



U.S. DEPARTMENT OF  
**ENERGY**

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# Analytical Data Report of Grab Samples Collected From BP-5 Operable Unit O Well (C5852)

Michael Lindberg

September 2008



**Pacific Northwest**  
NATIONAL LABORATORY

08/28/08 15:40

To: Dana Widrig

From: Michael J. Lindberg

A handwritten signature in black ink, appearing to read 'MJL', is centered below the sender's name.

Environmental Sciences Laboratory  
Energy and Environment Directorate, Pacific Northwest National Laboratory

Subject: Analytical Data Report of Grab Samples Collected From BP-5 Operable Unit O Well (C5852), Sample Delivery Group ESL070005, SAF Number F07-069

This letter contains the following information for sample delivery group ESL070005

- Cover Sheet
- Narrative
- Analytical Results
- Quality Control
- Geologic Photos
- Chain of Custodies

## **Introduction**

Between October 12, 2007 and October 28, 2007 soil cores and grab samples were received from BP-5 Operable Unit O Well (C5852) for geochemical studies.

## **Analytical Results/Methodology**

The analyses for this project were performed at the 325 building located in the 300 Area of the Hanford Site. The analyses were performed according to Pacific Northwest National Laboratory (PNNL) approved procedures and/or nationally recognized test procedures. The data sets include the sample identification numbers, analytical results, estimated quantification limits (EQL), and quality control data.

## **Quality Control**

The preparatory and analytical quality control requirements, calibration requirements, acceptance criteria, and failure actions are defined in the on-line QA plan "Conducting Analytical Work in Support of Regulatory Programs" (CAW). This QA plan implements the Hanford Analytical Services Quality Assurance Requirements Documents (HASQARD) for PNNL.

## **Definitions**

Dup      Duplicate  
RPD      Relative Percent Difference

## **Sample Receipt**

Samples were received with a chain of custody (COC) and were analyzed according to the sample identification numbers supplied by the client. All Samples were refrigerated upon receipt until prepared for analysis.

All samples were received with custody seals intact unless noted in the Case Narrative.

## **Holding Times**

Holding time is defined as the time from sample preparation to the time of analyses. The prescribed holding times were met for all analytes unless noted in the Case Narrative.

## **Analytical Results**

All reported analytical results meet the requirements of the CAW or client specified SOW unless noted in the case narrative.

## Case Narrative Report

### **Hold time:**

No discrepancies noted.

### **Preparation Blank (PB):**

No discrepancies noted.

### **Duplicate (DUP):**

No discrepancies noted.

### **Laboratory control samples (LCS):**

No discrepancies noted.

### **Post spike (PS) and post spike duplicate (PSD):**

Post-Spike Recovery for Sodium (126%) was outside acceptance limits (75-125) in 8E01004-PS1 for ICP-OES Vadose-WE  
The concentration of the analyte in the original sample is greater than 1000 ppm. Therefore, spikes are not required per HASQARD.

### **Matrix spike (MS) and matrix spike duplicate (MSD):**

Not Applicable

### **Other QC Criteria:**

No discrepancies noted.

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## SAMPLES INCLUDED IN THIS REPORT

### 200 BP 5 OU, C5852 O-Well VZ

<b>HEIS No.</b>	<b>Laboratory ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Received</b>
B1PMY9	0802019-01	SOIL	10/11/07 13:50	10/12/07 09:00
B1PN01	0802019-03	SOIL	10/11/07 14:32	10/12/07 09:00
B1PN03	0802020-01	SOIL	10/12/07 07:48	10/17/07 08:55
B1PN05	0802020-03	SOIL	10/12/07 09:16	10/17/07 08:55
B1PN07	0802020-05	SOIL	10/12/07 10:33	10/17/07 08:55
B1PN09	0802020-09	SOIL	10/12/07 14:35	10/17/07 08:55
B1PN11	0802020-11	SOIL	10/15/07 08:10	10/17/07 08:55
B1R100	0802020-17	SOIL	10/16/07 09:42	10/17/07 08:55
B1PN17	0802023-09	SOIL	10/18/07 14:20	10/24/07 08:30
B1PN18	0802023-10	SOIL	10/19/07 14:00	10/24/07 08:30
B1PN25	0802023-19	SOIL	10/23/07 14:05	10/23/07 15:00
B1PN26	0802023-20	SOIL	10/24/07 12:50	10/25/07 12:50

The following analyses were performed on the following samples included in this report:

Metals 1:1 DI Water Extract by ICPMS

1:1 DI Water Extract

Alkalinity, Titrimetric (pH 4.5)

Anions By Ion Chromatography

geological description

Metals 1:1 Water Extract by ICPOES

Moisture Content

pH of Waters By Electrode

Specific Conductance

Tc\_U 1:1 DI Water Extract by ICPMS

### SAMPLES ANALYZED IN THIS REPORT

<b>HEIS No.</b>	<b>Laboratory ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Received</b>
B1PMY9	0802019-01	SOIL	10/11/07 13:50	10/12/07 09:00
B1PN01	0802019-03	SOIL	10/11/07 14:32	10/12/07 09:00
B1PN03	0802020-01	SOIL	10/12/07 07:48	10/17/07 08:55
B1PN05	0802020-03	SOIL	10/12/07 09:16	10/17/07 08:55
B1PN07	0802020-05	SOIL	10/12/07 10:33	10/17/07 08:55
B1PN09	0802020-09	SOIL	10/12/07 14:35	10/17/07 08:55
B1PN11	0802020-11	SOIL	10/15/07 08:10	10/17/07 08:55
B1R100	0802020-17	SOIL	10/16/07 09:42	10/17/07 08:55
B1PN17	0802023-09	SOIL	10/18/07 14:20	10/24/07 08:30
B1PN18	0802023-10	SOIL	10/19/07 14:00	10/24/07 08:30
B1PN25	0802023-19	SOIL	10/23/07 14:05	10/23/07 15:00
B1PN26	0802023-20	SOIL	10/24/07 12:50	10/25/07 12:50

### Wet Chemistry

#### Alkalinity as CaCO3 (ug/g dry) by Standard Methods 2320B

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
0802019-01	B1PMY9	4.50E1	2.49E1	11/29/07	8D07003
0802019-03	B1PN01	4.18E1	2.35E1	4/29/08	8D07003
0802020-01	B1PN03	3.83E1	2.42E1	11/29/07	8D07003
0802020-03	B1PN05	5.03E1	2.55E1	11/29/07	8D07003
0802020-05	B1PN07	3.59E1	2.36E1	11/29/07	8D07003
0802020-09	B1PN09	5.13E1	2.37E1	11/29/07	8D07003
0802020-11	B1PN11	4.85E1	2.42E1	11/29/07	8D07003
0802020-17	B1R100	5.10E1	2.36E1	11/29/07	8D07003
0802023-09	B1PN17	4.34E1	2.35E1	11/29/07	8D07003
0802023-10	B1PN18	4.88E1	2.36E1	11/29/07	8D07003
0802023-19	B1PN25	4.42E1	2.40E1	11/29/07	8D07003
0802023-20	B1PN26	4.44E1	2.41E1	11/29/07	8D07003

### Wet Chemistry

#### Specific Conductance (EC) (mS/cm) by EPA 120.1

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
0802019-01	B1PMY9	2.71E-1	1.00E-2	11/28/07	8D07003
0802019-03	B1PN01	3.22E-1	1.00E-2	11/28/07	8D07003
0802020-01	B1PN03	2.41E-1	1.00E-2	11/28/07	8D07003
0802020-03	B1PN05	2.11E-1	1.00E-2	11/28/07	8D07003
0802020-05	B1PN07	2.21E-1	1.00E-2	11/28/07	8D07003
0802020-09	B1PN09	2.46E-1	1.00E-2	11/28/07	8D07003
0802020-11	B1PN11	2.87E-1	1.00E-2	11/28/07	8D07003
0802020-17	B1R100	1.37E-1	1.00E-2	11/28/07	8D07003
0802023-09	B1PN17	1.07E-1	1.00E-2	11/28/07	8D07003
0802023-10	B1PN18	1.06E-1	1.00E-2	11/28/07	8D07003
0802023-19	B1PN25	1.05E-1	1.00E-2	11/28/07	8D07003
0802023-20	B1PN26	1.02E-1	1.00E-2	11/28/07	8D07003

### Wet Chemistry

#### Moisture Content (% by Weight) by AGG-WC-001

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
0802019-01	B1PMY9	4.49E0	N/A	4/21/08	8D08004
0802019-03	B1PN01	4.33E0	N/A	4/21/08	8D08004
0802020-01	B1PN03	4.09E0	N/A	4/21/08	8D08004
0802020-03	B1PN05	2.74E0	N/A	4/21/08	8D08004
0802020-05	B1PN07	3.23E0	N/A	4/21/08	8D08004
0802020-09	B1PN09	2.42E0	N/A	4/21/08	8D08004
0802020-11	B1PN11	4.56E0	N/A	4/21/08	8D08004
0802020-17	B1R100	9.19E0	N/A	4/21/08	8D08004
0802023-09	B1PN17	7.43E0	N/A	4/21/08	8D08004
0802023-10	B1PN18	8.44E0	N/A	4/21/08	8D08004
0802023-19	B1PN25	6.59E0	N/A	4/21/08	8D08004
0802023-20	B1PN26	6.81E0	N/A	4/21/08	8D08004

### Wet Chemistry

#### pH (pH Units) by AGG-pH-001

Lab ID	HEIS No.	Results	EQL	Analyzed	Batch
0802019-01	B1PMY9	7.16E0	N/A	11/28/07	8D30002
0802019-03	B1PN01	7.23E0	N/A	12/05/07	8D30002
0802020-01	B1PN03	7.45E0	N/A	12/05/07	8D30002
0802020-03	B1PN05	7.56E0	N/A	11/28/07	8D30002
0802020-05	B1PN07	7.09E0	N/A	11/28/07	8D30002
0802020-09	B1PN09	7.71E0	N/A	11/28/07	8D30002
0802020-11	B1PN11	7.47E0	N/A	11/28/07	8D30002
0802020-17	B1R100	7.60E0	N/A	11/28/07	8D30002
0802023-09	B1PN17	7.44E0	N/A	11/28/07	8D30002
0802023-10	B1PN18	7.28E0	N/A	11/28/07	8D30002
0802023-19	B1PN25	7.47E0	N/A	11/28/07	8D30002
0802023-20	B1PN26	7.39E0	N/A	11/28/07	8D30002

## Anions by Ion Chromatography

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
<b>HEIS No.</b>	<b>B1PMY9</b>	<b>Lab ID:</b>		<b>0802019-01</b>			
16984-48-8	Fluoride	<2.12E0	ug/g dry	2.12E0	11/28/07	8D25002	AGG-IC-001
14797-65-0	Nitrite	<1.06E1	ug/g dry	1.06E1	11/28/07	8D25002	AGG-IC-001
14797-55-8	Nitrate	8.05E0	ug/g dry	1.06E0	12/05/07	8D25002	AGG-IC-001
14808-79-8	Sulfate	6.76E1	ug/g dry	1.59E1	11/28/07	8D25002	AGG-IC-001
14265-44-2	Phosphate	<1.59E1	ug/g dry	1.59E1	11/28/07	8D25002	AGG-IC-001
<b>HEIS No.</b>	<b>B1PN01</b>	<b>Lab ID:</b>		<b>0802019-03</b>			
16984-48-8	Fluoride	<2.00E0	ug/g dry	2.00E0	11/28/07	8D25002	AGG-IC-001
14797-65-0	Nitrite	<1.00E1	ug/g dry	1.00E1	11/28/07	8D25002	AGG-IC-001
14797-55-8	Nitrate	9.45E0	ug/g dry	1.00E0	12/05/07	8D25002	AGG-IC-001
14808-79-8	Sulfate	8.41E1	ug/g dry	1.50E1	11/28/07	8D25002	AGG-IC-001
14265-44-2	Phosphate	<1.50E1	ug/g dry	1.50E1	11/28/07	8D25002	AGG-IC-001
<b>HEIS No.</b>	<b>B1PN03</b>	<b>Lab ID:</b>		<b>0802020-01</b>			
16984-48-8	Fluoride	<2.06E0	ug/g dry	2.06E0	11/28/07	8D25002	AGG-IC-001
14797-65-0	Nitrite	<1.03E1	ug/g dry	1.03E1	11/28/07	8D25002	AGG-IC-001
14797-55-8	Nitrate	7.50E0	ug/g dry	1.03E0	12/05/07	8D25002	AGG-IC-001
14808-79-8	Sulfate	5.92E1	ug/g dry	1.54E1	11/28/07	8D25002	AGG-IC-001
14265-44-2	Phosphate	<1.54E1	ug/g dry	1.54E1	11/28/07	8D25002	AGG-IC-001
<b>HEIS No.</b>	<b>B1PN05</b>	<b>Lab ID:</b>		<b>0802020-03</b>			
16984-48-8	Fluoride	<2.17E0	ug/g dry	2.17E0	11/28/07	8D25002	AGG-IC-001
14797-65-0	Nitrite	<1.09E1	ug/g dry	1.09E1	11/28/07	8D25002	AGG-IC-001
14797-55-8	Nitrate	5.58E0	ug/g dry	1.09E0	12/05/07	8D25002	AGG-IC-001
14808-79-8	Sulfate	4.82E1	ug/g dry	1.63E1	11/28/07	8D25002	AGG-IC-001
14265-44-2	Phosphate	<1.63E1	ug/g dry	1.63E1	11/28/07	8D25002	AGG-IC-001
<b>HEIS No.</b>	<b>B1PN07</b>	<b>Lab ID:</b>		<b>0802020-05</b>			
16984-48-8	Fluoride	<2.01E0	ug/g dry	2.01E0	11/28/07	8D25002	AGG-IC-001
14797-65-0	Nitrite	<1.00E1	ug/g dry	1.00E1	11/28/07	8D25002	AGG-IC-001
14797-55-8	Nitrate	5.72E0	ug/g dry	1.00E0	12/05/07	8D25002	AGG-IC-001
14808-79-8	Sulfate	4.84E1	ug/g dry	1.51E1	11/28/07	8D25002	AGG-IC-001
14265-44-2	Phosphate	<1.51E1	ug/g dry	1.51E1	11/28/07	8D25002	AGG-IC-001
<b>HEIS No.</b>	<b>B1PN09</b>	<b>Lab ID:</b>		<b>0802020-09</b>			
16984-48-8	Fluoride	<2.02E0	ug/g dry	2.02E0	11/28/07	8D25002	AGG-IC-001
14797-65-0	Nitrite	<1.01E1	ug/g dry	1.01E1	11/28/07	8D25002	AGG-IC-001
14797-55-8	Nitrate	4.94E0	ug/g dry	1.01E0	12/05/07	8D25002	AGG-IC-001
14808-79-8	Sulfate	4.79E1	ug/g dry	1.51E1	11/28/07	8D25002	AGG-IC-001
14265-44-2	Phosphate	<1.51E1	ug/g dry	1.51E1	11/28/07	8D25002	AGG-IC-001
<b>HEIS No.</b>	<b>B1PN11</b>	<b>Lab ID:</b>		<b>0802020-11</b>			
16984-48-8	Fluoride	<2.06E0	ug/g dry	2.06E0	11/28/07	8D25002	AGG-IC-001
14797-65-0	Nitrite	<1.03E1	ug/g dry	1.03E1	11/28/07	8D25002	AGG-IC-001
14797-55-8	Nitrate	8.91E0	ug/g dry	1.03E0	12/05/07	8D25002	AGG-IC-001
14808-79-8	Sulfate	7.09E1	ug/g dry	1.54E1	11/28/07	8D25002	AGG-IC-001
14265-44-2	Phosphate	<1.54E1	ug/g dry	1.54E1	11/28/07	8D25002	AGG-IC-001
<b>HEIS No.</b>	<b>B1R100</b>	<b>Lab ID:</b>		<b>0802020-17</b>			
16984-48-8	Fluoride	<2.00E0	ug/g dry	2.00E0	11/28/07	8D25002	AGG-IC-001
14797-65-0	Nitrite	<1.00E1	ug/g dry	1.00E1	11/28/07	8D25002	AGG-IC-001
14797-55-8	Nitrate	<1.00E1	ug/g dry	1.00E1	11/28/07	8D25002	AGG-IC-001
14808-79-8	Sulfate	1.86E1	ug/g dry	1.50E1	11/28/07	8D25002	AGG-IC-001
14265-44-2	Phosphate	<1.50E1	ug/g dry	1.50E1	11/28/07	8D25002	AGG-IC-001

