H0104-T/W

0049030

RECRA LabNet
a division of Recra Environmental, Inc.
Virtual Laboratories Everywhere

Recra LabNet Philadelphia
Analytical Report

Client : TNU-HANFORD
RFW# : 9709L524
SDG# : H0104

W.O. # : 10985-001-001-9999-00
Date Received: 09-26-97

RECEIVED APR 1998 EDMC

INORGANIC CASE NARRATIVE

1. This narrative covers the analysis of 1 water sample.
2. The sample was prepared and analyzed in accordance with the method checked on the attached glossary.
3. Sample holding time as required by the method and/or contract was not met as the sample was received past hold.
4. The cooler temperature was recorded on the chain-of-custody.
5. The method blank was within method criteria.
6. The Laboratory Control Samples (LCS) were within the laboratory control limits. The duplicate LCS was within the 20% Relative Percent Difference (RPD) control limit.
7. Insufficient sample volume (ISV) was provided for matrix quality control analysis. Due to the ISV provided a reduced sample volume was used to conduct the Chromium VI analysis.

Bruce C. [signature], unit leader
for J. Michael Taylor
Vice President and Laboratory Manager
Lionville Analytical Laboratory

10-31-97
Date

njp\i09-524

The results presented in this report relate only to the analytical testing and conditions of the samples at receipt and during storage. All pages of this report are integral parts of the analytical data. Therefore, this report should only be reproduced in its entirety of 11 pages. Inserted page number is 1A.

208 Welsh Pool Road • Lionville, PA 19341-1333 • (610)-280-3000 • Fax (610) 280-3041

Initiator: J Hofbauer | RFW Batch: 9709L524 | Parameter: CR6
Date: 10-1-97 | Samples: -001 | Matrix: Water
Client: TNU-Hanford | Method: SW846/MCAWW/CLP/ | Prep Batch: 97LV1040

1. Reason for SDR

a. COC Discrepancy __ Tech Profile Error __ Client Request __ Sampler Error on C-O-C __ Transcription Error __ Wrong Test Code __ Other _____

b. General Discrepancy

__ Missing Sample/Extract __ Container Broken __ Wrong Sample Pulled __ Label ID's Illegible
__ Hold Time Exceeded ✓ Insufficient Sample __ Preservation Wrong __ Received Past Hold
__ Improper Bottle Type __ Not Amenable to Analysis

Note: Verified by [Log-In] or [Prep Group] (circle)...signature/date: _____

c. QC Problem (Include all relevant specific results; attach data if necessary)

Orginal Sample had to be diluted due to Lack of Volume
Volume Sent 60ml ~~to run Sample~~ JH 10-1-97 Sample Volume need is 95,
No QC Run.

2. Known or Probable Causes(s)

Limited Volume

MJP 10-1-97

3. Discussion and Proposed Action Other Description:

__ Re-log
__ Entire Batch
__ Following Samples: _____
__ Re-leach
__ Re-extract
__ Re-digest
__ Revise EDD
__ Change Test Code to _____
__ Place On/Take Off Hold (circle)

4. Project Manager Instructions...signature/date: _____

__ Concur with Proposed Action
__ Disagree with Proposed Action; See Instruction
✓ Include in Case Narrative
__ Client Contacted:
Date/Person _____
__ Add
__ Cancel

5. Final Action...signature/date: _____ Other Explanation:

__ Verified re-[log][leach][extract][digest][analysis] (circle)
✓ Included in Case Narrative
__ Hard Copy COC Revised
__ Electronic COC Revised
__ EDD Corrections Completed

When Final Action has been recorded, forward original to QA Specialist for distribution and filing.

