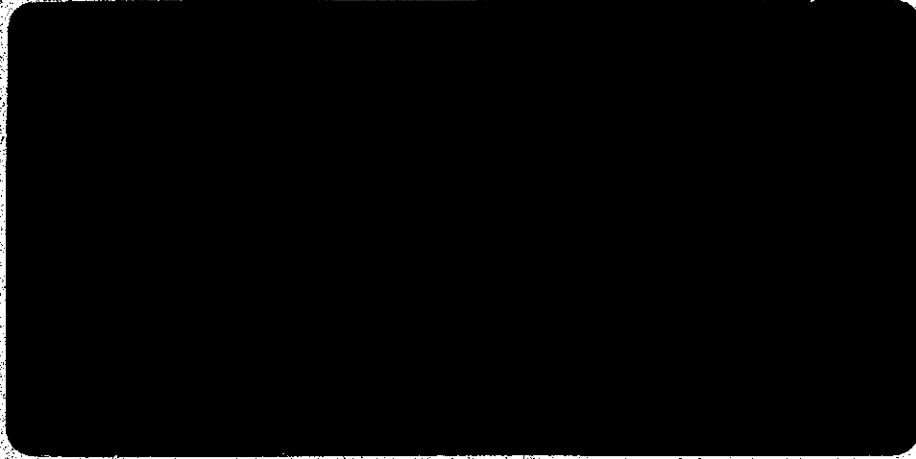


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Weiss Associates

5500 Shellmound Street, Emeryville, CA 94608-2411

Environmental and Geologic Services

Fax: 510-547-5043 Phone: 510-450-6000

SUBSURFACE INVESTIGATION V.2

at the

07/26/94

**New Century Beverage Company Facility
1150 Park Avenue, Emeryville, California**

Volume 2: Appendix B

prepared for

New Century Beverage Co.
1150 Park Avenue
Emeryville, California 94618

WA Job #14-307-02

July 26, 1994



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608

Date: 18-MAR-94
Lab Job Number: 114755
Project ID: 14-307-01
Location: N/A

Reviewed by:

Reviewed by:

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LABORATORY NUMBER: 114755
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/14,15/94
 DATE REPORTED: 03/15/94

 Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (mg/Kg)	TVH AS GASOLINE (mg/Kg)	REPORTING LIMIT (mg/Kg)	SURROGATE RECOVERIES TFT,% BFB, %	
114755-2	BH-6@5	ND	ND	1	95	89
114755-3	BH-6@7.5	**	10*	2	86	96
114755-7	BH-19@7.5	**	23*	2	103	96
114755-9	BH-19@12.5	ND	ND	1	104	98
114755-14	SB20@7.5	ND	ND	1	100	98
114755-16	SB20@12.5	ND	ND	1	100	97
114755-METHOD	BLANK	ND	ND	1	93	96

TFT = Trifluorotoluene (Limits: 60-140)
 BFB = Bromofluorobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit. Reporting limit applies to all analytes.

**Mineral spirits not reported due to overlap of hydrocarbon ranges.
 *Sample pattern does not match chromatogram

QA/QC SUMMARY: MS/MSD

RPD, %	5 (Limit: <25 %)
RECOVERY, %	89 (Limits: 70-130)

Spiked sample: 114750-092

LABORATORY NUMBER: 114755
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/15,16/94
 DATE REPORTED: 03/18/94

Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (mg/Kg)	TVH AS GASOLINE (mg/Kg)	REPORTING LIMIT (mg/Kg)	SURROGATE RECOVERIES TFT, % BB, %	
114755-11	BH-6	**	4	1	87	95
114755-METHOD	BLANK	ND	ND	1	93	96

TFT = Trifluorotoluene (Limits: 60-140)

BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

**Mineral spirits not reported due to overlap of hydrocarbon ranges.

QA/QC SUMMARY: MS/MSD

RPD, %	5	(Limit: <25 %)
RECOVERY, %	89	(Limits: 70-130)

Spiked sample: 114750-092



LABORATORY NUMBER: 114755
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/14/94
DATE RECEIVED: 03/14/94
DATE ANALYZED: 03/15,16/94
DATE REPORTED: 03/16/94

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (ug/L)	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB, %	
114755-12	BH-19	ND	ND	50	105	102
114755-20	SB-20	ND	ND	50	103	100
114755-METHOD	BLANK	ND	ND	50	108	103

TFT = Trifluorotoluene (Limits: 60-140)
BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: BS/BSD

RPD,%	2	(Limit: <25 %)
RECOVERY,%	112	(Limits: 70-130)

LABORATORY NUMBER: 114755
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE EXTRACTED: 03/15/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/16/94
 DATE REVISED: 04/13/94

 Extractable Petroleum Hydrocarbons in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	MOTOR OIL RANGE (mg/Kg)	SURROGATE RECOVERY (Hexacosane)
114755-2	BH-6@5	ND(1)	4 *	37	126 %
114755-3	BH-6@7.5	**	230 *	1,200	113 %
114755-7	BH-19@7.5	**	150	ND(30)	103 %
114755-9	BH-19@12.5	ND(1)	ND(1)	ND(30)	96 %
114755-14	SB20@7.5	ND(1)	ND(1)	ND(30)	126 %
114755-16	SB20@12.5	ND(1)	ND(1)	ND(30)	115 %
114755-METHOD BLANK		ND(1)	ND(1)	ND(30)	111 %

** Kerosene range not reported due to overlap of hydrocarbon ranges.
 * Diesel range quantitation results from motor oil range hydrocarbons.

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: MS/MSD

RPD, %	6	(Limit: <25 %)
RECOVERY, %	103	(Limits: 50-150)

Spiked sample: 114613-003

LABORATORY NUMBER: 114755
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE EXTRACTED: 03/15/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/16/94
 DATE REVISED: 04/19/94

 Extractable Petroleum Hydrocarbons in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/L)	DIESEL RANGE (mg/L)	MOTOR OIL RANGE (mg/L)	SURROGATE RECOVERY (Hexacosane)
114755-11	BH-6	**	79 *	730	114 %
114755-12	BH-19	**	110	ND(20)	87 %
114755-20	SB-20	ND(1)	ND(1)	ND(20)	80 %
114755-METHOD	BLANK	ND(1)	ND(1)	ND(20)	94 %

** Kerosene range not reported due to overlap of hydrocarbon ranges.
 * Diesel range quantitation results from motor oil range hydrocarbons.

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	3	(Limit: <25 %)
RECOVERY, %	90	(Limits: 50-150)

LABORATORY NUMBER: 114755
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/14,15/94
 DATE REPORTED: 03/15/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE	TOLUENE	ETHYL	TOTAL	REPORTING	SURROGATE	
		(ug/Kg)	(ug/Kg)	BENZENE (ug/Kg)	XYLENES (ug/Kg)	LIMIT (ug/Kg)	TFT,%	BB,%
114755-2	BH-6@5	ND	ND	ND	ND	5	92	85
114755-3*	BH-6@7.5	ND	ND	17	ND	30	95	102
114755-7	BH-19@7.5	ND	ND	61	19**	10	96	79
114755-9	BH-19@12.5	ND	ND	ND	ND	5	97	92
114755-14	SB20@7.5	ND	ND	ND	ND	5	97	93
114755-16	SB20@12.5	ND	ND	ND	ND	5	95	91

*Preliminary results. Being rerun for a lower detection limit.

TFT = Trifluorotoluene (Limits: 60-140)
 BFB = Bromofluorobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit. Reporting limit applies
 to all analytes.

** Presence of this compound confirmed by second column; however, the
 confirmation concentration differed from the reported result by more than
 a factor of two.

LABORATORY NUMBER: 114755
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/18/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE	TOLUENE	ETHYL	TOTAL	REPORTING	SURROGATE	
		(mg/Kg)	(mg/Kg)	BENZENE (mg/Kg)	XYLENES (mg/Kg)	LIMIT (mg/Kg)	TFT,%	BB,%
114755-11	BH-6	ND	ND	7*	ND	5	97	100
114755-METHOD BLANK		ND	ND	ND	ND	5	101	104

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

* Presence of this compound confirmed by second column; however, the confirmation concentration differed from the reported result by more than a factor of two.

LABORATORY NUMBER: 114755
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/15,16/94
 DATE REPORTED: 03/16/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB,%	
114755-12	BH-19	ND	ND	ND	ND	0.5	98	93
114755-20	SB-20	ND	ND	ND	ND	0.5	97	92
114755-METHOD BLANK		ND	ND	ND	ND	0.5	108	103

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

LABORATORY NUMBER: 114755-2
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-6@5

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/17/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

126

=====

LABORATORY NUMBER: 114755-3
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-6@7.5

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/15/94
 DATE REPORTED: 03/17/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	50
Bromomethane	ND	50
Vinyl chloride	ND	50
Chloroethane	ND	50
Methylene chloride	ND	100
Trichlorofluoromethane	ND	30
1,1-Dichloroethene	ND	30
1,1-Dichloroethane	ND	30
cis-1,2-Dichloroethene	ND	30
trans-1,2-Dichloroethene	ND	30
Chloroform	ND	30
Freon 113	ND	30
1,2-Dichloroethane	ND	30
1,1,1-Trichloroethane	ND	30
Carbon tetrachloride	ND	30
Bromodichloromethane	ND	30
1,2-Dichloropropane	ND	30
cis-1,3-Dichloropropene	ND	30
Trichloroethene	ND	30
1,1,2-Trichloroethane	ND	30
trans-1,3-Dichloropropene	ND	30
Dibromochloromethane	ND	30
Bromoform	ND	50
Tetrachloroethene	ND	30
1,1,2,2-Tetrachloroethane	ND	30
Chlorobenzene	ND	30
1,3-Dichlorobenzene	ND	30
1,4-Dichlorobenzene	ND	30
1,2-Dichlorobenzene	ND	30

ND = Not detected at or above reporting limit.
 NOTE: Detection limit raised due to high hydrocarbons.

QA/QC SUMMARY

=====
 Surrogate Recovery, % 128
 =====

LABORATORY NUMBER: 114755-7
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-19@7.5

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/17/94
 DATE REPORTED: 03/17/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	300
Bromomethane	ND	300
Vinyl chloride	ND	300
Chloroethane	ND	300
Methylene chloride	ND	500
Trichlorofluoromethane	ND	100
1,1-Dichloroethene	ND	100
1,1-Dichloroethane	ND	100
cis-1,2-Dichloroethene	ND	100
trans-1,2-Dichloroethene	ND	100
Chloroform	ND	100
Freon 113	ND	100
1,2-Dichloroethane	ND	100
1,1,1-Trichloroethane	ND	100
Carbon tetrachloride	ND	100
Bromodichloromethane	ND	100
1,2-Dichloropropane	ND	100
cis-1,3-Dichloropropene	ND	100
Trichloroethene	ND	100
1,1,2-Trichloroethane	ND	100
trans-1,3-Dichloropropene	ND	100
Dibromochloromethane	ND	100
Bromoform	ND	300
Tetrachloroethene	ND	100
1,1,2,2-Tetrachloroethane	ND	100
Chlorobenzene	ND	100
1,3-Dichlorobenzene	ND	100
1,4-Dichlorobenzene	ND	100
1,2-Dichlorobenzene	ND	100

ND = Not detected at or above reporting limit.
 NOTE: Detection limit raised due to high hydrocarbons.

QA/QC SUMMARY

=====
 Surrogate Recovery, % 106
 =====

NUMBER: 114755-9
 ASSOCIATES
 W-307-01
 BH-19@12.5

 DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/17/94

 EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %

197

NOTE: Surrogate high due to confirmed matrix effect

LABORATORY NUMBER: 114755-14
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: SB20@7.5

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/17/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %

130

LABORATORY NUMBER: 114755-16
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: SB20@12.5

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/17/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

129

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LABORATORY NUMBER: 114755-11
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-6

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/18/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	1	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

109

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LABORATORY NUMBER: 114755-12
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-19

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/18/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

104

LABORATORY NUMBER: 114755-20
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: SB-20

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/18/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	105
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LABORATORY NUMBER: 114755-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE ANALYZED: 03/15/94
 DATE REPORTED: 03/17/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	119
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MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114750
 Client: Weiss Associates
 Analysis date: 03/15/94
 Sample type: Soil
 Sample spiked: 114750-101
 Spike file: 074e005
 Spike dup file: 074e006

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	24.12	121 %	OK	59 - 172
Trichloroethene	25.47	127 %	OK	62 - 137
Chlorobenzene	22.30	112 %	OK	60 - 133
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	27.19	136 %	OK	59 - 172
Trichloroethene	28.60	143 %	NOT OK	62 - 137
Chlorobenzene	23.32	117 %	OK	60 - 133
SURROGATES				
Bromobenzene (MS)	117.63	118 %	OK	75 - 125
Bromobenzene (MSD)	117.95	118 %	OK	75 - 125
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	24.12	27.19	12 %	OK	<= 22
Trichloroethene	25.47	28.60	12 %	OK	<= 24
Chlorobenzene	22.30	23.32	4 %	OK	<= 21

LCS SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114750
 Client: Weiss Associates
 Analysis date: 03/15/94
 Sample type: Soil

LCS spike file: 074e003

8010 LCS DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	16.99	85 %	OK	59 - 172
Trichloroethene	18.81	94 %	OK	62 - 137
Chlorobenzene	17.43	87 %	OK	60 - 133
SURROGATES				
Bromobenzene (LCS)	119.70	120 %	OK	75 - 125

LABORATORY NUMBER: 114755-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/18/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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LCS SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114755
Client: Weiss Associates
Analysis date: 03/16/94
Sample type: Water
LCS spike file: 074w034

8010 LCS DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	22.48	112 %	OK	61 - 145
Trichloroethene	17.49	87 %	OK	71 - 120
Chlorobenzene	21.52	108 %	OK	75 - 130
SURROGATES				
Bromobenzene (LCS)	103.61	104 %	OK	75 - 125



MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114755
Client: Weiss Associates
Analysis date: 03/17/94
Sample type: Water
Sample spiked: 114747-003
Spike file: 074w037
Spike dup file: 074w038

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	32.01	142 %	OK	61 - 145
Trichloroethene	18.73	94 %	OK	71 - 120
Chlorobenzene	24.85	124 %	OK	75 - 130
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	26.94	117 %	OK	61 - 145
Trichloroethene	18.96	95 %	OK	71 - 120
Chlorobenzene	21.99	110 %	OK	75 - 130
SURROGATES				
Bromobenzene (MS)	101.80	102 %	OK	75 - 125
Bromobenzene (MSD)	102.80	103 %	OK	75 - 125
MATRIX RESULTS				
1,1-Dichloroethene	3.6375			
Trichloroethene	0			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	32.01	26.94	17 %	NOT OK	<= 14
Trichloroethene	18.73	18.96	1 %	OK	<= 14
Chlorobenzene	24.85	21.99	12 %	OK	<= 13

Please send analytic results and a copy of the signed chain of custody form to:

John Drey
 Project ID: 14-307-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Walls Laboratory Name: Curtis & Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
1	BH-6 e2.5	S/T	3/14/94	N/A	N/A	YES	NONE	HOLD			
2	e.5							TVH/BTEX/TEH/HVOCs	LWFT/8020/LWFT/8010	24hr	* Compare TEH to Diesel, Mineral spirits, Motor Oil standards.
3	e7.5							TVH/BTEX/TEH/HVOCs	LWFT/8020/LWFT/8010	24hr	
4	e10							HOLD	HOLD		
5	BH-19 e2.5							HOLD	HOLD		
6	e.5							HOLD	HOLD		
7	e7.5							TVH/BTEX/TEH/HVOCs	LWFT/8020/LWFT/8010	24hr	
8	e10							HOLD	HOLD		
9	e12.5							TVH/BTEX/TEH/HVOCs	LWFT/8020/LWFT/8010	24hr	
10	e15							HOLD	HOLD		
11	BH-6	W/V		40ml				TVH/BTEX/TEH/HVOCs	LWFT/8020/LWFT/8010	24hr	No Refs Sent for TEH
12	BH-19	W/V	3/14/94	40ml	NO	YES	NONE			24hr	

1 [Signature] 3/14/94
 Released by (Signature), Date
 1 Affiliation
 2 Received by (Signature), Date
 2 Affiliation

3 Released by (Signature), Date
 3 Affiliation
 4 Shipping Carrier, Method, Date
 4 Affiliation

5 Released by (Signature), Date
 5 Affiliation
 6 [Signature] 3-14-94
 Received by Lab Personnel, Date Seal intact?
 6 CJT 486-490
 Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other;
 Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround (N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out))
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Notes

Level II QA/QC Report
 24-hr turnaround
 See Mike P. For Pricing

Please send analytic results and a copy of the signed chain of custody form to:

John Duey

Project ID: 14-307-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Watts

Laboratory Name: Curtis & Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
-13	1 SB 20 ^a 5	S/T	3/14/94	N/A	N/A	Yes	NONE	HOLD			
-14	1 e7.5							TVH/BTEX/TEH/HVOCs	LUFT/8020/LUFT/2010		
-15	1 e10							HOLD			
-16	1 e12.5							TVH/BTEX/TEH/HVOCs	LUFT/8020/LUFT/2010		* Compare TEH to diesel, mineral spirits & Motor Oil standards
-17	1 e15.5							HOLD			
-18	1 e17.5							HOLD			
-19	1 e20							HOLD			
-20	4 SB-20	W/V		40l	NO			TVH/BTEX/TEH/HVOCs	LUFT/8020/LUFT/2010		
-21	1 BH-20bb	W/V		40ml	NO	Yes	HCTNone	HOLD			Will test set for TEH JAW
-22	1 SB20-TB	W/V		40ml	NO	Yes	HCl	HOLD			

Released by (Signature), Date 3/14/94

Released by (Signature), Date

Released by (Signature), Date

Affiliation

Affiliation

Affiliation

Received by (Signature), Date

Shipping Carrier, Method, Date

Received by Lab Personnel, Date 3-14-94 Seal intact?

