

ORP-114 (02/02)		ORP - REVIEW COMMENT RECORD (RCR)			1. Date June 21 2005	2. Review No. N/A
					3. Project No. 200-MW-1	4. Page 1 of 1
5. Document Number(s)/Title(s) Data Package SDG WSCF20050940	6. Program/Project/Building Number GRP & Waste Sites/200-MW-1	7. Reviewer Bill Thackaberry	8. Organization/Group Env & Science Assurance (QA)	9. Location/Phone E6-35 372-0742		
17. Comment Submittal Approval	10. Agreement with indicated comment disposition(s). 7/5/05 Date Requester		11. CLOSED 7/5/05 Date Requester			
Organization Manager (optional)						
12. Item	13a. Comment(s)/Discrepancy(s) (Provide technical justification for the comment and detailed recommendation of the action required to correct/resolve the discrepancy/problem indicated.)	14. Reviewer Concurrence Required	15. Disposition (Provide justification if NOT accepted). Provide separate attachments if necessary.	16. Status		
1	Inorganics - Page 36 is missing(part of the validation checklist).		<i>[Signature]</i>	✓		
2	Radiochemistry - pg 14, It appears that the wrong Pu result was flagged. Pu 238 is supposewd to be flagged. The validator has flagged the Pu 239/240.		<i>[Signature]</i>	✓		
3	Semivolatiles - pg 3, States "Due to LCS recovery outside QC limits (62.6%), all results were qualified as estimates and flagged "J". This should be all phenol results.		<i>[Signature]</i>	✓		
4	Semivolatiles - Page 43 is missing (may only be a title page).		<i>[Signature]</i>	✓		
5	Wet Chemistry - pg 36, checklist item 6 comment says "pH <2X J all" should say "pH >2X J all"		<i>[Signature]</i>	✓		
	PCBs, Volatiles - No Comment					

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REVIEW COMMENT RECORD (RCR)

1. Date 06/27/05

2. Review No.

3. Project No.

4. Page 1 of 2

200-MW-1

5. Document Number(s)/Title(s)
Validation Package for SDG WSCF20050940

6. Program/Project/Building Number
Characterization Soil Sampling

7. Reviewer
RL Weiss

8. Organization/Group
ERC - S&DM

9. Location/Phone
Sigma 1
372-9631

17. Comment Submittal Approval:

Organization Manager (Optional)

10. Agreement with indicated comment disposition(s)

06/27/2005

Date

R. L. Weiss

Reviewer/Point of Contact

R. L. Weiss

Author/Originator

11. Closed

7-6-05
Date

Richard L. Weiss
Reviewer/Point of Contact
Richard L. Weiss
Author/Originator

12. Item	13. Comment(s)/Discrepancy(s) (Provide technical justification for the comment and detailed recommendation of the action required to correct/resolve the discrepancy/problem indicated.)	14. Reviewer Concurrence Required	15. Disposition (Provide justification if NOT accepted.)	16. Status
1	Wet Chemistry, Page 10, typo; The pH result for B1C775 should be 9.7.		<i>OK</i>	<i>OK RLW</i>
2	Semivolatile, Page 11, typo; The tributylphosphate result for B1C771 should be 160.		<i>OK</i>	<i>OK RLW</i>
3	Radiochemistry, Pages 2, 4, 8, & 40; Radiochemistry validation for blank contamination does not assign "U" flags. U-235 results should only be flagged "J". Annotated lab reports are ok.		<i>OK</i>	<i>OK RLW</i>
4	Volatile; Pages 22 and 23 are reversed.		<i>OK</i>	<i>OK RLW</i>
5	PCB and Inorganic - No Comments			

Date: 21 June 2005
To: Fluor Hanford Inc. (technical representative)
From: TechLaw, Inc.
Project: 200-MW-1 Characterization Sampling and Analysis - Soil
Subject: PCB - Data Package No.WSCF20050940 (50940)

INTRODUCTION

This memo presents the results of data validation on Data Package No. 50940 prepared by WSCF Analytical Laboratories (WSCF). A list of samples validated along with the analyses reported and the method of analysis is provided in the following table.

Sample ID	Sample	Media	Validation	Analysis
B1C769	4/28/05	Soil	C	PCBs by 8082
B1C771	4/28/05	Soil	C	PCBs by 8082
B1C774	4/28/05	Soil	C	PCBs by 8082
B1C775	4/28/05	Soil	C	PCBs by 8082
B1C776	4/28/05	Soil	C	PCBs by 8082
B1C777	4/28/05	Soil	C	PCBs by 8082

Data validation was conducted in accordance with the FHI validation statement of work and the 200-MW-1 Miscellaneous Waste Group OU RI/FS Workplan, DOE/RL-2001-65 (Rev. 0), April 2002. Appendices 1 through 6 provide the following information as indicated below:

- Appendix 1. Glossary of Data Reporting Qualifiers
- Appendix 2. Summary of Data Qualification
- Appendix 3. Qualified Data Summary and Annotated Laboratory Reports
- Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
- Appendix 5. Data Validation Supporting Documentation
- Appendix 6. Additional Documentation Requested by Client

DATA QUALITY OBJECTIVES

- **Holding Times/Sample Preservation**

Sample data were assessed to ascertain whether the holding time requirements were met by the laboratory. The holding time requirements are as follows: Soil samples must be extracted within 14 days of sample collection and analyzed within 40 days of extraction.

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If holding times are exceeded by less than two times the limit, all associated sample results are qualified as estimates and flagged "J" for detects and "UJ" for non-detects. If holding times are exceeded by greater than two times the limit, all associated detected sample results are qualified as estimates and flagged "J" and all non-detects are rejected and flagged "UR".

All holding times were acceptable.

- **Method Blank**

Method blank analyses are performed to determine the extent of laboratory contamination introduced through sampling, sample preparation or analysis. At least one method blank analysis must be conducted for every 20 samples. Method blanks should not contain target compounds at a concentration greater than minimum detectable activity (MDA). If target compounds are present, sample results less than five times the blank concentration are qualified as undetected and flagged "U". If the sample result is less than five times the blank concentration and less than MDA, the result is qualified as undetected and elevated to the MDA.

All method blank target compound results were acceptable.

Field Blanks

No equipment blanks were submitted for analysis.

- **Accuracy**

Matrix Spike/Blank Spike

Matrix spike and blank spike analyses are used to assess the analytical accuracy of the reported data. The matrix spike is used to assess the effect of the matrix on the ability to accurately quantify sample concentrations and is done in duplicate. Matrix spike and blank spike analyses must be within control limits of 50% to 150%. If spike recoveries are outside control limits, detected sample results less than five times the spike concentration are qualified as estimates and flagged "J". Non-detected sample results with spike recoveries outside control limits are qualified as estimates and flagged "UJ". Sample results greater than five times the spike concentration require no qualification.

All matrix spike/blank spike results were acceptable.

Surrogate Recovery

The analysis of surrogate compounds provides a measure of performance for individual samples. Matrix-specific surrogate compound recovery control windows have been established by the laboratory. When a surrogate compound recovery is outside the control window, all positively identified target compounds associated with the unacceptable surrogate recoveries are qualified as estimates and flagged "J". Non-detected compounds with surrogate recoveries less than the lower control limit are qualified as having an estimated detection limit and flagged "UJ". Non-detected compounds with surrogate recoveries above the upper control limit require no qualification.

All surrogate results were acceptable.

- **Precision**

Matrix Spike/Matrix Spike Duplicate Samples

Matrix spike/matrix spike duplicate results provide matrix-specific information on the precision of the method for specific target compound classes. Precision is expressed as the relative percent difference (RPD) between the recoveries of duplicate matrix spike analyses performed on a sample. For soil samples, results must be within RPD limits of plus/minus 35%. If RPD values are out of specification and the sample concentration is less than five times the spike concentration, all associated detected sample results are qualified as estimates and flagged "J". If RPD values are out of specification and the sample concentration is greater than five times the spike concentration, no qualification is required.

All precision results were acceptable.

Field Duplicate Samples

No field duplicates were submitted for analysis.

- **Analytical Detection Levels**

Reported analytical detection levels are compared against the required target quantitation limits (RTQL) to ensure that laboratory detection levels meet the required criteria. All results exceeded the analyte specific RTQL. Under the FHI statement of work, no qualification is required.

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- **Completeness**

Data Package No. 50940 was submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

All results exceeded the analyte specific RTQL. Under the FHI statement of work, no qualification is required.

REFERENCES

FHI, Contract #20266, *Validation Statement of Work*, Fluor Hanford Incorporated, July 7, 2003.

DOE/RL-2001-65, Rev. 0, *200-MW-1 Miscellaneous Waste Group OUs RI/FS Work Plan*, April 2002.

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Appendix 1

Glossary of Data Reporting Qualifiers

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Qualifiers which may be applied by data validators in compliance with the procedures herein are as follows:

- U - Indicates the compound or analyte was analyzed for and not detected in the sample. The value reported is the sample quantitation limit corrected for sample dilution and moisture content by the laboratory.
- UJ - Indicates the compound or analyte was analyzed for and not detected in the sample. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- J - Indicates the compound or analyte was analyzed for and detected. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- R - Indicates the compound or analyte was analyzed for, detected, and due to an identified major QC deficiency, the data are unusable.
- UR - Indicates the compound or analyte was analyzed for and not detected in the sample. Additionally, the data is unusable due to an identified major QC deficiency.
- NJ - Indicates presumptive evidence of a compound at an estimated value. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).
- N - Indicates presumptive evidence of a compound. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).

Appendix 2

Summary of Data Qualification

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PCB DATA QUALIFICATION SUMMARY*

SDG: 50940	REVIEWER: TLI	PROJECT: 200-MW-1	PAGE <u>1</u> OF <u>1</u>
COMMENTS: No qualifiers assigned			

* - The Qualified Data Summary Table includes laboratory applied "U" qualifiers not specifically identified here. The laboratory applied "U" qualifiers are included to minimize misinterpretation of results contained in the table.

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Appendix 3

Qualified Data Summary and Annotated Laboratory Reports

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Project: FLUOR-HANFORD													
Laboratory: WSCF													
Case:		SDG: WSCF20050940											
Sample Number		B1C769		B1C771		B1C774		B1C775		B1C776		B1C777	
Remarks													
Sample Date		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05	
Analysis Date		5/13/05		5/13/05		5/13/05		5/13/05		5/13/05		5/13/05	
PCB	RTQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Aroclor-1016	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U
Aroclor-1221	16.5	<110	U	<110	U	<100	U	<100	U	<100	U	<100	U
Aroclor-1232	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U
Aroclor-1242	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U
Aroclor-1248	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U
Aroclor-1254	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U
Aroclor-1260	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U
Aroclor-1262	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U
Aroclor-1268	16.5	<54.0	U	<55.0	U	<52.0	U	<51.0	U	<51.0	U	<51.0	U

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
Organic														
W050001286	B1C769	GRP	TRENT	TPH GASOLINE	Total Pot. Hydrocarbons Gas	SOIL	LA-526-448	U	250	1.00	2.5e+02	05/11/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	12874-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 54.0	1.00	54	05/13/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 110	1.00	1.1e+02	05/13/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 54.0	1.00	54	05/13/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 54.0	1.00	54	05/13/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	12672-29-8	Aroclor-1248	SOIL	LA-523-427	U	< 54.0	1.00	54	05/13/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 54.0	1.00	54	05/13/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 54.0	1.00	54	05/13/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 54.0	1.00	54	05/13/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 54.0	1.00	54	05/13/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	108-92-7	4-Nitrophenol	SOIL	LA-523-456	U	< 190	1.00	1.9e+02	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	108-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 290	1.00	2.9e+02	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 150	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 200	1.00	2.0e+02	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	121-14-8	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 120	1.00	1.2e+02	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 170	1.00	1.7e+02	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 100	1.00	1.0e+02	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	621-84-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 180	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 150	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	87-88-5	Pentachlorophenol	SOIL	LA-523-456	U	< 180	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 170	1.00	1.7e+02	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 150	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	75-36-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.20	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455	U	< 2.20	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.20	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.20	1.00	2.2	05/10/05	04/28/05	04/28/05

MDL = Minimum Detection Limit

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

U - Analyzed for but not detected above limiting criteria.

RQ = Result Qualifier

DF = Dilution Factor

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

Report WGPP/ver. 1.1

Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001288	B1C769	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001288	B1C769	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	06/10/05	04/28/05	04/28/05
W050001288	B1C769	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 44.0	ug/kg	1.00	44	05/10/05	04/28/05	04/28/05
W050001288	B1C769	156-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001288	B1C769	158-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001288	B1C769	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05	04/28/05	04/28/05
W050001288	B1C769	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05	04/28/05	04/28/05
W050001287	B1C771	TPHGAASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05	04/28/05	04/28/05
W050001287	B1C771	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 110	ug/kg	1.00	1.1e+02	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	12672-28-8	Aroclor-1248	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	106-82-7	4-Nitrophenol	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 290	ug/kg	1.00	2.9e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	108-95-2	Phenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 200	ug/kg	1.00	2.0e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 120	ug/kg	1.00	1.2e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	129-00-0	Pyrene	SOIL	LA-523-456	U	< 1.7e+02	ug/kg	1.00	1.7e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	100	ug/kg	1.00	1.0e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	621-84-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05

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MDL = Minimum Detection Limit
RQ = Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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

Report WGPP/ver. 1.1
Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001287	B1C771	GRP TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	75-16-0	Carbon disulfide	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	75-25-2	Bromoform	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	78-93-3	2-Butanone	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	71-36-3	1-Butanol	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	44	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	156-60-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	TPH GASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443 U	< 250	ug/kg	1.00	2.5e+02	05/11/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427 U	< 100	ug/kg	1.00	1.0e+02	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	108-82-7	1-Nitrophenol	SOIL	LA-523-456 U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456 U	< 280	ug/kg	1.00	2.8e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	108-95-2	Phenol	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456 U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05	04/28/05

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MDL = Minimum Detection Limit
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B - The analyte < the RDL but > = the IDL/MDL (Inorganic)

U - Analyzed for but not detected above limiting criteria.

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
W050001288	B1C774	GRP TRENT	67-86-3	Chloroform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 42.0	ug/kg	1.00	42	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	156-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 4.00e+03	ug/kg	1.00	4.0e+03	05/12/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 4.00e+03	ug/kg	1.00	4.0e+03	05/12/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/13/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001289	B1C775	GRP TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427 U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427 U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	109-02-7	4-Nitrophenol	SOIL	LA-523-458 U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	108-46-7	1,4-Dichlorobenzene	SOIL	LA-523-458 U	< 280	ug/kg	1.00	2.8e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	108-96-2	Phenol	SOIL	LA-523-458 U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-458 U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-458 U	< 110	ug/kg	1.00	1.1e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	129-00-0	Pyrene	SOIL	LA-523-458 U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	69-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-458 U	< 97.0	ug/kg	1.00	97	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-458 U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	83-32-8	Acenaphthene	SOIL	LA-523-458 U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	87-86-6	Pentachlorophenol	SOIL	LA-523-458 U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	98-57-8	2-Chlorophenol	SOIL	LA-523-458 U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-458 U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	75-35-4	1,1-Dichloroethane	SOIL	LA-523-458 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	78-01-8	Trichloroethane	SOIL	LA-523-458 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	71-43-2	Benzene	SOIL	LA-523-458 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	108-88-3	Toluene	SOIL	LA-523-458 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-458 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-458 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-458 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	100-42-5	Styrene	SOIL	LA-523-458 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-458 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-458 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-458 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-458 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-458 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05

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Report WGPP/ver. 1.1
Groundwater Remediation Program

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jr 6/20/05

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001289	B1C775	GRP TRENT	127-18-4	Tetrachloroethane	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	1330-20-7	Xylenes (total)	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	540-59-0	1,2-Dichloroethane(Total)	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	56-23-5	Carbon tetrachloride	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	591-78-8	2-Hexanone	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	67-64-1	Acetone	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	67-66-3	Chloroform	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	71-55-8	1,1,1-Trichloroethane	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	74-83-9	Bromomethane	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	74-87-3	Chloromethane	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	75-00-3	Chloroethane	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	75-01-4	Vinyl chloride	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	75-09-2	Methylenechloride	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	75-15-0	Carbon disulfide	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	75-25-2	Bromoform	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	75-27-4	Bromodichloromethane	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	78-87-5	1,2-Dichloropropane	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	78-93-3	2-Butanone	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	79-00-5	1,1,2-Trichloroethane	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	71-36-3	1-Butanol	SOIL LA-523-455	U	< 42.0	ug/kg	1.00	42	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	156-80-5	trans-1,2-Dichloroethylene	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT	TPHKEROSENE	Kerosene	SOIL NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05	04/28/05
W050001290	B1C775	GRP TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL LA-523-442	U	< 250	ug/kg	1.00	2.5e+02	05/11/05	04/28/05	04/28/05
W050001290	B1C775	GRP TRENT	12674-11-2	Aroclor-1016	SOIL LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05

MDL = Minimum Detection Limit B - The analyte < the RDL but > = the IDL/MDL (Inorganic)
RQ = Result Qualifier U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor
* - Indicates results that have NOT been validated; + - Indicates more than six qualifier symbols
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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	GRP	TRENT	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001290	B1C778	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	11141-18-8	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	53489-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	12672-28-8	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	11097-89-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	37324-23-6	Aroclor-1262	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	108-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 270	ug/kg	1.00	2.7e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 110	ug/kg	1.00	1.1e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 96.0	ug/kg	1.00	96	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	621-84-7	N-Nitrosodi-n-propylamine	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	79-01-8	Trichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05

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MDL=Minimum Detection Limit
RQ=Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

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

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001290	B1C776	158-60-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C776	158-69-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C776	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	3.90e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05	04/28/05
W050001290	B1C776	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05	04/28/05
W050001291	B1C777	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05	04/28/05	04/28/05
W050001291	B1C777	12874-11-2	Aroclor-1018	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/13/05	04/28/05	04/28/05
W050001291	B1C777	11141-18-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	53489-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	12872-29-8	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	11097-89-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	108-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 270	ug/kg	1.00	2.7e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	108-95-2	Phenol	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	128-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 110	ug/kg	1.00	1.1e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	129-00-0	Pyrene	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	96.0	ug/kg	1.00	96	05/10/05	04/28/05	04/28/05
W050001291	B1C777	621-84-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	83-32-8	Acenaphthene	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	87-88-5	Pentachlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	75-35-4	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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

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Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

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Sample Delivery Group	WSCF20050940
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F04-015
Data Deliverable	Summary Report

Introduction

Six (6) 200-MW-1 Characterization Sampling and Analysis – Soil/216-T-13, 10' – 11', samples (B1C769, B1C771, B1C774, B1C775, B1C776 and B1C777) were received at the WSCF Laboratory on April 28, 2005. The 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 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and sample receipt are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Anions by EPA Method 300.0. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 9045C. Analytical work was performed with no deviations to the approved method.

Organic

- PCB by EPA Method 8082. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.

- TPH Diesel/Gas Range by WDOE Method NWTPH-Dx/Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260B. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA [Americium, Plutonium and Uranium], GEA, Sr-89/90) were run by internal WSCF procedures. Analytical work was performed with no deviations to the approved method.

Inorganic Comments

Anions - The hold times for Nitrite and Nitrate analyses were not met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 14 for QC details. Analytical Notes:

- Preparation Date: 09-may-2005.
- Sulfate - Sample (B1C769, B1C774, B1C775, B1C776 and B1C777) results were B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.
- Sulfate - The Duplicate Relative Percent Difference exceeded established laboratory limits.

All other QC controls are within the established limits.

ICP-MS Metals - The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page 15 for QC details. Analytical Note:

- Preparation Date: 09-may-2005.

All QC controls are within the established limits.

Percent Solids - Analyzed for organic results correction.

pH - All internal laboratory controls were within established limits. See page 16 for QC details. Analytical Note:

- Duplicate QC sample was analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

Organic Comments

- Sample results were moisture corrected and reported on a dry-weight basis.

PCB – The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 31 through 33 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 34 through 38 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Phenol-d5 – Surrogate recovery was less than established laboratory limits.
- Phenol and Pentachlorophenol – LCS recoveries were less than the established laboratory limits. Sample results were less than the method detection limit and U flagged.

All other QC controls are within the established limits.

TPHD-WA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See pages 39 through 40 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).

All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 41 for QC details. Analytical Notes:

- Preparation Date: 11-may-2005.
- Total Petroleum Hydrocarbons, Gas – The Spike Relative Percent Difference and the Laboratory Control Sample recovery slightly exceeded. All other QC samples were within limits, sample results were U-flagged.

All other QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 42 through 45 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Radiochemistry Comments

RadChem – There are no hold times associated with WSCF radiochemical methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 52 through 56 for QC details. Analytical Notes:

- Americium-241, Plutonium-238 & 239/240, and Uranium-234, 235 & 238 Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).
- GEA and Strontium-89/90– Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).
- Uranium-234, Uranium-235 and Plutonium-238 - Additional Batch QC Data are summarized below:

Additional Batch QC Data (Results)				
Sample Number	Sample ID	Isotope	Concentration (pCi/g soil)	Count
<u>Uranium-234/ Uranium-235</u>				
BLANK		U-234	8.123E-03	
BLANK		U-235	6.651E-03	
B1C784	W050001268	U-234	3.168E-01	
DUPLICATE	W050001268	U-234	3.188E-01	0.6
B1C784	W050001268	U-235	2.675E-02	
DUPLICATE	W050001268	U-235	3.375E-02	23
<u>Plutonium-238</u>				
BLANK		Pu-238	-2.360E-02	
B1C784	W050001268	Pu-238	8.700E-03	

Additional Batch QC Data (Results)				
Sample Number	Sample	Isotope	Result	Unit
DUPLICATE	W050001268	Pu-238	U9.421E-03	N/A

- Americium-243, Plutonium-242, Strontium-85 and Uranium-232 – Radiochemical Tracer Recovery Data are summarized below:

Radiochemical Tracer Percent Recovery			
Sample Number	Sample	Isotope	Recovery (%)
<u>Americium-243</u>			
BLANK		Am-243	93.6
LCS		Am-243	89.3
B1C784	W050001268	Am-243	106.7
DUPLICATE	W050001268	Am-243	87.5
B1C769	W050001286	Am-243	99.3
B1C771	W050001287	Am-243	87.3
B1C774	W050001288	Am-243	105.1
B1C775	W050001289	Am-243	84.8
B1C776	W050001290	Am-243	96.6
B1C777	W050001291	Am-243	84.9
<u>Plutonium-242</u>			
BLANK		Pu-242	86.2
LCS		Pu-242	94.0
B1C784	W050001268	Pu-242	84.0
DUPLICATE	W050001268	Pu-242	86.2

Radiochemical Tracer Percent Recovery			
Tracer	Sample	Tracer	Percent Recovery (Percent)
B1C769	W050001286	Pu-242	95.0
B1C771	W050001287	Pu-242	87.6
B1C774	W050001288	Pu-242	91.2
B1C775	W050001289	Pu-242	87.2
B1C776	W050001290	Pu-242	88.0
B1C777	W050001291	Pu-242	82.1
<u>Strontium-85</u>			
BLANK		Sr-85	83.9
LCS		Sr-85	98.2
B1CY50	W050001285	Sr-85	76.6
DUPLICATE	W050001285	Sr-85	88.3
B1C769	W050001286	Sr-85	87.4
B1C771	W050001287	Sr-85	84.6
B1C774	W050001288	Sr-85	91.4
B1C775	W050001289	Sr-85	87.2
B1C776	W050001290	Sr-85	80.7
B1C777	W050001291	Sr-85	91.9
<u>Uranium-232</u>			
BLANK		U-232	79.6
LCS		U-232	70.4
B1C784	W050001268	U-232	83.4
DUPLICATE	W050001268	U-232	83.9
B1C769	W050001286	U-232	90.8

Radiochemical Tracer Percent Recovery			
Sample ID	Lab Sample	Tracer	Percent Recovery
B1C771	W050001287	U-232	87.2
B1C774	W050001288	U-232	95.0
B1C775	W050001289	U-232	82.1
B1C776	W050001290	U-232	93.2
B1C777	W050001291	U-232	82.1

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Pauline D. Mix
 Pauline D. Mix
 WSCF Client Services

Abbreviations

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

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

5/30/05

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					F04-015-124	PAGE 1 OF 2							
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN	DATA TURNAROUND 45 Days / 45 Days							
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>								
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10	METHOD OF SHIPMENT Government Vehicle			4-26-05							
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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None						
		TYPE OF CONTAINER		g	g	g	g	g	P						
		NO. OF CONTAINER(S)		1	1	1	3	1	1						
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL						
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770 20050940		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCR - 0082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS						
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME												
B1C769	1W050001286 SOIL	4/28/05	0930												
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS									
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS											
TSAP/ J. G. Pope 4-28-05	14:45	TA PRAZAR/ J. G. Pope	4-28-05 14:45												
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												
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME												
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME												
LABORATORY SECTION	RECEIVED BY	TITLE		DATE/TIME											
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY		DATE/TIME											

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-124	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BN	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. *PMG 2/14/85*

(1)IC Anions - 300.0 (Fluoride, Nitrogen-In-Nitrate, Nitrogen-In-Nitrite, Phosphorous In phosphate, Sulfate) Total Cyanide - 9040; pH (Soil) - 9045;

(2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, ~~n-Butylbenzene~~, trans-1,2-Dichloroethylene)

(4)Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						FM-015-125		PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Gearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N		DATA TURNAROUND 45 Days / 45 Days <i>4-28-05</i>		
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>						
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 WZ=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
		TYPE OF CONTAINER		aG	aG	aG	aG*	aG	P			
		NO. OF CONTAINER(S)		1	1	1	3	1	1			
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL			
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCNs - 8062;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C771	SOIL	4/28/05	0930									
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS								
<i>JSPM/W</i>	<i>4-28-05</i>	<i>TA FRAZIER</i>	<i>4/28/05 14:45</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									
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME						
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME						

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-125	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. FD4-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

**** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis**

(1)IC Anions - 300.0 (~~Riverine Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate~~) Total Cyanide - 9020; pH (Soil) - 9045;

(2)ICP/MS - 200.8 (TAL) (~~Cadmium, Chromium, Copper, Silver~~) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, ~~cs-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene~~)

(4)Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

PMG 2/14/05

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					F04-015-137		PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N		DATA TURNAROUND	
SAMPLING LOCATION 216-T-13; 12-13 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>		45 Days / 45 Days <i>4/26/15</i>	
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144E510		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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
		TYPE OF CONTAINER		gG	gG	gG	gGs*	gG	P		
		NO. OF CONTAINER(S)		1	1	1	3	1	1		
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL		
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C780		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCMs - 80K2;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1C774	SOIL	4-21-15	0955	X	X	X	X	X	X		
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS					
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME					
Pope/Pfister/Tyra/Wiberg		4-26-15		Victor Faus		4/28/15 14:45					
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					
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME					
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME					
LABORATORY SECTION		RECEIVED BY				TITLE				DATE/TIME	
FINAL SAMPLE DISPOSITION		DISPOSAL METHOD				DISPOSED BY				DATE/TIME	

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-137	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 12-13 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

*** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis *PMG 2/14/05*

(1) IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045;

(2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, ~~n-Butylbenzene~~, TMS-1,2-Dichloroethylene)

(4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-138		PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Cearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE SN		DATA TURNAROUND 45 Days / 45 DAYS <i>JS</i>		
SAMPLING LOCATION 216-T-13; 14-15 ft.		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>				
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
		TYPE OF CONTAINER		gG	gG	gG	gGs*	gG	P			
		NO. OF CONTAINER(S)		1	1	1	3	1	1			
		VOLUME		250ml.	120ml.	250ml.	40ml.	120ml.	500ml.			
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C781		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C775	SOIL	4-28-65	1015	X	X	X	X	X	X			
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
<i>Spencer</i>		4-28-65 1415		<i>Victor Bines</i>		4/28/65 1415						
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						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
LABORATORY SECTION		RECEIVED BY				TITLE				DATE/TIME		
FINAL SAMPLE DISPOSITION		DISPOSAL METHOD				DISPOSED BY				DATE/TIME		

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-138	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 14-15 R	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. PMG 2/14/05

(1) IC Anions - 300.D (Fluoride, Nitrate, Nitrite, Nitrogen in Nitrate, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045;

(2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)

(4) Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Flior Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						FD4-015-139		PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N		DATA TURNAROUND 45 Days / <i>45 Days 4.26.05</i>		
SAMPLING LOCATION 216-T-13; 19-20 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>				
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
		TYPE OF CONTAINER		gG	gG	gG	gG*	gG	P			
		NO. OF CONTAINER(S)		1	1	1	3	1	1			
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL			
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C782		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C778	SOIL	4-28-05	1300	+	X	X	X	X	X			
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
JSPope/4/28/05		4-28-05 1445		Victor Bius		4/28/05 1445						
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						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
LABORATORY SECTION		RECEIVED BY				TITLE				DATE/TIME		
FINAL SAMPLE DISPOSITION		DISPOSAL METHOD				DISPOSED BY				DATE/TIME		

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Fisior Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-138	PAGE 2 OF 2
COLLECTOR Pope/Mister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE	SN
SAMPLING LOCATION 216-T-13; 19-20 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil	SAF NO. F04-015	AIR QUALITY	<input type="checkbox"/>	DATA TURNAROUND 45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			
SPECIAL INSTRUCTIONS ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. <i>PMG 2/14/05</i> (1) IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) (Total Cyanide - 9010; pH (Soil) - 9045; (2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene); (4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range) (5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;					

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-140		PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg SAMPLING LOCATION 216-T-13; 24-25 ft ICE CHEST NO.		COMPANY CONTACT CS Clearlock PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil FIELD LOGBOOK NO.		TELEPHONE NO. 372-9638 COA 119144E510		PROJECT COORDINATOR TRENT, SJ SAF NO. F04-015 METHOD OF SHIPMENT Government Vehicle		PRICE CODE SN AIR QUALITY <input type="checkbox"/>		DATA TURNAROUND 45 Days / 45 Days <i>[Signature]</i>		
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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
		TYPE OF CONTAINER		aG	aG	aG	aG*	aG	P			
	NO. OF CONTAINER(S)		1	1	1	3	1	1				
	VOLUME		250mL	120mL	250mL	40mL	120mL	500mL				
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C783		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8007	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C777	SOIL	4-28-05	1330	+	+	+	+	+	+			
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM <i>J. POPE</i>		DATE/TIME 4-28-05 1445		RECEIVED BY/STORED IN <i>Victor Jimenez</i>		DATE/TIME 4/28/05 1445						
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						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
LABORATORY SECTION		RECEIVED BY				TITLE		DATE/TIME				
FINAL SAMPLE DISPOSITION		DISPOSAL METHOD				DISPOSED BY		DATE/TIME				

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			P04-015-140	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 24-25 R	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. P04-015		AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle			
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A				
SPECIAL INSTRUCTIONS <p style="text-align: right;"><i>FOR 11-28-84</i></p> <p>** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.</p> <p>(1)IC Anions - 300.8 (Nitrite, Nitrogen in Nitrate, Phosphorous in phosphate, Sulfate) Total Cyanide - 9020; pH (Soil) - 9043;</p> <p>(2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)</p> <p>(3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene; trans-1,2-Dichloroethylene)</p> <p>(4)Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)</p> <p>(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;</p>						

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Appendix 5

Data Validation Supporting Documentation

000039

PCB DATA VALIDATION CHECKLIST

VALIDATION LEVEL:	A	B	<u>C</u>	D	E
PROJECT: 200-mw-1			DATA PACKAGE: S0940		
VALIDATOR: TLD		LAB: WSCF		DATE: 6/18/05	
			SDG: S0940		
ANALYSES PERFORMED					
SW-846 8081	SW-846 8081 (TCLP)	<u>SW-846 8082</u>	SW-846 8081 (TCLP)		
SAMPLES/MATRIX					
BIC769		BIC771		BIC774 BIC775	
BIC776		BIC777			
Soil					

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present? Yes No N/A

Comments: _____

2. INSTRUMENT PERFORMANCE AND CALIBRATIONS (Levels D and E)

Initial calibrations acceptable? Yes No N/A
 Continuing calibrations acceptable? Yes No N/A
 Standards traceable? Yes No N/A
 Standards expired? Yes No N/A
 Calculation check acceptable? Yes No N/A
 DDT and endrin breakdowns acceptable? Yes No N/A

Comments: _____

PCB DATA VALIDATION CHECKLIST

3. BLANKS (Levels B, C, D, and E)

Calibration blanks analyzed? (Levels D, E) Yes No N/A
Calibration blank results acceptable? (Levels D, E) Yes No N/A
Laboratory blanks analyzed? Yes No N/A
Laboratory blank results acceptable? Yes No N/A
Field/trip blanks analyzed? (Levels C, D, E) Yes No N/A
Field/trip blank results acceptable? (Levels C, D, E) Yes No N/A
Transcription/calculation errors? (Levels D, E) Yes No N/A
Comments: NO PR

