

START

BHI-00452
Rev. 0

300-FF-1 Phase I Remedial Investigation TCLP Data



Prepared for the U.S. Department of Energy
Office of Environmental Restoration and
Waste Management

Bechtel Hanford, Inc.
Richland, Washington

9513387.2917

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Signature

11/21/95
Date

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300-FF-1 Phase I Remedial Investigation TCLP Data

Author
R. A. Carlson

Date Published
November 1995



Prepared for the U.S. Department of Energy
Office of Environmental Restoration and
Waste Management

Bechtel Hanford, Inc.

Richland, Washington

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A Toxic Characteristic Leach Procedure Data Results for
Samples B01038 and B01044 A-1

1.0 SUMMARY

Toxic Characteristic Leach Procedure (TCLP) tests were performed on two samples taken from the 300 Area Process Trenches during the expedited response action conducted in 1991. The two samples were B01038 and B01044. The samples were received by Thermo Analytical, Inc. on August 7, 1991 and a results report generated on August 21, 1991. "Information Only" copies of the results were received from the laboratory at that time. Formal transmission of the laboratory results did not occur. During recent technical discussions between the U.S. Environmental Protection Agency, the Washington State Department of Ecology, and the U.S. Department of Energy, Richland Operations Office, the data was needed but not found in the 300-FF-1 Phase I Remedial Investigation Report (DOE-RL 1993) or the Hanford Environmental Information System data base. Thermal Analytical, Inc. was contacted and the results were found, formally transmitted, and received on May 17, 1995. The purpose of this report is to summarize and document the data results. Data validation will not be performed at this time.

2.0 DESCRIPTION OF DATA

Splits were taken of samples B01038 and B01044 for TCLP analysis during the expedited response action taken at the 300 Area Process Trenches in 1991. Specific sample location information can be found in the 300-FF-1 Phase I Remedial Investigation Report (DOE-RL 1993). One sample was taken near the head end and the other near the tail end of the east process trench. TCLP tests were run for herbicides, metals, pesticides, semivolatiles, and volatiles. Matrix spike and duplicate analysis were performed on sample B01038. The sample results all passed regulatory limits and are summarized in Table 1. The laboratory data package as received in May 1995 is included as Appendix A to this report.

3.0 REFERENCE

DOE-RL, 1993, *Phase I Remedial Investigation Report for the 300-FF-1 Operable Unit*, DOE/RL-92-43, Rev. 0, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

Table 1. Toxic Characteristic Leach Procedure Data Results Summary. (2 Sheets)

Compound Tested	Sample Results			Regulatory Limit
	B01038	B01038 (Duplicate)	B01044	
Herbicide				
2,4-D	ND	ND	ND	10.0 µg/L
2,4,5-TP	ND	ND	ND	1.0 µg/L
Metals				
Arsenic	ND	ND	ND	5.0 mg/L
Barium	0.30 mg/L	0.34 mg/L	0.51 mg/L	100.0 mg/L
Cadmium	0.02 mg/L	0.02 mg/L	0.01 mg/L	1.0 mg/L
Chromium	ND	ND	ND	5.0 mg/L
Lead	0.006 mg/L	0.006 mg/L	0.005 mg/L	5.0 mg/L
Mercury	ND	ND	0.0006 mg/L	0.2 mg/L
Selenium	ND	ND	ND	1.0 mg/L
Silver	ND	ND	ND	5.0 mg/L
Pesticides				
Chlordane	ND	ND	ND	0.03 µg/L
Endrin	ND	ND	ND	0.02 µg/L
Heptachlor and Heptachlor Epoxide	ND	ND	ND	0.008 µg/L
Lindane	ND	ND	ND	0.4 µg/L
Methoxychlor	ND	ND	ND	10.0 µg/L
Toxaphene	ND	ND	ND	0.5 µg/L
Semivolatiles				
Cresols - Total	ND	ND	ND	200.0 mg/L
o-Cresol	ND	ND	ND	200.0 mg/L
m-Cresol	ND	ND	ND	200.0 mg/L
p-Cresol	ND	ND	ND	200.0 mg/L
1,4-Dichlorobenzene	ND	ND	ND	7.5 mg/L
2,4-Dinitrotoluene	ND	ND	ND	0.13 mg/L
Hexachlorobenzene	ND	ND	ND	0.13 mg/L
Hexachlorobutadiene	ND	ND	ND	0.5 mg/L
Hexachloroethane	ND	ND	ND	3.0 mg/L
Nitrobenzene	ND	ND	ND	2.0 mg/L
Pentachlorophenol	ND	ND	ND	100.0 mg/L
2,4,5-Trichlorophenol	ND	ND	ND	400.0 mg/L
2,4,6-Trichlorophenol	ND	ND	ND	1.0 mg/L

