

RECEIVED AUGUST 11, 2008

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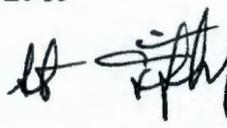
Fluor Hanford
WSCF Analytical Lab
P.O. Box 1000
Richland, WA 99352
Telephone 373-7495
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FLUOR

Memorandum

M4W41-SLF-08-805

To: H. Hampt E6-35 Date: August 11, 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 WSCF20081386

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 WSCF20081386:

- 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#: WSCF20081386
Data Deliverable Date: 21-aug-2008
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
I08-039	B1V6V3	W08P003387	WATER

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ATTACHMENT 2

NARRATIVE

**Consisting of 2 pages
Including cover page**

Introduction

One groundwater sample was received at the WSCF Laboratory on July 9, 2008. Sample was 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*, page 9, for a complete listing of approved analytical methods.

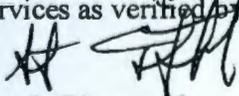
Inorganic Comments

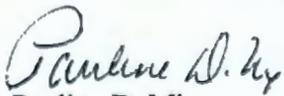
Anions – Hold time requirements for this analysis were met. A Duplicate, Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group per GRP Letter of Instruction. See pages 11 through 12 for QC details. Analytical Note(s):

- Duplicate, Matrix Spike and Matrix Spike Duplicate were analyzed on sample# B1W3B5 (SDG# 20081385).
- Sample results were D flagged if dilution(s) were required.
- Sample results that were less than the reportable limit, however greater than the method detection limit were B flagged.

All QC controls are within the established limits.

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

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ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 7 pages
Including cover page

**WSCF
ANALYTICAL RESULTS REPORT**

for

**GPAP
Richland, WA 99352**

Attention: Steve Trent E6-35

Analytical:

S. Fitzgerald 8-11-08

Client Services:

P.D. May 8/7/2008

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#: WSCF20081386
Report Date: 7-aug-2008
Report WGPP/ver. 5.2
GPAP

Page 1

Department: Inorganic

W13q Worklist/Batch/QC Report for Group# WSCF20081386

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
37047	2	37484	41846	BLANK		Anions by Ion Chromatography
37047	13	37484	41846	BLANK		Anions by Ion Chromatography
37047	3	37484	41846	LCS		Anions by Ion Chromatography
37047	5	37484	41846	DUP	W08P003386	Anions by Ion Chromatography
37047	6	37484	41846	MS	W08P003386	Anions by Ion Chromatography
37047	7	37484	41846	MSD	W08P003386	Anions by Ion Chromatography
37047	7	37484	41846	SPK-RPD	W08P003386	Anions by Ion Chromatography
37047	11	37484	41846	SAMPLE	W08P003387	Anions by Ion Chromatography

WSCF METHOD REFERENCES REPORT

Department: Inorganic

The results provided in this report were generated using the following WSCF Laboratory procedures. For your convenience, this table provides a listing of the regulatory or industry methods that are referenced by each of these WSCF procedures. Please note that the most recent version of the regulatory or industry method is listed here even though the WSCF procedure may reference an older version of the method. Also, a reference to a regulatory or industry method here does not necessarily indicate a verbatim implementation of that method.

LA-533-410	LA-533-410: ANION ANALYSIS BY ION CHROMATOGRAPHY
EPA-600/R-94-111 300.0	DETERMINATION OF INORGANIC ANIONS BY ION CHROMATOGRAPHY
HEIS 300.0_ANIONS_IC	Determination of Inorganic Anions by Ion Chromatography

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

Report Date: 7-aug-2008
Report#: WSCF20081386
Report WGPPM/5.2

WSCF

ANALYTICAL RESULTS REPORT

Attention: Steve Trent E6-35

SAF Number: I08-039

Sample # W08P003387

Client ID: B1V6V3

GPP-PNNL TRENT
WSCF

Matrix: WATER

Group #: WSCF20081386

Department: Inorganic

Sampled: 07/09/08

Received: 07/09/08

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	0.246	mg/L			2.00	0.042		07/09/08
Chloride	16887-00-6	LA-533-410	D	15.4	mg/L			2.00	0.22		07/09/08
Nitrogen in Nitrite	NO2-N	LA-533-410	BD	0.0660	mg/L			2.00	0.020		07/09/08
Nitrogen in Nitrate	NO3-N	LA-533-410	D	7.10	mg/L			2.00	0.072		07/09/08
Sulfate	14808-79-8	LA-533-410	D	203	mg/L			10.00	0.77		07/09/08

MDL=Minimum Detection Limit

B - The analyte < the RDL but > = the IDL/MDL (inorg)

D - Analyte was identified at a secondary dilution factor(inorg)

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

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

Report WGPP/ver. 5.2

GPAP

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WSCF ANALYTICAL LABORATORY QC REPORT

