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0088073

Mission Support Alliance
P.O. Box 650
Richland, Washington 99352



M4W41-SLF-10-020

January 15, 2010

Mr. M. A. Neely, Manager
Analytical Services
CH2M HILL Plateau Remediation Contract
PO Box 1600 MSIN R3-60
Richland, WA 99352

Dear Mike,

FINAL RESULTS FOR SAMPLE DELIVERY GROUP WSCF20100004 – SAF NUMBER F09-059

- References:
- 1) Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, 'FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER'
 - 2) HNF-SD-CD-QAPP-017, Rev. 9, Waste Sampling & Characterization Facility Quality Assurance Plan

This letter contains the following attachments for sample delivery group WSCF20100004:

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

Very truly yours,

S. L. Fitzgerald
WSCF Analytical Lab

SLF/grf
Attachments 4

cc: w/Attachments
R.L. Barker S3-30
H. K. Meznarich S3-30
J. E. Trechter S3-30
S. J. Trent R3-50
File/LB

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M4W41-SLF-10-020

ATTACHMENT 1

COVER SHEET

Consisting of 2 pages
Including cover page

WSCF SAF NUMBER CROSS REFERENCE

Group#: WSCF20100004
Data Deliverable Date: 15-jan-2010
Data Deliverable: Cover Sheet

SAF#	Sample ID	WSCF#	Matrix
F09-059	B23C02	W10GR00007	SOIL
	B23C03	W10GR00009	SOIL
	B23C04	W10GR00010	SOIL
	B23C05	W10GR00011	SOIL
	B23C06	W10GR00012	SOIL
	B23C07	W10GR00013	SOIL
	B23C08	W10GR00014	SOIL
	B23C09	W10GR00015	SOIL
	B23C10	W10GR00016	SOIL
	B23C11	W10GR00017	SOIL
	B23C12	W10GR00018	SOIL

M4W41-SLF-10-020

ATTACHMENT 2

NARRATIVE

Consisting of 3 pages
Including cover page

Introduction

Eleven (11) S&GRP samples were received at the WSCF Laboratory on January 4, 2010. The samples were analyzed for the analytes indicated on the attached copy of the chain of custody (COC) form in accordance with the *Statement of Work (SOW), Modification No. 2 to Agreement 36587, Release 3, "FH WSCF ANALYTICAL SERVICES FOR GROUNDWATER."*

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 not stamped "ICED" by the WSCF Laboratory Sample Custodian during sample receiving. However, based on procedure LO-090-403 form "NOTICE OF IMPROPER SAMPLE SUBMITTAL" was not submitted and was not stamped "NOT ICED" so proper preservation is assumed.

The following generic data qualifiers (i.e., B, D, and J) may be applicable to this report, as appropriate

- **B** – Sample results with a concentration greater than the MDL but less than the PQL are B flagged (applies to inorganic and wetchem analyses), as appropriate.
- **D** – Sample results are D flagged if dilution(s) were required, as appropriate.
- **J** – Sample results with a concentration greater than the MDL but less than the PQL are J flagged (applies to organic analyses), as appropriate.

Analytical Methodology for Requested Analyses

Refer to *WSCF Method References Report*, page 10, for a complete listing of approved analytical methods.

Organic Comments

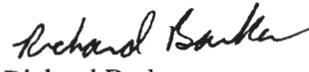
VOA – The hold time requirement for this analysis was met. A Matrix Spike, Matrix Spike Duplicate, Blank and Laboratory Control Sample were analyzed with this delivery group. See pages 22 through 25 for QC details. Analytical Note(s):

- Sample concentration reported on an "as received" basis.

All QC controls are within the established limits.

We certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this data package has been authorized by the Analytical Laboratory Manager (or designee) and the Client Services representative as verified by the following signatures.


Scot L. Fitzgerald
WSCF Analytical Laboratory Manager

 1/5/10
Richard Barker
WSCF Client Services

M4W41-SLF-10-020

ATTACHMENT 3

ANALYTICAL RESULTS

Consisting of 20 pages
Including cover page

WSCF
ANALYTICAL RESULTS REPORT

for

Groundwater Remediation Program

Richland, WA 99354

Attention: Steve Trent

Analytical:

S. Fitzgerald 1/15/10

Client Services:

Richard Barker 1/15/10 Richard Barker

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

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

Contract#: MOA-FH-CHPRC-2008
Report#: WSCF20100004
Report Date: 14-jan-2010
Report WGPP/ver. 5.2
Groundwater Remediation Program

Department: Organic

W13q Worklist/Batch/QC Report for Group# WSCF20100004

WL#	S#	Batch	QC#	Tray Type	Sample#	Test
			45505	BLANK		VOA Ground Water Protection
			45505	LCS		VOA Ground Water Protection
			45505	MS	W10GR00007	VOA Ground Water Protection
			45505	MSD	W10GR00007	VOA Ground Water Protection
			45505	SAMPLE	W10GR00007	VOA Ground Water Protection
			45505	SPK-RPD	W10GR00007	VOA Ground Water Protection
			45505	SURR	W10GR00007	VOA Ground Water Protection
			45505	SAMPLE	W10GR00009	VOA Ground Water Protection
			45505	SURR	W10GR00009	VOA Ground Water Protection
			45505	SAMPLE	W10GR00010	VOA Ground Water Protection
			45505	SURR	W10GR00010	VOA Ground Water Protection
			45505	SAMPLE	W10GR00011	VOA Ground Water Protection
			45505	SURR	W10GR00011	VOA Ground Water Protection
			45505	SAMPLE	W10GR00012	VOA Ground Water Protection
			45505	SURR	W10GR00012	VOA Ground Water Protection
			45505	SAMPLE	W10GR00013	VOA Ground Water Protection
			45505	SURR	W10GR00013	VOA Ground Water Protection
			45505	SAMPLE	W10GR00014	VOA Ground Water Protection
			45505	SURR	W10GR00014	VOA Ground Water Protection
			45505	SAMPLE	W10GR00015	VOA Ground Water Protection
			45505	SURR	W10GR00015	VOA Ground Water Protection
			45505	SAMPLE	W10GR00016	VOA Ground Water Protection
			45505	SURR	W10GR00016	VOA Ground Water Protection
			45505	SAMPLE	W10GR00017	VOA Ground Water Protection
			45505	SURR	W10GR00017	VOA Ground Water Protection
			45505	SAMPLE	W10GR00018	VOA Ground Water Protection
			45505	SURR	W10GR00018	VOA Ground Water Protection

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
None	No reference to any industry method.

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: 14-jan-2010
Report#: WSCF20100004
Report WGPPM/5.2

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-059
Sample # W10GR00009
Client ID: B23C03

GPP TRENT
WSCF

Matrix: SOIL

Group #: WSCF20100004
Department: Organic
Sampled: 12/31/09
Received: 01/04/10

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	< 1.20	ug/kg			1.00	1.2		01/05/10
Trichloroethene	79-01-6	LA-523-455	U	< 0.240	ug/kg			1.00	0.24		01/05/10
Benzene	71-43-2	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		01/05/10
Toluene	108-88-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		01/05/10
Chlorobenzene	108-90-7	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		01/05/10
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		01/05/10

MDL=Minimum Detection Limit U - Analyzed for but not detected above limiting criteria.(org)
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
Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-059
Sample # W10GR00010
Client ID: B23C04

GPP TRENT
WSCF

Matrix: SOIL

Group #: WSCF20100004
Department: Organic
Sampled: 12/31/09
Received: 01/04/10

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	< 1.60	ug/kg			1.00	1.6		01/05/10
Trichloroethene	79-01-6	LA-523-455	U	< 0.310	ug/kg			1.00	0.31		01/05/10
Benzene	71-43-2	LA-523-455	U	< 1.60	ug/kg			1.00	1.6		01/05/10
Toluene	108-88-3	LA-523-455	U	< 1.60	ug/kg			1.00	1.6		01/05/10
Chlorobenzene	108-90-7	LA-523-455	U	< 1.60	ug/kg			1.00	1.6		01/05/10
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.60	ug/kg			1.00	1.6		01/05/10