Table 1. Toxic Characteristic Leach Procedure Data Results Summary. (2 Sheets)

Compound Tested	Sample Results			Regulatory Limit
	B01038	B01038 (Duplicate)	B01044	
Volatiles				
Benzene	ND	ND	ND	0.5 mg/L
Carbon tetrachloride	ND	ND	ND	0.5 mg/L
Chlorobenzene	ND	ND	ND	100.0 mg/L
Chloroform	ND	ND	ND	6.0 mg/L
1,2-Dichloroethane	ND	ND	ND	0.5 mg/L
1,1-Dichloroethylene	79.0 µg/L	80.0 µg/L	ND	0.7 mg/L
Methyl ethyl ketone	80.0 µg/L	82.0 µg/L	30.0 µg/L	200.0 mg/L
Pyridine	ND	ND	ND	5.0 mg/L
Tetrachloroethylene	ND	ND	ND	0.7 mg/L
Trichloroethylene	ND	ND	ND	0.5 mg/L
Vinyl Chloride	ND	ND	ND	0.2 mg/L
ND = Not Detected.				

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APPENDIX A

**TOXIC CHARACTERISTIC LEACH PROCEDURE DATA RESULTS FOR
SAMPLES B01038 AND B01044**

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Received: 08/07/91

TMA Inc.

REPORT

Work Order # A1-08-068

08/21/91 10:34:30

REPORT Westinghouse Hanford Company
TO 2355 Stevens Dr.
Richland, WA. 99352
MO-346/200 West/T6-08
ATTEN Connie Similie

PREPARED Thermo Analytical, Inc.
BY 160 Taylor Street
Monrovia, CA 91016

ATTEN Ms. Carole Harris
PHONE 818-357-3247

[Signature]
CERTIFIED BY
CONTACT GC

CLIENT WHC SAMPLES 2
COMPANY Westinghouse Hanford Company
FACILITY _____

This report is for the sole and exclusive use of the client to whom it is addressed and represents only those samples herein described. Samples not destroyed in testing are retained a maximum of 30 days unless otherwise requested.

JRK ID Analysis
TAKEN By Westinghouse Staff
TRANS Federal Express
TYPE Soil
P. O. # MBH-SVV-069262
INVOICE under separate cover

COPY

SAMPLE IDENTIFICATION

- 01 001038 (06E)
- 01 001038 (06E) MS
- 01 001038 (06E) Duplicate
- 02 001044 (12E)

TEST CODES and NAMES used on this workorder

- AS SED As/Se Digestion
- HG P Hg Digestion
- MPREPW Metals Prep. - Liquid
- OX8190 Chlor. Herb. Extraction
- TCLPH TCLP Herbicides
- TCLPMT TCLP Metals
- TCLPP TCLP Pesticides
- TCLPSV TCLP Semi-volatiles
- TCLPV TCLP Volatiles (Regulatory)
- TCLPX EPA - TCLP Extraction
- TCLPZ TCLP, Zero Headspace



Received: 08/07/91

Results by Sample

BH100452 WS1/A2

SAMPLE ID B01038 (06E)	SAMPLE # 01 FRACTIONS: A	Category RAD
Date & Time Collected not specified		
TCLPX 08/11/91 Date	TCLPZ 08/12/91 Date	

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Received: 08/07/91

Results by Sample

SAMPLE ID B01038 (06E)

FRACTION 01A TEST CODE TCLPH NAME TCLP Herbicides
Date & Time Collected not specified Category RAD

TCLP HERBICIDES (by EPA 8150)

COMPOUND	RESULT	REG. LIM	DET LIMIT
2,4-D	<u>ND</u>	10.0	0.4
2,4,5-TP	<u>ND</u>	1.0	0.05

NOTE: All results reported in ug/L unless otherwise specified
ND = Not detected at the specified limits