Department: Inorganic

SDG Number: WSCF20081386
 Matrix: WATER
 Test: Anions by Ion Chromatography

Sample Date: 07/09/08
 Receive Date: 07/09/08

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W08P003386											
BATCH QC ASSOCIATED WITH SAMPLE											
DUP	Chloride	16887-00-6	13.771		RPD			0.085	20.000		07/09/08
DUP	Fluoride	16984-48-8	<4.2e-2		RPD			n/a	20.000	U	07/09/08
DUP	Nitrogen in Nitrite	NO2-N	<1.98e-2		RPD			n/a	20.000	U	07/09/08
DUP	Nitrogen in Nitrate	NO3-N	8.2589		RPD			0.521	20.000		07/09/08
DUP	Sulfate	14808-79-8	88.1651		RPD			0.220	20.000		07/09/08
MS	Chloride	16887-00-6	0.90025	90.477	% Recov	80.000	120.000				07/09/08
MS	Fluoride	16984-48-8	0.58535	118.732	% Recov	80.000	120.000				07/09/08
MS	Nitrogen in Nitrite	NO2-N	0.5084	103.333	% Recov	80.000	120.000				07/09/08
MS	Nitrogen in Nitrate	NO3-N	0.4136	92.735	% Recov	80.000	120.000				07/09/08
MS	Sulfate	14808-79-8	1.87955	95.895	% Recov	80.000	120.000				07/09/08
MSD	Chloride	16887-00-6	0.8869	89.136	% Recov	80.000	120.000				07/09/08
MSD	Fluoride	16984-48-8	0.56035	113.661	% Recov	80.000	120.000				07/09/08
MSD	Nitrogen in Nitrite	NO2-N	0.5143	104.533	% Recov	80.000	120.000				07/09/08
MSD	Nitrogen in Nitrate	NO3-N	0.4095	91.816	% Recov	80.000	120.000				07/09/08
MSD	Sulfate	14808-79-8	1.85755	94.773	% Recov	80.000	120.000				07/09/08
SPK-RPD	Chloride	16887-00-6	89.136		RPD			1.493	20.000		07/10/08
SPK-RPD	Fluoride	16984-48-8	113.661		RPD			4.364	20.000		07/10/08
SPK-RPD	Nitrogen in Nitrite	NO2-N	104.533		RPD			1.155	20.000		07/10/08
SPK-RPD	Nitrogen in Nitrate	NO3-N	91.816		RPD			0.996	20.000		07/10/08
SPK-RPD	Sulfate	14808-79-8	94.773		RPD			1.177	20.000		07/10/08
BATCH QC											
BLANK	Chloride	16887-00-6	<0.11	n/a	mg/L	0.000	0.030			U	07/09/08
BLANK	Chloride	16887-00-6	<0.11	n/a	mg/L	0.000	0.030			U	07/09/08
BLANK	Fluoride	16984-48-8	<2.1e-2	n/a	mg/L	0.000	0.030			U	07/09/08
BLANK	Fluoride	16984-48-8	<2.1e-2	n/a	mg/L	0.000	0.030			U	07/09/08

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Inorganic**

SDG Number: WSCF20081386
 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	<9.9e-3	n/a	mg/L	0.000	0.020			U	07/09/08
BLANK	Nitrogen in Nitrite	NO2-N	<9.9e-3	n/a	mg/L	0.000	0.020			U	07/09/08
BLANK	Nitrogen in Nitrate	NO3-N	<3.6e-2	n/a	mg/L	0.000	0.040			U	07/09/08
BLANK	Nitrogen in Nitrate	NO3-N	<3.6e-2	n/a	mg/L	0.000	0.040			U	07/09/08
BLANK	Sulfate	14808-79-8	<7.7e-2	n/a	mg/L	0.000	0.200			U	07/09/08
BLANK	Sulfate	14808-79-8	<7.7e-2	n/a	mg/L	0.000	0.200			U	07/09/08
LCS	Chloride	16887-00-6	198.4796	98.746	% Recov	80.000	120.000				07/09/08
LCS	Fluoride	16984-48-8	110.7905	111.235	% Recov	80.000	120.000				07/09/08
LCS	Nitrogen in Nitrite	NO2-N	99.1448	99.743	% Recov	80.000	120.000				07/09/08
LCS	Nitrogen in Nitrate	NO3-N	92.2177	102.350	% Recov	80.000	120.000				07/09/08
LCS	Sulfate	14808-79-8	398.7219	100.687	% Recov	80.000	120.000				07/09/08

M4W41-SLF-08-805

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION

Consisting of 3 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
VI3
8/21/08

ACKNOWLEDGMENT OF SAMPLES RECEIVED

GPAP

Richland, WA 99352
Attn: Steve Trent E6-35

Customer Code: PNNL-GPP
PO#: 122543
Group#: 20081386

The following samples were received from you on 07/09/08. 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
W08P003387	B1V6V3	GPP-PNNL @IC-30	TRENT Water	07/09/08

Test Acronym Description

Test Acronym	Description
@IC-30	Anions by Ion Chromatography

