0060651

SAF-B01-055
100 B/C Area Effluent Pipeline & Proximity Site Remediation Activities - Other Solid
FINAL DATA PACKAGE

E:MAIL RESULTS TO:

Dave Shea — Sent 9/23/03 by JHK

Dean Strom — Sent 9/23/03 by JHK

COMPLETE COPY OF DATA PACKAGE TO:

Dave Shea X3-40 ___N/A___ INITIAL/DATE

Dean Strom X3-40 ___N/A___ INITIAL/DATE

COMMENTS: (PLEASE INCLUDE THE FOLLOWING ON THE COVER SHEET)

SDG _PNL0065__ SAF-B01-055

X Rad only Chem only Rad & Chem

X Complete Partial

SAMPLE LOCATION/WASTE SITE: 100 B/C Pipelines vehicle routines for Ni63

RECEIVED
OCT 30 2003
EDMC

Battelle
Putting Technology To Work

Pacific Northwest National Laboratory
902 Battelle Boulevard
P.O. Box 999
Richland, Washington 99352

FACSIMILE TRANSMITTAL

DATE: September 23, 2003

To: Joan Kessner

Company: BHI

City/State: RICHLAND, WA

Facsimile #: 1-425-969-4823

Telephone #:

E-Mail Address:

From: PNNL 326 COUNTING LAB

Title:

Facsimile #:

Telephone #: (509) 376-3198

E-Mail Address:

Transmittal Consists of [7] Page(s) including cover page.

COMMENTS:

SEP

EA-1950-231 (8/90)

ID:NI-63 L56500-2 19 SEP 2003 17:24
USER: 4 COMMENT:SN7069514
PRESET TIME : 2.00

DATA CALC :	SL DPM	HW	:YES	SAMPLE REPEATS:	1	PRINTER	: STD	Bechtel
COUNT BLANK :	NO	ID#	: NO	REPLICATES :	1	RS232	: OFF	Tikanoy
TWO PHASE :	NO	AQC	: NO	CYCLE REPEATS :	1	DISK	: OFF	9-19-03
SCINTILLATOR:	LIQUID	LUMEX	: NO	LOW SAMPLE REJ:	0	RWM LIST	: OFF	# 5937
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none		

ISOTOPE 1: NI-63 %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 30
WIDE OPEN WINDOW %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 64

BACKGROUND QUENCH CURVE: Off COLOR QUENCH CORRECTION: Off

Quench Limits Low:91.242 High:334.15

SAM NO	POS	TIME MIN	HW	NI-63 CPM	NI-63 %ERROR	WIDE CPM	WIDE %ERROR	NI-63 DPM	NI-63 EFF-1	LUMEX %	ELAPSED TIME	
1	58-1	2.00	56.2	4.98	166.80	1.33	860.56	6.58	75.67	10.77	2.49	BLANK
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
2	58-2	2.00	77.9	0.00	1.E+06	0.00	1.E+06	0.00	77.84	8.71	5.07	J00YB9
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
3	58-3	2.00	101.5	15.98	59.70	12.83	96.72	23.06	69.30	19.53	7.63	J00YC0
4	58-4	2.00	71.0	8.98	97.72	16.83	75.63	12.17	73.79	5.90	10.22	J00YC1
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
5	58-5	2.00	85.8	3.98	205.66	1.83	627.82	5.55	71.71	10.77	12.79	J00YC2
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
6	58-6	2.00	84.6	0.00	1.E+06	0.83	1373.7	0.00	71.88	3.79	15.34	J00YC3
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
7	58-7	2.00	90.1	0.00	1.E+06	0.00	1.E+06	0.00	71.98	8.67	17.92	J00YC4
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
8	58-8	2.00	80.5	5.98	140.91	10.33	118.17	8.25	72.48	10.11	20.49	J00YC5
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
9	58-9	2.00	77.0	0.00	1.E+06	2.83	409.04	0.00	77.96	5.77	23.05	J00YC6
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
10	58-10	2.00	90.1	3.48	233.45	5.33	221.20	4.90	71.07	11.45	25.63	J00YC7
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
11	58-11	2.00	87.0	5.98	140.91	5.83	202.95	8.36	71.54	9.89	28.23	J00YC8
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
12	58-12	2.00	90.0	1.98	400.87	4.83	243.22	2.79	71.09	7.06	30.81	J00YC9
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
13	13-1	2.00	85.5	0.98	796.96	0.33	3441.7	1.37	71.75	5.01	33.48	J00YD0
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
14	13-2	2.00	74.6	0.00	1.E+06	0.00	1.E+06	0.00	73.30	3.76	36.04	J00YD1
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
15	13-3	2.00	86.0	0.98	796.96	0.00	1.E+06	1.37	71.69	3.81	38.62	J00YD2
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
16	13-4	2.00	79.2	2.98	270.55	3.83	304.49	4.10	72.66	5.44	41.18	J00YD3
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										
17	13-5	2.00	87.5	7.48	115.00	10.33	118.17	10.47	71.47	7.84	43.77	J00YD4
		WARNING: QUENCH VALUE IS OUTSIDE QUENCH LIMIT										