ANALYST CY
DATE INJECTED 08/16/91
DILUTION FACTOR 1.00

BH100452.WS1/A2

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Received: 08/07/91

Results by Sample

SAMPLE ID B01038 (06E)

FRACTION 01A TEST CODE TCLPMT NAME TCLP Metals
Date & Time Collected not specified Category RAD

TCLP METALS

COMPOUND	RESULT	REG. LIM	DET LIMIT
Arsenic	<u>ND</u>	5.0	0.001
Barium	<u>0.30</u>	100.	0.05
Cadium	<u>0.02</u>	1.0	0.01
Chromium	<u>ND</u>	5.0	0.02
Lead	<u>0.006</u>	5.0	0.001
Mercury	<u>ND</u>	0.2	0.0002
Selenium	<u>ND</u>	1.0	0.002
Silver	<u>ND</u>	5.0	0.01

NOTE: All results reported in mg/L unless otherwise specified
ND = Not detected at the specified limits

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DATE INJECTED 08/15/91
DILUTION FACTOR 1.00

BH100452.WS1/A2

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Received: 08/07/91

THE INC.

REPORT

WATER QUALITY CONTROL

Results by Sample

SAMPLE ID B01038 (06E)

FRACTION 01A TEST CODE TCLPP NAME TCLP Pesticides

Date & Time Collected not specified

Category RAD

TCLP PESTICIDES (by EPA 8080)

COMPOUND	RESULT	REG. LIM	DET LIMIT
Chlordane	<u>ND</u>	0.03	0.2
Endrin	<u>ND</u>	0.02	0.1
Heptachlor & Heptachlor Epoxide	<u>ND</u>	0.008	0.05
Lindane	<u>ND</u>	0.4	0.05
Methoxychlor	<u>ND</u>	10.0	0.3
Toxaphene	<u>ND</u>	0.5	0.2

NOTE: All results reported in ug/L unless otherwise specified
ND = Not detected at the specified limits

ANALYST CY
DATE INJECTED 08/16/91
DILUTION FACTOR 1.00

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Received: 08/07/91

TMA Inc.

REPORT

Work Order # A1-08-068

Results by Sample

SAMPLE ID B01038 (06E)

FRACTION 01A

TEST CODE TCLPSV

NAME TCLP Semi-volatiles

Date & Time Collected not specified

Category RAD

TCLP SEMIVOLATILES (by EPA 8270)

COMPOUND	RESULT	REG. LIM mg/L	DET LIMIT
Cresols - Total	ND	200.	25
o-Cresol	ND	200.	25
m-Cresol	ND	200.	25
p-Cresol	ND	200.	25
1,4-Dichlorobenzene	ND	7.5	25
2,4-Dinitrotoluene	ND	0.13	25
Hexachlorobenzene	ND	0.13	25
Hexachlorobutadiene	ND	0.50	25
Hexachloroethane	ND	3.0	25
Nitrobenzene	ND	2.0	25
Pentachlorophenol	ND	100.	125
2,4,5-Trichlorophenol	ND	400.	25
2,4,6-Trichlorophenol	ND	1.0	25

SURROGATE COMPOUND	%RECOVERY
d5-nitrobenzene	85
2-fluorobiphenyl	82
d14-terphenyl	120
2-fluorophenol	84
d5-phenol	56
2,4,6-tribromophenol	80

ANALYST FH
DATE INJECTED 08/15/91
DATE EXTRACTED 08/14/91
DILUTION FACTOR 5.00
METHOD BLANK 081592

NOTE: All results reported in ug/L unless otherwise specified
ND = Not detected at the specified limits

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Received: 08/07/91

TMA Inc.

REPORT

Work Order # A1-08-068

Results by Sample

SAMPLE ID B01038 (06E)

FRACTION 01A

TEST CODE TCLPV

NAME TCLP Volatiles(Regulatory)

Date & Time Collected not specified

Category RAD

TCLP VOLATILES (by EPA 8240)

COMPOUND	RESULT	REG. LIM	DET LIMIT
		mg/L	
Benzene	ND	0.5	5
Carbon tetrachloride	ND	0.5	5
Chlorobenzene	ND	100.	5
Chloroform	ND	6.0	5
1,2-Dichloroethane	ND	0.5	5
1,1-Dichloroethylene	79	0.7	5
Methyl ethyl ketone	80	200.	10
Pyridine	ND	5.0	500
Tetrachloroethylene	ND	0.7	5
Trichloroethylene	ND	0.5	5
Vinyl Chloride	ND	0.2	10

NOTE: All results reported in ug/L unless otherwise specified
ND = Not detected at the specified limits

SURROGATE COMPOUNDS

% RECOVERY

d8-Toluene	96
Bromofluorobenzene	113
1,2-Dichloroethane-d4	75

ANALYST WA
DATE INJECTED 08/15/91
DILUTION FACTOR 1.00

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TMA Inc.

