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RECEIVED JULY 3, 2008

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FLUOR

Memorandum

M4W41-SLF-08-661

To:	H. Hampt	E6-35	Date:	July 3, 2008
From:	S. L. Fitzgerald, Manager WSCF Analytical Lab			

cc: w/Attachments

T. F. Dale	S3-30	P. D. Mix	S3-30
D. Felmy (PNNL)	K6-75	J. E. Trechter	S3-30
A. J. Kopriva	S3-30	S. J. Trent	E6-35
H. K. Meznarich	S3-30	File/LB	

Subject: FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20081021

Reference:
1) Letter of Instruction for Analytical Services for the Groundwater Performance Assessment Project and Analytical Laboratory Transition Plan, FH-0602422, September 19, 2006
2) HNF-SD-CD-QAPP-017, Rev. 9, Waste Sampling & Characterization Facility Quality Assurance Plan

This transmittal contains the following information for sample delivery group WSCF20081021:

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

SLF/grf

Attachments 4

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ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20081021
Data Deliverable Date: 02-jul-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
I08-038	B1V6J0	W08P002494	WATER
	B1V6J1	W08P002495	WATER
	B1V6J4	W08P002496	WATER
	B1V6J5	W08P002497	WATER
W08-004	B1V380	W08P002493	WATER
W08-005	B1V974	W08P002498	WATER
	B1V975	W08P002499	WATER
	B1V977	W08P002500	WATER
	B1V978	W08P002501	WATER

M4W41-SLF-08-661

ATTACHMENT 2

NARRATIVE

Consisting of 3 pages
Including cover page

Introduction

Nine groundwater samples were received at the WSCF Laboratory on May 19, 2008. Samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Groundwater Remediation Program – Letter of Instruction*, referenced in the cover letter.

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

It should be noted that the attached chain of custody was stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving, indicating the presence of ice in the sample container.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report,* pages 12 through 14, for a complete listing of approved analytical methods.

Inorganic Comments

Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See pages 27 through 29 for QC details. Analytical Note(s):

- Duplicates, Matrix Spikes and Matrix Spike Duplicates were analyzed on samples B1V879 and B1V8C9 (SDG# 20081017).
- Sample results were D flagged if dilution(s) were required.
- Sample results that were less than the reportable limit, however greater than the method detection limit were B flagged.
- Sulfate (B1V8C9) – Spike Relative Percent Difference (RPD) slightly exceeded established laboratory limits. No flags issued.

All other QC controls are within the established limits.

ICP-AES Metals – The hold time requirements for this analysis were met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per the GRP Letter of Instruction. See pages 30 through 36 for QC details. Analytical Note(s):

- Matrix Spikes and Matrix Spike Duplicates were analyzed on samples B1V838 (SDG# 20081015) and B1V6J1 of this SDG.

- Calcium, Magnesium and Sodium – Sample results exceeded spiking levels by a factor of 4. Spike recoveries are not valid. Check standard was analyzed to ensure linearity, because sample results were greater than the calibration standard.

All other QC controls are within the established limits.

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

- Duplicate QC was analyzed on sample# B1TWK7 (SDG# 20081006).

All QC controls are within the established limits.

Organic Comments

VOA – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample, were analyzed with this delivery group per the GRP Letter of Instruction. See pages 45 through 47 for QC details. Analytical Note(s):

- Sample results that were less than the lowest calibration limit, however greater than the method detection limit were J flagged.

All QC controls are within the established limits.

Radiochemistry Comments

Rad Chem – There are no hold times associated with WSCF's radiochemical methods. A Duplicate, Matrix Spike, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 52 through 53 for QC details. Analytical Note(s):

- Technetium-99 – Duplicate and Matrix Spike were analyzed on sample# B1V831 (SDG# 20081015).
- Tritium – Duplicate and Matrix Spike were analyzed on sample# B1V835 (SDG# 20081015).

All QC controls are within the established limits.

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

Scot L. Fitzgerald
WSCF Analytical Laboratory Manager

Pauline D. Mix
WSCF Client Services

M4W41-SLF-08-661

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 47 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

GPAP
Richland, WA 99352

Attention: Steve Trent E6-35

Analytical: S. Fitzgerald 7/3/08

Client Services: P.D. Miy 7/3/2008

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

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

Report#: WSCF20081021
Report Date: 2-jul-2008
Report WGPP/ver. 5.2
GPAP

w13qlog v4.2 02-jul-2008 09:01:38

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20081021

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
36400	2	36816	41153	BLANK		Anions by Ion Chromatography
36400	12	36816	41153	BLANK		Anions by Ion Chromatography
36400	3	36816	41153	LCS		Anions by Ion Chromatography
36400	5	36816	41153	DUP	W08P002467	Anions by Ion Chromatography
36400	6	36816	41153	MS	W08P002467	Anions by Ion Chromatography
36400	7	36816	41153	MSD	W08P002467	Anions by Ion Chromatography
36400	7	36816	41153	SPK-RPD	W08P002467	Anions by Ion Chromatography
36400	8	36816	41153	SAMPLE	W08P002499	Anions by Ion Chromatography
36419	2	36836	41164	BLANK		Anions by Ion Chromatography
36419	14	36836	41164	BLANK		Anions by Ion Chromatography
36419	3	36836	41164	LCS		Anions by Ion Chromatography
36419	5	36836	41164	DUP	W08P002471	Anions by Ion Chromatography
36419	6	36836	41164	MS	W08P002471	Anions by Ion Chromatography
36419	7	36836	41164	MSD	W08P002471	Anions by Ion Chromatography
36419	7	36836	41164	SPK-RPD	W08P002471	Anions by Ion Chromatography
36419	9	36836	41164	SAMPLE	W08P002495	Anions by Ion Chromatography
36419	10	36836	41164	SAMPLE	W08P002497	Anions by Ion Chromatography
36419	11	36836	41164	SAMPLE	W08P002501	Anions by Ion Chromatography
36477	1	36891	41238	LCS		Total Alkalinity as mg/L CaCO3
36477	13	36891	41238	LCS		Total Alkalinity as mg/L CaCO3
36477	23	36891	41238	LCS		Total Alkalinity as mg/L CaCO3
36477	3	36891	41238	DUP	W08P002403	Total Alkalinity as mg/L CaCO3
36477	19	36891	41238	SAMPLE	W08P002499	Total Alkalinity as mg/L CaCO3
36477	20	36891	41238	SAMPLE	W08P002501	Total Alkalinity as mg/L CaCO3
36850	1	37270	41658	BLANK		ICP Metals Analysis, Grd H20 P
36850	2	37270	41658	LCS		ICP Metals Analysis, Grd H20 P
36850	4	37270	41658	MS	W08P002465	ICP Metals Analysis, Grd H20 P
36850	5	37270	41658	MSD	W08P002465	ICP Metals Analysis, Grd H20 P
36850	5	37270	41658	SPK-RPD	W08P002465	ICP Metals Analysis, Grd H20 P
36850	16	37270	41658	SAMPLE	W08P002494	ICP Metals Analysis, Grd H20 P
36884	1	37304	41672	BLANK		ICP Metals Analysis, Grd H20 P
36884	2	37304	41672	LCS		ICP Metals Analysis, Grd H20 P
36884	4	37304	41672	MS	W08P002495	ICP Metals Analysis, Grd H20 P
36884	5	37304	41672	MSD	W08P002495	ICP Metals Analysis, Grd H20 P
36884	3	37304	41672	SAMPLE	W08P002495	ICP Metals Analysis, Grd H20 P
36884	5	37304	41672	SPK-RPD	W08P002495	ICP Metals Analysis, Grd H20 P
36884	6	37304	41672	SAMPLE	W08P002496	ICP Metals Analysis, Grd H20 P
36884	7	37304	41672	SAMPLE	W08P002497	ICP Metals Analysis, Grd H20 P
36884	8	37304	41672	SAMPLE	W08P002498	ICP Metals Analysis, Grd H20 P
36884	9	37304	41672	SAMPLE	W08P002499	ICP Metals Analysis, Grd H20 P
36884	10	37304	41672	SAMPLE	W08P002500	ICP Metals Analysis, Grd H20 P
36884	11	37304	41672	SAMPLE	W08P002501	ICP Metals Analysis, Grd H20 P

w13qlog v4.2 02-jul-2008 09:01:38

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20081021

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			41663	BLANK		VOA Ground Water Protection
			41663	LCS		VOA Ground Water Protection
			41663	MS	W08P002493	VOA Ground Water Protection
			41663	MSD	W08P002493	VOA Ground Water Protection
			41663	SAMPLE	W08P002493	VOA Ground Water Protection
			41663	SPK-RPD	W08P002493	VOA Ground Water Protection
			41663	SURR	W08P002493	VOA Ground Water Protection
			41663	SAMPLE	W08P002495	VOA Ground Water Protection
			41663	SURR	W08P002495	VOA Ground Water Protection
			41663	SAMPLE	W08P002497	VOA Ground Water Protection
			41663	SURR	W08P002497	VOA Ground Water Protection