Affiliation

Affiliation

Affiliation, Telephone CT 486-0900

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other;
Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround (N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out))

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Notes

Level II QA/QC Report
24-hr turnaround
See Mike P. for Pricing



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710. Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608

Date: 16-MAR-94
Lab Job Number: 114756
Project ID: 14-307-01
Location: N/A

Reviewed by:

Reviewed by:

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LABORATORY NUMBER: 114756
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/15/94
 DATE REPORTED: 03/15/94

Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS	TVH AS	REPORTING	SURROGATE	
		MINERAL SPIRITS (mg/Kg)	GASOLINE (mg/Kg)	LIMIT (mg/Kg)	TFT, %	BFB, %
114756-2	B-18-8.4	**	1	1	99	94
114756-4	B-18-13.4	**	1	1	99	96
114756-6	B-10-5.9	ND	ND	1	105	103
114756-METHOD	BLANK	ND	ND	1	102	105

**Mineral spirits not reported due to overlap of hydrocarbon ranges.

Reporting limit applies to all analytes

TFT = Trifluorotoluene (Limits: 60-140)
 BFB = Bromofluorobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: MS/MSD

RPD, %	6	(Limit: <25 %)
RECOVERY, %	86	(Limits: 70-130)

Spiked sample: 114750-081



LABORATORY NUMBER: 114756
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/14/94
DATE RECEIVED: 03/14/94
DATE ANALYZED: 03/15,16/94
DATE REPORTED: 03/16/94

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (ug/L)	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB, %	
114756-9	B-18-W	**	650	50	107	108
114756-10	B-10-W	**	15,000	700	107	109
114756-METHOD	BLANK	ND	ND	50	101	95

**Mineral spirits not reported due to overlap of hydrocarbon ranges.

TFT = Trifluorotoluene (Limits: 60-140)
BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: BS/BSD

RPD, %	2	(Limit: <25 %)
RECOVERY, %	112	(Limits: 70-130)

LABORATORY NUMBER: 114756
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE EXTRACTED: 03/15/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/16/94

 Extractable Petroleum Hydrocarbons in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	MOTOR OIL RANGE (mg/Kg)	SURROGATE RECOVERY (Hexacosane)
114756-2	B-18-8.4	ND(1)	ND(1)	ND(30)	109 %
114756-4	B-18-13.4	ND(1)	ND(1)	ND(30)	92 %
114756-6	B-10-5.9	ND(1)	ND(1)	ND(30)	105 %
114756-METHOD BLANK		ND(1)	ND(1)	ND(30)	111 %

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: MS/MSD

RPD, %	6	(Limit: <25 %)
RECOVERY, %	103	(Limits: 50-150)

Spiked sample: 114613-003

LABORATORY NUMBER: 114756
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE EXTRACTED: 03/15/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/16/94
 DATE REVISED: 04/14/94

 Extractable Petroleum Hydrocarbons in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/L)	DIESEL RANGE (mg/L)	MOTOR OIL RANGE (mg/L)	SURROGATE RECOVERY (Hexacosane)
114756-9	B-18-W	ND(1)	ND(1)	ND(20)	63 %
114756-10	B-10-W	3 *	ND(1)	ND(20)	100 %
114756-METHOD BLANK		ND(1)	ND(1)	ND(20)	94 %

** Kerosene range not reported due to overlap of hydrocarbon ranges.
 * Kerosene range quantitation results from gasoline range hydrocarbons.

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	3	(Limit: <25 %)
RECOVERY, %	90	(Limits: 50-150)

LABORATORY NUMBER: 114756
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/15/94
 DATE REPORTED: 03/15/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE	TOLUENE	ETHYL	TOTAL	REPORTING	SURROGATE	
		(ug/Kg)	(ug/Kg)	BENZENE (ug/Kg)	XYLENES (ug/Kg)	LIMIT (ug/Kg)	TFT,%	BB,%
114756-2	B-18-8.4	ND	ND	ND	ND	5	93	89
114756-4	B-18-13.4	ND	ND	ND	ND	5	94	89
114756-6	B-10-5.9	ND	ND	ND	ND	5	100	95
114756-METHOD BLANK		ND	ND	ND	ND	5		

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

Reporting Limit applies to all analytes.

LABORATORY NUMBER: 114756
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/15,16/94
 DATE REPORTED: 03/16/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB,%	
114756-9	B-18-W	32	0.6	4.8	3.8	0.5	99	93
114756-10	B-10-W	340	31	640	1,900	8	108	96
114756-METHOD BLANK		ND	ND	ND	ND	0.5	108	103

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.



LABORATORY NUMBER: 114756-2
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: B-18-8.4

DATE SAMPLED: 03/14/94
DATE RECEIVED: 03/14/94
DATE ANALYZED: 03/16/94
DATE REPORTED: 03/16/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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LABORATORY NUMBER: 114756-4
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-18-13.4

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/16/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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135

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LABORATORY NUMBER: 114756-6
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-10-5.9

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/16/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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139

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LABORATORY NUMBER: 114756-9
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: B-18-W

DATE SAMPLED: 03/14/94
DATE RECEIVED: 03/14/94
DATE ANALYZED: 03/16/94
DATE REPORTED: 03/16/94

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	3	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %	103
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LABORATORY NUMBER: 114756-10
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-10-W

DATE SAMPLED: 03/14/94
 DATE RECEIVED: 03/14/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/16/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	20
Bromomethane	ND	20
Vinyl chloride	ND	20
Chloroethane	ND	20
Methylene chloride	ND	200
Trichlorofluoromethane	ND	10
1,1-Dichloroethene	ND	10
1,1-Dichloroethane	ND	10
cis-1,2-Dichloroethene	ND	10
trans-1,2-Dichloroethene	ND	10
Chloroform	ND	10
Freon 113	ND	10
1,2-Dichloroethane	ND	10
1,1,1-Trichloroethane	ND	10
Carbon tetrachloride	ND	10
Bromodichloromethane	ND	10
1,2-Dichloropropane	ND	10
cis-1,3-Dichloropropene	ND	10
Trichloroethene	ND	10
1,1,2-Trichloroethane	ND	10
trans-1,3-Dichloropropene	ND	10
Dibromochloromethane	ND	10
Bromoform	ND	20
Tetrachloroethene	ND	10
1,1,2,2-Tetrachloroethane	ND	10
Chlorobenzene	ND	10
1,3-Dichlorobenzene	ND	10
1,4-Dichlorobenzene	ND	10
1,2-Dichlorobenzene	ND	10

ND = Not detected at or above reporting limit.

NOTE: Detection limit raised due to high hydrocarbon presence.

QA/QC SUMMARY

Surrogate Recovery, %	106
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LABORATORY NUMBER: 114756-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE ANALYZED: 03/15/94
 DATE REPORTED: 03/16/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	119
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MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114756
Client: Weiss Associates
Analysis date: 03/15/94
Sample type: Soil
Sample spiked: 114750-101
Spike file: 074e005
Spike dup file: 074e006

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	24.12	121 %	OK	59 - 172
Trichloroethene	25.47	127 %	OK	62 - 137
Chlorobenzene	22.30	112 %	OK	60 - 133
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	27.19	136 %	OK	59 - 172
Trichloroethene	28.60	143 %	NOT OK	62 - 137
Chlorobenzene	23.32	117 %	OK	60 - 133
SURROGATES				
Bromobenzene (MS)	117.63	118 %	OK	75 - 125
Bromobenzene (MSD)	117.95	118 %	OK	75 - 125
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	24.12	27.19	12 %	OK	<= 22
Trichloroethene	25.47	28.60	12 %	OK	<= 24
Chlorobenzene	22.30	23.32	4 %	OK	<= 21

LCS SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114756
 Client: Weiss Associates
 Analysis date: 03/15/94
 Sample type: Soil

LCS spike file: 074e003

8010 LCS DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	16.99	85 %	OK	59 - 172
Trichloroethene	18.81	94 %	OK	62 - 137
Chlorobenzene	17.43	87 %	OK	60 - 133
SURROGATES				
Bromobenzene (LCS)	119.70	120 %	OK	75 - 125

LABORATORY NUMBER: 114756-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE ANALYZED: 03/16/9
 DATE REPORTED: 03/16/9

 EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %

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MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114756
 Client: Weiss Associates
 Analysis date: 03/17/94
 Sample type: Water
 Sample spiked: 114747-003
 Spike file: 074w037
 Spike dup file: 074w038

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	32.01	142 %	OK	61 - 145
Trichloroethene	18.73	94 %	OK	71 - 120
Chlorobenzene	24.85	124 %	OK	75 - 130

SPIKE DUP COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	26.94	117 %	OK	61 - 145
Trichloroethene	18.96	95 %	OK	71 - 120
Chlorobenzene	21.99	110 %	OK	75 - 130

SURROGATES	READING	RECOVERY	STATUS	LIMITS
Bromobenzene (MS)	101.80	102 %	OK	75 - 125
Bromobenzene (MSD)	102.80	103 %	OK	75 - 125

MATRIX RESULTS	READING
1,1-Dichloroethene	3.6375
Trichloroethene	0
Chlorobenzene	0

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	32.01	26.94	17 %	NOT OK	<= 14
Trichloroethene	18.73	18.96	1 %	OK	<= 14
Chlorobenzene	24.85	21.99	12 %	OK	<= 13

LCS SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114756
 Client: Weiss Associates
 Analysis date: 03/16/94
 Sample type: Water

LCS spike file: 074w034

8010 LCS DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	22.48	112 %	OK	61 - 145
Trichloroethene	17.49	87 %	OK	71 - 120
Chlorobenzene	21.52	108 %	OK	75 - 130
SURROGATES				
Bromobenzene (LCS)	103.61	104 %	OK	75 - 125

MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114755
 Client: Weiss Associates
 Analysis date: 03/15/94
 Sample type: Soil
 Sample spiked: 114750-101
 Spike file: 074e005
 Spike dup file: 074e006

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	24.12	121 %	OK	59 - 172
Trichloroethene	25.47	127 %	OK	62 - 137
Chlorobenzene	22.30	112 %	OK	60 - 133

SPIKE DUP COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	27.19	136 %	OK	59 - 172
Trichloroethene	28.60	143 %	NOT OK	62 - 137
Chlorobenzene	23.32	117 %	OK	60 - 133

SURROGATES	READING	RECOVERY	STATUS	LIMITS
Bromobenzene (MS)	117.63	118 %	OK	75 - 125
Bromobenzene (MSD)	117.95	118 %	OK	75 - 125

MATRIX RESULTS	READING
1,1-Dichloroethene	0
Trichloroethene	0
Chlorobenzene	0

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	24.12	27.19	12 %	OK	<= 22
Trichloroethene	25.47	28.60	12 %	OK	<= 24
Chlorobenzene	22.30	23.32	4 %	OK	<= 21

11475

Lab Personnel

PLEASE INCLUDE GC DATA IF BOX IS CHECKED.

Please send analytic results and a copy of the signed chain of custody form to:

John Dwey
 Project ID: 14-307-01

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: JEA

Laboratory Name: Curtis + Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
1	B-18-5.5	Brass	3/14/94	2x6	N	Y	NONE	TVH/BTEX/TEH/HVOCs <u>HOLD JEA</u>	LW/8020/LVF/8010 <u>HOLD JEA</u>	24hr	* Compare TEH to Diesel, mineral spirits, Motor Oil standards
2	B-18-8.4	Tube		2x4				TVH/BTEX/TEH/HVOCs	LW/8020/LVF/8010	24hr	
3	B-18-10.9							HOLD	HOLD		
4	B-18-13.4							TVH/BTEX/TEH/HVOCs	LW/8020/LVF/8010	24hr	
5	B-18-15.9							HOLD	HOLD		
6	B-10-5.9	BRASS	3/14/94	2x4	N	Y	NONE	TVH/BTEX/TEH/HVOCs	LW/8020/LVF/8010	24hr	
7	B-10-8.4							HOLD	HOLD		
8	B-10-10.9							HOLD	HOLD		
9	B-18-W	W/V	3/14/94	40ml	N	Y	NONE	TVH/BTEX/TEH/HVOCs	LW/8020/LVF/8010	24hr	No liter seal for TEH JEA
10	B-10-W									24hr	
11	TB							HOLD	HOLD		

1 Dore Adams 3/14/94
 Released by (Signature), Date
 1 Weiss Associates
 Affiliation
 2 _____
 Received by (Signature), Date
 2 _____
 Affiliation

3 _____
 Released by (Signature), Date
 3 _____
 Affiliation
 4 _____
 Shipping Carrier, Method, Date
 4 _____
 Affiliation

5 _____
 Released by (Signature), Date
 5 _____
 Affiliation
 6 Erroy E. Adams 3-14-94
 Received by Lab Personnel, Date Seal intact?
 6 CT 486-0900
 Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other;
 Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround [N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out)]
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608

Date: 18-MAR-94
Lab Job Number: 114790
Project ID: 14-307-01
Location: N/A

Reviewed by: _____

Reviewed by: _____

This package may be reproduced only in its entirety.

LABORATORY NUMBER: 114790
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/16/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/17/94

Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS	TVH AS	REPORTING	SURROGATE	
		MINERAL SPIRITS (mg/Kg)	GASOLINE (mg/Kg)		LIMIT (mg/Kg)	RECOVERIES TFT, % BB, %
114790-1	BH-21@5	ND	ND	1	86	86
114790-3	BH-21@10	**	11	1	82	108
114790-9	BH-4@5	ND	ND	1	91	109
114790-11	BH-4@10	ND	ND	1	84	90
114755-METHOD BLANK		ND	ND	1	88	94

TFT = Trifluorotoluene (Limits: 60-140)

BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: MS/MSD

RPD, %	<1	(Limit: <25 %)
RECOVERY, %	95	(Limits: 70-130)

Spiked sample: 114790-011



LABORATORY NUMBER: 114790
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/15/94
DATE RECEIVED: 03/16/94
DATE ANALYZED: 03/16/94
DATE REPORTED: 03/17/94

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (ug/L)	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB, %	
114790-8	BH-21	**	140	50	105	100
114790-16	BH-4	ND	ND	50	105	103
114755-METHOD	BLANK	ND	ND	50	108	103

TFT = Trifluorotoluene (Limits: 60-140)

BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

**Mineral spirits not reported due to overlap of hydrocarbon ranges.

QA/QC SUMMARY: BS/BSD

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RPD,%                               2   (Limit: <25 %)
RECOVERY,%                          112 (Limits: 70-130)
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LABORATORY NUMBER: 114790
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/15/94
DATE RECEIVED: 03/16/94
DATE EXTRACTED: 03/16/94
DATE ANALYZED: 03/16,17/94
DATE REPORTED: 03/17/94
DATE REVISED: 04/13/94

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	MOTOR OIL RANGE (mg/Kg)	SURROGATE RECOVERY (Hexacosane)
114790-1	BH-21@5	ND(1)	ND(1)	ND(30)	96 %
114790-3	BH-21@10	ND(1)	ND(1)	ND(30)	88 %
114790-9	BH-4@5	ND(1)	ND(1)	ND(30)	88 %
114790-11	BH-4@10	49 *	***	ND(30)	97 %
114790-METHOD BLANK		ND(1)	ND(1)	ND(30)	113 %

* Kerosene range quantitation results from gasoline range hydrocarbons.

*** Diesel range not reported due to overlap of hydrocarbon ranges.

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: MS/MSD

RPD, %	2	(Limit: <25 %)
RECOVERY, %	102	(Limits: 50-150)

Spiked sample: 114613-003



LABORATORY NUMBER: 114790
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/15/94
DATE RECEIVED: 03/16/94
DATE EXTRACTED: 03/16/94
DATE ANALYZED: 03/18/94
DATE REPORTED: 03/18/94

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/L)	DIESEL RANGE (mg/L)	MOTOR OIL RANGE (mg/L)	SURROGATE RECOVERY (Hexacosane)
114790-8	BH-21	ND(1)	ND(1)	ND(30)	135 %
114790-16	BH-4	ND(1)	ND(1)	ND(30)	97 %
114790-METHOD BLANK		ND(1)	ND(1)	ND(30)	131 %

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	6	(Limit: <25 %)
RECOVERY, %	78	(Limits: 50-150)

LABORATORY NUMBER: 114790
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/16/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/17/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)	REPORTING LIMIT (ug/Kg)	SURROGATE RECOVERIES TFT,% BB,%	
114790-1	BH-2105	ND	ND	ND	ND	5	89	90
114790-3	BH-21010	ND	ND	ND	ND	10*	96	113
114790-9	BH-405	ND	ND	ND	ND	5	102	114
114790-11	BH-4010	ND	ND	ND	ND	5	93	94
114756-METHOD	BLANK	ND	ND	ND	ND	5	97	98

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

*Detection limit raised due to matrix interference

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.



LABORATORY NUMBER: 114790
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/15/94
DATE RECEIVED: 03/16/94
DATE ANALYZED: 03/16/94
DATE REPORTED: 03/17/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB,%	
114790-8	BH-21	ND	ND	ND	0.6	0.5	98	93
114790-16	BH-4	ND	ND	ND	ND	0.5	99	93
114756-METHOD BLANK		ND	ND	ND	ND	0.5	101	95

TFT = Trifluorotoluene (Limits: 60-140)
BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
Reporting Limit applies to all analytes.