REPORT

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Results by Sample

SAMPLE ID B01038 (06E) MS	SAMPLE # 01 FRACTIONS: B
Date & Time Collected not specified	
Category RAD	
TCLPX 08/11/91 Date	TCLPZ 08/12/91 Date

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REPORT

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Results by Sample

SAMPLE ID B01038 (06E) MS

FRACTION 01B

TEST CODE TCLPH

NAME TCLP Herbicides

Date & Time Collected not specified

Category RA0

TCLP HERBICIDES (by EPA 8150)

COMPOUND	RESULT	REQ. LIM	DET LIMIT
2,4-D	<u>78</u>	10.0	0.4
2,4,5-TP	<u>58</u>	1.0	0.05

NOTE: All results reported in % Rec unless otherwise specified
ND = Not detected at the specified limits

ANALYST CY
DATE INJECTED 08/16/91
DILUTION FACTOR 1.00

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Results by Sample

SAMPLE ID B01038 (06E) MS

FRACTION 01B TEST CODE TCLPMT NAME TCLP Metals

Date & Time Collected not specified

Category KAD

TCLP METALS

COMPOUND	RESULT	REG. LIM	DET LIMIT
Arsenic	<u>0.515</u>	5.0	103.
Barium	<u>0.87</u>	100.	87.
Cadium	<u>0.89</u>	1.0	87.
Chromium	<u>0.90</u>	5.0	90.
Lead	<u>0.988</u>	5.0	97.
Mercury	<u>0.0247</u>	0.2	97.
Selenium	<u>0.369</u>	1.0	74.
Silver	<u>0.84</u>	5.0	84.

NOTE: All results reported in % Rec unless otherwise specified
ND = Not detected at the specified limits

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Results by Sample

Work Order # A1-08-068

SAMPLE ID B01038 (06E) MS FRACTION 01B TEST CODE TCLPP NAME TCLP Pesticides
Date & Time Collected not specified Category RAI

TCLP PESTICIDES (by EPA 0080)

COMPOUND	RESULT	REG. LIM	DET LIMIT
Chlordane	<u>84</u>	0.03	0.2
Endrin	<u>76</u>	0.02	0.1
Heptachlor & Heptachlor Epoxide	<u>84</u>	0.008	0.05
Lindane	<u>86</u>	0.4	0.05
Methoxychlor	<u>70</u>	10.0	0.3
Toxaphene	<u>NA</u>	0.5	0.2

NOTE: All results reported in % Rec unless otherwise specified
ND = Not detected at the specified limits

ANALYST CY
DATE INJECTED 08/16/91
DILUTION FACTOR 1.00

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TMA Inc.

REPORT

Work Order # A1-08-068

Results by Sample

SAMPLE ID B01038 (06E)/MS

FRACTION 01B

TEST CODE TCLPSV

NAME TCLP Semi-volatiles

Date & Time Collected not specified

Category RA0

TCLP SEMIVOLATILES (by EPA 8270)

COMPOUND	RESULT	REG. LIM mg/L	DET LIMIT
Cresols - Total	NA	200.	NA
o-Cresol	97	200.	25
m-Cresol	NA	200.	NA
p-Cresol	NA	200.	NA
1,4-Dichlorobenzene	118	7.5	25
2,4-Dinitrotoluene	NA	0.13	NA
Hexachlorobenzene	NA	0.13	NA
Hexachlorobutadiene	110	0.50	25
Hexachloroethane	98	3.0	25
Nitrobenzene	124	2.0	25
Pentachlorophenol	NA	100.	NA
2,4,5-Trichlorophenol	NA	400.	NA
2,4,6-Trichlorophenol	NA	1.0	NA