4. ACCURACY (Levels C, D, and E)

Surrogates analyzed? Yes No N/A
Surrogate recoveries acceptable? Yes No N/A
Surrogates traceable? (Levels D, E) Yes No N/A
Surrogates expired? (Levels D, E) Yes No N/A
MS/MSD samples analyzed? Yes No N/A
MS/MSD results acceptable? Yes No N/A
MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
MS/MSD standards expired? (Levels D, E) Yes No N/A
LCS/BSS samples analyzed? Yes No N/A
LCS/BSS results acceptable? Yes No N/A
Standards traceable? (Levels D, E) Yes No N/A
Standards expired? (Levels D, E) Yes No N/A
Transcription/calculation errors? (Levels D, E) Yes No N/A
Performance audit sample(s) analyzed? Yes No N/A
Performance audit sample results acceptable? Yes No N/A
Comments: NO PR

PCB DATA VALIDATION CHECKLIST

5. PRECISION (Levels C, D, and E)

- Duplicate RPD values acceptable? Yes No N/A
- Duplicate results acceptable? Yes No N/A
- MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
- MS/MSD standards expired? (Levels D, E) Yes No N/A
- Field duplicate RPD values acceptable? Yes No N/A
- Field split RPD values acceptable? Yes No N/A
- Transcription/calculation errors? (Levels D, E) Yes No N/A

Comments: _____

6. SYSTEM PERFORMANCE (Levels D and E)

- Chromatographic performance acceptable? Yes No N/A
- Positive results resolved acceptably? Yes No N/A

Comments: _____

7. HOLDING TIMES (all levels)

- Samples properly preserved? Yes No N/A
- Sample holding times acceptable? Yes No N/A

Comments: _____

PCB DATA VALIDATION CHECKLIST

8. COMPOUND IDENTIFICATION, QUANTITATION, AND DETECTION LIMITS (all levels)

Compound identification acceptable? (Levels D, E)	Yes	No	N/A
Compound quantitation acceptable? (Levels D, E)	Yes	No	N/A
Results reported for all requested analyses?	Yes	No	N/A
Results supported in the raw data? (Levels D, E)	Yes	No	N/A
Samples properly prepared? (Levels D, E)	Yes	No	N/A
Detection limits meet RDL?	Yes	No	N/A
Transcription/calculation errors? (Levels D, E)	Yes	No	N/A
Comments: <u>all over</u>			

9. SAMPLE CLEANUP (Levels D and E)

Fluorilil ® (or other absorbent) cleanup performed?	Yes	No	N/A
Lot check performed?	Yes	No	N/A
Check recoveries acceptable?	Yes	No	N/A
GPC cleanup performed?	Yes	No	N/A
GPC check performed?	Yes	No	N/A
GPC check recoveries acceptable?	Yes	No	N/A
GPC calibration performed?	Yes	No	N/A
GPC calibration check performed?	Yes	No	N/A
GPC calibration check retention times acceptable?	Yes	No	N/A
Check/calibration materials traceable?	Yes	No	N/A
Check/calibration materials Expired?	Yes	No	N/A
Analytical batch QC given similar cleanup?	Yes	No	N/A
Transcription/Calculation Errors?	Yes	No	N/A
Comments: _____			

Appendix 6

Additional Documentation Requested by Client

000044

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: PCBs complete list

SAF Number: F04-015
 Sample Date: 04/27/05
 Receive Date: 04/27/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001268									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Aroclor-1260	11096-82-5	1045.1	111.000	% Recov	05/13/05	75.000	125.000	
MS	Decachlorobiphenyl	2051-24-3	860.09	102.000	% Recov	06/13/05	50.000	150.000	
MS	Tetrachloro-m-xylene	877-09-8	888.18	94.200	% Recov	05/13/05	50.000	160.000	
MSD	Aroclor-1260	11096-82-5	1075.7	111.000	% Recov	05/13/05	75.000	125.000	
MSD	Decachlorobiphenyl	2051-24-3	972.47	101.000	% Recov	05/13/05	50.000	150.000	
MSD	Tetrachloro-m-xylene	877-09-8	943.22	97.700	% Recov	05/13/05	50.000	150.000	
SPK-RPD	Aroclor-1260	11096-82-5	111.000	0.000	RPD	05/23/05	0.000	25.000	
SPK-RPD	Decachlorobiphenyl	2051-24-3	101.000	0.985	RPD	05/23/05	0.000	20.000	
SPK-RPD	Tetrachloro-m-xylene	877-09-8	97.700	3.648	RPD	06/23/05	0.000	20.000	
Lab ID: W050001286									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	Decachlorobiphenyl	2051-24-3	1146.9	106.000	% Recov	05/13/05	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	1079.6	99.400	% Recov	05/13/05	50.000	150.000	
Lab ID: W050001287									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	Decachlorobiphenyl	2051-24-3	1118.7	102.000	% Recov	05/13/05	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	1042.4	96.300	% Recov	05/13/05	50.000	150.000	
Lab ID: W050001288									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	Decachlorobiphenyl	2051-24-3	1050.9	100.000	% Recov	05/13/05	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	893.25	94.800	% Recov	05/13/05	50.000	150.000	

000045

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: PCBs complete list

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001289									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	Decachlorobiphenyl	2051-24-3	1058.9	104.000	% Recov	05/13/05	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	952.31	93.800	% Recov	05/13/05	50.000	150.000	
Lab ID: W050001290									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	Decachlorobiphenyl	2051-24-3	1050.1	102.000	% Recov	05/13/05	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	1051.2	102.000	% Recov	05/13/05	50.000	150.000	
Lab ID: W050001291									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	Decachlorobiphenyl	2051-24-3	1073.5	105.000	% Recov	05/13/05	50.000	150.000	
SURR	Tetrachloro-m-xylene	877-09-8	973.05	95.300	% Recov	05/13/05	50.000	150.000	
BATCH QC									
BLANK	Aroclor-1018	12674-11-2	< 50	n/a	UG/KG	05/13/05			U
BLANK	Aroclor-1221	11104-28-2	< 100	n/a	ug/Kg	05/13/05			U
BLANK	Aroclor-1232	11141-18-5	< 50	n/a	ug/Kg	05/13/05			U
BLANK	Aroclor-1242	53489-21-9	< 50	n/a	ug/Kg	05/13/05			U
BLANK	Aroclor-1248	12672-29-8	< 50	n/a	ug/Kg	05/13/05			U
BLANK	Aroclor-1254	11097-89-1	< 50	n/a	ug/Kg	05/13/05			U
BLANK	Aroclor-1260	11096-82-5	< 50	n/a	ug/Kg	05/13/05			U
BLANK	Aroclor-1262	37324-23-5	< 50	n/a	ug/Kg	05/13/05			U
BLANK	Aroclor-1268	11100-14-4	< 50	n/a	ug/Kg	05/13/05			U
BLANK	Decachlorobiphenyl	2051-24-3	1041.0	104.000	% Recov	05/13/05	50.000	150.000	
BLANK	Tetrachloro-m-xylene	877-09-8	949.28	94.900	% Recov	05/13/05	50.000	150.000	
LCS	Aroclor-1280	11096-82-5	1117.1	112.000	% Recov	05/13/05	70.000	130.000	
LCS	Decachlorobiphenyl	2051-24-3	1025.2	103.000	% Recov	05/13/05	50.000	150.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
Matrix: SOLID
Test: PCBs complete list

SAF Number: F04-015
Sample Date:
Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
LCS	Tetrachloro-m-xylene	877-09-8	919.52	92.000	% Recov	05/13/05	50.000	150.000	

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Date: 21 June 2005
To: Fluor Hanford Inc. (technical representative)
From: TechLaw, Inc.
Project: 200-MW-1 Characterization Sampling and Analysis - Soil
Subject: Inorganics - Data Package No. WSCF20050940 (50940)

INTRODUCTION

This memo presents the results of data validation on Data Package No. 50940 prepared by WSCF Analytical Laboratories (WSCF). A list of samples validated along with the analyses reported and the method of analysis is provided in the following table.

Sample ID	Sample	Media	Validation	Analysis
B1C769	4/28/05	Soil	C	ICP/MS metals by 200.8
B1C771	4/28/05	Soil	C	ICP/MS metals by 200.8
B1C774	4/28/05	Soil	C	ICP/MS metals by 200.8
B1C775	4/28/05	Soil	C	ICP/MS metals by 200.8
B1C776	4/28/05	Soil	C	ICP/MS metals by 200.8
B1C777	4/28/05	Soil	C	ICP/MS metals by 200.8

Data validation was conducted in accordance with the FHI validation statement of work and the 200-MW-1 Miscellaneous Waste Group OU RI/FS Workplan, DOE/RL-2001-65 (Rev. 0), April 2002. Appendices 1 through 6 provide the following information as indicated below:

- Appendix 1. Glossary of Data Reporting Qualifiers
- Appendix 2. Summary of Data Qualification
- Appendix 3. Qualified Data Summary and Annotated Laboratory Reports
- Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
- Appendix 5. Data Validation Supporting Documentation
- Appendix 6. Additional Documentation Requested by Client

DATA QUALITY PARAMETERS

- **Holding Times**

Analytical holding times for metals are assessed to ascertain whether the holding time requirements were met by the laboratory. The holding time requirements are as follows: Soil samples must be analyzed within 6 months for ICP metals and 28 days for mercury.

000001



All holding times were acceptable.

- **Preparation (Method) Blanks**

Preparation Blanks

At least one preparation blank, consisting of deionized distilled water processed through each sample preparation and analysis procedure, must be prepared and analyzed with every sample delivery group. In the case of positive blank results, samples with digestate concentrations less than five times the preparation blank value have had their associated values qualified as non-detected and flagged "U". Samples with concentrations of greater than five times the highest blank concentration do not require qualification.

In the case of negative blank results, if the absolute value exceeds the contract required detection limit (CRDL), all nondetects are rejected and flagged "UR" and all detects that are less than ten times the absolute value of the associated preparation blank result are qualified as estimates and flagged "J". If the absolute value of the negative preparation blank is greater than the instrument detection limit (IDL) and less than or equal to the CRDL, all nondetects are qualified as estimates and flagged "UJ" and all detects less than ten times the absolute value of the blank are qualified as estimates and flagged "J". If the sample results are greater than ten times the absolute value of the preparation blank, no qualification is necessary.

All preparation blank results were acceptable.

Field (Equipment) Blank

No field blanks were submitted for analysis.

- **Accuracy**

Matrix Spike & Matrix Spike Duplicate

Matrix spike (MS), matrix spike duplicate (MSD) and laboratory control sample (LCS) analyses are used to assess the analytical accuracy of the reported data. The matrix spike is used to assess effect of the matrix on the ability to accurately quantify sample concentrations. Recoveries must fall within the range of 75% to 125%. Samples with a spike recovery of less than 30% and a sample result below the IDL are rejected and flagged "UR". Samples with a spike recovery of 30% to 74% and a sample result less than the IDL are qualified "UJ". Samples with a spike recovery of greater than 125% or less than 74% and a sample result greater than the IDL are qualified as estimates and flagged "J". Finally, for samples with a spike recovery greater than 125% and a sample result less than the IDL, no qualification is required.

000002

All MS/MSD results were acceptable.

Laboratory Control Sample

The LCS is used to monitor the overall performance of all steps in the analysis. Recoveries must fall within the range of 80% to 120% for LCS analysis. Samples with a recovery of less than 50% are rejected and flagged "UR". Samples with a recovery of 50% to 79% and a sample recovery below the IDL are qualified "UJ". Samples with a recovery of greater than 120% or less than 80% and a sample result greater than the IDL are qualified as estimates and flagged "J". Finally, for samples with a recovery greater than 120% and a sample result less than the IDL, no qualification is required.

All LCS results were acceptable.

- **Precision**

Laboratory Duplicate Samples

Analytical precision is expressed by the relative percent differences (RPD) between the recoveries of matrix spike and matrix spike duplicate (MSD) analyses performed on a sample in the analytical batch. Precision may alternatively be assessed using unspiked duplicate analyses performed on a sample in the analytical batch. If both sample and replicate activities (concentrations) are greater than five times the CRDL and the RPD is less than +/- 35%, no qualification is required. If either activity (concentration) is less than five times the CRDL, the RPD control limit is less than or equal to two times the CRDL. If the RPD is outside the applicable control limit, associated results are qualified as estimated detects or estimated non-detects.

All laboratory duplicate results were acceptable.

Field Duplicate

No field duplicates were submitted for analysis.

- **Analytical Detection Limits**

Reported analytical detection levels are compared against the required target quantitation limits (RTQLs) to ensure that laboratory detection levels meet the required criteria. The chromium result in sample B1C777 was reported above the RTQL. Under the FHI statement of work, no qualification is required. All other results met the analyte specific RTQL.

000003

- **Completeness**

Data package No. 50940 was submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

The chromium result in sample B1C777 was reported above the RTQL. Under the FHI statement of work, no qualification is required.

REFERENCES

FHI, Contract #20266, *Validation Statement of Work*, Fluor Hanford Incorporated, July 7, 2003.

DOE/RL-2001-65, Rev. 0, *200-MW-1 Miscellaneous Waste Group OUs RI/FS Work Plan*, April 2002.

000004

Appendix 1

Glossary of Data Reporting Qualifiers

000005

Qualifiers which may be applied by data validators in compliance with FHI validation SOW are as follows:

- U - Indicates the compound or analyte was analyzed for and not detected in the sample. The value reported is the sample quantitation limit corrected for sample dilution and moisture content by the laboratory.
- UJ - Indicates the compound or analyte was analyzed for and not detected in the sample. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- J - Indicates the compound or analyte was analyzed for and detected. Due to a minor QC deficiency identified during the data validation, the associated concentration is an estimate, but the data are usable for decision-making purposes.
- BJ - Applied to inorganic analyses only. Indicates the analyte concentration was greater than the IDL but less than the CRDL and is considered an estimated value.
- R - Indicates the compound or analyte was analyzed for, detected, and due to an identified major QC deficiency, the data are unusable.
- UR - Indicates the compound or analyte was analyzed for and not detected in the sample. Additionally, the data is unusable due to an identified major QC deficiency.
- NJ - Indicates presumptive evidence of a compound at an estimated value. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).
- N - Indicates presumptive evidence of a compound. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).

000006

Appendix 2
Summary of Data Qualification

000007

INORGANIC DATA QUALIFICATION SUMMARY*

SDG: 50940	REVIEWER: TLI	PROJECT: 200-MW-1	PAGE <u>1</u> OF <u>1</u>
COMMENTS: No qualifiers assigned			

* - The Qualified Data Summary Table includes laboratory applied "U" qualifiers not specifically identified here. The laboratory applied "U" qualifiers are included to minimize misinterpretation of results contained in the table.

000008

Appendix 3

Qualified Data Summary and Annotated Laboratory Reports

000009

Project: FLUOR-HANFORD													
Laboratory: WSCF													
Case		SDG: WSCF20050949											
Sample Number		B1C769		B1C771		B1C774		B1C775		B1C776		B1C777	
Remarks													
Sample Date		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05	
Inorganics	RTQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Cadmium	0.5	0.159		0.246		0.306		0.167		0.141		<0.0993	U
Chromium	1	7.26		6.07		6.92		6.45		4.22		<3.97	U
Lead	10	10.9		8.18		13.4		7.45		3.02		3.11	
Uranium	1	0.901		1.03		1.01		0.928		0.544		0.459	

0000010

REVISED
 WSCF
 8/1/05

Laboratory applied non-detect qualifiers "U" have been included in this table to minimize miss-interpretation of results. All other qualifiers shown were applied during validation.

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
Inorganic														
W050001288	B1C789	GRP	TRENT	TS	Total solids	SOIL	LA-519-412	91.2	%	1.00	0.0	05/03/05	04/28/05	04/28/05
W050001286	B1C789	GRP	TRENT	PH	pH Measurement	SOIL	LA-212-411	9.52	pH	1.00	0.010	05/03/05	04/28/05	04/28/05
W050001286	B1C789	GRP	TRENT	PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	< 2.70	mg/kg	50.00	2.7	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	12.0	mg/kg	50.00	5.0	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP	TRENT	7440-43-9	Cadmium	SOIL	LA-505-412	0.159	mg/kg	0.93	0.093	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP	TRENT	7440-47-3	Chromium	SOIL	LA-505-412	7.26	mg/kg	0.93	3.7	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP	TRENT	7439-92-1	Lead	SOIL	LA-505-412	10.9	mg/kg	0.93	0.19	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP	TRENT	7440-81-1	Uranium	SOIL	LA-505-412	0.901	mg/kg	0.93	0.093	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP	TRENT	TS	Total solids	SOIL	LA-519-412	90.7	%	1.00	0.0	05/03/05	04/28/05	04/28/05
W050001287	B1C771	GRP	TRENT	PH	pH Measurement	SOIL	LA-212-411	9.57	pH	1.00	0.010	05/03/05	04/28/05	04/28/05
W050001287	B1C771	GRP	TRENT	PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	2.65	mg/kg	49.00	2.6	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	4.90	mg/kg	49.00	4.9	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP	TRENT	7440-43-9	Cadmium	SOIL	LA-505-412	0.246	mg/kg	0.95	0.095	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP	TRENT	7440-47-3	Chromium	SOIL	LA-505-412	8.07	mg/kg	0.95	3.8	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP	TRENT	7439-92-1	Lead	SOIL	LA-505-412	8.18	mg/kg	0.95	0.19	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP	TRENT	7440-81-1	Uranium	SOIL	LA-505-412	1.03	mg/kg	0.95	0.095	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	TS	Total solids	SOIL	LA-519-412	94.4	%	1.00	0.0	05/03/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	PH	pH Measurement	SOIL	LA-212-411	9.58	pH	1.00	0.010	05/03/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	2.70	mg/kg	50.00	2.7	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	18.7	mg/kg	50.00	5.0	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	7440-43-9	Cadmium	SOIL	LA-505-412	0.308	mg/kg	0.91	0.091	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	7440-47-3	Chromium	SOIL	LA-505-412	8.92	mg/kg	0.91	3.6	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	7439-92-1	Lead	SOIL	LA-505-412	13.4	mg/kg	0.91	0.18	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	7440-81-1	Uranium	SOIL	LA-505-412	1.01	mg/kg	0.91	0.091	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	TS	Total solids	SOIL	LA-519-412	96.2	%	1.00	0.0	05/03/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	PH	pH Measurement	SOIL	LA-212-411	9.79	pH	1.00	0.010	05/03/05	04/28/05	04/28/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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

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JTC

6/20/05

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent.
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	GRP	TRENT	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001289	B1C775	GRP	TRENT	PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	U	< 2.65	mg/kg	49.00	2.6	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	B	18.5	mg/kg	49.00	4.0	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	7440-43-9	Cadmium	SOIL	LA-505-412		0.167	mg/kg	0.93	0.093	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	7440-47-3	Chromium	SOIL	LA-505-412		6.45	mg/kg	0.93	3.7	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	7439-92-1	Lead	SOIL	LA-505-412		7.46	mg/kg	0.93	0.19	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	7440-81-1	Uranium	SOIL	LA-505-412		0.928	mg/kg	0.93	0.093	05/10/05	04/28/05	04/28/05
W050001290	B1C776	GRP	TRENT	TS	Total Solids	SOIL	LA-510-412		97.0	%	1.00	0.0	05/03/05	04/28/05	04/28/05
W050001290	B1C776	GRP	TRENT	PH	pH Measurement	SOIL	LA-212-411		9.69	pH	1.00	0.010	05/03/05	04/28/05	04/28/05
W050001290	B1C776	GRP	TRENT	PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	U	< 2.70	mg/kg	50.00	2.7	05/10/05	04/28/05	04/28/05
W050001290	B1C776	GRP	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	B	7.32	mg/kg	50.00	5.0	05/10/05	04/28/05	04/28/05
W050001290	B1C776	GRP	TRENT	7440-43-9	Cadmium	SOIL	LA-505-412		0.141	mg/kg	0.89	0.089	05/10/05	04/28/05	04/28/05
W050001290	B1C776	GRP	TRENT	7440-47-3	Chromium	SOIL	LA-505-412		4.22	mg/kg	0.89	3.6	05/10/05	04/28/05	04/28/05
W050001290	B1C776	GRP	TRENT	7439-92-1	Lead	SOIL	LA-505-412		3.02	mg/kg	0.89	0.18	05/10/05	04/28/05	04/28/05
W050001290	B1C776	GRP	TRENT	7440-81-1	Uranium	SOIL	LA-505-412		0.544	mg/kg	0.89	0.089	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	TS	Total Solids	SOIL	LA-510-412		98.0	%	1.00	0.0	05/03/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	PH	pH Measurement	SOIL	LA-212-411		8.44	pH	1.00	0.010	05/03/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	U	< 2.70	mg/kg	50.00	2.7	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	14808-79-8	Sulfate	SOIL	LA-533-410	B	25.0	mg/kg	50.00	5.0	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	7440-43-9	Cadmium	SOIL	LA-505-412	U	< 0.0993	mg/kg	0.99	0.099	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	7440-47-3	Chromium	SOIL	LA-505-412	U	< 3.97	mg/kg	0.99	4.0	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	7439-92-1	Lead	SOIL	LA-505-412		3.11	mg/kg	0.99	0.20	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	7440-81-1	Uranium	SOIL	LA-505-412		0.459	mg/kg	0.99	0.099	05/10/05	04/28/05	04/28/05

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MDL = Minimum Detection Limit

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

U - Analyzed for but not detected above limiting criteria.

RQ = Result Qualifier

DF = Dilution Factor

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

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Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

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Sample Delivery Group	WSCF20050940
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F04-015
Data Deliverable	Summary Report

Introduction

Six (6) 200-MW-1 Characterization Sampling and Analysis – Soil/216-T-13, 10' – 11', samples (B1C769, B1C771, B1C774, B1C775, B1C776 and B1C777) were received at the WSCF Laboratory on April 28, 2005. The 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 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and sample receipt are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Anions by EPA Method 300.0. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 9045C. Analytical work was performed with no deviations to the approved method.

Organic

- PCB by EPA Method 8082. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.

- TPH Diesel/Gas Range by WDOE Method NWTPH-Dx/Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260B. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA [Americium, Plutonium and Uranium], GEA, Sr-89/90) were run by internal WSCF procedures. Analytical work was performed with no deviations to the approved method.

Inorganic Comments

Anions - The hold times for Nitrite and Nitrate analyses were not met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 14 for QC details. Analytical Notes:

- Preparation Date: 09-may-2005.
- Sulfate - Sample (B1C769, B1C774, B1C775, B1C776 and B1C777) results were B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.
- Sulfate - The Duplicate Relative Percent Difference exceeded established laboratory limits.

All other QC controls are within the established limits.

ICP-MS Metals - The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page 15 for QC details. Analytical Note:

- Preparation Date: 09-may-2005.

All QC controls are within the established limits.

Percent Solids - Analyzed for organic results correction.

pH - All internal laboratory controls were within established limits. See page 16 for QC details. Analytical Note:

- Duplicate QC sample was analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

Organic Comments

- Sample results were moisture corrected and reported on a dry-weight basis.

PCB – The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 31 through 33 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 34 through 38 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Phenol-d5 – Surrogate recovery was less than established laboratory limits.
- Phenol and Pentachlorophenol – LCS recoveries were less than the established laboratory limits. Sample results were less than the method detection limit and U flagged.

All other QC controls are within the established limits.

TPHD-WA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See pages 39 through 40 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).

All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 41 for QC details. Analytical Notes:

- Preparation Date: 11-may-2005.
- Total Petroleum Hydrocarbons, Gas – The Spike Relative Percent Difference and the Laboratory Control Sample recovery slightly exceeded. All other QC samples were within limits, sample results were U-flagged.

All other QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 42 through 45 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Radiochemistry Comments

RadChem – There are no hold times associated with WSCF radiochemical methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 52 through 56 for QC details. Analytical Notes:

- Americium-241, Plutonium-238 & 239/240, and Uranium-234, 235 & 238 Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).
- GEA and Strontium-89/90– Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).
- Uranium-234, Uranium-235 and Plutonium-238 - Additional Batch QC Data are summarized below:

Additional Batch QC Data (Results)				
Sample Number	Sample ID	Isotope	Concentration (pCi/gm)	Count
<u>Uranium-234/ Uranium-235</u>				
BLANK		U-234	8.123E-03	
BLANK		U-235	6.651E-03	
B1C784	W050001268	U-234	3.168E-01	
DUPLICATE	W050001268	U-234	3.188E-01	0.6
B1C784	W050001268	U-235	2.675E-02	
DUPLICATE	W050001268	U-235	3.375E-02	23
<u>Plutonium-238</u>				
BLANK		Pu-238	-2.360E-02	
B1C784	W050001268	Pu-238	8.700E-03	

Additional Batch QC Data (Results)				
Sample Number	Sample ID	Isotope	Result	Notes
DUPLICATE	W050001268	Pu-238	U9.421E-03	N/A

- Americium-243, Plutonium-242, Strontium-85 and Uranium-232 – Radiochemical Tracer Recovery Data are summarized below:

Radiochemical Tracer Percent Recovery			
Sample Number	Lab Sample	Isotope	Tracer Recovery (Percent)
<u>Americium-243</u>			
BLANK		Am-243	93.6
LCS		Am-243	89.3
B1C784	W050001268	Am-243	106.7
DUPLICATE	W050001268	Am-243	87.5
B1C769	W050001286	Am-243	99.3
B1C771	W050001287	Am-243	87.3
B1C774	W050001288	Am-243	105.1
B1C775	W050001289	Am-243	84.8
B1C776	W050001290	Am-243	96.6
B1C777	W050001291	Am-243	84.9
<u>Plutonium-242</u>			
BLANK		Pu-242	86.2
LCS		Pu-242	94.0
B1C784	W050001268	Pu-242	84.0
DUPLICATE	W050001268	Pu-242	86.2

Radiochemical Tracer Percent Recovery			
Sample ID	Lot Number	Tracer	Percent Recovery (Percent)
B1C769	W050001286	Pu-242	95.0
B1C771	W050001287	Pu-242	87.6
B1C774	W050001288	Pu-242	91.2
B1C775	W050001289	Pu-242	87.2
B1C776	W050001290	Pu-242	88.0
B1C777	W050001291	Pu-242	82.1
<u>Strontium-85</u>			
BLANK		Sr-85	83.9
LCS		Sr-85	98.2
B1CY50	W050001285	Sr-85	76.6
DUPLICATE	W050001285	Sr-85	88.3
B1C769	W050001286	Sr-85	87.4
B1C771	W050001287	Sr-85	84.6
B1C774	W050001288	Sr-85	91.4
B1C775	W050001289	Sr-85	87.2
B1C776	W050001290	Sr-85	80.7
B1C777	W050001291	Sr-85	91.9
<u>Uranium-232</u>			
BLANK		U-232	79.6
LCS		U-232	70.4
B1C784	W050001268	U-232	83.4
DUPLICATE	W050001268	U-232	83.9
B1C769	W050001286	U-232	90.8

Radiochemical Tracer Percent Recovery			
Sample Number	Lab Sample	Tracer	Percent Recovery
B1C771	W050001287	U-232	87.2
B1C774	W050001288	U-232	95.0
B1C775	W050001289	U-232	82.1
B1C776	W050001290	U-232	93.2
B1C777	W050001291	U-232	82.1

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Pauline D. Mix
 Pauline D. Mix
 WSCF Client Services

Abbreviations

- | | |
|--|------------------------------------|
| Hg - mercury | Am - americium |
| IC - ion chromatography | Cm - curium |
| ICP - inductively coupled plasma | Pu - plutonium |
| ICP/AES - ICP/atomic emission spectroscopy | Np - neptunium |
| ICP/MS - ICP/mass spectrometry | GEA - gamma energy analysis |
| Total U - total uranium | H3 - Tritium |
| AT/TB - total alpha/total beta | Sr - Strontium 89, 90 |
| AEA - Alpha Energy Analysis | WTPH-D - Total Hydrocarbons-Diesel |
| WTPH-G - Total Hydrocarbons-Gasoline | TSS - Total Suspended Solids |

5/30/05

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					F04-015-124	PAGE 1 OF 2	
COLLECTOR Pope/Pfister/Tyrs/Wiberg		COMPANY CONTACT CS Cearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE SN	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>	45 Days / 45 Days <i>15</i>	
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 WT=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None
		TYPE OF CONTAINER		4G	4G	4G	4G ^a	4G	P
		NO. OF CONTAINER(S)		1	1	1	3	1	1
		VOLUME		250ml	120ml	250ml	40ml	120ml	500ml
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770 20050940		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCN - 0082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B1C769	11050001286 SOIL	4/28/05	0930						
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS			
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS			
TSAP/4/28/05		4-28-05 14:45	TA PRAZNER		4-28-05 14:45				
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				
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME				
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME			
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME			

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-124	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 10-11 R	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.

PM6 2/14/05

- (1) IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9040; pH (Soil) - 9045;
- (2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)
- (3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, ~~n-Butylbenzene~~, trans-1,2-Dichloroethylene)
- (4) Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)
- (5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					F04-015-125		PAGE 1 OF 2					
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ			PRICE CODE SN					
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015			AIR QUALITY <input type="checkbox"/>						
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144E510		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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None					
		TYPE OF CONTAINER		aG	aG	aG	aGs*	aG	P					
		NO. OF CONTAINER(S)		1	1	1	3	1	1					
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL					
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8062;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS					
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME											
B1C771	SOIL	4/28/05	0930											
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME		SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS							
JSP/PA/AS/TA 4-28-05		14:45	TA FROZIER (Trent)		4/28/05 14:45									
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									
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME									
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME								
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME								

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-125	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyre/Wiberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BN	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

PMG 2/14/05

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis

(1) IC Anions - 300.0 (Fluoride, Nitrate, Nitrite, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045;

(2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)

(4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					F04-015-137	PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN	DATA TURNAROUND 45 Days 45 Days	
SAMPLING LOCATION 216-T-13; 12-13 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>			
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	
		TYPE OF CONTAINER		gG	gG	gG	gGs*	gG	P	
		NO. OF CONTAINER(S)		1	1	1	3	1	1	
		VOLUME		250ml	120ml	250ml	40ml	120ml	500ml	
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C780		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	FORM - 8002	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B1C774	SOIL	4-29-05	0955	X	X	X	X	X	X	
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS				
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
<i>Pope/Pfister</i>	4-29-05	<i>Victor Bous</i>	4/29/05 14:45							
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							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME				

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-137	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 12-13 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

PMG 2/14/05

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.