LABORATORY NUMBER: 114790-1
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-21 @5

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/16/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/18/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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 Surrogate Recovery, % 125
 =====

LABORATORY NUMBER: 114790-3
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-21@10

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/16/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/18/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====
 Surrogate Recovery, % 125
 =====

LABORATORY NUMBER: 114790-9
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-4@5

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/16/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/18/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

121

=====



LABORATORY NUMBER: 114790-11
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-4@10

DATE SAMPLED: 03/15/94
DATE RECEIVED: 03/16/94
DATE ANALYZED: 03/17/94
DATE REPORTED: 03/18/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

129

LABORATORY NUMBER: 114790-8
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-21

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/16/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/18/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	18	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	4	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	105
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LABORATORY NUMBER: 114790-16
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-4

DATE SAMPLED: 03/15/94
DATE RECEIVED: 03/16/94
DATE ANALYZED: 03/16/94
DATE REPORTED: 03/18/94

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

106

LABORATORY NUMBER: 114790-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/18/94

 EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

 =====
 Surrogate Recovery, % 123
 =====



LABORATORY NUMBER: 114790-METHOD BLANK
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE ANALYZED: 03/16/94
DATE REPORTED: 03/18/94

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %	107
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LCS SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114790
 Client: Weiss Associates
 Analysis date: 03/15/94
 Sample type: Soil

LCS spike file: 074e003

8010 LCS DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	16.99	85 %	OK	59 - 172
Trichloroethene	18.81	94 %	OK	62 - 137
Chlorobenzene	17.43	87 %	OK	60 - 133
SURROGATES				
Bromobenzene (LCS)	119.70	120 %	OK	75 - 125



MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114790
Client: Weiss Associates
Analysis date: 03/15/94
Sample type: Soil
Sample spiked: 114750-101
Spike file: 074e005
Spike dup file: 074e006

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	24.12	121 %	OK	59 - 172
Trichloroethene	25.47	127 %	OK	62 - 137
Chlorobenzene	22.30	112 %	OK	60 - 133
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	27.19	136 %	OK	59 - 172
Trichloroethene	28.60	143 %	NOT OK	62 - 137
Chlorobenzene	23.32	117 %	OK	60 - 133
SURROGATES				
Bromobenzene (MS)	117.63	118 %	OK	75 - 125
Bromobenzene (MSD)	117.95	118 %	OK	75 - 125
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	24.12	27.19	12 %	OK	<= 22
Trichloroethene	25.47	28.60	12 %	OK	<= 24
Chlorobenzene	22.30	23.32	4 %	OK	<= 21



MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114790
Client: Weiss Associates
Analysis date: 03/17/94
Sample type: Water
Sample spiked: 114747-003
Spike file: 074w037
Spike dup file: 074w038

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	32.01	142 %	OK	61 - 145
Trichloroethene	18.73	94 %	OK	71 - 120
Chlorobenzene	24.85	124 %	OK	75 - 130

SPIKE DUP COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	26.94	117 %	OK	61 - 145
Trichloroethene	18.96	95 %	OK	71 - 120
Chlorobenzene	21.99	110 %	OK	75 - 130

SURROGATES	READING	RECOVERY	STATUS	LIMITS
Bromobenzene (MS)	101.80	102 %	OK	75 - 125
Bromobenzene (MSD)	102.80	103 %	OK	75 - 125

MATRIX RESULTS	READING
1,1-Dichloroethene	3.6375
Trichloroethene	0
Chlorobenzene	0

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	32.01	26.94	17 %	NOT OK	<= 14
Trichloroethene	18.73	18.96	1 %	OK	<= 14
Chlorobenzene	24.85	21.99	12 %	OK	<= 13

LCS SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114755
 Client: Weiss Associates
 Analysis date: 03/16/94
 Sample type: Water

LCS spike file: 074w034

8010 LCS DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	22.48	112 %	OK	61 - 145
Trichloroethene	17.49	87 %	OK	71 - 120
Chlorobenzene	21.52	108 %	OK	75 - 130
SURROGATES				
Bromobenzene (LCS)	103.61	104 %	OK	75 - 125

Please send analytic results and a copy of the signed chain of custody form to:

Lab Personnel:

Level II
 PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

Project ID: 14-307-01

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Watts

Laboratory Name: Curtis + Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
14	1 BH-4017.5	steel tube	3/15/94	1" x 6"	N	Y	none	HOLD	HOLD		
5	1 BH-4020	"	"	"	"	"	none	HOLD	HOLD		
66	5 BH-4	VOA Amber	↓	40ml vial	↓	↓	↓	TMT/BEA/TEH/HVOCs	LUFF/2009/LUFF/2010	24hr	* Compare TEH to Diesel, Mineral Spirits, Motor Oil standards

1 Alison Watts
 Released by (Signature), Date
 1 Weiss Associates
 Affiliation
 2 John W. Dwyer 3/16/94
 Received by (Signature), Date
 2 Weiss Associates
 Affiliation

3 John W. Dwyer 3/16/94
 Released by (Signature), Date
 3 Weiss Assoc.
 Affiliation
 4 _____
 Shipping Carrier, Method, Date
 4 _____
 Affiliation

5 _____
 Released by (Signature), Date
 5 _____
 Affiliation
 6 Image Analysis 3-16-94
 Received by Lab Personnel, Date
 Seal intact?
 6 CT 486-0900
 Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other;
 Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround (N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out))

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Notes: 24 hr Turnaround
 Level II QA/QC report
 See M Pearl for pricing

Please send analytic results and a copy of the signed chain of custody form to:

John Drey

Project ID: 14-307-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Watts

Laboratory Name: Curtis + Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
-1	BH-210.5	steel tube	3/15/94	1"x6"	N	Y	None	TVH/BTEX/TEH*/HVOCS	LUFT/8020/LUFT/8010	24hr	* Compare TEH to diesel, mineral spirits, motor oil standards
-2	BH-2107.5						HOLD	HOLD			
-3	BH-21010						TVH/BTEX/TEH*/HVOCS	LUFT/8020/LUFT/8010	24hr		
-4	BH-21012.5						HOLD	HOLD			
-5	BH-21015						HOLD	HOLD			
-6	BH-21017.5						HOLD	HOLD			
-7	BH-21020						HOLD	HOLD			
-8	5 BH-21	VOA/Amber		40ml			TVH/BTEX/TEH*/HVOCS	LUFT/8020/LUFT/8010	24hr		
9	BH-405	Steel tube	3/15/94	1"x6"				TVH/BTEX/TEH*/HVOCS	LUFT/8020/LUFT/8010	24hr	
10	BH-407.5						HOLD	HOLD			
11	BH-4010						TVH/BTEX/TEH*/HVOCS	LUFT/8020/LUFT/8010	24hr		
12	BH-4012.5						HOLD	HOLD			
13	BH-4015						HOLD	HOLD			

1 Alison Watts 3/16/94
 Released by (Signature), Date

1 Weiss Associates
 Affiliation

2 John Drey 3/16/94
 Received by (Signature), Date

2 Weiss Associates
 Affiliation

3 John Drey 3/16/94
 Released by (Signature), Date

3 Weiss Assoc
 Affiliation

4 _____
 Shipping Carrier, Method, Date

4 _____
 Affiliation

5 _____
 Released by (Signature), Date

5 _____
 Affiliation

6 Shirley 3-16-94
 Received by Lab Personnel, Date

6 C+T 486-0900
 Affiliation, Telephone

Seal intact?

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other;
 Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround [N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Notes: 24 hr Turnaround
 Level II QA/QC reporting
 See M Pearl for Pricing



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710. Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608

Date: 21-MAR-94
Lab Job Number: 114775
Project ID: 14-307-01
Location: N/A

Reviewed by:

John B...

Reviewed by:

Mary Plessen

This package may be reproduced only in its entirety.

LABORATORY NUMBER: 114775
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/15/94
 DATE ANALYZED: 03/15,16/94
 DATE REPORTED: 03/17/94

 Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS	TVH AS	REPORTING	SURROGATE	
		MINERAL SPIRITS (mg/Kg)	GASOLINE (mg/Kg)		LIMIT (mg/Kg)	RECOVERIES TFT, % BB, %
114775-1	BH-3@2.5	ND	ND	1	88	82
114775-3	BH-3@7.5	ND	ND	1	87	92
114775-4	BH-3@10	ND	ND	1	86	91
114775-14	BH-5@5	ND	ND	1	89	94
114775-15	BH-5@7.5	ND	ND	1	88	95
114775-17	BH-5@12.5	ND	ND	1	88	95
114775-21	B-1-6.4	ND	ND	1	91	94
114775-22	B-1-8.9	ND	ND	1	81	85
114775-METHOD	BLANK	ND	ND	1	93	96

 TFT = Trifluorotoluene (Limits: 60-140)
 BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: MS/MSD

RPD, %	5	(Limit: <25 %)
RECOVERY, %	89	(Limits: 70-130)

Spiked sample: 114750-092

LABORATORY NUMBER: 114775
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/15/94
 DATE ANALYZED: 03/15,16/94
 DATE REPORTED: 03/17/94

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (ug/L)	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT, % BB, %	
114775-12	BH-3	**	520	50	106	103
114775-20	BH-5	**	950	50	105	108
114775-23	B-1-W	**	200*	50	103	106
114775-METHOD	BLANK	ND	ND	50	101	95

*Two peaks only

TFT = Trifluorotoluene (Limits: 60-140)
 BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: BS/BSD

RPD, %	2	(Limit: <25 %)
RECOVERY, %	112	(Limits: 70-130)

LABORATORY NUMBER: 114775
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/15/94
 DATE EXTRACTED: 03/15/94
 DATE ANALYZED: 03/16,17/94
 DATE REPORTED: 03/17/94

 Extractable Petroleum Hydrocarbons in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	MOTOR OIL RANGE (mg/Kg)	SURROGATE RECOVERY (Hexacosane)
114775-1	BH-3@2.5	ND(1)	ND(1)	ND(30)	124 %
114775-3	BH-3@7.5	ND(1)	ND(1)	ND(30)	132 %
114775-4	BH-3@10	ND(1)	ND(1)	ND(30)	130 %
114775-14	BH-5@5	**	50	2,200	D %
114775-15	BH-5@7.5	ND(1)	ND(1)	ND(30)	119 %
114775-17	BH-5@12.5	ND(1)	ND(1)	ND(30)	127 %
114775-21	B-1-6.4	ND(1)	ND(1)	ND(30)	133 %
114775-22	B-1-8.9	ND(1)	ND(1)	ND(30)	136 %
114775-METHOD BLANK		ND(1)	ND(1)	ND(30)	135 %

** Kerosene range not reported due to overlap of hydrocarbon ranges.

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

D= Diluted out

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: MS/MSD

RPD, %	3	(Limit: <25 %)
RECOVERY, %	107	(Limits: 50-150)

Spiked sample: 114775-022

LABORATORY NUMBER: 114775
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/15/94
 DATE EXTRACTED: 03/18/94
 DATE ANALYZED: 03/21/94
 DATE REPORTED: 03/21/94

 Extractable Petroleum Hydrocarbons in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/L)	DIESEL RANGE (mg/L)	MOTOR OIL RANGE (mg/L)	SURROGATE RECOVERY (Hexacosane)
114775-12	BH-3	ND(1)	ND(1)	ND(20)	102 %
114775-23	B-1-W	ND(1)	ND(1)	ND(20)	144 %
114775-METHOD	BLANK	ND(1)	ND(1)	ND(20)	116 %

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	2	(Limit: <25 %)
RECOVERY, %	91	(Limits: 50-150)

LABORATORY NUMBER: 114775
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/15/94
 DATE EXTRACTED: 03/16/94
 DATE ANALYZED: 03/17/94
 DATE REPORTED: 03/18/94

Extractable Petroleum Hydrocarbons in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/L)	DIESEL RANGE (mg/L)	MOTOR OIL RANGE (mg/L)	SURROGATE RECOVERY (Hexacosane)
114775-20	BH-5	15*	ND(1)	ND(20)	82 %
114775-METHOD BLANK		ND(1)	ND(1)	ND(20)	59 %

*Single peak

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	18	(Limit: <25 %)
RECOVERY, %	80	(Limits: 50-150)

LABORATORY NUMBER: 114775
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/15/94
 DATE ANALYZED: 03/15,16/94
 DATE REPORTED: 03/17/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)	REPORTING LIMIT (ug/Kg)	SURROGATE RECOVERIES TFT,% BB,%	
114775-1	BH-302.5	ND	ND	ND	ND	5	93	87
114775-3	BH-307.5	ND	ND	ND	ND	5	95	96
114775-4	BH-3010	ND	ND	ND	ND	5	95	96
114775-14	BH-505	ND	ND	ND	ND	5	96	97
114775-15	BH-507.5	ND	ND	ND	ND	5	97	98
114775-17	BH-5012.5	15	ND	ND	12	5	97	98
114775-21	B-1-6.4	ND	ND	ND	ND	5	98	98
114775-22	B-1-8.9	ND	ND	ND	ND	5	88	88
114775-METHOD	BLANK	ND	ND	ND	ND	5	101	104

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

LABORATORY NUMBER: 114775
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/15/94
 DATE ANALYZED: 03/15,16/94
 DATE REPORTED: 03/17/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE	TOLUENE	ETHYL	TOTAL	REPORTING	SURROGATE	
		(ug/L)	(ug/L)	BENZENE (ug/L)	XYLENES (ug/L)	LIMIT (ug/L)	TFT,%	BB,%
114775-12	BH-3	1	19	8.4	46	0.5	99	93
114775-20	BH-5	180	ND	ND	88	1	98	94
114775-23	B-1-W	ND	ND	ND	ND	0.5	99	93
114775-METHOD	BLANK	ND	ND	ND	ND	0.5	101	95

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

LABORATORY NUMBER: 114775-1
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-3@2.5

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/15/94
 DATE ANALYZED: 03/19/94
 DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	50
Bromomethane	ND	50
Vinyl chloride	ND	50
Chloroethane	ND	50
Methylene chloride	ND	100
Trichlorofluoromethane	ND	30
1,1-Dichloroethene	ND	30
1,1-Dichloroethane	ND	30
cis-1,2-Dichloroethene	ND	30
trans-1,2-Dichloroethene	ND	30
Chloroform	ND	30
Freon 113	ND	30
1,2-Dichloroethane	ND	30
1,1,1-Trichloroethane	ND	30
Carbon tetrachloride	ND	30
Bromodichloromethane	ND	30
1,2-Dichloropropane	ND	30
cis-1,3-Dichloropropene	ND	30
Trichloroethene	ND	30
1,1,2-Trichloroethane	ND	30
trans-1,3-Dichloropropene	ND	30
Dibromochloromethane	ND	30
Bromoform	ND	50
Tetrachloroethene	280	30
1,1,2,2-Tetrachloroethane	ND	30
Chlorobenzene	ND	30
1,3-Dichlorobenzene	ND	30
1,4-Dichlorobenzene	ND	30
1,2-Dichlorobenzene	ND	30

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	131
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LABORATORY NUMBER: 114775-3
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-3@7.5

DATE SAMPLED: 03/15/94
DATE RECEIVED: 03/15/94
DATE ANALYZED: 03/17/94
DATE REPORTED: 03/18/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %

133

LABORATORY NUMBER: 114775-4
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-3@10

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/15/94
 DATE ANALYZED: 03/17/94
 DATE REPORTED: 03/18/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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141



LABORATORY NUMBER: 114775-14
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-5@5

DATE SAMPLED: 03/15/94
DATE RECEIVED: 03/15/94
DATE ANALYZED: 03/19/94
DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %	145
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LABORATORY NUMBER: 114775-15
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-5@7.5

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/15/94
 DATE ANALYZED: 03/19/94
 DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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149



LABORATORY NUMBER: 114775-17
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-5@12.5

DATE SAMPLED: 03/15/94
DATE RECEIVED: 03/15/94
DATE ANALYZED: 03/17/94
DATE REPORTED: 03/18/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %	130
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LABORATORY NUMBER: 114775-21
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: B-1@6.4

DATE SAMPLED: 03/15/94
DATE RECEIVED: 03/15/94
DATE ANALYZED: 03/17/94
DATE REPORTED: 03/18/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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132

LABORATORY NUMBER: 114775-22
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-1@8.9

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/15/94
 DATE ANALYZED: 03/18/94
 DATE REPORTED: 03/18/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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142

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LABORATORY NUMBER: 114775-12
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-3

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/15/94
 DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/18/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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106

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LABORATORY NUMBER: 114775-20
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-5

DATE SAMPLED: 03/15/94
 DATE RECEIVED: 03/15/94
 DATE ANALYZED: 03/17/94
 DATE REPORTED: 03/18/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	106
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LABORATORY NUMBER: 114775-23
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: B-1-W

DATE SAMPLED: 03/15/94
DATE RECEIVED: 03/15/94
DATE ANALYZED: 03/16/94
DATE REPORTED: 03/18/94

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

=====

106

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LABORATORY NUMBER: 114775-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE ANALYZED: 03/16/94
 DATE REPORTED: 03/18/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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106

LABORATORY NUMBER: 114775-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE ANALYZED: 03/17/94
 DATE REPORTED: 03/18/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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116



MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114775
 Client: Weiss Associates
 Analysis date: 03/17/94
 Sample type: Water
 Sample spiked: 114747-003
 Spike file: 074w037
 Spike dup file: 074w038

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	32.01	142 %	OK	61 - 145
Trichloroethene	18.73	94 %	OK	71 - 120
Chlorobenzene	24.85	124 %	OK	75 - 130
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	26.94	117 %	OK	61 - 145
Trichloroethene	18.96	95 %	OK	71 - 120
Chlorobenzene	21.99	110 %	OK	75 - 130
SURROGATES				
Bromobenzene (MS)	101.80	102 %	OK	75 - 125
Bromobenzene (MSD)	102.80	103 %	OK	75 - 125
MATRIX RESULTS				
1,1-Dichloroethene	3.6375			
Trichloroethene	0			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	32.01	26.94	17 %	NOT OK	<= 14
Trichloroethene	18.73	18.96	1 %	OK	<= 14
Chlorobenzene	24.85	21.99	12 %	OK	<= 13



LABORATORY NUMBER: 114812-11
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-13

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/19/94
 DATE REPORTED: 03/21/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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108

LABORATORY NUMBER: 114812-17
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-14

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/19/94
 DATE REPORTED: 03/21/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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108

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LABORATORY NUMBER: 114812-24
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-2-W

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/19/94
 DATE REPORTED: 03/21/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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108



LABORATORY NUMBER: 114812-25
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-7-W

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/19/94
 DATE REPORTED: 03/21/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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107