w13qlog v4.2 02-jul-2008 09:01:38

Department: Radiochemistry

W13q Worklist/Batch/QC Report for Group# WSCF20081021

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
36483	1	36897	41270	BLANK		TC99 by Liquid Scin.
36483	2	36897	41270	LCS		TC99 by Liquid Scin.
36483	4	36897	41270	DUP	W08P002463	TC99 by Liquid Scin.
36483	3	36897	41270	MS	W08P002463	TC99 by Liquid Scin.
36483	10	36897	41270	SAMPLE	W08P002495	TC99 by Liquid Scin.
36483	11	36897	41270	SAMPLE	W08P002497	TC99 by Liquid Scin.
36483	12	36897	41270	SAMPLE	W08P002499	TC99 by Liquid Scin.
36483	13	36897	41270	SAMPLE	W08P002501	TC99 by Liquid Scin.
36484	1	36898	41599	BLANK		Tritium by Liq Sct column prep
36484	2	36898	41599	LCS		Tritium by Liq Sct column prep
36484	4	36898	41599	DUP	W08P002464	Tritium by Liq Sct column prep
36484	3	36898	41599	MS	W08P002464	Tritium by Liq Sct column prep
36484	9	36898	41599	SAMPLE	W08P002495	Tritium by Liq Sct column prep
36484	10	36898	41599	SAMPLE	W08P002497	Tritium by Liq Sct column prep
36484	11	36898	41599	SAMPLE	W08P002499	Tritium by Liq Sct column prep
36484	12	36898	41599	SAMPLE	W08P002501	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-505-411	LA-505-411: ELEMENTAL ANALYSIS BY INDUCTIVELY COUPLED PLASMA ATOMIC EMISSION SPE	
	HEIS 6010_METALS_ICP	Inductively Coupled Plasma-Atomic Emmision Spectrometry
LA-531-411	LA-531-411: ALKALINITY (TITRIMETRIC)	
	HEIS 2320B	Alkalinity
	Standard Methods 2320B	Alkalinity
LA-533-410	LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY	
	EPA-600/R-94-111 300.0	DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY
	HEIS 300.0_ANIONS_IC	Determination of Inorganic Anions by Ion Chromatography

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

WSCF
METHOD REFERENCES REPORT

Department: 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: Steve Trent E6-35
SAF Number: I08-038
Sample # W08P002494
Client ID: B1V6J0 GPP-PNNL TRENT WSCF
Matrix: WATER

Group #: WSCF20081021
Department: Inorganic
Sampled: 05/19/08
Received: 05/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**06/26/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		20.2	ug/L			1.00	9.0		06/30/08
Magnesium	7439-95-4	LA-505-411		1.48e+04	ug/L			1.00	6.0		06/30/08
Manganese	7439-96-5	LA-505-411		4.70	ug/L			1.00	4.0		06/30/08
Nickel	7440-02-0	LA-505-411		21.1	ug/L			1.00	4.0		06/30/08
Potassium	7440-09-7	LA-505-411		5.21e+03	ug/L			1.00	45		06/30/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		06/30/08
Sodium	7440-23-5	LA-505-411		1.36e+04	ug/L			1.00	27		06/30/08
Antimony	7440-36-0	LA-505-411	U	< 32.0	ug/L			1.00	32		06/30/08
Barium	7440-39-3	LA-505-411		66.7	ug/L			1.00	4.0		06/30/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		06/30/08
Chromium	7440-47-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		06/30/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		06/30/08
Copper	7440-50-8	LA-505-411	U	< 4.00	ug/L			1.00	4.0		06/30/08
Vanadium	7440-62-2	LA-505-411		19.7	ug/L			1.00	7.0		06/30/08
Zinc	7440-66-6	LA-505-411		4.10	ug/L			1.00	4.0		06/30/08
Calcium	7440-70-2	LA-505-411		4.58e+04	ug/L			1.00	34		06/30/08
Strontium	7440-24-6	LA-505-411		200	ug/L			1.00	4.0		06/30/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		06/30/08

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

B - The analyte < the RDL but >= the IDL/MDL (inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-038
Sample # W08P002495
Client ID: B1V6J1 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Inorganic
Sampled: 05/19/08
Received: 05/19/08

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	0.267	mg/L			2.00	0.042		05/20/08
Chloride	16887-00-6	LA-533-410	D	35.3	mg/L			2.00	0.22		05/20/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0198	mg/L			2.00	0.020		05/20/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	2.32	mg/L			2.00	0.072		05/20/08
Sulfate	14808-79-8	LA-533-410	D	33.9	mg/L			2.00	0.15		05/20/08
ICP Metals Analysis, Grd H20 P Prep											**06/30/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		287	ug/L			1.00	25		07/01/08
Magnesium	7439-95-4	LA-505-411		1.46e+04	ug/L			1.00	50		07/01/08
Manganese	7439-96-5	LA-505-411		5.50	ug/L			1.00	4.0		07/01/08
Nickel	7440-02-0	LA-505-411		25.9	ug/L			1.00	4.0		07/01/08
Potassium	7440-09-7	LA-505-411		5.27e+03	ug/L			1.00	1.7e+02		07/01/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		07/01/08
Sodium	7440-23-5	LA-505-411		1.35e+04	ug/L			1.00	51		07/01/08
Antimony	7440-36-0	LA-505-411	U	< 56.0	ug/L			1.00	56		07/01/08
Barium	7440-39-3	LA-505-411		65.9	ug/L			1.00	4.0		07/01/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Chromium	7440-47-3	LA-505-411	U	< 13.0	ug/L			1.00	13		07/01/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Copper	7440-50-8	LA-505-411	U	< 6.00	ug/L			1.00	6.0		07/01/08
Vanadium	7440-62-2	LA-505-411		18.6	ug/L			1.00	12		07/01/08
Zinc	7440-66-6	LA-505-411		36.3	ug/L			1.00	9.0		07/01/08
Calcium	7440-70-2	LA-505-411		4.69e+04	ug/L			1.00	73		07/01/08
Strontium	7440-24-6	LA-505-411		197	ug/L			1.00	4.0		07/01/08

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

B - The analyte < the RDL but >= the IDL/MDL (inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-038
Sample # W08P002495
Client ID: B1V6J1 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Inorganic
Sampled: 05/19/08
Received: 05/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)

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

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-038
Sample # W08P002496
Client ID: B1V6J4 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Inorganic
Sampled: 05/19/08
Received: 05/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**06/30/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	U	< 25.0	ug/L			1.00	25		07/01/08
Magnesium	7439-95-4	LA-505-411	U	< 50.0	ug/L			1.00	50		07/01/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Potassium	7440-09-7	LA-505-411	U	< 170	ug/L			1.00	1.7e+02		07/01/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		07/01/08
Sodium	7440-23-5	LA-505-411	U	< 51.0	ug/L			1.00	51		07/01/08
Antimony	7440-36-0	LA-505-411	U	< 56.0	ug/L			1.00	56		07/01/08
Barium	7440-39-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Chromium	7440-47-3	LA-505-411	U	< 13.0	ug/L			1.00	13		07/01/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Copper	7440-50-8	LA-505-411	U	< 6.00	ug/L			1.00	6.0		07/01/08
Vanadium	7440-62-2	LA-505-411	U	< 12.0	ug/L			1.00	12		07/01/08
Zinc	7440-66-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		07/01/08
Calcium	7440-70-2	LA-505-411	U	< 73.0	ug/L			1.00	73		07/01/08
Strontium	7440-24-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08

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

B - The analyte < the RDL but >= the IDL/MDL (inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-038
Sample # W08P002497
Client ID: B1V6J5 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Inorganic
Sampled: 05/19/08
Received: 05/19/08

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	DU	< 0.0420	mg/L			2.00	0.042		05/20/08
Chloride	16887-00-6	LA-533-410	DU	< 0.220	mg/L			2.00	0.22		05/20/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0198	mg/L			2.00	0.020		05/20/08
Nitrogen in Nitrate	NO3-N	LA-533-410	DU	< 0.0720	mg/L			2.00	0.072		05/20/08
Sulfate	14808-79-8	LA-533-410	DU	< 0.154	mg/L			2.00	0.15		05/20/08
ICP Metals Analysis, Grd H20 P Prep											**06/30/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411	U	< 25.0	ug/L			1.00	25		07/01/08
Magnesium	7439-95-4	LA-505-411	U	< 50.0	ug/L			1.00	50		07/01/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Potassium	7440-09-7	LA-505-411	U	< 170	ug/L			1.00	1.7e+02		07/01/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		07/01/08
Sodium	7440-23-5	LA-505-411	U	< 51.0	ug/L			1.00	51		07/01/08
Antimony	7440-36-0	LA-505-411	U	< 56.0	ug/L			1.00	56		07/01/08
Barium	7440-39-3	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Chromium	7440-47-3	LA-505-411	U	< 13.0	ug/L			1.00	13		07/01/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Copper	7440-50-8	LA-505-411	U	< 6.00	ug/L			1.00	6.0		07/01/08
Vanadium	7440-62-2	LA-505-411	U	< 12.0	ug/L			1.00	12		07/01/08
Zinc	7440-66-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		07/01/08
Calcium	7440-70-2	LA-505-411	U	< 73.0	ug/L			1.00	73		07/01/08
Strontium	7440-24-6	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08

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

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J - Analyte < lowest calibration but >= MDL.(org)
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D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-038
Sample # W08P002497
Client ID: B1V6J5 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Inorganic
Sampled: 05/19/08
Received: 05/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08