MDL = Minimum Detection Limit U - Analyzed for but not detected above limiting criteria.(org)

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

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Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-059
Sample # W10GR00011
Client ID: B23C05

GPP TRENT
WSCF

Matrix: SOIL

Group #: WSCF20100004
Department: Organic
Sampled: 12/31/09
Received: 01/04/10

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	< 1.10	ug/kg			1.00	1.1		01/05/10
Trichloroethene	79-01-6	LA-523-455	U	< 0.220	ug/kg			1.00	0.22		01/05/10
Benzene	71-43-2	LA-523-455	U	< 1.10	ug/kg			1.00	1.1		01/05/10
Toluene	108-88-3	LA-523-455	U	< 1.10	ug/kg			1.00	1.1		01/05/10
Chlorobenzene	108-90-7	LA-523-455	U	< 1.10	ug/kg			1.00	1.1		01/05/10
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.10	ug/kg			1.00	1.1		01/05/10

MDL = Minimum Detection Limit U - Analyzed for but not detected above limiting criteria.(org)

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

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Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-059
Sample # W10GR00012
Client ID: B23C06

GPP TRENT
WSCF

Matrix: SOIL

Group #: WSCF20100004
Department: Organic
Sampled: 12/31/09
Received: 01/04/10

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	< 2.30	ug/kg			1.00	2.3		01/05/10
Trichloroethene	79-01-6	LA-523-455	U	< 0.450	ug/kg			1.00	0.45		01/05/10
Benzene	71-43-2	LA-523-455	U	< 2.30	ug/kg			1.00	2.3		01/05/10
Toluene	108-88-3	LA-523-455	U	< 2.30	ug/kg			1.00	2.3		01/05/10
Chlorobenzene	108-90-7	LA-523-455	U	< 2.30	ug/kg			1.00	2.3		01/05/10
Carbon tetrachloride	56-23-5	LA-523-455	U	< 2.30	ug/kg			1.00	2.3		01/05/10

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RQ=Result Qualifier
TP Err=Total Propagated Error
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Report WGPP/ver. 5.2
Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-059
Sample # W10GR00015
Client ID: B23C09

GPP TRENT
WSCF

Matrix: SOIL

Group #: WSCF20100004
Department: Organic
Sampled: 12/31/09
Received: 01/04/10

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	< 1.50	ug/kg			1.00	1.5		01/05/10
Trichloroethene	79-01-6	LA-523-455	U	< 0.300	ug/kg			1.00	0.30		01/05/10
Benzene	71-43-2	LA-523-455	U	< 1.50	ug/kg			1.00	1.5		01/05/10
Toluene	108-88-3	LA-523-455	U	< 1.50	ug/kg			1.00	1.5		01/05/10
Chlorobenzene	108-90-7	LA-523-455	U	< 1.50	ug/kg			1.00	1.5		01/05/10
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.50	ug/kg			1.00	1.5		01/05/10

MDL=Minimum Detection Limit U - Analyzed for but not detected above limiting criteria.(org)

RQ=Result Qualifier

TP Err=Total Propagated Error

DF=Dilution Factor

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Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-059
Sample # W10GR00016
Client ID: B23C10

GPP TRENT
WSCF

Matrix: SOIL

Group #: WSCF20100004
Department: Organic
Sampled: 12/31/09
Received: 01/04/10

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	< 1.20	ug/kg			1.00	1.2		01/05/10
Trichloroethene	79-01-6	LA-523-455	U	< 0.230	ug/kg			1.00	0.23		01/05/10
Benzene	71-43-2	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		01/05/10
Toluene	108-88-3	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		01/05/10
Chlorobenzene	108-90-7	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		01/05/10
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.20	ug/kg			1.00	1.2		01/05/10

MDL = Minimum Detection Limit U - Analyzed for but not detected above limiting criteria.(org)

RQ = Result Qualifier

TP Err = Total Propagated Error

DF = Dilution Factor

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Report WGPP/ver. 5.2

Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-059
Sample # W10GR00017
Client ID: B23C11

GPP TRENT
WSCF

Matrix: SOIL

Group #: WSCF20100004
Department: Organic
Sampled: 12/31/09
Received: 01/04/10

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	< 1.60	ug/kg			1.00	1.6		01/05/10
Trichloroethene	79-01-6	LA-523-455	U	< 0.310	ug/kg			1.00	0.31		01/05/10
Benzene	71-43-2	LA-523-455	U	< 1.60	ug/kg			1.00	1.6		01/05/10
Toluene	108-88-3	LA-523-455	U	< 1.60	ug/kg			1.00	1.6		01/05/10
Chlorobenzene	108-90-7	LA-523-455	U	< 1.60	ug/kg			1.00	1.6		01/05/10
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.60	ug/kg			1.00	1.6		01/05/10

MDL = Minimum Detection Limit U - Analyzed for but not detected above limiting criteria.(org)
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
Groundwater Remediation Program

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
SAF Number: F09-059
Sample # W10GR00018
Client ID: B23C12

GPP TRENT
WSCF

Matrix: SOIL

Group #: WSCF20100004
Department: Organic
Sampled: 12/31/09
Received: 01/04/10

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	< 1.10	ug/kg			1.00	1.1		01/05/10
Trichloroethene	79-01-6	LA-523-455	U	< 0.210	ug/kg			1.00	0.21		01/05/10
Benzene	71-43-2	LA-523-455	U	< 1.10	ug/kg			1.00	1.1		01/05/10
Toluene	108-88-3	LA-523-455	U	< 1.10	ug/kg			1.00	1.1		01/05/10
Chlorobenzene	108-90-7	LA-523-455	U	< 1.10	ug/kg			1.00	1.1		01/05/10
Carbon tetrachloride	56-23-5	LA-523-455	U	< 1.10	ug/kg			1.00	1.1		01/05/10

MDL = Minimum Detection Limit U - Analyzed for but not detected above limiting criteria.(org)
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
Groundwater Remediation Program

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20100004
 Matrix: SOLID
 Test: VOA Ground Water Protection

Sample Date: 12/31/09
 Receive Date: 01/04/10

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
Lab ID: W10GR00007											
BATCH QC ASSOCIATED WITH SAMPLE											
MS	1,1-Dichloroethene	75-35-4	25.770	103.000	% Recov	63.000	117.000				01/05/10
MS	Benzene	71-43-2	27.710	111.000	% Recov	75.000	129.000				01/05/10
MS	4-Bromofluorobenzene(Surr)	460-00-4	44.380	88.800	% Recov	75.000	125.000				01/05/10
MS	Chlorobenzene	108-90-7	26.760	107.000	% Recov	79.000	119.000				01/05/10
MS	1,2-Dichloroethane-d4(Surr)	17060-07-0	56.100	112.000	% Recov	75.000	125.000				01/05/10
MS	Toluene-d8(Surr)	2037-26-5	49.430	98.900	% Recov	75.000	125.000				01/05/10
MS	Toluene	108-88-3	25.880	104.000	% Recov	76.000	120.000				01/05/10
MS	Trichloroethene	79-01-6	23.900	95.600	% Recov	73.000	123.000				01/05/10
MSD	1,1-Dichloroethene	75-35-4	27.950	96.100	% Recov	63.000	117.000				01/05/10
MSD	Benzene	71-43-2	30.680	106.000	% Recov	75.000	129.000				01/05/10
MSD	4-Bromofluorobenzene(Surr)	460-00-4	55.120	94.800	% Recov	75.000	125.000				01/05/10
MSD	Chlorobenzene	108-90-7	29.520	102.000	% Recov	79.000	119.000				01/05/10
MSD	1,2-Dichloroethane-d4(Surr)	17060-07-0	65.550	113.000	% Recov	75.000	125.000				01/05/10
MSD	Toluene-d8(Surr)	2037-26-5	58.670	101.000	% Recov	75.000	125.000				01/05/10
MSD	Toluene	108-88-3	28.850	99.200	% Recov	76.000	120.000				01/05/10
MSD	Trichloroethene	79-01-6	27.060	93.100	% Recov	73.000	123.000				01/05/10
SPK-RPD	1,1-Dichloroethene	75-35-4	96.100		RPD			6.931	20.000		01/05/10
SPK-RPD	Benzene	71-43-2	106.000		RPD			4.608	20.000		01/05/10
SPK-RPD	4-Bromofluorobenzene(Surr)	460-00-4	94.800		RPD			6.536	20.000		01/05/10
SPK-RPD	Chlorobenzene	108-90-7	102.000		RPD			4.785	20.000		01/05/10
SPK-RPD	1,2-Dichloroethane-d4(Surr)	17060-07-0	113.000		RPD			0.889	20.000		01/05/10
SPK-RPD	Toluene-d8(Surr)	2037-26-5	101.000		RPD			2.101	20.000		01/05/10
SPK-RPD	Toluene	108-88-3	99.200		RPD			4.724	20.000		01/05/10
SPK-RPD	Trichloroethene	79-01-6	93.100		RPD			2.650	20.000		01/05/10
SURR	4-Bromofluorobenzene(Surr)	460-00-4	42.620	98.900	% Recov	75.000	125.000				01/05/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	48.680	113.000	% Recov	75.000	125.000				01/05/10