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LABORATORY NUMBER: 114812-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE ANALYZED: 03/18/94
 DATE REPORTED: 03/21/94

 EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %

120



LABORATORY NUMBER: 114812-METHOD BLANK
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE ANALYZED: 03/19/94
DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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124

LABORATORY NUMBER: 114812-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE ANALYZED: 03/19/94
 DATE REPORTED: 03/21/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %	108
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MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114812
 Client: Weiss Associates
 Analysis date: 03/18/94
 Sample type: Soil
 Sample spiked: 114825-002

Spike file: 074e068
 Spike dup file: 074e069

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	20.46	102 %	OK	59 - 172
Trichloroethene	22.84	114 %	OK	62 - 137
Chlorobenzene	20.06	100 %	OK	60 - 133
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	20.95	105 %	OK	59 - 172
Trichloroethene	22.21	111 %	OK	62 - 137
Chlorobenzene	20.03	100 %	OK	60 - 133
SURROGATES				
Bromobenzene (MS)	127.89	128 %	OK	59 - 172
Bromobenzene (MSD)	120.83	121 %	OK	59 - 172
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	20.46	20.95	2 %	OK	<= 22
Trichloroethene	22.84	22.21	3 %	OK	<= 24
Chlorobenzene	20.06	20.03	0 %	OK	<= 21



MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114775
Client: Weiss Associates
Analysis date: 03/17/94
Sample type: Soil
Sample spiked: 114790-011
Spike file: 074e035
Spike dup file: 074e036

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	23.66	118 %	OK	59 - 172
Trichloroethene	25.05	125 %	OK	62 - 137
Chlorobenzene	22.05	110 %	OK	60 - 133
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	22.20	111 %	OK	59 - 172
Trichloroethene	24.11	121 %	OK	62 - 137
Chlorobenzene	21.13	106 %	OK	60 - 133
SURROGATES				
Bromobenzene (MS)	121.80	122 %	OK	59 - 172
Bromobenzene (MSD)	126.23	126 %	OK	59 - 172
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	23.66	22.20	6 %	OK	<= 22
Trichloroethene	25.05	24.11	4 %	OK	<= 24
Chlorobenzene	22.05	21.13	4 %	OK	<= 21

MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114812
 Client: Weiss Associates
 Analysis date: 03/18/94
 Sample type: Water
 Sample spiked: 114726-001
 Spike file: 076w016
 Spike dup file: 076w017

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	45.29	110 %	OK	61 - 145
Trichloroethene	23.83	118 %	OK	71 - 120
Chlorobenzene	21.76	109 %	OK	75 - 130
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	39.14	80 %	OK	61 - 145
Trichloroethene	21.23	105 %	OK	71 - 120
Chlorobenzene	19.76	99 %	OK	75 - 130
SURROGATES				
Bromobenzene (MS)	105.87	106 %	OK	75 - 125
Bromobenzene (MSD)	101.03	101 %	OK	75 - 125
MATRIX RESULTS				
1,1-Dichloroethene	23.2175			
Trichloroethene	0.159			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	45.29	39.14	15 %	NOT OK	<= 14
Trichloroethene	23.83	21.23	12 %	OK	<= 14
Chlorobenzene	21.76	19.76	10 %	OK	<= 13



LCS SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114812
Client: Weiss Associates
Analysis date: 03/18/94
Sample type: Water
LCS spike file: 076w014

8010 LCS DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	21.51	108 %	OK	61 - 145
Trichloroethene	22.07	110 %	OK	71 - 120
Chlorobenzene	20.83	104 %	OK	75 - 130
SURROGATES				
Bromobenzene (LCS)	104.19	104 %	OK	75 - 125

Please send analytic results and a copy of the signed chain of custody form to:

John Drey
 Project ID: 14-307-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

114812

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Watts

Laboratory Name: Curtis Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
1	BH-80.5	steel tube	3/16/94	1"x6"	N	4	none	TVH*/BTEX*/TEH*/HYDROCS	LWFT/2020/LWFT/2010	24hr	* Compare TVH/TEH to
1	BH-80.7.5	steel tube		"				HOLD	HOLD		Gasoline, Kerosene, Min. Spr.
4	BH-8a	VOA		40ml				TVH*/BTEX*/TEH*/HYDROCS	LWFT/2020/LWFT/2010	24hr	Diesel, Motor Oil, Hydro-Fluid
1	BH-8b	Amber		1L				TEH*	LWFT	24hr	Standards
1	BH-110.2.5	S. tube		1"x6"				TVH*/BTEX*/TEH*/HYDROCS	LWFT/2020/LWFT/2010	24hr	
1	BH-110.5							HOLD	HOLD		
1	BH-110.7.5							TVH*/BTEX*/TEH*/HYDROCS	LWFT/2020/LWFT/2010	24hr	
4	BH-11a	VOA		40ml				TVH*/BTEX*/HYDROCS	LWFT/2020/LWFT/2010	24hr	
1	BH-11b	Amber		1L				TEH*	LWFT	24hr	
1	BH-130.2.5	S. tube		1"x6"				TVH*/BTEX*/TEH*/HYDROCS	LWFT/2020/LWFT/2010	24hr	Compare TVH/TEH to Gasoline, Kerosene, Min Spr., Diesel, Motor Oil, Hydro Fluid
1	BH-130.5							HOLD	HOLD		
1	BH-130.7.5							TVH*/BTEX*/TEH*/HYDROCS	LWFT/2020/LWFT/2010	24hr	
4	BH-13a	VOA		40ml				TVH*/BTEX*/HYDROCS	LWFT/2020/LWFT/2010	24hr	
1	BH-13b	Amber		1L				TEH*	LWFT	24hr	

Released by (Signature), Date: Alison Watts 3/16/94
 1. Weiss Associates
 Affiliation
 Received by (Signature), Date: John Drey 3/16/94
 2. Weiss Associates
 Affiliation

Released by (Signature), Date: John Drey 3/17/94
 3. Weiss Assoc.
 Affiliation
 Shipping Carrier, Method, Date: _____
 4. _____
 Affiliation

Released by (Signature), Date: _____
 5. _____
 Affiliation
 Received by (Signature), Date: John Drey 3/17/94
 6. _____ Seal intact?
 6. CJT 1135
 Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other;
 Cap Codes: PT = Plastic, Teflon Lined
 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround (N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out))

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:
 Notes: 24 hr Turnaround
 Level II QA/QC reporting
 See M Pearl for Pricing
 Page 1 of 3
 Weiss Associates 03/08/91

Please send analytic results and a copy of the signed chain of custody form to:

John Drey

Project ID: 14-307-01

Lab Personnel:

114802

- Level II
- PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.
- Specify analytic method and detection limit in report.
 - Notify us if there are any anomalous peaks in GC or other scans.
 - ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Watts

Laboratory Name: Curtis + Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
2	BH-140.2.5	S. Tube	3/16/94	1" x 6"	N	P	none	TVH*/BTEX/TEH*/HVOCs	LUFF/8020/LUFF/3010	24hr	* Compare TVH/TEH to Gasoline, kerosene, Min. Spn. Diesel, Motor Oil, Auto Fluc. Standards
3	BH-140.5						1 ^{LD} TVH*/BTEX/TEH*/HVOCs HOLD	HOLD			
1	BH-140.7.5						3 ^{LD} TVH*/BTEX/TEH*/HVOCs	LUFF/8020/LUFF/3010	24hr		
1	BH-140.10						HOLD	HOLD			
1	BH-140.12.5						HOLD	HOLD			
4	BH-14a	VOA		90ml				HOLD	HOLD		
1	BH-14b	Amber		1Q				TVH*/BTEX/HVOCs	LUFF/8020/3010	24hr	
2	TB-3-16	VOA	3/16/94	40ml				TEH*	LUFF	24hr	
								HOLD	HOLD		

Alison Watts 3/16/94
 Released by (Signature), Date

Weiss Associates
 Affiliation

John Drey 3/16/94
 Received by (Signature), Date

Weiss Associates
 Affiliation

John Drey 3/17/94 11:35
 Released by (Signature), Date

Weiss Assoc
 Affiliation

Shipping Carrier, Method, Date

Affiliation

Released by (Signature), Date

Affiliation

3/17/94
 Received by Lab Personnel, Date

C-T 11:35
 Affiliation, Telephone

Seal intact?

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other;
 Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround (N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out))

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Please send analytic results and a copy of the signed chain of custody form to:

John Drey
 Project ID: 14-307-01

114812

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: JEA

Laboratory Name: Curtis E. Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
9	B-2-6.0	Brass tubes	3/16/94	2x4	N	Y	NONE	TVH*/BTEX*/TEH*/HVOCS	LWFT/2020/LWFT/2010	24hr	* Compare TVH/TEH to
0	B-2-8.5							TVH*/BTEX*/TEH*/HVOCS	LWFT/2020/LWFT/2010	24hr	Gasoline, Kerosene, Min Spr,
1	B-2-11.0							HOLD	HOLD		Diesel, Motor Oil,
2	B-2-13.5							HOLD	HOLD		Hydro. Fluid Standards
2	B-2-16.0							HOLD	HOLD		
4	B-2-W	w/v	3/16/94	40ml	N	Y	NONE	TVH*/BTEX*/VOCs	LWFT/2020/2010	24hr	
1	B-2-W	w/Amber		1L				TEH*	10 ft Method	24hr	
4	B-7-W	w/v		40ml				TVH*/BTEX*/VOCs	LWFT/2020/2010	24hr	
1	B-7-W	w/Amber		1L				TEH*	10 ft Method	24hr	
26	B-7-6.0	Brass tubes	3/16/94	2x4	N	Y	NONE	HOLD	HOLD		
27	B-7-8.5							TVH*/BTEX*/TEH*/HVOCS	LWFT/2020/LWFT/2010	24hr	
28	B-7-13.5							TVH*/BTEX*/TEH*/HVOCS	LWFT/2020/LWFT/2010	24hr	
29	B-7-16.0							HOLD	HOLD		

Joyce Adams 3/16/94
 Released by (Signature), Date
 1 Weiss Associates
 Affiliation
John W Drey 3/16/94
 Received by (Signature), Date
 2 Weiss Associates
 Affiliation

John W Drey 3/17/94
 Released by (Signature), Date
 3 Weiss Associates
 Affiliation
 Shipping Carrier, Method, Date
 Affiliation

5 Released by (Signature), Date
 Affiliation
 6 Received by Lab Personnel, Date Seal intact?
3/17/94
 Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other; Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround [N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out)]
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

LCS SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114775
 Client: Weiss Associates
 Analysis date: 03/16/94
 Sample type: Water

LCS spike file: 074w034

8010 LCS DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	22.48	112 %	OK	61 - 145
Trichloroethene	17.49	87 %	OK	71 - 120
Chlorobenzene	21.52	108 %	OK	75 - 130
SURROGATES				
Bromobenzene (LCS)	103.61	104 %	OK	75 - 125

MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114775
 Client: Weiss Associates
 Analysis date: 03/15/94
 Sample type: Soil
 Sample spiked: 114750-101
 Spike file: 074e005
 Spike dup file: 074e006

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	24.12	121 %	OK	59 - 172
Trichloroethene	25.47	127 %	OK	62 - 137
Chlorobenzene	22.30	112 %	OK	60 - 133
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	27.19	136 %	OK	59 - 172
Trichloroethene	28.60	143 %	NOT OK	62 - 137
Chlorobenzene	23.32	117 %	OK	60 - 133
SURROGATES				
Bromobenzene (MS)	117.63	118 %	OK	75 - 125
Bromobenzene (MSD)	117.95	118 %	OK	75 - 125
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	24.12	27.19	12 %	OK	<= 22
Trichloroethene	25.47	28.60	12 %	OK	<= 24
Chlorobenzene	22.30	23.32	4 %	OK	<= 21

LCS SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114775
Client: Weiss Associates
Analysis date: 03/15/94
Sample type: Soil
LCS spike file: 074e003

8010 LCS DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	16.99	85 %	OK	59 - 172
Trichloroethene	18.81	94 %	OK	62 - 137
Chlorobenzene	17.43	87 %	OK	60 - 133
SURROGATES				
Bromobenzene (LCS)	119.70	120 %	OK	75 - 125

Please send analytic results and a copy of the signed chain of custody form to:

John Drey
 Project ID: 14-307-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Watts Laboratory Name: Curtis + Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
1	BH-302.5	Steel Tube	3/15/94	1x6	N	Y	None	TVH/BTEX/TEH/HVOCs	LUF/8020/LUFT/8010	24hr	* Compare TEH to Diesel, Mineral Spirits, Motor Oil Standards
2	BH-305							HOLD	HOLD		
3	BH-307.5							TVH/BTEX/TEH/HVOCs	LUF/8020/LUFT/8010	24hr	
4	BH-3010							TVH/BTEX/TEH/HVOCs	LUF/8020/LUFT/8010	24hr	
5	BH-3012.5							HOLD	HOLD		
6	BH-3015							HOLD	HOLD		
7	BH-3020							HOLD	HOLD		
8	BH-3022.5							HOLD	HOLD		
9	BH-3025							HOLD	HOLD		
10	BH-3027.5							HOLD	HOLD		
11	BH-3030							HOLD	HOLD		
12	BH-3 (4) VOA/Amber		3/15/94					TVH/BTEX/TEH/HVOCs	LUF/8020/LUFT/8010	Normal	
13	BH-3BB	VOA	3/15/94					HOLD	HOLD		

Alison Watts 3/15/94
 Released by (Signature), Date

Weiss Associates
 Affiliation

John Drey 3/15/94
 Received by (Signature), Date

Weiss Associates
 Affiliation

John Drey 3/15/94
 Released by (Signature), Date

Weiss Associates
 Affiliation

Shipping Carrier, Method, Date

Affiliation

Released by (Signature), Date

Affiliation

Received by Lab Personnel, Date Seal intact?

Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other;
 Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround IN = Normal, W = 1 Week, R = 24 Hour, HOLD (write out)

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Notes 24 hr Turnaround
 Level II QA/QC report
 See M Pearl for Pricing

Please send analytic results and a copy of the signed chain of custody form to:

John Dvey

Project ID: 14-307-01

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Watts

Laboratory Name: Curtis + Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
-14	1 BH-5P.5	brass tubes	3/14/94	CR2	N	Y		TVH/BTEX/TEH/HVOCs	LUFT/2020/LUFT/2010	24hr	* Compare TEH to
-15	BH-5P 7.5							" " " "	" " " "	24hr	Diesel, Mineral spirits
-16	BH-5P 10							HOLD	HOLD		and Motor Oil standards
-17	BH-5P 12.5							TVH/BTEX/TEH/HVOCs	LUFT/2020/LUFT/2010	24hr	
-18	BH-5P 15							HOLD	HOLD		
19	4 BH-5P 17.5							HOLD	HOLD		
20	4 BH-5	VOA		40ml	↓	↓		TVH/BTEX/TEH/HVOCs	LUFT/2020/LUFT/2010	24hr	

1 Alison Watts 3/15/94
 Released by (Signature), Date

1 Weiss Associates
 Affiliation

2 John W Dvey 3/15/94
 Received by (Signature), Date

2 Weiss Associates
 Affiliation

3 John W Dvey 3/15/94
 Released by (Signature), Date

3 Weiss Associates
 Affiliation

4 John W Dvey
 Shipping Carrier, Method, Date

4 Weiss Associates
 Affiliation

5 [Signature]
 Released by (Signature), Date

5 [Signature]
 Affiliation

6 John W Dvey 3-15-94
 Received by Lab Personnel, Date Seal intact?

6 CJT 486-0900
 Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other;
 Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround (N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out))
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Notes: 24 hr Turnaround
 Level II QA/QC Report
 See M Pearl for Pricing

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

Please send analytic results and a copy of the signed chain of custody form to:

John Doney 1

Project ID: 14-307-01

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: JEA Laboratory Name: Chertis & Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
1	B-1-6.4	B _{FB}	3/15/94	2x4	N	Y	NONE	TVH/BTEX/TEH/HVOCs	LUFF/9020/LUFF/9010	24hr	* Compare TEH to Diesel, Mineral Oils, Motor Oil standards
2	B-1-8.9							" " "	" " "	24hr	
23	B-1-W	W/V	3/15/94	40ml	N	Y	NONE	TVH/BTEX/TEH/HVOCs	LUFF/9020/LUFF/9010	24hr	Normal Turn for B-1-W
4	B-1-W	B/G	3/15/94	1L	N	Y	NONE	TEHX	Luff		
5	TB-3-15	W/V	3/15/94	40ml	N	Y	HCl	HOLD	HOLD		

1 Joyce Adams 3/15/94
 Released by (Signature), Date
Weiss Associates
 Affiliation

2 John Doney 3/15/94
 Received by (Signature), Date
Weiss Associates
 Affiliation

3 John Doney 3/15/94
 Released by (Signature), Date
Weiss Associates
 Affiliation

4 _____
 Shipping Carrier, Method, Date

4 _____
 Affiliation

5 _____
 Released by (Signature), Date

5 _____
 Affiliation

6 Joyce Adams 3-15-94
 Received by Lab Personnel, Date Seal intact?

6 CT 486-8900
 Affiliation, Telephone

1. Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other;
 Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround (N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out))
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Notes

24 hr turnaround
 Level II QA/QC Report
 See Mike Pearl for Pricing



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608

Date: 22-MAR-94
Lab Job Number: 114812
Project ID: 14-307-01
Location: N/A

Reviewed by: _____

Reviewed by: _____

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LABORATORY NUMBER: 114812
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/17,18/94
 DATE REPORTED: 03/18/94

Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS	TVH AS	REPORTING	SURROGATE	
		MINERAL SPIRITS (mg/Kg)	GASOLINE (mg/Kg)		LIMIT (mg/Kg)	RECOVERIES TFT, %
114812-1	BH-8@5	ND	ND	1	91	91
114812-4	BH-11@2.5	ND	ND	1	91	94
114812-6	BH-11@7.5	ND	ND	1	90	97
114812-8	BH-13@2.5	ND	ND	1	84	86
114812-10	BH-13@7.5	ND	ND	1	87	93
114812-12	BH-14@2.5	ND	ND	1	81	81
114812-14	BH-14@7.5	ND	ND	1	87	92
114812-19	B-2-6.0	ND	ND	1	90	107
114812-20	B-2-8.5	ND	ND	1	85	90
114812-27	B-7-8.5	ND	ND	1	87	92
114812-28	B-7-13.5	ND	ND	1	88	94
114812-METHOD	BLANK	ND	ND	1	84	89

TFT = Trifluorotoluene (Limits: 60-140)
 BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: MS/MSD

=====
 RPD, % 3 (Limit: <25 %)
 RECOVERY, % 102 (Limits: 70-130)
 =====

Spiked sample: 114815-005

LABORATORY NUMBER: 114812
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/17,18/94
 DATE REPORTED: 03/18/94

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (ug/L)	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT, % BB, %	
114812-3	BH-8	ND	ND	50	107	105
114812-7	BH-11	**	60	50	107	104
114812-11	BH-13	ND	ND	50	106	103
114812-17	BH-14	ND	ND	50	105	103
114812-24	B-2-W	ND	ND	50	105	103
114812-25	B-7-W	**	60	50	109	105
114812-METHOD BLANK		ND	ND	50	107	100

TFT = Trifluorotoluene (Limits: 60-140)
 BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

**Mineral spirits not reported due to overlap of hydrocarbon ranges.

QA/QC SUMMARY: BS/BSD

=====
 RPD, % 1 (Limit: <25 %)
 RECOVERY, % 113 (Limits: 70-130)
 =====

LABORATORY NUMBER: 114812
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE EXTRACTED: 03/17/94
 DATE ANALYZED: 03/18/94
 DATE REPORTED: 03/18/94
 DATE REVISED: 04/14/94

 Extractable Petroleum Hydrocarbons in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	MOTOR OIL RANGE (mg/Kg)	SURROGATE RECOVERY (Hexacosane)
114812-1	BH-8@5	ND(1)	ND(1)	ND(30)	84 %
114812-4	BH-11@2.5	ND(1)	ND(1)	ND(30)	87 %
114812-6	BH-11@7.5	ND(1)	ND(1)	ND(30)	93 %
114812-8	BH-13@2.5	ND(1)	2 *	ND(30)	95 %
114812-10	BH-13@7.5	ND(1)	ND(1)	ND(30)	98 %
114812-12	BH-14@2.5	ND(1)	ND(1)	ND(30)	95 %
114812-14	BH-14@7.5	ND(1)	ND(1)	ND(30)	95 %
114812-19	B-2-6.0	ND(1)	ND(1)	ND(30)	95 %
114812-20	B-2-8.5	ND(1)	ND(1)	ND(30)	93 %
114812-27	B-7-8.5	ND(1)	ND(1)	ND(30)	100 %
114812-28	B-7-13.5	ND(1)	ND(1)	ND(30)	99 %
114812-METHOD BLANK		ND(1)	ND(1)	ND(30)	89 %

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

*Sample pattern does not resemble standard.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: MS/MSD

RPD, %	9	(Limit: <25 %)
RECOVERY, %	97	(Limits: 50-150)

Spiked sample: 114613-003

LABORATORY NUMBER: 114812
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE EXTRACTED: 03/21/94
 DATE ANALYZED: 03/22/94
 DATE REPORTED: 03/22/94

 Extractable Petroleum Hydrocarbons in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/L)	DIESEL RANGE (mg/L)	MOTOR OIL RANGE (mg/L)	SURROGATE RECOVERY (Hexacosane)
114812-3	BH-8	ND(1)	ND(1)	ND(20)	56 %
114812-7	BH-11	ND(1)	ND(1)	ND(20)	85 %
114812-11	BH-13	ND(1)	ND(1)	ND(20)	98 %
114812-17	BH-14	ND(1)	ND(1)	ND(20)	89 %
114812-24	B-2-W	ND(1)	ND(1)	ND(20)	82 %
114812-25	B-7-W	ND(1)	ND(1)	ND(20)	65 %
114812-METHOD BLANK		ND(1)	ND(1)	ND(20)	80 %

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	1	(Limit: <25 %)
RECOVERY, %	105	(Limits: 50-150)

LABORATORY NUMBER: 114812
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/17,18/94
 DATE REPORTED: 03/18/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)	REPORTING LIMIT (ug/Kg)	SURROGATE RECOVERIES TFT,% BB,%	
114812-1	BH-8@5	ND	ND	ND	ND	5	94	93
114812-4	BH-11@2.5	ND	ND	ND	ND	5	97	96
114812-6	BH-11@7.5	ND	ND	ND	ND	5	97	98
114812-8	BH-13@2.5	ND	ND	ND	8	5	91	87
114812-10	BH-13@7.5	ND	ND	ND	ND	5	95	94
114812-12	BH-14@2.5	ND	ND	ND	ND	5	87	82
114812-14	BH-14@7.5	ND	ND	ND	7	5	94	92
114812-19	B-2-6.0	ND	ND	ND	ND	5	97	107
114812-20	B-2-8.5	ND	ND	ND	ND	5	93	91
114812-27	B-7-8.5	ND	ND	ND	ND	5	96	93
114812-28	B-7-13.5	ND	ND	ND	ND	5	96	95
114812-METHOD BLANK		ND	ND	ND	ND	5	91	93

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

LABORATORY NUMBER: 114812
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/17,18/94
 DATE REPORTED: 03/18/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE	TOLUENE	ETHYL	TOTAL	REPORTING	SURROGATE	
		(ug/L)	(ug/L)	BENZENE (ug/L)	XYLENES (ug/L)	LIMIT (ug/L)	TFT,%	BB,%
114812-3	BH-8	ND	ND	ND	ND	0.5	97	92
114812-7	BH-11	ND	0.8	ND	ND	0.5	97	91
114812-11	BH-13	ND	ND	ND	ND	0.5	96	90
114812-17	BH-14	ND	ND	ND	ND	0.5	96	91
114812-24	B-2-W	ND	0.5	0.5	ND	0.5	95	91
114812-25	B-7-W	ND	2	ND	ND	0.5	97	91
114812-METHOD BLANK		ND	ND	ND	ND	5	99	94

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

LABORATORY NUMBER: 114812-1
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-8@5

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/18/94
 DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

=====

136

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LABORATORY NUMBER: 114812-4
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-11@2.5

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/18/94
 DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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140

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LABORATORY NUMBER: 114812-6
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-11@7.5

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/18/94
 DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

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131

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LABORATORY NUMBER: 114812-8
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-13@2.5

DATE SAMPLED: 03/16/94
DATE RECEIVED: 03/17/94
DATE ANALYZED: 03/18/94
DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	50	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	9	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	50	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	5	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

163



LABORATORY NUMBER: 114812-10
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-13@7.5

DATE SAMPLED: 03/16/94
DATE RECEIVED: 03/17/94
DATE ANALYZED: 03/18/94
DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %	139
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LABORATORY NUMBER: 114812-12
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-14@2.5

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/18/94
 DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %

148



LABORATORY NUMBER: 114812-14
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-147.5

DATE SAMPLED: 03/16/94
DATE RECEIVED: 03/17/94
DATE ANALYZED: 03/18/94
DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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141

LABORATORY NUMBER: 114812-19
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-2-6.0

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/19/94
 DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

=====

139

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LABORATORY NUMBER: 114812-20
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-2-8.5

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/18/94
 DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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141

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LABORATORY NUMBER: 114812-27
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-7-8.5

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/18/94
 DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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138

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LABORATORY NUMBER: 114812-28
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-7-13.5

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/18/94
 DATE REPORTED: 03/21/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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143



LABORATORY NUMBER: 114812-3
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-8

DATE SAMPLED: 03/16/94
DATE RECEIVED: 03/17/94
DATE ANALYZED: 03/19/94
DATE REPORTED: 03/21/94

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

=====

107

LABORATORY NUMBER: 114812-7
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-11

DATE SAMPLED: 03/16/94
 DATE RECEIVED: 03/17/94
 DATE ANALYZED: 03/19/94
 DATE REPORTED: 03/21/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	107
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A N A L Y T I C A L R E P O R T

Prepared for:

Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608

Date: 31-MAR-94
Lab Job Number: 114825
Project ID: 14-307-01
Location: N/A

Reviewed by: _____

Reviewed by: _____

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LABORATORY NUMBER: 114825
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/17/94
DATE RECEIVED: 03/18/94
DATE ANALYZED: 03/18,19/94
DATE REPORTED: 03/21/94

Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (mg/Kg)	TVH AS GASOLINE (mg/Kg)	REPORTING LIMIT (mg/Kg)	SURROGATE RECOVERIES TFT, % BB, %	
114825-2	BH-9@5	ND	ND	1	86	90
114825-6	BH-12@7.5	ND	ND	1	86	93
114825-11	BH-15@2.5	ND	ND	1	90	101
114825-13	BH-15@7.5	ND	ND	1	86	89
114825-17	BH-17@2.5	**	1	1	88	93
114825-METHOD BLANK		ND	ND	1	97	97

TFT = Trifluorotoluene (Limits: 60-140)

BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

**Mineral spirits not reported due to overlap of hydrocarbon ranges.

QA/QC SUMMARY: MS/MSD

RPD, %	3	(Limit: <25 %)
RECOVERY, %	98	(Limits: 70-130)

Spiked sample: 114823-001

LABORATORY NUMBER: 114825
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE ANALYZED: 03/25/94
 DATE REPORTED: 03/31/94

Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS	TVH AS	REPORTING	SURROGATE	
		MINERAL SPIRITS (mg/Kg)	GASOLINE (mg/Kg)	LIMIT (mg/Kg)	TFT, %	BB, %
114825-19	BH-17@7.5	**	130	20	107	114
114825-METHOD	BLANK	ND	ND	1	95	93

TFT = Trifluorotoluene (Limits: 60-140)
 BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

**Mineral spirits not reported due to overlap of hydrocarbon ranges.

QA/QC SUMMARY: BS/BSD

RPD, %	2	(Limit: <25 %)
RECOVERY, %	96	(Limits: 70-130)



LABORATORY NUMBER: 114825
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/17/94
DATE RECEIVED: 03/18/94
DATE ANALYZED: 03/18,19/94
DATE REPORTED: 03/21/94

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (ug/L)	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT, % BB, %	
114825-3	BH-9	ND	ND	50	109	107
114825-9	BH-12	ND	ND	50	108	105
114825-16	BH-15	**	70	50	109	107
114825-METHOD	BLANK	ND	ND	50	108	102

TFT = Trifluorotoluene (Limits: 60-140)
BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

**Mineral spirits not reported due to overlap of hydrocarbon ranges.

QA/QC SUMMARY: BS/BSD

RPD, %	1	(Limit: <25 %)
RECOVERY, %	93	(Limits: 70-130)

LABORATORY NUMBER: 114825
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE ANALYZED: 03/23/94
 DATE REPORTED: 03/31/94

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (ug/L)	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT, % BB, %	
114825-22	BH-17	**	32,000	1,000	115	123
114825-METHOD	BLANK	ND	ND	50	114	115

TFT = Trifluorotoluene (Limits: 60-140)
 BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

**Mineral spirits not reported due to overlap of hydrocarbon ranges.

QA/QC SUMMARY: BS/BSD

RPD, %	4	(Limit: <25 %)
RECOVERY, %	112	(Limits: 70-130)

LABORATORY NUMBER: 114825
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE EXTRACTED: 03/18/94
 DATE ANALYZED: 03/18,19/94
 DATE REPORTED: 03/21/94
 DATE REVISED: 04/14/94

 Extractable Petroleum Hydrocarbons in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	MOTOR OIL RANGE (mg/Kg)	SURROGATE RECOVERY (Hexacosane)
114825-2	BH-9@5	ND(1)	ND(1)	ND(30)	100 %
114825-6	BH-12@7.5	ND(1)	ND(1)	ND(30)	92 %
114825-11	BH-15@2.5	ND(1)	ND(1)	ND(30)	90 %
114825-13	BH-15@7.5	ND(1)	ND(1)	ND(30)	83 %
114825-17	BH-17@2.5	ND(1)	2 **	50	97 %
114825-19	BH-17@7.5	190 *	***	ND(30)	78 %
114825-METHOD BLANK		ND(1)	ND(1)	ND(30)	98 %

* Kerosene range quantitation results from gasoline range hydrocarbons.

** Diesel range quantitation results from motor oil range hydrocarbons.

*** Diesel range not reported due to overlap of hydrocarbon ranges.

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	12	(Limit: <25 %)
RECOVERY, %	89	(Limits: 50-150)

LABORATORY NUMBER: 114825
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE EXTRACTED: 03/21/94
 DATE ANALYZED: 03/22/94
 DATE REPORTED: 03/22/94

Extractable Petroleum Hydrocarbons in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/L)	DIESEL RANGE (mg/L)	MOTOR OIL RANGE (mg/L)	SURROGATE RECOVERY (Hexacosane)
114825-3	BH-9	ND(1)	ND(1)	ND(20)	75 %
114825-22	BH-17	6	***	ND(20)	87 %
114825-METHOD	BLANK	ND(1)	ND(1)	ND(20)	80 %

*** Diesel range not reported due to overlap of hydrocarbon ranges.

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	1	(Limit: <25 %)
RECOVERY, %	105	(Limits: 50-150)



LABORATORY NUMBER: 114825
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/17/94
DATE RECEIVED: 03/18/94
DATE EXTRACTED: 03/18/94
DATE ANALYZED: 03/19/94
DATE REPORTED: 03/21/94

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/L)	DIESEL RANGE (mg/L)	MOTOR OIL RANGE (mg/L)	SURROGATE RECOVERY (Hexacosane)
114825-9	BH-12	ND(1)	ND(1)	ND(20)	110 %
114825-16	BH-15	1*	ND(1)	ND(20)	93 %
114755-METHOD	BLANK	ND(1)	ND(1)	ND(20)	100 %

*Single peak

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

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 RPD, % (Limit: <25 %)
 RECOVERY, % (Limits: 50-150)
 =====

LABORATORY NUMBER: 114825
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE ANALYZED: 03/18,19/94
 DATE REPORTED: 03/21/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE	TOLUENE	ETHYL	TOTAL	REPORTING	SURROGATE	
		(ug/Kg)	(ug/Kg)	BENZENE (ug/Kg)	XYLENES (ug/Kg)	LIMIT (ug/Kg)	TFT,%	BB,%
114825-2	BH-905	ND	ND	ND	ND	5	90	90
114825-6	BH-1207.5	ND	ND	ND	ND	5	92	93
114825-11	BH-1502.5	ND	ND	ND	ND	5	97	102
114825-13	BH-1507.5	ND	ND	ND	ND	5	91	91
114825-17	BH-1702.5	ND	ND	5	55	5	90	91
114825-METHOD	BLANK	ND	ND	ND	ND	5	97	97

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.



LABORATORY NUMBER: 114825
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/17/94
DATE RECEIVED: 03/18/94
DATE ANALYZED: 03/26/94
DATE REPORTED: 03/31/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)	REPORTING LIMIT (ug/Kg)	SURROGATE RECOVERIES TFT,% BB,%	
114825-19	BH-17a7.5	ND	190*	1,200	1,400	80	106	93
114825-METHOD BLANK		ND	ND	ND	ND	5	100	97

* Presence of this compound confirmed by second column; however, the confirmation concentration differed from the reported result by more than a factor of two.

TFT = Trifluorotoluene (Limits: 60-140)
BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
Reporting Limit applies to all analytes.

LABORATORY NUMBER: 114825
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE ANALYZED: 03/18,19/94
 DATE REPORTED: 03/22/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB,%	
114825-3	BH-9	ND	ND	ND	ND	0.5	98	93
114825-9	BH-12	ND	ND	ND	ND	0.5	97	92
114825-16	BH-15	9.7	ND	1.1	7.6	0.5	97	91
114756-METHOD BLANK		ND	ND	ND	ND	0.5	98	95

TFT = Trifluorotoluene (Limits: 60-140)
 BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

LABORATORY NUMBER: 114825
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE ANALYZED: 03/23/94
 DATE REPORTED: 03/31/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB,%	
114825-22	BH-17	1,800	780	1,100	2,400	10	111	101
114756-METHOD BLANK		ND	ND	ND	ND	0.5	114	115

TFT = Trifluorotoluene (Limits: 60-140)
 BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

LABORATORY NUMBER: 114825-2
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-9@5

DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE ANALYZED: 03/18/94
 DATE REPORTED: 03/23/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	127
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LABORATORY NUMBER: 114825-6
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-12@7.5

DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE ANALYZED: 03/18/94
 DATE REPORTED: 03/23/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %

132

LABORATORY NUMBER: 114825-11
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-15@2.5

DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE ANALYZED: 03/18/94
 DATE REPORTED: 03/23/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	140
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LABORATORY NUMBER: 114825-13
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-15@7.5

DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE ANALYZED: 03/22/94
 DATE REPORTED: 03/23/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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130

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LABORATORY NUMBER: 114825-17
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-17@2.5

DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE ANALYZED: 03/19/94
 DATE REPORTED: 03/23/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	155
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LABORATORY NUMBER: 114825-19
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-17@7.5

DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE ANALYZED: 03/19/94
 DATE REPORTED: 03/23/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	50
Bromomethane	ND	50
Vinyl chloride	ND	50
Chloroethane	ND	50
Methylene chloride	ND	100
Trichlorofluoromethane	ND	30
1,1-Dichloroethene	ND	30
1,1-Dichloroethane	ND	30
cis-1,2-Dichloroethene	ND	30
trans-1,2-Dichloroethene	ND	30
Chloroform	ND	30
Freon 113	ND	30
1,2-Dichloroethane	ND	30
1,1,1-Trichloroethane	ND	30
Carbon tetrachloride	ND	30
Bromodichloromethane	ND	30
1,2-Dichloropropane	ND	30
cis-1,3-Dichloropropene	ND	30
Trichloroethene	ND	30
1,1,2-Trichloroethane	ND	30
trans-1,3-Dichloropropene	ND	30
Dibromochloromethane	ND	30
Bromoform	ND	50
Tetrachloroethene	ND	30
1,1,2,2-Tetrachloroethane	ND	30
Chlorobenzene	ND	30
1,3-Dichlorobenzene	ND	30
1,4-Dichlorobenzene	ND	30
1,2-Dichlorobenzene	ND	30

ND = Not detected at or above reporting limit.

