALKALINITY
HEIS 310.1_ALKALINITY	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: Organic

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-523-455 LA-523-455: VOLATILE SAMPLE ANALYSIS BY SW-846

EPA SW-846 8000B	DETERMINATIVE CHROMATOGRAPHIC SEPARATIONS
EPA SW-846 8260B	VOLATILE ORGANIC COMPOUNDS BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY (GC/MS)
HEIS 8260_VOA_GCMS	Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Note: A complete list of WSCF analytical procedures and 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-508-421 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: DL Stewart K6-96
SAF Number: I07-031
Sample # W07P000564
Client ID: B1MDD6 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**04/19/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		174	ug/L			1.00	9.0		04/23/07
Magnesium	7439-95-4	LA-505-411		1.40e+04	ug/L			1.00	6.0		04/23/07
Manganese	7439-96-5	LA-505-411		26.2	ug/L			1.00	4.0		04/23/07
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Potassium	7440-09-7	LA-505-411		3.89e+03	ug/L			1.00	45		04/23/07
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		04/23/07
Sodium	7440-23-5	LA-505-411		5.57e+03	ug/L			1.00	27		04/23/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		04/23/07
Barium	7440-39-3	LA-505-411		38.0	ug/L			1.00	4.0		04/23/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Vanadium	7440-62-2	LA-505-411		9.40	ug/L			1.00	7.0		04/23/07
Zinc	7440-66-6	LA-505-411		5.50	ug/L			1.00	4.0		04/23/07
Calcium	7440-70-2	LA-505-411		5.80e+04	ug/L			1.00	34		04/23/07
Strontium	7440-24-6	LA-505-411		348	ug/L			1.00	4.0		04/23/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: I07-031
Sample # W07P000565
Client ID: B1MDD7 STEWART WSCF

Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	B	0.0625	mg/L			1.00	0.029		03/23/07
Chloride	16887-00-6	LA-533-410	D	8.07	mg/L			20.00	0.52		03/23/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0220	mg/L			1.00	0.022		03/23/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	17.0	mg/L			20.00	0.88		03/23/07
Sulfate	14808-79-8	LA-533-410	D	57.8	mg/L			20.00	3.4		03/23/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: W07-003
Sample # W07P000567
Client ID: B1MJL3 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		73.0	mg/L			1.00	1.0		03/26/07
Total Organic Halides Prep											**04/03/07**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	7.57	ug/L			1.00	5.0		04/04/07
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.390	mg/L			1.00	0.30		03/29/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: W07-003
Sample # W07P000568
Client ID: B1MJL8 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**04/03/07**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	5.93	ug/L			1.00	5.0		04/04/07
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.468	mg/L			1.00	0.30		03/29/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: W07-003
Sample # W07P000569
Client ID: B1MJL9 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**04/03/07**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	6.02	ug/L			1.00	5.0		04/04/07
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.454	mg/L			1.00	0.30		03/29/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: W07-003
Sample # W07P000570
Client ID: B1MJM0 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**04/03/07**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	U	< 5.00	ug/L			1.00	5.0		04/04/07
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.435	mg/L			1.00	0.30		03/29/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: W07-003
Sample # W07P000571
Client ID: B1MJM1 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Organic Halides Prep											**04/03/07**
Total Organic Halides											
Total Organic Halides	59473-04-0	LA-523-444	X	5.47	ug/L			1.00	5.0		04/04/07
Total organic carbon											
Total organic carbon	TOC	LA-344-406		0.435	mg/L			1.00	0.30		03/29/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: W07-003
Sample # W07P000572
Client ID: B1MJM3 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		73.0	mg/L			1.00	1.0		03/26/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: I07-032
Sample # W07P000573
Client ID: B1MDH8 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**04/19/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		17.9	ug/L			1.00	9.0		04/23/07
Magnesium	7439-95-4	LA-505-411		7.36e+03	ug/L			1.00	6.0		04/23/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Nickel	7440-02-0	LA-505-411		4.40	ug/L			1.00	4.0		04/23/07
Potassium	7440-09-7	LA-505-411		3.67e+03	ug/L			1.00	45		04/23/07
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		04/23/07
Sodium	7440-23-5	LA-505-411		2.70e+04	ug/L			1.00	27		04/23/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		04/23/07
Barium	7440-39-3	LA-505-411		52.7	ug/L			1.00	4.0		04/23/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Chromium	7440-47-3	LA-505-411		13.0	ug/L			1.00	4.0		04/23/07
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Vanadium	7440-62-2	LA-505-411		18.7	ug/L			1.00	7.0		04/23/07
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Calcium	7440-70-2	LA-505-411		2.33e+04	ug/L			1.00	34		04/23/07
Strontium	7440-24-6	LA-505-411		113	ug/L			1.00	4.0		04/23/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: I07-032
Sample # W07P000574
Client ID: B1MDH9 STEWART WSCF

Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410		0.316	mg/L			1.00	0.029		03/23/07
Chloride	16887-00-6	LA-533-410	D	5.33	mg/L			20.00	0.52		03/23/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0220	mg/L			1.00	0.022		03/23/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	9.40	mg/L			20.00	0.88		03/23/07
Sulfate	14808-79-8	LA-533-410		22.2	mg/L			1.00	0.13		03/23/07
ICP-200.8 MS All possible meta Prep											**04/11/07**
ICP-200.8 MS All possible meta											
Uranium	7440-61-1	LA-505-412		3.35	ug/L			1.00	0.0500		04/11/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: W07-002
Sample # W07P000576
Client ID: B1M9B7 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		82.0	mg/L			1.00	1.0		03/26/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: W07-003
Sample # W07P000577
Client ID: B1MKN6 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		81.0	mg/L			1.00	1.0		03/26/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: W07-003
Sample # W07P000578
Client ID: B1MKN7 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
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		03/26/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: W07-003
Sample # W07P000579
Client ID: B1MKP3 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		93.0	mg/L			1.00	1.0		03/26/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: W07-003
Sample # W07P000580
Client ID: B1MKR1 STEWART WSCF

Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		81.0	mg/L			1.00	1.0		03/26/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: I07-031
Sample # W07P000581
Client ID: B1MDB9 STEWART WSCF

Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**04/19/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		04/23/07
Magnesium	7439-95-4	LA-505-411		9.14e+03	ug/L			1.00	6.0		04/23/07
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Potassium	7440-09-7	LA-505-411		2.29e+03	ug/L			1.00	45		04/23/07
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		04/23/07
Sodium	7440-23-5	LA-505-411		4.67e+03	ug/L			1.00	27		04/23/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		04/23/07
Barium	7440-39-3	LA-505-411		38.2	ug/L			1.00	4.0		04/23/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Chromium	7440-47-3	LA-505-411		4.40	ug/L			1.00	4.0		04/23/07
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Vanadium	7440-62-2	LA-505-411	U	< 7.00	ug/L			1.00	7.0		04/23/07
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Calcium	7440-70-2	LA-505-411		5.63e+04	ug/L			1.00	34		04/23/07
Strontium	7440-24-6	LA-505-411		244	ug/L			1.00	4.0		04/23/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: I07-031
Sample # W07P000582
Client ID: B1MDC0 STEWART WSCF

Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	B	0.0567	mg/L			1.00	0.029		03/23/07
Chloride	16887-00-6	LA-533-410	D	14.2	mg/L			20.00	0.52		03/23/07
Nitrogen in Nitrite	NO2-N	LA-533-410	U	< 0.0220	mg/L			1.00	0.022		03/23/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	8.36	mg/L			20.00	0.88		03/23/07
Sulfate	14808-79-8	LA-533-410	D	54.4	mg/L			20.00	3.4		03/23/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: S07-003
Sample # W07P000583
Client ID: B1MDW8 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		63.0	mg/L			1.00	1.0		03/26/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: S07-003
Sample # W07P000584
Client ID: B1MDY0 STEWART WSCF

Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**04/19/07**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		108	ug/L			1.00	9.0		04/23/07
Magnesium	7439-95-4	LA-505-411		7.96e+03	ug/L			1.00	6.0		04/23/07
Manganese	7439-96-5	LA-505-411		4.20	ug/L			1.00	4.0		04/23/07
Nickel	7440-02-0	LA-505-411		4.20	ug/L			1.00	4.0		04/23/07
Potassium	7440-09-7	LA-505-411		4.71e+03	ug/L			1.00	45		04/23/07
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		04/23/07
Sodium	7440-23-5	LA-505-411		8.82e+04	ug/L			1.00	27		04/23/07
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		04/23/07
Barium	7440-39-3	LA-505-411		47.0	ug/L			1.00	4.0		04/23/07
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Vanadium	7440-62-2	LA-505-411	U	< 7.00	ug/L			1.00	7.0		04/23/07
Zinc	7440-66-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07
Calcium	7440-70-2	LA-505-411		3.43e+04	ug/L			1.00	34		04/23/07
Strontium	7440-24-6	LA-505-411		165	ug/L			1.00	4.0		04/23/07
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		04/23/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: S07-003
Sample # W07P000585
Client ID: B1MDY1 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Inorganic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Anions by Ion Chromatography											
Fluoride	16984-48-8	LA-533-410	D	0.499	mg/L			2.00	0.058		03/23/07
Chloride	16887-00-6	LA-533-410	D	20.4	mg/L			20.00	0.52		03/23/07
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0440	mg/L			2.00	0.044		03/23/07
Nitrogen in Nitrate	NO3-N	LA-533-410	D	15.1	mg/L			20.00	0.88		03/23/07
Sulfate	14808-79-8	LA-533-410	D	83.9	mg/L			20.00	3.4		03/23/07
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		140	mg/L			1.00	1.0		03/26/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20070494
Matrix: WATER
Test: Total Alkalinity as mg/L CaCO3

Sample Date: 03/13/07
Receive Date:03/13/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07GR00426											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Alkalinity as mg/L CaCO3	ALKALINITY	115		RPD			4.444	20.000		03/26/07
Lab ID: W07P000551											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Alkalinity as mg/L CaCO3	ALKALINITY	139		RPD			0.722	20.000		03/26/07
BATCH QC											
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	45.19	100.871	%Recove	80.000	120.000				03/26/07
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	42.22	94.241	%Recove	80.000	120.000				03/26/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20070494
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date: 03/23/07
Receive Date:03/23/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P000565											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Chloride	16887-00-6	8.1987		RPD			1.638	20.000		03/23/07
DUP	Fluoride	16984-48-8	5.88e-2		RPD			6.101	20.000		03/23/07
DUP	Nitrogen in Nitrite	NO2-N	<2.2e-2		RPD			n/a	20.000	U	03/23/07
DUP	Nitrogen in Nitrate	NO3-N	16.8124		RPD			0.855	20.000		03/23/07
DUP	Sulfate	14808-79-8	56.9843		RPD			1.381	20.000		03/23/07
MS	Chloride	16887-00-6	0.909815	91.439	% Recov	75.000	125.000				03/23/07
MS	Fluoride	16984-48-8	0.4559	90.817	% Recov	75.000	125.000				03/23/07
MS	Nitrogen in Nitrite	NO2-N	0.4847	97.722	% Recov	75.000	125.000				03/23/07
MS	Nitrogen in Nitrate	NO3-N	0.46435	102.280	% Recov	75.000	125.000				03/23/07
MS	Sulfate	14808-79-8	1.87845	94.394	% Recov	75.000	125.000				03/23/07
MSD	Chloride	16887-00-6	0.86107	86.540	% Recov	75.000	125.000				03/23/07
MSD	Fluoride	16984-48-8	0.4604	91.713	% Recov	75.000	125.000				03/23/07
MSD	Nitrogen in Nitrite	NO2-N	0.4886	98.508	% Recov	75.000	125.000				03/23/07
MSD	Nitrogen in Nitrate	NO3-N	0.460295	101.387	% Recov	75.000	125.000				03/23/07
MSD	Sulfate	14808-79-8	1.876845	94.314	% Recov	75.000	125.000				03/23/07
SPK-RPD	Chloride	16887-00-6	86.540		RPD			5.505	20.000		03/23/07
SPK-RPD	Fluoride	16984-48-8	91.713		RPD			0.982	20.000		03/23/07
SPK-RPD	Nitrogen in Nitrite	NO2-N	98.508		RPD			0.801	20.000		03/23/07
SPK-RPD	Nitrogen in Nitrate	NO3-N	101.387		RPD			0.877	20.000		03/23/07
SPK-RPD	Sulfate	14808-79-8	94.314		RPD			0.085	20.000		03/23/07
BATCH QC											
BLANK	Chloride	16887-00-6	<2.6e-2	n/a	mg/L	0.000	0.030			U	03/23/07
BLANK	Chloride	16887-00-6	<2.6e-2	n/a	mg/L	0.000	0.030			U	03/23/07
BLANK	Fluoride	16984-48-8	<2.9e-2	n/a	mg/L	0.000	0.030			U	03/23/07
BLANK	Fluoride	16984-48-8	<2.9e-2	n/a	mg/L	0.000	0.030			U	03/23/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20070494
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
BLANK	Nitrogen in Nitrite	NO2-N	<2.2e-2	n/a	mg/L	0.000	0.020			U	03/23/07
BLANK	Nitrogen in Nitrite	NO2-N	<2.2e-2	n/a	mg/L	0.000	0.020			U	03/23/07
BLANK	Nitrogen in Nitrate	NO3-N	<4.4e-2	n/a	mg/L	0.000	0.040			U	03/23/07
BLANK	Nitrogen in Nitrate	NO3-N	<4.4e-2	n/a	mg/L	0.000	0.040			U	03/23/07
BLANK	Sulfate	14808-79-8	<0.17	n/a	mg/L	0.000	0.200			U	03/23/07
BLANK	Sulfate	14808-79-8	<0.17	n/a	mg/L	0.000	0.200			U	03/23/07
LCS	Chloride	16887-00-6	184.84	92.420	% Recov	80.000	120.000				03/23/07
LCS	Fluoride	16984-48-8	95.222	94.279	% Recov	80.000	120.000				03/23/07
LCS	Nitrogen in Nitrite	NO2-N	99.8651	100.266	% Recov	80.000	120.000				03/23/07
LCS	Nitrogen in Nitrate	NO3-N	88.8924	97.470	% Recov	80.000	120.000				03/23/07
LCS	Sulfate	14808-79-8	364.8267	91.207	% Recov	80.000	120.000				03/23/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20070494
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 03/23/07
Receive Date:03/23/07