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20100004
 Matrix: SOLID
 Test: VOA Ground Water Protection

Sample Date: 12/31/09
 Receive Date: 01/04/10

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SURR	Toluene-d8(Surr)	2037-26-5	43.180	100.000	% Recov	80.000	126.000				01/05/10
Lab ID: W10GR00009											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	57.400	96.400	% Recov	75.000	125.000				01/05/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	67.810	114.000	% Recov	75.000	125.000				01/05/10
SURR	Toluene-d8(Surr)	2037-26-5	59.110	99.300	% Recov	80.000	126.000				01/05/10
Lab ID: W10GR00010											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	77.560	99.300	% Recov	75.000	125.000				01/05/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	88.630	113.000	% Recov	75.000	125.000				01/05/10
SURR	Toluene-d8(Surr)	2037-26-5	79.520	102.000	% Recov	80.000	126.000				01/05/10
Lab ID: W10GR00011											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	53.460	96.200	% Recov	75.000	125.000				01/05/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	64.570	116.000	% Recov	75.000	125.000				01/05/10
SURR	Toluene-d8(Surr)	2037-26-5	57.690	104.000	% Recov	80.000	126.000				01/05/10
Lab ID: W10GR00012											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	110.10	96.900	% Recov	75.000	125.000				01/05/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	127.60	112.000	% Recov	75.000	125.000				01/05/10
SURR	Toluene-d8(Surr)	2037-26-5	114.80	101.000	% Recov	80.000	126.000				01/05/10
Lab ID: W10GR00013											
BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	63.720	102.000	% Recov	75.000	125.000				01/05/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	69.090	111.000	% Recov	75.000	125.000				01/05/10

WSCF ANALYTICAL LABORATORY QC REPORT

Department: **Organic**

SDG Number: WSCF20100004
 Matrix: SOLID
 Test: VOA Ground Water Protection

Sample Date: 12/31/09
 Receive Date: 01/04/10

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SURR	Toluene-d8(Surr)	2037-26-5	64.240	103.000	% Recov	80.000	126.000				01/05/10
Lab ID: W10GR00014 BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	49.960	97.900	% Recov	75.000	125.000				01/05/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	57.080	112.000	% Recov	75.000	125.000				01/05/10
SURR	Toluene-d8(Surr)	2037-26-5	50.950	99.900	% Recov	80.000	126.000				01/05/10
Lab ID: W10GR00015 BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	67.030	88.500	% Recov	75.000	125.000				01/05/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	84.280	111.000	% Recov	75.000	125.000				01/05/10
SURR	Toluene-d8(Surr)	2037-26-5	75.980	100.000	% Recov	80.000	126.000				01/05/10
Lab ID: W10GR00016 BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	53.240	91.600	% Recov	75.000	125.000				01/05/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	65.570	113.000	% Recov	75.000	125.000				01/05/10
SURR	Toluene-d8(Surr)	2037-26-5	58.320	100.000	% Recov	80.000	126.000				01/05/10
Lab ID: W10GR00017 BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	80.040	102.000	% Recov	75.000	125.000				01/05/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	89.090	114.000	% Recov	75.000	125.000				01/05/10
SURR	Toluene-d8(Surr)	2037-26-5	79.390	102.000	% Recov	80.000	126.000				01/05/10
Lab ID: W10GR00018 BATCH QC ASSOCIATED WITH SAMPLE											
SURR	4-Bromofluorobenzene(Surr)	460-00-4	48.110	90.400	% Recov	75.000	125.000				01/05/10
SURR	1,2-Dichloroethane-d4(Surr)	17060-07-0	62.080	117.000	% Recov	75.000	125.000				01/05/10

WSCF ANALYTICAL LABORATORY QC REPORT

Department: Organic

SDG Number: WSCF20100004
 Matrix: SOLID
 Test: VOA Ground Water Protection

Sample Date: 12/31/09
 Receive Date: 01/04/10

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Lower Limit	Upper Limit	RPD(%)	RPD Limit	RQ	Analysis Date
SURR	Toluene-d8(Surr)	2037-26-5	52.840	99.300	% Recov	80.000	126.000				01/05/10
BATCH QC											
BLANK	1,1-Dichloroethene	75-35-4	< 1.0	n/a	ug/Kg					U	01/05/10
BLANK	Benzene	71-43-2	< 1.0	n/a	ug/Kg					U	01/05/10
BLANK	4-Bromofluorobenzene(Surr)	460-00-4	51.730	103.000	% Recov	75.000	125.000				01/05/10
BLANK	Carbon tetrachloride	56-23-5	< 1.0	n/a	ug/Kg					U	01/05/10
BLANK	Chlorobenzene	108-90-7	< 1.0	n/a	ug/Kg					U	01/05/10
BLANK	1,2-Dichloroethane-d4(Surr)	17060-07-0	52.860	106.000	% Recov	75.000	125.000				01/05/10
BLANK	Toluene-d8(Surr)	2037-26-5	50.300	101.000	% Recov	80.000	126.000				01/05/10
BLANK	Toluene	108-88-3	< 1.0	n/a	ug/Kg					U	01/05/10
BLANK	Trichloroethene	79-01-6	< 0.20	n/a	ug/Kg					U	01/05/10
LCS	1,1-Dichloroethene	75-35-4	26.100	104.000	% Recov	75.000	125.000				01/05/10
LCS	Benzene	71-43-2	25.540	102.000	% Recov	75.000	125.000				01/05/10
LCS	4-Bromofluorobenzene(Surr)	460-00-4	52.060	104.000	% Recov	75.000	125.000				01/05/10
LCS	Chlorobenzene	108-90-7	25.480	102.000	% Recov	75.000	125.000				01/05/10
LCS	1,2-Dichloroethane-d4(Surr)	17060-07-0	54.350	109.000	% Recov	75.000	125.000				01/05/10
LCS	Toluene-d8(Surr)	2037-26-5	50.690	101.000	% Recov	80.000	126.000				01/05/10
LCS	Toluene	108-88-3	25.400	102.000	% Recov	75.000	125.000				01/05/10
LCS	Trichloroethene	79-01-6	24.330	97.300	% Recov	75.000	125.000				01/05/10

WSCF ANALYTICAL COMMENT REPORT

Attention: Steve Trent
Project Number F09-059

Group #: WSCF20100004
Department: Organic

Sample #	Client ID	Lab Area	Test	Comment
		VALGROUP		VOA: Sample concentrations reported on an "as received" basis. gar

Lab Areas: VALGROUP - Group Validation
LOGSAMP - Login for Sample

VALTEST - Test Validation
LOGTEST - Login for Tests

TESTDATA - Test Data Entry

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M4W41-SLF-10-020

ATTACHMENT 4

SAMPLE RECEIPT INFORMATION w/SAMPLE RECORD SHEETS

Consisting of 24 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
1/15/10
MJB