NOTE: Sample run at a dilution due to high hydrocarbons

QA/QC SUMMARY

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Surrogate Recovery, %

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LABORATORY NUMBER: 114825-3
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-9

DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE ANALYZED: 03/19/94
 DATE REPORTED: 03/23/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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109

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LABORATORY NUMBER: 114825-9
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-12

 DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE ANALYZED: 03/19/94
 DATE REPORTED: 03/23/94

 EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %

108

LABORATORY NUMBER: 114825-16
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-15

DATE SAMPLED: 03/17/94
 DATE RECEIVED: 03/18/94
 DATE ANALYZED: 03/19/94
 DATE REPORTED: 03/23/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	110
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LABORATORY NUMBER: 114825-22
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-17

DATE SAMPLED: 03/17/94
DATE RECEIVED: 03/18/94
DATE ANALYZED: 03/19/94
DATE REPORTED: 03/23/94

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	1	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %	108
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LABORATORY NUMBER: 114825-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE ANALYZED: 03/22/94
 DATE REPORTED: 03/23/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

117



NUMBER: 114825-METHOD BLANK
ASSOCIATES
307-01

DATE ANALYZED: 03/18/94
DATE REPORTED: 03/23/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

117



LABORATORY NUMBER: 114825-METHOD BLANK
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE ANALYZED: 03/19/94
DATE REPORTED: 03/23/94

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

108



MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114825
Client: Weiss Associates
Analysis date: 03/18/94
Sample type: SOIL
Sample spiked: 114825-002

Spike file: 074e068
Spike dup file: 074e069

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	20.46	102 %	OK	59 - 172
Trichloroethene	22.84	114 %	OK	62 - 137
Chlorobenzene	20.06	100 %	OK	60 - 133
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	20.95	105 %	OK	59 - 172
Trichloroethene	22.21	111 %	OK	62 - 137
Chlorobenzene	20.03	100 %	OK	60 - 133
SURROGATES				
Bromobenzene (MS)	127.89	128 %	OK	59 - 172
Bromobenzene (MSD)	120.83	121 %	OK	59 - 172
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	20.46	20.95	2 %	OK	<= 22
Trichloroethene	22.84	22.21	3 %	OK	<= 24
Chlorobenzene	20.06	20.03	0 %	OK	<= 21



MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114825
 Client: Weiss Associates
 Analysis date: 03/21/94
 Sample type: Soil
 Sample spiked: 114844-008

Spike file: 080E006
 Spike dup file: 080E007

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	18.90	95 %	OK	59 - 172
Trichloroethene	20.25	101 %	OK	62 - 137
Chlorobenzene	19.26	96 %	OK	60 - 133
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	21.88	109 %	OK	59 - 172
Trichloroethene	23.69	118 %	OK	62 - 137
Chlorobenzene	20.88	104 %	OK	60 - 133
SURROGATES				
Bromobenzene (MS)	116.17	116 %	OK	59 - 172
Bromobenzene (MSD)	119.74	120 %	OK	59 - 172
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	18.90	21.88	15 %	OK	<= 22
Trichloroethene	20.25	23.69	16 %	OK	<= 24
Chlorobenzene	19.26	20.88	8 %	OK	<= 21

LCS SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114825
 Client: Weiss Associates
 Analysis date: 03/18/94
 Sample type: Water

LCS spike file: 076w014

8010 LCS DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	21.51	108 %	OK	61 - 145
Trichloroethene	22.07	110 %	OK	71 - 120
Chlorobenzene	20.83	104 %	OK	75 - 130
SURROGATES				
Bromobenzene (LCS)	104.19	104 %	OK	75 - 125



MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114825
Client: Weiss Associates
Analysis date: 03/18/94
Sample type: Water
Sample spiked: 114726-001
Spike file: 076w016
Spike dup file: 076w017

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	45.29	110 %	OK	61 - 145
Trichloroethene	23.83	117 %	OK	71 - 120
Chlorobenzene	21.76	109 %	OK	75 - 130
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	39.14	80 %	OK	61 - 145
Trichloroethene	21.23	104 %	OK	71 - 120
Chlorobenzene	19.76	99 %	OK	75 - 130
SURROGATES				
Bromobenzene (MS)	105.87	106 %	OK	75 - 125
Bromobenzene (MSD)	101.03	101 %	OK	75 - 125
MATRIX RESULTS				
1,1-Dichloroethene	23.2175			
Trichloroethene	0.459			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	45.29	39.14	15 %	NOT OK	<= 14
Trichloroethene	23.83	21.23	12 %	OK	<= 14
Chlorobenzene	21.76	19.76	10 %	OK	<= 13

Please send analytic results and a copy of the signed chain of custody form to:

John Duey

Project ID: 14-307-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Watts

Laboratory Name: Curtis & Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
1	BH-1502.5 S.tube		3/17/94	1x6"	N	Y	None	TVH*/BTEX*/TEH*/HVOLG	LUFT/8020/LUFT/8010	24hr	
2	BH-1505							HOLD	HOLD		
3	BH-1507.5							TVH*/BTEX*/TEH*/HVOLG	LUFT/8020/LUFT/8010	24hr	
4	BH-15010							HOLD	HOLD		
4	BH-15012.5							HOLD	HOLD		
1	BH-15a	VOA		40ml				TVH*/BTEX*/HVOLG	LUFT/8020/8010	24hr	
1	BH-15b	Amber		1L				TEH*	LUFT	24hr	
1	BH-1702.5 S.tube							TVH*/BTEX*/TEH*/HVOLG	LUFT/8020/LUFT/8010	24hr	
1	BH-1705							HOLD	HOLD		
1	BH-1707.5							TVH*/BTEX*/TEH*/HVOLG	LUFT/8020/LUFT/8010	24hr	
1	BH-17010							HOLD	HOLD		
1	BH-17012.5							HOLD	HOLD		
4	BH-170a	VOA		40ml				TVH*/BTEX*/TEH*/HVOLG	LUFT/8020/8010	24hr	
1	BH-170b	Amber		1L				TEH*	LUFT	24hr	

Released by (Signature), Date
Alison Watts 3/17/94

Affiliation
Weiss Associates

Received by (Signature), Date
John Duey 3/17/94

Affiliation
Weiss Assoc.

Released by (Signature), Date
John Duey 3/18/94

Affiliation
[Signature]

Shipping Carrier, Method, Date
[Signature]

Affiliation, Telephone
[Signature]

Released by (Signature), Date
[Signature]

Affiliation
[Signature]

Received by Lab Personnel, Date Seal intact?
[Signature] 3/18/94 x

Affiliation, Telephone
C.T. 0900

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other; Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround (N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out))
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Please send analytic results and a copy of the signed chain of custody form to:

John Drey

Project ID: 14-307-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- Specify analytic method and detection limit in report.
- Notify us if there are any anomalous peaks in GC or other scans.
- ANY QUESTIONS/CLARIFICATIONS: CALL US.

114825

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Watts

Laboratory Name: Curtis + Templins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
1	BH-9025	S. tube	3/17/94	1"x6"	N	Y	None	HOLD	HOLD		* Compare TEH/TVH to
2	BH-905	"		"				TVH*/BTEX/TEH/HVOCs	LWFT/8020/LWFT/8010	24hr	Min Sp., Gasoline, Kerosene,
3	BH-9a	VOA		40ml				TVH*/BTEX/HVOC	LWFT/8020/8010	24hr	Hyd-Fluid, Diesel,
1	BH-9b	Amber		1l				TEH*	LWFT		Motor Oil
1	BH-12025	S. tube		1"x6"				HOLD	HOLD		
1	BH-1205			"				HOLD	HOLD		
1	BH-12075			"				TVH*/BTEX/TEH*/HVOCs	LWFT/8020/LWFT/8010	24hr	
2	BH-12010			"				HOLD	HOLD		
3	BH-120125			"				HOLD	HOLD		
4	BH-72a			40ml				TVH*/BTEX/HVOC	LWFT/8020/8010	24hr	
1	BH-12b			1l				TEH*	LWFT		
2	TRIP BLANK	VOA		40ml	N	Y	HCl	HOLD	HOLD		

1 Alison Watts 3/17/94
 Released by (Signature), Date

1 Weiss Associates
 Affiliation

2 John Drey 3/17/94
 Received by (Signature), Date

2 Weiss Assoc
 Affiliation

3 John Drey 3/17/94
 Released by (Signature), Date

3 Weiss Assoc
 Affiliation

4 _____
 Shipping Carrier, Method, Date

4 _____
 Affiliation

5 _____
 Released by (Signature), Date

5 _____
 Affiliation

6 [Signature] 3/18/94
 Received by Lab Personnel, Date Seal intact?

6 Curtis 0908
 Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other; Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)

5 Turnaround [N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Notes

Level II 24/24 report
 24 hr turnaround
 See M Pearl for Pricing



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608

Date: 31-MAR-94
Lab Job Number: 114844
Project ID: 14-307-01
Location: N/A

Reviewed by: 

Reviewed by: 

This package may be reproduced only in its entirety.

LABORATORY NUMBER: 114844
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE ANALYZED: 03/21,22/94
 DATE REPORTED: 03/22/94

 Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (mg/Kg)	TVH AS GASOLINE (mg/Kg)	REPORTING LIMIT (mg/Kg)	SURROGATE RECOVERIES TFT, % BB, %	
114844-4	BH-24 9.0'	**	4	1	96	105
114844-8	BH-25 10'	ND	ND	1	87	96
114844-9	BH-25 12.5'	ND	ND	1	87	93
114844-13	BH-22@5	ND	ND	1	91	98
114844-18	BH-16@5	ND	ND	1	89	98
114844-19	BH-16@7.5	ND	ND	1	92	101
114844-METHOD BLANK		ND	ND	1	89	96

TFT = Trifluorotoluene (Limits: 60-140)

BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

** Mineral spirits range not reported due to overlap of hydrocarbon ranges

QA/QC SUMMARY: MS/MSD

RPD, %	1	(Limit: <25 %)
RECOVERY, %	96	(Limits: 70-130)

Spiked sample: 114844-019



LABORATORY NUMBER: 114844
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/18/94
DATE RECEIVED: 03/21/94
DATE ANALYZED: 03/21,22/94
DATE REPORTED: 03/31/94

Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (mg/Kg)	TVH AS GASOLINE (mg/Kg)	REPORTING LIMIT (mg/Kg)	SURROGATE RECOVERIES TFT, % BB, %	
114844-14	BH-22@7.5	**	130	8	107	120
114844-METHOD	BLANK	ND	ND	1	95	93

TFT = Trifluorotoluene (Limits: 60-140)
BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

** Mineral spirits range not reported due to overlap of hydrocarbon ranges

QA/QC SUMMARY:

RPD, %	2	(Limit: <25 %)
RECOVERY, %	96	(Limits: 70-130)

LABORATORY NUMBER: 114844
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE ANALYZED: 03/22/94
 DATE REPORTED: 03/22/94

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (ug/L)	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB, %	
114844-015	BH-22	**	6,000	1,000	115	117
114844-METHOD	BLANK	ND	ND	50	114	110

TFT = Trifluorotoluene (Limits: 60-140)
 BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

**Mineral spirits not reported due to overlap of hydrocarbon ranges.

QA/QC SUMMARY: BS/BSD

RPD,% <1 (Limit: <25 %)
 RECOVERY,% 96 (Limits: 70-130)

LABORATORY NUMBER: 114844
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE EXTRACTED: 03/21/94
 DATE ANALYZED: 03/22/94
 DATE REPORTED: 03/22/94
 DATE REVISED: 04/14/94

 Extractable Petroleum Hydrocarbons in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	MOTOR OIL RANGE (mg/Kg)	SURROGATE RECOVERY (Hexacosane)
114844-4	BH-24 9.0'	20 *	***	ND(30)	106 %
114844-8	BH-25 10'	ND(1)	ND(1)	ND(30)	106 %
114844-9	BH-25 12.5'	ND(1)	ND(1)	ND(30)	96 %
114844-13	BH-22@5	ND(1)	ND(1)	ND(30)	100 %
114844-14	BH-22@7.5	**	340	ND(30)	96 %
114844-18	BH-16@5	ND(1)	ND(1)	ND(30)	98 %
114844-19	BH-16@7.5	ND(1)	ND(1)	ND(30)	101 %
114844-METHOD BLANK		ND(1)	ND(1)	ND(30)	98 %

*** Diesel range not reported due to overlap of hydrocarbon ranges.
 ** Kerosene range not reported due to overlap of hydrocarbon ranges.
 * Kerosene range quantitation results from gasoline range hydrocarbons.

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: MS/MSD

RPD, %	3	(Limit: <25 %)
RECOVERY, %	103	(Limits: 50-150)

Spiked sample: 114844-009

LABORATORY NUMBER: 114844
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE EXTRACTED: 03/22/94
 DATE ANALYZED: 03/22/94
 DATE REPORTED: 03/22,23/94
 DATE REVISED: 04/14/94

 Extractable Petroleum Hydrocarbons in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/L)	DIESEL RANGE (mg/L)	MOTOR OIL RANGE (mg/L)	SURROGATE RECOVERY (Hexacosane)
114844-5	BH-24	2 *	ND(1)	ND(20)	102 %
114844-11	BH-25	ND(1)	ND(1)	ND(20)	103 %
114844-16	BH-22	**	220	ND(50)	102 %
114844-21	BH-16	15 *	***	ND(20)	99 %
114844-METHOD	BLANK	ND(1)	ND(1)	ND(20)	100 %

* Kerosene range quantitation results from gasoline range hydrocarbons.

** Kerosene range not reported due to overlap of hydrocarbon ranges.

*** Diesel range not reported due to overlap of hydrocarbon ranges.

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	2	(Limit: <25 %)
RECOVERY, %	94	(Limits: 50-150)

LABORATORY NUMBER: 114844
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE ANALYZED: 03/21,22/94
 DATE REPORTED: 03/22/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)	REPORTING LIMIT (ug/Kg)	SURROGATE RECOVERIES TFT,% BB,%	
114844-4	BH-24 9.0'	130	ND	45	190	5	104	102
114844-8	BH-25 10'	ND	ND	ND	ND	5	93	97
114844-9	BH-25 12.5'	ND	ND	ND	ND	5	93	93
114844-13	BH-2205	ND	ND	ND	ND	5	98	98
114844-18	BH-1605	ND	ND	ND	ND	5	95	98
114844-19	BH-1607.5	ND	ND	ND	ND	5	98	100
114844-METHOD	BLANK	ND	ND	ND	ND	5	96	97

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

LABORATORY NUMBER: 114844
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE ANALYZED: 03/26/94
 DATE REPORTED: 03/31/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE	TOLUENE	ETHYL	TOTAL	REPORTING	SURROGATE	
		(ug/Kg)	(ug/Kg)	BENZENE (ug/Kg)	XYLENES (ug/Kg)	LIMIT (ug/Kg)	TFT,%	BB,%
114844-14	BH-2207.5	70*	980*	70*	250	40	123	101
114844-METHOD BLANK		ND	ND	ND	ND	5	100	97

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

* Presence of this compound confirmed by second column; however, the confirmation concentration differed from the reported result by more than a factor of two.

LABORATORY NUMBER: 114844
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE ANALYZED: 03/23/94
 DATE REPORTED: 03/31/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB,%	
114844-005	BH-24	1,800	30	520	1,900	10	102	98
114844-011	BH-25	ND	ND	ND	ND	0.5	99	96
114844-020	BH-16	570	280	1,500	5,400	10	113	100
METHOD BLANK	N/A	ND	ND	ND	ND	0.5	99	95

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

LABORATORY NUMBER: 114844
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE ANALYZED: 03/22/94
 DATE REPORTED: 03/22/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB,%	
114844-015	BH-22	60*	20	30	60	10	103	94
METHOD BLANK	N/A	ND	ND	ND	ND	0.5	97	94

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

* Presence of this compound confirmed by second column; however, the confirmation concentration differed from the reported result by more than a factor of two.



LABORATORY NUMBER: 114844-4
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-24 9.0'

DATE SAMPLED: 03/18/94
DATE RECEIVED: 03/21/94
DATE ANALYZED: 03/21/94
DATE REPORTED: 03/31/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	50
Bromomethane	ND	50
Vinyl chloride	ND	50
Chloroethane	ND	50
Methylene chloride	ND	100
Trichlorofluoromethane	ND	30
1,1-Dichloroethene	ND	30
1,1-Dichloroethane	ND	30
cis-1,2-Dichloroethene	ND	30
trans-1,2-Dichloroethene	ND	30
Chloroform	ND	30
Freon 113	ND	30
1,2-Dichloroethane	ND	30
1,1,1-Trichloroethane	ND	30
Carbon tetrachloride	ND	30
Bromodichloromethane	ND	30
1,2-Dichloropropane	ND	30
cis-1,3-Dichloropropene	ND	30
Trichloroethene	ND	30
1,1,2-Trichloroethane	ND	30
trans-1,3-Dichloropropene	ND	30
Dibromochloromethane	ND	30
Bromoform	ND	50
Tetrachloroethene	ND	30
1,1,2,2-Tetrachloroethane	ND	30
Chlorobenzene	ND	30
1,3-Dichlorobenzene	ND	30
1,4-Dichlorobenzene	ND	30
1,2-Dichlorobenzene	ND	30

ND = Not detected at or above reporting limit.
NOTE: Sample diluted due to high hydrocarbon presence.