(1) IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) (Total Cyanide - 9048) pH (Soil) - 9045;

(2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)

(4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						FO4-015-138		PAGE 1 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N		DATA TURNAROUND 45 Days / -050578 <i>7-26-68</i>	
SAMPLING LOCATION 216-T-13; 14-15 R		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. FO4-015		AIR QUALITY <input type="checkbox"/>			
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144E510		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 N/A		PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	
			TYPE OF CONTAINER		aG	aG	aG	aG*	aG	P	
			NO. OF CONTAINER(S)		1	1	1	3	1	1	
			VOLUME		250mL	120mL	250mL	40mL	120mL	500mL	
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C781		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1C775	SOIL	4-28-68	1015	X	X	X	X	X	X		
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS					
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME					
<i>J. Pope</i>		4-28-68 1445		<i>V. J. Bines</i>		4/28/68 1445					
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					
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME					
LABORATORY SECTION		RECEIVED BY				TITLE				DATE/TIME	
FINAL SAMPLE DISPOSITION		DISPOSAL METHOD				DISPOSED BY				DATE/TIME	

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-138	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE	SN
SAMPLING LOCATION 216-T-13; 14-15 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil	SAF NO. F04-015	AIR QUALITY	<input type="checkbox"/>	DATA TURNAROUND 45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

- PMG 2/14/05
- ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.
- (1) IC Anions - 300.D (Fluoride, Nitrate, Nitrite, Nitrogen in Nitrate, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045;
 - (2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)
 - (3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)
 - (4) Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)
 - (5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-139		PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N		DATA TURNAROUND 45 Days / <i>45 Days 4-26-05</i>		
SAMPLING LOCATION 216-T-13; 19-20 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>				
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 L=Liquids DS=Drum S=Soils L=Liquid Q=Oil S=Soil SE=Settlement T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
		TYPE OF CONTAINER		aG	aG	aG	aGs*	aG	P			
		NO. OF CONTAINER(S)		1	1	1	3	1	1			
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL			
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C782		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C776	SOIL	4-28-05	1300	X	X	X	X	X	X			
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
<i>J. Pope</i>	4-28-05 1445	<i>Victor Bins</i>	4/28/05 1445									
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									
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
LABORATORY SECTION	RECEIVED BY	TITLE						DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY						DATE/TIME				

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		FO4-015-139	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE SN	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 19-20 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. FO4-015	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. PMG 2/14/05

(1) IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) (Total Cyanide - 9040; pH (Soil) - 9045;

(2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, TRANS-1,2-Dichloroethylene)

(4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F04-015-140

PAGE 1 OF 2

COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE SN	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION 216-T-13; 24-25 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil	FIELD LOGBOOK NO. COA 119144ES10	SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.			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 WF=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None						
		TYPE OF CONTAINER	gG	gG	gG	gGs*	gG	P						
		NO. OF CONTAINER(S)	1	1	1	3	1	1						
		VOLUME	250mL	120mL	250mL	40mL	120mL	500mL						
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: BIC783	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCN - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS						

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	Cool 4C	None								
BIC777	SOIL	4-28-05	1330	+	+	+	+	+	+				

CHAIN OF POSSESSION		SIGN/ PRINT NAMES		SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS
J. POPE	4-28-05 1445	V. J. Smith	4/28/05 1445	
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	
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

A-9003-618(03/02)

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-140	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BN	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 24-25 R	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil	SAF NO. F04-015	AIR QUALITY <input type="checkbox"/> 45 Days		
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			
SPECIAL INSTRUCTIONS <p><i>from 11-18-83</i></p> <p>** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.</p> <p>(1) IC Anions - 300.0 (Arsenate, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045;</p> <p>(2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)</p> <p>(3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene; trans-1,2-Dichloroethylene)</p> <p>(4) Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)</p> <p>(5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;</p>					

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Appendix 5

Data Validation Supporting Documentation

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INORGANIC ANALYSIS DATA VALIDATION CHECKLIST

VALIDATION LEVEL:	A	B	C	D	E
PROJECT:	200-MW-1		DATA PACKAGE: 50940		
VALIDATOR:	TLP	LAB:	WSCF	DATE: 6/18/05	
			SDG:	50940	
ANALYSES PERFORMED					
SW-846/ICP	SW-846/GFAA	SW-846/Hg	SW-846 Cyanide	200.8	
SAMPLES/MATRIX					
BIC769		BIC771		BIC774 BIC775 BIC775	
BIC772		BIC777			
Soil					

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present? Yes No N/A

Comments: _____

2. INSTRUMENT PERFORMANCE AND CALIBRATIONS (Levels D and E)

Initial calibrations performed on all instruments? Yes No N/A

Initial calibrations acceptable? Yes No N/A

ICP interference checks acceptable? Yes No N/A

ICV and CCV checks performed on all instruments? Yes No N/A

ICV and CCV checks acceptable? Yes No N/A

Standards traceable? Yes No N/A

Standards expired? Yes No N/A

Calculation check acceptable? Yes No N/A

Comments: _____

INORGANIC ANALYSIS DATA VALIDATION CHECKLIST

3. BLANKS (Levels B, C, D, and E)

- ICB and CCB checks performed for all applicable analyses? (Levels D, E)..... Yes No N/A
- ICB and CCB results acceptable? (Levels D, E) Yes No N/A
- Laboratory blanks analyzed? Yes No N/A
- Laboratory blank results acceptable?..... Yes No N/A
- Field blanks analyzed? (Levels C, D, E) Yes No N/A
- Field blank results acceptable? (Levels C, D, E) Yes No N/A
- Transcription/calculation errors? (Levels D, E)..... Yes No N/A

Comments: no FB

4. ACCURACY (Levels C, D, and E)

- MS/MSD samples analyzed?..... Yes No N/A
- MS/MSD results acceptable?..... Yes No N/A
- MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
- MS/MSD standards expired? (Levels D, E) ~~Yes~~ No N/A
- LCS/BSS samples analyzed?..... Yes No N/A
- LCS/BSS results acceptable?..... Yes No N/A
- Standards traceable? (Levels D, E)..... Yes No N/A
- Standards expired? (Levels D, E) Yes No N/A
- Transcription/calculation errors? (Levels D, E)..... Yes No N/A
- Performance audit sample(s) analyzed? Yes No N/A
- Performance audit sample results acceptable?..... Yes No N/A

Comments: NOPTS

INORGANIC ANALYSIS DATA VALIDATION CHECKLIST

5. PRECISION (Levels C, D, and E)

- Duplicate RPD values acceptable? Yes No N/A
- Duplicate results acceptable? Yes No N/A
- MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
- MS/MSD standards expired? (Levels D, E) Yes No N/A
- Field duplicate RPD values acceptable? Yes No N/A
- Field split RPD values acceptable? Yes No N/A
- Transcription/calculation errors? (Levels D, E) Yes No N/A

Comments: _____

6. ICP QUALITY CONTROL (Levels D and E)

- ICP serial dilution samples analyzed? Yes No N/A
- ICP serial dilution %D values acceptable? Yes No N/A
- ICP post digestion spike required? Yes No N/A
- ICP post digestion spike values acceptable? Yes No N/A
- Standards traceable? Yes No N/A
- Standards expired? Yes No N/A
- Transcription/calculation errors? Yes No N/A

Comments: _____

INORGANIC ANALYSIS DATA VALIDATION CHECKLIST

7. FURNACE AA QUALITY CONTROL (Levels D and E)

Duplicate injections performed as required? Yes No N/A
Duplicate injection %RSD values acceptable? Yes No N/A
Analytical spikes performed as required? Yes No N/A
Analytical spike recoveries acceptable? Yes No N/A
Standards traceable? Yes No N/A
Standards expired? Yes No N/A
MSA performed as required? Yes No N/A
MSA results acceptable? Yes No N/A
Transcription/calculation errors? Yes No N/A

Comments: _____

8. HOLDING TIMES (all levels)

Samples properly preserved? Yes No N/A
Sample holding times acceptable? Yes No N/A

Comments: _____

INORGANIC ANALYSIS DATA VALIDATION CHECKLIST

9. RESULT QUANTITATION AND DETECTION LIMITS (all levels)

Results reported for all requested analyses? Yes No N/A
Results supported in the raw data? (Levels D, E)..... Yes No N/A
Samples properly prepared? (Levels D, E)..... Yes No N/A
Detection limits meet RDL? Yes No N/A
Transcription/calculation errors? (Levels D, E)..... Yes No N/A

Comments: CR - 777 over

Appendix 6

Additional Documentation Requested by Client

000039

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: ICP-2008 MS All possible metal

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001286									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	Cadmium	7440-43-9	186.3407	93.170	% Recov	05/10/05	70.000	130.000	
MS	Chromium	7440-47-3	181.037	90.519	% Recov	05/10/05	70.000	130.000	
MS	Lead	7439-92-1	185.29	97.645	% Recov	05/10/05	70.000	130.000	
MS	Uranium	7440-81-1	196.099	98.049	% Recov	05/10/05	70.000	130.000	
MSD	Cadmium	7440-43-9	198.2407	99.120	% Recov	05/10/05	70.000	130.000	
MSD	Chromium	7440-47-3	187.437	93.719	% Recov	05/10/05	70.000	130.000	
MSD	Lead	7439-92-1	202.59	101.295	% Recov	05/10/05	70.000	130.000	
MSD	Uranium	7440-81-1	202.799	101.400	% Recov	05/10/05	70.000	130.000	
SPK-RPD	Cadmium	7440-43-9	99.120	6.189	RPD	05/10/05	0.000	20.000	
SPK-RPD	Chromium	7440-47-3	93.719	3.474	RPD	05/10/05	0.000	20.000	
SPK-RPD	Lead	7439-92-1	101.295	3.669	RPD	05/10/05	0.000	20.000	
SPK-RPD	Uranium	7440-81-1	101.400	3.360	RPD	05/10/05	0.000	20.000	
BATCH QC									
BLANK	Cadmium	7440-43-9	<0.1	n/a	ug/L	05/10/05			U
BLANK	Chromium	7440-47-3	<4	n/a	ug/L	05/10/05			U
BLANK	Lead	7439-92-1	<0.2	n/a	ug/L	05/10/05			U
BLANK	Uranium	7440-81-1	<0.1	n/a	ug/L	05/10/05			U
LCS	Cadmium	7440-43-9	139.9	109.297	% Recov	05/10/05	88.000	127.000	
LCS	Chromium	7440-47-3	72.59	104.448	% Recov	05/10/05	50.000	128.000	
LCS	Lead	7439-92-1	153.9	108.380	% Recov	05/10/05	87.000	120.000	
LCS	Uranium	7440-81-1	406.7	101.875	% Recov	05/10/05	89.000	107.000	

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Date: 21 June 2005
To: Fluor Hanford Inc. (technical representative)
From: TechLaw, Inc.
Project: 200-MW-1 Characterization Sampling and Analysis - Soil
Subject: Radiochemistry - Data Package No. WSCF20050940 (50940)

INTRODUCTION

This memo presents the results of data validation on Data Package No. 50940 prepared by WSCF Analytical Laboratories (WSCF). A list of samples validated along with the analyses reported and the method of analysis is provided in the following table.

Sample ID	Sample	Media	Validation	Analysis
B1C769	4/28/05	Soil	C	See note 1
B1C771	4/28/05	Soil	C	See note 1
B1C774	4/28/05	Soil	C	See note 1
B1C775	4/28/05	Soil	C	See note 1
B1C776	4/28/05	Soil	C	See note 1
B1C777	4/28/05	Soil	C	See note 1

1 - Strontium-90, gamma spectroscopy and alpha spectroscopy.

Data validation was conducted in accordance with the FHI validation statement of work and the 200-MW-1 Miscellaneous Waste Group OU RI/FS Workplan, DOE/RL-2001-65 (Rev. 0), April 2002. Appendices 1 through 6 provide the following information as indicated below:

- Appendix 1. Glossary of Data Reporting Qualifiers
- Appendix 2. Summary of Data Qualification
- Appendix 3. Qualified Data Summary and Annotated Laboratory Reports
- Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
- Appendix 5. Data Validation Supporting Documentation
- Appendix 6. Additional Documentation Requested by Client

000001

DATA QUALITY OBJECTIVES

- **Holding Times**

Holding times are calculated from Chain-of-Custody forms to determine the validity of the results. The maximum holding time for radiochemical analysis is 6 months.

All holding times were acceptable.

- **Laboratory (Method) Blanks**

Laboratory Blanks

Blank samples are analyzed to determine if positive results are due to laboratory reagent, sample container, or detector contamination. If blank analysis results indicate the presence of an analyte above the required detection limit (RDL), the following qualifiers are applied: All positive sample results less than five times the highest blank concentration are qualified as estimates and flagged "J"; sample results below the minimum detectable activity (MDA) are qualified as undetected and flagged "U"; sample results above the MDA and greater than five times the highest blank concentration are not qualified.

Due to method blank contamination, all uranium-235 results were qualified as estimates and flagged "J".

All other laboratory blank results were acceptable.

Field Blanks

No field blanks were submitted for analysis.

- **Accuracy**

Accuracy is evaluated by analyzing distilled water or field samples spiked with known amounts of radionuclides. The sample activity as determined by analysis is compared to the known activity to assess accuracy. The acceptable laboratory control sample (LCS) and matrix spike (MS) recovery range is either 65-135% or 70-130%, depending on the analyte. In addition, samples may be spiked with a radiochemical tracer to assist in isolating the radioisotope of interest with the yield of the tracer being used in calculating sample activity. The acceptable range for tracer recovery is 20% to 105%. Spike sample results outside the above ranges result in associated sample results being qualified as estimates, rejected, or not qualified, depending on the activity of the individual sample.

Due to the lack of an LCS analysis, all plutonium-238, uranium-233/234 and uranium-235 results were qualified as estimates and flagged "J".

All other accuracy results were acceptable.

- **Precision**

Analytical precision is expressed by the relative percent difference (RPD) between the recoveries of duplicate matrix spike analyses performed on a sample. Precision may also be assessed using unspiked duplicate sample analyses. If both sample and replicate activities are greater than five times the contract required detection limit (CRDL) and the RPD is less than +/- 35 percent, the results are acceptable. If either activities are less than five times the CRDL, a control limit of less than or equal to two times the CRDL is used for soil samples and less than or equal to the CRDL for water samples. If either the original or replicate value is below the CRDL, the applicable control limits are less than or equal to the CRDL for water samples and less than or equal to two times the CRDL for soil samples. If the RPD is outside the applicable control limit, associated results are qualified as estimated detects or estimated non-detects.

All duplicate results were acceptable.

Field Duplicate Samples

No field duplicates were submitted for analysis.

- **Detection Levels**

Reported analytical detection levels are compared against the required target quantitation limits (RTQLs) to ensure that laboratory detection levels meet the required criteria. All reported laboratory detection levels met the analyte specific RTQL.

- **Completeness**

Data package SDG No. 50940 was submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

Due to method blank contamination, all uranium-235 results were qualified as estimates and flagged "J". Due to the lack of an LCS analysis, all plutonium-238, uranium-233/234 and uranium-235 results were qualified as estimates and flagged "J". Data flagged "J" is an estimate, but under the FHI validation SOW, the data may be usable for decision-making purposes. All other validated results are considered accurate within the standard error associated with the methods.

REFERENCES

FHI, Contract #20266, *Validation Statement of Work*, Fluor Hanford Incorporated, July 7, 2003.

DOE/RL-2001-65, Rev. 0, *200-MW-1 Miscellaneous Waste Group OUs RI/FS Work Plan*, April 2002.

Appendix 1

Glossary of Data Reporting Qualifiers

000005

Qualifiers which may be applied by data validators in compliance with the FHI statement of work are as follows:

- U - Indicates the compound or analyte was analyzed for and not detected above the minimum detectable activity (MDA) in the sample. The value reported is the sample result corrected for sample dilution and moisture content by the laboratory. The data is usable for decision making purposes.
- UJ - Indicates the compound or analyte was analyzed for and not detected at concentrations above the minimum detectable activity (MDA) in the sample. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate, but is usable for decision making purposes.
- J - Indicates the compound or analyte was analyzed for and detected. Due to a minor QC deficiency identified during the data validation, the associated concentration is an estimate, but the data are usable for decision-making purposes.
- R - Indicates the compound or analyte was analyzed for, detected, and due to an identified major QC deficiency, the data are unusable.
- UR - Indicates the compound or analyte was analyzed for and not detected in the sample. Additionally, the data is unusable due to an identified major QC deficiency.

Appendix 2
Summary of Data Qualification

000007

RADIOCHEMISTRY/CHEMISTRY DATA QUALIFICATION SUMMARY*

SDG: 50940	REVIEWER: TLI	PROJECT: 200-MW-1	PAGE <u>1</u> OF <u>1</u>
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Uranium-235	J	All	Blank contamination
Uranium-233/234 Uranium-235 Plutonium-238	J	All	No LCS analysis

* - The Qualified Data Summary Table includes laboratory applied "U" qualifiers not specifically identified here. The laboratory applied "U" qualifiers are included to minimize misinterpretation of results contained in the table.

000008

Appendix 3

Qualified Data Summary and Annotated Laboratory Reports

000009

Project: FLUOR-HANFORD													
Laboratory: WSCF													
Case		SDG: WSCF20050940											
Sample Number		B1C769		B1C771		B1C774		B1C775		B1C776		B1C777	
Remarks													
Sample Date		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05	
Radiochemistry	RTQ	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Americium-241	1	0.0170	U	0.0330	U	0.00940	U	0.0120	U	0.0330	U	0.00330	U
Cobalt-60	0.05	-0.00670	U	-0.00297	U	0.000685	U	-0.00955	U	0.00284	U	-0.00181	U
Cesium-137	0.1	0.611		0.548		0.310		0.221		0.00308	U	0.0121	
Europium 152	0.1	0.00630	U	0.0182	U	-0.000565	U	0.0367	U	-0.0137	U	0.00251	U
Europium 154	0.1	0.0135	U	-0.0259	U	-0.0216	U	-0.0358	U	-0.00635	U	0.00158	U
Europium 155	0.1	-0.00948	U	0.0868		0.0113	U	0.0507	U	0.00232	U	0.0125	U
Plutonium-238	1	-0.0120	UJ	0.0170	UJ	-0.00890	UJ	0.00490	UJ	0.0150	UJ	0.0180	UJ
Plutonium-239/240	1	0.0220		0.0280		0.0550		0.00820	U	-0.00560	U	0.0130	
Strontium-89/90	1	0.520		0.330		-0.100	U	0.0320	U	1.10		0.300	U
Uranium-233/234	1	0.310	J	0.230	J	0.270	J	0.260	J	0.180	J	0.110	J
Uranium-235	1	0.0270	J	0.0230	J	0.0300	J	0.0150	J	0.00960	J	0.0200	J
Uranium-238	1	0.320		0.320		0.320		0.300		0.160		0.150	

000010

* - TDL exceeded

Laboratory applied non-detect qualifiers "U" have been included in this table to minimize potential miss-interpretation of results. All other qualifiers shown were applied during validation.

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
Radiochemistry														
W050001286	B1C769	GRP	TRENT	14596-10-2	Americium-241	SOIL	LA-508-471	U		0.0170	pCi/g	1.00	0.041	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471		+-	0.026	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481	U		-6.70e-03	pCi/g	1.00	0.014	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481		+-	8.4e-03	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481			0.611	pCi/g	1.00	0.014	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Ca-137 Rel. Count Error (GEA)	SOIL	LA-508-481		+-	0.10	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	14683-23-8	Europium-152	SOIL	LA-508-481	U		6.30e-03	pCi/g	1.00	0.043	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481		+-	0.030	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481	U		0.0135	pCi/g	1.00	0.044	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481		+-	0.030	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	14391-16-3	Europium-165	SOIL	LA-508-481	U		-9.48e-03	pCi/g	1.00	0.059	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Eu-165 Rel. Count Error (GEA)	SOIL	LA-508-481		+-	0.036	pCi/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	13981-16-3	Plutonium-238	SOIL	LA-508-471	U J		-0.0120	pCi/g	1.00	0.056	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471		+-	0.030	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471			0.0220	pCi/g	1.00	0.018	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471		+-	0.015	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	SR-RAD	Strontium-89/90	SOIL	LA-508-415			0.520	pCi/g	1.00	0.30	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	Sr-89/90 Rel. Count Error	SOIL	LA-508-415		+-	0.47	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471	J		0.310	pCi/g	1.00	0.018	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471		+-	0.093	pCi/g	1.00	0.0	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	15117-98-1	Uranium-235	SOIL	LA-508-471	J		0.0270	pCi/g	1.00	5.2e-03	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471		+-	0.016	pCi/g	1.00	0.0	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	U-238	Uranium-238	SOIL	LA-508-471			0.320	pCi/g	1.00	4.8e-03	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471		+-	0.093	pCi/g	1.00	0.10	05/10/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	14596-10-2	Americium-241	SOIL	LA-508-471	U		0.0330	pCi/g	1.00	0.037	05/11/05 04/28/05 04/28/05
W050001287	B1C771	GRP	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471		+-	0.026	pCi/g	1.00	0.0	05/11/05 04/28/05 04/28/05

MDL=Minimum Detection Limit
RQ=Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

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

Report WGPP/ver. 1.1

Groundwater Remediation Program

Handwritten signature and date: W/20/05

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
W050001287	B1C771	GRP TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481	U	-2.97e-03	pCi/g	1.00	0.015	05/02/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481		+ 9.0e-03	pCi/g	1.00	0.0	05/02/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481		0.548	pCi/g	1.00	0.015	05/02/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481		+ 0.092	pCi/g	1.00	0.0	05/02/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	14883-23-9	Europlium-152	SOIL	LA-508-481	U	0.0182	pCi/g	1.00	0.041	05/02/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481		+ 0.041	pCi/g	1.00	0.0	05/02/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	15585-10-1	Europlium-154	SOIL	LA-508-481	U	-0.0259	pCi/g	1.00	0.047	05/02/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481		+ 0.029	pCi/g	1.00	0.0	05/02/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	14391-16-3	Europlium-155	SOIL	LA-508-481		0.0888	pCi/g	1.00	0.055	05/02/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481		+ 0.048	pCi/g	1.00	0.0	05/02/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	13981-16-3	Plutonium-238	SOIL	LA-508-471	U J	0.0170	pCi/g	1.00	0.040	06/11/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471		+ 0.024	pCi/g	1.00	0.0	06/11/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471		0.0280	pCi/g	1.00	4.7e-03	05/11/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471		+ 0.016	pCi/g	1.00	0.0	05/11/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	SR-RAD	Strontium-89/90	SOIL	LA-508-415		0.330	pCi/g	1.00	0.30	05/11/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	E,T,C	Sr-89/90 Rel. Count Error	SOIL	LA-508-415		+ 0.43	pCi/g	1.00	0.0	05/11/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471	J	0.230	pCi/g	1.00	0.013	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471	J	+ 0.071	pCi/g	1.00	0.0	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	15117-96-1	Uranium-235	SOIL	LA-508-471	J	0.0230	pCi/g	1.00	5.1e-03	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471		+ 0.014	pCi/g	1.00	0.0	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	U-238	Uranium-238	SOIL	LA-508-471		0.320	pCi/g	1.00	0.013	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471		+ 0.093	pCi/g	1.00	0.10	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	14598-10-2	Americium-241	SOIL	LA-508-471	U	9.40e-03	pCi/g	1.00	0.049	06/11/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471		+ 0.028	pCi/g	1.00	0.0	05/11/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481	U	6.85e-04	pCi/g	1.00	0.010	05/05/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481		+ 6.1e-03	pCi/g	1.00	0.0	05/05/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481		0.310	pCi/g	1.00	0.012	05/05/05	04/28/05	04/28/05

MDL=Minimum Detection Limit
RQ=Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

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

Report WGPP/ver. 1.1

Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	GRP	TRENT	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001288	B1C774	GRP	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.056	pCi/g	1.00	0.0	05/05/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	14883-23-9	Europium-152	SOIL	LA-508-481	U	-5.85e-04	pCi/g	1.00	0.037	05/05/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 5.8e-03	pCi/g	1.00	0.0	05/05/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481	U	-0.0216	pCi/g	1.00	0.034	05/05/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.022	pCi/g	1.00	0.0	05/05/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	14391-16-3	Europium-155	SOIL	LA-508-481	U	0.0113	pCi/g	1.00	0.063	05/05/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.037	pCi/g	1.00	0.0	05/05/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	13981-10-3	Plutonium-238	SOIL	LA-508-471	U J	-8.90e-03	pCi/g	1.00	0.045	05/11/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.023	pCi/g	1.00	0.0	05/11/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471		0.0550	pCi/g	1.00	4.8e-03	05/11/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471		+- 0.024	pCi/g	1.00	0.0	05/11/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	SR-RAD	Strontium-89/90	SOIL	LA-508-415	U	-0.100	pCi/g	1.00	0.30	05/11/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	Sr-89/90 Rel. Count Error	SOIL	LA-508-415		+- 0.41	pCi/g	1.00	0.0	05/11/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471	J	0.270	pCi/g	1.00	0.018	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471		+- 0.081	pCi/g	1.00	0.0	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	15117-96-1	Uranium-235	SOIL	LA-508-471	J	0.0300	pCi/g	1.00	5.0e-03	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.017	pCi/g	1.00	0.0	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	U-238	Uranium-238	SOIL	LA-508-471		0.320	pCi/g	1.00	4.8e-03	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.093	pCi/g	1.00	0.10	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	14596-10-2	Americium-241	SOIL	LA-508-471	U	0.0120	pCi/g	1.00	0.053	05/11/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.030	pCi/g	1.00	0.0	05/11/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481	U	-9.55e-03	pCi/g	1.00	0.018	05/02/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 9.7e-03	pCi/g	1.00	0.0	05/02/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481		0.221	pCi/g	1.00	0.020	05/02/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.039	pCi/g	1.00	0.0	05/02/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	14683-23-9	Europium-152	SOIL	LA-508-481	U	0.0387	pCi/g	1.00	0.049	05/02/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481		+- 0.041	pCi/g	1.00	0.0	05/02/05	04/28/05	04/28/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

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U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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Groundwater Remediation Program

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W/20/05

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WSCF ANALYTICAL RESULTS REPORT

**Attention:
Project:**

**Steve Trent
F04-015: F04-015**

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
W050001289	B1C775	GRP	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481	U		-0.0358	pCl/g	1.00	0.050	05/02/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481			+- 0.038	pCl/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	14391-18-3	Europium-155	SOIL	LA-508-481	U		0.0507	pCl/g	1.00	0.058	05/02/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481			+- 0.038	pCl/g	1.00	0.0	05/02/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	13981-18-3	Plutonium-238	SOIL	LA-508-471	U J		4.90e-03	pCl/g	1.00	0.055	05/11/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471			+- 0.031	pCl/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471	U J		8.20e-03	pCl/g	1.00	0.015	05/11/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471			+- 9.8e-03	pCl/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	SR-RAD	Strontium-89/90	SOIL	LA-508-415	U		0.0320	pCl/g	1.00	0.30	05/11/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	Sr-89/90 Rel. Count Error	SOIL	LA-508-415			+- 0.32	pCl/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471	J		-0.260	pCl/g	1.00	0.018	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471			+- 0.078	pCl/g	1.00	0.0	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	15117-98-1	Uranium-235	SOIL	LA-508-471	J		0.0150	pCl/g	1.00	0.014	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471			+- 0.012	pCl/g	1.00	0.0	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	U-238	Uranium-238	SOIL	LA-508-471			0.300	pCl/g	1.00	4.7e-03	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471			+- 0.090	pCl/g	1.00	0.10	05/10/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	14598-10-2	Americium-241	SOIL	LA-508-471	U		0.0330	pCl/g	1.00	0.045	05/11/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471			+- 0.030	pCl/g	1.00	0.0	05/11/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481	U		2.84e-03	pCl/g	1.00	7.5e-03	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481			+- 4.2e-03	pCl/g	1.00	0.0	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481	U		3.08e-03	pCl/g	1.00	8.4e-03	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481			+- 5.5e-03	pCl/g	1.00	0.0	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	14683-23-9	Europium-152	SOIL	LA-508-481	U		-0.0137	pCl/g	1.00	0.023	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481			+- 0.015	pCl/g	1.00	0.0	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	15585-10-1	Europium-154	SOIL	LA-508-481	U		-8.35e-03	pCl/g	1.00	0.023	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481			+- 0.015	pCl/g	1.00	0.0	05/04/05 04/28/05 04/28/05
W050001290	B1C778	GRP	TRENT	14391-18-3	Europium-155	SOIL	LA-508-481	U		2.32e-03	pCl/g	1.00	0.035	05/04/05 04/28/05 04/28/05

MDL=Minimum Detection Limit
RQ=Result Qualifier

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U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

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Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001290	B1C778	GRP TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.021	pCi/g	1.00	0.0	05/04/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	13981-18-3	Plutonium-238	SOIL	LA-508-471	U J 0.0160	pCi/g	1.00	0.052	05/11/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.030	pCi/g	1.00	0.0	05/11/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471	U -5.80e-03	pCi/g	1.00	0.028	05/11/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471	+- 0.011	pCi/g	1.00	0.0	05/11/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	SR-RAD	Strontium-89/90	SOIL	LA-508-415	1.10	pCi/g	1.00	0.30	05/11/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	E,T,C	Sr-89/90 Rel. Count Error	SOIL	LA-508-415	+- 0.50	pCi/g	1.00	0.0	05/11/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471	J 0.180	pCi/g	1.00	0.013	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471	+- 0.058	pCi/g	1.00	0.0	05/10/05	04/28/05	04/28/05
W050001280	B1C778	GRP TRENT	15117-98-1	Uranium-235	SOIL	LA-508-471	J 9.80e-03	pCi/g	1.00	5.2e-03	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471	+- 8.9e-03	pCi/g	1.00	0.0	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	U-238	Uranium-238	SOIL	LA-508-471	0.160	pCi/g	1.00	0.013	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.053	pCi/g	1.00	0.10	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	14598-10-2	Americium-241	SOIL	LA-508-471	U 3.30e-03	pCi/g	1.00	0.046	05/11/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	E,T,C	Am-241 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.028	pCi/g	1.00	0.0	05/11/05	04/28/05	04/28/05
W050001281	B1C777	GRP TRENT	10198-40-0	Cobalt-60	SOIL	LA-508-481	U -1.81e-03	pCi/g	1.00	8.2e-03	05/04/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	E,T,C	Co-60 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 4.8e-03	pCi/g	1.00	0.0	05/04/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	10045-97-3	Cesium-137	SOIL	LA-508-481	0.0121	pCi/g	1.00	8.3e-03	05/04/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	E,T,C	Cs-137 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 7.2e-03	pCi/g	1.00	0.0	05/04/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	14083-23-9	Europium-152	SOIL	LA-508-481	U 2.51e-03	pCi/g	1.00	0.027	05/04/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	E,T,C	Eu-152 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.018	pCi/g	1.00	0.0	05/04/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	15585-10-1	Europium-154	SOIL	LA-508-481	U 1.88e-03	pCi/g	1.00	0.027	05/04/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	E,T,C	Eu-154 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.015	pCi/g	1.00	0.0	05/04/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	14391-18-3	Europium-155	SOIL	LA-508-481	U 0.0125	pCi/g	1.00	0.038	05/04/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	E,T,C	Eu-155 Rel. Count Error (GEA)	SOIL	LA-508-481	+- 0.023	pCi/g	1.00	0.0	05/04/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	13981-18-3	Plutonium-238	SOIL	LA-508-471	U J 0.0180	pCi/g	1.00	0.067	05/11/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	E,T,C	Pu-238 by AEA Total Cntg Error	SOIL	LA-508-471	+- 0.034	pCi/g	1.00	0.0	05/11/05	04/28/05	04/28/05

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Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention:
Project:

Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001291	B1C777	GRP	TRENT	PU-239/240	Pu-239/240 by AEA	SOIL	LA-508-471		0.0130	pCi/g	1.00	4.9e-03	05/11/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	E,T,C	Pu-239/240 AEA Total Cntg Err	SOIL	LA-508-471		+- 0.010	pCi/g	1.00	0.0	05/11/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	SR-RAD	Strontium-89/90	SOIL	LA-508-415	U	0.300	pCi/g	1.00	0.30	05/11/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	E,T,C	Sr-89/90 Rel. Count Error	SOIL	LA-508-415		+- 0.39	pCi/g	1.00	0.0	05/11/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	U-233/234	Uranium-233/234	SOIL	LA-508-471	J	0.110	pCi/g	1.00	0.022	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	E,T,C	U-233/234 AEA Total Cntg Error	SOIL	LA-508-471		+- 0.041	pCi/g	1.00	0.0	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	15117-98-1	Uranium-235	SOIL	LA-508-471	J	0.0200	pCi/g	1.00	5.3e-03	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	E,T,C	U-235 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.014	pCi/g	1.00	0.0	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	U-238	Uranium-238	SOIL	LA-508-471		0.150	pCi/g	1.00	4.9e-03	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	E,T,C	U-238 by AEA Total Cntg Error	SOIL	LA-508-471		+- 0.051	pCi/g	1.00	0.10	05/10/05	04/28/05	04/28/05

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6/20/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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

Report WGPP/ver. 1.1

Groundwater Remediation Program

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

000017

Sample Delivery Group	WSCF20050940
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F04-015
Data Deliverable	Summary Report

Introduction

Six (6) 200-MW-1 Characterization Sampling and Analysis – Soil/216-T-13, 10’ – 11’, samples (B1C769, B1C771, B1C774, B1C775, B1C776 and B1C777) were received at the WSCF Laboratory on April 28, 2005. The 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 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and sample receipt are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Anions by EPA Method 300.0. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 9045C. Analytical work was performed with no deviations to the approved method.

Organic

- PCB by EPA Method 8082. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.

- TPH Diesel/Gas Range by WDOE Method NWTPH-Dx/Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260B. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA [Americium, Plutonium and Uranium], GEA, Sr-89/90) were run by internal WSCF procedures. Analytical work was performed with no deviations to the approved method.

Inorganic Comments

Anions - The hold times for Nitrite and Nitrate analyses were not met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 14 for QC details. Analytical Notes:

- Preparation Date: 09-may-2005.
- Sulfate - Sample (B1C769, B1C774, B1C775, B1C776 and B1C777) results were B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.
- Sulfate – The Duplicate Relative Percent Difference exceeded established laboratory limits.

All other QC controls are within the established limits.

ICP-MS Metals – The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page 15 for QC details. Analytical Note:

- Preparation Date: 09-may-2005.

All QC controls are within the established limits.

Percent Solids – Analyzed for organic results correction.

pH – All internal laboratory controls were within established limits. See page 16 for QC details. Analytical Note:

- Duplicate QC sample was analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

Organic Comments

- Sample results were moisture corrected and reported on a dry-weight basis.