ACKNOWLEDGMENT OF SAMPLES RECEIVED

Groundwater Remediation Program

Richland, WA 99354
Attn: Steve Trent

Customer Code: GPP
PO#: 401642/ES20
Group#: 20100004
Project#: F09-059
Proj Mgr: Steve Trent
Phone: 373-5869

The following samples were received from you on 01/04/10. 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
W10GR00007	B23C02 ✓	GPP @VOA-GPP	TRENT Solid, or handle as if solid	12/31/09
W10GR00009	B23C03 ✓	GPP @VOA-GPP	TRENT Solid, or handle as if solid	12/31/09
W10GR00010	B23C04 ✓	GPP @VOA-GPP	TRENT Solid, or handle as if solid	12/31/09
W10GR00011	B23C05 ✓	GPP @VOA-GPP	TRENT Solid, or handle as if solid	12/31/09
W10GR00012	B23C06 ✓	GPP @VOA-GPP	TRENT Solid, or handle as if solid	12/31/09
W10GR00013	B23C07 ✓	GPP @VOA-GPP	TRENT Solid, or handle as if solid	12/31/09
W10GR00014	B23C08 ✓	GPP @VOA-GPP	TRENT Solid, or handle as if solid	12/31/09
W10GR00015	B23C09 ✓	GPP @VOA-GPP	TRENT Solid, or handle as if solid	12/31/09
W10GR00016	B23C10 ✓	GPP @VOA-GPP	TRENT Solid, or handle as if solid	12/31/09
W10GR00017	B23C11 ✓	GPP @VOA-GPP	TRENT Solid, or handle as if solid	12/31/09
W10GR00018	B23C12 ✓	GPP @VOA-GPP	TRENT Solid, or handle as if solid	12/31/09

Test Acronym Description

Test Acronym	Description
@VOA-GPP	VOA Ground Water Protection

reviewed + verified
SK 01/12/09

COLLECTOR

COMPANY CONTACT

TELEPHONE NO.

PROJECT COORDINATOR

PRICE CODE

8B

DATA TURNAROUND

SAMPLING LOCATION

600-218; R10

PROJECT DESIGNATION

200-MG-1 OU Waste Sites Sampling and Analysis - Soil

SAF NO.

F09-059

AIR QUALITY

7 Days / 15 Days

ICE CHEST NO.

N/A

FIELD LOGBOOK NO.

HNF-N-507-8

ACTUAL SAMPLE DEPTH

3 Inches

COA

302110ES10

METHOD OF SHIPMENT

GOVERNMENT VEHICLE

SHIPPED TO

Waste Sampling & Characterization

OFFSITE PROPERTY NO.

N/A

BILL OF LADING/AIR BILL NO.

N/A

MATRIX*

- A=Air
- DL=Drum
- Liquids
- DS=Drum
- Solids
- L=Liquid
- O=Oil
- S=Soil
- SE=Sediment
- T=Tissue
- V=Vegetation
- W=Water
- WI=Wipe
- X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS

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

2010004

SPECIAL HANDLING AND/OR STORAGE

PRESERVATION

-7C and -20C
Cool-dk
Pz 12/15/09

TYPE OF CONTAINER

G

NO. OF CONTAINER(S)

5

VOLUME

40ml

SAMPLE ANALYSIS

SEE ITEM (1) IN SPECIAL INSTRUCTIONS

KC Patterson
CHPRC

DEC 31 2009

KC Patterson
CHPRC

DEC 31 2009

ORIGINAL

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B23C02	✓ SOIL	DEC 31 2009	0815	X	NA	NA

WIOGR 00007

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM KC Patterson CHPRC	DATE/TIME DEC 31 2009 1000	RECEIVED BY/STORED IN SSUHI	DATE/TIME DEC 31 2009 1100
RELINQUISHED BY/REMOVED FROM SSUHI	DATE/TIME JAN 04 2010 1430	RECEIVED BY/STORED IN RD Julian CHPRC	DATE/TIME JAN 04 2010 1430
RELINQUISHED BY/REMOVED FROM RD Julian CHPRC	DATE/TIME JAN 04 2010 1510	RECEIVED BY/STORED IN V. [Signature]	DATE/TIME JAN 04 2010 1510
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

** The CACN for all analytical work at WSCF laboratory is 401642ES20. ** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. ** All VOA samples will be collected using EPA Method 5035A. ** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample. ** The laboratory is to use one of the low level VOA bottles for moisture content determination. ** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.
(1)VOA - 5035/8260 (LOW LEVEL) (Carbon tetrachloride)

29 of 50

LABORATORY SECTION

RECEIVED BY

TITLE

DATE/TIME

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

DISPOSED BY

DATE/TIME

SAMPLE RECORD SHEET

Location: <i>R10</i>							
Sampler Initials and Date: <i>AP</i>				DEC 31 2009			
Sample Number	Sample Suffix ¹			Initial Weight ² (grams)	Total Weight ³ (grams)	Soil Weight ⁴ (grams)	Methanol in sample bottle (ml)
<i>B23002</i>	<i>K</i>	No Methanol		<i>31.1</i>	<i>36.9</i>	<i>5.8</i>	No Methanol
<i>B23002</i>	<i>L</i>			<i>31.4</i>	<i>37.3</i>	<i>5.9</i>	
<i>B23002</i>	<i>M</i>			<i>32.0</i>	<i>37.2</i>	<i>5.2</i>	
<i>B23002</i>	<i>N</i>			<i>31.5</i>	<i>36.5</i>	<i>5.0</i>	
<i>B23002</i>	<i>P</i>			<i>31.5</i>	<i>35.8</i>	<i>4.3</i>	
<p>¹Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.</p> <p>²Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.</p> <p>³Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.</p> <p>⁴Soil weight is the vial with sample minus Initial Weight.</p>							

SAMPLE RECORD SHEET

Location: <i>R11</i>							
Sampler Initials and Date: <i>AB</i>				DEC 31 2009			
Sample Number	Sample Suffix ¹			Initial Weight ² (grams)	Total Weight ³ (grams)	Soil Weight ⁴ (grams)	Methanol in sample bottle (ml)
<i>B23C03</i>	<i>K</i>	No Methanol		<i>31.2</i>	<i>35.5</i>	<i>4.3</i>	No Methanol
<i>B23C03</i>	<i>L</i>			<i>31.9</i>	<i>34.7</i>	<i>2.8</i>	
<i>B25C03</i>	<i>M</i>			<i>30.9</i>	<i>35.6</i>	<i>4.7</i>	
<i>B23C03</i>	<i>N</i>			<i>32.1</i>	<i>37.1</i>	<i>5.0</i>	
<i>B23C03</i>	<i>P</i>			<i>31.6</i>	<i>35.8</i>	<i>4.2</i>	
<p>¹Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.</p> <p>²Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.</p> <p>³Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.</p> <p>⁴Soil weight is the vial with sample minus Initial Weight.</p>							

COLLECTOR *Strehle* KC Patterson
 HNF-N CHPRC

COMPANY CONTACT
 AYRES, D

TELEPHONE NO.
 373-5582

PROJECT COORDINATOR
 WIDRIG, DL

PRICE CODE 88

DATA TURNAROUND

SAMPLING LOCATION

600-218; R12

ICE CHEST NO.

N/A

PROJECT DESIGNATION

200-MG-1 OU Waste Sites Sampling and Analysis - Soil

SAF NO.
 F09-059

AIR QUALITY

7 Days / 15 Days

FIELD LOGBOOK NO.

HNF-N-507-8

ACTUAL SAMPLE DEPTH

3"

COA
 302110ES10

METHOD OF SHIPMENT
 GOVERNMENT VEHICLE

SHIPPED TO

Waste Sampling & Characterization

OFFSITE PROPERTY NO.

N/A

BILL OF LADING/AIR BILL NO.