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

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J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-005
Sample # W08P002498
Client ID: B1V974 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Inorganic
Sampled: 05/19/08
Received: 05/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**06/30/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		141	ug/L			1.00	25		07/01/08
Magnesium	7439-95-4	LA-505-411		2.73e+04	ug/L			1.00	50		07/01/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Potassium	7440-09-7	LA-505-411		6.18e+03	ug/L			1.00	1.7e+02		07/01/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		07/01/08
Sodium	7440-23-5	LA-505-411		4.97e+04	ug/L			1.00	51		07/01/08
Antimony	7440-36-0	LA-505-411	U	< 56.0	ug/L			1.00	56		07/01/08
Barium	7440-39-3	LA-505-411		87.8	ug/L			1.00	4.0		07/01/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Chromium	7440-47-3	LA-505-411	U	< 13.0	ug/L			1.00	13		07/01/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Copper	7440-50-8	LA-505-411	U	< 6.00	ug/L			1.00	6.0		07/01/08
Vanadium	7440-62-2	LA-505-411		28.6	ug/L			1.00	12		07/01/08
Zinc	7440-66-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		07/01/08
Calcium	7440-70-2	LA-505-411		7.87e+04	ug/L			1.00	73		07/01/08
Strontium	7440-24-6	LA-505-411		404	ug/L			1.00	4.0		07/01/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-005
Sample # W08P002499
Client ID: B1V975 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Inorganic
Sampled: 05/19/08
Received: 05/19/08

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	1.07	mg/L			2.00	0.042		05/20/08
Chloride	16887-00-6	LA-533-410	D	35.0	mg/L			2.00	0.22		05/20/08
Nitrogen in Nitrite	NO2-N	LA-533-410	DU	< 0.0198	mg/L			2.00	0.020		05/20/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	39.2	mg/L			10.00	0.36		05/20/08
Sulfate	14808-79-8	LA-533-410	D	105	mg/L			2.00	0.15		05/20/08
ICP Metals Analysis, Grd H20 P Prep											**06/30/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		166	ug/L			1.00	25		07/01/08
Magnesium	7439-95-4	LA-505-411		2.68e+04	ug/L			1.00	50		07/01/08
Manganese	7439-96-5	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Nickel	7440-02-0	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Potassium	7440-09-7	LA-505-411		6.03e+03	ug/L			1.00	1.7e+02		07/01/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		07/01/08
Sodium	7440-23-5	LA-505-411		4.86e+04	ug/L			1.00	51		07/01/08
Antimony	7440-36-0	LA-505-411	U	< 56.0	ug/L			1.00	56		07/01/08
Barium	7440-39-3	LA-505-411		85.5	ug/L			1.00	4.0		07/01/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Chromium	7440-47-3	LA-505-411		13.7	ug/L			1.00	13		07/01/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Copper	7440-50-8	LA-505-411	U	< 6.00	ug/L			1.00	6.0		07/01/08
Vanadium	7440-62-2	LA-505-411		23.9	ug/L			1.00	12		07/01/08
Zinc	7440-66-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		07/01/08
Calcium	7440-70-2	LA-505-411		7.70e+04	ug/L			1.00	73		07/01/08
Strontium	7440-24-6	LA-505-411		396	ug/L			1.00	4.0		07/01/08

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

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J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-005
Sample # W08P002499
Client ID: B1V975 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Inorganic
Sampled: 05/19/08
Received: 05/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		120	mg/L			1.00	1.0		05/28/08

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-005
Sample # W08P002500
Client ID: B1V977 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Inorganic
Sampled: 05/19/08
Received: 05/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
ICP Metals Analysis, Grd H20 P Prep											**06/30/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		43.7	ug/L			1.00	25		07/01/08
Magnesium	7439-95-4	LA-505-411		3.56e+04	ug/L			1.00	50		07/01/08
Manganese	7439-96-5	LA-505-411		255	ug/L			1.00	4.0		07/01/08
Nickel	7440-02-0	LA-505-411		6.20	ug/L			1.00	4.0		07/01/08
Potassium	7440-09-7	LA-505-411		9.86e+03	ug/L			1.00	1.7e+02		07/01/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		07/01/08
Sodium	7440-23-5	LA-505-411		1.56e+05	ug/L			1.00	51		07/01/08
Antimony	7440-36-0	LA-505-411	U	< 56.0	ug/L			1.00	56		07/01/08
Barium	7440-39-3	LA-505-411		190	ug/L			1.00	4.0		07/01/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Chromium	7440-47-3	LA-505-411		59.7	ug/L			1.00	13		07/01/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Copper	7440-50-8	LA-505-411	U	< 6.00	ug/L			1.00	6.0		07/01/08
Vanadium	7440-62-2	LA-505-411	U	< 12.0	ug/L			1.00	12		07/01/08
Zinc	7440-66-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		07/01/08
Calcium	7440-70-2	LA-505-411		1.02e+05	ug/L			1.00	73		07/01/08
Strontium	7440-24-6	LA-505-411		528	ug/L			1.00	4.0		07/01/08
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-005
Sample # W08P002501
Client ID: B1V978 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Inorganic
Sampled: 05/19/08
Received: 05/19/08

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	0.478	mg/L			3.00	0.063		05/20/08
Chloride	16887-00-6	LA-533-410	D	45.2	mg/L			3.00	0.33		05/20/08
Nitrogen in Nitrite	NO2-N	LA-533-410	BD	0.0854	mg/L			3.00	0.030		05/20/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	157	mg/L			51.00	1.8		05/20/08
Sulfate	14808-79-8	LA-533-410	D	77.0	mg/L			3.00	0.23		05/20/08
ICP Metals Analysis, Grd H20 P Prep											**06/30/08**
ICP Metals Analysis, Grd H20 P											
Iron	7439-89-6	LA-505-411		370	ug/L			1.00	25		07/01/08
Magnesium	7439-95-4	LA-505-411		3.63e+04	ug/L			1.00	50		07/01/08
Manganese	7439-96-5	LA-505-411		263	ug/L			1.00	4.0		07/01/08
Nickel	7440-02-0	LA-505-411		34.7	ug/L			1.00	4.0		07/01/08
Potassium	7440-09-7	LA-505-411		9.98e+03	ug/L			1.00	1.7e+02		07/01/08
Silver	7440-22-4	LA-505-411	U	< 5.00	ug/L			1.00	5.0		07/01/08
Sodium	7440-23-5	LA-505-411		1.57e+05	ug/L			1.00	51		07/01/08
Antimony	7440-36-0	LA-505-411	U	< 56.0	ug/L			1.00	56		07/01/08
Barium	7440-39-3	LA-505-411		194	ug/L			1.00	4.0		07/01/08
Cadmium	7440-43-9	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Chromium	7440-47-3	LA-505-411		120	ug/L			1.00	13		07/01/08
Cobalt	7440-48-4	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Copper	7440-50-8	LA-505-411	U	< 6.00	ug/L			1.00	6.0		07/01/08
Vanadium	7440-62-2	LA-505-411	U	< 12.0	ug/L			1.00	12		07/01/08
Zinc	7440-66-6	LA-505-411	U	< 9.00	ug/L			1.00	9.0		07/01/08
Calcium	7440-70-2	LA-505-411		1.03e+05	ug/L			1.00	73		07/01/08
Strontium	7440-24-6	LA-505-411		536	ug/L			1.00	4.0		07/01/08

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TP Err=Total Propagated Error
DF=Dilution Factor

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J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-005
Sample # W08P002501
Client ID: B1V978 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Inorganic
Sampled: 05/19/08
Received: 05/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
Beryllium	7440-41-7	LA-505-411	U	< 4.00	ug/L			1.00	4.0		07/01/08
Total Alkalinity as mg/L CaCO3											
Total Alkalinity as mg/L CaCO3	ALKALINITY	LA-531-411		130	mg/L			1.00	1.0		05/28/08

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

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J - Analyte < lowest calibration but > = MDL.(org)
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U - Analyzed for but not detected above limiting criteria(inorg)