## Anions by Ion Chromatography

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
<b>HEIS No.</b>	<b>B1PN17</b>	<b>Lab ID:</b>		<b>0802023-09</b>			
16984-48-8	Fluoride	<2.00E0	ug/g dry	2.00E0	11/28/07	8D25002	AGG-IC-001
14797-65-0	Nitrite	<1.00E1	ug/g dry	1.00E1	11/28/07	8D25002	AGG-IC-001
14797-55-8	Nitrate	<1.00E0	ug/g dry	1.00E0	12/05/07	8D25002	AGG-IC-001
14808-79-8	Sulfate	<1.50E1	ug/g dry	1.50E1	11/28/07	8D25002	AGG-IC-001
14265-44-2	Phosphate	<1.50E1	ug/g dry	1.50E1	11/28/07	8D25002	AGG-IC-001
<b>HEIS No.</b>	<b>B1PN18</b>	<b>Lab ID:</b>		<b>0802023-10</b>			
16984-48-8	Fluoride	<2.01E0	ug/g dry	2.01E0	11/28/07	8D25002	AGG-IC-001
14797-65-0	Nitrite	<1.00E1	ug/g dry	1.00E1	11/28/07	8D25002	AGG-IC-001
14797-55-8	Nitrate	1.58E0	ug/g dry	1.00E0	12/05/07	8D25002	AGG-IC-001
14808-79-8	Sulfate	1.52E1	ug/g dry	1.51E1	11/28/07	8D25002	AGG-IC-001
14265-44-2	Phosphate	<1.51E1	ug/g dry	1.51E1	11/28/07	8D25002	AGG-IC-001
<b>HEIS No.</b>	<b>B1PN25</b>	<b>Lab ID:</b>		<b>0802023-19</b>			
16984-48-8	Fluoride	<2.04E0	ug/g dry	2.04E0	11/28/07	8D25002	AGG-IC-001
14797-65-0	Nitrite	<1.02E1	ug/g dry	1.02E1	11/28/07	8D25002	AGG-IC-001
14797-55-8	Nitrate	<1.02E0	ug/g dry	1.02E0	12/05/07	8D25002	AGG-IC-001
14808-79-8	Sulfate	<1.53E1	ug/g dry	1.53E1	11/28/07	8D25002	AGG-IC-001
14265-44-2	Phosphate	<1.53E1	ug/g dry	1.53E1	11/28/07	8D25002	AGG-IC-001
<b>HEIS No.</b>	<b>B1PN26</b>	<b>Lab ID:</b>		<b>0802023-20</b>			
16984-48-8	Fluoride	<2.05E0	ug/g dry	2.05E0	11/29/07	8D25002	AGG-IC-001
14797-65-0	Nitrite	<1.02E1	ug/g dry	1.02E1	11/29/07	8D25002	AGG-IC-001
14797-55-8	Nitrate	1.29E0	ug/g dry	1.02E0	12/05/07	8D25002	AGG-IC-001
14808-79-8	Sulfate	<1.54E1	ug/g dry	1.54E1	11/29/07	8D25002	AGG-IC-001
14265-44-2	Phosphate	<1.54E1	ug/g dry	1.54E1	11/29/07	8D25002	AGG-IC-001

## Total Metals by PNNL-AGG-ICP-AES/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
<b>HEIS No.</b>	<b>B1PMY9</b>	<b>Lab ID: 0802019-01</b>					
7429-90-5	Aluminum	<9.08E-2	ug/g dry	9.08E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-70-2	Calcium	2.02E1	ug/g dry	4.10E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<3.52E-2	ug/g dry	3.52E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-09-7	Potassium	5.83E0	ug/g dry	2.46E0	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	4.90E0	ug/g dry	8.83E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<1.81E-2	ug/g dry	1.81E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.89E1	ug/g dry	7.08E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
<b>HEIS No.</b>	<b>B1PN01</b>	<b>Lab ID: 0802019-03</b>					
7429-90-5	Aluminum	<8.58E-2	ug/g dry	8.58E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-70-2	Calcium	2.12E1	ug/g dry	3.87E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-47-3	Chromium	<3.33E-2	ug/g dry	3.33E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-09-7	Potassium	7.32E0	ug/g dry	2.33E0	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	5.11E0	ug/g dry	8.34E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<1.71E-2	ug/g dry	1.71E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-23-5	Sodium	2.61E1	ug/g dry	6.69E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
<b>HEIS No.</b>	<b>B1PN03</b>	<b>Lab ID: 0802020-01</b>					
7429-90-5	Aluminum	<8.82E-2	ug/g dry	8.82E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-70-2	Calcium	1.78E1	ug/g dry	3.98E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-09-7	Potassium	5.18E0	ug/g dry	2.39E0	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	4.27E0	ug/g dry	8.58E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<1.76E-2	ug/g dry	1.76E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.52E1	ug/g dry	6.88E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
<b>HEIS No.</b>	<b>B1PN05</b>	<b>Lab ID: 0802020-03</b>					
7429-90-5	Aluminum	<9.31E-2	ug/g dry	9.31E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-70-2	Calcium	1.44E1	ug/g dry	4.20E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-09-7	Potassium	5.42E0	ug/g dry	2.53E0	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.54E0	ug/g dry	9.05E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<1.86E-2	ug/g dry	1.86E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.64E1	ug/g dry	7.26E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
<b>HEIS No.</b>	<b>B1PN07</b>	<b>Lab ID: 0802020-05</b>					
7429-90-5	Aluminum	<8.61E-2	ug/g dry	8.61E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-70-2	Calcium	1.49E1	ug/g dry	3.88E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-09-7	Potassium	5.36E0	ug/g dry	2.34E0	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.67E0	ug/g dry	8.37E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<1.72E-2	ug/g dry	1.72E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.51E1	ug/g dry	6.71E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
<b>HEIS No.</b>	<b>B1PN09</b>	<b>Lab ID: 0802020-09</b>					
7429-90-5	Aluminum	<8.65E-2	ug/g dry	8.65E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-70-2	Calcium	1.44E1	ug/g dry	3.90E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-09-7	Potassium	7.23E0	ug/g dry	2.35E0	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	3.81E0	ug/g dry	8.41E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<1.73E-2	ug/g dry	1.73E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-23-5	Sodium	2.03E1	ug/g dry	6.74E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
<b>HEIS No.</b>	<b>B1PN11</b>	<b>Lab ID: 0802020-11</b>					
7429-90-5	Aluminum	<8.83E-2	ug/g dry	8.83E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-70-2	Calcium	2.44E1	ug/g dry	3.98E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-09-7	Potassium	6.94E0	ug/g dry	2.39E0	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	6.47E0	ug/g dry	8.58E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES

## Total Metals by PNNL-AGG-ICP-AES/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
<b>HEIS No.</b>	<b>B1PN11</b>	<b>Lab ID: 0802020-11</b>					
7439-96-5	Manganese	<1.76E-2	ug/g dry	1.76E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.28E1	ug/g dry	6.88E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
<b>HEIS No.</b>	<b>B1R100</b>	<b>Lab ID: 0802020-17</b>					
7429-90-5	Aluminum	<8.60E-2	ug/g dry	8.60E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-70-2	Calcium	7.90E0	ug/g dry	3.88E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-09-7	Potassium	4.59E0	ug/g dry	2.33E0	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	2.10E0	ug/g dry	8.36E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<1.72E-2	ug/g dry	1.72E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-23-5	Sodium	1.02E1	ug/g dry	6.71E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
<b>HEIS No.</b>	<b>B1PN17</b>	<b>Lab ID: 0802023-09</b>					
7429-90-5	Aluminum	<8.59E-2	ug/g dry	8.59E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-70-2	Calcium	6.65E0	ug/g dry	3.88E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-09-7	Potassium	3.07E0	ug/g dry	2.33E0	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	1.77E0	ug/g dry	8.35E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<1.72E-2	ug/g dry	1.72E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-23-5	Sodium	7.40E0	ug/g dry	6.70E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
<b>HEIS No.</b>	<b>B1PN18</b>	<b>Lab ID: 0802023-10</b>					
7429-90-5	Aluminum	<8.61E-2	ug/g dry	8.61E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-70-2	Calcium	6.47E0	ug/g dry	3.89E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-09-7	Potassium	3.07E0	ug/g dry	2.34E0	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	1.70E0	ug/g dry	8.37E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<1.72E-2	ug/g dry	1.72E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-23-5	Sodium	7.31E0	ug/g dry	6.72E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
<b>HEIS No.</b>	<b>B1PN25</b>	<b>Lab ID: 0802023-19</b>					
7429-90-5	Aluminum	<8.76E-2	ug/g dry	8.76E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-70-2	Calcium	7.47E0	ug/g dry	3.95E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-09-7	Potassium	3.30E0	ug/g dry	2.38E0	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	1.95E0	ug/g dry	8.51E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<1.75E-2	ug/g dry	1.75E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-23-5	Sodium	6.04E0	ug/g dry	6.83E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
<b>HEIS No.</b>	<b>B1PN26</b>	<b>Lab ID: 0802023-20</b>					
7429-90-5	Aluminum	<8.79E-2	ug/g dry	8.79E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-70-2	Calcium	6.92E0	ug/g dry	3.96E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-09-7	Potassium	3.27E0	ug/g dry	2.39E0	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-95-4	Magnesium	1.80E0	ug/g dry	8.54E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7439-96-5	Manganese	<1.75E-2	ug/g dry	1.75E-2	12/05/07	8E01004	PNNL-AGG-ICP-AES
7440-23-5	Sodium	6.40E0	ug/g dry	6.85E-1	12/05/07	8E01004	PNNL-AGG-ICP-AES

## Radionuclides by ICP-MS/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
<b>HEIS No.</b>	<b>B1PMY9</b>	<b>Lab ID: 0802019-01</b>					
14133-76-7	Technetium-99	<9.74E-6	ug/g dry	9.74E-6	11/30/07	8D22006	PNNL-AGG-415
	Uranium 238	3.71E-4	ug/g dry	2.39E-4	11/30/07	8D22006	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1PN01</b>	<b>Lab ID: 0802019-03</b>					
14133-76-7	Technetium-99	9.21E-6	ug/g dry	9.20E-6	11/30/07	8D22006	PNNL-AGG-415
	Uranium 238	3.29E-4	ug/g dry	2.25E-4	11/30/07	8D22006	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1PN03</b>	<b>Lab ID: 0802020-01</b>					
14133-76-7	Technetium-99	<9.46E-6	ug/g dry	9.46E-6	11/30/07	8D22006	PNNL-AGG-415
	Uranium 238	<2.32E-4	ug/g dry	2.32E-4	11/30/07	8D22006	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1PN05</b>	<b>Lab ID: 0802020-03</b>					
14133-76-7	Technetium-99	<9.98E-6	ug/g dry	9.98E-6	11/30/07	8D22006	PNNL-AGG-415
	Uranium 238	<2.45E-4	ug/g dry	2.45E-4	11/30/07	8D22006	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1PN07</b>	<b>Lab ID: 0802020-05</b>					
14133-76-7	Technetium-99	<9.23E-6	ug/g dry	9.23E-6	11/30/07	8D22006	PNNL-AGG-415
	Uranium 238	<2.26E-4	ug/g dry	2.26E-4	11/30/07	8D22006	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1PN09</b>	<b>Lab ID: 0802020-09</b>					
14133-76-7	Technetium-99	9.65E-6	ug/g dry	9.27E-6	11/30/07	8D22006	PNNL-AGG-415
	Uranium 238	<2.27E-4	ug/g dry	2.27E-4	11/30/07	8D22006	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1PN11</b>	<b>Lab ID: 0802020-11</b>					
14133-76-7	Technetium-99	1.01E-5	ug/g dry	9.46E-6	11/30/07	8D22006	PNNL-AGG-415
	Uranium 238	<2.32E-4	ug/g dry	2.32E-4	11/30/07	8D22006	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1R100</b>	<b>Lab ID: 0802020-17</b>					
14133-76-7	Technetium-99	<9.22E-6	ug/g dry	9.22E-6	11/30/07	8D22006	PNNL-AGG-415
	Uranium 238	<2.26E-4	ug/g dry	2.26E-4	11/30/07	8D22006	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1PN17</b>	<b>Lab ID: 0802023-09</b>					
14133-76-7	Technetium-99	1.02E-5	ug/g dry	9.21E-6	11/30/07	8D22006	PNNL-AGG-415
	Uranium 238	<2.26E-4	ug/g dry	2.26E-4	11/30/07	8D22006	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1PN18</b>	<b>Lab ID: 0802023-10</b>					
14133-76-7	Technetium-99	<9.24E-6	ug/g dry	9.24E-6	11/30/07	8D22006	PNNL-AGG-415
	Uranium 238	<2.26E-4	ug/g dry	2.26E-4	11/30/07	8D22006	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1PN25</b>	<b>Lab ID: 0802023-19</b>					
14133-76-7	Technetium-99	<9.39E-6	ug/g dry	9.39E-6	11/30/07	8D22006	PNNL-AGG-415
	Uranium 238	<2.30E-4	ug/g dry	2.30E-4	11/30/07	8D22006	PNNL-AGG-415
<b>HEIS No.</b>	<b>B1PN26</b>	<b>Lab ID: 0802023-20</b>					
14133-76-7	Technetium-99	1.08E-5	ug/g dry	9.43E-6	11/30/07	8D22006	PNNL-AGG-415
	Uranium 238	<2.31E-4	ug/g dry	2.31E-4	11/30/07	8D22006	PNNL-AGG-415

## RCRA Metals By PNNL-AGG-415/Water Extract

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
<b>HEIS No.</b> 14687-58-2	<b>B1PMY9</b> Selenium	<b>Lab ID: 0802019-01</b> <1.17E-2	ug/g dry	1.17E-2	12/03/07	8D22007	PNNL-AGG-415
<b>HEIS No.</b> 14687-58-2	<b>B1PN01</b> Selenium	<b>Lab ID: 0802019-03</b> <1.11E-2	ug/g dry	1.11E-2	12/03/07	8D22007	PNNL-AGG-415
<b>HEIS No.</b> 14687-58-2	<b>B1PN03</b> Selenium	<b>Lab ID: 0802020-01</b> <1.14E-2	ug/g dry	1.14E-2	12/03/07	8D22007	PNNL-AGG-415
<b>HEIS No.</b> 14687-58-2	<b>B1PN05</b> Selenium	<b>Lab ID: 0802020-03</b> <1.20E-2	ug/g dry	1.20E-2	12/03/07	8D22007	PNNL-AGG-415
<b>HEIS No.</b> 14687-58-2	<b>B1PN07</b> Selenium	<b>Lab ID: 0802020-05</b> <1.11E-2	ug/g dry	1.11E-2	12/03/07	8D22007	PNNL-AGG-415
<b>HEIS No.</b> 14687-58-2	<b>B1PN09</b> Selenium	<b>Lab ID: 0802020-09</b> <1.11E-2	ug/g dry	1.11E-2	12/03/07	8D22007	PNNL-AGG-415
<b>HEIS No.</b> 14687-58-2	<b>B1PN11</b> Selenium	<b>Lab ID: 0802020-11</b> <1.14E-2	ug/g dry	1.14E-2	12/03/07	8D22007	PNNL-AGG-415
<b>HEIS No.</b> 14687-58-2	<b>B1R100</b> Selenium	<b>Lab ID: 0802020-17</b> <1.11E-2	ug/g dry	1.11E-2	12/03/07	8D22007	PNNL-AGG-415
<b>HEIS No.</b> 14687-58-2	<b>B1PN17</b> Selenium	<b>Lab ID: 0802023-09</b> <1.11E-2	ug/g dry	1.11E-2	12/03/07	8D22007	PNNL-AGG-415
<b>HEIS No.</b> 14687-58-2	<b>B1PN18</b> Selenium	<b>Lab ID: 0802023-10</b> <1.11E-2	ug/g dry	1.11E-2	12/03/07	8D22007	PNNL-AGG-415
<b>HEIS No.</b> 14687-58-2	<b>B1PN25</b> Selenium	<b>Lab ID: 0802023-19</b> <1.13E-2	ug/g dry	1.13E-2	12/03/07	8D22007	PNNL-AGG-415
<b>HEIS No.</b> 14687-58-2	<b>B1PN26</b> Selenium	<b>Lab ID: 0802023-20</b> <1.13E-2	ug/g dry	1.13E-2	12/03/07	8D22007	PNNL-AGG-415

**Wet Chemistry - Quality Control**  
**Environmental Science Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 8D07003 - 1:1 Water Extract (pH_EC_Alk)</b>										
<b>Blank (8D07003-BLK1)</b>				Prepared: 11/27/07 Analyzed: 11/29/07						
Alkalinity as CaCO3	<2.35E1	2.35E1	ug/g wet							
Specific Conductance (EC)	<1.00E-2	1.00E-2	mS/cm							
<b>Duplicate (8D07003-DUP1)</b>				<b>Source: 0802019-03</b>		Prepared: 11/27/07 Analyzed: 11/28/07				
Specific Conductance (EC)	3.20E-1	1.00E-2	mS/cm		3.22E-1			0.623	35	
Alkalinity as CaCO3	3.55E1	2.39E1	ug/g dry		4.18E1			16.3	35	
<b>Batch 8D30002 - 1:1 Water Extract (pH_EC_Alk)</b>										
<b>Duplicate (8D30002-DUP1)</b>				<b>Source: 0802019-03</b>		Prepared & Analyzed: 11/28/07				
pH	7.56E0	N/A	pH Units		7.23E0			4.46	35	
<b>Duplicate (8D30002-DUP2)</b>				<b>Source: 0802020-01</b>		Prepared & Analyzed: 11/28/07				
pH	7.45E0	N/A	pH Units		7.45E0			0.00	35	