PCB – The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 31 through 33 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 34 through 38 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Phenol-d5 – Surrogate recovery was less than established laboratory limits.
- Phenol and Pentachlorophenol – LCS recoveries were less than the established laboratory limits. Sample results were less than the method detection limit and U flagged.

All other QC controls are within the established limits.

TPHD-WA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See pages 39 through 40 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).

All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 41 for QC details. Analytical Notes:

- Preparation Date: 11-may-2005.
- Total Petroleum Hydrocarbons, Gas – The Spike Relative Percent Difference and the Laboratory Control Sample recovery slightly exceeded. All other QC samples were within limits, sample results were U-flagged.

All other QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 42 through 45 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Radiochemistry Comments

RadChem – There are no hold times associated with WSCF radiochemical methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 52 through 56 for QC details. Analytical Notes:

- Americium-241, Plutonium-238 & 239/240, and Uranium-234, 235 & 238 Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).
- GEA and Strontium-89/90– Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).
- Uranium-234, Uranium-235 and Plutonium-238 - Additional Batch QC Data are summarized below:

Additional Batch QC Data (Results)				
Sample Number	Sample ID	Isotope	Concentration (pCi/gm)	Count
<u>Uranium-234/ Uranium-235</u>				
BLANK		U-234	8.123E-03	
BLANK		U-235	6.651E-03	
B1C784	W050001268	U-234	3.168E-01	
DUPLICATE	W050001268	U-234	3.188E-01	0.6
B1C784	W050001268	U-235	2.675E-02	
DUPLICATE	W050001268	U-235	3.375E-02	23
<u>Plutonium-238</u>				
BLANK		Pu-238	-2.360E-02	
B1C784	W050001268	Pu-238	8.700E-03	

Additional Batch QC Data (Results)				
Sample Number	Lab Sample	Isotope	Result (Bq/gm)	RF (%)
DUPLICATE	W050001268	Pu-238	U9.421E-03	N/A

- Americium-243, Plutonium-242, Strontium-85 and Uranium-232 – Radiochemical Tracer Recovery Data are summarized below:

Radiochemical Tracer Percent Recovery			
Sample Number	Lab Sample	Isotope	Tracer Recovery (Percent)
<u>Americium-243</u>			
BLANK		Am-243	93.6
LCS		Am-243	89.3
B1C784	W050001268	Am-243	106.7
DUPLICATE	W050001268	Am-243	87.5
B1C769	W050001286	Am-243	99.3
B1C771	W050001287	Am-243	87.3
B1C774	W050001288	Am-243	105.1
B1C775	W050001289	Am-243	84.8
B1C776	W050001290	Am-243	96.6
B1C777	W050001291	Am-243	84.9
<u>Plutonium-242</u>			
BLANK		Pu-242	86.2
LCS		Pu-242	94.0
B1C784	W050001268	Pu-242	84.0
DUPLICATE	W050001268	Pu-242	86.2

Radiochemical Tracer Percent Recovery			
			Tracer Recovery (Percent)
B1C769	W050001286	Pu-242	95.0
B1C771	W050001287	Pu-242	87.6
B1C774	W050001288	Pu-242	91.2
B1C775	W050001289	Pu-242	87.2
B1C776	W050001290	Pu-242	88.0
B1C777	W050001291	Pu-242	82.1
<u>Strontium-85</u>			
BLANK		Sr-85	83.9
LCS		Sr-85	98.2
B1CY50	W050001285	Sr-85	76.6
DUPLICATE	W050001285	Sr-85	88.3
B1C769	W050001286	Sr-85	87.4
B1C771	W050001287	Sr-85	84.6
B1C774	W050001288	Sr-85	91.4
B1C775	W050001289	Sr-85	87.2
B1C776	W050001290	Sr-85	80.7
B1C777	W050001291	Sr-85	91.9
<u>Uranium-232</u>			
BLANK		U-232	79.6
LCS		U-232	70.4
B1C784	W050001268	U-232	83.4
DUPLICATE	W050001268	U-232	83.9
B1C769	W050001286	U-232	90.8

Radiochemical Tracer Percent Recovery			
Sample Number	Lab Sample	Tracer	Percent Recovery
B1C771	W050001287	U-232	87.2
B1C774	W050001288	U-232	95.0
B1C775	W050001289	U-232	82.1
B1C776	W050001290	U-232	93.2
B1C777	W050001291	U-232	82.1

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Pauline D. Mix
 Pauline D. Mix
 WSCF Client Services

Abbreviations

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

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

5/30/05

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-124	PAGE 1 OF 2							
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Cearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE	SN	DATA TURNAROUND						
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>	45 Days / 45 Days							
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None							
		TYPE OF CONTAINER		aG	aG	aG	aGs*	aG	P							
		NO. OF CONTAINER(S)		1	1	1	3	1	1							
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL							
		SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770 20050940		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCDs - 8082;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS					
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME													
B1C769	11050001286 SOIL	4/28/05	0930													
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS								
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME		SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS								
75 PAPEL / 4/28/05		14:45		TA PRAZNER		4-28-05 14:45										
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										
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME										
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME										
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME										
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME										

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		FD4-015-124	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE SN	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. FD4-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. *PMG 2/14/05*

(1) IC Anions - 300.0 (~~Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite~~, Phosphorous in phosphate, Sulfate) ~~Total Cyanide - 9040~~; pH (Soil) - 9045;

(2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, ~~n-Butylbenzene~~, trans-1,2-Dichloroethylene)

(4) Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						FD4-018-125		PAGE 1 OF 2											
COLLECTOR Pope/Pfister/Tyra/Wilberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE SN		DATA TURNAROUND 45 Days / 45 Days <i>1/2</i>											
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>													
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 N/A		PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None											
			TYPE OF CONTAINER		gG	gG	gG	gGs*	gG	P											
			NO. OF CONTAINER(S)		1	1	1	3	1	1											
			VOLUME		250mL	120mL	250mL	40mL	120mL	500mL											
		SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8062;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS										
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME																		
B1C771	SOIL	4/28/85	0930																		
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS															
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME															
JSP/PL/AS/PL		4-28-85		TA FRAZIER		4/28/85 14:45															
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															
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME															
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME															
LABORATORY SECTION		RECEIVED BY				TITLE		DATE/TIME													
FINAL SAMPLE DISPOSITION		DISPOSAL METHOD				DISPOSED BY		DATE/TIME													

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			P04-015-125	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyrs/Wilberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 10-11 ft.	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. P04-015		AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle			
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

PMG 2/14/05

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis

(1) IC Anions - 300.0 (~~Fluoride, Nitrate, Nitrite, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate~~) Total Cyanide - 9010; pH (Soil) - 9045;

(2) ICP/MS - 200.8 (TAL) (~~Cadmium, Chromium, Copper, Silver~~) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3) VOA - 8260A (TCL); VOA - 8260A (Add-On) {1-Butanol, ~~ds-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene~~}

(4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						FD4-015-137		PAGE 1 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N		DATA TURNAROUND 45 Days / 45 Days <i>10/16/05</i>	
SAMPLING LOCATION 216-T-13; 12-13 R		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. FD4-015		AIR QUALITY <input type="checkbox"/>			
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 N/A		PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	
			TYPE OF CONTAINER		gG	gG	gG	gG*	gG	P	
			NO. OF CONTAINER(S)		1	1	1	3	1	1	
			VOLUME		250mL	120mL	250mL	40mL	120mL	500mL	
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C780		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCRs - 8082;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1C774	SOIL	4-28-05	6955	X	X	X	X	X	X		
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS					
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
<i>J. Pope</i>	4-28-05	<i>V. Trent</i>	4/28/05 14:45								
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								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME								
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME					
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME					

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-137	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BN	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 12-13 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis

PMG 2/14/05

- (1) IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9918; pH (Soil) - 9045;
- (2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)
- (3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, ~~n-Butylbenzene~~, TRANS-1,2-Dichloroethylene)
- (4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)
- (5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-138		PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Cearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N		DATA TURNAROUND 45 Days / 45 DAYS		
SAMPLING LOCATION 216-T-13; 14-15 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>		7-26-84		
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
		TYPE OF CONTAINER		aG	aG	aG	aGs*	aG	P			
		NO. OF CONTAINER(S)		1	1	1	3	1	1			
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL			
SPECIAL HANDLING AND/OR STORAGE Radioactive Tle To: B1C781		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C775	SOIL	4-28-85	1015	X	X	X	X	X	X			
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
<i>J. Pope</i>	4-26-85	<i>Victor Sims</i>	4/28/85									
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									
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
LABORATORY SECTION	RECEIVED BY	TITLE						DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY						DATE/TIME				

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-138	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 14-15 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. *PMG 2/14/05*

(1) IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate); Total Cyanide - 9010; pH (Soil) - 9045;
 (2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver); ICP/MS - 200.8 (Add-on) (Lead, Uranium)
 (3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)
 (4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)
 (5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST							FD4-015-139		PAGE 1 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Cearlock		TELEPHONE NO. 372-9638			PROJECT COORDINATOR TRENT, SJ			PRICE CODE SN		DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 19-20 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil					SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>		45 Days / <i>4.26.05</i>	
ICE CHEST NO.		FIELD LOGBOOK NO.			COA 119144ES10		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 N/A		PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
			TYPE OF CONTAINER		gG	gG	gG	gG*	gG	P		
			NO. OF CONTAINER(S)		1	1	1	3	1	1		
			VOLUME		250mL	120mL	250mL	40mL	120mL	500mL		
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C782		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C776	SOIL	4-28-05	1300	X	X	X	X	X	X			
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS				
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME		SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS				
J. S. POPE / <i>[Signature]</i>		4-28-05 1445		Victor Bins / <i>[Signature]</i>		4/28/05 1445						
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						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
LABORATORY SECTION	RECEIVED BY			TITLE				DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD			DISPOSED BY				DATE/TIME				

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-139	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE SN	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 19-20 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.

PMG 2/14/05

- (1) IC Anions - 300.0 (~~Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite~~, Phosphorous in phosphate, Sulfate) (~~Total Cyanide - 9010~~; pH (Soil) - 9045;
- (2) ICP/MS - 200.8 (TAL) (~~Cadmium, Chromium, Copper, Silver~~) ICP/MS - 200.8 (Add-on) (Lead, Uranium)
- (3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, ~~cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene~~);
- (4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)
- (5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-140	PAGE 1	OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE SN	DATA TURNAROUND 45 Days / 45 Days		
SAMPLING LOCATION 216-T-13; 24-25 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		FIELD LOGBOOK NO. COA 119144ES10		SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>	<i>[Signature]</i>		
ICE CHEST NO.		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A							
SHIPPED TO Waste Sampling & Characterization		PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
MATRIX* A=Air DL=Drum Lq=Liq DS=Drum S=Soil L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other		POSSIBLE SAMPLE HAZARDS/ REMARKS N/A		TYPE OF CONTAINER		g	g	g	g*	g	P
		NO. OF CONTAINER(S)		1	1	1	3	1	1		
		VOLUME		250ml	120mL	250mL	40mL	120mL	500mL		
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: 81C783		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 3062;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1C777	SOIL	4-28-05	1330	+	+	+	+	+	+		
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS					
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS					
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						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME					
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME					

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		FM-015-140	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Ceerlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BN	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 24-25 R	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		
SPECIAL INSTRUCTIONS					
<p>** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. <i>APR 14 1985</i></p> <p>(1)IC Anions - 300.0 (Nitrate, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9020; pH (Soil) - 9045;</p> <p>(2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)</p> <p>(3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene; trans-1,2-Dichloroethylene)</p> <p>(4)Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)</p> <p>(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;</p>					

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Appendix 5

Data Validation Supporting Documentation

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**APPENDIX A
RADIOCHEMICAL DATA VALIDATION CHECKLIST**

VALIDATION LEVEL:	A	B	<u>C</u>	D	E
PROJECT:	200-MW-1		DATA PACKAGE: 50940		
VALIDATOR:	TCT	LAB:	Wscf	DATE:	4/18/05
			SDG:	50940	
ANALYSES PERFORMED					
Gross Alpha/Beta	<u>Strontium-90</u>	Technetium-99	<u>Alpha Spectroscopy</u>	<u>Gamma Spectroscopy</u>	
Total Uranium	Radium-22	Tritium			
SAMPLES/MATRIX					
	BIC769	BIC771	BIC774	BIC775	
	BIC776	BIC777			
					Soil

1. Completeness N/A

Technical verification forms present? Yes No N/A

Comments: _____

2. Initial Calibration (Levels D, E) N/A

Instruments/detectors calibrated? Yes No N/A
 Initial calibration acceptable? Yes No N/A
 Standards NIST traceable? Yes No N/A
 Standards Expired? Yes No N/A
 Calculation check acceptable? Yes No N/A

Comments: _____

3. Continuing Calibration (Levels D, E)

N/A

Calibration checked within required frequency? Yes No N/A

Calibration check acceptable? Yes No N/A

Calibration check standards traceable? Yes No N/A

Calibration check standards expired? Yes No N/A

Calculation check acceptable? Yes No N/A

Comments: _____

4. Background Counts (Levels D, E)

N/A

Background Counts checked within required frequency? Yes No N/A

Background Counts acceptable? Yes No N/A

Calculation check acceptable? Yes No N/A

Comments: _____

5. Blanks (Levels B, C, D, E) N/A

Method blank analyzed within required frequency? Yes No N/A

Method blank results acceptable? Yes No N/A

Analytes detected in method blank? Yes No N/A

Field blank(s) analyzed? Yes No N/A

Field blank results acceptable? Yes No N/A

Analytes detected in field blank(s)? Yes No N/A

Transcription/Calculation Errors? (Levels D, E) Yes No N/A

Comments: U-235 - ~~105~~ all MB
u¹⁴⁹

_____ no FR

6. Laboratory Control Samples or Blank Spike Samples (Levels C, D, E) N/A

LCS /BSS analyzed within required frequency? Yes No N/A

LCS/BSS recoveries acceptable? Yes No N/A

LCS/BSS traceable? (Levels D,E) Yes No N/A

LCS/BSS expired? (Levels D,E) Yes No N/A

LCS/BSS levels correct? (Levels D,E) Yes No N/A

Transcription/Calculation Errors? (Levels D, E) Yes No N/A

Comments: no U-238, U233/234 or U235 LCS - J all

7. Chemical Carrier Recovery (Levels C, D, E) N/A

Chemical carrier added? Yes No N/A

Chemical recovery acceptable? Yes No N/A

Chemical carrier traceable? (Levels D, E) Yes No N/A

Chemical carrier expired? (Levels D, E)Yes No N/A

Transcription/Calculation errors? (Levels D, E).....Yes No N/A

Comments: _____

8. Tracer Recovery (Levels C, D, E) N/A

Tracer added?.....Yes No N/A

Tracer recovery acceptable?Yes No N/A

Tracer traceable? (Levels D, E)Yes No N/A

Tracer expired? (Levels D, E).....Yes No N/A

Transcription/Calculation errors? (Levels D, E).....Yes No N/A

Comments: _____

9. Matrix Spikes (Levels C, D, E)..... N/A

Matrix spike analyzed?Yes No N/A

Spike recoveries acceptable?Yes No N/A

Spike source traceable? (Levels D, E)Yes No N/A

Spike source expired? Levels D, E).....Yes No N/A

Transcription/Calculation Errors? (Levels D, E).....Yes No N/A

Comments: _____

13. Results and Detection Limits (All Levels)..... N/A

Results reported for all required sample analyses?..... Yes No N/A

Results supported in raw data?(Levels D, E)..... Yes No N/A

Results Acceptable? (Levels D, E) Yes No N/A

Transcription/Calculation errors? (Levels D, E)..... Yes No N/A

MDA's meet required detection limits? Yes No N/A

Transcription/calculation errors? (Levels D, E)..... Yes No N/A

Comments: _____

Appendix 6

Additional Documentation Requested by Client

000044

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: Gamma Energy Analysis-grd H2O

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001285									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Cobalt-60	10198-40-0	U2.29e-3	n/a	RPD	05/03/05	0.000	20.000	
DUP	Cesium-137	10045-97-3	1.20e+00	0.830	RPD	05/03/05	0.000	20.000	
DUP	Europium-152	14683-23-9	U8.36e-3	n/a	RPD	05/03/05	0.000	20.000	
DUP	Europium-154	15585-10-1	U-1.0e-2	n/a	RPD	05/03/05	0.000	20.000	
DUP	Europium-155	14391-16-3	6.34e-02	n/a	RPD	05/03/05	0.000	20.000	
BATCH QC									
BLANK	Cobalt-60	10198-40-0	U-9.8e-4	n/a	pCi/g	05/03/05	-10.000	1000.000	
BLANK	Cesium-137	10045-97-3	U-1.5e-3	n/a	pCi/g	05/03/05	-10.000	1000.000	
BLANK	Europium-152	14683-23-9	U-2.0e-2	n/a	pCi/g	05/03/05	-10.000	1000.000	
BLANK	Europium-154	15585-10-1	U-4.7e-3	n/a	pCi/g	05/03/05	-10.000	1000.000	
BLANK	Europium-155	14391-16-3	U-1.8e-3	n/a	pCi/g	05/03/05	-10.000	1000.000	
LCS	Cobalt-60	10198-40-0	4.41e+03	105.251	% Recov	05/03/05	80.000	120.000	
LCS	Cesium-137	10045-97-3	3.94e+03	110.056	% Recov	05/03/05	80.000	120.000	

000045

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: Americium by AEA

SAF Number: F04-015
 Sample Date: 04/27/05
 Receive Date: 04/27/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001268									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Americium-241	14596-10-2	U1.7e-02	n/a	RPD	05/11/05	0.000	20.000	
BATCH QC									
BLANK	Americium-241	14596-10-2	U2.3e-02	n/a	pCi/g	05/11/05	-10.000	1000.000	
LCS	Americium-241	14596-10-2	4.0e+01	95.634	% Recov	05/11/05	75.000	125.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: Strontium 89/90

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001285									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Strontium-89/90	SR-RAD	1.1	34.043	RPD	05/11/05	0.000	20.000	
BATCH QC									
BLANK	Strontium-89/90	10098-97-2	2.5E-02	0.025	pCi/g	05/11/05	-10.000	300.000	
LCS	Strontium-89/90	10098-97-2	70.7	99.437	% Recov	05/11/05	80.000	120.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: Plutonium Isotopics by AEA

SAF Number: F04-015
 Sample Date: 04/27/05
 Receive Date: 04/27/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001268									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Plutonium-238	13981-16-3	U9.4e-03	n/a	RPD	05/11/05	0.000	20.000	
DUP	Pu-239/240 by AEA	PU-239/240	U1.3e-02	n/a	RPD	05/11/05	0.000	20.000	
BATCH QC									
BLANK	Plutonium-238	13981-16-3	U-2.4e-2	n/a	PCT	05/11/05	0.000	1000.000	
BLANK	Pu-239/240 by AEA	PU-239/240	U9.1e-03	n/a	pCi/g	05/11/05	-10.000	1000.000	
LCS	Pu-239/240 by AEA	PU-239/240	6.1e+01	103.658	% Recov	05/11/05	75.000	125.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: Uranium Isotopics by AEA

SAF Number: F04-015
 Sample Date: 04/27/05
 Receive Date: 04/27/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001268									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Uranium-233/234	U-233/234	3.2e-01	0.000	RPD	05/10/05	0.000	20.000	
DUP	U-233/234 AEA Total Cntg Error	E,T,C	29.9	1.031	RPD	05/10/05	0.000	1000.000	
DUP	Uranium-235	15117-96-1	3.4e-02	22.951	RPD	05/10/05	0.000	20.000	
DUP	U-235 by AEA Total Cntg Error	E,T,C	58.8	0.948	RPD	05/10/05	0.000	1000.000	
DUP	Uranium-238	U-238	2.6e-01	17.544	RPD	05/10/05	0.000	20.000	
DUP	U-238 by AEA Total Cntg Error	E,T,C	30.8	1.027	RPD	05/10/05	0.000	1000.000	
BATCH QC									
BLANK	Uranium-238	24678-82-8	U8.1e-03	n/a	pCi/g	05/10/05	-10.000	1000.000	
LCS	Uranium-238	24678-82-8	9.2e+01	121.340	% Recov	05/10/05	75.000	125.000	

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Date: 21 June 2005
To: Fluor Hanford Inc. (technical representative)
From: TechLaw, Inc.
Project: 200-MW-1 Characterization Sampling and Analysis - Soil
Subject: Semivolatile - Data Package No.WSCF20050940 (50940)

INTRODUCTION

This memo presents the results of data validation on Data Package No. 50940 prepared by WSCF Analytical Laboratories (WSCF). A list of samples validated along with the analyses reported and the method of analysis is provided in the following table.

Sample ID	Sample	Media	Validation	Analysis
B1C769	4/28/05	Soil	C	See note 1
B1C771	4/28/05	Soil	C	See note 1
B1C774	4/28/05	Soil	C	See note 1
B1C775	4/28/05	Soil	C	See note 1
B1C776	4/28/05	Soil	C	See note 1
B1C777	4/28/05	Soil	C	See note 1

1 - Semivolatiles by 8270, TPH-D (diesel and kerosene) and gasoline range organics by 8015B.

Data validation was conducted in accordance with the FHI validation statement of work and the 200-MW-1 Miscellaneous Waste Group OU RI/FS Workplan, DOE/RL-2001-65 (Rev. 0), April 2002. Appendices 1 through 6 provide the following information as indicated below:

- Appendix 1. Glossary of Data Reporting Qualifiers
- Appendix 2. Summary of Data Qualification
- Appendix 3. Qualified Data Summary and Annotated Laboratory Reports
- Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
- Appendix 5. Data Validation Supporting Documentation
- Appendix 6. Additional Documentation Requested by Client

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DATA QUALITY OBJECTIVES

- **Holding Times/Sample Preservation**

Analytical holding times were assessed to ascertain whether the holding time requirements were met by the laboratory. The holding time requirement for semivolatile organics are extraction within 14 days of the date of sample collection and analysis within 40 days from the date of extraction. Method 8015B requires analysis within 14 days.

If holding times are exceeded, but not by greater than two times the limit, all associated sample results are qualified as estimates and flagged "J" for detects and "UJ" for non-detects. If holding times are exceeded by greater than two times the limit, all associated detectable sample results are qualified as estimates and flagged "J" and all non-detects are rejected and flagged "UR".

All holding times were met.

- **Method Blanks**

Method blank analyses are conducted to determine the extent of laboratory contamination introduced through sampling, sample preparation and analysis. At least one acceptable method blank analysis must be conducted for every 20 samples. No contaminants should be present in the method blank. Analytical results for analytes present in any sample at less than five times the concentration of that analyte found in the associated blank are qualified as non-detects and flagged "U". Common laboratory contaminants present in samples at less than ten times the concentration of that analyte found in the associated blank are qualified as non-detects. If a sample result is less than the CRQL and is less than five times (or less than ten times for lab contaminants) the highest associated blank result, the sample result value is raised to the CRQL level and qualified as undetected "U".

All method blank results were acceptable.

Field Blanks

No field blanks were submitted for analysis.

- **Accuracy**

Matrix Spike/Matrix Spike Duplicate & Blank Spike

Matrix spike/matrix spike duplicate and blank spike sample analyses are used to assess the analytical accuracy of the reported data. Matrix spike/matrix duplicate results are used to assess the effect of the matrix on the ability to accurately quantify sample concentrations. Matrix spike/matrix spike duplicate analyses are performed in duplicate using five compounds for which percent recoveries must be within a range of 50-150% or within laboratory control limits. If spike recoveries are outside control limits, detected sample results less than five times the spike concentration are qualified as estimates and flagged "J". Undetected sample results with spike recoveries outside control limits are qualified as estimates and flagged "UJ". Sample results greater than five times the spike concentration require no qualification.

Due to an LCS recovery outside QC limits (62.6%), all phenol results were qualified as estimates and flagged "J".

Due to an LCS recovery outside QC limits (59.5%), all pentachlorophenol results were qualified as estimates and flagged "J".

All other matrix spike/matrix spike duplicate and blank spike results were acceptable.

Surrogate Recovery

The analyses of surrogate compounds provide a measure of performance for individual samples. Matrix-specific surrogate compound recovery control windows have been established by the EPA CLP program. If two surrogates of the same class of compounds (base/neutral or acid) are out of control limits, all associated sample results greater than the contract required quantitation limit (CRQL) are qualified as estimates and flagged "J". Sample results less than the CRQL and below the lower control limit are qualified as estimates and flagged "UJ". Sample results less than the CRQL with recoveries above the upper control limit require no qualification. If a surrogate recovery is less than 10%, detects are qualified as estimates and flagged "J" and nondetects are rejected and flagged "UR".

Due to a surrogate recovery outside QC limits (45.2%), the phenol result in sample B1C774 was qualified as an estimate and flagged "J".

All other surrogate results were acceptable.

- **Precision**

Matrix Spike/Matrix Spike Duplicate Samples

Matrix spike (MS)/matrix spike duplicate (MSD) results provide matrix-specific information on the precision of the method for specific target compound classes. Precision is expressed by the relative percent difference (RPD) between the recoveries of duplicate matrix spike analyses performed on a sample. Samples results must be within RPD limits of +/-35%. If RPD values are out of specification and the sample concentration is less than five times the spike concentration, all associated detected sample results are qualified as estimates and flagged "J". If RPD values are out of specification and the sample concentration is greater than five times the spike concentration, no qualification is required.

All MS/MSD RPD results were acceptable.

Field Duplicate Samples

No field duplicates were submitted for analysis.

- **Analytical Detection Levels**

Reported analytical detection levels are compared against the required target quantitation limits (RTQL's) to ensure that laboratory detection levels meet the required criteria. All analytes met the RTQL.

- **Completeness**

Data package No. 50940 was submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

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MINOR DEFICIENCIES

Due to an LCS recovery outside QC limits (62.6%), all phenol results were qualified as estimates and flagged "J". Due to an LCS recovery outside QC limits (59.5%), all pentachlorophenol results were qualified as estimates and flagged "J". Due to a surrogate recovery outside QC limits (45.2%), the phenol result in sample B1C774 was qualified as an estimate and flagged "J". Data flagged "J" is an estimate, but under the FHI validation SOW, the data may be usable for decision-making purposes. All other validated results are considered accurate within the standard error associated with the methods.

REFERENCES

FHI, Contract #20266, *Validation Statement of Work*, Fluor Hanford Incorporated, July 7, 2003.

DOE/RL-2001-65, Rev. 0, *200-MW-1 Miscellaneous Waste Group OUs RI/FS Work Plan*, April 2002.

Appendix 1

Glossary of Data Reporting Qualifiers

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Qualifiers which may be applied by data validators in compliance with the FHI validation SOW are as follows:

- U - Indicates the compound or analyte was analyzed for and not detected in the sample. The value reported is the same quantitation limit corrected for sample dilution and moisture content by the laboratory.
- UJ - Indicates the compound or analyte was analyzed for and not detected in the sample. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- J - Indicates the compound or analyte was analyzed for and detected. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- R - Indicates the compound or analyte was analyzed for, detected, and due to an identified major QC deficiency, the data are unusable.
- UR - Indicates the compound or analyte was analyzed for and not detected in the sample. Additionally, the data is unusable due to an identified major QC deficiency.
- NJ - Indicates presumptive evidence of a compound at an estimated value. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).
- N - Indicates presumptive evidence of a compound. The data may not be valid for some specific applications usable for decision-making purposes).

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Appendix 2
Summary of Data Qualification

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SEMIVOLATILE DATA QUALIFICATION SUMMARY*

SDG: 50940	REVIEWER: TLI	PROJECT: 200-MW-1	PAGE <u>1</u> OF <u>1</u>
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
Phenol	J	B1C774	Surrogate recovery
Pentachlorophenol Phenol	J	All	LCS recovery

* - The Qualified Data Summary Table includes laboratory applied "U" qualifiers not specifically identified here. The laboratory applied "U" qualifiers are included to minimize misinterpretation of results contained in the table.