N/A

MATRIX*

- A=Air
- DL=Drum
- Liquids
- DS=Drum
- Solids
- L=Liquid
- O=Oil
- S=Soil
- SE=Sediment
- T=Tissue
- V=Vegetation
- W=Water
- WI=Wipe
- X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS

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

PRESERVATION

*16 cool - 20c
 Cool - 12/31/09*

TYPE OF CONTAINER

G

NO. OF CONTAINER(S)

5

VOLUME

40ml

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS

SEE ITEM (1) IN SPECIAL INSTRUCTIONS

*KC Patterson
 CHPRC
 DEC 31 2009*

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME		
B23C04 ✓	SOIL	DEC 31 2009	<i>0830</i>	X	<i>MS</i>

W106K00010

*KC Patterson
 CHPRC
 DEC 31 2009*

RELINQUISHED BY/REMOVED FROM

SSU # K1

DATE/TIME *1100*

RECEIVED BY/STORED IN

DATE/TIME *1100*

SPECIAL INSTRUCTIONS

** The CACN for all analytical work at WSCF laboratory is 401642ES20.** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. ** All VOA samples will be collected using EPA Method 5035A. ** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample. ** The laboratory is to use one of the low level VOA bottles for moisture content determination. ** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.
 (1)VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride}

RELINQUISHED BY/REMOVED FROM

SSU # 1430

DATE/TIME *1430*

RECEIVED BY/STORED IN

DATE/TIME *1430*

RELINQUISHED BY/REMOVED FROM

RD Julian

DATE/TIME *1500*

RECEIVED BY/STORED IN

DATE/TIME *1500*

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

LABORATORY SECTION

RECEIVED BY

TITLE

DATE/TIME

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

DISPOSED BY

DATE/TIME

ORIGINAL

33 of 50

COLLECTOR **KC Patterson**
CHPRC

COMPANY CONTACT
AYRES, D

TELEPHONE NO.
373-5582

PROJECT COORDINATOR
WIDRIG, DL

PRICE CODE **88**

DATA
TURNAROUND

SAMPLING LOCATION

600-218; R13
ICE CHEST NO.

PROJECT DESIGNATION

200-MG-1 OU Waste Sites Sampling and Analysis - Soil

SAF NO.
F09-059

AIR QUALITY

7 Days / 15
Days

FIELD LOGBOOK NO.

HNF-N-5078 3"

ACTUAL SAMPLE DEPTH

COA
302110ES10

METHOD OF SHIPMENT

GOVERNMENT VEHICLE

SHIPPED TO

Waste Sampling & Characterization

OFFSITE PROPERTY NO.

N/A

BILL OF LADING/AIR BILL NO.

N/A

MATRIX*

- A=Air
- DL=Drum
- Liquids
- DS=Drum
- Solids
- L=Liquid
- O=Oil
- S=Soil
- SE=Sediment
- T=Tissue
- V=Vegetation
- W=Water
- WI=Wipe
- X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS

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

PRESERVATION

-7C and -20C
Cooler
By 12/31/09

TYPE OF CONTAINER

G

NO. OF CONTAINER(S)

5

VOLUME

40mL

SAMPLE ANALYSIS

(SEE ITEM (1) IN SPECIAL INSTRUCTIONS)

SPECIAL HANDLING AND/OR STORAGE

DEC 31 2009

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B23C05	SOIL	DEC 31 2009	0540	X	AAA	AAA

W10 GK 00011

DEC 31 2009

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

KC Patterson

DEC 31 2009

SSU #1

DEC 31 2009

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

SSU #1

JAN 04 2010

RD Julian

JAN 04 2010

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

RD Julian

JAN 04 2010

CHPRC

JAN 04 2010

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

CHPRC

JAN 04 2010

CHPRC

JAN 04 2010

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

CHPRC

JAN 04 2010

CHPRC

JAN 04 2010

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

CHPRC

JAN 04 2010

CHPRC

JAN 04 2010

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

CHPRC

JAN 04 2010

CHPRC

JAN 04 2010

** The CACN for all analytical work at WSCF laboratory is 401642ES20. ** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GK1 applies to this SAF. ** All VOA samples will be collected using EPA Method 5035A. ** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample. ** The laboratory is to use one of the low level VOA bottles for moisture content determination. ** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.
(1)VOA - 5035/8260 (LOW LEVEL) (Carbon tetrachloride)

ORIGINAL

LABORATORY SECTION

RECEIVED BY

TITLE

DATE/TIME

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

DISPOSED BY

DATE/TIME

SAMPLE RECORD SHEET

Location: <i>R 13</i>							
Sampler Initials and Date: <i>AP</i> <i>DEC 31 2009</i>							
Sample Number	Sample Suffix ¹			Initial Weight ² (grams)	Total Weight ³ (grams)	Soil Weight ⁴ (grams)	Methanol in sample bottle (ml)
<i>B2305</i>	<i>K</i>	No Methanol		<i>31.7</i>	<i>36.2</i>	<i>4.5</i>	No Methanol
↓	<i>L</i>			<i>31.8</i>	<i>35.2</i>	<i>3.4</i>	
	<i>M</i>			<i>31.7</i>	<i>36.2</i>	<i>4.5</i>	
	<i>N</i>			<i>32.1</i>	<i>35.1</i>	<i>3.0</i>	
↓	<i>P</i>			<i>31.9</i>	<i>35.2</i>	<i>3.3</i>	
<p>¹Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.</p> <p>²Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.</p> <p>³Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.</p> <p>⁴Soil weight is the vial with sample minus Initial Weight.</p>							

COLLECTOR **KC Patterson
CHPRC**

COMPANY CONTACT
AYRES, D

TELEPHONE NO.
373-5582

PROJECT COORDINATOR
WIDRIG, DL

PRICE CODE **88**

DATA
TURNAROUND

SAMPLING LOCATION
600-218; R14

PROJECT DESIGNATION
200-MG-1 OU Waste Sites Sampling and Analysis - Soil

SAF NO.
F09-059

AIR QUALITY

7 Days / 15
Days

ICE CHEST NO.

FIELD LOGBOOK NO. **HNF-N-507-8** ACTUAL SAMPLE DEPTH **3'**

COA
302110ES10

METHOD OF SHIPMENT
GOVERNMENT VEHICLE

SHIPPED TO

Waste Sampling & Characterization

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

MATRIX*

- A=Air
- DL=Drum
- Liquids
- DS=Drum
- Solids
- L=Liquid
- Q=Oil
- S=Soil
- SE=Sediment
- T=Tissue
- V=Vegetation
- W=Water
- WI=Wipe
- X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS

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

PRESERVATION

*-7C cool - 21C
Cooler
15 12/31/09*

TYPE OF CONTAINER

G

NO. OF CONTAINER(S)

5

VOLUME

40ml

SAMPLE ANALYSIS

SEE ITEM (1) IN
SPECIAL
INSTRUCTIONS

SPECIAL HANDLING AND/OR STORAGE

DEC 31 2009

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME			
B23C06	SOIL	DEC 31 2009	0840	X	N/A	N/A

WIDGR00012

DEC 31 2009

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM
KC Patterson
CHPRC
DATE/TIME
DEC 31 2009

RECEIVED BY/STORED IN
SSUARI
RD Julian
DATE/TIME
DEC 31 2009

** The CACN for all analytical work at WSCF laboratory is 401642ES20.** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. All VOA samples will be collected using EPA Method 5035A. VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample. The laboratory is to use one of the low level VOA bottles for moisture content determination. VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.
(1)VOA - 5035/8260 (LOW LEVEL) (Carbon tetrachloride)