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081021
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date: 05/19/08
Receive Date:05/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P002467											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Chloride	16887-00-6	6.7372		RPD			0.119	20.000		05/20/08
DUP	Fluoride	16984-48-8	8.34e-2		RPD			1.783	20.000		05/20/08
DUP	Nitrogen in Nitrite	NO2-N	<1.98e-2		RPD			n/a	20.000	U	05/20/08
DUP	Nitrogen in Nitrate	NO3-N	4.0017		RPD			0.633	20.000		05/20/08
DUP	Sulfate	14808-79-8	43.9304		RPD			0.261	20.000		05/20/08
MS	Chloride	16887-00-6	0.85325	85.754	% Recov	80.000	120.000				05/20/08
MS	Fluoride	16984-48-8	0.4771	96.775	% Recov	80.000	120.000				05/20/08
MS	Nitrogen in Nitrite	NO2-N	0.51535	104.746	% Recov	80.000	120.000				05/20/08
MS	Nitrogen in Nitrate	NO3-N	0.4159	93.251	% Recov	80.000	120.000				05/20/08
MS	Sulfate	14808-79-8	1.6957	86.515	% Recov	80.000	120.000				05/20/08
MSD	Chloride	16887-00-6	0.85315	85.744	% Recov	80.000	120.000				05/20/08
MSD	Fluoride	16984-48-8	0.47625	96.602	% Recov	80.000	120.000				05/20/08
MSD	Nitrogen in Nitrite	NO2-N	0.51815	105.315	% Recov	80.000	120.000				05/20/08
MSD	Nitrogen in Nitrate	NO3-N	0.41165	92.298	% Recov	80.000	120.000				05/20/08
MSD	Sulfate	14808-79-8	1.65405	84.390	% Recov	80.000	120.000				05/20/08
SPK-RPD	Chloride	16887-00-6	85.744		RPD			0.012	20.000		05/20/08
SPK-RPD	Fluoride	16984-48-8	96.602		RPD			0.179	20.000		05/20/08
SPK-RPD	Nitrogen in Nitrite	NO2-N	105.315		RPD			0.542	20.000		05/20/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	92.298		RPD			1.027	20.000		05/20/08
SPK-RPD	Sulfate	14808-79-8	84.390		RPD			2.487	20.000		05/20/08
BATCH QC											
BLANK	Chloride	16887-00-6	<0.22	n/a	mg/L	0.000	0.030			U	05/20/08
BLANK	Chloride	16887-00-6	<0.11	n/a	mg/L	0.000	0.030			U	05/20/08
BLANK	Fluoride	16984-48-8	<4.2e-2	n/a	mg/L	0.000	0.030			U	05/20/08
BLANK	Fluoride	16984-48-8	<2.1e-2	n/a	mg/L	0.000	0.030			U	05/20/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081021
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	<1.98e-2	n/a	mg/L	0.000	0.020			U	05/20/08
BLANK	Nitrogen in Nitrite	NO2-N	<9.9e-3	n/a	mg/L	0.000	0.020			U	05/20/08
BLANK	Nitrogen in Nitrate	NO3-N	<7.2e-2	n/a	mg/L	0.000	0.040			U	05/20/08
BLANK	Nitrogen in Nitrate	NO3-N	<3.6e-2	n/a	mg/L	0.000	0.040			U	05/20/08
BLANK	Sulfate	14808-79-8	<0.154	n/a	mg/L	0.000	0.200			U	05/20/08
BLANK	Sulfate	14808-79-8	<7.7e-2	n/a	mg/L	0.000	0.200			U	05/20/08
LCS	Chloride	16887-00-6	196.5301	97.776	% Recov	80.000	120.000				05/20/08
LCS	Fluoride	16984-48-8	95.8343	96.219	% Recov	80.000	120.000				05/20/08
LCS	Nitrogen in Nitrite	NO2-N	95.5666	96.143	% Recov	80.000	120.000				05/20/08
LCS	Nitrogen in Nitrate	NO3-N	91.5532	101.613	% Recov	80.000	120.000				05/20/08
LCS	Sulfate	14808-79-8	396.2875	100.073	% Recov	80.000	120.000				05/20/08

Lab ID: W08P002471
BATCH QC ASSOCIATED WITH SAMPLE

DUP	Chloride	16887-00-6	7.2308		RPD			0.697	20.000		05/20/08
DUP	Fluoride	16984-48-8	0.3108		RPD			2.416	20.000		05/20/08
DUP	Nitrogen in Nitrite	NO2-N	<1.98e-2		RPD			n/a	20.000	U	05/20/08
DUP	Nitrogen in Nitrate	NO3-N	4.1718		RPD			0.292	20.000		05/20/08
DUP	Sulfate	14808-79-8	40.3599		RPD			1.716	20.000		05/20/08
MS	Chloride	16887-00-6	1.07615	108.156	% Recov	80.000	120.000				05/20/08
MS	Fluoride	16984-48-8	0.51185	103.824	% Recov	80.000	120.000				05/20/08
MS	Nitrogen in Nitrite	NO2-N	0.4641	94.329	% Recov	80.000	120.000				05/20/08
MS	Nitrogen in Nitrate	NO3-N	0.4804	107.713	% Recov	80.000	120.000				05/20/08
MS	Sulfate	14808-79-8	2.1411	109.240	% Recov	80.000	120.000				05/20/08
MSD	Chloride	16887-00-6	1.07605	108.146	% Recov	80.000	120.000				05/20/08
MSD	Fluoride	16984-48-8	0.4881	99.006	% Recov	80.000	120.000				05/20/08
MSD	Nitrogen in Nitrite	NO2-N	0.462	93.902	% Recov	80.000	120.000				05/20/08
MSD	Nitrogen in Nitrate	NO3-N	0.44565	99.922	% Recov	80.000	120.000				05/20/08
MSD	Sulfate	14808-79-8	1.68055	85.742	% Recov	80.000	120.000				05/20/08
SPK-RPD	Chloride	16887-00-6	108.146		RPD			0.009	20.000		05/20/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081021
Matrix: WATER
Test: Anions by Ion Chromatography

Sample Date: 05/19/08
Receive Date:05/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Fluoride	16984-48-8	99.006		RPD			4.751	20.000		05/20/08
SPK-RPD	Nitrogen in Nitrite	NO2-N	93.902		RPD			0.454	20.000		05/20/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	99.922		RPD			7.505	20.000		05/20/08
SPK-RPD	Sulfate	14808-79-8	85.742		RPD			24.103	20.000 *		05/20/08
BATCH QC											
BLANK	Chloride	16887-00-6	<0.11	n/a	mg/L	0.000	0.030			U	05/20/08
BLANK	Chloride	16887-00-6	<0.11	n/a	mg/L	0.000	0.030			U	05/20/08
BLANK	Fluoride	16984-48-8	<2.1e-2	n/a	mg/L	0.000	0.030			U	05/20/08
BLANK	Fluoride	16984-48-8	<2.1e-2	n/a	mg/L	0.000	0.030			U	05/20/08
BLANK	Nitrogen in Nitrite	NO2-N	<9.9e-3	n/a	mg/L	0.000	0.020			U	05/20/08
BLANK	Nitrogen in Nitrite	NO2-N	<9.9e-3	n/a	mg/L	0.000	0.020			U	05/20/08
BLANK	Nitrogen in Nitrate	NO3-N	<3.6e-2	n/a	mg/L	0.000	0.040			U	05/20/08
BLANK	Nitrogen in Nitrate	NO3-N	<3.6e-2	n/a	mg/L	0.000	0.040			U	05/20/08
BLANK	Sulfate	14808-79-8	<7.7e-2	n/a	mg/L	0.000	0.200			U	05/20/08
BLANK	Sulfate	14808-79-8	<7.7e-2	n/a	mg/L	0.000	0.200			U	05/20/08
LCS	Chloride	16887-00-6	189.8197	94.438	% Recov	80.000	120.000				05/20/08
LCS	Fluoride	16984-48-8	100.7446	101.149	% Recov	80.000	120.000				05/20/08
LCS	Nitrogen in Nitrite	NO2-N	100.4553	101.062	% Recov	80.000	120.000				05/20/08
LCS	Nitrogen in Nitrate	NO3-N	93.6956	103.991	% Recov	80.000	120.000				05/20/08
LCS	Sulfate	14808-79-8	384.0845	96.991	% Recov	80.000	120.000				05/20/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081021
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 05/18/08
Receive Date:05/19/08

