



U.S. DEPARTMENT OF  
**ENERGY**

PNNL- SA-62652

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# **Analytical Data Report for Samples Collected From 100-N Area Aquifer Tubes, Sample Delivery Group ESL080015**

Michael Lindberg

September 2008



**Pacific Northwest**  
NATIONAL LABORATORY

09/28/08 08:53

To: Dana Widrig

From: Michael J. Lindberg

A handwritten signature in black ink, appearing to read 'MJL', with a stylized flourish at the end.

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

Subject: Analytical Data Report for Samples Collected From 100-N Area Aquifer Tubes, Sample Delivery Group  
ESL080015, SAF Number G08-003

This letter contains the following information for sample delivery group ESL080015

- Cover Sheet
- Narrative
- Analytical Results
- Chain of Custodies

## **Introduction**

On March 31, 2008 water samples were received from 100-N Area Aquifer Tubes 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

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### SAMPLES INCLUDED IN THIS REPORT

#### Fluor Citrate

HEIS No.	Laboratory ID	Matrix	Date Collected	Date Received
B1THL4	0803028-01	WATER	3/25/08 10:33	3/31/08 12:45
B1THL9	0803028-02	WATER	3/25/08 11:22	3/31/08 12:45
B1THK4	0803028-03	WATER	3/25/08 09:01	3/31/08 12:45
B1THK8	0803028-04	WATER	3/25/08 09:34	3/31/08 12:45
B1THM4	0803028-05	WATER	3/25/08 12:03	3/31/08 12:45
B1THM7	0803028-06	WATER	3/26/08 08:22	3/31/08 12:45

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

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Anions By Ion Chromatography

### **SAMPLES ANALYZED IN THIS REPORT**

<b>HEIS No.</b>	<b>Laboratory ID</b>	<b>Matrix</b>	<b>Date Collected</b>	<b>Date Received</b>
B1THL4	0803028-01	WATER	3/25/08 10:33	3/31/08 12:45
B1THL9	0803028-02	WATER	3/25/08 11:22	3/31/08 12:45
B1THK4	0803028-03	WATER	3/25/08 09:01	3/31/08 12:45
B1THK8	0803028-04	WATER	3/25/08 09:34	3/31/08 12:45
B1THM4	0803028-05	WATER	3/25/08 12:03	3/31/08 12:45
B1THM7	0803028-06	WATER	3/26/08 08:22	3/31/08 12:45

## Anions by Ion Chromatography

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
<b>HEIS No.</b>	<b>B1THL4</b>	<b>Lab ID: 0803028-01</b>					
126-44-3	Citrate	<1.00E-1	ug/mL	1.00E-1	4/08/08	8D08003	AGG-IC-001
<b>HEIS No.</b>	<b>B1THL9</b>	<b>Lab ID: 0803028-02</b>					
126-44-3	Citrate	<1.00E-1	ug/mL	1.00E-1	4/08/08	8D08003	AGG-IC-001
<b>HEIS No.</b>	<b>B1THK4</b>	<b>Lab ID: 0803028-03</b>					
126-44-3	Citrate	<1.00E-1	ug/mL	1.00E-1	4/08/08	8D08003	AGG-IC-001
<b>HEIS No.</b>	<b>B1THK8</b>	<b>Lab ID: 0803028-04</b>					
126-44-3	Citrate	<1.00E-1	ug/mL	1.00E-1	4/08/08	8D08003	AGG-IC-001
<b>HEIS No.</b>	<b>B1THM4</b>	<b>Lab ID: 0803028-05</b>					
126-44-3	Citrate	<1.00E-1	ug/mL	1.00E-1	4/08/08	8D08003	AGG-IC-001
<b>HEIS No.</b>	<b>B1THM7</b>	<b>Lab ID: 0803028-06</b>					
126-44-3	Citrate	<1.00E-1	ug/mL	1.00E-1	4/09/08	8D08003	AGG-IC-001

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**G08-003-178**

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Total Activity Exemption: Yes ☒ No ☐



**G08-003-154**

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POSSIBLE SAMPLE HAZARDS/REMARKS		SPECIAL INSTRUCTIONS		Hold Time	Total Activity Exemption:	Yes	No
		100 Area Generator Knowledge Information Form applies.				<input checked="" type="checkbox"/>	<input type="checkbox"/>

[illegible]

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
<del>J. Hunter</del>	<del>J. Hunter</del>		3/25/8 1530	M. 745	Ret 1		3-25-8 1530	
Relinquished By			Date/Time	Received By			Date/Time	
M. 745	Ret 1		3-31-8 1100	D. Annally	OK		3-31-8 1100	
Relinquished By			Date/Time	Received By			Date/Time	
D. Annally	OK		3-31-8 1245	C. Jones			3-31-8 1245	
Relinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				
				Disposed By				Date/Time



**G08-003-186**

Total Activity Exemption: Yes ☒ No ☐

FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)	Received By		Date/Time	
		Received By	Date/Time	Received By	Date/Time

**G08-003-194**

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Collector	S. Mueller		Contact/Requester	Steve Trent		Telephone No.	MSIN		FAX	
SAF No.	G08-003		Sampling Origin	Hanford Site		Purchase Order/Charge Code				
Project Title	1NR2-RB, MARCH 2008		Method of Shipment	Govt. Vehicle		Ice Chest No.	Temp.			
Shipped To (Lab)	PNNL Building 325		Priority:	45 Days		Bill of Lading/Air Bill No.				
Protocol	SURV		Offsite Property No.							
POSSIBLE SAMPLE HAZARDS/REMARKS			SPECIAL INSTRUCTIONS		Hold Time		Total Activity Exemption.		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
.. ..			100 Area Generator Knowledge Information Form applies.							

[illegible]

Reinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
<i>James L. Mander</i>								S = Soil SE = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air
Reinquished By			Date/Time	Received By			Date/Time	DS = Drum Solid DL = Drum Liquid T = Tissue WT = Wine L = Liquid V = Vegetation X = Other
<i>M0745</i>	<i>Ref 1</i>		<i>3-31-8 1100</i>	<i>D Connelly</i>	<i>Ref 1</i>		<i>3-31-8 1100</i>	
Reinquished By			Date/Time	Received By			Date/Time	
<i>D Connelly</i>	<i>Ref 1</i>		<i>3-31-8 1245</i>	<i>C. Jones</i>	<i>Ref 1</i>		<i>3-31-8 1245</i>	
Reinquished By			Date/Time	Received By			Date/Time	
FINAL SAMPLE DISPOSITION				Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Date/Time
Disposal Method (e.g., Return to customer, per lab procedure, used in process)				Disposed By				Date/Time