RELINQUISHED BY/REMOVED FROM
RD Julian
CHPRC
DATE/TIME
JAN 04 2010

RECEIVED BY/STORED IN
RD Julian
DATE/TIME
JAN 04 2010

RELINQUISHED BY/REMOVED FROM

RECEIVED BY/STORED IN

RELINQUISHED BY/REMOVED FROM

RECEIVED BY/STORED IN

LABORATORY SECTION
FINAL SAMPLE DISPOSITION

RECEIVED BY
DISPOSAL METHOD

TITLE
DATE/TIME
DISPOSED BY
DATE/TIME

ORIGINAL

SAMPLE RECORD SHEET

Location: <i>R 14</i>							
Sampler Initials and Date: <i>A</i>				DEC 31 2009			
Sample Number	Sample Suffix ¹			Initial Weight ² (grams)	Total Weight ³ (grams)	Soil Weight ⁴ (grams)	Methanol in sample bottle (ml)
<i>B23C06</i>	<i>K</i>	No Methanol		<i>31.4</i>	<i>35.2</i>	<i>3.8</i>	No Methanol
	<i>L</i>			<i>32.3</i>	<i>34.9</i>	<i>2.6</i>	
	<i>M</i>			<i>31.7</i>	<i>33.9</i>	<i>2.2</i>	
	<i>N</i>			<i>31.2</i>	<i>35.5</i>	<i>4.3</i>	
	<i>P</i>			<i>31.7</i>	<i>34.1</i>	<i>2.4</i>	
<p>¹Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.</p> <p>²Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.</p> <p>³Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.</p> <p>⁴Soil weight is the vial with sample minus Initial Weight.</p>							

COLLECTOR **KC Patterson**
CHPRC

COMPANY CONTACT
AYRES, D

TELEPHONE NO.
373-5582

PROJECT COORDINATOR
WIDRIG, DL

PRICE CODE **8B**

DATA
TURNAROUND

SAMPLING LOCATION

600-218; R15

PROJECT DESIGNATION

200-MG-1 OU Waste Sites Sampling and Analysis - Soil

SAF NO.
F09-059

AIR QUALITY

7 Days / 15
Days

ICE CHEST NO.

NA

FIELD LOGBOOK NO.

HNE-N-5078-3'

ACTUAL SAMPLE DEPTH

COA

302110ES10

METHOD OF SHIPMENT

GOVERNMENT VEHICLE

SHIPPED TO

Waste Sampling & Characterization

OFFSITE PROPERTY NO.

N/A

BILL OF LADING/AIR BILL NO.

N/A

MATRIX*

- A=Air
- DL=Drum
- Liquids
- DS=Drum
- Solids
- L=Liquid
- O=Oil
- S=Soil
- SE=Sediment
- T=Tissue
- V=Vegetation
- W=Water
- W1=Wipe
- X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS

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

PRESERVATION

-7C and -20C
Cooler
PS 12/3/09

TYPE OF CONTAINER

G

NO. OF CONTAINER(S)

5

VOLUME

40ml

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS

SEE ITEM (1) IN
SPECIAL
INSTRUCTIONS

*KC Patterson
CHPRC
DEC 31 2009*

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B23C07	SOIL	DEC 31 2009	0855	X	UN		NA

W10GR00013

*KC Patterson
CHPRC*

DEC 31 2009

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
<i>KC Patterson</i>	<i>DEC 31 2009</i>	<i>SSU (F)</i>	<i>DEC 31 2009</i>
<i>SSU (F)</i>	<i>JAN 04 2010</i>	<i>RD Julian</i>	<i>JAN 04 2010</i>
<i>RD Julian</i>	<i>JAN 04 2010</i>	<i>CHPRC</i>	<i>JAN 04 2010</i>
<i>CHPRC</i>	<i>JAN 04 2010</i>	<i>V. L. ...</i>	<i>JAN 04 2010</i>
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

** The CACN for all analytical work at WSCF laboratory is 401642ES20. ** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. ** All VOA samples will be collected using EPA Method 5035A. ** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample. ** The laboratory is to use one of the low level VOA bottles for moisture content determination. ** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.
(1)VOA - 5035/8260 (LOW LEVEL) (Carbon tetrachloride)

ORIGINAL

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

SAMPLE RECORD SHEET

Location: <i>R15</i>							
Sampler Initials and Date: <i>AD</i>				DEC 31 2009			
Sample Number	Sample Suffix ¹			Initial Weight ² (grams)	Total Weight ³ (grams)	Soil Weight ⁴ (grams)	Methanol in sample bottle (ml)
<i>B23C07</i>	<i>K</i>	No Methanol		<i>32.0</i>	<i>37.1</i>	<i>5.1</i>	No Methanol
	<i>L</i>			<i>31.4</i>	<i>36.6</i>	<i>5.2</i>	
	<i>M</i>			<i>31.1</i>	<i>35.1</i>	<i>4.0</i>	
	<i>N</i>			<i>32.4</i>	<i>36.0</i>	<i>3.6</i>	
	<i>P</i>			<i>31.2</i>	<i>35.6</i>	<i>4.4</i>	
<p>¹Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.</p> <p>²Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.</p> <p>³Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.</p> <p>⁴Soil weight is the vial with sample minus Initial Weight.</p>							

COLLECTOR **KC Patterson
CHPRC**

COMPANY CONTACT
AYRES, D

TELEPHONE NO.
373-5582

PROJECT COORDINATOR
WIDRIG, DL

PRICE CODE **88**

DATA
TURNAROUND

SAMPLING LOCATION

600-218; R16

PROJECT DESIGNATION

200-MG-1 OU Waste Sites Sampling and Analysis - Soil

SAF NO.
F09-059

AIR QUALITY

7 Days / 15
Days

ICE CHEST NO.

N/A

FIELD LOGBOOK NO.

HNF-N-507-8 3"

ACTUAL SAMPLE DEPTH

COA

302110ES10

METHOD OF SHIPMENT

GOVERNMENT VEHICLE

SHIPPED TO

Waste Sampling & Characterization

OFFSITE PROPERTY NO.

N/A

BILL OF LADING/AIR BILL NO.

N/A

MATRIX*

- A=Air
- DL=Drum
- Liquids
- DS=Drum
- Solids
- L=Liquid
- O=Oil
- S=Soil
- SE=Sediment
- T=Tissue
- V=Vegetation
- W=Water
- WJ=Wipe
- X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS

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

PRESERVATION

*-7C and -20C
Cool-Ac
by 12/3/09*

TYPE OF CONTAINER

G

NO. OF CONTAINER(S)

5

VOLUME

40mL

SAMPLE ANALYSIS

SEE ITEM (1) IN
SPECIAL
INSTRUCTIONS

SPECIAL HANDLING AND/OR STORAGE

*KC Patterson
CHPRC*

DEC 31 2009

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME					
B23C08	SOIL	DEC 31 2009	0905	X	<i>NA</i>			<i>NA</i>

W10GR00014

*KC Patterson
CHPRC*

DEC 31 2009

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM
KG Patterson
DATE/TIME
DEC 31 2009

RECEIVED BY/STORED IN
SS4 #R1
DATE/TIME
DEC 31 2009

** The CACN for all analytical work at WSCF laboratory is 401642ES20. ** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. ** All VOA samples will be collected using EPA Method 5035A. ** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample. ** The laboratory is to use one of the low level VOA bottles for moisture content determination. ** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.
(1)VOA - 5035/8260 (LOW LEVEL) (Carbon tetrachloride)

RELINQUISHED BY/REMOVED FROM
SS4
DATE/TIME
JAN 04 2010

RECEIVED BY/STORED IN
RD Julian
DATE/TIME
JAN 04 2010

RELINQUISHED BY/REMOVED FROM
RD Julian
DATE/TIME
JAN 13 2010

RECEIVED BY/STORED IN
CHPRC
DATE/TIME
JAN 04 2010

RELINQUISHED BY/REMOVED FROM
DATE/TIME

RECEIVED BY/STORED IN
DATE/TIME

LABORATORY SECTION

RECEIVED BY

TITLE

DATE/TIME

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

DISPOSED BY

DATE/TIME



ORIGINAL

41
OF
50

SAMPLE RECORD SHEET

Location: <i>R16</i>							
Sampler Initials and Date: <i>[Signature]</i>				DEC 31 2009			
Sample Number	Sample Suffix ¹			Initial Weight ² (grams)	Total Weight ³ (grams)	Soil Weight ⁴ (grams)	Methanol in sample bottle (ml)
<i>B23008</i>	<i>K</i>	No Methanol		<i>31.9</i>	<i>37.2</i>	<i>5.3</i>	No Methanol
	<i>L</i>			<i>32.6</i>	<i>36.5</i>	<i>3.9</i>	
	<i>M</i>			<i>31.9</i>	<i>37.4</i>	<i>5.5</i>	
	<i>N</i>			<i>32.4</i>	<i>37.3</i>	<i>4.9</i>	
	<i>P</i>			<i>32.4</i>	<i>37.5</i>	<i>5.1</i>	
<p>¹Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.</p> <p>²Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.</p> <p>³Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.</p> <p>⁴Soil weight is the vial with sample minus Initial Weight.</p>							

COLLECTOR **KC Patterson**
CHPRC

COMPANY CONTACT
AYRES, D

TELEPHONE NO.
373-5582

PROJECT COORDINATOR
WIDRIG, DL

PRICE CODE **8B**

DATA
TURNAROUND

SAMPLING LOCATION

600-218; R17

PROJECT DESIGNATION

200-MG-1 OU Waste Sites Sampling and Analysis - Soil

SAF NO.
F09-059

AIR QUALITY

7 Days / 15
Days

ICE CHEST NO.