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Appendix 3

Qualified Data Summary and Annotated Laboratory Reports

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Project: FLUOR-HANFORD													
Laboratory: WSCF													
Case:		SDG: WSCF20050940											
Sample Number		B1C769		B1C771		B1C774		B1C775		B1C776		B1C777	
Remarks													
Sample Date		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05	
Analysis Date		5/10/05		5/10/05		5/10/05		5/10/05		5/10/05		5/10/05	
Semivolatile/8015B	RTQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
4-Nitrophenol		<190	U	<190	U	<180	U	<180	U	<180	U	<180	U
1,4-Dichlorobenzene		<290	U	<290	U	<280	U	<280	U	<270	U	<270	U
Phenol		<150	UJ	<150	UJ	<150	UJ	<140	UJ	<140	UJ	<140	UJ
1,2,4-Trichlorobenzene		<200	U	<200	U	<190	U	<190	U	<190	U	<190	U
2,4-Dinitrotoluene		<120	U	<120	U	<110	U	<110	U	<110	U	<110	U
Pyrene		<170	U	<170	U	<160	U	<160	U	<160	U	<160	U
4-Chloro-3-methylphenol		<100	U	<100	U	<99.0	U	<97.0	U	<96.0	U	<96.0	U
N-Nitroso-di-n-propylamine		<160	U	<160	U	<160	U	<160	U	<150	U	<150	U
Acenaphthene		<150	U	<150	U	<150	U	<140	U	<140	U	<140	U
Pentachlorophenol		<160	UJ	<160	UJ	<150	UJ	<150	UJ	<150	UJ	<150	UJ
2-Chlorophenol		<170	U	<170	U	<160	U	<160	U	<160	U	<160	U
Tributylphosphate	3300	<150	U	<160	U	<150	U	<150	U	<150	U	<150	U
TPH-D	5000	<4100	U	<4100	U	<4000	U	<3900	U	<3900	U	<3900	U
Kerosene	5000	<4100	U	<4100	U	<4000	U	<3900	U	<3900	U	<3900	U
TPH-G (gasoline range organics)	5000	<250	U	<250	U	<250	U	<250	U	<250	U	<250	U

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
Organic														
W050001286	B1C769	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	<	250	ug/kg	1.00	2.5e+02	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	12874-11-2	Aroclor-1016	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	<	110	ug/kg	1.00	1.1e+02	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	11097-89-1	Aroclor-1254	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	11098-82-5	Aroclor-1260	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	<	190	ug/kg	1.00	1.9e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	<	290	ug/kg	1.00	2.9e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	<	150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	<	200	ug/kg	1.00	2.0e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	<	120	ug/kg	1.00	1.2e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	<	170	ug/kg	1.00	1.7e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	<	100	ug/kg	1.00	1.0e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	<	180	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	63-32-9	Acenaphthene	SOIL	LA-523-456	U	<	150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	<	180	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	<	170	ug/kg	1.00	1.7e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	<	150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	75-35-4	1,1-Dichloroethane	SOIL	LA-523-455	U	<	2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	79-01-6	Trichloroethane	SOIL	LA-523-455	U	<	2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	<	2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	<	2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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

Report WGPP/ver. 1.1

Groundwater Remediation Program

Handwritten signature and date: U/20/05

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001288	B1C769	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001288	B1C769	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001288	B1C769	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	44	05/10/05	04/28/05	04/28/05
W050001288	B1C769	156-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001288	B1C769	156-50-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001288	B1C769	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05	04/28/05	04/28/05
W050001288	B1C769	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05	04/28/05	04/28/05
W050001287	B1C771	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05	04/28/05	04/28/05
W050001287	B1C771	12674-11-2	Aroclor-1018	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 110	ug/kg	1.00	1.1e+02	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	53489-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11098-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11100-14-1	Aroclor-1268	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	100-02-7	4-Nitrophenol	SOIL	LA-523-458	U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-458	U	< 290	ug/kg	1.00	2.9e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	108-95-2	Phenol	SOIL	LA-523-458	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-458	U	< 200	ug/kg	1.00	2.0e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-458	U	< 120	ug/kg	1.00	1.2e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	129-00-0	Pyrene	SOIL	LA-523-458	U	< 170	ug/kg	1.00	1.7e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-458	U	< 100	ug/kg	1.00	1.0e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-458	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	83-32-9	Acenaphthene	SOIL	LA-523-458	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	87-86-5	Pentachlorophenol	SOIL	LA-523-458	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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

Report WGPP/ver. 1.1
Groundwater Remediation Program

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6/20/05

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001287	B1C771	95-57-8	2-Chlorophenol	SOIL	LA-523-458	U	< 170	ug/kg	1.00	1.7e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	126-73-8	Tributyl phosphate	SOIL	LA-523-458	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	75-85-4	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	79-01-6	Trichloroethene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	100-42-5	Styrene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	10081-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	107-08-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	56-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	591-78-6	2-Hexanone	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	67-84-1	Acetone	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	67-68-3	Chloroform	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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Handwritten signature and date: W/20/05

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001287	B1C771	GRP TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	75-16-0	Carbon disulfide	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	75-25-2	Bromoform	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	78-87-8	1,2-Dichloropropane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	78-93-3	2-Butanone	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	78-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	71-36-3	1-Butanol	SOIL	LA-523-455 U	< 44.0	ug/kg	1.00	44	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	158-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443 U	< 250	ug/kg	1.00	2.5e+02	05/11/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	12874-11-2	Aroclor 1018	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427 U	< 100	ug/kg	1.00	1.0e+02	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	53488-21-8	Aroclor-1242	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	12672-28-8	Aroclor-1248	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	11097-89-1	Aroclor-1254	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	11196-14-4	Aroclor-1268	SOIL	LA-523-427 U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456 U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456 U	< 280	ug/kg	1.00	2.8e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	108-95-2	Phenol	SOIL	LA-523-456 U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456 U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05

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RQ = Result Qualifier

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Report WGPP/ver. 1.1
Groundwater Remediation Program

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K. W. Kellos

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF-Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001288	B1C774	GRP TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-458 U	< 110	ug/kg	1.00	1.1e+02	05/10/05	04/28/05	04/28/05
W080001288	B1C774	GRP TRENT	129-00-0	Pyrene	SOIL	LA-523-458 U	< 180	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-458 U	< 99.0	ug/kg	1.00	99	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	621-84-7	N-Nitrosodl-n-dipropylamine	SOIL	LA-523-458 U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	83-32-9	Acenaphthene	SOIL	LA-523-458 U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-458 U J	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	96-57-8	2-Chlorophenol	SOIL	LA-523-458 U	< 180	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-458 U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	75-35-4	1,1-Dichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	71-43-2	Benzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	108-88-3	Toluene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	100-42-5	Styrene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	10081-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	591-78-8	2-Hexanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT	67-84-1	Acetone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05

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R u/20/05

MDL=Minimum Detection Limit
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Report WGPP/ver. 1.1
Groundwater Remediation Program

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R u/20/05

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	GRP	TRENT	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001288	B1C774	GRP	TRENT	67-66-3	Chloroform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	75-08-2	Methylenechloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	78-87-5	2-Dichloropropane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 42.0	ug/kg	1.00	42	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	158-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	158-80-5	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 4.00e+03	ug/kg	1.00	4.0e+03	05/12/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 4.00e+03	ug/kg	1.00	4.0e+03	05/12/05	04/28/05	04/28/05
W050001288	B1C775	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05	04/28/05	04/28/05
W050001288	B1C775	GRP	TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001288	B1C775	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/13/05	04/28/05	04/28/05
W050001288	B1C775	GRP	TRENT	11141-18-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001288	B1C775	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001288	B1C775	GRP	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001288	B1C775	GRP	TRENT	11097-89-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001288	B1C775	GRP	TRENT	11098-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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

Report WGPP/ver. 1.1
Groundwater Remediation Program

Handwritten signature and date: 6/20/05

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001289	B1C775	37824-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001289	B1C775	11100-14-1	Aroclor-1260	SOIL	LA-523-427	U	< 81.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001289	B1C775	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 280	ug/kg	1.00	2.8e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	108-95-2	Phenol	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 110	ug/kg	1.00	1.1e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	129-00-0	Pyrene	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 97.0	ug/kg	1.00	97	05/10/05	04/28/05	04/28/05
W050001289	B1C775	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001289	B1C775	75-25-4	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	78-01-6	Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	100-42-5	Styrene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001289	B1C775	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

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Report WGPP/ver. 1.1
Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001289	B1C775	GRP TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	58-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	591-78-8	2-Hexanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	67-64-1	Acetone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	67-66-3	Chloroform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	71-55-8	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	75-08-2	Methylenechloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	78-83-3	2-Butanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	79-00-5	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	71-38-3	1-Butanol	SOIL	LA-523-455	U	< 42.0	ug/kg	1.00	42	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	156-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	158-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05 04/28/05
W050001289	B1C775	GRP TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05 04/28/05
W050001289	B1C776	GRP TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05	04/28/05 04/28/05
W050001289	B1C776	GRP TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05 04/28/05

MDL = Minimum Detection Limit B - The analyte < the RDL but > = the IDL/MDL (Inorganics)
RQ = Result Qualifier

U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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Report WGPP/ver. 1.1
Groundwater Remediation Program

Handwritten signature and date: ce/20/05

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	GRP	TRENT	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001290	B1C778	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	11141-18-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	53489-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	12872-28-8	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	11097-89-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	11098-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-458	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	108-48-7	1,4-Dichlorobenzene	SOIL	LA-523-458	U	< 270	ug/kg	1.00	2.7e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-458	U J	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-458	U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-458	U	< 110	ug/kg	1.00	1.1e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	128-00-0	Pyrene	SOIL	LA-523-458	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-458	U	< 98.0	ug/kg	1.00	98	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	821-84-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-458	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-458	U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-458	U J	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-458	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-458	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	78-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	78-01-6	Trichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05

000020

W
LA-523-427

W
LA-523-455

MDL = Minimum Detection Limit
RQ = Result Qualifier

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

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Report WGPP/ver. 1.1

Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive		
W050001290	B1C778	GRP	TRENT	156-86-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	156-86-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05	04/28/05
W050001290	B1C778	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	12874-11-2	Aroclor-1018	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/13/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	11141-18-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	11097-89-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 270	ug/kg	1.00	2.7e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 110	ug/kg	1.00	1.1e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 96.0	ug/kg	1.00	96	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	621-84-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	75-35-4	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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

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Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID			CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001291	B1C777	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 41.0	ug/kg	1.00	41	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	156-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05	04/28/05
W050001291	B1C777	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05	04/28/05

Rz 6/20/05

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MDL=Minimum Detection Limit
RQ=Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF= Dilution Factor

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

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Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

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Sample Delivery Group	WSCF20050940
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F04-015
Data Deliverable	Summary Report

Introduction

Six (6) 200-MW-1 Characterization Sampling and Analysis – Soil/216-T-13, 10' – 11', samples (B1C769, B1C771, B1C774, B1C775, B1C776 and B1C777) were received at the WSCF Laboratory on April 28, 2005. The 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 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and sample receipt are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Anions by EPA Method 300.0. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 9045C. Analytical work was performed with no deviations to the approved method.

Organic

- PCB by EPA Method 8082. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.

- TPH Diesel/Gas Range by WDOE Method NWTPH-Dx/Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260B. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA [Americium, Plutonium and Uranium], GEA, Sr-89/90) were run by internal WSCF procedures. Analytical work was performed with no deviations to the approved method.

Inorganic Comments

Anions - The hold times for Nitrite and Nitrate analyses were not met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 14 for QC details. Analytical Notes:

- Preparation Date: 09-may-2005.
- Sulfate - Sample (B1C769, B1C774, B1C775, B1C776 and B1C777) results were B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.
- Sulfate - The Duplicate Relative Percent Difference exceeded established laboratory limits.

All other QC controls are within the established limits.

ICP-MS Metals - The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page 15 for QC details. Analytical Note:

- Preparation Date: 09-may-2005.

All QC controls are within the established limits.

Percent Solids - Analyzed for organic results correction.

pH - All internal laboratory controls were within established limits. See page 16 for QC details. Analytical Note:

- Duplicate QC sample was analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

Organic Comments

- Sample results were moisture corrected and reported on a dry-weight basis.

PCB – The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 31 through 33 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 34 through 38 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Phenol-d5 – Surrogate recovery was less than established laboratory limits.
- Phenol and Pentachlorophenol – LCS recoveries were less than the established laboratory limits. Sample results were less than the method detection limit and U flagged.

All other QC controls are within the established limits.

TPHD-WA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See pages 39 through 40 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).

All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 41 for QC details. Analytical Notes:

- Preparation Date: 11-may-2005.
- Total Petroleum Hydrocarbons, Gas – The Spike Relative Percent Difference and the Laboratory Control Sample recovery slightly exceeded. All other QC samples were within limits, sample results were U-flagged.

All other QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 42 through 45 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Radiochemistry Comments

RadChem – There are no hold times associated with WSCF radiochemical methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 52 through 56 for QC details. Analytical Notes:

- Americium-241, Plutonium-238 & 239/240, and Uranium-234, 235 & 238 Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).
- GEA and Strontium-89/90– Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).
- Uranium-234, Uranium-235 and Plutonium-238 - Additional Batch QC Data are summarized below:

Additional Batch QC Data (Results)				
Sample Number	Sample ID	Isotope	Concentration	Count
<u>Uranium-234/ Uranium-235</u>				
BLANK		U-234	8.123E-03	
BLANK		U-235	6.651E-03	
B1C784	W050001268	U-234	3.168E-01	
DUPLICATE	W050001268	U-234	3.188E-01	0.6
B1C784	W050001268	U-235	2.675E-02	
DUPLICATE	W050001268	U-235	3.375E-02	23
<u>Plutonium-238</u>				
BLANK		Pu-238	-2.360E-02	
B1C784	W050001268	Pu-238	8.700E-03	

Additional Batch QC Data (Results)				
Sample Number	Sample	Isotope	Result	Unit
DUPLICATE	W050001268	Pu-238	U9.421E-03	N/A

- Americium-243, Plutonium-242, Strontium-85 and Uranium-232 – Radiochemical Tracer Recovery Data are summarized below:

Radiochemical Tracer Percent Recovery			
Sample Number	Sample	Isotope	Percent Recovery
<u>Americium-243</u>			
BLANK		Am-243	93.6
LCS		Am-243	89.3
B1C784	W050001268	Am-243	106.7
DUPLICATE	W050001268	Am-243	87.5
B1C769	W050001286	Am-243	99.3
B1C771	W050001287	Am-243	87.3
B1C774	W050001288	Am-243	105.1
B1C775	W050001289	Am-243	84.8
B1C776	W050001290	Am-243	96.6
B1C777	W050001291	Am-243	84.9
<u>Plutonium-242</u>			
BLANK		Pu-242	86.2
LCS		Pu-242	94.0
B1C784	W050001268	Pu-242	84.0
DUPLICATE	W050001268	Pu-242	86.2

Radiochemical Tracer Percent Recovery			
Sample ID	Lot #	Tracer	Percent Recovery
B1C769	W050001286	Pu-242	95.0
B1C771	W050001287	Pu-242	87.6
B1C774	W050001288	Pu-242	91.2
B1C775	W050001289	Pu-242	87.2
B1C776	W050001290	Pu-242	88.0
B1C777	W050001291	Pu-242	82.1
<u>Strontium-85</u>			
BLANK		Sr-85	83.9
LCS		Sr-85	98.2
B1CY50	W050001285	Sr-85	76.6
DUPLICATE	W050001285	Sr-85	88.3
B1C769	W050001286	Sr-85	87.4
B1C771	W050001287	Sr-85	84.6
B1C774	W050001288	Sr-85	91.4
B1C775	W050001289	Sr-85	87.2
B1C776	W050001290	Sr-85	80.7
B1C777	W050001291	Sr-85	91.9
<u>Uranium-232</u>			
BLANK		U-232	79.6
LCS		U-232	70.4
B1C784	W050001268	U-232	83.4
DUPLICATE	W050001268	U-232	83.9
B1C769	W050001286	U-232	90.8

Radiochemical Tracer Percent Recovery			
Sample ID	Lab Sample	Tracer	Percent Recovery
B1C771	W050001287	U-232	87.2
B1C774	W050001288	U-232	95.0
B1C775	W050001289	U-232	82.1
B1C776	W050001290	U-232	93.2
B1C777	W050001291	U-232	82.1

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Pauline D. Mix

Pauline D. Mix
WSCF Client Services

Abbreviations

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

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

5/30/05

Floor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					F04-015-124	PAGE 1 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Ceatlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE SN	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>		4-26*
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None
		TYPE OF CONTAINER		aG	aG	aG	aGs*	aG	P
		NO. OF CONTAINER(S)		1	1	1	1	1	1
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770 20050940		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCR- 8062;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B1C769	1N050001286 SOIL	4/28/05	0930						
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS			
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS			
TSAP/ G. S. / 4-28-05		14:45	TA PRAC/ G. S. / 4-28-05		14:45				
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				
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME				
LABORATORY SECTION	RECEIVED BY	TITLE			DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY			DATE/TIME				

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		FD4-015-124	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Ceerlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE SN	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. FD4-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

- PM6 2/14/85
- ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.
- (1)IC Anions - 300.0 (Fluoride, Nitrogen-In-Nitrate, Nitrogen-In-Nitrite, Phosphorous In phosphate, Sulfate) Total Cyanide - 9040; pH (Soil) - 9045;
 - (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)
 - (3)VQA - 8260A (TCL); VQA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)
 - (4)Semi-VQA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)
 - (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					FD4-015-125		PAGE 1 OF 2		
COLLECTOR Pope/Pfeister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ			PRICE CODE SN		
SAMPLING LOCATION 216-T-13; 10-11 R		PROJECT DESIGNATION 200-PW-1 Characterization Sampling and Analysis - Soil			SAF NO. FD4-015			AIR QUALITY <input type="checkbox"/>		DATA TURNAROUND 45 Days / 45 Days <i>1/2</i>	
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		METHOD OF SHIPMENT Government Vehicle					
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A			BILL OF LADING/AIR BILL NO. N/A						
MATRDC* A=Air DL=Drum Liquid 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 N/A		PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	
			TYPE OF CONTAINER		g	g	g	g	g	P	
			NO. OF CONTAINER(S)		1	1	1	3	1	1	
			VOLUME		250mL	120mL	250mL	40mL	120mL	500mL	
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCMS - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.		MATRIX*		SAMPLE DATE		SAMPLE TIME					
B1C771		SOIL		4/28/85		0930					
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS			
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME		SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS			
JSP/PA/ASW		4-28-85		JA FRAZIER		4/28/85 14:45					
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					
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME					
LABORATORY SECTION		RECEIVED BY				TITLE				DATE/TIME	
FINAL SAMPLE DISPOSITION		DISPOSAL METHOD				DISPOSED BY				DATE/TIME	

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		P04-015-125	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. P04-015	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO.	CDA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

PMG 2/14/05

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis

(1) IC Antons - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045;

(2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)

(4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					F04-015-137	PAGE 1 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N	DATA TURNAROUND 45 Days 45 Days
SAMPLING LOCATION 216-T-13; 12-13 R		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>		45 Days 45 Days
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None
		TYPE OF CONTAINER		gG	gG	gG	gG*	gG	P
		NO. OF CONTAINER(S)		1	1	1	3	1	1
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: 81C/80		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 8002;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B1C774	SOIL	4-27-05	0955	X	X	X	X	X	X
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS			
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS					
<i>J. Slope/Asky</i>	4-28-05	<i>Victor Paus</i>	4/28/05 14:45						
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						
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME						
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME						
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME			
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME			

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		PM4-015-137	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 12-13 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

PMG 2/14/05

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.

(1)IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9018; pH (Soil) - 9045;

(2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)

(4)Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-138	PAGE 1 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 DAYS	
SAMPLING LOCATION 216-T-13; 14-15 R.		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144E510		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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	
		TYPE OF CONTAINER		gG	gG	gG	gG*	gG	P	
		NO. OF CONTAINER(S)		1	1	1	3	1	1	
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL	
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C781		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCs - 8082;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B1C775	SOIL	4-28-05	1015	X	X	X	X	X	X	
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS				
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS				
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					
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME					
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME					
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME				

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Floor Masford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-138	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ		PRICE CODE	BN
SAMPLING LOCATION 216-T-13; 14-15 R	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015		AIR QUALITY	<input type="checkbox"/>
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle			
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.

(1)IC Anions - 300.0 (Fluoride, Nitrate, Nitrite, Nitrogen in Nitrate, Phosphorous in phosphate, Sulfate); Total Cyanide - 9010; pH (Soil) - 9045;

(2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver); ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)

(4)Semi-VOA - 8270A (Add-On) (Tributyl phosphate); TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;

PMG 2/14/05

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					F04-015-139	PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE SN	DATA TURNAROUND 45 Days / 45 Days 4-24-05	
SAMPLING LOCATION 216-T-13; 19-20 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>			
ICR CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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=Sludgment T=Thistle V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	
		TYPE OF CONTAINER		gG	gG	gG	gG*	gG	P	
		NO. OF CONTAINER(S)		1	1	1	3	1	1	
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL	
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C782		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCN - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B1C776	SOIL	4-28-05	1300	+	X	X	X	X	X	
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS				
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
JSPope/Pfister/Tyra/Wiberg	4-28-05 1445	Victor Bius	4/28/05 1445							
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							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME				

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		FO4-015-139	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE SN	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 19-20 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. FO4-015	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.

- PN6 2/14/05
- (1) IC Anions - 300.0 (Fluoride, Nitrogen as Nitrate, Nitrogen as Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045;
 - (2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)
 - (3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Propylbenzene, trans-1,2-Dichloroethylene)
 - (4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)
 - (5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;

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Collector		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					F04-015-140		PAGE 1 OF 2		
COLLECTOR Floor Hanford Inc. Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE SN		DATA TURNOVER 45 Days / 45 Days	
SAMPLING LOCATION 216-T-13; 24-25 R		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		FIELD LOGBOOK NO. CDA 119144ES10		SAP NO. F04-015		AIR QUALITY <input type="checkbox"/>		<i>[Signature]</i>	
ICE CHEST NO.		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A							
SHIPPED TO Waste Sampling & Characterization		PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
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 N/A		TYPE OF CONTAINER		gG	gG	gG	gGs*	gG	P
		SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C783		NO. OF CONTAINER(S)		1	1	1	3	1	1
				VOLUME		250mL	120mL	250mL	40mL	120mL	500mL
				SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCMS - 8042	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS
SAMPLE NO.		MATRIX*		SAMPLE DATE		SAMPLE TIME					
B1C777		SOIL		4-28-05		1330		+ + + + + +			
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS			
RELINQUISHED BY/REMOVED FROM <i>J. Pope</i>		DATE/TIME 4-28-05 1445		RECEIVED BY/STORED IN <i>V. [Signature]</i>		DATE/TIME 4/28/05 1445					
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					
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME					
LABORATORY SECTION		RECEIVED BY				TITLE				DATE/TIME	
FINAL SAMPLE DISPOSITION		DISPOSAL METHOD				DISPOSED BY				DATE/TIME	

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		FOU-015-140	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Ceerlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BN	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 24-25 R	PROJECT DESIGNATION 200-NW-1 Characterization Sampling and Analysis - Soil		SAF NO. FOU-015	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			
SPECIAL INSTRUCTIONS <i>Approved 11-28-83</i> ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Radium, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorus in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium) (3)VQA - 8260A (TCL); VQA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene) (4)Semi-VQA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range) (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;					

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Appendix 5

Data Validation Supporting Documentation

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GC/MS ORGANIC DATA VALIDATION CHECKLIST

VALIDATION LEVEL:	A	B	C	D	E
PROJECT:	260-mw-1		DATA PACKAGE: 50940		
VALIDATOR:	TLI	LAB:	WSCF	DATE: 6/18/05	
			SDG:	50940	
ANALYSES PERFORMED					
SW-846 8260		SW-846 8260 (TCLP)	SW-846 8270	8015	SW-846 8270 (TCLP)
SAMPLES/MATRIX					
B1C769		B1C771		B1C774	
B1C776		B1C777			
Soil					

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present? Yes No N/A

Comments: _____

2. INSTRUMENT TUNING AND CALIBRATION (Levels D and E)

GC/MS tuning/performance check acceptable? Yes No **N/A**
 Initial calibrations acceptable? Yes No **N/A**
 Continuing calibrations acceptable? Yes No **N/A**
 Standards traceable? Yes No **N/A**
 Standards expired? Yes No **N/A**
 Calculation check acceptable? Yes No **N/A**

Comments: _____

GC/MS ORGANIC DATA VALIDATION CHECKLIST

3. BLANKS (Levels B, C, D, and E)

Calibration blanks analyzed? (Levels D, E) Yes No N/A
 Calibration blank results acceptable? (Levels D, E) Yes No N/A
 Laboratory blanks analyzed? Yes No N/A
 Laboratory blank results acceptable? Yes No N/A
 Field/trip blanks analyzed? (Levels C, D, E) Yes No N/A
 Field/trip blank results acceptable? (Levels C, D, E) Yes No N/A
 Transcription/calculation errors? (Levels D, E) Yes No N/A

Comments: no FB

4. ACCURACY (Levels C, D, and E)

Surrogates/system monitoring compounds analyzed? Yes No N/A
 Surrogate/system monitoring compound recoveries acceptable? Yes No N/A
 Surrogates traceable? (Levels D, E) Yes No N/A
 Surrogates expired? (Levels D, E) Yes No N/A
 MS/MSD samples analyzed? Yes No N/A
 MS/MSD results acceptable? Yes No N/A
 MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
 MS/MSD standards? (Levels D, E) Yes No N/A
 LCS/BSS samples analyzed? Yes No N/A
 LCS/BSS results acceptable? Yes No N/A
 Standards traceable? (Levels D, E) Yes No N/A
 Standards expired? (Levels D, E) Yes No N/A
 Transcription/calculation errors? (Levels D, E) Yes No N/A
 Performance audit sample(s) analyzed? Yes No N/A
 Performance audit sample results acceptable? Yes No N/A

Comments: surv -phenol J 74
LCS phenol J all NO PAS
LCS pentachlorophenol J all

GC/MS ORGANIC DATA VALIDATION CHECKLIST

5. PRECISION (Levels C, D, and E)

MS/MSD samples analyzed? Yes No N/A
MS/MSD RPD values acceptable? Yes No N/A
MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
MS/MSD standards expired? (Levels D, E) Yes No N/A
Field duplicate RPD values acceptable? Yes No N/A
Field split RPD values acceptable? Yes No N/A
Transcription/calculation errors? (Levels D, E) Yes No N/A

Comments: _____

6. SYSTEM PERFORMANCE (Levels D and E)

Internal standards analyzed? Yes No N/A
Internal standard areas acceptable? Yes No N/A
Internal standard retention times acceptable? Yes No N/A
Standards traceable? Yes No N/A
Standards expired? Yes No N/A
Transcription/calculation errors? Yes No N/A

Comments: _____

7. HOLDING TIMES (all levels)

Samples properly preserved? Yes No N/A
Sample holding times acceptable? Yes No N/A

Comments: _____

GC/MS ORGANIC DATA VALIDATION CHECKLIST

8. COMPOUND IDENTIFICATION, QUANTITATION, AND DETECTION LIMITS (all levels)

Compound identification acceptable? (Levels D, E)	Yes	No	N/A
Compound quantitation acceptable? (Levels D, E)	Yes	No	N/A
Results reported for all requested analyses?	Yes	No	N/A
Results supported in the raw data? (Levels D, E)	Yes	No	N/A
Samples properly prepared? (Levels D, E)	Yes	No	N/A
Laboratory properly identified and coded all TIC? (Levels D, E)	Yes	No	N/A
Detection limits meet RDL?	Yes	No	N/A
Transcription/calculation errors? (Levels D, E)	Yes	No	N/A

Comments: _____

9. SAMPLE CLEANUP (Levels D and E)

GPC cleanup performed?	Yes	No	N/A
GPC check performed?	Yes	No	N/A
GPC check recoveries acceptable?	Yes	No	N/A
GPC calibration performed?	Yes	No	N/A
GPC calibration check performed?	Yes	No	N/A
GPC calibration check retention times acceptable?	Yes	No	N/A
Check/calibration materials traceable?	Yes	No	N/A
Check/calibration materials Expired?	Yes	No	N/A
Analytical batch QC given similar cleanup?	Yes	No	N/A
Transcription/Calculation Errors?	Yes	No	N/A

Comments: _____

Appendix 6

Additional Documentation Requested by Client

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001286									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	1,2,4-Trichlorobenzene	120-82-1	1360.2	93.200	% Recov	05/10/05	48.000	107.000	
MS	1,4-Dichlorobenzene	106-46-7	1381.6	94.800	% Recov	05/10/05	30.000	96.000	
MS	2,4-Dinitrotoluene	121-14-2	1258.1	86.200	% Recov	05/10/05	59.000	108.000	
MS	2-Fluorophenol	367-12-4	1486.9	102.000	% Recov	05/10/05	42.000	105.000	
MS	Acenaphthene	83-32-9	1436.7	98.400	% Recov	05/10/05	61.000	116.000	
MS	4-Chloro-3-methylphenol	59-50-7	1634.5	74.800	% Recov	05/10/05	61.000	106.000	
MS	2-Chlorophenol	95-57-8	1976.0	80.200	% Recov	05/10/05	66.000	106.000	
MS	N-Nitrosodi-n-dipropylamine	621-64-7	1321.4	90.500	% Recov	05/10/05	71.000	114.000	
MS	2-Fluorobiphenyl	321-60-8	1519.4	104.000	% Recov	05/10/05	56.000	122.000	
MS	Phenol	108-95-2	1664.5	78.000	% Recov	05/10/05	42.000	111.000	
MS	Nitrobenzene-d5	4165-60-0	1298.6	89.000	% Recov	05/10/05	64.000	111.000	
MS	4-Nitrophenol	100-02-7	1924.1	87.900	% Recov	05/10/05	32.000	118.000	
MS	Pentachlorophenol	87-86-5	2145.7	98.000	% Recov	05/10/05	62.000	114.000	
MS	Phenol-d5	4165-62-2	1053.4	72.200	% Recov	05/10/05	54.000	120.000	
MS	Pyrene	129-00-0	1367.2	93.700	% Recov	05/10/05	66.000	118.000	
MS	2,4,6-Tribromophenol	118-79-6	1165.2	79.800	% Recov	05/10/05	24.000	122.000	
MS	Terphenyl-d14 (7Cl)	98904-43-9	1389.1	95.200	% Recov	05/10/05	35.000	150.000	
MSD	1,2,4-Trichlorobenzene	120-82-1	1371.3	94.000	% Recov	05/10/05	46.000	107.000	
MSD	1,4-Dichlorobenzene	106-46-7	1308.7	89.700	% Recov	05/10/05	30.000	96.000	
MSD	2,4-Dinitrotoluene	121-14-2	1142.3	78.300	% Recov	05/10/05	59.000	108.000	
MSD	2-Fluorophenol	367-12-4	1483.2	102.000	% Recov	05/10/05	42.000	105.000	
MSD	Acenaphthene	83-32-9	1420.0	87.300	% Recov	05/10/05	61.000	116.000	
MSD	4-Chloro-3-methylphenol	59-50-7	1726.4	79.000	% Recov	05/10/05	61.000	106.000	
MSD	2-Chlorophenol	95-57-8	1897.4	86.700	% Recov	05/10/05	66.000	106.000	
MSD	N-Nitrosodi-n-dipropylamine	621-64-7	1305.2	89.400	% Recov	05/10/05	71.000	114.000	
MSD	2-Fluorobiphenyl	321-60-8	1544.3	106.000	% Recov	08/10/05	56.000	122.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
MSD	Phenol	108-95-2	1474.2	67.300	% Recov	05/10/05	42.000	111.000	
MSD	Nitrobenzene-d5	4165-60-0	1301.0	89.100	% Recov	05/10/05	64.000	111.000	
MSD	4-Nitrophenol	100-02-7	2012.4	91.900	% Recov	05/10/05	32.000	118.000	
MSD	Pentachlorophenol	87-86-5	1959.9	89.500	% Recov	05/10/05	62.000	114.000	
MSD	Phenol-d5	4165-62-2	915.25	62.700	% Recov	05/10/05	54.000	120.000	
MSD	Pyrene	129-00-0	1379.2	94.500	% Recov	05/10/05	66.000	118.000	
MSD	2,4,6-Tribromophenol	118-79-6	1193.5	81.800	% Recov	05/10/05	24.000	122.000	
MSD	Terphenyl-d14 (7Cl)	98904-43-9	1399.2	95.900	% Recov	05/10/05	35.000	150.000	
SPK-RPD	1,2,4-Trichlorobenzene	120-82-1	94.000	0.855	RPD	05/10/05	0.000	20.000	
SPK-RPD	1,4-Dichlorobenzene	106-46-7	89.700	5.317	RPD	05/10/05	0.000	20.000	
SPK-RPD	2,4-Dinitrotoluene	121-14-2	78.300	9.605	RPD	05/10/05	0.000	20.000	
SPK-RPD	2-Fluorophenol	367-12-4	102.000	0.000	RPD	05/10/05	0.000	20.000	
SPK-RPD	Acenaphthene	83-32-9	97.300	1.124	RPD	05/10/05	0.000	20.000	
SPK-RPD	4-Chloro-3-methylphenol	59-50-7	79.000	5.729	RPD	05/10/05	0.000	20.000	
SPK-RPD	2-Chlorophenol	96-57-8	86.700	3.957	RPD	05/10/05	0.000	20.000	
SPK-RPD	N-Nitrosodi-n-dipropylemine	621-64-7	89.400	1.223	RPD	05/10/05	0.000	20.000	
SPK-RPD	2-Fluorobiphenyl	321-60-8	106.000	1.906	RPD	05/10/05	0.000	20.000	
SPK-RPD	Phenol	108-95-2	67.300	12.142	RPD	05/10/05	0.000	20.000	
SPK-RPD	Nitrobenzene-d5	4165-60-0	89.100	0.112	RPD	05/10/05	0.000	20.000	
SPK-RPD	4-Nitrophenol	100-02-7	91.900	4.449	RPD	05/10/05	0.000	20.000	
SPK-RPD	Pentachlorophenol	87-86-5	89.500	9.087	RPD	05/10/05	0.000	20.000	
SPK-RPD	Phenol-d5	4165-62-2	62.700	14.085	RPD	05/10/05	0.000	20.000	
SPK-RPD	Pyrene	129-00-0	94.500	0.850	RPD	05/10/05	0.000	20.000	
SPK-RPD	2,4,6-Tribromophenol	118-79-6	81.800	2.475	RPD	05/10/05	0.000	20.000	
SPK-RPD	Terphenyl-d14 (7Cl)	98904-43-9	95.900	0.733	RPD	05/10/05	0.000	20.000	
SURR	2-Fluorophenol	367-12-4	1393.5	95.500	% Recov	05/10/05	42.000	105.000	
SURR	2-Fluorobiphenyl	321-60-8	1486.9	102.000	% Recov	05/10/05	56.000	122.000	
SURR	Nitrobenzene-d5	4165-60-0	1252.4	85.900	% Recov	05/10/05	64.000	111.000	
SURR	Phenol-d5	4165-62-2	954.36	65.400	% Recov	05/10/05	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	1072.8	73.800	% Recov	05/10/05	24.000	122.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
SURR	Terphenyl-d14 (7Cl)	98904-43-9	1488.8	103.000	% Recov	05/10/05	35.000	150.000	
Lab ID: W050001287									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	2-Fluorophenol	367-12-4	1405.8	95.800	% Recov	05/10/05	42.000	105.000	
SURR	2-Fluorobiphenyl	321-60-8	1415.3	96.500	% Recov	05/10/05	56.000	122.000	
SURR	Nitrobenzene-d5	4185-80-0	1176.1	80.200	% Recov	06/10/05	64.000	111.000	
SURR	Phenol-d5	4185-82-2	884.41	58.900	% Recov	05/10/05	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	1228.0	83.600	% Recov	05/10/05	24.000	122.000	
SURR	Terphenyl-d14 (7Cl)	98904-43-9	1488.1	100.000	% Recov	05/10/05	35.000	150.000	
Lab ID: W050001288									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	2-Fluorophenol	367-12-4	1332.8	94.600	% Recov	05/10/05	42.000	105.000	
SURR	2-Fluorobiphenyl	321-60-8	1393.5	98.900	% Recov	05/10/05	56.000	122.000	
SURR	Nitrobenzene-d5	4185-80-0	1073.8	76.200	% Recov	05/10/05	64.000	111.000	
SURR	Phenol-d5	4185-82-2	897.44	45.200	% Recov	05/10/05	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	1098.2	77.800	% Recov	05/10/05	24.000	122.000	
SURR	Terphenyl-d14 (7Cl)	98904-43-9	1362.6	96.700	% Recov	05/10/05	35.000	150.000	
Lab ID: W050001289									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	2-Fluorophenol	367-12-4	1244.0	89.800	% Recov	05/10/05	42.000	105.000	
SURR	2-Fluorobiphenyl	321-60-8	1239.6	89.500	% Recov	05/10/05	56.000	122.000	
SURR	Nitrobenzene-d5	4185-80-0	975.81	70.400	% Recov	05/10/05	64.000	111.000	
SURR	Phenol-d5	4185-82-2	873.12	63.000	% Recov	05/10/05	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	981.72	69.400	% Recov	05/10/05	24.000	122.000	
SURR	Terphenyl-d14 (7Cl)	98904-43-9	1285.8	92.800	% Recov	05/10/05	35.000	150.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001290									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	2-Fluorophenol	367-12-4	1105.4	80.500	% Recov	05/10/05	42.000	105.000	
SURR	2-Fluorobiphenyl	321-80-8	1186.8	86.500	% Recov	05/10/05	56.000	122.000	
SURR	Nitrobenzene-d5	4165-80-0	938.21	68.400	% Recov	05/10/05	64.000	111.000	
SURR	Phenol-d5	4165-82-2	768.40	56.000	% Recov	05/10/05	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	813.53	59.300	% Recov	05/10/05	24.000	122.000	
SURR	Terphenyl-d14 (7Cl)	98904-43-9	1207.7	88.000	% Recov	05/10/05	35.000	150.000	
Lab ID: W050001291									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	2-Fluorophenol	367-12-4	1438.4	105.000	% Recov	05/10/05	42.000	105.000	
SURR	2-Fluorobiphenyl	321-80-8	1355.9	98.900	% Recov	05/10/05	56.000	122.000	
SURR	Nitrobenzene-d5	4165-80-0	1104.7	80.800	% Recov	05/10/05	64.000	111.000	
SURR	Phenol-d5	4165-82-2	1125.3	82.100	% Recov	05/10/05	54.000	120.000	
SURR	2,4,6-Tribromophenol	118-79-6	1117.2	81.500	% Recov	05/10/05	24.000	122.000	
SURR	Terphenyl-d14 (7Cl)	98904-43-9	1408.4	103.000	% Recov	05/10/05	35.000	150.000	
BATCH QC									
BLANK	1,2,4-Trichlorobenzene	120-82-1	< 180	n/a	ug/Kg	05/10/05			U
BLANK	1,4-Dichlorobenzene	106-46-7	< 270	n/a	ug/Kg	05/10/05			U
BLANK	2,4-Dinitrotoluene	121-14-2	< 110	n/a	ug/Kg	05/10/05			U
BLANK	2-Fluorophenol	367-12-4	1354.7	102.000	% Recov	05/10/05	42.000	105.000	
BLANK	Acenaphthene	83-32-8	< 140	n/a	ug/Kg	05/10/05			U
BLANK	4-Chloro-3-methylphenol	59-60-7	< 93	n/a	ug/Kg	05/10/05			U
BLANK	2-Chlorophenol	95-57-8	< 150	n/a	ug/Kg	05/10/05			U
BLANK	N-Nitrosodi-n-propylamine	621-64-7	< 150	n/a	ug/Kg	05/10/05			U
BLANK	2-Fluorobiphenyl	321-80-8	1394.4	105.000	% Recov	05/10/05	56.000	122.000	
BLANK	Phenol	108-95-2	< 140	n/a	ug/Kg	05/10/05			U