**Anions by Ion Chromatography - Quality Control**  
**Environmental Science Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 8D25002 - 1:1 Water Extract (IC)</b>										
<b>Blank (8D25002-BLK1)</b>				Prepared: 11/28/07 Analyzed: 11/29/07						
Fluoride	<2.00E0	2.00E0	ug/g wet							
Nitrite	<1.00E1	1.00E1	"							
Nitrate	<1.00E1	1.00E1	"							
Sulfate	<1.50E1	1.50E1	"							
Phosphate	<1.50E1	1.50E1	"							
<b>LCS (8D25002-BS1)</b>				Prepared: 11/28/07 Analyzed: 11/29/07						
Fluoride	1.98E0	2.00E-1	ug/g wet	2.00E0		99.2	80-120			
Nitrite	1.02E1	1.00E0	"	1.00E1		102	80-120			
Nitrate	9.75E0	1.00E0	"	1.00E1		97.2	80-120			
Sulfate	1.39E1	1.50E0	"	1.51E1		92.5	80-120			
Phosphate	1.41E1	1.50E0	"	1.51E1		93.5	80-120			
<b>Duplicate (8D25002-DUP1)</b>				<b>Source: 0802019-03</b>		Prepared: 11/28/07 Analyzed: 11/29/07				
Fluoride	<2.03E0	2.03E0	ug/g dry		ND					35
Nitrite	<1.02E1	1.02E1	"		ND					35
Nitrate	<1.02E1	1.02E1	"		9.45E0					35
Sulfate	9.03E1	1.52E1	"		8.41E1			7.11		35
Phosphate	<1.52E1	1.52E1	"		ND					35
<b>Post Spike (8D25002-PS1)</b>				<b>Source: 0802023-19</b>		Prepared & Analyzed: 11/28/07				
Fluoride	4.13E-1	N/A	ug/mL	4.00E-1	ND	105	75-125			
Nitrite	2.04E0	N/A	"	2.00E0	ND	102	75-125			
Nitrate	2.13E1	N/A	"	2.00E1	8.06E-1	102	75-125			
Sulfate	4.01E0	N/A	"	3.00E0	1.43E0	86.1	75-125			
Phosphate	3.04E0	N/A	"	3.00E0	3.79E-1	88.6	75-125			

**Total Metals by PNNL-AGG-ICP-AES/Water Extract - Quality Control**  
**Environmental Science Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 8E01004 - 1:1 Water Extract (ICP/ICPMS)</b>										
<b>Blank (8E01004-BLK1)</b>										
Prepared & Analyzed: 12/05/07										
Aluminum	<8.58E-2	8.58E-2	ug/g wet							
Calcium	<3.87E-1	3.87E-1	"							
Chromium	<3.33E-2	3.33E-2	"							
Potassium	<2.33E0	2.33E0	"							
Magnesium	<8.34E-2	8.34E-2	"							
Manganese	<1.71E-2	1.71E-2	"							
Sodium	<6.69E-1	6.69E-1	"							
<b>LCS (8E01004-BS1)</b>										
Prepared & Analyzed: 12/05/07										
Aluminum	4.41E0	8.58E-2	ug/g wet	5.00E0		88.1	80-120			
Calcium	4.68E0	3.87E-1	"	5.00E0		93.7	80-120			
Chromium	4.70E0	3.33E-2	"	5.00E0		94.1	80-120			
Potassium	4.60E1	2.33E0	"	5.00E1		91.9	80-120			
Magnesium	4.52E0	8.34E-2	"	5.00E0		90.3	80-120			
Manganese	4.76E0	1.71E-2	"	5.00E0		95.3	80-120			
Sodium	4.58E0	6.69E-1	"	5.00E0		91.6	80-120			
<b>Duplicate (8E01004-DUP1)</b>										
<b>Source: 0802019-03</b>										
Prepared & Analyzed: 12/05/07										
Aluminum	<8.72E-2	8.72E-2	ug/g dry		ND					35
Calcium	2.42E1	3.93E-1	"		2.12E1			13.0		35
Chromium	<3.38E-2	3.38E-2	"		ND					35
Potassium	6.39E0	2.37E0	"		7.32E0			13.5		35
Magnesium	5.40E0	8.47E-2	"		5.11E0			5.64		35
Manganese	<1.74E-2	1.74E-2	"		ND					35
Sodium	2.33E1	6.80E-1	"		2.61E1			11.3		35
<b>Post Spike (8E01004-PS1)</b>										
<b>Source: 0802020-05</b>										
Prepared & Analyzed: 12/05/07										
Aluminum	7.88E2	N/A	ug/L	8.33E2	1.46E1	92.8	75-125			
Calcium	5.77E3	N/A	"	8.33E2	4.95E3	98.4	75-125			
Potassium	3.92E3	N/A	"	2.08E3	1.78E3	102	75-125			
Magnesium	2.03E3	N/A	"	8.33E2	1.22E3	97.2	75-125			
Manganese	4.33E2	N/A	"	4.17E2	1.05E0	103	75-125			
Sodium	6.07E3	N/A	"	8.33E2	5.02E3	126	75-125			

**Radionuclides by ICP-MS/Water Extract - Quality Control**  
**Environmental Science Laboratory**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes	
<b>Batch 8D22006 - 1:1 Water Extract (ICP/ICPMS)</b>											
<b>Blank (8D22006-BLK1)</b>											
					Prepared & Analyzed: 11/30/07						
Technetium-99	<9.20E-6	9.20E-6	ug/g wet								
Uranium 238	<2.25E-4	2.25E-4	"								
<b>Duplicate (8D22006-DUP1)</b>											
					<b>Source: 0802019-03</b>			Prepared & Analyzed: 11/30/07			
Technetium-99	<9.35E-6	9.35E-6	ug/g dry		9.21E-6					35	
Uranium 238	3.46E-4	2.29E-4	"		3.29E-4			5.06		35	
<b>Post Spike (8D22006-PS1)</b>											
					<b>Source: 0802019-03</b>			Prepared & Analyzed: 11/30/07			
Technetium-99	5.05E-1	N/A	ug/L	5.00E-1	4.61E-3	100	75-125				
Uranium 238	6.70E-1	N/A	"	5.00E-1	1.64E-1	101	75-125				

**RCRA Metals By PNNL-AGG-415/Water Extract - Quality Control**  
**Environmental Science Laboratory**

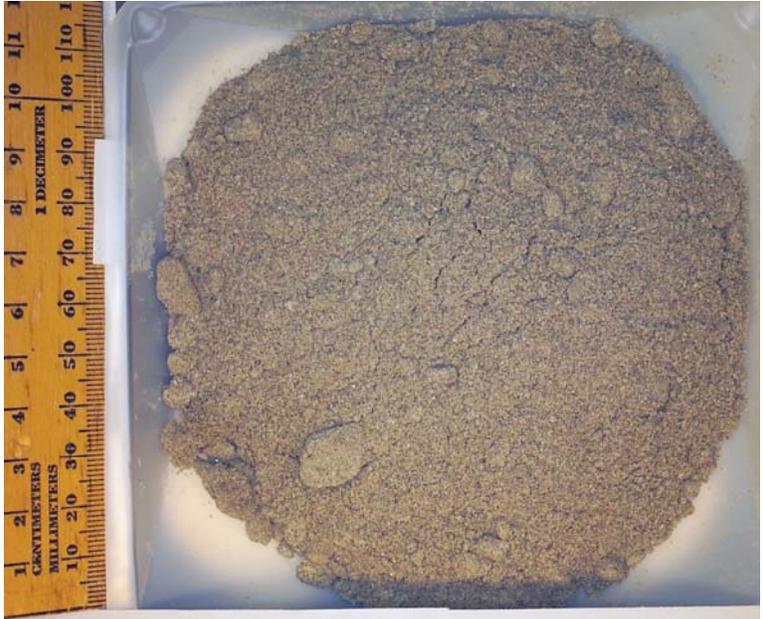
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch 8D22007 - 1:1 Water Extract (ICP/ICPMS)</b>										
<b>Blank (8D22007-BLK1)</b>				Prepared & Analyzed: 12/03/07						
Selenium	<1.10E-2	1.10E-2	ug/g wet							
<b>LCS (8D22007-BS1)</b>				Prepared & Analyzed: 12/03/07						
Selenium	4.20E0	1.10E0	ug/g wet	5.00E0		84.0	80-120			
<b>Duplicate (8D22007-DUP1)</b>				<b>Source: 0802019-03</b>		Prepared & Analyzed: 12/03/07				
Selenium	<1.12E-2	1.12E-2	ug/g dry		ND				35	



C5852 B1PN29 335.5 ft Grab Sample



C5852 B1PMY9 250 ft Grab Sample



C5852 B1PN00 252.5 ft Grab Sample



C5852 B1PN01 255 ft Grab Sample



C5852 B1PN02 257.5 ft Grab Sample



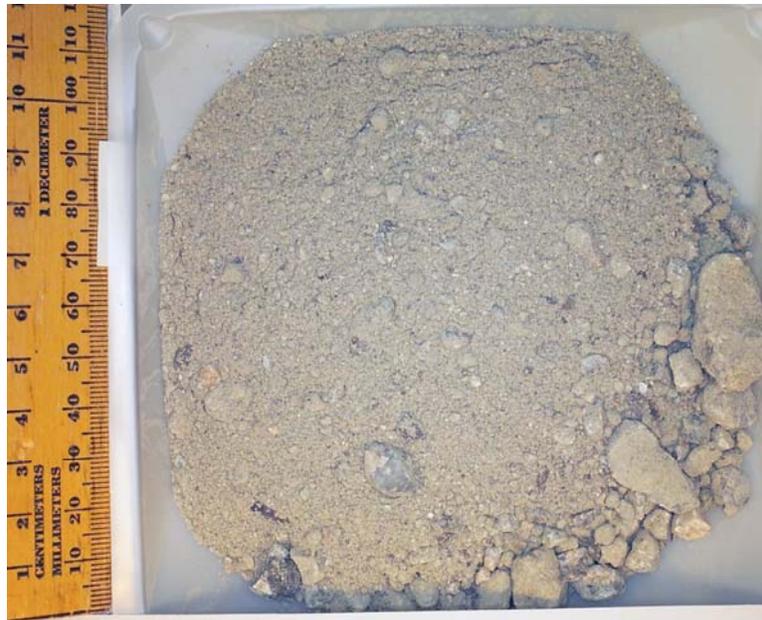
C5852 B1PN03 260 ft Grab Sample



C5852 B1PN04 262.5 ft Grab Sample



C5852 B1PN05 265 ft Grab Sample



C5852 B1PN06 267.5 ft Grab Sample



C5852 B1PN07 270 ft Grab Sample



C5852 B1PN08 273.5 ft Grab Sample



C5852 B1PN09 275 ft Grab Sample



C5852 B1PN10 277.5 ft Grab Sample



C5852 B1PN11 279.5 ft Grab Sample



C5852 B1R0Y7 284.5 ft Grab Sample



C5852 B1R0Y8 286.5 ft Grab Sample



C5852 B1R0Y9 289.5 ft Grab Sample



C5852 B1R100 292 ft Grab Sample



C5852 B1PN12 295 ft Grab Sample



C5852 B1PN13 297 ft Grab Sample



C5852 B1PN14 300 ft Grab Sample



C5852 B1PN15 302 ft Grab Sample



C5852 B1PN16 305 ft Grab Sample



C5852 B1PN17 306.5 ft Grab Sample



C5852 B1PN18 310.5 ft Grab Sample



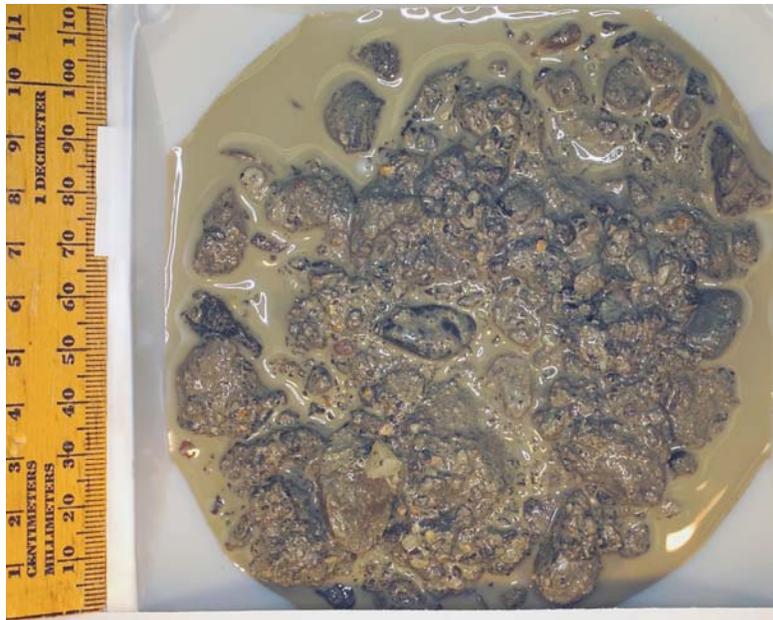
C5852 B1PN19 311.4 ft Grab Sample



C5852 B1PN20 315 ft Grab Sample



C5852 B1PN21 317.5 ft Grab Sample



C5852 B1PN22 319.5 ft Grab Sample



C5852 B1PN23 322 ft Grab Sample



C5852 B1PN24 324.2 ft Grab Sample



C5852 B1PN25 327 ft Grab Sample



C5852 B1PN26 330 ft Grab Sample



C5852 B1PN27 332 ft Grab Sample



C5852 B1PN28 334.5 ft Grab Sample

COLLECTOR  
NCO Sampler

COMPANY CONTACT  
Trent, SJ

TELEPHONE NO.  
373-5869

PROJECT COORDINATOR  
TRENT, SJ

PRICE CODE  
8N

DATA  
TURNAROUND  
45 Days /  
45 Days

SAMPLING LOCATION  
C5852, I-1  
ICE CHEST NO.

PROJECT DESIGNATION  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

FIELD LOGBOOK NO.  
COA

SAF NO.  
F07-069

AIR QUALITY

METHOD OF SHIPMENT  
GOVERNMENT VEHICLE

SHIPPED TO  
PNNL Building 325

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  
M=Midge  
X=Other

PRESERVATION  
None

TYPE OF CONTAINER  
G/P

NO. OF CONTAINER(S)  
1

VOLUME  
1L

MOISTURE  
RESISTANT CONT  
200g

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

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS  
SEE ITEM (1) IN SPECIAL INSTRUCTIONS  
Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1PMY9	SOIL	10/11/07	1350

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM  
RECEIVED BY/STORED IN  
DATE/TIME  
10-11-07 1530  
MO 795 FARRAR / 10-11-07 1550

RELINQUISHED BY/REMOVED FROM  
RECEIVED BY/STORED IN  
DATE/TIME  
10-12-07 0900  
M. VAUGHAN / M. WILCO 10/12/07 0900

RELINQUISHED BY/REMOVED FROM  
RECEIVED BY/STORED IN  
DATE/TIME

SPECIAL INSTRUCTIONS

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129}; Tc-99 by ICPMS {Technetium-99}; Uranium by ICPMS {Uranium}; ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1 ALKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon}; TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

LABORATORY SECTION RECEIVED BY

FINAL SAMPLE DISPOSITION DISPOSAL METHOD

TITLE

DATE/TIME

COLLECTOR  
NCO Sampler  
Bob Julian  
Fluor Hanford

COMPANY CONTACT  
Trent, SJ  
373-5869

PROJECT COORDINATOR  
TRENT, SJ

PRICE CODE  
8N

DATA  
TURNAROUND  
45 Days /  
45 Days

SAMPLING LOCATION  
C5852, 1-2  
ICE CHEST NO.  
252.5

PROJECT DESIGNATION  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
FIELD LOGBOOK NO.  
HNE-W-575-2

SAF NO.  
F07-069

AIR QUALITY

METHOD OF SHIPMENT  
GOVERNMENT VEHICLE

SHIPPED TO  
PNNL Building 325

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=Water  
X=Other

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

PRESERVATION  
None

TYPE OF CONTAINER  
G/P  
Moisture Resistant Cont

NO. OF CONTAINER(S)  
1

VOLUME  
1L

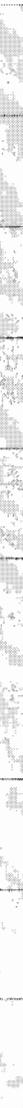
Moisture Content - 02216;  
SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS

SAMPLE NO.  
B1PN00

MATRIX\*  
SOIL



SAMPLE DATE  
10/11/07 1412

SAMPLE TIME  
1550

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM  
RELINQUISHED BY/REMOVED FROM  
RELINQUISHED BY/REMOVED FROM

RECEIVED BY/STORED IN  
RECEIVED BY/STORED IN  
RECEIVED BY/STORED IN

DATE/TIME  
DATE/TIME  
DATE/TIME

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1\_AKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

RELINQUISHED BY/REMOVED FROM

RECEIVED BY/STORED IN

DATE/TIME

LABORATORY SECTION

RECEIVED BY

TITLE

DATE/TIME

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

DISPOSED BY

DATE/TIME

**COLLECTOR**  
NCO Sampler  
Bob Julian  
Fluor Hanford

**COMPANY CONTACT**  
Trent, SJ

**TELEPHONE NO.**  
373-5869

**PROJECT COORDINATOR**  
Trent, SJ

**PRICE CODE**  
8N

**DATA TURNAROUND**  
45 Days /  
45 Days

**SAMPLING LOCATION**  
C5852, I-3  
ICE CHEST NO. 255

**PROJECT DESIGNATION**  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

**FIELD LOGBOOK NO.**  
17275-N-575-2

**SAF NO.**  
F07-069

**AIR QUALITY**

**SHIPPED TO**  
PNNL Building 325

**OFFSITE PROPERTY NO.**  
N/A

**COA**  
123262E510

**METHOD OF SHIPMENT**  
GOVERNMENT VEHICLE

**BILL OF LADING/AIR BILL NO.**  
N/A

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

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

**PRESERVATION**  
None  
**TYPE OF CONTAINER**  
G/P  
**NO. OF CONTAINER(S)**  
1  
**VOLUME**  
1L

**MOISTURE RESISTANT CONT**  
1  
200g

**SPECIAL HANDLING AND/OR STORAGE**  
**SAMPLE ANALYSIS**  
SEE ITEM (1) IN Moisture Content - 02216; SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1PN01	SOIL	10/11/07	1432