QA/QC SUMMARY

Surrogate Recovery, %	124
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LABORATORY NUMBER: 114844-8
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-25 10'

DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE ANALYZED: 03/22/94
 DATE REPORTED: 03/31/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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124

LABORATORY NUMBER: 114844-9
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-25 12.5'

DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE ANALYZED: 03/21/94
 DATE REPORTED: 03/31/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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126

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LABORATORY NUMBER: 114844-13
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-22 5'

DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE ANALYZED: 03/21/94
 DATE REPORTED: 03/31/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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127



LABORATORY NUMBER: 114844-14
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-22 7.5'

DATE SAMPLED: 03/18/94
DATE RECEIVED: 03/21/94
DATE ANALYZED: 03/22/94
DATE REPORTED: 03/31/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	50
Bromomethane	ND	50
Vinyl chloride	ND	50
Chloroethane	ND	50
Methylene chloride	ND	100
Trichlorofluoromethane	ND	30
1,1-Dichloroethene	ND	30
1,1-Dichloroethane	ND	30
cis-1,2-Dichloroethene	ND	30
trans-1,2-Dichloroethene	ND	30
Chloroform	ND	30
Freon 113	ND	30
1,2-Dichloroethane	ND	30
1,1,1-Trichloroethane	ND	30
Carbon tetrachloride	ND	30
Bromodichloromethane	ND	30
1,2-Dichloropropane	ND	30
cis-1,3-Dichloropropene	ND	30
Trichloroethene	ND	30
1,1,2-Trichloroethane	ND	30
trans-1,3-Dichloropropene	ND	30
Dibromochloromethane	ND	30
Bromoform	ND	50
Tetrachloroethene	ND	30
1,1,2,2-Tetrachloroethane	ND	30
Chlorobenzene	ND	30
1,3-Dichlorobenzene	ND	30
1,4-Dichlorobenzene	ND	30
1,2-Dichlorobenzene	ND	30

ND = Not detected at or above reporting limit.

NOTE: Sample diluted due to high hydrocarbon presence.

QA/QC SUMMARY

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Surrogate Recovery, %

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124



LABORATORY NUMBER: 114844-18
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-16 5'

DATE SAMPLED: 03/18/94
DATE RECEIVED: 03/21/94
DATE ANALYZED: 03/22/94
DATE REPORTED: 03/31/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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133

LABORATORY NUMBER: 114844-19
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-16 7.5'

DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE ANALYZED: 03/22/94
 DATE REPORTED: 03/31/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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131

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LABORATORY NUMBER: 114844-5
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-24

DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE ANALYZED: 03/30/94
 DATE REPORTED: 03/31/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	4	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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101

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LABORATORY NUMBER: 114844-11
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-25

DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE ANALYZED: 03/30/94
 DATE REPORTED: 03/31/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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102

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LABORATORY NUMBER: 114844-15
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-22

DATE SAMPLED: 03/18/94
DATE RECEIVED: 03/21/94
DATE ANALYZED: 03/30/94
DATE REPORTED: 03/31/94

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %

95

LABORATORY NUMBER: 114844-20
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-16

DATE SAMPLED: 03/18/94
 DATE RECEIVED: 03/21/94
 DATE ANALYZED: 03/30/94
 DATE REPORTED: 03/31/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	100
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LABORATORY NUMBER: 114844-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE ANALYZED: 03/21/94
 DATE REPORTED: 03/31/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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123

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LABORATORY NUMBER: 114844-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE ANALYZED: 03/30/94
 DATE REPORTED: 03/31/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	101
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MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114844
 Client: Weiss Associates
 Analysis date: 03/21/94
 Sample type: Soil
 Sample spiked: 114844-008
 Spike file: 080E006
 Spike dup file: 080E007

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	18.90	95 %	OK	59 - 172
Trichloroethene	20.25	101 %	OK	62 - 137
Chlorobenzene	19.26	96 %	OK	60 - 133
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	21.88	109 %	OK	59 - 172
Trichloroethene	23.69	118 %	OK	62 - 137
Chlorobenzene	20.88	104 %	OK	60 - 133
SURROGATES				
Bromobenzene (MS)	116.17	116 %	OK	59 - 172
Bromobenzene (MSD)	119.74	120 %	OK	59 - 172
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	18.90	21.88	15 %	OK	<= 22
Trichloroethene	20.25	23.69	16 %	OK	<= 24
Chlorobenzene	19.26	20.88	8 %	OK	<= 21

BS/BSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 114844
 Client: Weiss Associates
 Analysis date: 03/30/94
 Sample type: Water

Spike file: 089W003
 Spike dup file: 089W005

8010 BS/BSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	26.59	133 %	OK	61 - 145
Trichloroethene	26.53	133 %	NOT OK	71 - 120
Chlorobenzene	23.78	119 %	OK	75 - 130
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	27.79	139 %	OK	61 - 145
Trichloroethene	28.08	140 %	NOT OK	71 - 120
Chlorobenzene	24.86	124 %	OK	75 - 130
SURROGATES				
Bromobenzene (MS)	97.26	97 %	OK	75 - 125
Bromobenzene (MSD)	99.00	99 %	OK	75 - 125

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethe	26.59	27.79	4 %	OK	<= 14
Trichloroethene	26.53	28.08	6 %	OK	<= 14
Chlorobenzene	23.78	24.86	4 %	OK	<= 13

NOTE: TCE recovery high. All samples associated with this batch are ND for TCE.

Please send analytic results and a copy of the signed chain of custody form to:

John Dwy

Project ID: 14-307-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Jonathan Weingast

Laboratory Name: Curtis & Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
-1	BH-24 3"	Tube	3/18/94	MA	MA	Yes	NONE	HOLD	HOLD		* Compare TWH/TEH to
-2	BH-24 44'	"	"	"	"	"	"	HOLD	HOLD		Gasoline, Min. Spirit,
-3	BH-24 85'	"	"	"	"	"	"	TWH/TEH HOLD	HOLD		diesel, benzene, naph
-4	BH-24-9.0	"	"	"	"	"	"	TWH/BTEX/TEH/HVOCs	LWFT/8020/LWFT/8010	24hr	oil chromatograms
5	BH-24 W	W/V	"	40ml	No	Yes	"	TWH/BTEX/HVOCs	LWFT/8020/8010	24hr	
6	BH-24 W	B/A	"	1L	No	"	"	TEH*	LWFT	24hr	
-6	BH-25 5'	Tube	"	MA	MA	"	"	HOLD	HOLD		
-7	BH-25 7.5'	"	"	"	"	"	"	HOLD	HOLD		
-8	BH-25 10'	"	"	"	"	"	"	TWH/BTEX/TEH/HVOCs	LWFT/8020/LWFT/8010	24hr	
-9	BH-25 12.5'	"	"	"	"	"	"	TWH/BTEX/TEH/HVOCs	LWFT/8020/LWFT/8010	24hr	
-10	BH-25 11.5'	"	"	"	"	"	"	HOLD	HOLD		
11	BH-25 W	W/V	"	40ml	No	Yes	"	TWH/BTEX/HVOCs	LWFT/8020/8010	24hr	
12	BH-25 W	B/A	"	1L	"	"	"	TEH*	LWFT	24hr	
*	Travel Blank	W/V	3/14/94	40ml	No	Yes	HCl	HOLD	HOLD		* No Travel Blank Received JWD 3/21/94

1 Jonathan Weingast 3/18/94
 Released by (Signature), Date

1 Weiss Associates
 Affiliation

2 John Dwy 3/18/94
 Received by (Signature), Date

2 Weiss Associates
 Affiliation

3 John Dwy 3/21/94
 Released by (Signature), Date

3 Weiss Associates
 Affiliation

4 John Dwy 3/21/94
 Received by (Signature), Date

4 Weiss Associates
 Affiliation

5 John Dwy 3/21/94
 Released by (Signature), Date

5 Weiss Assoc
 Affiliation

6 John Dwy 3/21/94
 Received by (Signature), Date

6 Curtis Tompkins 11:51
 Affiliation, Telephone ()

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other;
 Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround (N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out))
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Notes: 24hr turnaround
 Level II QA/QC report
 See Pearl for Pricing

Please send analytic results and a copy of the signed chain of custody form to:

John Dwey

Project ID: 14-307-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: **CALL US.**

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Watts

Laboratory Name: Curtis + Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
12	1 BH-22@25	St. tube	3/18/94	1"x6"	N	Y	None	HOLD	HOLD		
13	1 BH-22@5	↓	↓	↓	↓	↓	↓	TVH/BTEX/TEH*/HVOCS	LUT/8020/LUT/8010	24hr	
14	1 BH-22@7.5	↓	↓	↓	↓	↓	↓	TVH*/BTEX/TEH*/HVOCS	LUT/8020/LUT/8010	24hr	
15	4 BH-22@	VOA	↓	40ml	↓	↓	↓	TVH*/BTEX/HVOCS	LUT/8020/8010	24hr	
16	1 BH-22@	Amber	↓	1L	↓	↓	↓	TEH*	LUT	24hr	
								JND HOLD	JND HOLD		
17	1 BH-16@25	St. tube		1"x6"				HOLD	HOLD		
18	1 BH-16@5	↓	↓	↓	↓	↓	↓	TVH/BTEX/TEH*/HVOCS	LUT/8020/LUT/8010	24hr	
19	1 BH-16@7.5	↓	↓	↓	↓	↓	↓	TVH*/BTEX/TEH*/HVOCS	LUT/8020/LUT/8010	24hr	
20	4 BH-16@	VOA	↓	40ml	↓	↓	↓	TVH/BTEX/HVOCS	LUT/8020/8010	24hr	
21	1 BH-16@	Amber	↓	1L	↓	↓	↓	TEH*	LUT	24hr	
22	2 Trip blank-2	VOA	↓	40ml	↓	↓	HCl	HOLD	HOLD		

1 [Signature] 3/21/94
Released by (Signature), Date

1 Weiss Associates
Affiliation

2 [Signature] 3/21/94
Received by (Signature), Date

2 Weiss Associates
Affiliation

3 [Signature] 11:51 3/21/94
Released by (Signature), Date

3 Weiss Assoc
Affiliation

4 _____
Shipping Carrier, Method, Date

4 _____
Affiliation, Telephone

5 _____
Released by (Signature), Date

5 _____
Affiliation

6 [Signature] 3/21/94
Received by Lab Personnel, Date Seal intact?

6 [Signature] 11:51
Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other; Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)

5 Turnaround (N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out))

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608

Date: 08-APR-94
Lab Job Number: 114954
Project ID: 14-307-01
Location: N/A

Reviewed by:

Reviewed by:

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LABORATORY NUMBER: 114954
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/26/94
DATE RECEIVED: 03/28/94
DATE ANALYZED: 03/28,29/94
DATE REPORTED: 03/30/94

Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS	TVH AS	REPORTING	SURROGATE	
		MINERAL SPIRITS (mg/Kg)	GASOLINE (mg/Kg)		LIMIT (mg/Kg)	TFT, %
114954-4	B28-8.5	ND	ND	1	84	79
114954-9	B32-8.5	ND	ND	1	84	80
114954-13	B33-8.5	ND	ND	1	85	80
114954-14	B33-11.5	ND	ND	1	85	81
114954-METHOD BLANK		ND	ND	1	58	52

TFT = Trifluorotoluene (Limits: 60-140)
BFB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

NOTE: Surrogates low for method blank. Sample surrogates are within range and samples are ND.

QA/QC SUMMARY: MS/MSD

RPD, %	6	(Limit: <25 %)
RECOVERY, %	97	(Limits: 70-130)

Spiked sample: 114828-016

LABORATORY NUMBER: 114954
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/26/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 03/28,29/94
 DATE REPORTED: 03/30/94

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (ug/L)	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT, % BB, %	
114954-16	B27-W	ND	ND	50	106	73
114954-17	B28-W	ND	60	50	110	111
114954-18	B32-W	ND	ND	50	107	77
114954-19	B33-W	ND	ND	50	109	78
114954-METHOD BLANK		ND	ND	50	107	98

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: BS/BSD

=====
 RPD, % <1 (Limit: <25 %)
 RECOVERY, % 107 (Limits: 70-130)
 =====

LABORATORY NUMBER: 114954
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/26/94
 DATE RECEIVED: 03/28/94
 DATE EXTRACTED: 03/28/94
 DATE ANALYZED: 03/29,30/94
 DATE REPORTED: 03/30/94

 Extractable Petroleum Hydrocarbons in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	MOTOR OIL RANGE (mg/Kg)	SURROGATE RECOVERY (Hexacosane)
114954-4	B28 8.5	ND(1)	ND(1)	ND(30)	78 %
114954-9	B32-8.5	ND(1)	ND(1)	ND(30)	85 %
114954-13	B33-8.5	ND(1)	ND(1)	ND(30)	88 %
114954-14	B33-11.5	ND(1)	ND(1)	ND(30)	103 %
114954-METHOD BLANK		ND(1)	ND(1)	ND(30)	86 %

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	1	(Limit: <25 %)
RECOVERY, %	81	(Limits: 50-150)

LABORATORY NUMBER: 114954
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/26/94
 DATE RECEIVED: 03/28/94
 DATE EXTRACTED: 03/28/94
 DATE ANALYZED: 03/29,30/94
 DATE REPORTED: 03/30/94

 Extractable Petroleum Hydrocarbons in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/L)	DIESEL RANGE (mg/L)	MOTOR OIL RANGE (mg/L)	SURROGATE RECOVERY (Hexacosane)
114954-16	B27-W	ND(1)	ND(1)	ND(20)	100 %
114954-17	B28-W	ND(1)	ND(1)	ND(20)	92 %
114954-18	B32-W	ND(1)	ND(1)	ND(20)	97 %
114954-19	B33-W	ND(1)	ND(1)	ND(20)	96 %
114954-METHOD BLANK		ND(1)	ND(1)	ND(20)	107 %

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	21	(Limit: <25 %)
RECOVERY, %	66	(Limits: 50-150)

LABORATORY NUMBER: 114954
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/26/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 03/28,29/94
 DATE REPORTED: 03/30/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE	TOLUENE	ETHYL	TOTAL	REPORTING	SURROGATE	
		(ug/Kg)	(ug/Kg)	BENZENE (ug/Kg)	XYLENES (ug/Kg)	LIMIT (ug/Kg)	TFT,%	BB,%
114954-4	B28 8.5	ND	ND	ND	ND	5	93	95
114954-9	B32-8.5	ND	ND	ND	ND	5	94	96
114954-13	B33-8.5	ND	ND	ND	ND	5	96	97
114954-14	B33-11.5	ND	ND	ND	ND	5	95	98
114954-METHOD BLANK		ND	ND	ND	ND	5	63	64

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

LABORATORY NUMBER: 114954
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/26/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 03/28,29/94
 DATE REPORTED: 03/30/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB,%	
114954-16	B27-W	ND	ND	ND	ND	5'	101	72
114954-17	B28-W	ND	ND	ND	ND	5	107	107
114954-18	B32-W	ND	ND	ND	ND	5	101	75
114954-19	B33-W	ND	ND	ND	ND	5	101	74
114954-METHOD BLANK		ND	ND	ND	ND	5	94	88

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

LABORATORY NUMBER: 114954-004
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-28-8.5'

DATE SAMPLED: 03/26/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 04/06/94
 DATE REPORTED: 04/08/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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113

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LABORATORY NUMBER: 114954-009
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-32-8.5'

DATE SAMPLED: 03/26/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 04/06/94
 DATE REPORTED: 04/08/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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114

LABORATORY NUMBER: 114954-013
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-33-8.5'

DATE SAMPLED: 03/26/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 04/06/94
 DATE REPORTED: 04/08/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	30
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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122

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LABORATORY NUMBER: 114954-014
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-33-11.5'

DATE SAMPLED: 03/26/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 04/07/94
 DATE REPORTED: 04/08/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

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117

LABORATORY NUMBER: 114954-016
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-27W

DATE SAMPLED: 03/26/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 03/30/94
 DATE REPORTED: 04/08/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

99



LABORATORY NUMBER: 114954-017
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: B-28W

DATE SAMPLED: 03/26/94
DATE RECEIVED: 03/28/94
DATE ANALYZED: 04/02/94
DATE REPORTED: 04/08/94

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

111

LABORATORY NUMBER: 114954-018
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-32W

DATE SAMPLED: 03/26/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 04/02/94
 DATE REPORTED: 04/08/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	1	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

107

LABORATORY NUMBER: 114954-019
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-33W

DATE SAMPLED: 03/26/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 04/02/94
 DATE REPORTED: 04/08/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	4	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	5	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	3	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %	105
-----------------------	-----

=====

LABORATORY NUMBER: 114954 METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: N/A
 DATE RECEIVED: N/A
 DATE ANALYZED: 04/06/94
 DATE REPORTED: 04/08/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

107

LABORATORY NUMBER: 114954 METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: N/A
 DATE RECEIVED: N/A
 DATE ANALYZED: 03/30/94
 DATE REPORTED: 04/08/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

101

LABORATORY NUMBER: 114954 METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: N/A
 DATE RECEIVED: N/A
 DATE ANALYZED: 04/02/94
 DATE REPORTED: 04/08/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

107

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8010 MS/MSD Report

Matrix Sample Number: 114954-004
 Matrix Sample File: 096E004.raw
 Matrix: SOIL
 Batch No: 96 9410345 9410346 9410344

Date Analyzed: 06-APR-94
 Spike File: 096E005.raw
 Spike Dup File: 096E006.raw
 Analyst: JM

	Instrdrg	SpikeAmt	% Rec	Limits
<u>MS RESULTS</u>				
1,1-Dichloroethene	17.98	20	90 %	59-172%
Trichloroethene	18.06	20	90 %	62-137%
Chlorobenzene	18.36	20	92 %	60-133%
Surrogate Recovery				
Bromobenzene	110.2	100	110 %	75-125%
<u>MSD RESULTS</u>				
1,1-Dichloroethene	17.27	20	86 %	59-172%
Trichloroethene	19.3	20	97 %	62-137%
Chlorobenzene	17.77	20	89 %	60-133%
Surrogate Recovery				
Bromobenzene	122.02	100	122 %	75-125%
<u>MATRIX RESULTS</u>				
1,1-Dichloroethene	0			
Trichloroethene	0			
Chlorobenzene	0			
<u>RPD DATA</u>				
1,1-Dichloroethene	4 %			< 22%
Trichloroethene	7 %			< 24%
Chlorobenzene	3 %			< 21%