Route	Distribution of Completed SDR	Route	Distribution of Completed SDR
__	X Initiator J Hofbauer	(1)	__ Metals: Doughty
__	X Lab Manager: J. Michael Taylor	__	__ Inorganic: Perrone/Leonards
(2)	X Project Mgr: K.C.	__	__ GC/LC: Jarvis/Skrzat/Schnell
__	X Section Mgr: Siery/Durke/Daniels	__	__ MS: LeMin/McIntyre/Taylor/Kasdras/Steele
__	X QA File: Feldman/Racioppi/Basuthakur	__	__ Log-in: Dodson
__	__ Data Management: Miller	__	__ Admin: Brewer/Keehn/Shafer
__	__ Sample Prep: Schnell/Swisher	__	__ Other: _____

WET CHEMISTRY METHODS GLOSSARY FOR ANALYSIS OF WATER SAMPLES

	EPA 600	SW846	OTHER
Acidity	__305.1		
__Alkalinity __Bicarbonate __Carbonate	__310.1		
BOD	__405.1		__5210B (b)
Ion Chromatography:			
__Bromide __Chloride __Fluoride	__300.0	__9056	
__Nitrite __Nitrate __Phosphate	__300.0	__9056	
__Sulfate __Formate __Acetate __Oxalate	__300.0	__9056	
Chloride	__325.2	__9251	
Chlorine Residual	__330.5 (mod)		
Cyanide Amenable to Chlorination	__335.2	__9010A	
Cyanide (Total)	__335.2	__9010A __9012	__ILM04.0 (e)
Cyanide, Weak Acid Dissociable			__412 (a) __4500CN-I (b)
COD	__410.4 (mod)		__5220 C (b)
Color	__110.2		
Corrosivity (by Coupon)		__1110 (mod)	
Chromium VI		✓7196A	__3500Cr-D (b)
Fluoride	__340.2		
Hardness, Calcium	__215.2		
Hardness, Total	__130.2		
Iodide			__ASTM D19P202 (1)
Surfactant	__425.1		
__Nitrate-Nitrite __Nitrate __Nitrite	__353.2		
Ammonia	__350.3		
Total__Kjeldahl Nitrogen __Organic Nitrogen	__351.4		
Total __Organic __Inorganic Carbon	__415.1	__9060	
Oil and Grease	__413.1	__9070	
__pH __pH, Paper	__150.1	__9040A __9041A	
Petroleum Hydrocarbons, Total Recoverable	__418.1		
Phenol	__420.1 __420.2	__9065 __9066	
__Ortho Phosphate __Total Phosphate	__365.2		__4500-P B __C
Salinity			__210A (a) __2520B (b)
Settleable Solids	__160.5		
Sulfide	__376.2 __376.1	__9030A	
Reactive __Cyanide __Sulfide		__Sec 7.3	
Silica	__370.1		
Sulfite	__377.1		
Sulfate	__375.4	__9038	
Specific Conductance	__120.1	__9050	
Specific Gravity			__213E (a)
__TCLP __TCLV		__1311	
Synthetic Precipitation Leach		__1312	
Total __Dissolved __Suspended __Solids	160__.1__.2__.3		
Total Organic Halides	__450.1	__9020B	
Turbidity	__180.1		
Volatile Solids __Total __Dissolved __Suspended	__160.4		

Other:_____ Method:_____

METHOD REFERENCES AND DATA QUALIFIERS

DATA QUALIFIERS

U = Indicates that the parameter was not detected at or above the reported limit. The associated numerical value is the sample detection limit.

* = Indicates that the original sample result is greater than 4x the spike amount added.

ABBREVIATIONS

MB = Method or Preparation Blank.
MS = Matrix Spike.
MSD = Matrix Spike Duplicate.
REP = Sample Replicate
LC = Laboratory Control Sample.
NC = Not calculated.

A suffix of -R, -S, or -T following these codes indicate a replicate, spike or sample duplicate analysis respectively.