Lab ID: W07P000564
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	Silver	7440-22-4	971.8	97.180	% Recov	75.000	125.000				04/23/07
MS	Barium	7440-39-3	497.1	99.420	% Recov	75.000	125.000				04/23/07
MS	Beryllium	7440-41-7	506.4	101.280	% Recov	75.000	125.000				04/23/07
MS	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				04/23/07
MS	Cadmium	7440-43-9	968.7	96.870	% Recov	75.000	125.000				04/23/07
MS	Cobalt	7440-48-4	986.1	98.610	% Recov	75.000	125.000				04/23/07
MS	Chromium	7440-47-3	972.5	97.250	% Recov	75.000	125.000				04/23/07
MS	Copper	7440-50-8	964.2	96.420	% Recov	75.000	125.000				04/23/07
MS	Iron	7439-89-6	960.3	96.030	% Recov	75.000	125.000				04/23/07
MS	Potassium	7440-09-7	9800	98.000	% Recov	75.000	125.000				04/23/07
MS	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				04/23/07
MS	Manganese	7439-96-5	996.8	99.680	% Recov	75.000	125.000				04/23/07
MS	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				04/23/07
MS	Nickel	7440-02-0	954	95.400	% Recov	75.000	125.000				04/23/07
MS	Antimony	7440-36-0	1014	101.400	% Recov	75.000	125.000				04/23/07
MS	Strontium	7440-24-6	508.1	101.620	% Recov	75.000	125.000				04/23/07
MS	Vanadium	7440-62-2	943.5	94.350	% Recov	75.000	125.000				04/23/07
MS	Zinc	7440-66-6	950.4	95.040	% Recov	75.000	125.000				04/23/07
MSD	Silver	7440-22-4	968.9	96.890	% Recov	75.000	125.000				04/23/07
MSD	Barium	7440-39-3	493.8	98.760	% Recov	75.000	125.000				04/23/07
MSD	Beryllium	7440-41-7	505.7	101.140	% Recov	75.000	125.000				04/23/07
MSD	Calcium	7440-70-2	NA	n/a	% Recov	75.000	125.000				04/23/07
MSD	Cadmium	7440-43-9	971.9	97.190	% Recov	75.000	125.000				04/23/07
MSD	Cobalt	7440-48-4	985.1	98.510	% Recov	75.000	125.000				04/23/07
MSD	Chromium	7440-47-3	971	97.100	% Recov	75.000	125.000				04/23/07
MSD	Copper	7440-50-8	958.4	95.840	% Recov	75.000	125.000				04/23/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20070494
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 03/23/07
Receive Date:03/23/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Iron	7439-89-6	950.3	95.030	% Recov	75.000	125.000				04/23/07
MSD	Potassium	7440-09-7	9600	96.000	% Recov	75.000	125.000				04/23/07
MSD	Magnesium	7439-95-4	NA	n/a	% Recov	75.000	125.000				04/23/07
MSD	Manganese	7439-96-5	996.8	99.680	% Recov	75.000	125.000				04/23/07
MSD	Sodium	7440-23-5	NA	n/a	% Recov	75.000	125.000				04/23/07
MSD	Nickel	7440-02-0	958.7	95.870	% Recov	75.000	125.000				04/23/07
MSD	Antimony	7440-36-0	1003	100.300	% Recov	75.000	125.000				04/23/07
MSD	Strontium	7440-24-6	498.3	99.660	% Recov	75.000	125.000				04/23/07
MSD	Vanadium	7440-62-2	939.2	93.920	% Recov	75.000	125.000				04/23/07
MSD	Zinc	7440-66-6	954.5	95.450	% Recov	75.000	125.000				04/23/07
SPK-RPD	Silver	7440-22-4	96.890		RPD			0.299	20.000		04/23/07
SPK-RPD	Barium	7440-39-3	98.760		RPD			0.666	20.000		04/23/07
SPK-RPD	Beryllium	7440-41-7	101.140		RPD			0.138	20.000		04/23/07
SPK-RPD	Calcium	7440-70-2			RPD			n/a	20.000		04/23/07
SPK-RPD	Cadmium	7440-43-9	97.190		RPD			0.330	20.000		04/23/07
SPK-RPD	Cobalt	7440-48-4	98.510		RPD			0.101	20.000		04/23/07
SPK-RPD	Chromium	7440-47-3	97.100		RPD			0.154	20.000		04/23/07
SPK-RPD	Copper	7440-50-8	95.840		RPD			0.603	20.000		04/23/07
SPK-RPD	Iron	7439-89-6	95.030		RPD			1.047	20.000		04/23/07
SPK-RPD	Potassium	7440-09-7	96.000		RPD			2.062	20.000		04/23/07
SPK-RPD	Magnesium	7439-95-4			RPD			n/a	20.000		04/23/07
SPK-RPD	Manganese	7439-96-5	99.680		RPD			0.000	20.000		04/23/07
SPK-RPD	Sodium	7440-23-5			RPD			n/a	20.000		04/23/07
SPK-RPD	Nickel	7440-02-0	95.870		RPD			0.491	20.000		04/23/07
SPK-RPD	Antimony	7440-36-0	100.300		RPD			1.091	20.000		04/23/07
SPK-RPD	Strontium	7440-24-6	99.660		RPD			1.948	20.000		04/23/07
SPK-RPD	Vanadium	7440-62-2	93.920		RPD			0.457	20.000		04/23/07
SPK-RPD	Zinc	7440-66-6	95.450		RPD			0.430	20.000		04/23/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20070494
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date:
Receive Date:

BATCH QC

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Silver	7440-22-4	<5	n/a	ug/L					U	04/23/07
BLANK	Barium	7440-39-3	<4	n/a	ug/L					U	04/23/07
BLANK	Beryllium	7440-41-7	<4	n/a	ug/L					U	04/23/07
BLANK	Calcium	7440-70-2	63.1	63.100	ug/L						04/23/07
BLANK	Cadmium	7440-43-9	<4	n/a	ug/L					U	04/23/07
BLANK	Cobalt	7440-48-4	<4	n/a	ug/L					U	04/23/07
BLANK	Chromium	7440-47-3	<4	n/a	ug/L					U	04/23/07
BLANK	Copper	7440-50-8	<4	n/a	ug/L					U	04/23/07
BLANK	Iron	7439-89-6	<9	n/a	ug/L					U	04/23/07
BLANK	Potassium	7440-09-7	<45	n/a	ug/L					U	04/23/07
BLANK	Magnesium	7439-95-4	16.6	16.600	ug/L						04/23/07
BLANK	Manganese	7439-96-5	<4	n/a	ug/L					U	04/23/07
BLANK	Sodium	7440-23-5	<27	n/a	ug/L					U	04/23/07
BLANK	Nickel	7440-02-0	<4	n/a	ug/L					U	04/23/07
BLANK	Antimony	7440-36-0	<32	n/a	ug/L					U	04/23/07
BLANK	Strontium	7440-24-6	<4	n/a	ug/L					U	04/23/07
BLANK	Vanadium	7440-62-2	<7	n/a	ug/L					U	04/23/07
BLANK	Zinc	7440-66-6	<4	n/a	ug/L					U	04/23/07
LCS	Silver	7440-22-4	1010	101.000	% Recov	80.000	120.000				04/23/07
LCS	Barium	7440-39-3	504.8	100.960	% Recov	80.000	120.000				04/23/07
LCS	Beryllium	7440-41-7	519.8	103.960	% Recov	80.000	120.000				04/23/07
LCS	Calcium	7440-70-2	1091	109.100	% Recov	80.000	120.000				04/23/07
LCS	Cadmium	7440-43-9	1004	100.400	% Recov	80.000	120.000				04/23/07
LCS	Cobalt	7440-48-4	1031	103.100	% Recov	80.000	120.000				04/23/07
LCS	Chromium	7440-47-3	1010	101.000	% Recov	80.000	120.000				04/23/07
LCS	Copper	7440-50-8	1003	100.300	% Recov	80.000	120.000				04/23/07
LCS	Iron	7439-89-6	989.6	98.960	% Recov	80.000	120.000				04/23/07
LCS	Potassium	7440-09-7	9785	97.850	% Recov	80.000	120.000				04/23/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20070494
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
LCS	Magnesium	7439-95-4	999.2	99.920	% Recov	80.000	120.000				04/23/07
LCS	Manganese	7439-96-5	1032	103.200	% Recov	80.000	120.000				04/23/07
LCS	Sodium	7440-23-5	1011	101.100	% Recov	80.000	120.000				04/23/07
LCS	Nickel	7440-02-0	1005	100.500	% Recov	80.000	120.000				04/23/07
LCS	Antimony	7440-36-0	1008	100.800	% Recov	80.000	120.000				04/23/07
LCS	Strontium	7440-24-6	508.8	101.760	% Recov	80.000	120.000				04/23/07
LCS	Vanadium	7440-62-2	978.4	97.840	% Recov	80.000	120.000				04/23/07
LCS	Zinc	7440-66-6	988.8	98.880	% Recov	80.000	120.000				04/23/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20070494
Matrix: WATER
Test: ICP-200.8 MS All possible meta

Sample Date: 03/23/07
Receive Date:03/23/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P000574											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Uranium	7440-61-1	41.048	102.620	% Recov	70.000	130.000				04/11/07
MSD	Uranium	7440-61-1	40.668	101.670	% Recov	70.000	130.000				04/11/07
SPK-RPD	Uranium	7440-61-1	101.670		RPD			0.930	20.000		04/11/07
BATCH QC											
BLANK	Uranium	7440-61-1	<5e-2	n/a	ug/L					U	04/11/07
LCS	Uranium	7440-61-1	40.33	100.825	% Recov	85.000	115.000				04/11/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20070494
Matrix: WATER
Test: Total Organic Carbon

Sample Date: 03/23/07
Receive Date:03/23/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P000567											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Total Organic Carbon	TOC	1.048	104.800	% Recov	75.000	125.000				03/29/07
MSD	Total Organic Carbon	TOC	1.084	108.400	% Recov	75.000	125.000				03/29/07
SPK-RPD	Total Organic Carbon	TOC	108.400		RPD			3.377	20.000		03/29/07
BATCH QC											
BLANK	Total Organic Carbon	TOC	0.0000	0.000	mg/L	0.000	300.000				03/29/07
METHSPIKE	Total Organic Carbon	TOC	1.044	104.400	% Recov	80.000	120.000				03/29/07
SPK-RSD	Total Organic Carbon	TOC	1.173	1.173	% RSD	0.000	20.000				03/29/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20070494
Matrix: WATER
Test: Total Organic Halides