SURROGATE COMPOUND	%RECOVERY
d5-nitrobenzene	86
2-fluorobiphenyl	80
d14-terphenyl	121
2-fluorophenol	85
d5-phenol	86
2,4,6-tribromophenol	78

ANALYST FH
DATE INJECTED 08/15/91
DATE EXTRACTED 08/14/91
DILUTION FACTOR 5.00
METHOD BLANK 0815N2

NOTE: All results reported in % Rec unless otherwise specified
ND = Not detected at the specified limits

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Results by Sample

SAMPLE ID B01038 (06E) MS

FRACTION 01B

TEST CODE TCLPV

NAME TCLP Volatiles(Regulatory)

Date & Time Collected not specified

Category RA0

TCLP VOLATILES (by EPA 8240)

COMPOUND	RESULT	REG. LIM mg/L	DET LIMIT
Benzene	<u>90</u>	0.5	5
Carbon tetrachloride	<u>NA</u>	0.5	NA
Chlorobenzene	<u>86</u>	100.	5
Chloroform	<u>NA</u>	6.0	NA
1,2-Dichloroethane	<u>NA</u>	0.5	NA
1,1-Dichloroethylene	<u>50</u>	0.7	5
Methyl ethyl ketone	<u>NA</u>	200.	NA
Pyridine	<u>NA</u>	5.0	NA
Tetrachloroethylene	<u>NA</u>	0.7	NA
Trichloroethylene	<u>86</u>	0.5	5
Vinyl Chloride	<u>NA</u>	0.2	NA

NOTE: All results reported in 1 % Rec unless otherwise specified
ND = Not detected at the specified limits

SURROGATE COMPOUNDS

% RECOVERY

dB-Toluene	98
Bromofluorobenzene	98
1,2-Dichloroethane-d4	94

ANALYST WA
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DILUTION FACTOR 1.00

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TMA Inc.

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Results by Sample

BHI00452.WS1/A2

SAMPLE ID	B01038 (06E) Duplicate	SAMPLE #	01	FRACTIONS:	C
		Date & Time Collected	not specified		Category
					RAD
TCLPX	08/11/91	TCLPZ	08/12/91		
	Date		Date		

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Results by Sample

SAMPLE ID B01038 (06E) Duplicate

FRACTION 01C TEST CODE TCLPH NAME TCLP Herbicides
Date & Time Collected not specified Category RAD

TCLP HERBICIDES (by EPA 0150)

COMPOUND	RESULT	REQ. LIM	DET LIMIT
2,4-D	<u>ND</u>	10.0	0.4
2,4,5-TP	<u>ND</u>	1.0	0.05

NOTE: All results reported in ug/L unless otherwise specified
ND = Not detected at the specified limits

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DATE INJECTED 08/16/91
DILUTION FACTOR 1.00

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TMA Inc. REPORT
Results by Sample

Work Order # A1-08-068

SAMPLE ID B01038 (06E) Duplicate

FRACTION 01C TEST CODE TCLPMT NAME TCLP Metals
Date & Time Collected not specified Category RA0

TCLP METALS

COMPOUND	RESULT	REG. LIM	DET LIMIT
Arsenic	<u>ND</u>	5.0	0.001
Barium	<u>0.34</u>	100.	0.05
Cadium	<u>0.02</u>	1.0	0.01
Chromium	<u>ND</u>	5.0	0.02
Lead	<u>0.006</u>	5.0	0.001
Mercury	<u>ND</u>	0.2	0.0002
Selenium	<u>ND</u>	1.0	0.002
Silver	<u>ND</u>	5.0	0.01

NOTE: All results reported in mg/L unless otherwise specified
ND = Not detected at the specified limits

ANALYST RSE
DATE INJECTED 08/15/91
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TMA Inc.

REPORT

Work Order # A1-08-068

Results by Sample

SAMPLE ID B01038 (06E) Duplicate

FRACTION 01C

TEST CODE TCLPP

NAME TCLP Pesticides

Date & Time Collected not specified

Category RAD

TCLP PESTICIDES (by EPA 0080)

COMPOUND	RESULT	REG. LIM	DET LIMIT
Chlordane	<u>ND</u>	0.03	0.2
Endrin	<u>ND</u>	0.02	0.1
Heptachlor & Heptachlor Epoxide	<u>ND</u>	0.008	0.05
Lindane	<u>ND</u>	0.4	0.05
Methoxychlor	<u>ND</u>	10.0	0.3
Topaphene	<u>ND</u>	0.5	0.2

NOTE: All results reported in ug/L unless otherwise specified
ND = Not detected at the specified limits

ANALYST CY
DATE INJECTED 08/16/91
DILUTION FACTOR 1.00

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TMA Inc.