**CHAIN OF POSSESSION**

**SIGN/ PRINT NAMES**

**SPECIAL INSTRUCTIONS**

RELINQUISHED BY/REMOVED FROM  
RECEIVED BY/STORED IN  
DATE/TIME  
10-11-07 1550  
10/11/07 1550

RECEIVED BY/STORED IN  
DATE/TIME  
M. Volante/J.M. Valle  
10/12-07 0900

RECEIVED BY/STORED IN  
DATE/TIME  
10-11-07 1550  
10/12/07 0900

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1\_AKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

RELINQUISHED BY/REMOVED FROM  
RECEIVED BY/STORED IN  
DATE/TIME  
RELINQUISHED BY/REMOVED FROM  
RECEIVED BY/STORED IN  
DATE/TIME  
RELINQUISHED BY/REMOVED FROM  
RECEIVED BY/STORED IN  
DATE/TIME  
LABORATORY SECTION  
RECEIVED BY  
FINAL SAMPLE DISPOSITION  
DISPOSAL METHOD

RECEIVED BY/STORED IN  
DATE/TIME  
RECEIVED BY/STORED IN  
DATE/TIME  
RECEIVED BY/STORED IN  
DATE/TIME

RECEIVED BY/STORED IN  
DATE/TIME  
RECEIVED BY/STORED IN  
DATE/TIME  
RECEIVED BY/STORED IN  
DATE/TIME

TITLE  
DISPOSED BY  
DATE/TIME

73148











**COLLECTOR**  
Fluor Hanford  
NCO Sampler  
**O.E. PAROCHEN**

**COMPANY CONTACT**  
Trent, SJ  
373-5869

**TELEPHONE NO.**  
373-5869

**PROJECT COORDINATOR**  
TRENT, SJ

**PRICE CODE**  
8N

**DATA TURNAROUND**  
45 Days /  
45 Days

**SAMPLING LOCATION**  
CS852, 1-9  
**270**

**PROJECT DESIGNATION**  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

**FIELD LOGBOOK NO.**  
COA  
123262ES10

**SAF NO.**  
F07-069

**AIR QUALITY**

**METHOD OF SHIPMENT**  
GOVERNMENT VEHICLE

**SHIPPED TO**  
PNNL Building 325

**OFFSITE PROPERTY NO.**  
N/A

**COA**  
123262ES10

**BILL OF LADING/AIR BILL NO.**  
N/A

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

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

**PRESERVATION**  
None  
**TYPE OF CONTAINER**  
G/P  
**NO. OF CONTAINER(S)**  
1  
**VOLUME**  
1L  
200g

**SPECIAL HANDLING AND/OR STORAGE**  
SEE ITEM (1) IN SPECIAL INSTRUCTIONS  
Moisture Content - 02216;

**SAMPLE NO.**  
B1PN07  
**SOIL**

**MATRIX\***

**SAMPLE DATE**  
10/12/07  
**SAMPLE TIME**  
1033

**CHAIN OF POSSESSION**

**SIGN/ PRINT NAMES**

**SPECIAL INSTRUCTIONS**

RELINQUISHED BY/REMOVED FROM  
Fluor Hanford  
RELINQUISHED BY/REMOVED FROM  
Kevin Patterson

DATE/TIME  
10-12-07  
DATE/TIME  
10/12/07 0655

RECEIVED BY/STORED IN  
Kevin Patterson

DATE/TIME  
10-12-07

RECEIVED BY/STORED IN  
Kevin Patterson

DATE/TIME  
10-12-07

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1 ALKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

RELINQUISHED BY/REMOVED FROM  
Kevin Patterson

DATE/TIME  
OCT 17 2007

RECEIVED BY/STORED IN  
Kevin Patterson

DATE/TIME  
OCT 17 2007

RECEIVED BY/STORED IN  
Kevin Patterson

DATE/TIME  
OCT 17 2007

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

**LABORATORY SECTION**

RECEIVED BY

**TITLE**

DISPOSED BY

DATE/TIME

**FINAL SAMPLE DISPOSITION**

DISPOSAL METHOD

DATE/TIME

DATE/TIME

COLLECTOR  
NCO Sampler  
D. Parcken

COMPANY CONTACT  
Trent, SJ

TELEPHONE NO.  
373-5869

PROJECT COORDINATOR  
TRENT, SJ

PRICE CODE  
8N

DATA  
TURNAROUND  
45 Days /  
45 Days

SAMPLING LOCATION  
C5852, I-10

PROJECT DESIGNATION  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

SAF NO.  
F07-069

AIR QUALITY

METHOD OF SHIPMENT  
GOVERNMENT VEHICLE

ICE CHEST NO.

FIELD LOGBOOK NO.  
HNF-N-575-2

COA  
123262E510

BILL OF LADING/AIR BILL NO.  
N/A

SHIPPED TO  
PNNL Building 325

OFFSITE PROPERTY NO.  
N/A

GOVERNMENT VEHICLE

N/A

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

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

PRESERVATION  
None

TYPE OF CONTAINER  
Split Spoon  
Liner

NO. OF CONTAINER(S)  
2

VOLUME  
1,000g

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS

SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.  
B1PMX8

MATRIX\*  
SOIL

SAMPLE DATE  
10-12-07

SAMPLE TIME  
1130

X

CHAIN OF POSSESSION

SIGN / PRINT NAMES

SPECIAL INSTRUCTIONS

REMOVED FROM  
D. Parcken

DATE/TIME  
10-12-07

RECEIVED BY/STORED IN  
NO 745 R.F.P.

DATE/TIME  
10-12-07

(1) Density; Particle Size (Hydrometer) - D422; Saturated Hydraulic Conductivity; Soil Cation Exchange Capacity - 9080; Generic Testing; SPECIAL STUDIES (No CAS) KD - Batch;

REMOVED FROM  
Kevin Patterson

DATE/TIME  
10/17/07

RECEIVED BY/STORED IN  
Kevin Patterson

DATE/TIME  
10/17/07

REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

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

2273 2314

**COLLECTOR**  
NCO Sampler  
**SAMPLING LOCATION**  
C5852, I-11  
ICE CHEST NO.

**COMPANY CONTACT**  
Trent, SJ  
**PROJECT DESIGNATION**  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

**TELEPHONE NO.**  
373-5869

**PROJECT COORDINATOR**  
TRENT, SJ

**PRICE CODE**  
8N

**DATA TURNAROUND**  
45 Days / 45 Days

**SHIPPED TO**  
PNML Building 325

**FIELD LOGBOOK NO.**  
200-BP-5-75-2

**OFFSITE PROPERTY NO.**  
N/A

**METHOD OF SHIPMENT**  
GOVERNMENT VEHICLE

**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

**PRESERVATION**  
None

**TYPE OF CONTAINER**  
Split Spoon  
Liner

**NO. OF CONTAINER(S)**  
4

**VOLUME**  
1000g

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

**SPECIAL HANDLING AND/OR STORAGE**

**SAMPLE ANALYSIS**

**SEE ITEM (1) IN SPECIAL INSTRUCTIONS**

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1PMY2	SOIL	10/22/07	1415

**CHAIN OF POSSESSION**

**SIGN / PRINT NAMES**

**SPECIAL INSTRUCTIONS**

RELINQUISHED BY/REMOVED FROM  
*D. Park*  
DATE/TIME: 10/12/07  
RECEIVED BY/STORED IN  
*Kevin Patterson*  
DATE/TIME: 10/22/07

RELINQUISHED BY/REMOVED FROM  
*Kevin Patterson*  
DATE/TIME: 10/17/07  
RECEIVED BY/STORED IN  
*Kevin Patterson*  
DATE/TIME: 10/17/07

RELINQUISHED BY/REMOVED FROM  
*Kevin Patterson*  
DATE/TIME: 10/17/07  
RECEIVED BY/STORED IN  
*Kevin Patterson*  
DATE/TIME: 10/17/07

RELINQUISHED BY/REMOVED FROM  
*Kevin Patterson*  
DATE/TIME: 10/17/07  
RECEIVED BY/STORED IN  
*Kevin Patterson*  
DATE/TIME: 10/17/07

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*Kevin Patterson*  
DATE/TIME: 10/17/07  
RECEIVED BY/STORED IN  
*Kevin Patterson*  
DATE/TIME: 10/17/07

RELINQUISHED BY/REMOVED FROM  
*Kevin Patterson*  
DATE/TIME: 10/17/07  
RECEIVED BY/STORED IN  
*Kevin Patterson*  
DATE/TIME: 10/17/07

(1) Density: Particle Size (Hydrometer) - D422; Saturated Hydraulic Conductivity; Soil Cation Exchange Capacity - 9080; Generic Testing; SPECIAL STUDIES (NO CAS) KD - Batch;

**TITLE**

**DISPOSED BY**

**DATE/TIME**

**COLLECTOR** Fluor Hanford  
**NCO Sampler** D. E. PARCHEN  
**SAMPLING LOCATION** 273.5  
**CS852, I-13**  
**ICE CHEST NO.**  
**SHIPPED TO** PNNL Building 325  
**COMPANY CONTACT** Trent, SJ 373-5869  
**PROJECT COORDINATOR** TRENT, SJ  
**PROJECT DESIGNATION** 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
**FIELD LOGBOOK NO.** 123262ES10  
**COA**  
**OFFSITE PROPERTY NO.** HNL-20-575-2  
**PROJECT PRICE CODE** 8N  
**SAF NO.** F07-069  
**AIR QUALITY**  
**METHOD OF SHIPMENT** GOVERNMENT VEHICLE  
**DATE** 45 Days / 45 Days  
**BILL OF LADING/AIR BILL NO.** N/A

**MATRIX\*** POSSIBLE SAMPLE HAZARDS/ REMARKS  
 A=Air Contains Radioactive Material at concentrations  
 DL=Drum Liquids that are not regulated for transportation per 49  
 DS=Drum CFR but are not releasable per DOE Order  
 Solids 5400.5 (1990/1993)  
 L=Liquid  
 O=Oil  
 S=Soil  
 SE=Sediment  
 T=Tissue  
 V=Vegetation  
 W=Water  
 WI=Wipe  
 X=Other

SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	PRESERVATION	TYPE OF CONTAINER	NO. OF CONTAINER(S)	VOLUME
		None	G/P	1	1L
		None	Moisture Resistant Cont	1	200g

**SAMPLE NO.** B1PN08 **MATRIX\*** SOIL **SAMPLE DATE** 10/12/07 **SAMPLE TIME** 1345

CHAIN OF POSSESSION	SIGN/ PRINT NAMES	DATE/TIME	DATE/TIME	SPECIAL INSTRUCTIONS
RELINQUISHED BY/REMOVED FROM Fluor Hanford	RECEIVED BY/STORED IN MA 745 RFT	DATE/TIME 10-12-07	DATE/TIME 10-12-07	<b>SPECIAL INSTRUCTIONS</b> (1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 60108 (TAL); ICP Metals - 6020 (TAL); 310.1 ALKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;
RELINQUISHED BY/REMOVED FROM D.E. PARCHEN	RECEIVED BY/STORED IN Kevin Patterson	DATE/TIME 10/17/07 0650	DATE/TIME 10/17/07 0650	
RELINQUISHED BY/REMOVED FROM Fluor Hanford	RECEIVED BY/STORED IN Kevin Patterson	DATE/TIME OCT 17 2007 0815	DATE/TIME OCT 17 2007 0815	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	DATE/TIME	DATE/TIME	
RELINQUISHED BY/REMOVED FROM	RECEIVED BY/STORED IN	DATE/TIME	DATE/TIME	

**RECEIVED BY** MA 745 RFT  
**DATE/TIME** 10-12-07  
**RECEIVED BY** Kevin Patterson  
**DATE/TIME** 10/17/07 0650  
**RECEIVED BY** Kevin Patterson  
**DATE/TIME** OCT 17 2007 0815

COLLECTOR Fluor Hanford  
NGO Sampler D. E. PARCHEN

COMPANY CONTACT  
Trent, SJ

TELEPHONE NO.  
373-5869

PROJECT COORDINATOR  
Trent, SJ

PRICE CODE 8N

DATA TURNAROUND  
45 Days / 45 Days

SAMPLING LOCATION  
C5852, I-14  
ICE CHEST NO. 0751

PROJECT DESIGNATION  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
FIELD LOGBOOK NO. HALP-R-575-2

SAF NO.  
F07-069

METHOD OF SHIPMENT  
GOVERNMENT VEHICLE

SHIPPED TO  
PNNL Building 325

OFFSITE PROPERTY NO.  
N/A

BILL OF LADING/AIR BILL NO.  
N/A

MATRIX\*

POSSIBLE SAMPLE HAZARDS/ REMARKS

PRESERVATION

None

None

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

TYPE OF CONTAINER

G/P

Moisture  
Resistant Cont

NO. OF CONTAINERS)

1

1

VOLUME

1L

200g

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS

SEE ITEM (1) IN  
SPECIAL INSTRUCTIONS  
Moisture  
Content - D2216;

SAMPLE NO.

MATRIX\*

SAMPLE DATE SAMPLE TIME

B1PN09

SOIL

10/12/07 1435

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM  
D. PARCHE D. E. PARCHEN  
RELINQUISHED BY/REMOVED FROM  
Kevin Patterson  
RELINQUISHED BY/REMOVED FROM  
Kevin Patterson

DATE/TIME  
10-12-07  
10/17/07 0850  
OCT 17 2007 0855

RECEIVED BY/STORED IN  
MO 745 RPA  
RECEIVED BY/STORED IN  
Kevin Patterson  
RECEIVED BY/STORED IN  
Kevin Patterson

DATE/TIME  
10-12-07  
10/17/07 0850  
OCT 17 2007 0855

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS  
{Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP  
Metals - 6020 (TAL); 310.1 ALKALINITY; Alkalinity (1); IC Anions - 300.0; TIC -  
415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) -  
9045;

RELINQUISHED BY/REMOVED FROM  
RELINQUISHED BY/REMOVED FROM  
RELINQUISHED BY/REMOVED FROM

DATE/TIME  
DATE/TIME  
DATE/TIME

RECEIVED BY/STORED IN  
RECEIVED BY/STORED IN  
RECEIVED BY/STORED IN

DATE/TIME  
DATE/TIME  
DATE/TIME

LABORATORY RECEIVED BY  
SECTION  
FINAL SAMPLE DISPOSAL METHOD

TITLE  
DISPOSED BY  
DATE/TIME



**COLLECTOR** Kevin Patterson  
 NCO Sampler Fluor Hanford  
**SAMPLING LOCATION** 279.S  
 C5852.1-16  
**ICE CHEST NO.**

**SHIPPED TO** PNNL Building 325  
**COMPANY CONTACT** Trent, SJ  
**TELEPHONE NO.** 373-5869  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**DATA TURNAROUND** 45 Days / 45 Days

**MATRIX\*** POSSIBLE SAMPLE HAZARDS/ REMARKS  
 A=Air Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)  
 DL=Drum  
 Liquids  
 DS=Drum  
 Solids  
 L=Liquid  
 O=Oil  
 S=Soil  
 SE=Sediment  
 T=Tissue  
 V=Vegetation  
 W=Water  
 WI=Wipe  
 X=Other

**PRELIMINARY ANALYSIS**  
 PRESERVATION None None  
 TYPE OF CONTAINER G/P Moisture Resistant Cont  
 NO. OF CONTAINERS 1 1  
 VOLUME 1L 200g  
 SEE ITEM (1) IN SPECIAL INSTRUCTIONS  
 Moisture Content - D2216:

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1P111	SOIL	10/15/07	0810

**CHAIN OF POSSESSION**  
 SIGN/ PRINT NAMES

**REMOVED FROM** Fluor Hanford  
 RECEIVED BY/STORED IN Kevin Patterson  
 DATE/TIME 10-15-07  
**REMOVED FROM** Kevin Patterson  
 RECEIVED BY/STORED IN Kevin Patterson  
 DATE/TIME OCT 17 2007 0650  
**REMOVED FROM** Kevin Patterson  
 RECEIVED BY/STORED IN Kevin Patterson  
 DATE/TIME OCT 17 2007 0835

**RELINQUISHED BY/REMOVED FROM**  
 DATE/TIME  
 RECEIVED BY/STORED IN  
 DATE/TIME

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

**SPECIAL INSTRUCTIONS**

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1 ALKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

2282





**COLLECTOR**  
NCO Sampler

**COMPANY CONTACT**  
Trent, SJ

**TELEPHONE NO.**  
373-5869

**PROJECT COORDINATOR**  
TRENT, SJ

**PRICE CODE** 8N

**DATA TURNAROUND**  
45 Days / 45 Days

**SAMPLING LOCATION**

**PROJECT DESIGNATION**

200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

**SAF NO.**  
F07-069

**AIR QUALITY**

**ICE CHEST NO.**

**FIELD LOGBOOK NO.**

**ACTUAL SAMPLE DEPTH**

**COA**  
12326ES10

**METHOD OF SHIPMENT**  
GOVERNMENT VEHICLE

**SHIPPED TO**

**OFFSITE PROPERTY NO.**

N/A

**BILL OF LADING/AIR BILL NO.**  
N/A

PNNL Building 325

**MATRIX\***

**PRESERVATION**

None

None

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

**TYPE OF CONTAINER**

G/P

Moisture Resistant Cont

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

**NO. OF CONTAINER(S)**

1

1

**VOLUME**

1L

200g

**SPECIAL HANDLING AND/OR STORAGE**

**SAMPLE ANALYSIS**

SEE ITEM (1) IN SPECIAL INSTRUCTIONS  
Moisture Content - D2216;

**SAMPLE NO.**

**MATRIX\***

**SAMPLE DATE** **SAMPLE TIME**

B1R0Y7

SOIL

10/13/07 1500

**CHAIN OF POSSESSION**

**SIGN/ PRINT NAMES**

**SPECIAL INSTRUCTIONS**

RELINQUISHED BY/REMOVED FROM  
Fluor Hanford  
REMOVED FROM  
OCT 17 2007  
RECEIVED BY/STORED IN  
Kevin Patterson  
RECEIVED BY/STORED IN  
OCT 17 2007