Lab ID: W08P002465
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	1013	101.300	% Recov	75.000	125.000				06/30/08
MS	Barium	7440-39-3	502.4	100.480	% Recov	75.000	125.000				06/30/08
MS	Beryllium	7440-41-7	519.7	103.940	% Recov	75.000	125.000				06/30/08
MS	Calcium	7440-70-2	850	85.000	% Recov	75.000	125.000				06/30/08
MS	Cadmium	7440-43-9	1000	100.000	% Recov	75.000	125.000				06/30/08
MS	Cobalt	7440-48-4	997.7	99.770	% Recov	75.000	125.000				06/30/08
MS	Chromium	7440-47-3	984.6	98.460	% Recov	75.000	125.000				06/30/08
MS	Copper	7440-50-8	1025	102.500	% Recov	75.000	125.000				06/30/08
MS	Iron	7439-89-6	1001.9	100.190	% Recov	75.000	125.000				06/30/08
MS	Potassium	7440-09-7	10570	105.700	% Recov	75.000	125.000				06/30/08
MS	Magnesium	7439-95-4	900	90.000	% Recov	75.000	125.000				06/30/08
MS	Manganese	7439-96-5	1005	100.500	% Recov	75.000	125.000				06/30/08
MS	Sodium	7440-23-5	1100	110.000	% Recov	75.000	125.000				06/30/08
MS	Nickel	7440-02-0	974.6	97.460	% Recov	75.000	125.000				06/30/08
MS	Antimony	7440-36-0	1038	103.800	% Recov	75.000	125.000				06/30/08
MS	Strontium	7440-24-6	523.2	104.640	% Recov	75.000	125.000				06/30/08
MS	Vanadium	7440-62-2	982	98.200	% Recov	75.000	125.000				06/30/08
MS	Zinc	7440-66-6	993.7	99.370	% Recov	75.000	125.000				06/30/08
MSD	Silver	7440-22-4	1011	101.100	% Recov	75.000	125.000				06/30/08
MSD	Barium	7440-39-3	500.8	100.160	% Recov	75.000	125.000				06/30/08
MSD	Beryllium	7440-41-7	519.1	103.820	% Recov	75.000	125.000				06/30/08
MSD	Calcium	7440-70-2	1950	195.000	% Recov	75.000	125.000				06/30/08
MSD	Cadmium	7440-43-9	994	99.400	% Recov	75.000	125.000				06/30/08
MSD	Cobalt	7440-48-4	999.3	99.930	% Recov	75.000	125.000				06/30/08
MSD	Chromium	7440-47-3	984.4	98.440	% Recov	75.000	125.000				06/30/08
MSD	Copper	7440-50-8	1024	102.400	% Recov	75.000	125.000				06/30/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081021
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 05/18/08
Receive Date:05/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Iron	7439-89-6	1004.9	100.490	% Recov	75.000	125.000				06/30/08
MSD	Potassium	7440-09-7	10540	105.400	% Recov	75.000	125.000				06/30/08
MSD	Magnesium	7439-95-4	1140	114.000	% Recov	75.000	125.000				06/30/08
MSD	Manganese	7439-96-5	1003	100.300	% Recov	75.000	125.000				06/30/08
MSD	Sodium	7440-23-5	1650	165.000	% Recov	75.000	125.000			•	06/30/08
MSD	Nickel	7440-02-0	968.8	96.880	% Recov	75.000	125.000				06/30/08
MSD	Antimony	7440-36-0	1039	103.900	% Recov	75.000	125.000				06/30/08
MSD	Strontium	7440-24-6	524.2	104.840	% Recov	75.000	125.000				06/30/08
MSD	Vanadium	7440-62-2	979.4	97.940	% Recov	75.000	125.000				06/30/08
MSD	Zinc	7440-66-6	984.7	98.470	% Recov	75.000	125.000				06/30/08
SPK-RPD	Silver	7440-22-4	101.100		RPD			0.198	20.000		06/30/08
SPK-RPD	Barium	7440-39-3	100.160		RPD			0.319	20.000		06/30/08
SPK-RPD	Beryllium	7440-41-7	103.820		RPD			0.116	20.000		06/30/08
SPK-RPD	Calcium	7440-70-2	195.000		RPD			78.571	20.000	•	06/30/08
SPK-RPD	Cadmium	7440-43-9	99.400		RPD			0.602	20.000		06/30/08
SPK-RPD	Cobalt	7440-48-4	99.930		RPD			0.160	20.000		06/30/08
SPK-RPD	Chromium	7440-47-3	98.440		RPD			0.020	20.000		06/30/08
SPK-RPD	Copper	7440-50-8	102.400		RPD			0.098	20.000		06/30/08
SPK-RPD	Iron	7439-89-6	100.490		RPD			0.299	20.000		06/30/08
SPK-RPD	Potassium	7440-09-7	105.400		RPD			0.284	20.000		06/30/08
SPK-RPD	Magnesium	7439-95-4	114.000		RPD			23.529	20.000	•	06/30/08
SPK-RPD	Manganese	7439-96-5	100.300		RPD			0.199	20.000		06/30/08
SPK-RPD	Sodium	7440-23-5	165.000		RPD			40.000	20.000	•	06/30/08
SPK-RPD	Nickel	7440-02-0	96.880		RPD			0.597	20.000		06/30/08
SPK-RPD	Antimony	7440-36-0	103.900		RPD			0.096	20.000		06/30/08
SPK-RPD	Strontium	7440-24-6	104.840		RPD			0.191	20.000		06/30/08
SPK-RPD	Vanadium	7440-62-2	97.940		RPD			0.265	20.000		06/30/08
SPK-RPD	Zinc	7440-66-6	98.470		RPD			0.910	20.000		06/30/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081021
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
BATCH QC											
BLANK	Silver	7440-22-4	<5	n/a	ug/L					U	06/30/08
BLANK	Barium	7440-39-3	<4	n/a	ug/L					U	06/30/08
BLANK	Beryllium	7440-41-7	<4	n/a	ug/L					U	06/30/08
BLANK	Calcium	7440-70-2	<34	n/a	ug/L					U	06/30/08
BLANK	Cadmium	7440-43-9	<4	n/a	ug/L					U	06/30/08
BLANK	Cobalt	7440-48-4	<4	n/a	ug/L					U	06/30/08
BLANK	Chromium	7440-47-3	<4	n/a	ug/L					U	06/30/08
BLANK	Copper	7440-50-8	<4	n/a	ug/L					U	06/30/08
BLANK	Iron	7439-89-6	<9	n/a	ug/L					U	06/30/08
BLANK	Potassium	7440-09-7	<45	n/a	ug/L					U	06/30/08
BLANK	Magnesium	7439-95-4	<6	n/a	ug/L					U	06/30/08
BLANK	Manganese	7439-96-5	<4	n/a	ug/L					U	06/30/08
BLANK	Sodium	7440-23-5	<27	n/a	ug/L					U	06/30/08
BLANK	Nickel	7440-02-0	<4	n/a	ug/L					U	06/30/08
BLANK	Antimony	7440-36-0	<32	n/a	ug/L					U	06/30/08
BLANK	Strontium	7440-24-6	<4	n/a	ug/L					U	06/30/08
BLANK	Vanadium	7440-62-2	<7	n/a	ug/L					U	06/30/08
BLANK	Zinc	7440-66-6	<4	n/a	ug/L					U	06/30/08
LCS	Silver	7440-22-4	1015	101.500	% Recov	80.000	120.000				06/30/08
LCS	Barium	7440-39-3	498	99.600	% Recov	80.000	120.000				06/30/08
LCS	Beryllium	7440-41-7	524	104.800	% Recov	80.000	120.000				06/30/08
LCS	Calcium	7440-70-2	1042	104.200	% Recov	80.000	120.000				06/30/08
LCS	Cadmium	7440-43-9	1014	101.400	% Recov	80.000	120.000				06/30/08
LCS	Cobalt	7440-48-4	1030	103.000	% Recov	80.000	120.000				06/30/08
LCS	Chromium	7440-47-3	1004	100.400	% Recov	80.000	120.000				06/30/08
LCS	Copper	7440-50-8	1039	103.900	% Recov	80.000	120.000				06/30/08
LCS	Iron	7439-89-6	998.6	99.860	% Recov	80.000	120.000				06/30/08
LCS	Potassium	7440-09-7	10530	105.300	% Recov	80.000	120.000				06/30/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081021
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	993.8	99.380	% Recov	80.000	120.000				06/30/08
LCS	Manganese	7439-96-5	1015	101.500	% Recov	80.000	120.000				06/30/08
LCS	Sodium	7440-23-5	1053	105.300	% Recov	80.000	120.000				06/30/08
LCS	Nickel	7440-02-0	1013	101.300	% Recov	80.000	120.000				06/30/08
LCS	Antimony	7440-36-0	1046	104.600	% Recov	80.000	120.000				06/30/08
LCS	Strontium	7440-24-6	513.5	102.700	% Recov	80.000	120.000				06/30/08
LCS	Vanadium	7440-62-2	989.4	98.940	% Recov	80.000	120.000				06/30/08
LCS	Zinc	7440-66-6	1008	100.800	% Recov	80.000	120.000				06/30/08

Lab ID: W08P002495
BATCH QC ASSOCIATED WITH SAMPLE

MS	Silver	7440-22-4	1016	101.600	% Recov	75.000	125.000				07/01/08
MS	Barium	7440-39-3	495.4	99.080	% Recov	75.000	125.000				07/01/08
MS	Beryllium	7440-41-7	525.7	105.140	% Recov	75.000	125.000				07/01/08
MS	Calcium	7440-70-2	1030	103.000	% Recov	75.000	125.000				07/01/08
MS	Cadmium	7440-43-9	1004	100.400	% Recov	75.000	125.000				07/01/08
MS	Cobalt	7440-48-4	1022	102.200	% Recov	75.000	125.000				07/01/08
MS	Chromium	7440-47-3	992.4	99.240	% Recov	75.000	125.000				07/01/08
MS	Copper	7440-50-8	998.3	99.830	% Recov	75.000	125.000				07/01/08
MS	Iron	7439-89-6	956.6	95.660	% Recov	75.000	125.000				07/01/08
MS	Potassium	7440-09-7	10303	103.030	% Recov	75.000	125.000				07/01/08
MS	Magnesium	7439-95-4	850	85.000	% Recov	75.000	125.000				07/01/08
MS	Manganese	7439-96-5	1013.5	101.350	% Recov	75.000	125.000				07/01/08
MS	Sodium	7440-23-5	720	72.000	% Recov	75.000	125.000				07/01/08
MS	Nickel	7440-02-0	992.1	99.210	% Recov	75.000	125.000				07/01/08
MS	Antimony	7440-36-0	1009	100.900	% Recov	75.000	125.000				07/01/08
MS	Strontium	7440-24-6	513.9	102.780	% Recov	75.000	125.000				07/01/08
MS	Vanadium	7440-62-2	977.5	97.750	% Recov	75.000	125.000				07/01/08
MS	Zinc	7440-66-6	988.7	98.870	% Recov	75.000	125.000				07/01/08
MSD	Silver	7440-22-4	1012	101.200	% Recov	75.000	125.000				07/01/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081021
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 05/19/08
Receive Date:05/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
MSD	Barium	7440-39-3	493.6	98.720	% Recov	75.000	125.000				07/01/08
MSD	Beryllium	7440-41-7	524.3	104.860	% Recov	75.000	125.000				07/01/08
MSD	Calcium	7440-70-2	790	79.000	% Recov	75.000	125.000				07/01/08
MSD	Cadmium	7440-43-9	1001	100.100	% Recov	75.000	125.000				07/01/08
MSD	Cobalt	7440-48-4	1019	101.900	% Recov	75.000	125.000				07/01/08
MSD	Chromium	7440-47-3	995.8	99.580	% Recov	75.000	125.000				07/01/08
MSD	Copper	7440-50-8	1000	100.000	% Recov	75.000	125.000				07/01/08
MSD	Iron	7439-89-6	965.6	96.560	% Recov	75.000	125.000				07/01/08
MSD	Potassium	7440-09-7	10293	102.930	% Recov	75.000	125.000				07/01/08
MSD	Magnesium	7439-95-4	850	85.000	% Recov	75.000	125.000				07/01/08
MSD	Manganese	7439-96-5	1010.5	101.050	% Recov	75.000	125.000				07/01/08
MSD	Sodium	7440-23-5	710	71.000	% Recov	75.000	125.000			•	07/01/08
MSD	Nickel	7440-02-0	998.1	99.810	% Recov	75.000	125.000				07/01/08
MSD	Antimony	7440-36-0	1028	102.800	% Recov	75.000	125.000				07/01/08
MSD	Strontium	7440-24-6	513.5	102.700	% Recov	75.000	125.000				07/01/08
MSD	Vanadium	7440-62-2	983.4	98.340	% Recov	75.000	125.000				07/01/08
MSD	Zinc	7440-66-6	988.7	98.870	% Recov	75.000	125.000				07/01/08
SPK-RPD	Silver	7440-22-4	101.200		RPD			0.394	20.000		07/01/08
SPK-RPD	Barium	7440-39-3	98.720		RPD			0.364	20.000		07/01/08
SPK-RPD	Beryllium	7440-41-7	104.860		RPD			0.267	20.000		07/01/08
SPK-RPD	Calcium	7440-70-2	79.000		RPD			26.374	20.000	•	07/01/08
SPK-RPD	Cadmium	7440-43-9	100.100		RPD			0.299	20.000		07/01/08
SPK-RPD	Cobalt	7440-48-4	101.900		RPD			0.294	20.000		07/01/08
SPK-RPD	Chromium	7440-47-3	99.580		RPD			0.342	20.000		07/01/08
SPK-RPD	Copper	7440-50-8	100.000		RPD			0.170	20.000		07/01/08
SPK-RPD	Iron	7439-89-6	96.560		RPD			0.936	20.000		07/01/08
SPK-RPD	Potassium	7440-09-7	102.930		RPD			0.097	20.000		07/01/08
SPK-RPD	Magnesium	7439-95-4	85.000		RPD			0.000	20.000		07/01/08
SPK-RPD	Manganese	7439-96-5	101.050		RPD			0.296	20.000		07/01/08
SPK-RPD	Sodium	7440-23-5	71.000		RPD			1.399	20.000		07/01/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081021
Matrix: WATER
Test: ICP Metals Analysis, Grd H20 P