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: SW-846 8270B Semi-Vols

SAF Number: F04-015
 Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Nitrobenzene-d5	4185-80-0	1321.9	99.100	% Recov	05/10/05	64.000	111.000	
BLANK	4-Nitrophenol	100-02-7	< 170	n/a	ug/Kg	05/10/05			U
BLANK	Pentachlorophenol	87-86-5	< 150	n/a	ug/Kg	05/10/05			U
BLANK	Phenol-d5	4185-82-2	929.22	89.700	% Recov	05/10/05	54.000	120.000	
BLANK	Pyrene	129-00-0	< 160	n/a	ug/Kg	05/10/05			U
BLANK	Tributyl phosphate	126-73-8	< 140	n/a	ug/Kg	05/10/05			U
BLANK	2,4,6-Tribromophenol	118-79-8	906.74	88.000	% Recov	05/10/05	24.000	122.000	
BLANK	Terphenyl-d14 (7Cl)	98904-43-9	1286.5	98.400	% Recov	05/10/05	35.000	150.000	
LCS	1,2,4-Trichlorobenzene	120-82-1	1236.8	92.800	% Recov	05/10/05	48.000	107.000	
LCS	1,4-Dichlorobenzene	106-48-7	1232.0	92.400	% Recov	05/10/05	42.000	111.000	
LCS	2,4-Dinitrotoluene	121-14-2	1130.4	84.800	% Recov	05/10/05	59.000	108.000	
LCS	2-Fluorophenol	387-12-4	1302.0	97.700	% Recov	05/10/05	50.000	110.000	
LCS	Acanaphthene	83-32-9	1299.5	97.500	% Recov	05/10/05	61.000	118.000	
LCS	4-Chloro-3-methylphenol	59-50-7	1329.6	86.500	% Recov	05/10/05	61.000	108.000	
LCS	2-Chlorophenol	95-57-8	1594.8	79.700	% Recov	05/10/05	66.000	108.000	
LCS	N-Nitrosodi-n-dipropylamine	621-84-7	1042.6	78.200	% Recov	05/10/05	71.000	114.000	
LCS	2-Fluorobiphenyl	321-80-8	1347.7	101.000	% Recov	05/10/05	58.000	109.000	
LCS	Phenol	108-95-2	1251.8	62.600	% Recov	05/10/05	67.000	105.000	
LCS	Nitrobenzene-d8	4185-80-0	1056.2	79.200	% Recov	05/10/05	60.000	118.000	
LCS	4-Nitrophenol	100-02-7	1393.7	89.700	% Recov	05/10/05	32.000	118.000	
LCS	Pentachlorophenol	87-86-5	1190.9	59.500	% Recov	05/10/05	62.000	114.000	
LCS	Phenol-d5	4185-82-2	828.50	62.100	% Recov	05/10/05	59.000	116.000	
LCS	Pyrene	129-00-0	1248.4	93.600	% Recov	05/10/05	66.000	118.000	
LCS	2,4,6-Tribromophenol	118-79-8	1021.1	76.600	% Recov	05/10/05	60.000	120.000	
LCS	Terphenyl-d14 (7Cl)	98904-43-9	1305.0	97.900	% Recov	05/10/05	60.000	120.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: WTPH-D TPH Diesel Range (Wa)

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001285 BATCH QC ASSOCIATED WITH SAMPLE									
MS	ortho-Terphenyl	Surr	84-15-1	27954	110.000	% Recov	05/12/05	70.000	130.000
MS	Total Pet. Hydrocarbons Diesel	TPHDIESEL	141570	112.000	112.000	% Recov	05/12/05	75.000	125.000
MSD	ortho-Terphenyl	Surr	84-15-1	26282	103.000	% Recov	05/12/05	70.000	130.000
MSD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	135570	107.000	107.000	% Recov	05/12/05	75.000	125.000
SPK-RPD	ortho-Terphenyl	Surr	84-15-1	103.000	6.573	RPD	05/12/05	0.000	20.000
SPK-RPD	Total Pet. Hydrocarbons Diesel	TPHDIESEL	107.000	4.586	RPD	05/12/05	0.000	20.000	
Lab ID: W050001286 BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl	Surr	84-15-1	25058	92.100	% Recov	05/12/05	70.000	130.000
Lab ID: W050001287 BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl	Surr	84-15-1	21872	79.400	% Recov	05/12/05	70.000	130.000
Lab ID: W050001288 BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl	Surr	84-15-1	24784	93.600	% Recov	05/12/05	70.000	130.000
Lab ID: W050001289 BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl	Surr	84-15-1	24773	95.500	% Recov	05/12/05	70.000	130.000
Lab ID: W050001290 BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl	Surr	84-15-1	21531	83.600	% Recov	05/12/05	70.000	130.000

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: WTPH-D TPH Diesel Range (Wa)

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001291									
BATCH QC ASSOCIATED WITH SAMPLE									
SURR	ortho-Terphenyl	Surr	84-15-1	23874	92.100	% Recov	05/12/05	70.000	130.000
BATCH QC									
BLANK	Kerosene		TPHKEROSENE	< 3800	n/a	ug/Kg	05/12/05		U
BLANK	ortho-Terphenyl	Surr	84-15-1	23186	92.700	% Recov	05/12/05	70.000	130.000
BLANK	Total Pet. Hydrocarbons Diesel		TPHDIESEL	< 3800	n/a	ug/Kg	05/12/05		U
LCS	Kerosene		TPHKEROSENE	107760	86.200	% Recov	05/12/05	70.000	130.000
LCS	ortho-Terphenyl	Surr	84-15-1	23237	92.900	% Recov	05/12/05	70.000	130.000

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: NWTPH-GX TPH Gasoline Range

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001286									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250	n/a	RPD	05/11/05	0.000	20.000	U
MS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	4370	115.000	% Recov	05/11/05	50.000	150.000	
MSD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	3500	92.105	% Recov	05/11/05	50.000	150.000	
SPK-RPD	Total Pet. Hydrocarbons Gas	TPHGASOLINE	92.105	22.110	RPD	05/11/05	0.000	20.000	
BATCH QC									
BLANK	Total Pet. Hydrocarbons Gas	TPHGASOLINE	<250	n/a	mg/L	05/11/05	0.000	300.000	U
LCS	Total Pet. Hydrocarbons Gas	TPHGASOLINE	4000	115.942	% Recov	05/11/05	85.000	115.000	

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Date: 21 June 2005
To: Fluor Hanford Inc. (technical representative)
From: TechLaw, Inc.
Project: 200-MW-1 Characterization Sampling and Analysis - Soil
Subject: Volatile - Data Package No.WSCF20050940 (50940)

INTRODUCTION

This memo presents the results of data validation on Data Package No. 50940 prepared by WSCF Analytical Laboratories (WSCF). A list of samples validated along with the analyses reported and the method of analysis is provided in the following table.

Sample ID	Sample	Media	Validation	Analysis
B1C769	4/28/05	Soil	C	Volatile Organics by 8260B
B1C771	4/28/05	Soil	C	Volatile Organics by 8260B
B1C774	4/28/05	Soil	C	Volatile Organics by 8260B
B1C775	4/28/05	Soil	C	Volatile Organics by 8260B
B1C776	4/28/05	Soil	C	Volatile Organics by 8260B
B1C777	4/28/05	Soil	C	Volatile Organics by 8260B

Data validation was conducted in accordance with the FHI validation statement of work and the 200-MW-1 Miscellaneous Waste Group OU RI/FS Workplan, DOE/RL-2001-65 (Rev. 0), April 2002. Appendices 1 through 6 provide the following information as indicated below:

- Appendix 1. Glossary of Data Reporting Qualifiers
- Appendix 2. Summary of Data Qualification
- Appendix 3. Qualified Data Summary and Annotated Laboratory Reports
- Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
- Appendix 5. Data Validation Supporting Documentation
- Appendix 6. Additional Documentation Requested by Client

DATA QUALITY OBJECTIVES

- **Holding Times/Sample Preservation**

Analytical holding times were assessed to ascertain whether the holding time requirements were met by the laboratory. The holding time requirements are

000001

as follows: Soil samples must be analyzed within 14 days of the date of sample collection.

If holding times are exceeded, but not by greater than two times the limit, all associated sample results are qualified as estimates and flagged "J" for detects and "UJ" for non-detects. If holding times are exceeded by greater than two times the limit, all associated detectable sample results are qualified as estimates and flagged "J" and all non-detects are rejected and flagged "UR".

All holding times were acceptable.

- **Blanks**

Method blank analyses are conducted to determine the extent of laboratory contamination introduced through sampling, sample preparation and analysis. At least one acceptable method blank analysis must be conducted for every 20 samples of a given matrix. No contaminants should be present in the method blank. Analytical results for analytes present in any sample at less than five times the concentration of that analyte found in the associated blank are qualified as non-detects and flagged "U". Common laboratory contaminants present in samples at less than ten times the concentration of that analyte found in the associated blank are qualified as non-detects. If a sample result is less than the project quantitation limit (MDL) and is less than five times (or less than ten times for laboratory contaminants) the highest associated blank result, the sample result value is raised to the MDL, qualified as undetected and flagged "U".

All method blank results were acceptable.

Field Blanks

No field blanks were submitted for analysis.

- **Accuracy**

Matrix Spike/Matrix Spike Duplicate & Blank Spike

Matrix spike/matrix spike duplicate and blank spike analyses are used to assess the analytical accuracy of the reported data. The matrix spike/matrix spike duplicate are used to assess the effect of the matrix on the ability to accurately quantify sample concentrations. Matrix spike/matrix spike duplicate analyses are performed in duplicate using the target compounds for which percent recoveries must be within 50-150%. If spike recoveries are outside control limits, detected sample results less than five times the spike concentration are qualified as estimates and flagged "J".

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Undetected sample results with spike recoveries outside control limits are qualified as estimates and flagged "UJ". Sample results greater than five times the spike concentration require no qualification.

All accuracy and blank spike results were acceptable.

Surrogate Recovery

The analysis of surrogate compounds provides a measure of system performance for individual samples. Matrix-specific surrogate compound recovery control windows have been established by the laboratory program. When a surrogate compound recovery is out of the control window, all positively identified target compounds associated with the unacceptable surrogate recoveries are qualified as estimates and flagged "J". Undetected compounds with surrogate recoveries less than the lower control limit are qualified as having an estimated detection limit and flagged "UJ". Samples with surrogate recoveries less than ten percent are qualified as estimates and flagged "J" for detects, and rejected and flagged "UR" for nondetects. Undetected compounds with surrogate recoveries greater than the upper control limit require no qualification. Surrogates are not required for formaldehyde analysis.

All surrogate recovery results were acceptable.

● Precision

Matrix Spike/Matrix Spike Duplicate Samples

Matrix spike/matrix spike duplicate results provide matrix-specific information on the precision of the method for specific target compound classes. Precision is expressed by the relative percent difference (RPD) between the recoveries of duplicate matrix spike analyses performed on a sample. Sample results must be within RPD limits of +/- 35%. If RPD values are out of specification and the sample concentration is less than five times the spike concentration, all associated sample results are qualified as estimates and flagged "J" for detects and "UJ" for non-detects. If RPD values are out of specification and the sample concentration is greater than five times the spike concentration, no qualification is required.

All MS/MSD RPD results were acceptable.

Field Duplicate Samples

No field duplicates were submitted for analysis.

000003

- **Detection Limits**

Reported analytical detection levels are compared against the required target quantitation limits (RTQLs) to ensure that laboratory detection levels meet the required criteria. All analytes met the RTQL.

- **Completeness**

Data package No. 50940 was submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

None found.

REFERENCES

FHI, Contract #20266, *Validation Statement of Work*, Fluor Hanford Incorporated, July 7, 2003.

DOE/RL-2001-65, Rev. 0, *200-MW-1 Miscellaneous Waste Group OUs RI/FS Work Plan*, April 2002.

Appendix 1

Glossary of Data Reporting Qualifiers

000005

Qualifiers which may be applied by data validator in compliance with the BHI validation SOW are as follows:

- U - Indicates the compound or analyte was analyzed for and not detected in the sample. The value reported is the sample quantitation limit corrected for dilution and moisture content by the laboratory.
- UJ - Indicates the compound or analyte was analyzed for and not detected in the sample. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- J - Indicates the compound or analyte was analyzed for and detected. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- R - Indicates the compound or analyte was analyzed for, detected, and due to an identified major QC deficiency, the data are unusable.
- UR - Indicates the compound or analyte was analyzed for and not detected in the sample. Additionally, the data is unusable due to an identified major QC deficiency.
- NJ - Indicates presumptive evidence of a compound at an estimated value. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).
- N - Indicates presumptive evidence of a compound. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).

Appendix 2
Summary of Data Qualification

000007

VOLATILE ORGANIC DATA QUALIFICATION SUMMARY*

SDG: 50940	REVIEWER: TLI	PROJECT: 200-MW-1	PAGE <u>1</u> OF <u>1</u>
COMMENTS: No qualifiers assigned			

* - The Qualified Data Summary Table includes laboratory applied "U" qualifiers not specifically identified here. The laboratory applied "U" qualifiers are included to minimize misinterpretation of results contained in the table.

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Appendix 3

Qualified Data Summary and Annotated Laboratory Reports

000009

Project: FLUOR-HANFORD													
Laboratory: WSCF													
Case:		SDG: WSCF20050940											
Sample Number		B1C769		B1C771		B1C774		B1C775		B1C776		B1C777	
Remarks													
Sample Date		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05	
VOA	RTQL	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
1,1-Dichloroethene		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Trichloroethene		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Benzene	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Toluene		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Chlorobenzene	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
1,1-Dichloroethane	10	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Ethylbenzene	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Styrene		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
cis-1,3-Dichloropropene		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
trans-1,3-Dichloropropene		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
1,2-Dichloroethane	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
4-Methyl-2-pentanone		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Dibromochloromethane		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Tetrachloroethene		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Xylenes (total)		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
1,2-Dichloroethene (total)		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Carbon Tetrachloride	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
2-Hexanone		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Acetone	20	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Chloroform	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
1,1,1-Trichloroethane	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Bromomethane		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Chloromethane		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Chloroethane		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Vinyl Chloride		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Methylene Chloride	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Carbon Disulfide		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Bromoform		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
Bromodichloromethane		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
1,2-Dichloropropane		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
2-Butanone		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
1,1,2-Trichloroethane	5	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
1,1,2,2-Tetrachloroethane		<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
1-Butanol		<44.0	U	<44.0	U	<42.0	U	<42.0	U	<41.0	U	<41.0	U
trans-1,2-Dichloroethylene	1	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U
cis-1,2-Dichloroethylene	1	<2.20	U	<2.20	U	<2.10	U	<2.10	U	<2.10	U	<2.10	U

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REVISED
 8/2/05

Laboratory applied non-detect qualifiers "U" have been included in this table to minimize mis-interpretation of results. All other qualifiers shown were applied during validation.

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
Organic														
W050001286	B1C769	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	<	250	ug/kg	1.00	2.6e+02	05/11/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	12874-11-2	Aroclor-1018	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	<	110	ug/kg	1.00	1.1e+02	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	53489-21-9	Aroclor-1242	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	12872-29-8	Aroclor-1248	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	11098-82-5	Aroclor-1260	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	<	54.0	ug/kg	1.00	54	05/13/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	<	190	ug/kg	1.00	1.9e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	<	290	ug/kg	1.00	2.9e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	<	150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	<	200	ug/kg	1.00	2.0e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	<	120	ug/kg	1.00	1.2e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	<	170	ug/kg	1.00	1.7e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	<	100	ug/kg	1.00	1.0e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	621-84-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	<	180	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	<	150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	<	180	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	<	170	ug/kg	1.00	1.7e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	126-73-8	Tributyl phosphate	SOIL	LA-523-456	U	<	150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	<	2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	79-01-6	Trichloroethene	SOIL	LA-523-455	U	<	2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	<	2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05
W050001286	B1C769	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	<	2.20	ug/kg	1.00	2.2	05/10/05 04/28/05 04/28/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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

Report WGPP/ver. 1.1
Groundwater Remediation Program

Handwritten signature and date: W/20/05

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001286	B1C789	GRP TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	100-42-5	Styrene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	10061-01-6	cis-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	107-08-2	1,2-Dichloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	540-59-0	1,2-Dichloroethane(Total)	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	67-64-1	Acetone	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	67-66-3	Chloroform	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	74-83-9	Bromomethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	74-87-3	Chloromethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	75-00-3	Chloroethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	75-25-2	Bromoform	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C789	GRP TRENT	78-93-3	2-Butanone	SOIL	LA-523-455 U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05

MDL=Minimum Detection Limit
RQ=Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

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Report WGPP/ver. 1.1
Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001286	B1C769	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C769	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C769	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 44.0	ug/kg	1.00	44	05/10/05	04/28/05	04/28/05
W050001286	B1C769	156-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C769	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001286	B1C769	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05	04/28/05	04/28/05
W050001286	B1C769	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05	04/28/05	04/28/05
W050001287	B1C771	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05	04/28/05	04/28/05
W050001287	B1C771	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 110	ug/kg	1.00	1.1e+02	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	53469-21-0	Aroclor-1242	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11098-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 55.0	ug/kg	1.00	55	05/13/05	04/28/05	04/28/05
W050001287	B1C771	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 290	ug/kg	1.00	2.9e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	108-95-2	Phenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 200	ug/kg	1.00	2.0e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 120	ug/kg	1.00	1.2e+02	05/10/05	04/28/05	04/28/05
W060001287	B1C771	129-00-0	Pyrene	SOIL	LA-523-456	U	< 170	ug/kg	1.00	1.7e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 100	ug/kg	1.00	1.0e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001287	B1C771	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05

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Report WGPP/ver. 1.1
Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001287	B1C771	95-57-8	2-Chlorophenol	SOIL	LA-523-455	U	< 170	ug/kg	1.00	1.7e+02	06/10/05	04/28/05	04/28/05
W050001287	B1C771	128-72-8	Tributyl phosphate	SOIL	LA-523-455	U	< 180	ug/kg	1.00	1.8e+00	05/10/05	04/28/05	04/28/05
W050001287	B1C771	75-35-4	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	79-01-6	Trichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	100-42-5	Styrene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	10081-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	10081-02-8	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	56-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	591-78-8	2-Hexanone	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	67-84-1	Acetone	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	67-86-3	Chloroform	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	75-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	75-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05

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Groundwater Remediation Program

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6/20/05

000014

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001287	B1C771	75-09-2	Methylenechloride	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	75-16-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	75-26-2	Bromoform	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 44.0	ug/kg	1.00	44	05/10/05	04/28/05	04/28/05
W050001287	B1C771	156-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.20	ug/kg	1.00	2.2	05/10/05	04/28/05	04/28/05
W050001287	B1C771	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05	04/28/05	04/28/05
W050001287	B1C771	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 4.10e+03	ug/kg	1.00	4.1e+03	05/12/05	04/28/05	04/28/05
W050001288	B1C774	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05	04/28/05	04/28/05
W050001288	B1C774	12674-11-2	Aroclor-1018	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	11104-29-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/13/05	04/28/05	04/28/05
W050001288	B1C774	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	11086-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 52.0	ug/kg	1.00	52	05/13/05	04/28/05	04/28/05
W050001288	B1C774	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 280	ug/kg	1.00	2.8e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	108-95-2	Phenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05	04/28/05

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Report WGPP/ver. 1.1
Groundwater Remediation Program

JR 6/20/05

0000015

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	GRP	TRENT	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001288	B1C774	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-458	U	< 110	ug/kg	1.00	1.1e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-458	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-458	U	< 99.0	ug/kg	1.00	99	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	621-84-7	N-Nitrosodl-n-dipropylamine	SOIL	LA-523-458	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-458	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-458	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-458	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	128-73-9	Tributyl phosphate	SOIL	LA-523-458	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	78-01-6	Trichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	107-08-2	1,2-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	67-64-1	Acetone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05

MDL=Minimum Detection Limit
RQ=Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

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Report WGPP/ver. 1.1

Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention:
Project:

Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	GRP	TRENT	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001288	B1C774	GRP	TRENT	67-88-3	Chloroform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	76-00-3	Chloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	76-01-4	Vinyl chloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	76-15-0	Carbon disulfide	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	75-25-2	Bromoform	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 42.0	ug/kg	1.00	42	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	156-60-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 4.00e+03	ug/kg	1.00	4.0e+03	05/12/05	04/28/05	04/28/05
W050001288	B1C774	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 4.00e+03	ug/kg	1.00	4.0e+03	05/12/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	1.0e+02	05/13/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	11097-69-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05

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MDL=Minimum Detection Limit
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Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive	
W050001289	B1C775	GRP	TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	<	51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	<	51.0	ug/kg	1.00	51	05/13/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	<	180	ug/kg	1.00	1.8e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	100-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	<	280	ug/kg	1.00	2.8e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	<	140	ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	<	190	ug/kg	1.00	1.9e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	<	10	ug/kg	1.00	1.1e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	<	160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	<	97.0	ug/kg	1.00	97	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	821-84-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	<	160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	<	140	ug/kg	1.00	1.4e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	<	150	ug/kg	1.00	1.5e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	<	160	ug/kg	1.00	1.6e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	128-79-8	Tributyl phosphate	SOIL	LA-523-456	U	<	130	ug/kg	1.00	1.3e+02	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	<	2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	78-01-6	Trichloroethene	SOIL	LA-523-455	U	<	2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	<	2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	<	2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	<	2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	<	2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	<	2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	100-42-5	Styrene	SOIL	LA-523-455	U	<	2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455	U	<	2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	10061-02-6	trans-1,3-Dichloropropene	SOIL	LA-523-455	U	<	2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455	U	<	2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455	U	<	2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05
W050001289	B1C775	GRP	TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455	U	<	2.10	ug/kg	1.00	2.1	05/10/05 04/28/05 04/28/05

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RQ=Result Qualifier

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U - Analyzed for but not detected above limiting criteria.

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Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive		
W050001289	B1C775	GRP	TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	540-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	56-23-6	Carbon tetrachloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	591-78-8	2-Hexanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	67-64-1	Acetone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	67-66-3	Chloroform	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	71-55-8	1,1,1-Trichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	74-83-9	Bromomethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	74-87-3	Chloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	75-00-3	Chloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	75-26-2	Bromoform	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	78-93-3	2-Butanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	71-36-3	1-Butanol	SOIL	LA-523-455 U	< 42.0	ug/kg	1.00	42	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	156-60-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	156-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05	
W050001289	B1C775	GRP	TRENT	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 3.9e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05	04/28/05
W050001289	B1C775	GRP	TRENT	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.9e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05	04/28/05
W050001290	B1C776	GRP	TRENT	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-455 U	< 2.50	ug/kg	1.00	2.5e+02	05/11/05	04/28/05	04/28/05	
W060001290	B1C776	GRP	TRENT	12874-11-2	Aroclor-1016	SOIL	LA-523-427 U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05	

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Groundwater Remediation Program

Handwritten signature and date: J. W. 4/20/05

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WSCF ANALYTICAL RESULTS REPORT

Attention:
Project:

Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001290	B1C776	GRP TRENT	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/13/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	53469-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	12672-29-6	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	11097-89-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	11096-82-5	Aroclor-1280	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	37324-23-5	Aroclor-1262	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 270	ug/kg	1.00	2.7e+02	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	108-95-2	Phenol	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 110	ug/kg	1.00	1.1e+02	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	129-00-0	Pyrene	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 96.0	ug/kg	1.00	96	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	85-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 160	ug/kg	1.00	1.6e+02	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	126-73-0	Tributyl phosphate	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	78-01-6	Trichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	71-43-2	Benzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	108-88-3	Toluene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05
W050001290	B1C776	GRP TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05 04/28/05

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U - Analyzed for but not detected above limiting criteria.

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Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001290	B1C778	GRP TRENT	100-42-5	Styrene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	10061-02-8	trans-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	127-18-4	Tetrachloroethene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	840-59-0	1,2-Dichloroethene(Total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	58-23-5	Carbon tetrachloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	591-78-6	2-Hexanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	67-64-1	Acetone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	67-88-3	Chloroform	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	71-55-6	1,1,1-Trichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	74-83-9	Bromomethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	74-87-3	Chloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	75-00-3	Chloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	75-26-2	Bromoform	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	75-27-4	Bromodichloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	78-93-3	2-Butanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	78-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C778	GRP TRENT	71-36-3	1-Butanol	SOIL	LA-523-455 U	< 41.0	ug/kg	1.00	41	05/10/05	04/28/05	04/28/05

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Groundwater Remediation Program

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001290	B1C776	158-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C776	158-59-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001290	B1C776	TPHDIESEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05	04/28/05
W050001290	B1C776	TPHKEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05	04/28/05
W050001291	B1C777	TPHGASOLINE	Total Pet. Hydrocarbons Gas	SOIL	LA-523-443	U	< 250	ug/kg	1.00	2.5e+02	05/11/05	04/28/05	04/28/05
W050001291	B1C777	12674-11-2	Aroclor-1016	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	11104-28-2	Aroclor-1221	SOIL	LA-523-427	U	< 100	ug/kg	1.00	1.0e+02	05/13/05	04/28/05	04/28/05
W050001291	B1C777	11141-16-5	Aroclor-1232	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	53489-21-9	Aroclor-1242	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	12672-29-8	Aroclor-1248	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	11097-89-1	Aroclor-1254	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	11096-82-5	Aroclor-1260	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	37324-23-5	Aroclor-1282	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	11100-14-4	Aroclor-1268	SOIL	LA-523-427	U	< 51.0	ug/kg	1.00	51	05/13/05	04/28/05	04/28/05
W050001291	B1C777	100-02-7	4-Nitrophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	106-46-7	1,4-Dichlorobenzene	SOIL	LA-523-456	U	< 270	ug/kg	1.00	2.7e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	108-95-2	Phenol	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	120-82-1	1,2,4-Trichlorobenzene	SOIL	LA-523-456	U	< 190	ug/kg	1.00	1.9e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	121-14-2	2,4-Dinitrotoluene	SOIL	LA-523-456	U	< 110	ug/kg	1.00	1.1e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	129-00-0	Pyrene	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	59-50-7	4-Chloro-3-methylphenol	SOIL	LA-523-456	U	< 98.0	ug/kg	1.00	98	05/10/05	04/28/05	04/28/05
W050001291	B1C777	621-64-7	N-Nitrosodi-n-dipropylamine	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	83-32-9	Acenaphthene	SOIL	LA-523-456	U	< 140	ug/kg	1.00	1.4e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	87-86-5	Pentachlorophenol	SOIL	LA-523-456	U	< 150	ug/kg	1.00	1.5e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	95-57-8	2-Chlorophenol	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	120-73-6	Tributyl phosphate	SOIL	LA-523-456	U	< 180	ug/kg	1.00	1.8e+02	05/10/05	04/28/05	04/28/05
W050001291	B1C777	75-35-4	1,1-Dichloroethene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05

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Groundwater Remediation Program

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6/20/05

WSCF ANALYTICAL RESULTS REPORT

**Attention:
Project:**

Steve Trent
F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001291	B1C777	GRP TRENT	79-01-6	Trichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	71-43-2	Benzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	108-88-3	Toluene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	108-90-7	Chlorobenzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	75-34-3	1,1-Dichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	100-41-4	Ethylbenzene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	100-42-5	Styrene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	10061-01-5	cis-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	10061-02-8	trans-1,3-Dichloropropene	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	107-06-2	1,2-Dichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	108-10-1	4-Methyl-2-Pentanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	124-48-1	Dibromochloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	127-18-4	Tetrachloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	1330-20-7	Xylenes (total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	540-59-0	1,2-Dichloroethane(Total)	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	56-23-5	Carbon tetrachloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	591-78-8	2-Hexanone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	67-64-1	Acetone	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	67-66-3	Chloroform	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	71-55-8	1,1,1-Trichloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	74-83-9	Bromomethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	74-87-3	Chloromethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	75-00-3	Chloroethane	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	75-01-4	Vinyl chloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	75-09-2	Methylenechloride	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	75-15-0	Carbon disulfide	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	GRP TRENT	75-25-2	Bromoform	SOIL	LA-523-455 U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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

Report WGPP/ver. 1.1
Groundwater Remediation Program

R *W/20/05*

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C/W

WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
W050001291	B1C777	78-27-4	Bromodichloromethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	78-87-5	1,2-Dichloropropane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	78-93-3	2-Butanone	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	79-00-5	1,1,2-Trichloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	79-34-5	1,1,2,2-Tetrachloroethane	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	71-36-3	1-Butanol	SOIL	LA-523-455	U	< 41.0	ug/kg	1.00	41	05/10/05	04/28/05	04/28/05
W050001291	B1C777	156-80-5	trans-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	156-58-2	cis-1,2-Dichloroethylene	SOIL	LA-523-455	U	< 2.10	ug/kg	1.00	2.1	05/10/05	04/28/05	04/28/05
W050001291	B1C777	TPH DISEL	Total Pet. Hydrocarbons Diesel	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05	04/28/05
W050001291	B1C777	TPH KEROSENE	Kerosene	SOIL	NWTPH	U	< 3.90e+03	ug/kg	1.00	3.9e+03	05/12/05	04/28/05	04/28/05

Handwritten signature and date: [Signature] 4/20/05

Handwritten signature and date: [Signature] 4/20/05

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MDL=Minimum Detection Limit
RQ=Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

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

Report WGPP/ver. 1.1
Groundwater Remediation Program

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Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

Sample Delivery Group	WSCF20050940
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F04-015
Data Deliverable	Summary Report

Introduction

Six (6) 200-MW-1 Characterization Sampling and Analysis – Soil/216-T-13, 10' – 11', samples (B1C769, B1C771, B1C774, B1C775, B1C776 and B1C777) were received at the WSCF Laboratory on April 28, 2005. The 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 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and sample receipt are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Anions by EPA Method 300.0. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 9045C. Analytical work was performed with no deviations to the approved method.

Organic

- PCB by EPA Method 8082. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.

- TPH Diesel/Gas Range by WDOE Method NWTPH-Dx/Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260B. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA [Americium, Plutonium and Uranium], GEA, Sr-89/90) were run by internal WSCF procedures. Analytical work was performed with no deviations to the approved method.