ANALYTICAL WET CHEMISTRY METHODS

1. ASTM Standard Methods.

2. USEPA Methods for Chemical Analysis of Water and Wastes (USEPA 600/4-79-020).

3. Test Methods for Evaluating Solid Waste (USEPA SW-846).

a. Standard Methods for the Examination of Water and Waste, 16 ed., (1989).

b. Standard Methods for the Examination of Water and Waste, 17 ed., (1983)

c. Method of Soil Analysis, Part 1, Physical and Mineralogical Methods, 2nd. Ed. (1986)

d. Method of Soil Analysis, Part 2, Chemical and Microbiological Properties, Am. Soc. Agron., Madison, WI (1965)

e. USEPA Contract Laboratory Program, Statement of Work for Inorganic Analysis.

f. Code of Federal Regulations.

Recra LabNet - Lionville

INORGANICS DATA SUMMARY REPORT 10/02/97

CLIENT: TNU-HANFORD
WORK ORDER: 10985-001-001-9999-00

RECRA LOT #: 9709L524

SAMPLE	SITE ID	ANALYTE	RESULT	UNITS	REPORTING LIMIT	DILUTION FACTOR
-001	BOLYP6	Chromium VI	0.032u	MG/L	0.032	1.6

Recra LabNet - Lionville Laboratory
INORGANIC ANALYTICAL DATA PACKAGE FOR
TNU-HANFORD

DATE RECEIVED: 09/26/97 RFW LOT # :9709L524

CLIENT ID /ANALYSIS	RFW #	MTX	PREP #	COLLECTION	EXTR/PREP	ANALYSIS
BOLYP6						
CHROMIUM VI	001	W	97LVI040	09/24/97	09/26/97	09/26/97
LAB QC:						
CHROMIUM VI	MB1	W	97LVI040	N/A	09/26/97	09/26/97
CHROMIUM VI	MB1 BS	W	97LVI040	N/A	09/26/97	09/26/97
CHROMIUM VI	MB1 BSD	W	97LVI040	N/A	09/26/97	09/26/97

RECRA LabNet Use Only

9709L524

Custody Transfer Record/Lab Work Request

RECRA LabNet

Client PNNL-HANFORD (9/26/97)
Est. Final Proj. Sampling Date
Project # 10455-001-001-9999-00
Project Contact/Phone #
RECRA Project Manager E.C.
QC STD Del STD TAT 30 DAY
Date Rec'd 9-26-97 Date Due 10-26-97
Account # PNLHANFORD

Refrigerator #
#/Type Container: Liquid 2; Solid ING
Volume: Liquid 40; Solid
Preservatives

ANALYSES REQUESTED → ORGANIC: VOA, BNA, Pest/PCB, Herb; INORG: Metal, CN

CAG

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ICAG

MATRIX CODES:
S - Soil
SE - Sediment
SO - Solid
SL - Sludge
W - Water
O - Oil
A - Air
DS - Drum Solids
DL - Drum Liquids
L - EP/TCLP Leachate
WI - Wipe
X - Other
F - Fish

Lab ID	Client ID/Description	Matrix QC Chosen (✓) MS	MSD	Matrix	Date Collected	Time Collected	RECRA LabNet Use Only
001	BOLYP6	✓	✓	W	9/24/97	0927	✓

FIELD PERSONNEL: COMPLETE ONLY SHADED AREAS

Special Instructions:
RSA-CLIENT INFO
MSC-COMP

SDG H0104 Cooler temp = 5.5°C

DATE/REVISIONS:
1
2
3
4
5
6

RECRA LabNet Use Only

Samples were
1) Shipped ✓ or Hand Delivered
Airbill # 417145463
2) Ambient or Chilled
3) Received in Good Condition Y or N
4) Labels Indicate Properly Preserved Y or N
5) Received Within Holding Times Y or N

COC Tape was
1) Present on Outer Package Y or N
2) Unbroken on Outer Package Y or N
3) Present on Sample Y or N
4) Unbroken on Sample Y or N

COC Record Present Upon Sample Rec't Y or N

Discrepancies Between Samples Lables and COC Record? Y or N
NOTES

Relinquished by	Received by	Date	Time
FedEx		9/26/97	1000

Relinquished by	Received by	Date	Time

ORIGINAL
REWRITTEN