Sample Date: 05/19/08
Receive Date:05/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SPK-RPD	Nickel	7440-02-0	99.810		RPD			0.603	20.000		07/01/08
SPK-RPD	Antimony	7440-36-0	102.800		RPD			1.865	20.000		07/01/08
SPK-RPD	Strontium	7440-24-6	102.700		RPD			0.078	20.000		07/01/08
SPK-RPD	Vanadium	7440-62-2	98.340		RPD			0.602	20.000		07/01/08
SPK-RPD	Zinc	7440-66-6	98.870		RPD			0.000	20.000		07/01/08

BATCH QC

BLANK	Silver	7440-22-4	<5	n/a	ug/L					U	07/01/08
BLANK	Barium	7440-39-3	<4	n/a	ug/L					U	07/01/08
BLANK	Beryllium	7440-41-7	<4	n/a	ug/L					U	07/01/08
BLANK	Calcium	7440-70-2	<73	n/a	ug/L					U	07/01/08
BLANK	Cadmium	7440-43-9	<4	n/a	ug/L					U	07/01/08
BLANK	Cobalt	7440-48-4	<4	n/a	ug/L					U	07/01/08
BLANK	Chromium	7440-47-3	<13	n/a	ug/L					U	07/01/08
BLANK	Copper	7440-50-8	<6	n/a	ug/L					U	07/01/08
BLANK	Iron	7439-89-6	<25	n/a	ug/L					U	07/01/08
BLANK	Potassium	7440-09-7	<170	n/a	ug/L					U	07/01/08
BLANK	Magnesium	7439-95-4	<50	n/a	ug/L					U	07/01/08
BLANK	Manganese	7439-96-5	<4	n/a	ug/L					U	07/01/08
BLANK	Sodium	7440-23-5	<51	n/a	ug/L					U	07/01/08
BLANK	Nickel	7440-02-0	<4	n/a	ug/L					U	07/01/08
BLANK	Antimony	7440-36-0	<56	n/a	ug/L					U	07/01/08
BLANK	Strontium	7440-24-6	<4	n/a	ug/L					U	07/01/08
BLANK	Vanadium	7440-62-2	<12	n/a	ug/L					U	07/01/08
BLANK	Zinc	7440-66-6	<9	n/a	ug/L					U	07/01/08
LCS	Silver	7440-22-4	1017	101.700	% Recov	80.000	120.000				07/01/08
LCS	Barium	7440-39-3	487.1	97.420	% Recov	80.000	120.000				07/01/08
LCS	Beryllium	7440-41-7	532.6	106.520	% Recov	80.000	120.000				07/01/08
LCS	Calcium	7440-70-2	1102	110.200	% Recov	80.000	120.000				07/01/08
LCS	Cadmium	7440-43-9	1028	102.800	% Recov	80.000	120.000				07/01/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081021
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	Cobalt	7440-48-4	1073	107.300	% Recov	80.000	120.000				07/01/08
LCS	Chromium	7440-47-3	1024	102.400	% Recov	80.000	120.000				07/01/08
LCS	Copper	7440-50-8	1013	101.300	% Recov	80.000	120.000				07/01/08
LCS	Iron	7439-89-6	981.5	98.150	% Recov	80.000	120.000				07/01/08
LCS	Potassium	7440-09-7	10630	106.300	% Recov	80.000	120.000				07/01/08
LCS	Magnesium	7439-95-4	970.4	97.040	% Recov	80.000	120.000				07/01/08
LCS	Manganese	7439-96-5	1026	102.600	% Recov	80.000	120.000				07/01/08
LCS	Sodium	7440-23-5	1044	104.400	% Recov	80.000	120.000				07/01/08
LCS	Nickel	7440-02-0	1033	103.300	% Recov	80.000	120.000				07/01/08
LCS	Antimony	7440-36-0	1041	104.100	% Recov	80.000	120.000				07/01/08
LCS	Strontium	7440-24-6	507.4	101.480	% Recov	80.000	120.000				07/01/08
LCS	Vanadium	7440-62-2	986.8	98.680	% Recov	80.000	120.000				07/01/08
LCS	Zinc	7440-66-6	997	99.700	% Recov	80.000	120.000				07/01/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20081021
Matrix: WATER
Test: Total Alkalinity as mg/L CaCO3

Sample Date: 05/16/08
Receive Date:05/16/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P002403											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Total Alkalinity as mg/L CaCO3	ALKALINITY	99.0		RPD			0.000	20.000		05/28/08
BATCH QC											
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	114.8	99.826	%Recove	80.000	120.000				05/28/08
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	115.0	100.000	%Recove	80.000	120.000				05/28/08
LCS	Total Alkalinity as mg/L CaCO3	ALKALINITY	123.5	107.391	%Recove	80.000	120.000				05/28/08

WSCF
ANALYTICAL COMMENT REPORT

Attention: Steve Trent E6-35

Group #: WSCF20081021
Department: Inorganic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		ICP-AES: [Sample W08P2494] No zirconium present in the LCS. Sodium, magnesium, and calcium sample results exceed spiking level by a factor of 4 so spike recoveries are not valid. Check standard is used to ensure calcium, sodium, and magnesium linearity because sample results are greater than the calibration standard. ICP-AES: [Samples W08P2495-2501] No zirconium present in the LCS. Sodium, magnesium, and calcium sample results exceed spiking level by a factor of 4 so spike recoveries are not valid. High and check standards are used to ensure calcium, sodium, and magnesium linearity because sample results are greater than the calibration standard.

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

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-004
Sample # W08P002493
Client ID: B1V380 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Organic
Sampled: 05/19/08
Received: 05/19/08

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		05/29/08
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		05/29/08
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		05/29/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08

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

B - The analyte < the RDL but >= the IDL/MDL (inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-004
Sample # W08P002493
Client ID: B1V380 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Organic
Sampled: 05/19/08
Received: 05/19/08

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		05/29/08
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
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U - Analyzed for but not detected above limiting criteria(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-038
Sample # W08P002495
Client ID: B1V6J1 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Organic
Sampled: 05/19/08
Received: 05/19/08

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		05/29/08
Trichloroethene	79-01-6	LA-523-455		7.20	ug/L			1.00	1.0		05/29/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Carbon tetrachloride	56-23-5	LA-523-455		1.40e+03	ug/L			1.00	10		06/02/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Chloroform	67-66-3	LA-523-455		17.0	ug/L			1.00	1.0		05/29/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Methylenechloride	75-09-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		05/29/08
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		05/29/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-038
Sample # W08P002495
Client ID: B1V6J1 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Organic
Sampled: 05/19/08
Received: 05/19/08

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		05/29/08
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-038
Sample # W08P002497
Client ID: B1V6J5 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Organic
Sampled: 05/19/08
Received: 05/19/08