RELINQUISHED BY/REMOVED FROM  
Fluor Hanford  
REMOVED FROM  
OCT 17 2007  
RECEIVED BY/STORED IN  
Kevin Patterson  
RECEIVED BY/STORED IN  
OCT 17 2007

RELINQUISHED BY/REMOVED FROM  
Fluor Hanford  
REMOVED FROM  
OCT 17 2007  
RECEIVED BY/STORED IN  
Kevin Patterson  
RECEIVED BY/STORED IN  
OCT 17 2007

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129}; Tc-99 by ICPMS {Technetium-99}; Uranium by ICPMS {Uranium}; ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1 ALKALINITY; Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon}; TOC - 415.1 {Total organic carbon}; pH (Soil) - 9045;

RELINQUISHED BY/REMOVED FROM  
DATE/TIME  
RECEIVED BY/STORED IN  
DATE/TIME

LABORATORY SECTION  
RECEIVED BY

FINAL SAMPLE DISPOSITION  
DISPOSAL METHOD

TITLE

DISPOSED BY

DATE/TIME

DATE/TIME

2007

**COLLECTOR** NCO Sampler  
**COMPANY CONTACT** Trent, SJ  
**TELEPHONE NO.** 373-5869  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**DATA TURNAROUND** 45 Days / 45 Days

**SAMPLING LOCATION** C5852, I-105  
**PROJECT DESIGNATION** 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
**SAF NO.** F07-069  
**AIR QUALITY**  
**ICE CHEST NO.**  
**FIELD LOGBOOK NO.**  
**ACTUAL SAMPLE DEPTH** COA  
**METHOD OF SHIPMENT** GOVERNMENT VEHICLE

**SHIPPED TO** PNNL Building 3225  
**OFFSITE PROPERTY NO.** N/A  
**BILL OF LADING/AIR BILL NO.** N/A

**MATRIX\*** POSSIBLE SAMPLE HAZARDS/ REMARKS  
 A=Air Contains Radioactive Material at concentrations  
 DL=Drum that are not regulated for transportation per 49  
 Liquids CFR but are not releasable per DOE Order  
 DS=Drum  
 Solids 5400.5 (1990/1993)  
 L=Liquid  
 O=Oil  
 S=Soil  
 SE=Sediment  
 T= Tissue  
 V=Vegetation  
 W=Water  
 WI= Wipe  
 X=Other

NO. OF CONTAINER(S)	VOLUME	PRESERVATION	TYPE OF CONTAINER	MOISTURE RESISTANT CONT
1	1L	None	G/P	Moisture Resistant Cont
1	200g	None		

**SPECIAL HANDLING AND/OR STORAGE**  
**SAMPLE ANALYSIS**  
 SEE ITEM (1) IN SPECIAL INSTRUCTIONS  
 Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	INITIALS
B1R0Y8	SOIL	10/15/07	1515	✓

**CHAIN OF POSSESSION**

**RELINQUISHED BY/REMOVED FROM** Fluor Hanford  
**DATE/TIME** 10-15-07  
**RECEIVED BY/STORED IN** M3 745 R A F H  
**DATE/TIME** 10-15-07  
**RELINQUISHED BY/REMOVED FROM** *Handwritten signature*  
**DATE/TIME** OCT 17 2007  
**RECEIVED BY/STORED IN** Kevin Patterson  
**DATE/TIME** OCT 17 2007  
**RELINQUISHED BY/REMOVED FROM** *Handwritten signature*  
**DATE/TIME** OCT 17 2007  
**RECEIVED BY/STORED IN** *Handwritten signature*  
**DATE/TIME** OCT 17 2007

**SPECIAL INSTRUCTIONS**

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1 ALKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

**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**  
**DISPOSED BY**  
**DISPOSAL METHOD**  
**DATE/TIME**

2295

**COLLECTOR** NCO Sampler  
**COMPANY CONTACT** Trent, SJ  
**TELEPHONE NO.** 373-5869  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**DATA TURNAROUND** 45 Days / 45 Days

**SAMPLING LOCATION** C5852, I-106  
**PROJECT DESIGNATION** 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
**SAF NO.** F07-069  
**AIR QUALITY**

**ICE CHEST NO.** 289.5  
**FIELD LOGBOOK NO.**  
**ACTUAL SAMPLE DEPTH** COA  
**METHOD OF SHIPMENT** GOVERNMENT VEHICLE

**SHIPPED TO** PNNL Building 325  
**OFFSITE PROPERTY NO.** N/A  
**BILL OF LADING/AIR BILL NO.** N/A

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

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

NO. OF CONTAINERS(S)	VOLUME	PRESERVATION	TYPE OF CONTAINER	NO. OF CONTAINERS(S)	VOLUME
1	1L	None	G/P Moisture Resistant Cont	1	200g

**SPECIAL HANDLING AND/OR STORAGE**  
 SEE ITEM (1) IN SPECIAL INSTRUCTIONS  
 Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	INITIALS
B1R0Y9	SOIL	10/16/07	0855	✓

**CHAIN OF POSSESSION**  
**SIGN/ PRINT NAMES**  
**SPECIAL INSTRUCTIONS**

RELINQUISHED BY/REMOVED FROM  
 RECEIVED BY/STORED IN  
 DATE/TIME  
 10-16-07  
 MO 745 Red A  
 RECEIVED BY/STORED IN  
 DATE/TIME  
 10-16-07

RELINQUISHED BY/REMOVED FROM  
 RECEIVED BY/STORED IN  
 DATE/TIME  
 10/17/07 0650  
 Kevin Patterson  
 RECEIVED BY/STORED IN  
 DATE/TIME  
 OCT 17 2007 0855

RELINQUISHED BY/REMOVED FROM  
 RECEIVED BY/STORED IN  
 DATE/TIME

RELINQUISHED BY/REMOVED FROM  
 RECEIVED BY/STORED IN  
 DATE/TIME

RELINQUISHED BY/REMOVED FROM  
 RECEIVED BY/STORED IN  
 DATE/TIME

**LABORATORY SECTION** RECEIVED BY  
**TITLE**  
**DATE/TIME**

**FINAL SAMPLE DISPOSITION** DISPOSAL METHOD  
**DATE/TIME**

COLLECTOR  
NCO Sampler

COMPANY CONTACT  
Trent, SJ

TELEPHONE NO.  
373-5869

PROJECT COORDINATOR  
TRENT, SJ

PRICE CODE  
8N

DATA  
TURNAROUND  
45 Days / 45 Days

SAMPLING LOCATION  
C5852, 1-107  
ICE CHEST NO. 292

PROJECT DESIGNATION  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

FIELD LOGBOOK NO.  
ACTUAL SAMPLE DEPTH

SAF NO.  
F07-069

AIR QUALITY  
METHOD OF SHIPMENT  
GOVERNMENT VEHICLE

SHIPPED TO  
PNNL Building 325

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=Truss  
V=Vegetation  
W=Water  
WI=Wipe  
X=Other

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

PRESERVATION  
None  
None  
Moisture Resistant Cont

NO. OF CONTAINER(S)  
1  
1

VOLUME  
1L  
200g

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS  
SEE ITEM (1) IN SPECIAL INSTRUCTIONS  
Moisture Content - 02216;

SAMPLE NO. B1R100  
MATRIX\* SOIL

SAMPLE DATE 10/16/07  
SAMPLE TIME 0942

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

023474

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM  
D. Parker  
DATE/TIME 10-16-07  
RECEIVED BY/STORED IN  
W0745 R274  
DATE/TIME 10-16-08  
(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1 ALKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

RELINQUISHED BY/REMOVED FROM  
Kevin Patterson  
DATE/TIME OCT 17 2007 0855  
RECEIVED BY/STORED IN  
Fluor Hanford  
DATE/TIME OCT 17 2007 0855

RELINQUISHED BY/REMOVED FROM  
LABORATORY SECTION  
RECEIVED BY  
DISPOSAL METHOD  
DATE/TIME

**COLLECTOR**  
NCO Sampler

**COMPANY CONTACT**  
Trent, SJ

**TELEPHONE NO.**  
373-5869

**PROJECT COORDINATOR**  
TRENT, SJ

**PRICE CODE** 8N

**DATA TURNAROUND**  
45 Days / 45 Days

**SAMPLING LOCATION**  
C5852, 1-18  
**ICE CHEST NO.**

**PROJECT DESIGNATION**  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

**FIELD LOGBOOK NO.**  
123262ES10

**SAF NO.** F07-069  
**METHOD OF SHIPMENT**  
GOVERNMENT VEHICLE

**AIR QUALITY**

**BILL OF LADING/AIR BILL NO.**  
N/A

**SHIPPED TO**  
PNNL Building 325

**OFFSITE PROPERTY NO.**  
N/A

**BILL OF LADING/AIR BILL NO.**  
N/A

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

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

**PRESERVATION** None  
**TYPE OF CONTAINER** G/P  
**NO. OF CONTAINER(S)** 1  
**VOLUME** 1L  
**Moisture Resistant Cont** 200g

**SPECIAL HANDLING AND/OR STORAGE**

**SAMPLE ANALYSIS**

SEE ITEM (1) JM  
SPECIAL INSTRUCTIONS  
Moisture Content - D2216;

**SAMPLE NO.** B1P12  
**MATRIX\*** SOIL  
**SAMPLE DATE** 10/18/07  
**SAMPLE TIME** 0800

✓ ✓

**CHAIN OF POSSESSION**

**SIGN/ PRINT NAMES**

**SPECIAL INSTRUCTIONS**

RELINQUISHED BY/REMOVED FROM  
*10/18/07 1547*  
RELINQUISHED BY/REMOVED FROM  
*10/24/07 0200*  
RELINQUISHED BY/REMOVED FROM  
*0830*  
RELINQUISHED BY/REMOVED FROM

RECEIVED BY/STORED IN  
*10/18/07 1547*  
RECEIVED BY/STORED IN  
*10/24/07 0200*  
RECEIVED BY/STORED IN  
*0830*  
RECEIVED BY/STORED IN

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1\_AKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

RELINQUISHED BY/REMOVED FROM  
RELINQUISHED BY/REMOVED FROM  
RELINQUISHED BY/REMOVED FROM

RECEIVED BY/STORED IN  
RECEIVED BY/STORED IN  
RECEIVED BY/STORED IN

TITLE  
DATE/TIME

LABORATORY SECTION  
RECEIVED BY  
FINAL SAMPLE DISPOSITION  
DISPOSAL METHOD

TITLE  
DATE/TIME  
DISPOSED BY  
DATE/TIME

COLLECTOR  
NCO Sampler  
SAMPLING LOCATION  
C5852, 1-19  
ICE CHEST NO. 297

COMPANY CONTACT  
Trent, SJ  
PROJECT DESIGNATION  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

TELEPHONE NO.  
373-5869

PROJECT COORDINATOR  
TRENT, SJ  
SAF NO.  
F07-069

PRICE CODE  
8N  
AIR QUALITY

DATA  
TURNAROUND  
45 Days /  
45 Days

SHIPPED TO  
PNNL Building 325

FIELD LOGBOOK NO.  
HNF-01-0575-2

COA  
123262ES10

METHOD OF SHIPMENT  
GOVERNMENT VEHICLE  
BILL OF LADING/AIR BILL NO.  
N/A

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

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

PRESERVATION  
None  
None  
TYPE OF CONTAINER  
G/P  
Moisture Resistant Cont  
NO. OF CONTAINER(S)  
1 1  
VOLUME  
1L 200g

SPECIAL HANDLING AND/OR STORAGE  
SAMPLE ANALYSIS  
SEE ITEM (1) IN SPECIAL INSTRUCTIONS  
Moisture Content - 02216;

SAMPLE NO. B1PN13 SOIL MATRIX\*  
10/15/07 0835 V V

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM  
K1. *Kingman/ant*  
DATE/TIME 10/18/07 15:41  
RECEIVED BY/STORED IN  
R Mo. 745  
DATE/TIME 10/18/07 15:41  
RELINQUISHED BY/REMOVED FROM  
MO-745 / MO-745 N-24-07  
DATE/TIME 0700  
RECEIVED BY/STORED IN  
T. *Bois/Agua*  
DATE/TIME 10-24-07  
RELINQUISHED BY/REMOVED FROM  
J.S. *Alde/Agua* N-24-07  
DATE/TIME 0830  
RECEIVED BY/STORED IN  
M. *Volontad/M. Vallo*  
DATE/TIME 10/24/07 0830

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1 ALKALINITY; Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

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  
DISPOSAL METHOD  
FINAL SAMPLE DISPOSITION

TITLE  
DATE/TIME  
DISPOSED BY  
DATE/TIME

**COLLECTOR** NCO Sampler  
**SAMPLING LOCATION** C5852, I-20  
**ICE CHEST NO.** 300  
**SHIPPED TO** PNNL Building 325  
**COMPANY CONTACT** Trent, SJ  
**TELEPHONE NO.** 373-5869  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**DATA TURNAROUND** 45 Days / 45 Days  
**PROJECT DESIGNATION** 200-BP-5 OU Characterization for O Well - Geochemical Modeling Parameter  
**FIELD LOGBOOK NO.** HANF-N-575-2  
**COA** 12326ZE510  
**SAF NO.** F07-069  
**METHOD OF SHIPMENT** GOVERNMENT VEHICLE  
**BILL OF LADING/AIR BILL NO.** N/A

**MATRIX\*** POSSIBLE SAMPLE HAZARDS/ REMARKS  
 A=Air Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)  
 L=Liquid  
 O=Oil  
 S=Soil  
 SE=Sediment  
 T=Tissue  
 V=Vegetation  
 W=Water  
 WI=Wipe  
 X=Other

MATRIX*	PRESERVATION	TYPE OF CONTAINER	NO. OF CONTAINER(S)	VOLUME	SAMPLE ANALYSIS
L	None	G/P	1	1L	SEE ITEM (1) IN SPECIAL INSTRUCTIONS
O	None	Moisture Resistant Cont	1	200g	Moisture Content - 02216

**SPECIAL HANDLING AND/OR STORAGE**  
**SAMPLE ANALYSIS**

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1PN14	SOIL	10/18/07	0845

**CHAIN OF POSSESSION**  
**SIGN/ PRINT NAMES**  
**SPECIAL INSTRUCTIONS**  
 (1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1 ALKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

**RELINQUISHED BY/REMOVED FROM** KA Joubert  
**DATE/TIME** 10/18/07 15:40  
**RECEIVED BY/STORED IN** R MC-745  
**DATE/TIME** 10/18/07 15:40  
**RELINQUISHED BY/REMOVED FROM** MS-745/REF #1  
**DATE/TIME** 10-24-07 0700  
**RECEIVED BY/STORED IN** J-Palby/gsa  
**DATE/TIME** 10-24-07 0700  
**RELINQUISHED BY/REMOVED FROM** J-Palby/gsa  
**DATE/TIME** 10-24-07 0830  
**RECEIVED BY/STORED IN** W. Valenta/M. Valdo  
**DATE/TIME** 10/24/07 0830

**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  
**FINAL SAMPLE DISPOSITION** DISPOSAL METHOD  
**TITLE**  
**DATE/TIME**  
**DISPOSED BY**  
**DATE/TIME**

**COLLECTOR** NCO Sampler  
**COMPANY CONTACT** Trent, SJ  
**TELEPHONE NO.** 373-5869  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**DATA TURNAROUND** 45 Days / 45 Days

**SAMPLING LOCATION** CS852, 1-21  
**PROJECT DESIGNATION** 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
**FIELD LOGBOOK NO.** COA  
**123262ES10**  
**SAF NO.** F07-069  
**METHOD OF SHIPMENT** GOVERNMENT VEHICLE  
**ICE CHEST NO.** 302  
**OFFSITE PROPERTY NO.** HNF-N-575-2  
**BILL OF LADING/AIR BILL NO.** N/A

**SHIPPED TO** PNNL Building 325  
**PRESERVATION** None  
**TYPE OF CONTAINER** G/P  
**Moisture Resistant Cont**  
**NO. OF CONTAINER(S)** 1  
**VOLUME** 1L  
**200g**

**MATRIX\*** POSSIBLE SAMPLE HAZARDS/ REMARKS  
 A=Air Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)  
 D=Drum  
 L=Liquid  
 O=Oil  
 S=Soil  
 SE=Sediment  
 T=Tissue  
 V=Vegetation  
 W=Water  
 WI=Wipe  
 X=Other

**SPECIAL HANDLING AND/OR STORAGE**  
**SAMPLE ANALYSIS**  
 SEE ITEM (1) IN SPECIAL INSTRUCTIONS  
 Moisture Comment - D2216; INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	INITIALS	DATE/TIME
B1PN15	SOIL	10/15/07	0930	✓	10/15/07 1545

**CHAIN OF POSSESSION**  
**SIGN/ PRINT NAMES**  
**SPECIAL INSTRUCTIONS**  
 (1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tr-99 by ICPMS {Technetium-99}; Uranium by ICPMS {Uranium}; ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1\_AKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

**RELINQUISHED BY/REMOVED FROM** RECEIVED BY/STORED IN  
*CS852* RECEIVED BY/STORED IN  
 DATE/TIME: 10/15/07 1545  
**RELINQUISHED BY/REMOVED FROM** RECEIVED BY/STORED IN  
 DATE/TIME: 0700  
*MS 705/ DEF #1* RECEIVED BY/STORED IN  
 DATE/TIME: 10-24-07  
**RELINQUISHED BY/REMOVED FROM** RECEIVED BY/STORED IN  
 DATE/TIME: 0830  
*J.S. HALE/ASST* RECEIVED BY/STORED IN  
 DATE/TIME: 10/24/07 0830

