



U.S. DEPARTMENT OF  
**ENERGY**

PNNL- SA-62655

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# **Analytical Data Report for Samples Collected From 100-N Area Aquifer Tubes, Sample Delivery Group ESL080013**

Michael Lindberg

September 2008



**Pacific Northwest**  
NATIONAL LABORATORY

10/07/08 15:29

To: Dana Widrig

From: Michael J. Lindberg

A handwritten signature in black ink, appearing to read 'MJL', is centered below the 'From' field.

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

Subject: Analytical Data Report For Ground Water Samples Collected From 100-N Area Aquifer Tubes, Sample Delivery Group ESL080013, SAF Number G08-003

This letter contains the following information for sample delivery group ESL080013

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

## **Introduction**

Between March 14, 2008 and March 24, 2008 ground water samples were received from 100-N Area Aquifer Tubes for chemical analysis.

## **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
B1TH77	0810001-01	WATER	3/13/08 13:11	3/14/08 12:10
B1TH78	0810001-02	WATER	3/13/08 07:45	3/14/08 12:10
B1THR2	0810001-03	WATER	3/20/08 10:59	3/20/08 15:20

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>
B1TH77	0810001-01	WATER	3/13/08 13:11	3/14/08 12:10
B1TH78	0810001-02	WATER	3/13/08 07:45	3/14/08 12:10
B1THR2	0810001-03	WATER	3/20/08 10:59	3/20/08 15:20

## Anions by Ion Chromatography

CAS #	Analyte	Results	Units	EQL	Analyzed	Batch	Method
<b>HEIS No.</b>	<b>B1TH77</b>	<b>Lab ID: 0810001-01</b>					
126-44-3	Citrate	<1.00E-1	ug/mL	1.00E-1	4/08/08	8J07004	AGG-IC-001
<b>HEIS No.</b>	<b>B1TH78</b>	<b>Lab ID: 0810001-02</b>					
126-44-3	Citrate	<1.00E-1	ug/mL	1.00E-1	4/08/08	8J07004	AGG-IC-001
<b>HEIS No.</b>	<b>B1THR2</b>	<b>Lab ID: 0810001-03</b>					
126-44-3	Citrate	<1.00E-1	ug/mL	1.00E-1	4/08/08	8J07004	AGG-IC-001



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

Relinquished By	Print	Sign	Date/Time	Received By	Print	Sign	Date/Time	Matrix *
D. R. Williamson	<i>[Signature]</i>	<i>[Signature]</i>	MAR 14 2008	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	MAR 14 2008	S = Soil SF = Sediment SO = Solid SL = Sludge W = Water O = Oil A = Air  DS = Drum Solid DL = Drum Liquid T = Tissue WI = Wine L = Liquid V = Vapour X = Other
D. R. Williamson	<i>[Signature]</i>	<i>[Signature]</i>	MAR 14 2008	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	MAR 14 2008	

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



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Collector	<i>J. M. M. M.</i>	Contact/Requester	Steve Trent	Telephone No.	509-373-5869	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 *
Reinquished By	<i>[Signature]</i>		3/20/8-1520	Received By	<i>[Signature]</i>		3/20/8-1520	S = Soil DS = Drum Solid
Reinquished By	<i>[Signature]</i>		3/24-08 1300	Received By	<i>[Signature]</i>		3/24-08	SF = Sediment DL = Drum Liquid
Reinquished By	<i>[Signature]</i>		3-24-08	Received By	<i>[Signature]</i>		3-24-08	SC = Solid T = Tissue
Reinquished By	<i>[Signature]</i>		3-24-08	Received By	<i>[Signature]</i>		3-24-08	SL = Shutter WT = Waste
Reinquished By	<i>[Signature]</i>		3-24-08	Received By	<i>[Signature]</i>		3-24-08	W = Water L = Liquid
Reinquished By	<i>[Signature]</i>		3-24-08	Received By	<i>[Signature]</i>		3-24-08	O = Oil V = Vegetation
Reinquished By	<i>[Signature]</i>		3-24-08	Received By	<i>[Signature]</i>		3-24-08	A = Air X = Other
FINAL SAMPLE DISPOSITION	Disposal Method (e.g., Return to customer, per lab procedure, used in process)			Disposed By			Date/Time	