N/A

FIELD LOGBOOK NO.

HNF-N-507-8

ACTUAL SAMPLE DEPTH

3"

COA

302110E510

METHOD OF SHIPMENT

GOVERNMENT VEHICLE

SHIPPED TO

Waste Sampling & Characterization

OFFSITE PROPERTY NO.

N/A

BILL OF LADING/AIR BILL NO.

N/A

MATRIX*

- A=Air
- DL=Drum
- Liquids
- DS=Drum
- Solids
- L=Liquid
- O=Oil
- S=Soil
- SE=Sediment
- T=Tissue
- V=Vegetation
- W=Water
- WI=Wipe
- X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS

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

PRESERVATION

-7C and -20C
Cool-AC
ss 12/18/09

TYPE OF CONTAINER

G

NO. OF CONTAINER(S)

5

VOLUME

40mL

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS

SEE ITEM (1) IN SPECIAL INSTRUCTIONS

KC Patterson
CHPRC

DEC 31 2009

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B23C09 ✓	SOIL	DEC 31 2009	0913	X	NA				NA

WIOGR 00015

KC Patterson
CHPRC

DEC 31 2009

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
<i>KC Patterson</i>	<i>DEC 31 2009 11:30</i>	<i>SSU RI</i>	<i>DEC 31 2009 11:30</i>
<i>CHPRC</i>	<i>1430</i>	<i>RD Julian</i>	<i>JAN 04 2010 1430</i>
<i>SSU RI</i>	<i>JAN 04 2010</i>	<i>RD Julian</i>	<i>JAN 04 2010</i>
<i>RD Julian</i>	<i>JAN 04 2010</i>	<i>W. [Signature]</i>	<i>JAN 04 2010</i>
<i>CHPRC</i>	<i>JAN 04 2010</i>		

** The CACN for all analytical work at WSCF laboratory is 401642E520.** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. ** All VOA samples will be collected using EPA Method 5035A. ** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample. ** The laboratory is to use one of the low level VOA bottles for moisture content determination. ** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be included as part of the sample ID reported in the final data packages.
(1)VOA - 5035/B260 (LOW LEVEL) (Carbon tetrachloride)

ORIGINAL

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

43 of 50

SAMPLE RECORD SHEET

Location: <i>R 17</i>							
Sampler Initials and Date: <i>[Signature]</i>				DEC 31 2009			
Sample Number	Sample Suffix ¹			Initial Weight ² (grams)	Total Weight ³ (grams)	Soil Weight ⁴ (grams)	Methanol in sample bottle (ml)
<i>B23C09</i>	<i>K</i>	No Methanol		<i>32.2</i>	<i>36.5</i>	<i>4.3</i>	No Methanol
	<i>L</i>			<i>32.5</i>	<i>37.1</i>	<i>4.6</i>	
	<i>M</i>			<i>32.6</i>	<i>37.2</i>	<i>4.6</i>	
	<i>N</i>			<i>31.6</i>	<i>36.0</i>	<i>4.4</i>	
	<i>P</i>			<i>32.5</i>	<i>35.8</i>	<i>3.3</i>	
<p>¹Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.</p> <p>²Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.</p> <p>³Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.</p> <p>⁴Soil weight is the vial with sample minus Initial Weight.</p>							

COLLECTOR
KC Patterson
CHPRC

COMPANY CONTACT
AYRES, D

TELEPHONE NO.
373-5582

PROJECT COORDINATOR
WIDRIG, DL

PRICE CODE 8B

DATA
TURNAROUND

SAMPLING LOCATION

600-218; R18

PROJECT DESIGNATION

200-MG-1 OU Waste Sites Sampling and Analysis - Soil

SAF NO.
F09-059

AIR QUALITY

7 Days / 15
Days

ICE CHEST NO.

N/A

FIELD LOGBOOK NO.

HNF-N-507-8

ACTUAL SAMPLE DEPTH

3"

COA

302110ES10

METHOD OF SHIPMENT

GOVERNMENT VEHICLE

SHIPPED TO

Waste Sampling & Characterization

OFFSITE PROPERTY NO.

N/A

BILL OF LADING/AIR BILL NO.

N/A

MATRIX*

- A=Air
- DL=Drum
- Liquids
- DS=Drum
- Solids
- L=Liquid
- O=Oil
- S=Soil
- SE=Sediment
- T=Tissue
- V=Vegetation
- W=Water
- WI=Wipe
- X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS

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

PRESERVATION

*Revised
-7C and -20'4*

TYPE OF CONTAINER

G

NO. OF CONTAINER(S)

5

VOLUME

40mL

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS

SEE ITEM (1) IN SPECIAL INSTRUCTIONS

*KC Patterson
CHPRC
DEC 31 2009*

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME				
B23C10	SOIL	DEC 31 2009	0920	X	NA		

W10GR00016

*KC Patterson
CHPRC
DEC 31 2009*

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM <i>KC Patterson</i>	DATE/TIME <i>DEC 31 2009</i>	RECEIVED BY/STORED IN <i>SSUTHER</i>	DATE/TIME <i>DEC 31 2009</i>
RELINQUISHED BY/REMOVED FROM <i>RD Julian</i>	DATE/TIME <i>JAN 04 2010</i>	RECEIVED BY/STORED IN <i>RD Julian</i>	DATE/TIME <i>JAN 04 2010</i>
RELINQUISHED BY/REMOVED FROM <i>RD Julian</i>	DATE/TIME <i>JAN 04 2010</i>	RECEIVED BY/STORED IN <i>CHPRC</i>	DATE/TIME <i>JAN 04 2010</i>
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

** The CACN for all analytical work at WSCF laboratory is 401642ES20.** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. ** All VOA samples will be collected using EPA Method 5035A. ** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample. ** The laboratory is to use one of the low level VOA bottles for moisture content determination. ** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.
(1)VOA - 5035/8260 (LOW LEVEL) (Carbon tetrachloride)

45
of
50

LABORATORY SECTION

RECEIVED BY

TITLE

DATE/TIME

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

DISPOSED BY

DATE/TIME

ORIGINAL

SAMPLE RECORD SHEET

Location: <i>R18</i>							
Sampler Initials and Date: <i>AS</i>				DEC 31 2009			
Sample Number	Sample Suffix ¹			Initial Weight ² (grams)	Total Weight ³ (grams)	Soil Weight ⁴ (grams)	Methanol in sample bottle (ml)
<i>B23C10</i>	<i>K</i>	No Methanol	No Methanol	<i>31.8</i>	<i>36.2</i>	<i>4.4</i>	No Methanol
	<i>L</i>			<i>31.4</i>	<i>36.0</i>	<i>4.6</i>	
	<i>M</i>			<i>31.5</i>	<i>35.6</i>	<i>4.1</i>	
	<i>N</i>			<i>31.5</i>	<i>35.8</i>	<i>4.3</i>	
	<i>P</i>			<i>32.6</i>	<i>37.0</i>	<i>4.4</i>	
<p>¹Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.</p> <p>²Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.</p> <p>³Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.</p> <p>⁴Soil weight is the vial with sample minus Initial Weight.</p>							

COLLECTOR **KC Patterson**
CHPRC

SAMPLING LOCATION

600-218; R19

ICE CHEST NO.