ID:DAILY SOURCE 19 SEP 2003 17:23
USER: 0 COMMENT:LSC#2 USE UNQ C14 DIVIDE BY2

PRESET TIME :	0.50						
DATA CALC :	CPM	H#	:YES	SAMPLE REPEATS:	1	PRINTER	:EDIT
COUNT BLANK :	NO	IC#	: NO	REPLICATES :	1	RS232	: OFF
TWO PHASE :	NO	AQC	:YES	CYCLE REPEATS :	1	DISK	: OFF
SCINTILLATOR:	LIQUID	LUMEX:	NO	LOW SAMPLE REJ:	0	RWM LIST	: OFF
LOW LEVEL :	NO	HALF LIFE CORRECTION DATE:				none	

ISOTOPE 1: 14C %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0
WIDE OPEN WINDOW %ERROR: 0.00 FACTOR: 1.000000 BKG. SUB: 0

ALPHA-BETA DISCRIMINATION: NO

SAM NO	POS	TIME MIN	H#	14C CPM	14C %ERROR	WIDE CPM	WIDE %ERROR	LUMEX %	ELAPSED TIME
1	16-1	0.50	5.2	98842.00	0.90	99400.00	0.90	0.00	0.96

49,421
#5937

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		B01-055-065	Page 1 of 4
Collector HPT	Company Contact D.Shea	Telephone No. 373-6425	Project Coordinator KESSNER, JH	Price Code Air Quality	Data Turnaround 48 Hours
Project Designation 100 B/C Area Effluent Pipeline & Proximity Site Remediatio	Sampling Location 100 B/C pipelines, vehicle routines for Ni-63		SAF No. B01-055		
Ice Chest No. FFC97-079	Field Logbook No. EI-1548-4	COA R120BC2600	Method of Shipment Government Vehicle		
Shipped To PNNL Building 326	Offsite Property No. NA		Bill of Lading/Air Bill No. NA		

POSSIBLE SAMPLE HAZARDS/REMARKS

possibly radiologically contaminated

Special Handling and/or Storage

No

Preservation	None										
Type of Container	G										
No. of Container(s)	1										
Volume	30mL										
SAMPLE ANALYSIS	Low Energy Beta - Screen [Ni-el-63]										
Sample No. / Matrix * / Sample Date / Sample Time											
J00YB9 / OTHER SOLID / 9/17/03 / 1319	✓										
J00YC0 / OTHER SOLID	✓										
J00YC1 / OTHER SOLID	✓										
J00YC2 / OTHER SOLID	✓										
J00YC3 / OTHER SOLID	✓										