Sample Date: 03/23/07
Receive Date:03/23/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P000567											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	Total Organic Halides	TOX	42.6	106.500	% Recov	50.000	150.000				04/04/07
MSD	Total Organic Halides	TOX	40.2	100.500	% Recov	50.000	150.000				04/04/07
SPK-RPD	Total Organic Halides	TOX	100.500		RPD			5.797	20.000		04/04/07
BATCH QC											
BLANK	Total Organic Halides	TOX	0	0.000	ug/L	0.000	300.000				04/04/07
LCS	Total Organic Halides	TOX	422	105.500	%rec	80.000	120.000				04/04/07

WSCF
ANALYTICAL COMMENT REPORT

Attention: DL Stewart K6-96

Group #: WSCF20070494
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		TOX >10% column breakthrough on all samples. gar/jgd ICP-AES: High magnesium and calcium preparation blank results; no flags because sample results are high. Magnesium, sodium, and calcium sample results beyond effective spike range (spike results marked "NA"). High and check standards used to ensure magnesium, sodium, and calcium linearity because sample results are greater than the calibration standard. VOA:The recovery of surrogate compound bromofluorobenzene at 83.7% for sample W07GR000575 is very slightly below the 84% recovery lower control limit. cgc

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: DL Stewart K6-96
SAF Number: I07-032
Sample # W07P000574
Client ID: B1MDH9 STEWART WSCF

Matrix: WATER

Group #: WSCF20070494
Department: Organic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
VOA Ground Water Protection											
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Carbon tetrachloride	56-23-5	LA-523-455		17.0	ug/L			1.00	1.0		04/04/07
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		04/04/07
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		04/04/07
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07

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)
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X - Other flags/notes described in the comments/narrative(inorg)

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

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: I07-032
Sample # W07P000574
Client ID: B1MDH9 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Organic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Ethyl cyanide	107-12-0	LA-523-455	U	< 2.00	ug/L			1.00	2.0		04/04/07
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07

MDL=Minimum Detection Limit
RQ=Result Qualifier
TP Err=Total Propagated Error
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Report WGPP/ver. 5.2
GPAP

WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: S07-012
Sample # W07P000575
Client ID: B1LM38 STEWART WSCF

Matrix: WATER

Group #: WSCF20070494
Department: Organic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
VOA Ground Water Protection											
1,1-Dichloroethene	75-35-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		04/04/07
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		04/04/07
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: S07-012
Sample # W07P000575
Client ID: B1LM38 STEWART WSCF

Matrix: WATER

Group #: WSCF20070494
Department: Organic
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Ethyl cyanide	107-12-0	LA-523-455	U	< 2.00	ug/L			1.00	2.0		04/04/07
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		04/04/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20070494
Matrix: WATER
Test: VOA Ground Water Protection

Sample Date: 03/23/07
Receive Date:03/23/07

Lab ID: W07P000574
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	1,1-Dichloroethene	75-35-4	25.840	103.000	% Recov	63.000	117.000				04/04/07
MS	Benzene	71-43-2	28.710	115.000	% Recov	75.000	129.000				04/04/07
MS	4-Bromofluorobenzene(Surr)	460-00-4	46.570	93.100	% Recov	84.000	116.000				04/04/07
MS	Chlorobenzene	108-90-7	25.790	103.000	% Recov	79.000	119.000				04/04/07
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	51.550	103.000	% Recov	82.000	136.000				04/04/07
MS	Toluene-d8(Surr)	2037-26-5	52.060	104.000	% Recov	89.000	119.000				04/04/07
MS	Toluene	108-88-3	27.120	108.000	% Recov	76.000	120.000				04/04/07
MS	Trichloroethene	79-01-6	21.100	84.400	% Recov	73.000	123.000				04/04/07
MSD	1,1-Dichloroethene	75-35-4	26.160	105.000	% Recov	63.000	117.000				04/04/07
MSD	Benzene	71-43-2	28.520	114.000	% Recov	75.000	129.000				04/04/07
MSD	4-Bromofluorobenzene(Surr)	460-00-4	46.440	92.900	% Recov	84.000	116.000				04/04/07
MSD	Chlorobenzene	108-90-7	26.130	105.000	% Recov	79.000	119.000				04/04/07
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.290	107.000	% Recov	82.000	136.000				04/04/07
MSD	Toluene-d8(Surr)	2037-26-5	51.980	104.000	% Recov	89.000	119.000				04/04/07
MSD	Toluene	108-88-3	27.390	110.000	% Recov	76.000	120.000				04/04/07
MSD	Trichloroethene	79-01-6	21.280	85.100	% Recov	73.000	123.000				04/04/07
SPK-RPD	1,1-Dichloroethene	75-35-4	105.000		RPD			1.923	20.000		04/04/07
SPK-RPD	Benzene	71-43-2	114.000		RPD			0.873	20.000		04/04/07
SPK-RPD	Chlorobenzene	108-90-7	105.000		RPD			1.923	20.000		04/04/07
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	107.000		RPD			3.810	20.000		04/04/07
SPK-RPD	Toluene-d8(Surr)	2037-26-5	104.000		RPD			0.000	20.000		04/04/07
SPK-RPD	Toluene	108-88-3	110.000		RPD			1.835	20.000		04/04/07
SPK-RPD	Trichloroethene	79-01-6	85.100		RPD			0.826	20.000		04/04/07
SURR	4-Bromofluorobenzene(Surr)	460-00-4	46.360	92.700	% Recov	84.000	116.000				04/04/07
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.510	107.000	% Recov	82.000	136.000				04/04/07
SURR	Toluene-d8(Surr)	2037-26-5	52.560	105.000	% Recov	89.000	119.000				04/04/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20070494
Matrix: WATER
Test: VOA Ground Water Protection