REPORT

Work Order # A1-08-068

Results by Sample

SAMPLE ID B01038 (06E) Duplicate

FRACTION 01C

TEST CODE TCLPSV

NAME TCLP Semi-volatiles

Date & Time Collected not specified

Category RAD

TCLP SEMIVOLATILES (by EPA 8270)

COMPOUND	RESULT	REQ. LIM mg/L	DET LIMIT
Cresols - Total	ND	200.	25
o-Cresol	ND	200.	25
m-Cresol	ND	200.	25
p-Cresol	ND	200.	25
1,4-Dichlorobenzene	ND	7.5	25
2,4-Dinitrotoluene	ND	0.13	25
Hexachlorobenzene	ND	0.13	25
Hexachlorobutadiene	ND	0.50	25
Hexachloroethane	ND	3.0	25
Nitrobenzene	ND	2.0	25
Pentachlorophenol	ND	100.	125
2,4,5-Trichlorophenol	ND	400.	25
2,4,6-Trichlorophenol	ND	1.0	25

SURROGATE COMPOUND	%RECOVERY
d5-nitrobenzene	89
2-fluorobiphenyl	89
d14-terphenyl	100
2-fluorophenol	88
d5-phenol	58
2,4,6-tribromophenol	85

ANALYST FH
DATE INJECTED 08/15/91
DATE EXTRACTED 08/14/91
DILUTION FACTOR 5.00
METHOD BLANK 0815N2

NOTE: All results reported in ug/L unless otherwise specified
ND = Not detected at the specified limits

BHI00452.V51/V2

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TMA Inc.

REPORT

Work Order # A1-08-068

Results by Sample

SAMPLE ID B01038 (06E) Duplicate

FRACTION 01C

TEST CODE TCLPV

NAME TCLP Volatiles(Regulatory)

Date & Time Collected not specified

Category RAI

TCLP VOLATILES (by EPA 8240)

COMPOUND	RESULT	REG. LIM mg/L	DET LIMIT
Benzene	ND	0.5	5
Carbon tetrachloride	ND	0.5	5
Chlorobenzene	ND	100.	5
Chloroform	ND	5.0	5
1,2-Dichloroethane	ND	0.5	5
1,1-Dichloroethylene	80	0.7	5
Methyl ethyl ketone	82	200.	10
Pyridine	ND	5.0	500
Tetrachloroethylene	ND	0.7	5
Trichloroethylene	ND	0.5	5
Vinyl Chloride	ND	0.2	10

NOTE: All results reported in ug/L unless otherwise specified
ND = Not detected at the specified limits

SURROGATE COMPOUNDS

% RECOVERY

d8-Toluene	96
Bromofluorobenzene	98
1,2-Dichloroethane-d4	96

ANALYST WA
DATE INJECTED 08/15/91
DILUTION FACTOR 1.00

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TMA Inc.

REPORT
Results by Sample

Work Order # A1-08-068

SAMPLE ID B01044 (12E)	SAMPLE # 02 FRACTIONS: A
TCLPX 08/11/91 Date	TCLPZ 08/12/91 Date
Date & Time Collected not specified	
Category RAD	

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TMA Inc. REPORT
Results by Sample

Work Order # A1-08-068

SAMPLE ID B01044 (12E)

FRACTION 02A TEST CODE TCLPH NAME TCLP Herbicides
Date & Time Collected not specified Category RAD

TCLP HERBICIDES (by EPA 0150)

COMPOUND	RESULT	REQ. LIM	DET LIMIT
2,4-D	<u>ND</u>	10.0	0.4
2,4,5-TP	<u>ND</u>	1.0	0.05

NOTE: All results reported in ug/L unless otherwise specified
ND = Not detected at the specified limits

ANALYST CY
DATE INJECTED 08/16/91
DILUTION FACTOR 1.00

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TMA Inc.