CHAIN OF POSSESSION	Sign/Print Names	
Relinquished By/Removed From	Date/Time	Received By/Stored In: DShea DSHEA 9/17/03 1319 — Date/Time
Relinquished By/Removed From: DShea DSHEA 9/17/03 1710	Date/Time	Received By/Stored In: Friday IA 9/17/03 1710 — Date/Time
Relinquished By/Removed From: IA 3728 9.18.03	Date/Time 1430	Received By/Stored In: RFolley RFolley 9.18.03 — Date/Time 1430
Relinquished By/Removed From: RFolley RFolley 9.18.03	Date/Time 1450	Received By/Stored In: J. Ferrito J Ferrito 9-18-03 — Date/Time 1450
Relinquished By/Removed From	Date/Time	Received By/Stored In — Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In — Date/Time

SPECIAL INSTRUCTIONS

Lab WO# P30068

sample time is the time samples were transferred to APS personell

Personnel not available to relinquish samples from 3728 Ref# IA on 9.18.03

Matrix *
S=Soil
SE=Sediment
SO=Solid
SL=Sludge
W=Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
WI=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (03/01/2002)

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B01-055-065	Page 2 of 4

Collector HPT	Company Contact D.Shea	Telephone No. 373-6425	Project Coordinator KESSNER, JE	Price Code Air Quality	Data Turnaround 48 Hours
Project Designation 200 B/C Area Effluent Pipeline & Proximity Site Remediation	Sampling Location 200 B/C pipelines, vehicle routines for Ni-63		SAF No. B01-055		
Ice Chest No. ERC 97-079	Field Logbook No. EL-1548-4	COA R100BC2600	Method of Shipment Government Vehicle		
Shipped To PNNL Building 326	Offsite Property No. NA		Bill of Lading/Air Bill No. NA		

POSSIBLE SAMPLE HAZARDS/REMARKS

possibly radiologically contaminated

Special Handling and/or Storage

None

Preservation	None										
Type of Container	G										
No. of Container(s)	1										
Volume	30mL										
SAMPLE ANALYSIS	Low Energy Beta - Screen (Nickel-63)										

Sample No.	Matrix *	Sample Date	Sample Time									
J00YC4	OTHER SOLID	9/17/03	1319	✓								
J00YC5	OTHER SOLID	↓	↓	✓								
J00YC6	OTHER SOLID			✓								
J00YC7	OTHER SOLID			✓								
J00YC8	OTHER SOLID	↓	↓	✓								

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
Relinquished By/Removed From		D.Shea D.Shea	9/17/03 1319
Relinquished By/Removed From: D.Shea D.SHEA	9/17/03 1700	Received By/Stored In: Fridge 1A	9/17/03 1700
Relinquished By/Removed From: 1A 3728	9.18.03 1430	Received By/Stored In: R.Fodge R.Fodge	9.18.03 1430
Relinquished By/Removed From: ERC R.Fodge R.Fodge	9.18.03 1450	Received By/Stored In: J.Ferrari J.Ferrari	9-18-03 1450
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	

SPECIAL INSTRUCTIONS

Lab WO# P23005

Sample time is time of transfer to AFS personnel

Personnel not available to relinquish samples from 3728 Ref 1A on 9/18/03

Matrix *

Se=Soil
SE=Sediment
SO=Solid
Sl=Sludge
W = Water
O=Oil
A=Air
DS=Drum Solids
DL=Drum Liquids
T=Tissue
W=Wipe
L=Liquid
V=Vegetation
X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (03/01/2002)

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B01-055-065	Page 2 of 4
Collector: HPT	Company Contact: D.Shea; Telephone No.: 373-6425	Project Coordinator: KESSNER, JH	Price Code: Air Quality; Data Turnaround: 48 Hours
Project Designation: 100 B/C Area Effluent Pipeline & Proximity Site Remediatio	Sampling Location: 100 B/C pipelines, vehicle routines for Nr-53	SAF No.: B01-053	
Ice Chest No.: ERC 97.079	Field Logbook No.: EI-1548-4; COA: R100BC2600	Method of Shipment: Government Vehicle	
Shipped To: PNNL Building 326	Offsite Property No.: NA	Bill of Lading/Air Bill No.: NA	