**RELINQUISHED BY/REMOVED FROM** RECEIVED BY/STORED IN  
 DATE/TIME: DATE/TIME  
**RELINQUISHED BY/REMOVED FROM** RECEIVED BY/STORED IN  
 DATE/TIME: DATE/TIME  
**RELINQUISHED BY/REMOVED FROM** RECEIVED BY/STORED IN  
 DATE/TIME: DATE/TIME

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

04 20

**COLLECTOR**  
NCO Sampler

**COMPANY CONTACT**  
Trent, SJ

**TELEPHONE NO.**  
373-5869

**PROJECT COORDINATOR**  
Trent, SJ

**PRICE CODE** 8N

**DATA TURNAROUND**  
45 Days / 45 Days

**SAMPLING LOCATION**  
CS852, 1-22  
ICE CHEST NO. 302.2 - 304.7

**PROJECT DESIGNATION**  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

**SAF NO.**  
F07-069

**AIR QUALITY**

**METHOD OF SHIPMENT**  
GOVERNMENT VEHICLE

**SHIPPED TO**  
PNNL Building 325

**FIELD LOGBOOK NO.**  
14N/E-A-575-2

**COA**  
12326ZES10

**BILL OF LADING/AIR BILL NO.**  
N/A

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

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

**PRESERVATION** None

**TYPE OF CONTAINER** Split Spoon Liner

**NO. OF CONTAINER(S)** 2

**VOLUME** 1000g

**SPECIAL HANDLING AND/OR STORAGE**

**SAMPLE ANALYSIS** SEE ITEM (1) IN SPECIAL INSTRUCTIONS

**SAMPLE NO.** B1PMX9

**MATRIX\*** SOIL

**SAMPLE DATE** 10/18/07

**SAMPLE TIME** 1100

**REMARKS** ✓

**CHAIN OF POSSESSION**

**SIGN/ PRINT NAMES**

**SPECIAL INSTRUCTIONS**

RELINQUISHED BY/REMOVED FROM  
*10/18/07 15:40* RECEIVED BY/STORED IN  
*no 345 4 n/p for* DATE/TIME  
*10/18/07 15:40*

RELINQUISHED BY/REMOVED FROM  
*10/24/07 0700* RECEIVED BY/STORED IN  
*J. Wade / SSA* DATE/TIME  
*10/24/07 0700*

RELINQUISHED BY/REMOVED FROM  
*10/24/07* RECEIVED BY/STORED IN  
*M. Valero / M. Valero* DATE/TIME  
*10/24/07 0830*

RELINQUISHED BY/REMOVED FROM  
DATE/TIME

RECEIVED BY/STORED IN  
DATE/TIME

RELINQUISHED BY/REMOVED FROM  
DATE/TIME

RECEIVED BY/STORED IN  
DATE/TIME

(1) Density; Particle Size (Hydrometer) - D422; Saturated Hydraulic Conductivity; Soil Cation Exchange Capacity - 9080; Generic Testing; SPECIAL STUDIES (No CAS) KD - Batch;

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

FINAL SAMPLE DISPOSITION  
DISPOSAL METHOD

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

FINAL SAMPLE DISPOSITION  
DISPOSAL METHOD

TITLE

DATE/TIME

DISPOSED BY

DATE/TIME



**COLLECTOR** NCO Sampler  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**DATA TURNAROUND** 45 Days / 45 Days

**SAMPLING LOCATION** C5852, 1-26 306.S  
**PROJECT DESIGNATION** 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
**FIELD LOGBOOK NO.** HNF-N-575-2  
**COA** 123262ES10  
**SAF NO.** F07-069  
**METHOD OF SHIPMENT** GOVERNMENT VEHICLE  
**BILL OF LADING/AIR BILL NO.** N/A

**SHIPPED TO** PNNL Building 325  
**OFFSITE PROPERTY NO.** N/A

**MATRIX\*** POSSIBLE SAMPLE HAZARDS/ REMARKS  
 A=Air Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)  
 DL=Drum  
 L=Liquid  
 DS=Drum  
 Solids  
 L=Liquid  
 O=Oil  
 S=Soil  
 SE=Sediment  
 T=Tissue  
 V=Vegetation  
 W=Water  
 WI=Wipe  
 X=Other

**PRESERVATION** None  
**TYPE OF CONTAINER** G/P  
**NO. OF CONTAINER(S)** 1  
**VOLUME** 1L  
**Moisture Resistant Cont** 200g

**SPECIAL HANDLING AND/OR STORAGE** SEE ITEM (1) IN SPECIAL INSTRUCTIONS  
**SAMPLE ANALYSIS** Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	✓	✓
B1PN17	SOIL	10/18/07	1420	✓	✓

**CHAIN OF POSSESSION** SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM: 10. FOUNG... RECEIVED BY/STORED IN: R M... REF #1  
 DATE/TIME: 10/18/07 15:45  
 DATE/TIME: 10/18/07 15:45  
 RELINQUISHED BY/REMOVED FROM: M... RECEIVED BY/STORED IN: J.S. M...  
 DATE/TIME: 10/24/07 0830  
 DATE/TIME: 10/24/07 0700  
 RELINQUISHED BY/REMOVED FROM: J.S. M... RECEIVED BY/STORED IN: M. Valdes  
 DATE/TIME: 10/24/07 0830  
 DATE/TIME: 10/24/07 0830

**SPECIAL INSTRUCTIONS**  
 (1) Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1 ALKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon}; TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

**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  
**FINAL SAMPLE DISPOSITION** DISPOSAL METHOD DATE/TIME

0 11 28

**COLLECTOR** NCO Sampler  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**DATA TURNAROUND** 45 Days / 45 Days

**SAMPLING LOCATION** CS852, 1-27  
**ICE CHEST NO.** 310.5  
**PROJECT DESIGNATION** 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
**FIELD LOGBOOK NO.** HNF-N-575-2  
**COA** 123262ES10  
**METHOD OF SHIPMENT** GOVERNMENT VEHICLE  
**BILL OF LADING/AIR BILL NO.** N/A

**SHIPPED TO** PNNL Building 325  
**PRESERVATION** None  
**TYPE OF CONTAINER** G/P  
**NO. OF CONTAINER(S)** 1  
**VOLUME** 1L  
**MOISTURE RESISTANT CONT** 200g

**MATRIX\*** POSSIBLE SAMPLE HAZARDS/ REMARKS  
 A=Air Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)  
 DL=Drum  
 DS=Drum  
 L=Liquid  
 O=Oil  
 SE=Sediment  
 T=Tissue  
 V=Vegetation  
 W=Water  
 WI=Wipe  
 X=Other

**SPECIAL HANDLING AND/OR STORAGE** SPECIAL ANALYSIS  
 SEE ITEM (1) IN Moisture Content - D2216; SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	✓	✓
B1PN18	SOIL	10/19/07	1400	✓	✓

**CHAIN OF POSSESSION** SIGN/ PRINT NAMES

RELINQUISHED BY/REMOVED FROM *K. Young Don/Don* DATE/TIME *10-19-07 1615* RECEIVED BY/STORED IN *PM. 745 REF #1* DATE/TIME *10-19-07 1615*  
 RELINQUISHED BY/REMOVED FROM *MU-745/REF.#1* DATE/TIME *10-24-07 0700* RECEIVED BY/STORED IN *J.S. Pope/John* DATE/TIME *10-24-07 0700*  
 RELINQUISHED BY/REMOVED FROM *J.S. Pope/John* DATE/TIME *10-24-07 0830* RECEIVED BY/STORED IN *M. Valverde/IM. Valido* DATE/TIME *10/24/07 0830*

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  
 FINAL SAMPLE DISPOSITION DISPOSAL METHOD DATE/TIME

**SPECIAL INSTRUCTIONS**

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1\_AKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

7/1/09

**COLLECTOR** NCO Sampler  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**DATA TURNAROUND** 45 Days / 45 Days

**SAMPLING LOCATION** CS852, 1-28  
**PROJECT DESIGNATION** 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
**SAF NO.** F07-069  
**AIR QUALITY**

**ICE CHEST NO.** 3114  
**FIELD LOGBOOK NO.** HNF-N-575.2  
**COA** 123262ES10  
**METHOD OF SHIPMENT** GOVERNMENT VEHICLE  
**BILL OF LADING/AIR BILL NO.** N/A

**SHIPPED TO** PNNL Building 325  
**OFFSITE PROPERTY NO.** N/A

**CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST**

**MATRIX\*** POSSIBLE SAMPLE HAZARDS/ REMARKS  
 A=Air Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)  
 DL=Drum  
 Liquids  
 DS=Drum  
 Solids  
 L=Liquid  
 O=Oil  
 S=Soil  
 SE=Sediment  
 T=Tissue  
 V=Vegetation  
 W=Water  
 WI=Wipe  
 X=Other

SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	PRESERVATION	TYPE OF CONTAINER	NO. OF CONTAINER(S)	VOLUME
	SEE ITEM (1) IN SPECIAL INSTRUCTIONS	None	G/P Moisture Resistant Cont	1	1L 200g

**SAMPLE NO.** B1PN19  
**MATRIX\*** SOIL  
**SAMPLE DATE** 10-19-07  
**SAMPLE TIME** 1950

[REDACTED]	
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**CHAIN OF POSSESSION** LOT # 023414  
 SIGN/ PRINT NAMES [Signature] N/A

**RELINQUISHED BY/REMOVED FROM** K2 Young & Stevens  
**DATE/TIME** 10-19-07/1615  
**RECEIVED BY/STORED IN** [Signature] REF #/ 10-19-07 1615  
**RELINQUISHED BY/REMOVED FROM** M6-745 / REF #1  
**DATE/TIME** 10-24-07 0700  
**RECEIVED BY/STORED IN** J.S. White / J.S.M. 10-24-07 0700  
**RELINQUISHED BY/REMOVED FROM** J.S. White / J.S.M.  
**DATE/TIME** 10-24-07 0830  
**RECEIVED BY/STORED IN** W. Valencia / M. Valle 10/24/07 0830

**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**

**FINAL SAMPLE DISPOSITION** DISPOSAL METHOD  
**DATE/TIME**

**SPECIAL INSTRUCTIONS**

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1\_AKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

**COLLECTOR** NCO Sampler  
**COMPANY CONTACT** Trent, SJ  
**TELEPHONE NO.** 373-5869  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**DATA TURNAROUND** 45 Days / 45 Days

**SAMPLING LOCATION** CS852, 1-30  
**PROJECT DESIGNATION** 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
**FIELD LOGBOOK NO.** HNF-01-575-2  
**COA** 123262ES10  
**METHOD OF SHIPMENT** GOVERNMENT VEHICLE  
**ICE CHEST NO.** 315-1  
**OFFSITE PROPERTY NO.** N/A  
**BILL OF LADING/AIR BILL NO.** N/A

**SHIPPED TO** PNNL Building 325  
**PRESERVATION** None  
**NO. OF CONTAINER(S)** 1  
**VOLUME** 1L  
**200g**

**MATRIX\*** POSSIBLE SAMPLE HAZARDS/ REMARKS  
 A=Air Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)  
 DL=Drum  
 L=Liquid  
 DS=Drum  
 Solids  
 O=Oil  
 S=Soil  
 SF=Sediment  
 T=Tissue  
 V=Vegetation  
 W=Water  
 WI=Wipe  
 X=Other

**SPECIAL HANDLING AND/OR STORAGE** SEE ITEM (1) IN Moisture Content - 02216; SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	RECEIVED BY	DATE/TIME	STORAGE
B1PN20	SOIL	10-22-07	0800	M. Vukobratovic	10-22-07 0830	X

**CHAIN OF POSSESSION** SIGN/ PRINT NAMES

**RELINQUISHED BY/REMOVED FROM** Duong/Alvin  
**DATE/TIME** 10-22-07/1300  
**RECEIVED BY/STORED IN** M. Vukobratovic #1  
**DATE/TIME** 10-22-07/1300  
**RELINQUISHED BY/REMOVED FROM** M. Vukobratovic #1  
**DATE/TIME** 10-24-07  
**RECEIVED BY/STORED IN** J.S. Pickett/Agiler  
**DATE/TIME** 10-24-07  
**RELINQUISHED BY/REMOVED FROM** J.S. Pickett/Agiler  
**DATE/TIME** 10-24-07  
**RECEIVED BY/STORED IN** M. Vukobratovic  
**DATE/TIME** 10/24/07 0830

**SPECIAL INSTRUCTIONS**

(1)Gross Alpha: Gross Beta: I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1 ALKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

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

24445

COLLECTOR NCO Sampler  
 COMPANY CONTACT Trent, SJ  
 TELEPHONE NO. 373-5869  
 PROJECT COORDINATOR TRENT, SJ  
 PRICE CODE 8N  
 DATA TURNAROUND 45 Days / 45 Days

SAMPLING LOCATION 317, S  
 CS852, 1-31  
 ICE CHEST NO.

PROJECT DESIGNATION 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
 FIELD LOGBOOK NO. HNF-W-575-2  
 COA 12326ZES10

SAF NO. F07-069  
 METHOD OF SHIPMENT GOVERNMENT VEHICLE  
 BILL OF LADING/AIR BILL NO. N/A

SHIPPED TO PNNL Building 325

OFFSITE PROPERTY NO. N/A

MATRIX\* POSSIBLE SAMPLE HAZARDS/ REMARKS

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

PRESERVATION None None

TYPE OF CONTAINER G/P Moisture Resistant Cont

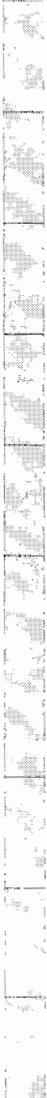
NO. OF CONTAINER(S) 1 1

VOLUME 1L 200g

SAMPLE ANALYSIS SEE ITEM (1) IN Moisture Content - D2216; SPECIAL INSTRUCTIONS

SPECIAL HANDLING AND/OR STORAGE

SAMPLE NO. B1PN21 SOIL MATRIX\*  
 DATE 10/22/07 TIME 0837



CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM D. J. ... RECEIVED BY/STORED IN M.D. ...  
 DATE/TIME 10-22-07 DATE/TIME 10-22-07  
 RELINQUISHED BY/REMOVED FROM ... RECEIVED BY/STORED IN ...  
 DATE/TIME 0700 DATE/TIME 0700  
 RELINQUISHED BY/REMOVED FROM ... RECEIVED BY/STORED IN ...  
 DATE/TIME 0830 DATE/TIME 10/24/07 0830

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129}; Tc-99 by ICPMS {Technetium-99}; Uranium by ICPMS {Uranium}; ICP Metals - 601.0B (TAL); ICP Metals - 602.0 (TAL); 310.1 ALKALINITY; Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon}; TOC - 415.1 {Total organic carbon}; pH (Soil) - 9045;

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 RECEIVED BY  
 SECTION  
 TITLE  
 FINAL SAMPLE DISPOSITION DISPOSAL METHOD

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 RECEIVED BY  
 SECTION  
 TITLE  
 FINAL SAMPLE DISPOSITION DISPOSAL METHOD



COLLECTOR  
NCO Sampler

COMPANY CONTACT  
Trent, SJ

TELEPHONE NO.  
373-5869

PROJECT COORDINATOR  
TRENT, SJ

PRICE CODE  
8N

DATA  
TURNAROUND  
45 Days / 45 Days

SAMPLING LOCATION

C5892, 1-102 287-289.5'

PROJECT DESIGNATION

200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

SAF NO.

F07-069

AIR QUALITY

METHOD OF SHIPMENT

GOVERNMENT VEHICLE

ICE CHEST NO.

2

FIELD LOGBOOK NO.

ACTUAL SAMPLE DEPTH

COA  
123419ES10

BILL OF LADING/AIR BILL NO.

N/A

SHIPPED TO

PNNL Building 325

OFFSITE PROPERTY NO.

N/A

N/A

MATRIX\*

POSSIBLE SAMPLE HAZARDS/ REMARKS

PRESERVATION

None

A=Air  
DL=Drum  
Liquids  
DS=Drum  
Solids  
5400.5 (1990/1993)

TYPE OF CONTAINER

Split Spoon  
Liner

L=Liquid  
O=Oil  
S=Soil  
SE=Sediment  
T=Tissue  
V=Vegetation  
W=Water  
WI=Wipe  
X=Other

NO. OF CONTAINERS(S)

VOLUME

1000g

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS

SEE ITEM (1) IN  
SPECIAL  
INSTRUCTIONS

SAMPLE NO.