Sample Date: 03/23/07
Receive Date:03/23/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P000575											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	41.860	83.700	% Recov	84.000	116.000				04/04/07
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	55.080	110.000	% Recov	82.000	136.000				04/04/07
SURR	Toluene-d8(Surr)	2037-26-5	54.270	109.000	% Recov	89.000	119.000				04/04/07
BATCH QC											
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/L					U	04/04/07
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/L					U	04/04/07
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/L					U	04/04/07
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/L					U	04/04/07
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/L					U	04/04/07
BLANK	1,4-Dichlorobenzene	106-46-7	< 1.0	n/a	ug/L					U	04/04/07
BLANK	1-Butanol	71-36-3	< 100	n/a	ug/L					U	04/04/07
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/L					U	04/04/07
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/L					U	04/04/07
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/L					U	04/04/07
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	46.320	92.600	% Recov	84.000	116.000				04/04/07
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/L					U	04/04/07
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/L					U	04/04/07
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/L					U	04/04/07
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/L					U	04/04/07
BLANK	cis-1,2-Dichloroethylene	156-59-2	< 1.0	n/a	ug/L					U	04/04/07
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	53.650	107.000	% Recov	82.000	136.000				04/04/07
BLANK	trans-1,2-Dichloroethylene	156-60-5	< 1.0	n/a	ug/L					U	04/04/07
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/L					U	04/04/07
BLANK	Ethyl cyanide	107-12-0	< 2.0	n/a	ug/L					U	04/04/07
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/L					U	04/04/07
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/L					U	04/04/07

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20070494
Matrix: WATER
Test: VOA Ground Water Protection

Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/L					U	04/04/07
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/L	0.000	5.000			U	04/04/07
BLANK	Tetrahydrofuran	109-99-9	< 2.0	n/a	ug/L					U	04/04/07
BLANK	Toluene-d8(Surr)	2037-26-5	51.800	104.000	% Recov	89.000	119.000				04/04/07
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/L					U	04/04/07
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/L					U	04/04/07
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/L					U	04/04/07
LCS	1,1-Dichloroethene	75-35-4	27.580	110.000	% Recov	70.000	130.000				04/04/07
LCS	Benzene	71-43-2	28.450	114.000	% Recov	70.000	130.000				04/04/07
LCS	4-Bromofluorobenzene(Surr)	460-00-4	46.930	93.900	% Recov	84.000	116.000				04/04/07
LCS	Chlorobenzene	108-90-7	26.090	104.000	% Recov	70.000	130.000				04/04/07
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.840	106.000	% Recov	82.000	136.000				04/04/07
LCS	Toluene-d8(Surr)	2037-26-5	52.280	105.000	% Recov	89.000	119.000				04/04/07
LCS	Toluene	108-88-3	27.760	111.000	% Recov	70.000	130.000				04/04/07
LCS	Trichloroethene	79-01-6	20.140	80.600	% Recov	70.000	130.000				04/04/07

WSCF
ANALYTICAL COMMENT REPORT

Attention: DL Stewart K6-96

Group #: WSCF20070494
Department: Organic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		TOX >10% column breakthrough on all samples. gar/jgd ICP-AES: High magnesium and calcium preparation blank results; no flags because sample results are high. Magnesium, sodium, and calcium sample results beyond effective spike range (spike results marked "NA"). High and check standards used to ensure magnesium, sodium, and calcium linearity because sample results are greater than the calibration standard. VOA:The recovery of surrogate compound bromofluorobenzene at 83.7% for sample W07GR000575 is very slightly below the 84% recovery lower control limit. cgc

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: DL Stewart K6-96
SAF Number: I07-031
Sample # W07P000565
Client ID: B1MDD7 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Radiochemistry
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		2.30e+04	pCi/L	+-4.60e+03	pCi/L	1.00	2.3e+02		04/02/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

D - Analyte was identified at a secondary dilution factor(inorg)
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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: S07-003
Sample # W07P000566
Client ID: B1MDY8 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Radiochemistry
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		1.50e+04	pCi/L	+-3.00e+03	pCi/L	1.00	2.3e+02		04/02/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: I07-032
Sample # W07P000574
Client ID: B1MDH9 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Radiochemistry
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		1.60e+04	pCi/L	+-3.20e+03	pCi/L	1.00	2.3e+02		04/02/07

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)
X - Other flags/notes described in the comments/narrative(inorg)

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: DL Stewart K6-96
SAF Number: I07-031
Sample # W07P000582
Client ID: B1MDC0 STEWART WSCF
Matrix: WATER

Group #: WSCF20070494
Department: Radiochemistry
Sampled: 03/23/07
Received: 03/23/07

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		2.10e+04	pCi/L	+-4.20e+03	pCi/L	1.00	2.3e+02		04/02/07

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)
U - Analyzed for but not detected above limiting criteria(inorg)
X - Other flags/notes described in the comments/narrative(inorg)

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

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

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20070494
Matrix: WATER
Test: Tritium by Liq Sct column prep

Sample Date: 03/26/07
Receive Date:03/26/07

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W07P000590											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tritium	10028-17-8	3.1E+04		RPD			0.000	20.000		04/02/07
MS	Tritium	10028-17-8	75300.0	89.551	% Recov	75.000	125.000				04/02/07
BATCH QC											
BLANK	Tritium	10028-17-8	U4.2E+01	n/a	pCi/L	-10.000	1000.000				04/02/07
LCS	Tritium	10028-17-8	1740.0	93.118	% Recov	80.000	120.000				04/02/07

M4W41-SLF-07-255

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 17 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
05/07/07
tal

ACKNOWLEDGMENT OF SAMPLES RECEIVED

GPAP

Richland, WA 99352
Attn: DL Stewart K6-96

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20070494

The following samples were received from you on 03/23/07. 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
W07P000564	B1MDD6	STEWART @GPP6010	Water	03/23/07
W07P000565	B1MDD7	STEWART @H3-33 @IC-30	Water	03/23/07
W07P000566	B1MDY8	STEWART @H3-33	Water	03/23/07
W07P000567	B1MJL3	STEWART ALKALI TOC-30 TOX	Water	03/23/07
W07P000568	B1MJL8	STEWART TOC-30 TOX	Water	03/23/07
W07P000569	B1MJL9	STEWART TOC-30 TOX	Water	03/23/07
W07P000570	B1MJM0	STEWART TOC-30 TOX	Water	03/23/07
W07P000571	B1MJM1	STEWART TOC-30 TOX	Water	03/23/07
W07P000572	B1MJM3	STEWART ALKALI	Water	03/23/07
W07P000573	B1MDH8	STEWART @GPP6010	Water	03/23/07
W07P000574	B1MDH9	STEWART @2008 @H3-33 @IC-30 @VOA-GPP	Water	03/23/07
W07P000575	B1LM38	STEWART @VOA-GPP	Water	03/23/07
W07P000576	B1M9B7	STEWART ALKALI	Water	03/23/07
W07P000577	B1MKN6	STEWART ALKALI	Water	03/23/07
W07P000578	B1MKN7	STEWART ALKALI	Water	03/23/07