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		05/29/08
Trichloroethene	79-01-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Benzene	71-43-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Toluene	108-88-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Chlorobenzene	108-90-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
1,1-Dichloroethane	75-34-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Ethylbenzene	100-41-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
1,2-Dichloroethane	107-06-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
4-Methyl-2-Pentanone	108-10-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Tetrachloroethene	127-18-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Xylenes (total)	1330-20-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Carbon tetrachloride	56-23-5	LA-523-455	J	1.20	ug/L			1.00	1.0		05/29/08
Acetone	67-64-1	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Chloroform	67-66-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
1,1,1-Trichloroethane	71-55-6	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Vinyl chloride	75-01-4	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
Methylenechloride	75-09-2	LA-523-455	J	1.10	ug/L			1.00	1.0		05/29/08
Carbon disulfide	75-15-0	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
2-Butanone	78-93-3	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
1,1,2-Trichloroethane	79-00-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
1-Butanol	71-36-3	LA-523-455	U	< 100	ug/L			1.00	1.0e+02		05/29/08
Tetrahydrofuran	109-99-9	LA-523-455	U	< 2.00	ug/L			1.00	2.0		05/29/08
trans-1,2-Dichloroethylene	156-60-5	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08
cis-1,2-Dichloroethylene	156-59-2	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-038
Sample # W08P002497
Client ID: B1V6J5 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Organic
Sampled: 05/19/08
Received: 05/19/08

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		05/29/08
1,4-Dichlorobenzene	106-46-7	LA-523-455	U	< 1.00	ug/L			1.00	1.0		05/29/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081021
Matrix: WATER
Test: VOA Ground Water Protection

Sample Date: 05/19/08
Receive Date:05/19/08

Lab ID: W08P002493
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	27.420	110.000	% Recov	63.000	117.000				05/29/08
MS	Benzene	71-43-2	24.050	96.200	% Recov	75.000	129.000				05/29/08
MS	4-Bromofluorobenzene(Surr)	460-00-4	53.580	107.000	% Recov	75.000	125.000				05/29/08
MS	Chlorobenzene	108-90-7	25.810	103.000	% Recov	79.000	119.000				05/29/08
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	56.780	114.000	% Recov	75.000	125.000				05/29/08
MS	Toluene-d8(Surr)	2037-26-5	50.840	102.000	% Recov	75.000	125.000				05/29/08
MS	Toluene	108-88-3	24.740	99.000	% Recov	76.000	120.000				05/29/08
MS	Trichloroethene	79-01-6	22.000	88.000	% Recov	73.000	123.000				05/29/08
MSD	1,1-Dichloroethene	75-35-4	26.720	107.000	% Recov	63.000	117.000				05/29/08
MSD	Benzene	71-43-2	24.670	98.700	% Recov	75.000	129.000				05/29/08
MSD	4-Bromofluorobenzene(Surr)	460-00-4	53.650	107.000	% Recov	75.000	125.000				05/29/08
MSD	Chlorobenzene	108-90-7	26.100	104.000	% Recov	79.000	119.000				05/29/08
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	57.900	116.000	% Recov	75.000	125.000				05/29/08
MSD	Toluene-d8(Surr)	2037-26-5	51.430	103.000	% Recov	75.000	125.000				05/29/08
MSD	Toluene	108-88-3	25.680	103.000	% Recov	76.000	120.000				05/29/08
MSD	Trichloroethene	79-01-6	22.140	88.600	% Recov	73.000	123.000				05/29/08
SPK-RPD	1,1-Dichloroethene	75-35-4	107.000		RPD			2.765	20.000		05/29/08
SPK-RPD	Benzene	71-43-2	98.700		RPD			2.565	20.000		05/29/08
SPK-RPD	Chlorobenzene	108-90-7	104.000		RPD			0.966	20.000		05/29/08
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	116.000		RPD			1.739	20.000		05/29/08
SPK-RPD	Toluene-d8(Surr)	2037-26-5	103.000		RPD			0.976	20.000		05/29/08
SPK-RPD	Toluene	108-88-3	103.000		RPD			3.960	20.000		05/29/08
SPK-RPD	Trichloroethene	79-01-6	88.600		RPD			0.680	20.000		05/29/08
SURR	4-Bromofluorobenzene(Surr)	460-00-4	53.820	108.000	% Recov	75.000	125.000				05/29/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	57.020	114.000	% Recov	75.000	125.000				05/29/08
SURR	Toluene-d8(Surr)	2037-26-5	51.740	103.000	% Recov	75.000	125.000				05/29/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081021
Matrix: WATER
Test: VOA Ground Water Protection

Sample Date: 05/19/08
Receive Date:05/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P002495											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	53.030	106.000	% Recov	75.000	125.000				05/29/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	58.170	116.000	% Recov	75.000	125.000				05/29/08
SURR	Toluene-d8(Surr)	2037-26-5	51.320	103.000	% Recov	75.000	125.000				05/29/08
Lab ID: W08P002497											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	53.880	108.000	% Recov	75.000	125.000				05/29/08
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	56.940	114.000	% Recov	75.000	125.000				05/29/08
SURR	Toluene-d8(Surr)	2037-26-5	51.610	103.000	% Recov	75.000	125.000				05/29/08
BATCH QC											
BLANK	1,1-Dichloroethane	75-34-3	< 1.0	n/a	ug/L					U	05/29/08
BLANK	1,1,1-Trichloroethane	71-55-6	< 1.0	n/a	ug/L					U	05/29/08
BLANK	1,1,2-Trichloroethane	79-00-5	< 1.0	n/a	ug/L					U	05/29/08
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/L					U	05/29/08
BLANK	1,2-Dichloroethane	107-06-2	< 1.0	n/a	ug/L					U	05/29/08
BLANK	1,4-Dichlorobenzene	106-46-7	< 1.0	n/a	ug/L					U	05/29/08
BLANK	1-Butanol	71-36-3	< 100	n/a	ug/L					U	05/29/08
BLANK	4-Methyl-2-Pentanone	108-10-1	< 1.0	n/a	ug/L					U	05/29/08
BLANK	Acetone	67-64-1	< 1.0	n/a	ug/L					U	05/29/08
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/L					U	05/29/08
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	54.330	109.000	% Recov	75.000	125.000				05/29/08
BLANK	Carbon disulfide	75-15-0	< 1.0	n/a	ug/L					U	05/29/08
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/L					U	05/29/08
BLANK	Chloroform	67-66-3	< 1.0	n/a	ug/L					U	05/29/08
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/L					U	05/29/08
BLANK	cis-1,2-Dichloroethylene	156-59-2	< 1.0	n/a	ug/L					U	05/29/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20081021
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	1,2-Dichloroethane-d4(Surr)	17060-07-0	57.820	116.000	% Recov	75.000	125.000				05/29/08
BLANK	trans-1,2-Dichloroethylene	156-60-5	< 1.0	n/a	ug/L					U	05/29/08
BLANK	Ethylbenzene	100-41-4	< 1.0	n/a	ug/L					U	05/29/08
BLANK	Ethyl cyanide	107-12-0	< 2.0	n/a	ug/L					U	05/29/08
BLANK	2-Butanone	78-93-3	< 1.0	n/a	ug/L					U	05/29/08
BLANK	Methylenechloride	75-09-2	< 1.0	n/a	ug/L					U	05/29/08
BLANK	Tetrachloroethene	127-18-4	< 1.0	n/a	ug/L					U	05/29/08
BLANK	Xylenes (total)	1330-20-7	< 1.0	n/a	ug/L	0.000	5.000			U	05/29/08
BLANK	Tetrahydrofuran	109-99-9	< 2.0	n/a	ug/L					U	05/29/08
BLANK	Toluene-d8(Surr)	2037-26-5	51.160	102.000	% Recov	75.000	125.000				05/29/08
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/L					U	05/29/08
BLANK	Trichloroethene	79-01-6	< 1.0	n/a	ug/L					U	05/29/08
BLANK	Vinyl chloride	75-01-4	< 1.0	n/a	ug/L					U	05/29/08
LCS	1,1-Dichloroethene	75-35-4	23.950	95.800	% Recov	75.000	125.000				05/29/08
LCS	Benzene	71-43-2	25.000	100.000	% Recov	75.000	125.000				05/29/08
LCS	4-Bromofluorobenzene(Surr)	460-00-4	53.180	106.000	% Recov	75.000	125.000				05/29/08
LCS	Chlorobenzene	108-90-7	26.150	105.000	% Recov	75.000	125.000				05/29/08
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	58.400	117.000	% Recov	75.000	125.000				05/29/08
LCS	Toluene-d8(Surr)	2037-26-5	51.560	103.000	% Recov	75.000	125.000				05/29/08
LCS	Toluene	108-88-3	25.300	101.000	% Recov	75.000	125.000				05/29/08
LCS	Trichloroethene	79-01-6	21.360	85.400	% Recov	75.000	125.000				05/29/08

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-038
Sample # W08P002495
Client ID: B1V6J1 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Radiochemistry
Sampled: 05/19/08
Received: 05/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421	U	0.800	pCi/L	+-3.52	pCi/L	1.00	5.9		05/30/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	140	pCi/L	+-139	pCi/L	1.00	2.0e+02		06/13/08

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

B - The analyte < the RDL but >= the IDL/MDL (inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)

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

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: I08-038
Sample # W08P002497
Client ID: B1V6J5 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Radiochemistry
Sampled: 05/19/08
Received: 05/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421	U	1.20	pCi/L	+-3.50	pCi/L	1.00	5.9		05/30/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421	U	92.0	pCi/L	+-131	pCi/L	1.00	2.0e+02		06/13/08