Inorganic Comments

Anions - The hold times for Nitrite and Nitrate analyses were not met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 14 for QC details. Analytical Notes:

- Preparation Date: 09-may-2005.
- Sulfate - Sample (B1C769, B1C774, B1C775, B1C776 and B1C777) results were B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.
- Sulfate - The Duplicate Relative Percent Difference exceeded established laboratory limits.

All other QC controls are within the established limits.

ICP-MS Metals - The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page 15 for QC details. Analytical Note:

- Preparation Date: 09-may-2005.

All QC controls are within the established limits.

Percent Solids - Analyzed for organic results correction.

pH - All internal laboratory controls were within established limits. See page 16 for QC details. Analytical Note:

- Duplicate QC sample was analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

Organic Comments

- Sample results were moisture corrected and reported on a dry-weight basis.

PCB – The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 31 through 33 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 34 through 38 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Phenol-d5 – Surrogate recovery was less than established laboratory limits.
- Phenol and Pentachlorophenol – LCS recoveries were less than the established laboratory limits. Sample results were less than the method detection limit and U flagged.

All other QC controls are within the established limits.

TPHD-WA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See pages 39 through 40 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).

All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 41 for QC details. Analytical Notes:

- Preparation Date: 11-may-2005.
- Total Petroleum Hydrocarbons, Gas – The Spike Relative Percent Difference and the Laboratory Control Sample recovery slightly exceeded. All other QC samples were within limits, sample results were U-flagged.

All other QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 42 through 45 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Radiochemistry Comments

RadChem – There are no hold times associated with WSCF radiochemical methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 52 through 56 for QC details. Analytical Notes:

- Americium-241, Plutonium-238 & 239/240, and Uranium-234, 235 & 238 Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).
- GEA and Strontium-89/90– Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).
- Uranium-234, Uranium-235 and Plutonium-238 - Additional Batch QC Data are summarized below:

Additional Batch QC Data (Results)				
Sample Number	Sample ID	Isotope	Concentration (pCi/gram)	Limit
<u>Uranium-234/ Uranium-235</u>				
BLANK		U-234	8.123E-03	
BLANK		U-235	6.651E-03	
B1C784	W050001268	U-234	3.168E-01	
DUPLICATE	W050001268	U-234	3.188E-01	0.6
B1C784	W050001268	U-235	2.675E-02	
DUPLICATE	W050001268	U-235	3.375E-02	23
<u>Plutonium-238</u>				
BLANK		Pu-238	-2.360E-02	
B1C784	W050001268	Pu-238	8.700E-03	

Additional Batch QC Data (Results)				
Number	Sample	Isotope	Result	Unit
DUPLICATE	W050001268	Pu-238	U9.421E-03	N/A

- Americium-243, Plutonium-242, Strontium-85 and Uranium-232 – Radiochemical Tracer Recovery Data are summarized below:

Radiochemical Tracer Percent Recovery			
Sample Number	Lab Sample	Isotope	Tracer Recovery (Percent)
<u>Americium-243</u>			
BLANK		Am-243	93.6
LCS		Am-243	89.3
B1C784	W050001268	Am-243	106.7
DUPLICATE	W050001268	Am-243	87.5
B1C769	W050001286	Am-243	99.3
B1C771	W050001287	Am-243	87.3
B1C774	W050001288	Am-243	105.1
B1C775	W050001289	Am-243	84.8
B1C776	W050001290	Am-243	96.6
B1C777	W050001291	Am-243	84.9
<u>Plutonium-242</u>			
BLANK		Pu-242	86.2
LCS		Pu-242	94.0
B1C784	W050001268	Pu-242	84.0
DUPLICATE	W050001268	Pu-242	86.2

Radiochemical Tracer Percent Recovery			
Tracer	Lab Sample	Isotope	Tracer Recovery (Percent)
B1C769	W050001286	Pu-242	95.0
B1C771	W050001287	Pu-242	87.6
B1C774	W050001288	Pu-242	91.2
B1C775	W050001289	Pu-242	87.2
B1C776	W050001290	Pu-242	88.0
B1C777	W050001291	Pu-242	82.1
<u>Strontium-85</u>			
BLANK		Sr-85	83.9
LCS		Sr-85	98.2
B1CY50	W050001285	Sr-85	76.6
DUPLICATE	W050001285	Sr-85	88.3
B1C769	W050001286	Sr-85	87.4
B1C771	W050001287	Sr-85	84.6
B1C774	W050001288	Sr-85	91.4
B1C775	W050001289	Sr-85	87.2
B1C776	W050001290	Sr-85	80.7
B1C777	W050001291	Sr-85	91.9
<u>Uranium-232</u>			
BLANK		U-232	79.6
LCS		U-232	70.4
B1C784	W050001268	U-232	83.4
DUPLICATE	W050001268	U-232	83.9
B1C769	W050001286	U-232	90.8

Radiochemical Tracer Percent Recovery			
Sample	Lab Sample	Tracer	Percent Recovery
B1C771	W050001287	U-232	87.2
B1C774	W050001288	U-232	95.0
B1C775	W050001289	U-232	82.1
B1C776	W050001290	U-232	93.2
B1C777	W050001291	U-232	82.1

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Pauline D. Mix
 Pauline D. Mix
 WSCF Client Services

Abbreviations

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

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

5/30/05

Floor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					F04-015-124	PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Cearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE	SN	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. F04-015		AIR QUALITY	<input type="checkbox"/>	45 Days / 45 Days <i>AS</i>
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 WT=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A		PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None
			TYPE OF CONTAINER		gG	gG	gG	gG*	gG	P
			NO. OF CONTAINER(S)		1	1	1	3	1	1
			VOLUME		250ml	120ml	250ml	40ml	120ml	500ml
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770 200.50940		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCN - 002;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B1C769	12050001286 SOIL	4/28/05	0930							
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS				
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
<i>TS/PAE/4/28/05</i>	<i>4-28-05 14:45</i>	<i>TA PRAZNER</i>	<i>4-28-05 14:45</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							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME				

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-124	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Ceartock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BN	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil	SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. *PMG 2/14/05*

(1)IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9040; pH (Soil) - 9045;
(2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)
(3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, *cis*-1,2-Dichloroethylene, ~~n-Butylbenzene~~, *trans*-1,2-Dichloroethylene)
(4)Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)
(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						FD4-015-125	PAGE 1 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN	DATA TURNAROUND 45 Days / 45 Days <i>12</i>	
SAMPLING LOCATION 216-T-13; 10-11 R		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>			
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144E510		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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	
		TYPE OF CONTAINER		gG	gG	gG	gGs*	gG	P	
		NO. OF CONTAINER(S)		1	1	1	3	1	1	
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL	
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCB - 002;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B1C771	SOIL	4/28/05	0930							
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS				
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
<i>JSP/PA/ASW</i>	4-28-05 14:45	<i>TA FRAZIER</i>	4/28/05 14:45							
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							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME				
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME				

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		P04-015-125	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyre/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE SN	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. P04-015	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis

(1)IC Anions - 300.0 (Fluoride, Nitrate, Nitrite, Nitrogen in Nitrate, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045;

(2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, ~~Copper, Silver~~) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, ~~n-Butylbenzene, trans-1,2-Dichloroethylene~~)

(4)Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

PMG 2/14/05

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						FD4-015-137		PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N		DATA TURNAROUND 45 Days / 45 Days		
SAMPLING LOCATION 216-T-13; 12-13 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. FD4-015		AIR QUALITY <input type="checkbox"/>				
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144E510		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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
		TYPE OF CONTAINER		gG	gG	gG	gG*	gG	P			
		NO. OF CONTAINER(S)		1	1	1	3	1	1			
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL			
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C780		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCRs - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C774	SOIL	4-27-05	0955	X	X	X	X	X	X			
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
<i>J. Pope / 4-28-05</i>	<i>4-28-05</i>	<i>Victor Bous / 4/28/05 14:45</i>	<i>1445</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									
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME									
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME						
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME						

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-137	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE SN	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 12-13 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil	SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis

- PMG 2/14/05
- (1) C Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045;
 - (2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)
 - (3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)
 - (4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)
 - (5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					F04-015-138	PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N	DATA TURNAROUND 45 Days / 45 DAYS <i>18</i>	
SAMPLING LOCATION 216-T-13; 14-15 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>			
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144E510		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 L=Liquid DS=Drum S=Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	
		TYPE OF CONTAINER		aG	aG	aG	aGe*	aG	P	
		NO. OF CONTAINER(S)		1	1	1	3	1	1	
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL	
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C781		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCh - 8082; SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B1C775	SOIL	4-28-05	1015	X	X	X	X	X	X	
CHAIN OF POSSESSION		SIGN/ PRINT NAMES			SPECIAL INSTRUCTIONS					
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
<i>Victor Sims</i>	4-26-05 1445	<i>Victor Sims</i>	4/28/05 1445							
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							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
LABORATORY SECTION	RECEIVED BY	TITLE			DATE/TIME					
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY			DATE/TIME					

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Floor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-138	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ		PRICE CODE	SN
SAMPLING LOCATION 216-T-13; 14-15 R.	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015		AIR QUALITY	<input type="checkbox"/>
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle			
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

PMG 2/14/05

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis.

(1)IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045;

(2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)

(4)Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;

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Floor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-139	PAGE 1 OF 2			
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Cearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN	DATA TURNAROUND			
SAMPLING LOCATION 216-T-13; 19-20 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>	45 Days / <i>45-DAYS 4.26.05</i>				
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
		TYPE OF CONTAINER		gG	gG	gG	gGs*	gG	P			
		NO. OF CONTAINER(S)		1	1	1	3	1	2			
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL			
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C782		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C776	SOIL	4-28-05	1300	f	x	x	x	x	x			
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
JSPope/Agha		4-28-05 1445	Victor Busby		4/28/05 1445							
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							
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME							
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME						
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME						

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F04-015-139	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wilberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE SN	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 19-20 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil	SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. PNG 2/14/05

(1)IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045;

(2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, ~~n-hexane~~, benzene, trans-1,2-Dichloroethylene)

(4)Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-140		PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE SN		DATA TURNAROUND 45 Days / 45 Days		
SAMPLING LOCATION 216-T-13; 24-25 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015		METHOD OF SHIPMENT Government Vehicle		AIR QUALITY <input type="checkbox"/>				
ICE CHEST NO.		FIELD LOGBOOK NO. COA 119144ES10										
SHIPPED TO Waste Sampling & Characterization		OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A								
MATRIX* A=Air DL=Drum L=Liquid DS=Drum S=Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
		TYPE OF CONTAINER		gG	gG	gG	gGs*	gG	P			
		NO. OF CONTAINER(S)		1	1	1	3	1	1			
	VOLUME		250mL	120mL	250mL	40mL	120mL	500mL				
SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C783		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCIS - 8002	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS			
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C777	SOIL	4-28-05	1330	+	+	+	+	+	+			
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS				
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME		SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS				
J. Pope		4-28-05 1445		Victor J. Sims		4/28/05 1445						
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						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME						
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME						

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Fisor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-140	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 24-25 R	PROJECT DESIGNATION 200-NW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle			
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A			
SPECIAL INSTRUCTIONS <i>APP-44-18-103</i> ** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. (1)IC Anions - 300.0 (Nitrate, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045; (2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-On) (Lead, Uranium) (3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene; trans-1,2-Dichloroethylene) (4)Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range) (5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;						

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Appendix 5

Data Validation Supporting Documentation

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GC/MS ORGANIC DATA VALIDATION CHECKLIST

VALIDATION LEVEL:	A	B	<u>C</u>	D	E
PROJECT:	200-MW-1		DATA PACKAGE: 50940		
VALIDATOR:	TLF	LAB: WSCF	DATE: 6/18/05		
			SDG: 50940		
ANALYSES PERFORMED					
<u>SW-846 8260</u>		SW-846 8260 (TCLP)	SW-846 8270		SW-846 8270 (TCLP)
SAMPLES/MATRIX					
BIC769	BIC771	BIC774	BIC775		
BIC776	BIC777				
					Soil

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present? Yes No N/A

Comments: _____

2. INSTRUMENT TUNING AND CALIBRATION (Levels D and E)

GC/MS tuning/performance check acceptable? Yes No N/A

Initial calibrations acceptable? Yes No N/A

Continuing calibrations acceptable? Yes No N/A

Standards traceable? Yes No N/A

Standards expired? Yes No N/A

Calculation check acceptable? Yes No N/A

Comments: _____

GC/MS ORGANIC DATA VALIDATION CHECKLIST

3. BLANKS (Levels B, C, D, and E)

Calibration blanks analyzed? (Levels D, E) Yes No N/A
 Calibration blank results acceptable? (Levels D, E) Yes No N/A
 Laboratory blanks analyzed? Yes No N/A
 Laboratory blank results acceptable? Yes No N/A
 Field/trip blanks analyzed? (Levels C, D, E) Yes No N/A
 Field/trip blank results acceptable? (Levels C, D, E) Yes No N/A
 Transcription/calculation errors? (Levels D, E) Yes No N/A
 Comments: NO FB

4. ACCURACY (Levels C, D, and E)

Surrogates/system monitoring compounds analyzed? Yes No N/A
 Surrogate/system monitoring compound recoveries acceptable? Yes No N/A
 Surrogates traceable? (Levels D, E) Yes No N/A
 Surrogates expired? (Levels D, E) Yes No N/A
 MS/MSD samples analyzed? Yes No N/A
 MS/MSD results acceptable? Yes No N/A
 MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
 MS/MSD standards? (Levels D, E) Yes No N/A
 LCS/BSS samples analyzed? Yes No N/A
 LCS/BSS results acceptable? Yes No N/A
 Standards traceable? (Levels D, E) Yes No N/A
 Standards expired? (Levels D, E) Yes No N/A
 Transcription/calculation errors? (Levels D, E) Yes No N/A
 Performance audit sample(s) analyzed? Yes No N/A
 Performance audit sample results acceptable? Yes No N/A
 Comments: NO DAS

GC/MS ORGANIC DATA VALIDATION CHECKLIST

5. PRECISION (Levels C, D, and E)

MS/MSD samples analyzed? Yes No N/A
MS/MSD RPD values acceptable? Yes No N/A
MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
MS/MSD standards expired? (Levels D, E) Yes No N/A
Field duplicate RPD values acceptable? Yes No N/A
Field split RPD values acceptable? Yes No N/A
Transcription/calculation errors? (Levels D, E) Yes No N/A

Comments: _____

6. SYSTEM PERFORMANCE (Levels D and E)

Internal standards analyzed? Yes No N/A
Internal standard areas acceptable? Yes No N/A
Internal standard retention times acceptable? Yes No N/A
Standards traceable? Yes No N/A
Standards expired? Yes No N/A
Transcription/calculation errors? Yes No N/A

Comments: _____

7. HOLDING TIMES (all levels)

Samples properly preserved? Yes No N/A
Sample holding times acceptable? Yes No N/A

Comments: _____

GC/MS ORGANIC DATA VALIDATION CHECKLIST

8. COMPOUND IDENTIFICATION, QUANTITATION, AND DETECTION LIMITS (all levels)

Compound identification acceptable? (Levels D, E) Yes No N/A
 Compound quantitation acceptable? (Levels D, E) Yes No N/A
 Results reported for all requested analyses? Yes No N/A
 Results supported in the raw data? (Levels D, E) Yes No N/A
 Samples properly prepared? (Levels D, E) Yes No N/A
 Laboratory properly identified and coded all TIC? (Levels D, E) Yes No N/A
 Detection limits meet RDL? Yes No N/A
 Transcription/calculation errors? (Levels D, E) Yes No N/A

Comments: _____

9. SAMPLE CLEANUP (Levels D and E)

GPC cleanup performed? Yes No N/A
 GPC check performed? Yes No N/A
 GPC check recoveries acceptable? Yes No N/A
 GPC calibration performed? Yes No N/A
 GPC calibration check performed? Yes No N/A
 GPC calibration check retention times acceptable? Yes No N/A
 Check/calibration materials traceable? Yes No N/A
 Check/calibration materials Expired? Yes No N/A
 Analytical batch QC given similar cleanup? Yes No N/A
 Transcription/Calculation Errors? Yes No N/A

Comments: _____

Appendix 6

Additional Documentation Requested by Client

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: VOA Ground Water Protection

SAF Number: F04-015
 Sample Date: 04/27/05
 Receive Date: 04/27/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001268									
BATCH QC ASSOCIATED WITH SAMPLE									
MS	1,1-Dichloroethene	75-35-4	23.340	93.400	% Recov	05/10/05	63.000	117.000	
MS	Benzene	71-43-2	25.340	101.000	% Recov	05/10/05	75.000	129.000	
MS	4-Bromofluorobenzene	460-00-4	48.770	97.500	% Recov	05/10/05	84.000	116.000	
MS	Chlorobenzene	108-90-7	24.830	98.500	% Recov	05/10/05	79.000	119.000	
MS	1,2-Dichloroethane-d4	17060-07-0	52.300	105.000	% Recov	05/10/05	82.000	136.000	
MS	Toluene-d8	2037-26-5	53.450	107.000	% Recov	05/10/05	89.000	119.000	
MS	Toluene	108-88-3	26.190	105.000	% Recov	05/10/05	76.000	120.000	
MS	Trichloroethene	79-01-8	24.920	99.700	% Recov	05/10/05	73.000	123.000	
MSD	1,1-Dichloroethene	75-35-4	21.940	87.800	% Recov	05/10/05	63.000	117.000	
MSD	Benzene	71-43-2	23.480	93.900	% Recov	05/10/05	75.000	129.000	
MSD	4-Bromofluorobenzene	460-00-4	48.240	96.500	% Recov	05/10/05	84.000	116.000	
MSD	Chlorobenzene	108-90-7	24.140	96.600	% Recov	05/10/05	79.000	119.000	
MSD	1,2-Dichloroethane-d4	17060-07-0	51.910	104.000	% Recov	05/10/05	82.000	136.000	
MSD	Toluene-d8	2037-26-5	52.830	106.000	% Recov	05/10/05	89.000	118.000	
MSD	Toluene	108-88-3	24.480	97.900	% Recov	05/10/05	76.000	120.000	
MSD	Trichloroethene	79-01-8	23.040	92.200	% Recov	05/10/05	73.000	123.000	
SPK-RPD	1,1-Dichloroethene	75-35-4	87.800	6.181	RPD	05/10/05	0.000	25.000	
SPK-RPD	Benzene	71-43-2	93.900	7.286	RPD	05/10/05	0.000	25.000	
SPK-RPD	4-Bromofluorobenzene	460-00-4	96.500	1.031	RPD	05/10/05	0.000	25.000	
SPK-RPD	Chlorobenzene	108-90-7	96.600	1.948	RPD	05/10/05	0.000	25.000	
SPK-RPD	1,2-Dichloroethane-d4	17060-07-0	104.000	0.957	RPD	05/10/05	0.000	25.000	
SPK-RPD	Toluene-d8	2037-26-5	106.000	0.939	RPD	05/10/05	0.000	25.000	
SPK-RPD	Toluene	108-88-3	97.900	6.999	RPD	05/10/05	0.000	25.000	
SPK-RPD	Trichloroethene	79-01-8	92.200	7.817	RPD	05/10/05	0.000	25.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: VOA Ground Water Protection

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001286 BATCH QC ASSOCIATED WITH SAMPLE									
SURR	4-Bromofluorobenzene	480-00-4	48.730	97.600	% Recov	05/10/05	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17080-07-0	53.330	107.000	% Recov	05/10/05	80.000	134.000	
SURR	Toluene-d8	2037-28-5	53.320	107.000	% Recov	05/10/05	80.000	126.000	
Lab ID: W050001287 BATCH QC ASSOCIATED WITH SAMPLE									
SURR	4-Bromofluorobenzene	480-00-4	49.190	98.400	% Recov	05/10/05	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17080-07-0	52.100	104.000	% Recov	05/10/05	80.000	134.000	
SURR	Toluene-d8	2037-28-5	53.320	107.000	% Recov	05/10/05	80.000	126.000	
Lab ID: W050001288 BATCH QC ASSOCIATED WITH SAMPLE									
SURR	4-Bromofluorobenzene	480-00-4	50.020	100.000	% Recov	05/10/05	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17080-07-0	52.960	106.000	% Recov	05/10/05	80.000	134.000	
SURR	Toluene-d8	2037-28-5	53.860	108.000	% Recov	05/10/05	80.000	126.000	
Lab ID: W050001289 BATCH QC ASSOCIATED WITH SAMPLE									
SURR	4-Bromofluorobenzene	480-00-4	50.500	101.000	% Recov	05/10/05	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17080-07-0	54.090	108.000	% Recov	05/10/05	80.000	134.000	
SURR	Toluene-d8	2037-28-5	53.460	107.000	% Recov	05/10/05	80.000	126.000	
Lab ID: W050001290 BATCH QC ASSOCIATED WITH SAMPLE									
SURR	4-Bromofluorobenzene	480-00-4	50.140	100.000	% Recov	05/10/05	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17080-07-0	53.120	106.000	% Recov	05/10/05	80.000	134.000	
SURR	Toluene-d8	2037-28-5	53.160	108.000	% Recov	05/10/05	80.000	126.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: VOA Ground Water Protection

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
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Lab ID: W050001291
 BATCH QC ASSOCIATED WITH SAMPLE

SURR	4-Bromofluorobenzene	460-00-4	49.660	99.300	% Recov	05/10/05	71.000	125.000	
SURR	1,2-Dichloroethane-d4	17080-07-0	52.310	105.000	% Recov	05/10/05	80.000	134.000	
SURR	Toluene-d8	2037-26-5	54.410	108.000	% Recov	05/10/05	80.000	126.000	

BATCH QC

BLANK	1,1-Dichloroethane	75-34-3	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,1,1-Trichloroethane	71-55-6	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,1,2-Trichloroethane	78-00-5	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,1,2,2-Tetrachloroethane	79-34-5	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,1-Dichloroethene	75-35-4	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,2-Dichloroethane	107-06-2	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,2-Dichloroethene(Total)	540-59-0	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1-Butanol	71-36-3	< 40	n/a	ug/Kg	05/10/05			U
BLANK	2-Hexanone	591-78-6	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	4-Methyl-2-Pentanone	108-10-1	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Acetone	67-64-1	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Bromodichloromethane	75-27-4	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Benzene	71-43-2	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	4-Bromofluorobenzene	460-00-4	100.20	100.000	% Recov	05/10/05	71.000	125.000	
BLANK	Bromoform	75-25-2	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Carbon disulfide	75-15-0	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Carbon tetrachloride	56-23-5	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Dibromochloromethene	124-48-1	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Chloroform	67-66-3	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Chlorobenzene	108-90-7	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	cis-1,2-Dichloroethylene	156-59-2	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	cis-1,3-Dichloropropene	10061-01-5	< 2.0	n/a	ug/Kg	05/10/05			U

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: VOA Ground Water Protection

SAF Number: F04-015
 Sample Date:
 Receive Date:

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
BLANK	Chloroethane	75-00-3	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,2-Dichloroethane-d4	17080-07-0	102.00	102.000	% Recov	05/10/05	80.000	134.000	
BLANK	trans-1,2-Dichloroethylene	166-80-5	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	1,2-Dichloropropane	78-87-5	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Ethylbenzene	100-41-4	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Bromomethane	74-83-9	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Chloromethane	74-87-3	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	2-Butanone	78-83-3	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Methylenechloride	75-09-2	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Tetrachloroethene	127-18-4	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Styrene	100-42-5	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Xylenes (total)	1330-20-7	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Toluene-d8	2037-26-5	108.20	108.000	% Recov	05/10/05	80.000	128.000	
BLANK	Toluene	108-88-3	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	trans-1,3-Dichloropropene	10061-02-6	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Trichloroethene	79-01-8	< 2.0	n/a	ug/Kg	05/10/05			U
BLANK	Vinyl chloride	75-01-4	< 2.0	n/a	ug/Kg	05/10/05			U
LCS	1,1-Dichloroethene	75-35-4	23.520	94.100	% Recov	05/11/05	70.000	130.000	
LCS	Benzene	71-43-2	27.060	108.000	% Recov	05/11/05	70.000	130.000	
LCS	4-Bromofluorobenzene	460-00-4	51.260	103.000	% Recov	05/11/05	71.000	125.000	
LCS	Chlorobenzene	108-90-7	26.280	105.000	% Recov	05/11/05	70.000	130.000	
LCS	1,2-Dichloroethane-d4	17080-07-0	53.270	107.000	% Recov	05/11/05	80.000	134.000	
LCS	Toluene-d8	2037-26-5	54.640	109.000	% Recov	05/11/05	80.000	126.000	
LCS	Toluene	108-88-3	25.940	104.000	% Recov	05/11/05	70.000	130.000	
LCS	Trichloroethene	79-01-8	27.180	109.000	% Recov	05/11/05	70.000	130.000	

000054

Date: 20 June 2005
To: Fluor Hanford Inc. (technical representative)
From: TechLaw, Inc.
Project: 200-MW-1 Characterization Sampling and Analysis - Soil
Subject: Wet Chemistry - Data Package No. WSCF20050940 (50940)

INTRODUCTION

This memo presents the results of data validation on Data Package No. 50940 prepared by WSCF Analytical Laboratories (WSCF). A list of samples validated along with the analyses reported and the method of analysis is provided in the following table.

Sample ID	Sample	Media	Validation	Analysis
B1C769	4/28/05	Soil	C	Anions by 300.0 & pH by 9045C*
B1C771	4/28/05	Soil	C	Anions by 300.0 & pH by 9045C*
B1C774	4/28/05	Soil	C	Anions by 300.0 & pH by 9045C*
B1C775	4/28/05	Soil	C	Anions by 300.0 & pH by 9045C*
B1C776	4/28/05	Soil	C	Anions by 300.0 & pH by 9045C*
B1C777	4/28/05	Soil	C	Anions by 300.0 & pH by 9045C*

* - Phosphate not validated or reported per FHI.

Data validation was conducted in accordance with the FHI validation statement of work and the 200-MW-1 Miscellaneous Waste Group OU RI/FS Workplan, DOE/RL-2001-65 (Rev. 0), April 2002. Appendices 1 through 6 provide the following information as indicated below:

- Appendix 1. Glossary of Data Reporting Qualifiers
- Appendix 2. Summary of Data Qualification
- Appendix 3. Qualified Data Summary and Annotated Laboratory Reports
- Appendix 4. Laboratory Narrative and Chain-of-Custody Documentation
- Appendix 5. Data Validation Supporting Documentation
- Appendix 6. Additional Documentation Requested by Client

DATA QUALITY PARAMETERS

- **Holding Times/Sample Preservation**

Analytical holding times are assessed to ascertain whether the holding time requirements were met by the laboratory. The holding time requirements are as follows: Soil samples must be analyzed within 28 days for sulfate and immediate

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(24 hours) for pH.

If holding times are exceeded, but not by greater than two times the limit, all associated sample results are qualified as estimates and flagged "J" for detects and "UJ" for non-detects. If holding times are exceeded by greater than two times the limit, all associated detectable sample results are qualified as estimates and flagged "J" and all non-detects are rejected and flagged "UR".

Due to the holding time being exceeded by greater than twice the limit, all pH results were qualified as estimates and flagged "J".

All other holding times were acceptable.

- **Method Blanks**

Method Blanks

Method blank analyses are performed to determine the extent of laboratory contamination introduced through sampling, sample preparation and analysis. At least one acceptable method blank analysis must be conducted for every 20 samples. No contaminants should be present in the method blank. All blank results must fall below the contract required detection limit (CRQL) to be acceptable.

All method blank results were acceptable.

Field (Equipment) Blank

No equipment blanks were submitted for analysis.

- **Accuracy**

Matrix Spike

Matrix spike (MS) analyses are used to assess the analytical accuracy of the reported data. The matrix spike is used to assess the effect of the matrix on the ability to accurately quantify sample concentrations. Matrix spike and LCS recoveries must fall within the range of 75% to 125%. Samples with a recovery of less than 30% and a sample result below the IDL are rejected and flagged "UR". Samples with a recovery of 30% to 74% and a sample result less than the IDL are qualified "UJ". Samples with a recovery of greater than 125% or less than 75% and a sample result greater than the IDL are qualified as estimates and flagged "J". Finally, for samples with a recovery greater than 125% and a sample result less than the IDL, no qualification is required.

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All matrix spike recovery results were acceptable.

Laboratory Control Sample

The LCS is used to monitor the overall performance of all steps in the analysis. Recoveries must fall within the range of 80% to 120% for LCS analysis. Samples with a recovery of less than 50% are rejected and flagged "UR". Samples with a recovery of 50% to 79% and a sample recovery below the IDL are qualified "UJ". Samples with a recovery of greater than 120% or less than 80% and a sample result greater than the IDL are qualified as estimates and flagged "J". Finally, for samples with a recovery greater than 120% and a sample result less than the IDL, no qualification is required.

All LCS results were acceptable.

- **Precision**

Laboratory Duplicate Samples

Analytical precision is expressed by the relative percent differences (RPD) between the recoveries of matrix spike duplicate (MSD) analyses performed on a sample in the analytical batch. Precision may alternatively be assessed using unspiked duplicate analyses performed on a sample in the analytical batch. If both sample and replicate activities (concentrations) are greater than five times the CRDL and the RPD is less than 35%, no qualification is required. If either activity (concentration) is less than five times the CRDL, the RPD control limit is less than or equal to two times the CRDL. If the RPD is outside the applicable control limit, associated results are qualified as estimated detects or estimated non-detects.

All other laboratory duplicate results were acceptable.

Field Duplicate

No field duplicates were submitted for analysis.

- **Analytical Detection Levels**

Reported analytical detection levels are compared against the required target quantitation limits (RTQLs) to ensure that laboratory detection levels meet the required criteria. All results met the RTQL.

- **Completeness**

Data package No. 50940 was submitted for validation and verified for completeness. Completeness is based on the percentage of data determined to be valid (i.e., not rejected). The completion percentage was 100%.

MAJOR DEFICIENCIES

None found.

MINOR DEFICIENCIES

Due to the holding time being exceeded by greater than twice the limit, all pH results were qualified as estimates and flagged "J". Data flagged "J" is an estimate, but under the FHI validation SOW, the data may be usable for decision-making purposes. All other validated results are considered accurate within the standard error associated with the methods.

REFERENCES

FHI, Contract #20266, *Validation Statement of Work*, Fluor Hanford Incorporated, July 7, 2003.

DOE/RL-2001-65, Rev. 0, *200-MW-1 Miscellaneous Waste Group OUs RI/FS Work Plan*, April 2002.

Appendix 1

Glossary of Data Reporting Qualifiers

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Qualifiers which may be applied by data validators in compliance with FHI validation SOW are as follows:

- U - Indicates the compound or analyte was analyzed for and not detected in the sample. The value reported is the sample quantitation limit corrected for sample dilution and moisture content by the laboratory.
- UJ - Indicates the compound or analyte was analyzed for and not detected in the sample. Due to a minor QC deficiency identified during the data validation, the associated quantitation limit is an estimate.
- J - Indicates the compound or analyte was analyzed for and detected. Due to a minor QC deficiency identified during the data validation, the associated concentration is an estimate, but the data are usable for decision-making purposes.
- BJ - Applied to inorganic analyses only. Indicates the analyte concentration was greater than the IDL but less than the CRDL and is considered an estimated value.
- R - Indicates the compound or analyte was analyzed for, detected, and due to an identified major QC deficiency, the data are unusable.
- UR - Indicates the compound or analyte was analyzed for and not detected in the sample. Additionally, the data is unusable due to an identified major QC deficiency.
- NJ - Indicates presumptive evidence of a compound at an estimated value. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).
- N - Indicates presumptive evidence of a compound. The data may not be valid for some specific applications (i.e., usable for decision-making purposes).

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Appendix 2
Summary of Data Qualification

000007

WET CHEMISTRY DATA QUALIFICATION SUMMARY*

SDG: 50940	REVIEWER: TLI	PROJECT: 200-MW-1	PAGE <u>1</u> OF <u>1</u>
COMMENTS:			
COMPOUND	QUALIFIER	SAMPLES AFFECTED	REASON
pH	J	All	Holding time

* - The Qualified Data Summary Table includes laboratory applied "U" qualifiers not specifically identified here. The laboratory applied "U" qualifiers are included to minimize misinterpretation of results contained in the table.