GPAP

Richland, WA 99352
Attn: DL Stewart K6-96

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20070494

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W07P000579	B1MKP3	STEWART ALKALI	Water	03/23/07
W07P000580	B1MKR1	STEWART ALKALI	Water	03/23/07
W07P000581	B1MDB9	STEWART @GPP6010	Water	03/23/07
W07P000582	B1MDC0	STEWART @H3-33 @IC-30	Water	03/23/07
W07P000583	B1MDW8	STEWART ALKALI	Water	03/23/07
W07P000584	B1MDY0	STEWART @GPP6010	Water	03/23/07
W07P000585	B1MDY1	STEWART @IC-30 ALKALI	Water	03/23/07

Test Acronym Description

Test Acronym	Description
@2008	ICP-200.8 MS All possible meta
@GPP6010	ICP Metals Analysis, Grd H20 P
@H3-33	Tritium by Liq Sct column prep
@IC-30	Anions by Ion Chromatography
@VOA-GPP	VOA Ground Water Protection
ALKALI	Total Alkalinity as mg/L CaCO3
TOC-30	Total Organic Carbon
TOX	Total Organic Halides

PNNL

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

05/07/07 20070494

I07-031-25

Collector M.R. WEIL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. I07-031	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 100NR2IAM-LOL MARCH 2007	HNF-N-506 6	Ice Chest No. GRP-05-005 Temp.
Shipped To (Lab) Waste Sampling & Characterization	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol CERCLA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

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

All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.

WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MDD6 (F)	W07P000564	W	3/23/07	1001	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1MDD7	565	W	↓	↓	1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None
B1MDD7	↓	W	↓	↓	1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool 4C

ICED
Initial
Date

Relinquished By	Sign	Date/Time	Received By	Print	Sign	Date/Time
FLUOR HANFORD M.R. WEIL	[signature]	1230 MAR 2 3 2007	TA FRAZIER	[signature]		1230 MAR 2 3 2007
Relinquished By		Date/Time	Received By			Date/Time
Relinquished By		Date/Time	Received By			Date/Time
Relinquished By		Date/Time	Received By			Date/Time

Matrix *

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

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

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20070494

S07-003-39

Collector FLUOR HANFORD M.R. WEIL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. S07-003	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title SURV. MARCH 2007	HNF-N-506 6	Ice Chest No. GW0-06-003 Temp.
Shipped To (Lab) Waste Sampling & Characterization	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

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

All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.

WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MDY8	566	W	3/23/07	1120	1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None

ICED
Initial
Date

Relinquished By	Received By
Print: FLUOR HANFORD M.R. WEIL Sign: [signature] Date/Time: 1230 MAR 23 2007	Print: TA FRAZIER Sign: [signature] Date/Time: 1230 MAR 23 2007
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time

Matrix *

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

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

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PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20070494

C.O.C. # **W07-003-524**

Page 1 of 1

Collector FLUOR HANFORD M.R. WEIL	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-003	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, MARCH 2007	HNF-N-506 6	**Ice Chest No.** GW0-06-005 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MJL3	567	W	3/23/07	1120	1x500-mL G/P	310.1_ALKALINITY: Alkalinity (1)	Cool 4C
B1MJL3	↓	W	↓	↓	1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool 4C
B1MJL3	↓	W	↓	↓	1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool 4C

ICED Initial Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FLUOR HANFORD M.R. WEIL	[signature]		1230 MAR 2 3 2007	TA FRAZIER	Teresa Frazier		1230 MAR 2 3 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

PNNL

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20070494

C.O.C. # W07-003-527

Collector: M.R. WEIL	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: W07-003	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: RCRA, MARCH 2007	HNF-N-506 6	Ice Chest No.: GRP-06-005 Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MJL8	568	W	3/23/07	1001	1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool 4C
B1MJL8	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool 4C
B1MJL9	569	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool 4C
B1MJL9	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool 4C
B1MJM0	570	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool 4C
B1MJM0	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool 4C
B1MJM1	571	W			1x1000-mL aGs*	9020_TOX: TOX (1)	H2SO4 to pH <2 Cool 4C
B1MJM1	↓	W			1x250-mL aGs*	9060_TOC: TOC (1)	HCl or H2SO4 to pH <2 Cool 4C
B1MJM3	572	W			1x500-mL G/P	310.1_ALKALINITY: Alkalinity (1)	Cool 4C

ICED
Initial
Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FLUOR HANFORD	M.R. WEIL		1230 MAR 2 3 2007	TA FRAZIER			1230 MAR 2 3 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20070494

C.O.C. # I07-032-4

Page 1 of 1

Collector: Fluor Hanford R. T. SICKLE	Contact/Requester: Dot Stewart	Telephone No.: 509-376-5056 MSIN FAX
SAF No.: I07-032	Sampling Origin: Hanford Site	Purchase Order/Charge Code
Project Title: 2UP1-LOL MARCH 2007	HNF-N-506-1	Ice Chest No.: SAW5-118 Temp.
Shipped To (Lab): Waste Sampling & Characterization	Method of Shipment: Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol: SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

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

All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.

WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MDH8 (F)	573	W	3-23-07	1105	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1MDH9	574	W			4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool 4C
B1MDH9		W			1x500-mL G/P	200.8_METALS_ICPMS: Uranium (1)	HNO3 to pH <2
B1MDH9		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool 4C
B1MDH9		W			1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None

ICED Initial Date

Relinquished By	Date/Time	Received By	Date/Time
Fluor Hanford R. T. SICKLE (Print) (Sign)	1240 MAR 23 2007	TA FRAZIER (Print) Teresa Frazier (Sign)	1240 MAR 23 2007
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

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

FINAL SAMPLE DISPOSITION

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

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20076494

S07-012-701

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-012	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, DECEMBER 2006		**Ice Chest No.** 3M W5-118 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1LM38	575	W	3-27-07	1109	4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool 4C
B1LM38	↓	W	↓	↓	1x20-mL P	Activity Scan	None

ICED
Initial
Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			1240 MAR 23 2007	TA FRAZIER		Teresa Frazier	1240 MAR 23 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20070494