B1R0Y6 SOIL

MATRIX\*

SAMPLE DATE SAMPLE TIME

10/16/07 0845

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

(1) Density; Particle Size (Hydrometer) - D422; Saturated Hydraulic Conductivity; Soil Cation Exchange Capacity - 9080; Generic Testing; SPECIAL STUDIES (No CAS); KD-Batch;

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

LABORATORY SECTION

RECEIVED BY

RECEIVED BY/STORED IN

DATE/TIME

TITLE

DATE/TIME

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

DISPOSED BY

DATE/TIME

Line # 4 empty

COLLECTOR: NCO Sampler  
 COMPANY CONTACT: Trent, SJ  
 TELEPHONE NO.: 373-5869  
 PROJECT COORDINATOR: TRENT, SJ  
 PRICE CODE: 8N  
 DATA TURNAROUND: 45 Days / 45 Days

SAMPLING LOCATION: C5852, 1-108  
 PROJECT DESIGNATION: 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
 FIELD LOGBOOK NO.:  
 ACTUAL SAMPLE DEPTH: COA  
 SAF NO.: F07-069  
 METHOD OF SHIPMENT: GOVERNMENT VEHICLE

ICE CHEST NO.:  
 OFFSITE PROPERTY NO.: N/A  
 BILL OF LADING/AIR BILL NO.: N/A

SHIPPED TO: PNNL Building 325

MATRIX\*: POSSIBLE SAMPLE HAZARDS/ REMARKS  
 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

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

PRESERVATION: None  
 TYPE OF CONTAINER: Split Spoon Liner  
 NO. OF CONTAINER(S): 4  
 VOLUME: 1000g

SPECIAL HANDLING AND/OR STORAGE: SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1R101	SOIL	10/16/07	1000

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SIGN/ PRINT NAMES	SPECIAL INSTRUCTIONS
D. Brown	10-16-07	NO JUS R.J. V	10-16-07		(1) Density; Particle Size (Hydrometer) - D422; Saturated Hydraulic Conductivity; Soil Cation Exchange Capacity - 9080; Generic Testing; SPECIAL STUDIES {No CAS} KD - Batch;
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME		
Kevin Patterson	OCT 17 2007 08:55	RECEIVED BY/STORED IN	OCT 17 2007 06:52		
Fluor Hanford	OCT 17 2007 08:55	RECEIVED BY/STORED IN	OCT 17 2007 08:55		
DeVense Smith	12/3/07	RECEIVED BY/STORED IN	12/03/07 12:57		

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	TITLE	DISPOSED BY	DATE/TIME
RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME			
LABORATORY SECTION	RECEIVED BY					
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD					

**COLLECTOR** NCO Sampler  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**DATA TURNAROUND** 45 Days / 45 Days

**SAMPLING LOCATION** CS852, 1-23  
**PROJECT DESIGNATION** 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
**FIELD LOGBOOK NO.** HNF-10-575-2  
**OFFSITE PROPERTY NO.** N/A  
**SAF NO.** F07-069  
**METHOD OF SHIPMENT** GOVERNMENT VEHICLE  
**BILL OF LADING/AIR BILL NO.** N/A

**ICE CHEST NO.** CS852, 1-23  
**COMPANY CONTACT** Trent, SJ  
**TELEPHONE NO.** 373-5869  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**DATA TURNAROUND** 45 Days / 45 Days

**SHIPPED TO** PNNL Building 325  
**PRESERVATION** None  
**TYPE OF CONTAINER** Split Spoon Liner  
**NO. OF CONTAINERS(S)** 4  
**VOLUME** 1000g

**MATRIX\*** A=Air, DL=Drum, Liquids, DS=Drum, Solids, L=Liquid, O=Oil, S=Soil, SE=Settlement, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other  
**POSSIBLE SAMPLE HAZARDS/ REMARKS** Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)

**SPECIAL HANDLING AND/OR STORAGE** SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	INITIALS
B1PMY4	SOIL	10/18/07	1400	✓

**CHAIN OF POSSESSION**

RELINQUISHED BY/REMOVED FROM	DATE/TIME	RECEIVED BY/STORED IN	DATE/TIME	SPECIAL INSTRUCTIONS
KJ-Young	10/19/07 15:33	R Mo-745 R 2F #1	10/19/07 15:35	(1) Density, Particle Size (Hydrometer) - D422; Saturated Hydraulic Conductivity; Soil Cation Exchange Capacity - 9080; Generic Testing; SPECIAL STUDIES (No CAS), KD-Batch;
MU-745/REF #1	10-24-07 0700	J. P. Moore	10/24/07 0830	
J. P. Moore	10-24-07 0830	W. Volant	10/24/07 0830	
Demetri Smith	12/3/07 12:30	Demetri Smith	12/03/07 12:57	

**RELINQUISHED BY/REMOVED FROM** DATE/TIME  
**RECEIVED BY/STORED IN** DATE/TIME

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

COLLECTOR  
NCO Sampler

COMPANY CONTACT  
Trent, SJ

TELEPHONE NO.  
373-5869

PROJECT COORDINATOR  
TRENT, SJ

PRICE CODE  
8N

DATA  
TURNAROUND

SAMPLING LOCATION

311.4 -> 313.9

PROJECT DESIGNATION

200-BP-5 OU Characterization for O Well - Geochemical Modeling Parameter

SAF NO.

F07-069

AIR QUALITY

45 Days /  
45 Days

ICE CHEST NO.

SHIPPED TO

PNNL Building 325

FIELD LOGBOOK NO.  
HNF-N-575-2

COA (BP 9.250)  
12/21/07  
12/28/07

METHOD OF SHIPMENT  
GOVERNMENT VEHICLE

BILL OF LADING/AIR BILL NO.

N/A

MATRIX\* POSSIBLE SAMPLE HAZARDS/ REMARKS

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

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

PRESERVATION

None

TYPE OF CONTAINER

Split Spoon  
Liner

NO. OF CONTAINER(S)

4

VOLUME

1000g

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS

SEE ITEM (1) IN  
SPECIAL  
INSTRUCTIONS

SAMPLE NO.

B1PMY5

SOIL

MATRIX\*

SAMPLE DATE

10/19/07 1520

✓

CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

(1)Density, Particle Size (Hydrometer) - D422; Saturated Hydraulic Conductivity; Soil Cation Exchange Capacity - 9080; Generic Testing; SPECIAL STUDIES (No CAS) KD - Batch;

RELINQUISHED BY/REMOVED FROM  
*Ki-Jung Lee*  
DATE/TIME  
10-14-07

RECEIVED BY/STORED IN  
*MO-745*  
DATE/TIME  
10-19-07

RELINQUISHED BY/REMOVED FROM  
*J.S. Avel*  
DATE/TIME  
10-24-07

RECEIVED BY/STORED IN  
*M. Vallo*  
DATE/TIME  
10/24/07

RELINQUISHED BY/REMOVED FROM  
*Dennise Smith*  
DATE/TIME  
12-3-07

RECEIVED BY/STORED IN  
*Dennise Smith*  
DATE/TIME  
12/03/07

RELINQUISHED BY/REMOVED FROM  
*Dennise Smith*  
DATE/TIME  
12-3-07

RECEIVED BY/STORED IN  
*Dennise Smith*  
DATE/TIME  
12-3-07

LABORATORY RECEIVED BY  
SECTION

DISPOSAL METHOD

DISPOSED BY  
DATE/TIME





**COLLECTOR**  
NCO Sampler  
*Young, J. Williams*

**COMPANY CONTACT**  
Trent, SJ  
373-5869

**PROJECT COORDINATOR**  
TRENT, SJ

**PRICE CODE**  
8N

**AIR QUALITY**  
45 Days / 45 Days

**DATA TURNAROUND**  
45 Days / 45 Days

**SAMPLING LOCATION**  
332'-334.5'

**ICE CHEST NO.**  
332-334.5

**SHIPPED TO**  
PNNL Building 325

**PROJECT DESIGNATION**  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

**FIELD LOGBOOK NO.**  
HMF-N-575E-2

**OFFSITE PROPERTY NO.**  
N/A

**METHOD OF SHIPMENT**  
GOVERNMENT VEHICLE

**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

**PRESERVATION**  
None

**TYPE OF CONTAINER**  
Spill Spoon  
Liner

**NO. OF CONTAINER(S)**  
4

**VOLUME**  
1000g

**SAMPLE ANALYSIS**  
SEE ITEM (1) IN SPECIAL INSTRUCTIONS

**SPECIAL HANDLING AND/OR STORAGE**

**SAMPLE DATE**  
10-24-07

**SAMPLE TIME**  
1450

**SAMPLE NO.**  
B1PMY7

**MATRIX\***  
SOIL

**SPECIAL INSTRUCTIONS**  
(1) Density; Particle Size (Hydrometer) - D422; Saturated Hydraulic Conductivity; Soil Cation Exchange Capacity - 9080; Generic Testing; SPECIAL STUDIES (No CAS) KD - Batch;

**CHAIN OF POSSESSION**

**SIGN/ PRINT NAMES**

**SPECIAL INSTRUCTIONS**

RELINQUISHED BY/REMOVED FROM  
*R.D. Julian*  
10-22-07 1600

RECEIVED BY/STORED IN  
*NOYAS Frispe*  
10-24-07 1600

RELINQUISHED BY/REMOVED FROM  
*NOYAS Ref #1*  
10-25-07 1200

RECEIVED BY/STORED IN  
*U. Ventura*  
10-26-07 1050

RELINQUISHED BY/REMOVED FROM  
*Denise Smith*  
10-25-07 1250

RECEIVED BY/STORED IN  
*Dean Moore*  
10-26-07 1257

RELINQUISHED BY/REMOVED FROM

RECEIVED BY/STORED IN

RELINQUISHED BY/REMOVED FROM

RECEIVED BY/STORED IN

RELINQUISHED BY/REMOVED FROM

RECEIVED BY/STORED IN

**LABORATORY SECTION**

**RECEIVED BY**

**TITLE**

**DISPOSED BY**

**DATE/TIME**

**FINAL SAMPLE DISPOSITION**

**DISPOSAL METHOD**

**DATE/TIME**

**DATE/TIME**

**DATE/TIME**

*COX*

04103-1

04104-9

04105-3

04106-4

04107-5

04108-6

04109-7

04110-8

04111-9

04112-0

04113-1

04114-2

04115-3

04116-4

04117-5

04118-6

04119-7

04120-8

04121-9

04122-0

04123-1

04124-2

04125-3

04126-4

04127-5

04128-6

04129-7

04130-8

04131-9

04132-0

04133-1

04134-2

04135-3

04136-4

04137-5

04138-6

04139-7

04140-8

04141-9

04142-0

04143-1

04144-2

04145-3

04146-4

04147-5

04148-6

04149-7

04150-8

04151-9

04152-0

04153-1

04154-2

04155-3

04156-4

04157-5

04158-6

04159-7

04160-8

04161-9

04162-0

04163-1

04164-2

04165-3

04166-4

04167-5

04168-6

04169-7

04170-8

04171-9

04172-0

04173-1

04174-2

04175-3

04176-4

04177-5

04178-6

04179-7

04180-8

04181-9

04182-0

04183-1

04184-2

04185-3

04186-4

04187-5

04188-6

04189-7

04190-8

04191-9

04192-0

04193-1

04194-2

04195-3

04196-4

04197-5

04198-6

04199-7

04200-8

04201-9

04202-0

04203-1

04204-2

04205-3

04206-4

04207-5

04208-6

04209-7

04210-8

04211-9

04212-0

04213-1

04214-2

04215-3

04216-4

04217-5

04218-6

04219-7

04220-8

04221-9

04222-0

04223-1

04224-2

04225-3

04226-4

04227-5

04228-6

04229-7

04230-8

04231-9

04232-0

04233-1

04234-2

04235-3

04236-4

04237-5

04238-6

04239-7

04240-8

04241-9

04242-0

04243-1

04244-2

04245-3

04246-4

04247-5

04248-6

04249-7

04250-8

04251-9

04252-0

04253-1

04254-2

04255-3

04256-4

04257-5

04258-6

04259-7

04260-8

04261-9

04262-0

04263-1

04264-2

04265-3

04266-4

04267-5

04268-6

04269-7

04270-8

04271-9

04272-0

04273-1

04274-2

04275-3

04276-4

04277-5

04278-6

04279-7

04280-8

04281-9

04282-0

04283-1

04284-2

04285-3

04286-4

04287-5

04288-6

04289-7

04290-8

04291-9

04292-0

04293-1

04294-2

04295-3

04296-4

04297-5

04298-6

04299-7

04300-8

04301-9

04302-0

04303-1

04304-2

04305-3

04306-4

04307-5

04308-6

04309-7

04310-8

COLLECTOR  
NCO Sampler

COMPANY CONTACT  
Trent, SJ

TELEPHONE NO.  
373-5869

PROJECT COORDINATOR  
TRENT, SJ

PRICE CODE  
8N

DATA  
TURNAROUND  
45 Days /  
45 Days

SAMPLING LOCATION  
330'  
CS852, 1-39  
ICE CHEST NO.

PROJECT DESIGNATION  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

FIELD LOGBOOK NO.  
COA  
123262ES10

METHOD OF SHIPMENT  
GOVERNMENT VEHICLE

AIR QUALITY

SHIPPED TO  
PNNL Building 325

OFFSITE PROPERTY NO.  
HNF-NU-S75-2  
N/A

BILL OF LADING/AIR BILL NO.  
N/A

MATRIX\* POSSIBLE SAMPLE HAZARDS/ REMARKS  
A=Air Contains Radioactive Material at concentrations  
DL=Drum that are not regulated for transportation per 49  
Liquids CFR but are not releasable per DOE Order  
DS=Drum  
Solids 5400.5 (1990/1993)  
L=Liquid  
O=Oil  
S=Soil  
SE=Sediment  
T=Tissue  
V=Vegetation  
W=Water  
WI=Wipe  
X=Other

PRESERVATION

None None

TYPE OF CONTAINER

G/P Moisture  
Resistant Cont

NO. OF CONTAINER(S)

1 1

VOLUME

1L 200g

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS

SEE ITEM (1) IN Moisture  
SPECIAL Content - D2216;  
INSTRUCTIONS

SAMPLE NO. B1PN26 SOIL MATRIX\*  
SAMPLE DATE 10/24/07 SAMPLE TIME 1750



CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM  
KJ Youngs 10-24-07 1600  
RECEIVED BY/STORED IN  
MOHS F. 10-24-07 1600  
RELINQUISHED BY/REMOVED FROM  
M. Valenta 10-25-07 1750  
RECEIVED BY/STORED IN  
M. Valenta 10/25/07 1750

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS  
{Technetium-99}; Uranium by ICPMS {Uranium}; ICP Metals - 6010B (TAL); ICP  
Metals - 6020 (TAL); 310.1\_AKALINITY; Alkalinity (1); IC Anions - 300.0; TIC -  
415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) -  
9045;

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 RECEIVED BY  
SECTION  
FINAL SAMPLE DISPOSAL METHOD

TITLE  
DISPOSED BY  
DATE/TIME

**COLLECTOR** NCO Sampler  
**COMPANY CONTACT** Trent, SJ  
**TELEPHONE NO.** 373-5869  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**DATA TURNAROUND** 45 Days / 45 Days

**SAMPLING LOCATION** CS852, 1-40  
**PROJECT DESIGNATION** 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
**FIELD LOGBOOK NO.** HJF-N-575-2  
**COA** 123262ES10  
**SAF NO.** F07-069  
**METHOD OF SHIPMENT** GOVERNMENT VEHICLE

**ICE CHEST NO.** 332  
**OFFSITE PROPERTY NO.** N/A  
**BILL OF LADING/AIR BILL NO.** N/A

**SHIPPED TO** PNNL Building 325  
**PRESERVATION** None  
**BILL OF LADING/AIR BILL NO.** N/A

**MATRIX\*** POSSIBLE SAMPLE HAZARDS/ REMARKS  
 A=Air Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order  
 DL=Drum  
 L=Liquid  
 DS=Drum  
 Solids  
 L=Liquid  
 O=Oil  
 S=Soil  
 SE=Sediment  
 T=Tissue  
 V=Vegetation  
 W=Water  
 WI=Wipe  
 X=Other

NO. OF CONTAINER(S)	VOLUME	TYPE OF CONTAINER	PRESERVATION
1	1L	G/P	None
1	200g	Moisture Resistant Cont	None

**SPECIAL HANDLING AND/OR STORAGE**  
 SEE ITEM (1) IN SPECIAL INSTRUCTIONS  
 Moisture Content - 02216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	RECEIVED BY	DATE/TIME	STORAGE
B1PN27	SOIL	10/24/07	1330	[Signature]	10/24/07	1600

**CHAIN OF POSSESSION**  
 SIGN/ PRINT NAMES  
 RECEIVED BY/STORED IN  
 RECEIVED BY/STORED IN  
 RECEIVED BY/STORED IN  
 RECEIVED BY/STORED IN

**SPECIAL INSTRUCTIONS**  
 (1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129}; Tc-99 by ICPMS {Technetium-99}; Uranium by ICPMS {Uranium}; ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1\_AKALINITY; Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon}; TOC - 415.1 {Total organic carbon}; pH (Soil) - 9045;

**RELINQUISHED BY/REMOVED FROM** K3 Youngman 10-24-07 1600  
**RELINQUISHED BY/REMOVED FROM** NO 745 Raf #1 10-25-07 1700  
**RELINQUISHED BY/REMOVED FROM** Bowers/Brown w/Will 10-25-07/1250  
**RELINQUISHED BY/REMOVED FROM** Bowers/Brown w/Will 10-25-07/1250

**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  
**FINAL SAMPLE DISPOSITION** DISPOSAL METHOD DATE/TIME

COLLECTOR  
NCO Sampler

COMPANY CONTACT  
Trent, SJ

TELEPHONE NO.  
373-5869

PROJECT COORDINATOR  
Trent, SJ

PRICE CODE  
8N

DATA  
TURNAROUND  
45 Days /  
45 Days

SAMPLING LOCATION  
CS852, 1-42  
ICE CHEST NO. 334.5

PROJECT DESIGNATION  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

FIELD LOGBOOK NO.  
HNF-20-575-2

SAF NO.  
F07-069

AIR QUALITY

METHOD OF SHIPMENT  
GOVERNMENT VEHICLE

SHIPPED TO  
PNNL Building 325

OFFSITE PROPERTY NO.  
N/A

COA  
123262ES10

BILL OF LADING/AIR BILL NO.  
N/A

MATRIX\* POSSIBLE SAMPLE HAZARDS/ REMARKS  
A=Air Contains Radioactive Material at concentrations  
DL=Drum that are not regulated for transportation per 49  
Liquids CFR but are not releasable per DOE Order  
DS=Drum  
Solids 5400.5 (1990/1993)  
L=Liquid  
O=Oil  
S=Soil  
SE=Settlement  
T=Tissue  
V=Vegetation  
W=Water  
WI=Wipe  
X=Other

PRESERVATION None None  
TYPE OF CONTAINER G/P Moisture Resistant Cont  
NO. OF CONTAINER(S) 1 1  
VOLUME 1L 200g

SPECIAL HANDLING AND/OR STORAGE  
SAMPLE ANALYSIS  
SEE ITEM (1) IN SPECIAL INSTRUCTIONS Moisture Content - 02216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	✓	✓
B1PN28	SOIL	10/24/07	1520	✓	✓

CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM  
 RECEIVED BY/STORED IN  
 DATE/TIME  
 10-24-07 1600  
 RECEIVED BY/STORED IN  
 DATE/TIME  
 10-24-07 1600

RELINQUISHED BY/REMOVED FROM  
 RECEIVED BY/STORED IN  
 DATE/TIME  
 10-25-07 11200  
 RECEIVED BY/STORED IN  
 DATE/TIME  
 10-25-07 11200

RELINQUISHED BY/REMOVED FROM  
 RECEIVED BY/STORED IN  
 DATE/TIME  
 10-25-07 1250  
 RECEIVED BY/STORED IN  
 DATE/TIME  
 10/25/07/1250

SIGN/ PRINT NAMES  
KSTH 027210

SPECIAL INSTRUCTIONS

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129}; Tc-99 by ICPMS {Technetium-99}; Uranium by ICPMS {Uranium}; ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1\_AKALINITY; Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon}; TOC - 415.1 {Total organic carbon}; pH (Soil) - 9045;

RELINQUISHED BY/REMOVED FROM  
 RECEIVED BY/STORED IN  
 DATE/TIME

RELINQUISHED BY/REMOVED FROM  
 RECEIVED BY/STORED IN  
 DATE/TIME

RELINQUISHED BY/REMOVED FROM  
 RECEIVED BY/STORED IN  
 DATE/TIME

LABORATORY SECTION RECEIVED BY

FINAL SAMPLE DISPOSITION DISPOSAL METHOD

TITLE

DISPOSED BY

DATE/TIME

DATE/TIME

COLLECTOR NCO Sampler  
SAMPLING LOCATION Young, Julia  
CS852, 1-45 335-336  
ICE CHEST NO.