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Appendix 3

Qualified Data Summary and Annotated Laboratory Reports

000009

Project: FLUOR-HANFORD												
Laboratory: WSCF												
Case		SDG: WSCF20050940										
Sample Number		B1C769		B1C771		B1C774		B1C775		B1C776		B1C777
Remarks												
Sample Date		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05		4/28/05
General Chemistry		RTQ	Result	Q								
Sulfate		5	12.0		<4.90	U	16.7		18.5		7.32	25.0
pH**			9.52	J	9.57	J	9.58	J	9.70	J	9.69	J

** - Units are pH units

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015; F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	WSCF Method	RQ	Result	Unit	DF	MDL	Analyze	Sample	Receive
Inorganic													
W050001286	B1C769	GRP TRENT TS	Total solids	SOIL	LA-519-412		91.2	%	1.00	0.0	05/03/05	04/28/05	04/28/05
W050001286	B1C769	GRP TRENT PH	pH Measurement	SOIL	LA-212-411	J	9.52	pH	1.00	0.010	05/03/05	04/28/05	04/28/05
W050001286	B1C769	GRP TRENT PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	U	2.70	mg/kg	50.00	2.7	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP TRENT 14808-79-8	Sulfate	SOIL	LA-533-410	B	12.0	mg/kg	50.00	5.0	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP TRENT 7440-43-9	Cadmium	SOIL	LA-505-412		0.159	mg/kg	0.92	0.092	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP TRENT 7440-47-3	Chromium	SOIL	LA-505-412		7.28	mg/kg	0.93	3.7	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP TRENT 7439-92-1	Lead	SOIL	LA-505-412		10.9	mg/kg	0.93	0.19	05/10/05	04/28/05	04/28/05
W050001286	B1C769	GRP TRENT 7440-01-1	Uranium	SOIL	LA-505-412		0.901	mg/kg	0.93	0.093	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT TS	Total solids	SOIL	LA-519-412		90.7	%	1.00	0.0	05/02/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT PH	pH Measurement	SOIL	LA-212-411	J	9.57	pH	1.00	0.010	05/03/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	U	2.65	mg/kg	49.00	2.6	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT 14808-79-8	Sulfate	SOIL	LA-533-410	U	< 4.90	mg/kg	49.00	4.9	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT 7440-43-9	Cadmium	SOIL	LA-505-412		0.246	mg/kg	0.95	0.095	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT 7440-47-3	Chromium	SOIL	LA-505-412		6.07	mg/kg	0.95	3.8	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT 7439-92-1	Lead	SOIL	LA-505-412		9.18	mg/kg	0.95	0.19	05/10/05	04/28/05	04/28/05
W050001287	B1C771	GRP TRENT 7440-01-1	Uranium	SOIL	LA-505-412		1.09	mg/kg	0.95	0.095	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT TS	Total solids	SOIL	LA-519-412		94.4	%	1.00	0.0	05/03/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT PH	pH Measurement	SOIL	LA-212-411	J	9.58	pH	1.00	0.010	05/03/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	U	2.70	mg/kg	50.00	2.7	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT 14808-79-8	Sulfate	SOIL	LA-533-410	B	16.7	mg/kg	50.00	5.0	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT 7440-43-9	Cadmium	SOIL	LA-505-412		0.308	mg/kg	0.91	0.091	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT 7440-47-3	Chromium	SOIL	LA-505-412		6.92	mg/kg	0.91	3.6	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT 7439-92-1	Lead	SOIL	LA-505-412		13.4	mg/kg	0.91	0.18	05/10/05	04/28/05	04/28/05
W050001288	B1C774	GRP TRENT 7440-01-1	Uranium	SOIL	LA-505-412		1.01	mg/kg	0.91	0.091	05/10/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT TS	Total solids	SOIL	LA-519-412		96.2	%	1.00	0.0	05/03/05	04/28/05	04/28/05
W050001289	B1C775	GRP TRENT PH	pH Measurement	SOIL	LA-212-411	J	9.70	pH	1.00	0.010	05/03/05	04/28/05	04/28/05

MDL = Minimum Detection Limit
RQ = Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF = Dilution Factor

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

Report WGPP/ver. 1.1

Groundwater Remediation Program

Handwritten signature and date: J 6/20/05

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WSCF ANALYTICAL RESULTS REPORT

Attention: Steve Trent
Project: F04-015: F04-015

Group #: WSCF20050940

Sample #	Client ID	CAS #	Test Performed	Matrix	Method	RQ	Result	Unit	DF	MDL	Analyze	Sample Receive
W050001289	B1C775	PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	U	< 2.65	mg/kg	49.00	2.6	05/10/05	04/28/05
W050001289	B1C775	14808-79-8	Sulfate	SOIL	LA-533-410	B	18.5	mg/kg	49.00	4.9	05/10/05	04/28/05
W050001289	B1C775	7440-43-0	Cadmium	SOIL	LA-505-412		0.167	mg/kg	0.93	0.093	05/10/05	04/28/05
W050001289	B1C775	7440-47-3	Chromium	SOIL	LA-505-412		6.45	mg/kg	0.93	3.7	05/10/05	04/28/05
W050001289	B1C775	7439-92-1	Lead	SOIL	LA-505-412		7.45	mg/kg	0.93	0.19	05/10/05	04/28/05
W050001289	B1C775	7440-81-1	Uranium	SOIL	LA-505-412		0.028	mg/kg	0.93	0.009	05/10/05	04/28/05
W050001290	B1C776	TS	Total solids	SOIL	LA-519-412		97.0	%	1.00	0.0	05/03/05	04/28/05
W050001290	B1C776	PH	pH Measurement	SOIL	LA-212-411	J	9.69	pH	1.00	0.010	05/03/05	04/28/05
W050001290	B1C776	PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	U	< 2.70	mg/kg	50.00	2.7	05/10/05	04/28/05
W050001290	B1C776	14808-79-8	Sulfate	SOIL	LA-533-410	B	7.32	mg/kg	50.00	5.0	05/10/05	04/28/05
W050001290	B1C776	7440-43-0	Cadmium	SOIL	LA-505-412		0.141	mg/kg	0.89	0.089	05/10/05	04/28/05
W050001290	B1C776	7440-47-3	Chromium	SOIL	LA-505-412		4.22	mg/kg	0.89	3.6	05/10/05	04/28/05
W050001290	B1C776	7439-92-1	Lead	SOIL	LA-505-412		6.02	mg/kg	0.89	0.18	05/10/05	04/28/05
W050001290	B1C776	7440-81-1	Uranium	SOIL	LA-505-412		0.544	mg/kg	0.89	0.089	05/10/05	04/28/05
W050001291	B1C777	TS	Total solids	SOIL	LA-519-412		98.9	%	1.00	0.0	05/03/05	04/28/05
W050001291	B1C777	PH	pH Measurement	SOIL	LA-212-411	J	9.44	pH	1.00	0.010	05/03/05	04/28/05
W050001291	B1C777	PO4-P	Phosphate (P) by IC	SOIL	LA-533-410	U	< 2.70	mg/kg	50.00	2.7	05/10/05	04/28/05
W050001291	B1C777	14808-79-8	Sulfate	SOIL	LA-533-410	B	25.0	mg/kg	50.00	5.0	05/10/05	04/28/05
W050001291	B1C777	7440-43-0	Cadmium	SOIL	LA-505-412	U	< 0.0993	mg/kg	0.99	0.099	05/10/05	04/28/05
W050001291	B1C777	7440-47-3	Chromium	SOIL	LA-505-412	U	< 3.97	mg/kg	0.99	4.0	05/10/05	04/28/05
W050001291	B1C777	7439-92-1	Lead	SOIL	LA-505-412		3.11	mg/kg	0.99	0.20	05/10/05	04/28/05
W050001291	B1C777	7440-81-1	Uranium	SOIL	LA-505-412		0.459	mg/kg	0.99	0.089	05/10/05	04/28/05

000012

MDL=Minimum Detection Limit
RQ=Result Qualifier

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

U - Analyzed for but not detected above limiting criteria.

DF=Dilution Factor

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

Report WGPP/ver. 1.1

Groundwater Remediation Program

Handwritten signature and date: [Signature] 6/20/05

Appendix 4

Laboratory Narrative and Chain-of-Custody Documentation

000013

Sample Delivery Group	WSCF20050940
Sample Matrix	Soil
Sample Visual	N/A
SAF Number	F04-015
Data Deliverable	Summary Report

Introduction

Six (6) 200-MW-1 Characterization Sampling and Analysis – Soil/216-T-13, 10' – 11', samples (B1C769, B1C771, B1C774, B1C775, B1C776 and B1C777) were received at the WSCF Laboratory on April 28, 2005. The 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 1) will address sample characteristics, analyses requested and general information in performance of the analytical methods. A Data Summary Report (Attachment 2) includes analytical results, a comment report detailing method abnormalities, tentatively identified peaks if applicable, method references, and Laboratory QC information. Copies of the chain of custody and sample receipt are included as Attachment 3.

Analytical Methodology for Requested Analyses

Inorganic

- Anions by EPA Method 300.0. Analytical work was performed with no deviations to the approved method.
- ICP-MS Metals by EPA Method 200.8. Analytical work was performed with no deviations to the approved method.
- Percent Solids by EPA Method 160.3. Analytical work was performed with no deviations to the approved method.
- pH by EPA Method 9045C. Analytical work was performed with no deviations to the approved method.

Organic

- PCB by EPA Method 8082. Analytical work was performed with no deviations to the approved method.
- Semi-VOA by EPA Method 8270C. Analytical work was performed with no deviations to the approved method.

- TPH Diesel/Gas Range by WDOE Method NWTPH-Dx/Gx. Analytical work was performed with no deviations to the approved method.
- VOA by EPA Method 8260B. Analytical work was performed with no deviations to the approved method.

Radiochemistry

- All RadChem analyses (AEA [Americium, Plutonium and Uranium], GEA, Sr-89/90) were run by internal WSCF procedures. Analytical work was performed with no deviations to the approved method.

Inorganic Comments

Anions - The hold times for Nitrite and Nitrate analyses were not met. A Blank, Laboratory Control Sample, Duplicate, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 14 for QC details. Analytical Notes:

- Preparation Date: 09-may-2005.
- Sulfate - Sample (B1C769, B1C774, B1C775, B1C776 and B1C777) results were B-flagged; the analyte was less than the reportable detection limit, but greater than or equal to the method detection limit.
- Sulfate - The Duplicate Relative Percent Difference exceeded established laboratory limits.

All other QC controls are within the established limits.

ICP-MS Metals - The hold time for this analysis was met. A Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See page 15 for QC details. Analytical Note:

- Preparation Date: 09-may-2005.

All QC controls are within the established limits.

Percent Solids - Analyzed for organic results correction.

pH - All internal laboratory controls were within established limits. See page 16 for QC details. Analytical Note:

- Duplicate QC sample was analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

Organic Comments

- Sample results were moisture corrected and reported on a dry-weight basis.

PCB – The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 31 through 33 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Semi-VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 34 through 38 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Phenol-d5 – Surrogate recovery was less than established laboratory limits.
- Phenol and Pentachlorophenol – LCS recoveries were less than the established laboratory limits. Sample results were less than the method detection limit and U flagged.

All other QC controls are within the established limits.

TPHD-WA - The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See pages 39 through 40 for QC details. Analytical Notes:

- Preparation Date: 04-may-2005.
- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).

All QC controls are within the established limits.

TPHG-WA - The hold time for this analysis was met. A Blank, Duplicate, Laboratory Control Sample, Matrix Spike and Matrix Spike Duplicate were analyzed with each delivery group per GPP Letter of Instruction. See page 41 for QC details. Analytical Notes:

- Preparation Date: 11-may-2005.
- Total Petroleum Hydrocarbons, Gas – The Spike Relative Percent Difference and the Laboratory Control Sample recovery slightly exceeded. All other QC samples were within limits, sample results were U-flagged.

All other QC controls are within the established limits.

VOA – The hold time for this analysis was met. A Blank, Laboratory Control Sample, Matrix Spike and Matrix Spiked Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 42 through 45 for QC details. Analytical Note:

- Matrix Spike and Matrix Spike Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).

All QC controls are within the established limits.

Radiochemistry Comments

RadChem – There are no hold times associated with WSCF radiochemical methods. A Blank, Laboratory Control Sample and Duplicate were analyzed with each delivery group per the GPP Letter of Instruction. See pages 52 through 56 for QC details. Analytical Notes:

- Americium-241, Plutonium-238 & 239/240, and Uranium-234, 235 & 238 Duplicate QC samples were analyzed on sample# B1C784 (SDG# 20050917, SAF# F04-019).
- GEA and Strontium-89/90– Duplicate QC samples were analyzed on sample# B1CY50 (SDG# 20050939, SAF# F04-019).
- Uranium-234, Uranium-235 and Plutonium-238 - Additional Batch QC Data are summarized below:

Additional Batch QC Data (Results)				
Sample Number	Sample ID	Isotope	Activity (dpm/g)	Count Rate (cps)
<u>Uranium-234/ Uranium-235</u>				
BLANK		U-234	8.123E-03	
BLANK		U-235	6.651E-03	
B1C784	W050001268	U-234	3.168E-01	
DUPLICATE	W050001268	U-234	3.188E-01	0.6
B1C784	W050001268	U-235	2.675E-02	
DUPLICATE	W050001268	U-235	3.375E-02	23
<u>Plutonium-238</u>				
BLANK		Pu-238	-2.360E-02	
B1C784	W050001268	Pu-238	8.700E-03	

Additional Batch QC Data (Results)				
Sample Number	Sample ID	Isotope	Result	Unit
DUPLICATE	W050001268	Pu-238	U9.421E-03	N/A

- Americium-243, Plutonium-242, Strontium-85 and Uranium-232 – Radiochemical Tracer Recovery Data are summarized below:

Radiochemical Tracer Percent Recovery			
Sample Number	Sample ID	Tracer	Recovery (Percent)
<u>Americium-243</u>			
BLANK		Am-243	93.6
LCS		Am-243	89.3
B1C784	W050001268	Am-243	106.7
DUPLICATE	W050001268	Am-243	87.5
B1C769	W050001286	Am-243	99.3
B1C771	W050001287	Am-243	87.3
B1C774	W050001288	Am-243	105.1
B1C775	W050001289	Am-243	84.8
B1C776	W050001290	Am-243	96.6
B1C777	W050001291	Am-243	84.9
<u>Plutonium-242</u>			
BLANK		Pu-242	86.2
LCS		Pu-242	94.0
B1C784	W050001268	Pu-242	84.0
DUPLICATE	W050001268	Pu-242	86.2

Radiochemical Tracer Percent Recovery			
Sample ID	Lab. No.	Tracer	Percent Recovery (Percent)
B1C769	W050001286	Pu-242	95.0
B1C771	W050001287	Pu-242	87.6
B1C774	W050001288	Pu-242	91.2
B1C775	W050001289	Pu-242	87.2
B1C776	W050001290	Pu-242	88.0
B1C777	W050001291	Pu-242	82.1
<u>Strontium-85</u>			
BLANK		Sr-85	83.9
LCS		Sr-85	98.2
B1CY50	W050001285	Sr-85	76.6
DUPLICATE	W050001285	Sr-85	88.3
B1C769	W050001286	Sr-85	87.4
B1C771	W050001287	Sr-85	84.6
B1C774	W050001288	Sr-85	91.4
B1C775	W050001289	Sr-85	87.2
B1C776	W050001290	Sr-85	80.7
B1C777	W050001291	Sr-85	91.9
<u>Uranium-232</u>			
BLANK		U-232	79.6
LCS		U-232	70.4
B1C784	W050001268	U-232	83.4
DUPLICATE	W050001268	U-232	83.9
B1C769	W050001286	U-232	90.8

Radiochemical Tracer Percent Recovery			
Sample Number	Lab Sample	Tracer	Percent Recovery
B1C771	W050001287	U-232	87.2
B1C774	W050001288	U-232	95.0
B1C775	W050001289	U-232	82.1
B1C776	W050001290	U-232	93.2
B1C777	W050001291	U-232	82.1

This Summary Report is in compliance with the SOW, both technically and for completeness. Release of the data contained in this hard copy report has been authorized by the WSCF Laboratory Analytical Manager and Client Services, as verified by the following signature.

Pauline D. Mix
 Pauline D. Mix
 WSCF Client Services

Abbreviations

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

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

5/30/05

Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					F04-015-124	PAGE 1 OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN	DATA TURNAROUND 45 Days / 45 Days
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>	45 Days	
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None
		TYPE OF CONTAINER		g	g	g	g*	g	P
		NO. OF CONTAINER(S)		1	1	1	3	1	1
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770 20050940		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCR# - 8082;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME						
B1C769	W050001286 SOIL	4/28/05	0930						
CHAIN OF POSSESSION				SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS	
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME		SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS	
JSA/PL/4/5/04		4-28-05 14:45		TA PRAZAR		4-28-05 14:45			
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			
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME			
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME			
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME			

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		FD4-015-124	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE BN	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. FD4-015	AIR QUALITY <input type="checkbox"/>	45 Days
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. *PMG 2/14/05*

(1) IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9049; pH (Soil) - 9045;

(2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, ~~n-Butylbenzene~~, trans-1,2-Dichloroethylene)

(4) Semi-VOA - 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					F04-015-125	PAGE 1	OF 2	
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE SN	DATA TURNAROUND 45 Days / 45 Days	
SAMPLING LOCATION 216-T-13; 10-11 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil			SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>			
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 WL=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None	
		TYPE OF CONTAINER		eG	eG	eG	eG*	eG	P	
		NO. OF CONTAINER(S)		1	1	1	3	1	1	
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL	
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C770		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCN - 8082	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME							
B1C771	SOIL	4/28/15	0930							
CHAIN OF POSSESSION		SIGN/ PRINT NAMES			SPECIAL INSTRUCTIONS					
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
JSP/MS/AS/TA 4-28-15	14:45	TA FRAZIER (handwritten)	4/28/15 14:45							
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							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME							
LABORATORY SECTION	RECEIVED BY	TITLE			DATE/TIME					
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY			DATE/TIME					

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Fluor Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F04-015-125	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE	SN
SAMPLING LOCATION 216-T-13; 10-11 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY	<input type="checkbox"/>
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

PMG 2/14/05

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis

(1)IC Anions - 300.0 (Fluoride, Nitrate, Nitrite, Phosphorus in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045;

(2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)

(4)Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						FO4-015-137		PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE BN		DATA TURNAROUND 45 Days / 45 Days <i>9/28/14</i>		
SAMPLING LOCATION 216-T-13; 12-13 R		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. FO4-015		AIR QUALITY <input type="checkbox"/>				
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 HAZAROS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None			
		TYPE OF CONTAINER		gG	gG	gG	gGs*	gG	P			
		NO. OF CONTAINER(S)		1	1	1	3	1	1			
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL			
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C780		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 808;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS		
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME									
B1C774	SOIL	4-24-14	6955	X	X	X	X	X	X			
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
J. Slope / AS/ky		4-25-14		Victor F. ...		4/28/14 14:15						
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						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME		RECEIVED BY/STORED IN		DATE/TIME						
LABORATORY SECTION		RECEIVED BY				TITLE				DATE/TIME		
FINAL SAMPLE DISPOSITION		DISPOSAL METHOD				DISPOSED BY				DATE/TIME		

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F84-015-137	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wilberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 12-13 ft.	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144ES10	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis

- PMG 2/14/05
- (1) IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9048; pH (Soil) - 9045;
 - (2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)
 - (3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, Trans-1,2-Dichloroethylene)
 - (4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)
 - (5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST					FO4-015-138		PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wiberg		COMPANY CONTACT CS Clearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE SN		DATA TURNAROUND 45 Days / 45 DAYS	
SAMPLING LOCATION 216-T-13; 14-15 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. FO4-015		AIR QUALITY <input type="checkbox"/>		4-26-04	
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 WT=Wipe X=Other	POSSIBLE SAMPLE HAZARDS/ REMARKS N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
		TYPE OF CONTAINER		eG	eG	eG	eG*	eG	P		
		NO. OF CONTAINER(S)		1	1	1	3	1	1		
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL		
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C781		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8062	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1C775	SOIL	4-28-05	1015	X	X	X	X	X	X		
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS					
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						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
LABORATORY SECTION	RECEIVED BY				TITLE	DATE/TIME					
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD				DISPOSED BY	DATE/TIME					

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		FD4-015-138	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wberg	COMPANY CONTACT CS Clearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND
SAMPLING LOCATION 216-T-13; 14-15 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil	SAF NO. F04-015	AIR QUALITY <input type="checkbox"/>	45 Days	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. PMG 2/14/05

(1) IC Anions - 300.D (Fluoride, Nitrate, Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9020; pH (Soil) - 9045;

(2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)

(4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 - Total Sr;

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Fluor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST						F04-015-139	PAGE 1 OF 2		
COLLECTOR Pope/Pfister/Tyra/Wilberg		COMPANY CONTACT CS Cearlock		TELEPHONE NO. 372-9638		PROJECT COORDINATOR TRENT, SJ		PRICE CODE 8N	DATA TURNAROUND 45 Days / <i>45-DAYS 4-26-05</i>		
SAMPLING LOCATION 216-T-13; 19-20 ft		PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil				SAF NO. F04-015		AIR QUALITY <input type="checkbox"/>			
ICE CHEST NO.		FIELD LOGBOOK NO.		COA 119144ES10		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 L=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 N/A	PRESERVATION		Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None		
		TYPE OF CONTAINER		gG	gG	gG	gGs*	gG	P		
		NO. OF CONTAINER(S)		1	1	1	3	1	1		
		VOLUME		250mL	120mL	250mL	40mL	120mL	500mL		
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tie To: B1C782		SAMPLE ANALYSIS		SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCNs - 8082;	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS	
SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME								
B1C776	SOIL	4-28-05	1300	+	X	X	X	X	X		
CHAIN OF POSSESSION		SIGN/ PRINT NAMES				SPECIAL INSTRUCTIONS SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS					
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						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
RELINQUISHED BY/REMOVED FROM		DATE/TIME	RECEIVED BY/STORED IN		DATE/TIME						
LABORATORY SECTION	RECEIVED BY	TITLE				DATE/TIME					
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD	DISPOSED BY				DATE/TIME					

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Fixor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		FO4-015-138	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 19-20 ft	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil	SAF NO. FO4-015	AIR QUALITY <input type="checkbox"/>		
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A	BILL OF LADING/AIR BILL NO. N/A			

SPECIAL INSTRUCTIONS

** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. PNG 2/14/05

(1) IC Anions - 300.0 (Fluoride, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Total Cyanide - 9010; pH (Soil) - 9045;

(2) ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)

(3) VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene, trans-1,2-Dichloroethylene)

(4) Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)

(5) Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;

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Fluor Hanford Inc.

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

F04-015-140

PAGE 1 OF 2

COLLECTOR
Pope/Pfister/Tyra/Wiberg
SAMPLING LOCATION
216-T-13; 24-25 ft
ICE CHEST NO.

COMPANY CONTACT
CS Clearlock
TELEPHONE NO.
372-9638
PROJECT DESIGNATION
200-MW-1 Characterization Sampling and Analysis - Soil
FIELD LOGBOOK NO.
COA
119144E510

PROJECT COORDINATOR
TRENT, SJ
SAF NO.
F04-015
METHOD OF SHIPMENT
Government Vehicle

PRICE CODE SN
AIR QUALITY
DATA TURNAROUND
45 Days /
45 Days

SHIPPED TO
Waste Sampling & Characterization

OFFSITE PROPERTY NO.
N/A

BILL OF LADING/AIR BILL NO.
N/A

MATRIX*	POSSIBLE SAMPLE HAZARDS/ REMARKS	PRESERVATION	Cool 4C	Cool 4C	Cool 4C	Cool 4C	Cool 4C	None						
			TYPE OF CONTAINER	g	g	g	g*	g	P					
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water Wl=Wipe X=Other	N/A		g	g	g	g*	g	P						
		NO. OF CONTAINER(S)	1	1	1	3	1	1						
		VOLUME	250mL	120mL	250mL	40mL	120mL	500mL						
	SPECIAL HANDLING AND/OR STORAGE Radioactive Tl To: B1C783	SAMPLE ANALYSIS	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	PCBs - 8002	SEE ITEM (2) IN SPECIAL INSTRUCTIONS	SEE ITEM (3) IN SPECIAL INSTRUCTIONS	SEE ITEM (4) IN SPECIAL INSTRUCTIONS	SEE ITEM (5) IN SPECIAL INSTRUCTIONS						

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME											
B1C777	SOIL	4-28-05	1330	f	x	f	f	f	f					

CHAIN OF POSSESSION		SIGN/ PRINT NAMES	
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
J. POPE	4-28-05 11:45	Victor J. Smith	4/28/05 1445
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
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME

SPECIAL INSTRUCTIONS
SEE PAGE 2 FOR ALL SPECIAL INSTRUCTIONS

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

A-6003-618(03/03)

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Floor Hanford Inc.		CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		PD-015-140	PAGE 2 OF 2
COLLECTOR Pope/Pfister/Tyra/Wiberg	COMPANY CONTACT CS Cearlock	TELEPHONE NO. 372-9638	PROJECT COORDINATOR TRENT, SJ	PRICE CODE 8N	DATA TURNAROUND 45 Days
SAMPLING LOCATION 216-T-13; 24-25 R	PROJECT DESIGNATION 200-MW-1 Characterization Sampling and Analysis - Soil		SAF NO. FD4-015	AIR QUALITY <input type="checkbox"/>	
ICE CHEST NO.	FIELD LOGBOOK NO.	COA 119144E510	METHOD OF SHIPMENT Government Vehicle		
SHIPPED TO Waste Sampling & Characterization	OFFSITE PROPERTY NO. N/A		BILL OF LADING/AIR BILL NO. N/A		
SPECIAL INSTRUCTIONS <p>** The laboratory is to report both kerosene and diesel range compounds from the WTPH-D analysis. <i>APR 14 1985</i></p> <p>(1)IC Anions - 300.0 (Arsenate, Nitrogen in Nitrate, Nitrogen in Nitrite, Phosphorous in phosphate, Sulfate) Fetal-Eyewide -- 9010; pH (Soil) - 9045;</p> <p>(2)ICP/MS - 200.8 (TAL) (Cadmium, Chromium, Copper, Silver) ICP/MS - 200.8 (Add-on) (Lead, Uranium)</p> <p>(3)VOA - 8260A (TCL); VOA - 8260A (Add-On) (1-Butanol, cis-1,2-Dichloroethylene, n-Butylbenzene; trans-1,2-Dichloroethylene)</p> <p>(4)Semi-VOA -- 8270A (Add-On) (Tributyl phosphate) TPH-Gasoline Range - WTPH-G; TPH-Diesel Range - WTPH-D (Total petroleum hydrocarbons - diesel range, Total petroleum hydrocarbons - kerosene range)</p> <p>(5)Gamma Spectroscopy (Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155) Isotopic Plutonium; Isotopic Uranium; Americium-241; Strontium-89,90 -- Total Sr;</p>					

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Appendix 5

Data Validation Supporting Documentation

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GENERAL CHEMISTRY ANALYSIS DATA VALIDATION CHECKLIST

VALIDATION LEVEL:	A	B	C	D	E
PROJECT:	200-mw-1		DATA PACKAGE: 50940		
VALIDATOR:	TLD	LAB:	WSEF	DATE: 6/18/05	
			SDG:	50940	
ANALYSES PERFORMED					
Anions/IC	TOC	.TOX	TPH-418.1	Oil and Grease	Alkalinity
Ammonia	BOD/COD	Chloride	Chromium-VI	pH	NO ₃ /NO ₂
Sulfate	TDS	TKN	Phosphate		
SAMPLES/MATRIX					
BIC769 BIC771 BIC774 BIC775					
BIC776 BIC777					
Soil					

1. DATA PACKAGE COMPLETENESS AND CASE NARRATIVE

Technical verification documentation present? Yes No N/A

Comments: _____

2. INSTRUMENT PERFORMANCE AND CALIBRATIONS (Levels D and E)

Initial calibrations performed on all instruments? Yes No N/A

Initial calibrations acceptable? Yes No N/A

ICV and CCV checks performed on all instruments? Yes No N/A

ICV and CCV checks acceptable? Yes No N/A

Standards traceable? Yes No N/A

Standards expired? Yes No N/A

Calculation check acceptable? Yes No N/A

Comments: _____

GENERAL CHEMISTRY ANALYSIS DATA VALIDATION CHECKLIST

3. BLANKS (Levels B, C, D, and E)

ICB and CCB checks performed for all applicable analyses? (Levels D, E)..... Yes No N/A
ICB and CCB results acceptable? (Levels D, E) Yes No N/A
Laboratory blanks analyzed? Yes No N/A
Laboratory blank results acceptable?..... Yes No N/A
Field blanks analyzed? (Levels C, D, E) Yes No N/A
Field blank results acceptable? (Levels C, D, E)..... Yes No N/A
Transcription/calculation errors? (Levels D, E)..... Yes No N/A
Comments: NO FB

4. ACCURACY (Levels C, D, and E)

Spike samples analyzed? Yes No N/A
Spike recoveries acceptable? Yes No N/A
Spike standards NIST traceable? (Levels D, E)..... Yes No N/A
Spike standards expired? (Levels D, E)..... Yes No N/A
LCS/BSS samples analyzed? Yes No N/A
LCS/BSS results acceptable?..... Yes No N/A
Standards traceable? (Levels D, E)..... Yes No N/A
Standards expired? (Levels D, E) Yes No N/A
Transcription/calculation errors? (Levels D, E)..... Yes No N/A
Performance audit sample(s) analyzed? Yes No N/A
Performance audit sample results acceptable?..... Yes No N/A
Comments: NO FAS

GENERAL CHEMISTRY ANALYSIS DATA VALIDATION CHECKLIST

5. PRECISION (Levels C, D, and E)

Duplicate RPD values acceptable? Yes No N/A
Duplicate results acceptable? Yes No N/A
MS/MSD standards NIST traceable? (Levels D, E) Yes No N/A
MS/MSD standards expired? (Levels D, E) Yes No N/A
Field duplicate RPD values acceptable? Yes No N/A
Field split RPD values acceptable? Yes No N/A
Transcription/calculation errors? (Levels D, E) Yes No N/A
Comments: subset - RPD 25.67% J all 1/20/14

6. HOLDING TIMES (all levels)

Samples properly preserved? Yes No N/A
Sample holding times acceptable? Yes No N/A
Comments: pH > 2.0 J all

GENERAL CHEMISTRY ANALYSIS DATA VALIDATION CHECKLIST

7. RESULT QUANTITATION AND DETECTION LIMITS (all levels)

- Results reported for all requested analyses? Yes No N/A
- Results supported in the raw data? (Levels D, E) Yes No N/A
- Samples properly prepared? (Levels D, E) Yes No N/A
- Detection limits meet RDL? Yes No N/A
- Transcription/calculation errors? (Levels D, E) Yes No N/A

Comments: _____

Appendix 6

Additional Documentation Requested by Client

000038

WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
 Matrix: SOLID
 Test: Anions by Ion Chromatography

SAF Number: F04-015
 Sample Date: 04/28/05
 Receive Date: 04/28/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001286									
BATCH QC ASSOCIATED WITH SAMPLE									
DUP	Phosphate (P) by IC	PO4-P	<2.65e0	n/a	RPD	05/10/05	0.000	20.000	U
DUP	Sulfate	14808-79-8	9.27e+00	25.670	RPD	05/10/05	0.000	20.000	
MS	Phosphate (P) by IC	PO4-P	8.21e-01	84.727	% Recov	05/10/05	75.000	125.000	
MS	Sulfate	14808-79-8	1.87e+00	93.500	% Recov	05/10/05	75.000	125.000	
MSD	Phosphate (P) by IC	PO4-P	9.13e-01	94.221	% Recov	05/10/05	75.000	125.000	
MSD	Sulfate	14808-79-8	1.88e+00	93.000	% Recov	05/10/05	75.000	125.000	
BATCH QC									
BLANK	Phosphate (P) by IC	PO4-P	<5.40e-2	n/a	mg/L	05/10/05	0.000	300.000	U
BLANK	Phosphate (P) by IC	PO4-P	<5.40e-2	n/a	mg/L	05/10/05	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	05/10/05	0.000	300.000	U
BLANK	Sulfate	14808-79-8	<1.00e-1	n/a	mg/L	05/10/05	0.000	300.000	U
LCS	Phosphate (P) by IC	PO4-P	1.90e+02	98.039	% Recov	05/10/05	80.000	120.000	
LCS	Sulfate	14808-79-8	3.93e+02	98.486	% Recov	05/10/05	80.000	120.000	

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WSCF ANALYTICAL LABORATORY QC REPORT

SDG Number: WSCF20050940
Matrix: SOLID
Test: pH Soil and Waste Measurement

SAF Number: F04-015
Sample Date: 04/27/05
Receive Date: 04/27/05

QC Type	Analyte	CAS #	QC Found	QC Yield	Units	Analysis Date	Lower Limit	Upper Limit	RQ
Lab ID: W050001268 BATCH QC ASSOCIATED WITH SAMPLE									
DUP	pH Soil and Waste Measurement	PH	9.805	0.398	RPD	05/03/05	0.000	3.000	

0000040