POSSIBLE SAMPLE HAZARDS/REMARKS

possibly radiologically contaminated

Special Handling and/or Storage

None

Preservation	None										
Type of Container	G										
No. of Container(s)	1										
Volume	30mL										
SAMPLE ANALYSIS	Low Energy Beta - Screen (Nickel-63)										

Sample No.	Matrix *	Sample Date	Sample Time										
J00YC9	OTHER SOLID	9/17/03	1319	✓									
J00YD0	OTHER SOLID	↓	↓	✓									
J00YD1	OTHER SOLID	↓	↓	✓									
J00YD2	OTHER SOLID	↓	↓	✓									
J00YD3	OTHER SOLID	↓	↓	✓									

CHAIN OF POSSESSION — Sign/Print Names

Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
		DShea D.SHEA	9/17/03 1319
DShea DShea	9/17/03 1700	Fridley IA	9/17/03 1700
IA 3728	9.18.03 1430	R.F. Fahlberg	9.18.03 1430
ERC R.F. Fahlberg	9.18.03 1450	J. Ferrito	9-18-03 1450

SPECIAL INSTRUCTIONS

Lab WOA P30005

Sample time is time of transfer to AFS personnel

Personnel not available to relinquish samples from 3728

Ref# IA ca 9/18/03

Matrix *: S=Soil; SE=Sediment; SO=Solid; SL=Sludge; W=Water; O=Oil; A=Air; DS=Drum Solids; DL=Drum Liquids; T=Tissue; WI=Wipe; L=Liquid; V=Vegetation; X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (03/01/2002)

Bechtel Hanford Inc.	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST	B01-055-065	Page 1 of 1

Collector: HPT	Company Contact: D.Shea — Telephone No.: 373-6425	Project Coordinator: KESSNER, JH	Price Code: — Air Quality: — Data Turnaround: 48 Hours
Project Designation: 100 B/C Area Effluent Pipeline & Proximity Site Remediatio	Sampling Location: 100 B/C pipelines, vehicle routines for N:-63	SAF No.: B01-055	
Ice Chest No.: ERC 97.079	Field Logbook No.: EI-1548-4 — COA: R10CBC2600	Method of Shipment: Government Vehicle	
Shipped To: PNNL Building 326	Offsite Property No.: NA	Bill of Lading/Air Bill No.: NA	

POSSIBLE SAMPLE HAZARDS/REMARKS

possibly radiologically contaminated

Special Handling and/or Storage

None

Preservation	None										
Type of Container	G										
No. of Container(s)	1										
Volume	30mL										
SAMPLE ANALYSIS	Low Energy Beta - Screen (Nickel-63)										
Sample No. / Matrix * / Sample Date / Sample Time											
J33YD4 / OTHER SOLID / 9/17/03 / 1319	✓										

CHAIN OF POSSESSION	Date/Time	Sign/Print Names: Received By/Stored In	Date/Time
Relinquished By/Removed From		D.Shea DSHEA	9/17/03 1319
Relinquished By/Removed From: DShea DShea	9/17/03 1740	Received By/Stored In: Fridge 1A	9/17/03 1700
Relinquished By/Removed From: 1A 3728	9.18.03 1430	Received By/Stored In: R Fehlhaber R Fehlhaber	9.18.03 1430
Relinquished By/Removed From: ERC R Fehlhaber R Fehlhaber	9.18.03 1450	Received By/Stored In: J. Ferrier	9-18-03 1450
Relinquished By/Removed From		Received By/Stored In	
Relinquished By/Removed From		Received By/Stored In	

SPECIAL INSTRUCTIONS

Lab W/O# P30005

Sample time is time of transfer to AFS personnel

Personnel not available to relinquish samples from 3728 Ref # LB on 9.18.03

Matrix *: S=Soil; SE=Sediment; SO=Solid; SL=Sludge; W=Water; O=Oil; A=Air; DS=Drum Solids; DL=Drum Liquids; TW=Tissue; WI=Wipe; L=Liquid; TS=Tissue; X=Other

LABORATORY SECTION	Received By	Title	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

BHI-EE-011 (03/01/2002)