C.O.C. # W07-002-510

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. W07-002	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title RCRA, FEBRUARY 2007	HNF N-526-1	Ice Chest No. GAWS-118 Temp.
Shipped To (Lab) Waste Sampling & Characterization	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1M9B7	576	W	3-13-07	0848	1x500-mL G/P	310.1_ALKALINITY: Alkalinity (1)	Cool 4C

ICED
Initial
Date

Relinquished By	Date/Time	Received By	Date/Time
Fluor Hanford R. T. SICKLE Print Sign	1240 MAR 13 2007	TA FRAZIER Teresa Frazier	1240 MAR 13 2007
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

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

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

70 0177

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20070494

C.O.C. # W07-003-563

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. W07-003	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title RCRA, MARCH 2007	HNF-N-506-1	Ice Chest No. SMW5-118 Temp.
Shipped To (Lab) Waste Sampling & Characterization	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MKN6	577	W	3-23-07	1012	1x500-mL G/P	310.1_ALKALINITY: Alkalinity (1)	Cool 4C

ICED
Initial
Date

Relinquished By	Received By
Print Fluor Hanford R. T. SICKLE Sign 1240 Date/Time MAR 23 2007	Print TA FRAZIER Sign Date/Time MAR 23 2007 1240
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time

Matrix *

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

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

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20070494

C.O.C. # W07-003-564

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. W07-003	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, MARCH 2007	HOF-N-56-1	**Ice Chest No.** SAW-118 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MKN7	578	W	3-23-07	1345	1x500-mL G/P	310.1_ALKALINITY: Alkalinity (1)	Cool 4C

ICED
Initial
Date

Relinquished By Fluor Hanford R. T. SICKLE Print Sign	Date/Time 1240 MAR 23 2007	Received By TA BRAZIER Print Sign	Date/Time 1240 MAR 23 2007
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

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

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

PNNL

Fluor Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20070494

C.O.C. # W07-003-565

Page 1 of 1

Collector R. T. SICKLE	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. W07-003	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title RCRA, MARCH 2007	HNF-N-506-1	Ice Chest No. SAW5-118 Temp.
Shipped To (Lab) Waste Sampling & Characterization	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol RCRA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS

** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

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

All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.

WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MKP3	579	W	3-23-07	1216	1x500-mL G/P	310.1_ALKALINITY: Alkalinity (1)	Cool 4C

ICED Initial Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE			1240 MAR 23 2007	TA FRAZIER			1240 MAR 23 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20070494

C.O.C. # **W07-003-567**

Page 1 of 1

Collector Fluor Hanford R. T. SICKLE	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 MSIN FAX
SAF No. W07-003	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA, MARCH 2007	HNF-N-506-1	**Ice Chest No.** SHWS-118 **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol RCRA	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MKR1	580	W	3-23-07	1109	1x500-mL G/P	310.1_ALKALINITY: Alkalinity (1)	Cool 4C

ICED Initial Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford R. T. SICKLE	[signature]		1240 MAR 23 2007	TA Brazier	Teresa Frazier		1240 MAR 23 2007
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20070494

C.O.C. # I07-031-11

Page 1 of 1

Collector Fluor Hanford F. M. HALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. I07-031	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 100NR2IAM-LOI, MARCH 2007	HHF-M-506-2	Ice Chest No. 12 Temp.
Shipped To (Lab) Waste Sampling & Characterization	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol CERCLA	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MDB9 (F)	581	W	3/23/7	1220	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1MDC0	582	W	↓	↓	1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None
B1MDC0	↓	W	↓	↓	1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool 4C

ICED Initial Date

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
Fluor Hanford F. M. HALL		MAR 2 3 2007	1300			MAR 2 3 2007	1500
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time
Relinquished By			Date/Time	Received By			Date/Time

Matrix *

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

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

75077

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20070494

C.O.C. # S07-003-11

Page 1 of 1

Collector Fluor Hanford F. M. HALL	Contact/Requester Dot Stewart	Telephone No. 509-376-5056 MSIN FAX
SAF No. S07-003	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title SURV, MARCH 2007	HNF-M-506-2	Ice Chest No. 12 Temp.
Shipped To (Lab) Waste Sampling & Characterization	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol SURV	Priority: 45 Days	Offsite Property No.

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MDW8	583	W	3/23/7	1220	1x500-mL G/P	310.1_ALKALINITY: Alkalinity (1)	Cool 4C

ICED
Initial
Date

Relinquished By	Date/Time	Received By	Date/Time
Fluor Hanford F. M. HALL Print Sign MAR 2 3 2007	1300	Print Sign MAR 2 3 2007	1300
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time
Relinquished By	Date/Time	Received By	Date/Time

Matrix *

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

76-01-77

PNNL

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

20070494

C.O.C.#: S07-003-29

Collector	**Contact/Requester** Dot Stewart	**Telephone No.** 509-376-5056 **MSIN** **FAX**
SAF No. S07-003	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title SURV, MARCH 2007	HMF-N-506-2	**Ice Chest No.** ROSS **Temp.**
Shipped To (Lab) Waste Sampling & Characterization	**Method of Shipment** Govt. Vehicle	**Bill of Lading/Air Bill No.**
Protocol SURV	**Priority:** 45 Days	**Offsite Property No.**

POSSIBLE SAMPLE HAZARDS/REMARKS
** ** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

SPECIAL INSTRUCTIONS **Hold Time** Total Activity Exemption: Yes ☑ No ☐
All Labs except WSCF: Batch all PNNL samples submitted under A, G, I, S, and W 07 SAFs into one SDG, not to exceed SDG closure of 14 days.
WSCF: Batch all PNNL GW samples submitted into one SDG, daily closure.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1MDY0 (F)	584	W	3/23/7	1100	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1MDY1	585	W	↓	↓	1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool 4C
B1MDY1	↓	W	↓	↓	1x500-mL G/P	310.1_ALKALINITY: Alkalinity (1)	Cool 4C

ICED
Initial
Date

Relinquished By	Received By
Print: Fluor Hanford E.M. HALL Sign: Date/Time: MAR 23 2007 1300	Print: Sign: Date/Time: MAR 23 2007 1300
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time
Relinquished By Date/Time	Received By Date/Time

Matrix *

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SO	= Solid	T	= Tissue
SL	= Sludge	WI	= Wine
W	= Water	L	= Liquid
O	= Oil	V	= Vegetation
A	= Air	X	= Other

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