SHIPPED TO PNNL Building 325

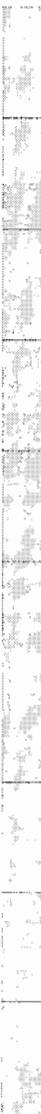
COMPANY CONTACT Trent, SJ  
TELEPHONE NO. 373-5869  
PROJECT COORDINATOR TRENT, SJ  
PRICE CODE 8N  
DATA TURNAROUND 45 Days /  
PROJECT DESIGNATION 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
SAF NO. F07-069  
AIR QUALITY  
FIELD LOGBOOK NO. 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
COA 123262ES10  
METHOD OF SHIPMENT GOVERNMENT VEHICLE  
OFFSITE PROPERTY NO. N/A  
BILL OF LADING/AIR BILL NO. N/A  
PRESERVATION None

MATRIX\* POSSIBLE SAMPLE HAZARDS/ REMARKS  
A=Air Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)  
DL=Drum  
Liquids  
DS=Drum  
Solids  
L=Liquid  
O=Oil  
S=Soil  
SE=Settlement  
T=Tissue  
V=Vegetation  
W=Water  
WI=Wipe  
X=Other

NO. OF CONTAINERS(S) 1  
TYPE OF CONTAINER Split Spoon Liner  
VOLUME 1000g

SPECIAL HANDLING AND/OR STORAGE SAMPLE ANALYSIS SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SAMPLE NO. B1PMY1 SOIL MATRIX\* SAMPLE DATE 10-25-07 SAMPLE TIME 0955



CHAIN OF POSSESSION

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY/REMOVED FROM R.D. Wilson / [Signature] DATE/TIME 10-25-07 1450 RECEIVED BY/STORED IN M. Valentia / M. Wilson DATE/TIME 10/26/07 1450  
RELINQUISHED BY/REMOVED FROM DATE/TIME DATE/TIME RECEIVED BY/STORED IN DATE/TIME  
RELINQUISHED BY/REMOVED FROM DATE/TIME DATE/TIME RECEIVED BY/STORED IN DATE/TIME  
RELINQUISHED BY/REMOVED FROM DATE/TIME DATE/TIME RECEIVED BY/STORED IN DATE/TIME  
RELINQUISHED BY/REMOVED FROM DATE/TIME DATE/TIME RECEIVED BY/STORED IN DATE/TIME

only liner # 2 used

(1) Density; Particle Size (Hydrometer) - D422; Saturated Hydraulic Conductivity; Soil Cation Exchange Capacity - 9080; Generic Testing; SPECIAL STUDIES (No CAS) KD - Batch;

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

2472

**COLLECTOR** NCO Sampler  
**SAMPLING LOCATION** CS852, 1-43  
**ICE CHEST NO.** 335 336 335 5  
**COMPANY CONTACT** Trent, SJ 373-5869  
**PROJECT DESIGNATION** 200-8P-5 OU Characterization for O Well - Geochemical Modeling Paramet  
**FIELD LOGBOOK NO.** 14NF-N-575.2  
**OFFSITE PROPERTY NO.** N/A  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**SAF NO.** F07-069  
**AIR QUALITY**  
**METHOD OF SHIPMENT** GOVERNMENT VEHICLE  
**BILL OF LADING/AIR BILL NO.** N/A  
**DATA TURNAROUND** 45 Days / 45 Days

**SHIPPED TO** PNNL Building 325  
**PRESERVATION** None  
**NO. OF CONTAINER(S)** 1  
**VOLUME** 1L  
**TYPE OF CONTAINER** G/P  
**NO. OF CONTAINER(S)** 1  
**VOLUME** 200g  
**TYPE OF CONTAINER** Moisture Resistant Cont

**MATRIX\*** POSSIBLE SAMPLE HAZARDS/ REMARKS  
 A=Air Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)  
 L=Liquid  
 O=Oil  
 S=Soil  
 SE=Sediment  
 T=Tissue  
 V=Vegetation  
 W=Water  
 WI=Wipe  
 X=Other  
**PRESERVATION** None  
**TYPE OF CONTAINER** G/P  
**NO. OF CONTAINER(S)** 1  
**VOLUME** 1L  
**TYPE OF CONTAINER** Moisture Resistant Cont  
**SPECIAL HANDLING AND/OR STORAGE** SEE ITEM (1) IN SPECIAL INSTRUCTIONS  
**SAMPLE ANALYSIS** Moisture Content - 02216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME	INITIALS	DATE/TIME
B1PN29	SOIL	10/25/07	0840	✓	10/25/07 1450

**CHAIN OF POSSESSION**  
**SIGN/ PRINT NAMES**  
**SPECIAL INSTRUCTIONS**  
 (1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99} Uranium by ICPMS {Uranium} ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1 ALKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;  
**RELINQUISHED BY/REMOVED FROM** K. Young  
**DATE/TIME** 10-25-07 1450  
**RECEIVED BY/STORED IN** W. Valverde  
**DATE/TIME** 10/25/07 1450  
**RELINQUISHED BY/REMOVED FROM**  
**DATE/TIME**  
**RECEIVED BY/STORED IN**  
**DATE/TIME**  
**LABORATORY SECTION** RECEIVED BY  
**TITLE**  
**DISPOSED BY**  
**DATE/TIME**  
**FINAL SAMPLE DISPOSITION** DISPOSAL METHOD  
 2473

COLLECTOR  
NCO Sampler  
Parchon, Julian

COMPANY CONTACT  
Trent, SJ

TELEPHONE NO.  
373-5869

PROJECT COORDINATOR  
TRENT, SJ

PRICE CODE  
8N

DATA  
TURNAROUND  
45 Days /  
45 Days

SAMPLING LOCATION  
322.3245'

PROJECT DESIGNATION  
200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

FIELD LOGBOOK NO.  
COA

SAF NO.  
F07-069

AIR QUALITY

METHOD OF SHIPMENT  
GOVERNMENT VEHICLE

SHIPPED TO  
PNNL Building 325

OFFSITE PROPERTY NO.  
4456-N-575-2

123262ES10

BILL OF LADING/AIR BILL NO.  
N/A

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

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

PRESERVATION  
None

TYPE OF CONTAINER  
Split Spoon  
Liner

NO. OF CONTAINER(S)  
2

VOLUME  
1000g

SAMPLE ANALYSIS  
SEE ITEM (1) IN SPECIAL INSTRUCTIONS

SPECIAL HANDLING AND/OR STORAGE

SAMPLE ANALYSIS

SAMPLE NO.  
B1PMY0

MATRIX\*  
SOIL

SAMPLE DATE  
10-23-07

SAMPLE TIME  
1125



CHAIN OF POSSESSION

RELINQUISHED BY/REMOVED FROM  
RECEIVED BY/STORED IN  
DATE/TIME  
1506

DATE/TIME  
10/23/07

DATE/TIME  
1500

SIGN/ PRINT NAMES

SPECIAL INSTRUCTIONS

(1) Density; Particle Size (Hydrometer) - D422; Saturated Hydraulic Conductivity; Soil Cation Exchange Capacity - 9080; Generic Testing; SPECIAL STUDIES (No CAS) KD-Batch;

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

DATE/TIME

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

DATE/TIME

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

DATE/TIME

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

DATE/TIME

RELINQUISHED BY/REMOVED FROM

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

DATE/TIME

LABORATORY SECTION

RECEIVED BY

DATE/TIME

RECEIVED BY/STORED IN

DATE/TIME

DATE/TIME

TITLE

DISPOSED BY

DATE/TIME

FINAL SAMPLE DISPOSITION

DISPOSAL METHOD

DATE/TIME

DISPOSED BY

DATE/TIME

DATE/TIME

DISPOSED BY

DATE/TIME

DISPOSED BY

DATE/TIME

DISPOSED BY

DATE/TIME

DISPOSED BY

DATE/TIME

**COLLECTOR** NCO Sampler  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**DATA TURNAROUND** 45 Days / 45 Days

**SAMPLING LOCATION** CS852, 1-33  
**PROJECT DESIGNATION** 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
**FIELD LOGBOOK NO.** HNI-N-575-2  
**SAF NO.** F07-069  
**AIR QUALITY**

**ICE CHEST NO.** 322  
**METHOD OF SHIPMENT** GOVERNMENT VEHICLE  
**SHIPPED TO** PNNL Building 325  
**OFFSITE PROPERTY NO.** N/A  
**BILL OF LADING/AIR BILL NO.** N/A

**MATRIX\*** POSSIBLE SAMPLE HAZARDS/ REMARKS  
 A=Air Contains Radioactive Material at concentrations  
 DL=Drum that are not regulated for transportation per 49  
 Liquids CFR but are not releasable per DOE Order  
 DS=Drum  
 Solids 5400.5 (1990/1993)  
 L=Liquid  
 O=Oil  
 S=Soil  
 SE=Sediment  
 T=Tissue  
 V=Vegetation  
 W=Water  
 WI=Wipe  
 X=Other

SPECIAL HANDLING AND/OR STORAGE	SAMPLE ANALYSIS	PRESERVATION	TYPE OF CONTAINER	NO. OF CONTAINER(S)	VOLUME	SEE ITEM (1) IN SPECIAL INSTRUCTIONS
		None	G/P	1	1L	Moisture Content - D2216;

SAMPLE NO.	MATRIX*	SAMPLE DATE	SAMPLE TIME
B1PN23	SOIL	10/23/07	1103

**CHAIN OF POSSESSION**  
 SIGN/ PRINT NAMES  
 Lot # 027210

**RELINQUISHED BY/REMOVED FROM** RECEIVED BY/STORED IN  
 DATE/TIME DATE/TIME  
 10/23/07 1500 M. Valenta/J.M. Wilko 10/23/07 1600  
**RELINQUISHED BY/REMOVED FROM** RECEIVED BY/STORED IN  
 DATE/TIME DATE/TIME

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

**SPECIAL INSTRUCTIONS**

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129}; Tc-99 by ICPMS {Technetium-99}; Uranium by ICPMS {Uranium}; ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1 ALKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon}; TOC - 415.1 {Total organic carbon}; pH (Soil) - 9045;

**COLLECTOR** NCO Sampler  
**COMPANY CONTACT** TRENT, SJ  
**TELEPHONE NO.** 373-5869  
**PROJECT COORDINATOR** TRENT, SJ  
**PRICE CODE** 8N  
**DATA TURNAROUND** 45 Days / 45 Days

**SAMPLING LOCATION** 324.2  
**PROJECT DESIGNATION** 200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet  
**FIELD LOGBOOK NO.** HNF-N-575-22  
**COA** 123262ES10  
**METHOD OF SHIPMENT** GOVERNMENT VEHICLE  
**ICE CHEST NO.** CS852, 1-37  
**OFFSITE PROPERTY NO.** N/A  
**BILL OF LADING/AIR BILL NO.** N/A

**SHIPPED TO** PNNL Building 325  
**SAF NO.** F07-069  
**SAF QUALITY** AIR QUALITY

**MATRIX\*** POSSIBLE SAMPLE HAZARDS/ REMARKS  
 A=Air Contains Radioactive Material at concentrations that are not regulated for transportation per 49 CFR but are not releasable per DOE Order 5400.5 (1990/1993)  
 DL=Drum Liquids  
 DS=Drum Solids  
 L=Liquid  
 O=Oil  
 S=Soil  
 SE=Sediment  
 T=Tissue  
 V=Vegetation  
 W=Water  
 WI=Wide  
 X=Other

**PRESERVATION** None None  
**TYPE OF CONTAINER** G/P Moisture Resistant Cont  
**NO. OF CONTAINER(S)** 1 1  
**VOLUME** 1L 200g

**SPECIAL HANDLING AND/OR STORAGE** SEE ITEM (1) IN Moisture Content - 02216; SPECIAL INSTRUCTIONS

**SAMPLE NO.** B1PN24 **MATRIX\*** SOIL **SAMPLE DATE** 10-23-07 **SAMPLE TIME** 1300

**CHAIN OF POSSESSION** SIGN/ PRINT NAMES  
 RECEIVED BY/STORED IN M. Vautier / M. Valero  
 RECEIVED BY/STORED IN M. Vautier / M. Valero  
 RECEIVED BY/STORED IN M. Vautier / M. Valero

**SPECIAL INSTRUCTIONS**  
 (1)Gross Alpha; Gross Beta; 1-129 by ICPMS {Iodine-129}; Tc-99 by ICPMS {Technetium-99}; Uranium by ICPMS {Uranium}; ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1 ALKALINITY: Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon}; TOC - 415.1 {Total organic carbon}; pH (Soil) - 9045;

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	10-23-07 1500	M. Vautier / M. Valero	10/23/07 1500	RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM				RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM				RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM				RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
RELINQUISHED BY/REMOVED FROM				RELINQUISHED BY/REMOVED FROM		RECEIVED BY/STORED IN	
LABORATORY SECTION	RECEIVED BY	TITLE	DATE/TIME	DISPOSED BY	DATE/TIME		
FINAL SAMPLE DISPOSITION	DISPOSAL METHOD						

COLLECTOR  
NCO Sampler

COMPANY CONTACT  
Trent, SJ

TELEPHONE NO.  
373-5869

PROJECT COORDINATOR  
TRENT, SJ

PRICE CODE  
8N

DATA  
TURNAROUND  
45 Days /  
45 Days

SAMPLING LOCATION

3271

PROJECT DESIGNATION

200-BP-5 OU Characterization for O Well - Geochemical Modeling Paramet

SAF NO.  
F07-069

AIR QUALITY

CS852, 1-38  
ICE CHEST NO.

3271

FIELD LOGBOOK NO.

COA

METHOD OF SHIPMENT  
GOVERNMENT VEHICLE

OFFSITE PROPERTY NO.

12326ZES10

BILL OF LADING/AIR BILL NO.

N/A

N/A

N/A

N/A

MATRIX\* POSSIBLE SAMPLE HAZARDS/ REMARKS

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

PRESERVATION

None

None

TYPE OF CONTAINER

G/P Moisture Resistant Cont

NO. OF CONTAINER(S)

1 1

VOLUME

1L 200g

SPECIAL HANDLING AND/OR STORAGE

SEE ITEM (1) IN SPECIAL INSTRUCTIONS Moisture Content - D2216;

SAMPLE NO.

MATRIX\*

SAMPLE DATE

SAMPLE TIME

B1PN25 SOIL

10/23/07 1405



CHAIN OF POSSESSION

SIGN / PRINT NAMES

SPECIAL INSTRUCTIONS

RELINQUISHED BY / REMOVED FROM  
RELINQUISHED BY / REMOVED FROM

DATE/TIME  
10/23/07 1500

RECEIVED BY / STORED IN  
M. Vukobratovic

DATE/TIME  
10/23/07 1500

DATE/TIME  
10/23/07 1500

(1)Gross Alpha; Gross Beta; I-129 by ICPMS {Iodine-129} Tc-99 by ICPMS {Technetium-99}; Uranium by ICPMS {Uranium}; ICP Metals - 6010B (TAL); ICP Metals - 6020 (TAL); 310.1\_AKALINITY; Alkalinity (1); IC Anions - 300.0; TIC - 415.1M {Total Inorganic Carbon} TOC - 415.1 {Total organic carbon} pH (Soil) - 9045;

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