N/A

SHIPPED TO

Waste Sampling & Characterization

MATRIX*

- A=Air
- DL=Drum
- Liquids
- DS=Drum
- Solids
- L=Liquid
- O=Oil
- S=Soil
- SE=Sediment
- T=Tissue
- V=Vegetation
- W=Water
- WI=Wipe
- X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS

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

SPECIAL HANDLING AND/OR STORAGE

COMPANY CONTACT

AYRES, D

PROJECT DESIGNATION

200-MG-1 OU Waste Sites Sampling and Analysis - Soil

FIELD LOGBOOK NO.

HNF-N-507-8

TELEPHONE NO.

373-5582

PROJECT COORDINATOR

WIDRIG, DL

SAF NO.

F09-059

ACTUAL SAMPLE DEPTH

3"

PRICE CODE

8B

AIR QUALITY

METHOD OF SHIPMENT

GOVERNMENT VEHICLE

DATA TURNAROUND

7 Days / 15 Days

BILL OF LADING/AIR BILL NO.

N/A

PRESERVATION

Stabilize
~~cool - 4C~~
- 7C AND 20C

TYPE OF CONTAINER

G

NO. OF CONTAINER(S)

5

VOLUME

40mL

SAMPLE ANALYSIS

SEE ITEM (1) IN SPECIAL INSTRUCTIONS

KC Patterson
CHPRC
DEC 31 2009

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME					
B23C11	✓ ISOIL	DEC 31 2009	0430	X	<i>mt</i>			

W106R00017

KC Patterson
CHPRC
DEC 31 2009

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
<i>KC Patterson</i>	<i>DEC 31 2009</i>	<i>SSU #RL</i>	<i>DEC 31 2009</i>
<i>CHPRC</i>	<i>1430</i>	<i>RD Julian</i>	<i>JAN 04 2010</i>
<i>CHPRC</i>	<i>JAN 04 2010</i>	<i>CHPRC</i>	<i>JAN 04 2010</i>
<i>CHPRC</i>	<i>JAN 04 2010</i>	<i>CHPRC</i>	<i>JAN 04 2010</i>
<i>CHPRC</i>	<i>JAN 04 2010</i>	<i>CHPRC</i>	<i>JAN 04 2010</i>
<i>CHPRC</i>	<i>JAN 04 2010</i>	<i>CHPRC</i>	<i>JAN 04 2010</i>
<i>CHPRC</i>	<i>JAN 04 2010</i>	<i>CHPRC</i>	<i>JAN 04 2010</i>

** The CACN for all analytical work at WSCF laboratory is 401642ES20. ** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. ** All VOA samples will be collected using EPA Method 5035A. ** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample. ** The laboratory is to use one of the low level VOA bottles for moisture content determination. ** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.
(1)VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride}

ORIGINAL

LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME
47 50			
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY	DATE/TIME

SAMPLE RECORD SHEET

Location: <i>R 19</i>							
Sampler Initials and Date: <i>[Signature]</i> DEC 31 2009							
Sample Number	Sample Suffix ¹			Initial Weight ² (grams)	Total Weight ³ (grams)	Soil Weight ⁴ (grams)	Methanol in sample bottle (ml)
<i>B23C11</i>	<i>K</i>	No Methanol		<i>31.5</i>	<i>37.1</i>	<i>5.6</i>	No Methanol
	<i>L</i>			<i>31.2</i>	<i>36.0</i>	<i>4.8</i>	
	<i>M</i>			<i>32.2</i>	<i>35.6</i>	<i>3.4</i>	
	<i>N</i>			<i>31.7</i>	<i>34.9</i>	<i>3.2</i>	
	<i>P</i>			<i>32.0</i>	<i>36.2</i>	<i>4.2</i>	
<p>¹Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.</p> <p>²Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.</p> <p>³Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.</p> <p>⁴Soil weight is the vial with sample minus Initial Weight.</p>							

COLLECTOR **KC Patterson**
CHPRC

SAMPLING LOCATION

600-218; R20

ICE CHEST NO.

COMPANY CONTACT

AYRES, D

TELEPHONE NO.

373-5582

PROJECT COORDINATOR

WIDRIG, DL

PRICE CODE

8B

DATA TURNAROUND

7 Days / 15 Days

PROJECT DESIGNATION

200-MG-1 OU Waste Sites Sampling and Analysis - Soil

SAF NO.

F09-059

AIR QUALITY

FIELD LOGBOOK NO.

HNF-N-507-8

ACTUAL SAMPLE DEPTH

3 Inches

COA

302110ES10

METHOD OF SHIPMENT

GOVERNMENT VEHICLE

SHIPPED TO

Waste Sampling & Characterization

OFFSITE PROPERTY NO.

N/A

BILL OF LADING/AIR BILL NO.

N/A

MATRIX*

- A=Air
- DL=Drum
- Liquids
- DS=Drum
- Solids
- L=Liquid
- O=Oil
- S=Soil
- SE=Sediment
- T=Tissue
- V=Vegetation
- W=Water
- WI=Wipe
- X=Other

POSSIBLE SAMPLE HAZARDS/ REMARKS

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

PRESERVATION

12/1/09
-7C AND 20C

TYPE OF CONTAINER

G

NO. OF CONTAINER(S)

5

VOLUME

40ml

SAMPLE ANALYSIS

SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SPECIAL HANDLING AND/OR STORAGE

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME					
B23C12	SOIL	DEC 31 2009	0939	X	NA			NA

W10GROB018

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
AC Patterson	DEC 31 2009	SSU # 1	DEC 31 2009
RECEIVED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
SSU # 1	JAN 04 2010	RD Julian	JAN 04 2010
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RD Julian	JAN 04 2010	CHPRC	JAN 04 2010/S/10
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
CHPRC		new B...	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

** The CACN for all analytical work at WSCF laboratory is 401642ES20.** The 200 Area S&GRP Characterization and Monitoring Sampling and Analysis GKI applies to this SAF. ** All VOA samples will be collected using EPA Method 5035A. ** VOA sample bottle sets will include 3 bottles for high level analysis, 5 bottles for low level analysis, and 1 methanol process control sample. ** The laboratory is to use one of the low level VOA bottles for moisture content determination. ** VOA bottles will be labeled with an appended suffix of K, L, M, N, or P for low level and W, X, or Y for high level. These suffixes are for the purpose of providing bottle weights to the laboratories. These suffixes should not be include as part of the sample ID reported in the final data packages.
(1)VOA - 5035/8260 (LOW LEVEL) {Carbon tetrachloride}

ORIGINAL

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

49 of 50

SAMPLE RECORD SHEET

Location: <i>R 20</i>							
Sampler Initials and Date: <i>[Signature]</i> DEC 31 2009							
Sample Number	Sample Suffix ¹			Initial Weight ² (grams)	Total Weight ³ (grams)	Soil Weight ⁴ (grams)	Methanol in sample bottle (ml)
<i>B 23 C 12</i>	<i>K</i>	No Methanol		<i>31.1</i>	<i>35.8</i>	<i>4.7</i>	No Methanol
	<i>L</i>			<i>31.1</i>	<i>35.7</i>	<i>4.6</i>	
	<i>M</i>			<i>31.6</i>	<i>36.2</i>	<i>4.6</i>	
	<i>N</i>			<i>32.2</i>	<i>36.7</i>	<i>4.5</i>	
	<i>P</i>			<i>31.2</i>	<i>35.2</i>	<i>4.0</i>	
<p>¹Sample suffix of K, L, M, N, and P relate to low-level concentration samples and will not have any preservation beyond freezing between -7°C and -20°C.</p> <p>²Initial weight is to include all labels, stickers, bags, spin bars (for samples with suffix K, L, M, N and P) and anything else that will be associated with the bottle when it is weighed with the sample.</p> <p>³Ensure that everything weighed for the empty bottle and no additional items (besides the sample) is weighed.</p> <p>⁴Soil weight is the vial with sample minus Initial Weight.</p>							