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

B - The analyte < the RDL but >= the IDL/MDL (inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

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WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-005
Sample # W08P002499
Client ID: B1V975 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Radiochemistry
Sampled: 05/19/08
Received: 05/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421		2.00e+03	pCi/L	+-400	pCi/L	1.00	5.9		05/30/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		6.40e+03	pCi/L	+-1.28e+03	pCi/L	1.00	2.0e+02		06/13/08

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

B - The analyte < the RDL but > = the IDL/MDL (inorg)
J - Analyte < lowest calibration but > = MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)
D - Analyte was identified at a secondary dilution factor(inorg)
U - Analyzed for but not detected above limiting criteria(inorg)

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

WSCF
ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35
SAF Number: W08-005
Sample # W08P002501
Client ID: B1V978 GPP-PNNL WSCF TRENT **Matrix:** WATER

Group #: WSCF20081021
Department: Radiochemistry
Sampled: 05/19/08
Received: 05/19/08

Test Performed	CAS #	Method	RQ	Result	Unit	TP Err	Unit	DF	MDL	PQL	Analysis Date
TC99 by Liquid Scin.											
Tc-99 by Liquid Scin.	14133-76-7	LA-508-421		390	pCi/L	+-78.0	pCi/L	1.00	5.9		05/30/08
Tritium by Liq Sct column prep											
Tritium	10028-17-8	LA-508-421		6.40e+03	pCi/L	+-1.28e+03	pCi/L	1.00	2.0e+02		06/13/08

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

B - The analyte < the RDL but >= the IDL/MDL (inorg)
J - Analyte < lowest calibration but >= MDL.(org)
U - Analyzed for but not detected above limiting criteria.(org)

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

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

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Radiochemistry

SDG Number: WSCF20081021
Matrix: WATER
Test: TC99 by Liquid Scin.

Sample Date: 05/18/08
Receive Date:05/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P002463											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tc-99 by Liquid Scin.	14133-76-7	7.3E+02		RPD			6.623	20.000		05/30/08
MS	Tc-99 by Liquid Scin.	14133-76-7	807.4	107.331	% Recov	75.000	125.000				05/30/08
BATCH QC											
BLANK	Tc-99 by Liquid Scin.	14133-76-7	U0.4	n/a	pCi/L	-10.000	10.000				05/30/08
LCS	Tc-99 by Liquid Scin.	14133-76-7	199.1	105.848	% Recov	80.000	120.000				05/30/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Radiochemistry**

SDG Number: WSCF20081021
Matrix: WATER
Test: Tritium by Liq Sct column prep

Sample Date: 05/18/08
Receive Date:05/19/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P002464											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Tritium	10028-17-8	4.8E+03		RPD			4.082	20.000		06/13/08
MS	Tritium	10028-17-8	24410	94.020	% Recov	75.000	125.000				06/13/08
BATCH QC											
BLANK	Tritium	10028-17-8	U1.4	n/a	pCi/L	-10.000	1000.000				06/13/08
LCS	Tritium	10028-17-8	3370.0	97.925	% Recov	80.000	120.000				06/13/08

M4W41-SLF-08-661

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 7 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
7/2/08

ACKNOWLEDGMENT OF SAMPLES RECEIVED

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20081021

The following samples were received from you on 05/19/08. They have been scheduled for the tests listed beside each sample. If this information is incorrect, please contact your service representative. Thank you for using Waste Sampling and Characterization Facility.

Sample#	Sample Id	Tests Scheduled	Matrix	Sample Date
W08P002493	B1V380	GPP-PNNL TRENT @VOA-GPP	Water	05/19/0
W08P002494	B1V6J0	GPP-PNNL TRENT @GPP6010	Water	05/19/0
W08P002495	B1V6J1	GPP-PNNL TRENT @GPP6010 @H3-33 @IC-30 @TC99-30 @VOA-GPP	Water	05/19/0
W08P002496	B1V6J4	GPP-PNNL TRENT @GPP6010	Water	05/19/0
W08P002497	B1V6J5	GPP-PNNL TRENT @GPP6010 @H3-33 @IC-30 @TC99-30 @VOA-GPP	Water	05/19/0
W08P002498	B1V974	GPP-PNNL TRENT @GPP6010	Water	05/19/0
W08P002499	B1V975	GPP-PNNL TRENT @GPP6010 @H3-33 @IC-30 @TC99-30 ALKALI	Water	05/19/0
W08P002500	B1V977	GPP-PNNL TRENT @GPP6010	Water	05/19/0
W08P002501	B1V978	GPP-PNNL TRENT @GPP6010 @H3-33 @IC-30 @TC99-30 ALKALI	Water	05/19/0

Test Acronym Description

Test Acronym	Description
@GPP6010	ICP Metals Analysis, Grd H20 P
@H3-33	Tritium by Liq Sct column prep
@IC-30	Anions by Ion Chromatography
@TC99-30	TC99 by Liquid Scin.
@VOA-GPP	VOA Ground Water Protection
ALKALI	Total Alkalinity as mg/L CaCO3

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

W08-004-189

Collector RM Arnold	Contact/Requester Steve Trent	Telephone No. 509-373-5869 MSIN FAX
SAF No. W08-004	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title RCRA, APRIL 2008	HNF-W-506-	Ice Chest No. 6WS-009 Temp.
Shipped To (Lab) Waste Sampling & Characterization	Method of Shipment Govt. Vehicle	Bill of Lading/Air Bill No.
Protocol RCRA 20081021	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
Site-Wide Generator Knowledge Information Form applies.

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1V380 WO 8P0025		W	5-19-08	1151	4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C
B1V380		W	↓	↓	1x20-mL P	Activity Scan	None

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
RM Arnold			1455 MAY 19 2008	Victor Bins			1455 MAY 19 2008
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

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

108-038-46

Collector RM Arnold	Contact/Requester Steve Trent	Telephone No. 509-373-5869 MSIN FAX
SAF No. 108-038	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 2ZPL MAY 2008	HNF-N-506-15	Ice Chest No. 6WS 009 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
" "

SPECIAL INSTRUCTIONS Hold Time
200 Area Generator Knowledge Information Form applies.

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1V6J0 (F)	W08P002494	W	5-19-08	1151	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1V6J1	2495	W			4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C
B1V6J1		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1V6J1		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1V6J1		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1V6J1		W			1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
RM Arnold			14:55 MAY 19 2008				14:55 MAY 19 2008
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

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

108-038-47

Collector R. ARNOLD	Contact/Requester Steve Trent	Telephone No. 509-373-5869 MSIN FAX
SAF No. 108-038	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title 2ZP1, MAY 2008	HNF-N-506-15	Ice Chest No. 6WS-009 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
200 Area Generator Knowledge Information Form applies.

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1V6J4 (F)	W0&P0)2496	W	5-19-08	0915	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1V6J5	2497	W			4x40-mL aGs*	8260_VOA_GCMS: List-2 (25)	HCl or H2SO4 to pH <2 Cool~4C
B1V6J5		W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1V6J5		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1V6J5		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2
B1V6J5		W			1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None

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Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
R. ARNOLD			MAY 19 2008 1455				MAY 19 2008 1455
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

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

W08-005-212

Collector FM Arnold	**Contact/Requester** Steve Trent	**Telephone No.** 509-373-5869 **MSIN** **FAX**
SAF No. W08-005	**Sampling Origin** Hanford Site	**Purchase Order/Charge Code**
Project Title RCRA MAY 2008	HNF-N506-15	**Ice Chest No.** GWS-009 **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 ☐
Site-Wide Generator Knowledge Information Form applies.

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1V974 (F)	W08002498 5-19-08	W	5-19-08	1310	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1V975	W08002499	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1V975		W			1x250-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1V975		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1V975		W			1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None
B1V975		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2

ICED

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
FM Arnold			14:55 MAY 19 2008		Victor Bins		14:55 MAY 19 2008
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 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

FLUOR HANFORD

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

W08-005-216

Collector RM Arnold	Contact/Requester Steve Trent	Telephone No. 509-373-5869 MSIN FAX
SAF No. W08-005	Sampling Origin Hanford Site	Purchase Order/Charge Code
Project Title RCRA, MAY 2008	HNF-N-506-15	Ice Chest No. 6WS-009 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
Site-Wide Generator Knowledge Information Form applies.

Total Activity Exemption: Yes ☑ No ☐

Sample No.	Lab ID	*	Date	Time	No/Type Container	Sample Analysis	Preservative
B1V977 (F)	W0400250J	W	5-19-08	1432	1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1V978	2501	W			1x500-mL G/P	6010_METALS_ICP: List-3 (18)	HNO3 to pH <2
B1V978		W			1x250-mL G/P	2320_ALKALINITY: Alkalinity (1)	Cool~4C
B1V978		W			1x500-mL P	300.0_ANIONS_IC: List-1 (5)	Cool~4C
B1V978		W			1x250-mL G	TRITIUM_EIE_LSC: Tritium (1)	None
B1V978		W			1x1000-mL G/P	TC99_3MDSK_LSC: Tc-99 (1)	HCl to pH <2

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Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time
RM Arnold	RMArnold		MAY 19 2008 1450				MAY 19 2008 1455
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
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FINAL SAMPLE DISPOSITION Disposal Method (e.g., Return to customer, per lab procedure, used in process) Disposed By Date/Time

0900