REPORT

Work Order # A1-08-068

Results by Sample

SAMPLE ID B01044 (12E)

FRACTION 02A TEST CODE TCLPMT NAME TCLP Metals

Date & Time Collected not specified Category RAD

TCLP METALS

COMPOUND	RESULT	REG. LIM	DET LIMIT
Arsenic	<u>ND</u>	5.0	0.001
Barium	<u>0.51</u>	100.	0.05
Cadium	<u>0.01</u>	1.0	0.01
Chromium	<u>ND</u>	5.0	0.02
Lead	<u>0.005</u>	5.0	0.001
Mercury	<u>0.0006</u>	0.2	0.0002
Selenium	<u>ND</u>	1.0	0.002
Silver	<u>ND</u>	5.0	0.01

NOTE: All results reported in mg/L unless otherwise specified
ND = Not detected at the specified limits

ANALYST RSF
DATE INJECTED 08/15/91
DILUTION FACTOR 1.00

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TMA Inc. REPORT
 Results by Sample

Work Order # A1-08-068

SAMPLE ID B01044 (1WE) FRACTION 02A TEST CODE TCLPSV NAME TCLP Semi-volatiles
 Date & Time Collected not specified Category RAD

TCLP SEMIVOLATILES (by EPA 8270)

COMPOUND	RESULT	REG. LIM mg/L	DET LIMIT
Cresols - Total	ND	200.	25
o-Cresol	ND	200.	25
m-Cresol	ND	200.	25
p-Cresol	ND	200.	25
1,4-Dichlorobenzene	ND	7.5	25
2,4-Dinitrotoluene	ND	0.13	25
Hexachlorobenzene	ND	0.13	25
Hexachlorobutadiene	ND	0.50	25
Hexachloroethane	ND	3.0	25
Nitrobenzene	ND	2.0	25
Pentachlorophenol	ND	100.	125
2,4,5-Trichlorophenol	ND	400.	25
2,4,6-Trichlorophenol	ND	1.0	25

SURROGATE COMPOUND	%RECOVERY
d5-nitrobenzene	80
2-fluorobiphenyl	75
d14-terphenyl	103
2-fluorophenol	82
d5-phenol	56
2,4,6-tribromophenol	69

ANALYST EH
 DATE INJECTED 08/19/91
 DATE EXTRACTED 08/14/91
 DILUTION FACTOR 5.00
 METHOD BLANK 0815N2

NOTE: All results reported in ug/L unless otherwise specified
 ND = Not detected at the specified limits

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TMA Inc.

REPORT

Work Order # A1-08-068

Results by Sample

SAMPLE ID B01044 (12E)

FRACTION 02A TEST CODE TCLPV NAME TCLP Volatiles(Regulatory)
 Date & Time Collected not specified Category RAD

TCLP VOLATILES (by EPA 8240)

COMPOUND	RESULT	REG. LIM	DET LIMIT
		mg/L	
Benzene	ND	0.5	5
Carbon tetrachloride	ND	0.5	5
Chlorobenzene	ND	100.	5
Chloroform	ND	6.0	5
1,2-Dichloroethane	ND	0.5	5
1,1-Dichloroethylene	ND	0.7	5
Methyl ethyl ketone	30	200.	10
Pyridine	ND	5.0	500
Tetrachloroethylene	ND	0.7	5
Trichloroethylene	ND	0.5	5
Vinyl Chloride	ND	0.2	10

NOTE: All results reported in ug/L unless otherwise specified
 ND = Not detected at the specified limits

SURROGATE COMPOUNDS

% RECOVERY

dB-Toluene	98
Bromofluorobenzene	96
1,2-Dichloroethane-d4	95

ANALYST WA
 DATE INJECTED 08/15/91
 DILUTION FACTOR 1.00

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TMA Inc.

REPORT

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NonReported Work

FRACTION AND TEST CODES FOR WORK NOT REPORTED ELSEWHERE

01A	I	AS_SED	HG_P	MPREPW	OX8150	OXBNAW	OXPEST
01B	I	AS_SED	HG_P	MPREPW	OX8150	OXBNAW	OXPEST
01C	I	AS_SED	HG_P	MPREPW	OX8150	OXBNAW	OXPEST
02A	I	AS_SED	HG_P	MPREPW	OX8150	OXBNAW	OXPEST

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