Column: Rtx 502.2
 Limits based on 3/90 SOW CLP

Results within Specifications - PASS



8010 BS/BSD Report

Matrix: WATER
 Batch No: 89 9410017 9410025

Date Analyzed: 30-MAR-94
 Spike File: 089W003.raw
 Spike Dup File: 089W005.raw
 Analyst: JM

	Instrdg	SpikeAmt	% Rec	Limits
<u>MS RESULTS</u>				
1,1-Dichloroethene	26.5907	20	133 %	61-145%
Trichloroethene	26.5339	20	133 %	71-120% *
Chlorobenzene	23.775	20	119 %	75-130%
Surrogate Recoveries				
Bromobenzene	97.2555	100	97 %	75-125%
<u>MSD RESULTS</u>				
1,1-Dichloroethene	27.7916	20	139 %	61-145%
Trichloroethene	28.0841	20	140 %	71-120% *
Chlorobenzene	24.8567	20	124 %	75-130%
Surrogate Recoveries				
Bromobenzene	99.001	100	99 %	75-125%
<u>RPD DATA</u>				
1,1-Dichloroethene		4 %		< 14%
Trichloroethene		6 %		< 14%
Chlorobenzene		4 %		< 13%

Column: Rtx 502.2
 Limits based on 3/90 SOW

** Result is out of limits



8010/8020 Laboratory Control Sample Report

Date Analyzed: 01-APR-94
Matrix: WATER
Batch No: 87 9410155

LCS Datafile: 087E086.raw
Operator: JM
GC ID: GC05

EPA METHOD 8010: HALOGENATED VOLATILE ORGANICS

	Instrdg	SpikeAmt	% Rec	Limits
1,1-Dichloroethene	19.45	20	97 %	61-145%
Chlorobenzene	17.27	20	86 %	75-130%
Trichloroethene	20.14	20	101 %	71-120%
Surrogate Recovery				
Bromobenzene	104.66	100	105 %	75-125%

EPA METHOD 8020: AROMATIC VOLATILE ORGANICS

Benzene	18.75	20	94 %	76-127%
Chlorobenzene	18.62	20	93 %	75-130%
Toluene	19.2	20	96 %	76-125%
Surrogate Recovery				
Bromobenzene	101.33	100	101 %	75-125%

Column: Rtx 502.2
Limits based on 3/90 SOW

Results within Specifications - PASS

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

Please send analytic results and a copy of the signed chain of custody form to:

John Drey

Project ID: 14-307-01

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: JEBA

Laboratory Name: CTT

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
-1	B-27 6.0	BASS Tubes	3/26/94	2x4	N	Y	NONE	HOLD	HOLD		* Compare Chronologian
-2	8.5							HOLD	HOLD		to Gasoline, Min. Oil,
-3	B-28 6.0							HOLD	HOLD		Kerosene, Diesel, Motor
-4	8.5							TUH*/BTEX*/TEH*/HYOCs	LWFT/8020/LWFT/8010	24hr	Oil standards
-5	11.0							HOLD	HOLD		
-6	13.5							HOLD	HOLD		
-7	16.0							HOLD	HOLD		
-8	B-32-6.0							HOLD	HOLD		
-9	8.5							TUH*/BTEX*/TEH*/HYOCs	LWFT/8020/LWFT/8010	24hr	
-10	11.0							HOLD	HOLD		
-11	14.0							HOLD	HOLD		
-12	B-33-6.0							HOLD	HOLD		
-13	8.5							TUH*/BTEX*/TEH*/HYOCs	LWFT/8020/LWFT/8010	24hr	
-14	11.5							TUH*/BTEX*/TEH*/HYOCs	LWFT/8020/LWFT/8010	24hr	

3/26/94
 Released by (Signature), Date
Joyce Adams
 1 Weiss Associates
 Affiliation
 2/26/94
 Received by (Signature), Date
John Drey
 2 Weiss Assoc
 Affiliation

14/307
 3/27/94
 Released by (Signature), Date
John Drey
 3 Weiss Assoc
 Affiliation
 Shipping Carrier, Method, Date
 Affiliation

3-28-94
 Released by (Signature), Date
Joyce Adams
 5 Affiliation
 Received by Lab Personnel, Date Seal intact?
CTT 486-0900
 6 Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other; Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround (N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out))
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Note Level II 2A/QC report
 24 hr turnaround
 See M Deal for Pricing

Please send analytic results and a copy of the signed chain of custody form to:

John Drey
 Project ID: 14-307-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: SEA Laboratory Name: CTT

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
K1	B-33-145	Brass tube	3/24/94	2x4	N	Y	NONE	HOLD			
4	B-27 W	w/v	3/26/94	40ml	N	Y	NONE	TVH*/BETX/AVCS TEH*	LUFT/8020/8010 LUFT	24hr	
1	B-27 W	w/L		1L						24hr	
4	B-28 W	w/v		40ml				TVH*/BETX/AVCS TEH*	LUFT/8020/8010 LUFT	24hr	
1	B-28 W	w/L		1L						24hr	
4	B-32 W	w/v		40ml				TVH*/BETX/AVCS TEH*	LUFT/8026/8010 LUFT	24hr	
1	B-32 W	w/L		1L						24hr	
4	B-33 W	w/v		40ml				TVH*/BETX/AVCS TEH*	LUFT/8020/8010 LUFT	24hr	
1	B-33 W	w/L		1L						24hr	
2	TB	w/v		40ml	N	Y	NONE				

1 John Drey 3/26/94
 Released by (Signature), Date
 1 Weiss Associates
 Affiliation
 2 John Drey 3/26/94
 Received by (Signature), Date
 2 Weiss Assoc.
 Affiliation

3 John Drey 3/26/94
 Released by (Signature), Date
 3 Weiss Assoc.
 Affiliation
 4 CTT
 Shipping Carrier, Method, Date
 4 CTT
 Affiliation

5 _____
 Released by (Signature), Date
 5 _____
 Affiliation
 6 John Drey 3-28-94
 Received by Lab Personnel, Date Seal intact?
 6 CTT 486-2900
 Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other; Cap Codes: PI = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5. Turnaround [N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out)]
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Notes: Level II QA/QC report
 24hr Turnaround
 See M Pearl for pricing



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A N A L Y T I C A L R E P O R T

Prepared for:

Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608

Date: 08-APR-94
Lab Job Number: 114955
Project ID: 14-307-01
Location: N/A

Reviewed by:

Reviewed by:

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LABORATORY NUMBER: 114955
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 03/29/94
 DATE REPORTED: 03/30/94

Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (mg/Kg)	TVH AS GASOLINE (mg/Kg)	REPORTING LIMIT (mg/Kg)	SURROGATE RECOVERIES TFT, % BB, %	
114955-1	B26-6.0	ND	ND	1	92	95
114955-3	B29-6.0	ND	ND	1	85	81
114955-5	B30-6.0	ND	ND	1	84	78
114955-6	B30-8.5	ND	ND	1	83	80
114955-8	B31-6.0	ND	ND	1	83	80
114955-9	B31-8.5	ND	ND	1	82	78
114955-14	B37-8.5	ND	ND	1	85	82
114755-METHOD BLANK		ND	ND	1	52	52

TFT = Trifluorotoluene (Limits: 60-140)

BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

NOTE: Surrogates low for method blank. Sample surrogates are within range and samples are ND.

QA/QC SUMMARY: MS/MSD

RPD, %	5	(Limit: <25 %)
RECOVERY, %	96	(Limits: 70-130)

Spiked sample: 114828-016

LABORATORY NUMBER: 114955
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 03/29/94
 DATE REPORTED: 03/30/94

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (ug/L)	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT, % BB, %	
114955-17	B26-W	**	180	50	110	80
114955-19	B30-W	ND	ND	50	106	73
114955-20	B31-W	ND	ND	50	109	75
114955-21	B37-W	ND	ND	50	109	77
114955-22	TB	ND	ND	50	106	74
114955-METHOD	BLANK	ND	ND	50	107	98

**Mineral spirits range not reported due to overlap of hydrocarbon ranges.

TFT = Trifluorotoluene (Limits: 60-140)

BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: BS/BSD

=====
 RPD, % <1 (Limit: <25 %)
 RECOVERY, % 107 (Limits: 70-130)
 =====

LABORATORY NUMBER: 114955
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 03/29/94
 DATE REPORTED: 03/30/94

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (ug/L)	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT, % BB, %	
114955-18	B29-W	**	20,000	500	112	124
114955-METHOD	BLANK	ND	ND	50	107	105

**Mineral spirits range not reported due to overlap of hydrocarbon ranges.

TFT = Trifluorotoluene (Limits: 60-140)

BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: BS/BSD

=====
 RPD, % <1 (Limit: <25 %)
 RECOVERY, % 113 (Limits: 70-130)
 =====



LABORATORY NUMBER: 114955
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/27/94
DATE RECEIVED: 03/28/94
DATE EXTRACTED: 03/28/94
DATE ANALYZED: 03/30/94
DATE REPORTED: 03/30/94

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	MOTOR OIL RANGE (mg/Kg)	SURROGATE RECOVERY (Hexacosane)
114955-1	B26-6.0	ND(1)	ND(1)	ND(30)	85 %
114955-3	B29-6.0	ND(1)	ND(1)	ND(30)	95 %
114955-5	B30-6.0	ND(1)	ND(1)	ND(30)	87 %
114955-6	B30-8.5	ND(1)	ND(1)	ND(30)	87 %
114955-8	B31-6.0	ND(1)	ND(1)	ND(30)	92 %
114955-9	B31-8.5	ND(1)	ND(1)	ND(30)	83 %
114955-14	B37-8.5	ND(1)	ND(1)	ND(30)	94 %
114955-METHOD BLANK		ND(1)	ND(1)	ND(30)	86 %

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	1	(Limit: <25 %)
RECOVERY, %	81	(Limits: 50-150)

LABORATORY NUMBER: 114955
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE EXTRACTED: 03/29/94
 DATE ANALYZED: 03/30/94
 DATE REPORTED: 03/30/94
 DATE REVISED: 04/08/94

 Extractable Petroleum Hydrocarbons in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/L)	DIESEL RANGE (mg/L)	MOTOR OIL RANGE (mg/L)	SURROGATE RECOVERY (Hexacosane)
114955-17	B26-W	ND(1)	ND(1)	ND(20)	96 %
114955-18	B29-W	ND(1) 2 *	ND(1)	ND(20)	96 %
114955-19	B30-W	ND(1)	ND(1)	ND(20)	94 %
114955-20	B31-W	ND(1)	ND(1)	ND(20)	85 %
114955-21	B37-W	ND(1)	ND(1)	ND(20)	85 %
114955-METHOD BLANK		ND(1)	ND(1)	ND(20)	121 %

* Kerosene range quantitation results from gasoline range hydrocarbons.

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	10	(Limit: <25 %)
RECOVERY, %	105	(Limits: 50-150)



LABORATORY NUMBER: 114955
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/27/94
DATE RECEIVED: 03/28/94
DATE ANALYZED: 03/29/94
DATE REPORTED: 03/30/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/Kg)	TOLUENE (ug/Kg)	ETHYL BENZENE (ug/Kg)	TOTAL XYLENES (ug/Kg)	REPORTING LIMIT (ug/Kg)	SURROGATE RECOVERIES TFT,% BB,%	
114955-1	B26-6.0	ND	ND	ND	ND	5	104	115
114955-3	B29-6.0	ND	ND	ND	ND	5	96	98
114955-5	B30-6.0	ND	ND	ND	ND	5	95	96
114955-6	B30-8.5	ND	ND	ND	ND	5	96	98
114955-8	B31-6.0	ND	ND	ND	ND	5	97	98
114955-9	B31-8.5	ND	ND	ND	ND	5	93	94
114955-14	B37-8.5	ND	ND	ND	ND	5	97	99
114955-METHOD BLANK		ND	ND	ND	ND	5	63	64

TFT = Trifluorotoluene (Limits: 60-140)
BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
Reporting Limit applies to all analytes.

LABORATORY NUMBER: 114955
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 03/29/94
 DATE REPORTED: 03/30/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB,%	
114955-17	B26-W	1.2	ND	ND	ND	0.5	110	75
114955-19	B30-W	ND	ND	ND	ND	0.5	103	71
114955-20	B31-W	ND	ND	ND	ND	0.5	102	72
114955-21	B37-W	ND	ND	ND	ND	0.5	103	73
114955-22	TB	ND	ND	ND	ND	0.5	103	74
114955-METHOD BLANK		ND	ND	ND	ND	0.5	94	88

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

LABORATORY NUMBER: 114955
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 03/29/94
 DATE REPORTED: 03/30/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB,%	
114955-18	B29-W	130*	41*	770	360	5	123	103
114955-METHOD BLANK		ND	ND	ND	ND	5	98	96

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

* Presence of this compound confirmed by second column; however, the confirmation concentration differed from the reported result by more than a factor of two.

LABORATORY NUMBER: 114955-001
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-26-6.0'

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 04/07/94
 DATE REPORTED: 04/08/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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122

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LABORATORY NUMBER: 114955-003
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-29-6.0'

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 04/07/94
 DATE REPORTED: 04/08/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %

124

LABORATORY NUMBER: 114955-005
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-30-6.0'

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 04/07/94
 DATE REPORTED: 04/08/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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122

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LABORATORY NUMBER: 114955-006
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-30-8.5'

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 04/07/94
 DATE REPORTED: 04/08/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	30
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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106

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LABORATORY NUMBER: 114955-008
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: B-31-6.0'

DATE SAMPLED: 03/27/94
DATE RECEIVED: 03/28/94
DATE ANALYZED: 04/07/94
DATE REPORTED: 04/08/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	30
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %

126

LABORATORY NUMBER: 114955-009
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-31-8.5'

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 04/07/94
 DATE REPORTED: 04/08/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %

125

LABORATORY NUMBER: 114955-014
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-37-8.5'

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 04/07/94
 DATE REPORTED: 04/08/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %

110

LABORATORY NUMBER: 114955-017
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-26W

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 03/31/94
 DATE REPORTED: 04/08/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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99

LABORATORY NUMBER: 114955-018
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-29W

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 03/31/94
 DATE REPORTED: 04/08/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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102

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LABORATORY NUMBER: 114955-019
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-30W

 DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 03/31/94
 DATE REPORTED: 04/08/94

 EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %	103
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LABORATORY NUMBER: 114955-020
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: B-31W

DATE SAMPLED: 03/27/94
DATE RECEIVED: 03/28/94
DATE ANALYZED: 03/31/94
DATE REPORTED: 04/08/94

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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99

LABORATORY NUMBER: 114955-021
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: B-37W

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 03/31/94
 DATE REPORTED: 04/08/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	2	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

101



LABORATORY NUMBER: 114955-022
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: TB

DATE SAMPLED: 03/27/94
 DATE RECEIVED: 03/28/94
 DATE ANALYZED: 03/31/94
 DATE REPORTED: 04/08/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

102

=====



LABORATORY NUMBER: 114955 METHOD BLANK
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: N/A
DATE RECEIVED: N/A
DATE ANALYZED: 04/06/94
DATE REPORTED: 04/08/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

107

LABORATORY NUMBER: 114955 METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: N/A
 DATE RECEIVED: N/A
 DATE ANALYZED: 03/31/94
 DATE REPORTED: 04/08/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

=====

98



8010 MS/MSD Report

Matrix Sample Number: 114954-004

Date Analyzed: 06-APR-94

Matrix Sample File: 096E004.raw

Spike File: 096E005.raw

Matrix: SOIL

Spike Dup File: 096E006.raw

Batch No: 96 9410345 9410346 9410344

Analyst: JM

	Instrdgs	SpikeAmt	% Rec	Limits
<u>MS RESULTS</u>				
1,1-Dichloroethene	17.98	20	90 %	59-172%
Trichloroethene	18.06	20	90 %	62-137%
Chlorobenzene	18.36	20	92 %	60-133%
Surrogate Recovery				
Bromobenzene	110.2	100	110 %	75-125%

<u>MSD RESULTS</u>				
1,1-Dichloroethene	17.27	20	86 %	59-172%
Trichloroethene	19.3	20	97 %	62-137%
Chlorobenzene	17.77	20	89 %	60-133%
Surrogate Recovery				
Bromobenzene	122.02	100	122 %	75-125%

<u>MATRIX RESULTS</u>				
1,1-Dichloroethene	0			
Trichloroethene	0			
Chlorobenzene	0			

<u>RPD DATA</u>				
1,1-Dichloroethene	4 %			< 22%
Trichloroethene	7 %			< 24%
Chlorobenzene	3 %			< 21%

Column: Rtx 502.2

Limits based on 3/90 SOW CLP

Results within Specifications - PASS



Curtis & Tompkins, Ltd

8010 BS/BSD Report

Matrix: WATER
Batch No: 89 9410017 9410025

Date Analyzed: 30-MAR-94
Spike File: 089W003.raw
Spike Dup File: 089W005.raw
Analyst: JM

	Instrdg	SpikeAmt	% Rec	Limits
<u>MS RESULTS</u>				
1,1-Dichloroethene	26.5907	20	133 %	61-145%
Trichloroethene	26.5339	20	133 %	71-120% *
Chlorobenzene	23.775	20	119 %	75-130%
Surrogate Recoveries				
Bromobenzene	97.2555	100	97 %	75-125%
<u>MSD RESULTS</u>				
1,1-Dichloroethene	27.7916	20	139 %	61-145%
Trichloroethene	28.0841	20	140 %	71-120% *
Chlorobenzene	24.8567	20	124 %	75-130%
Surrogate Recoveries				
Bromobenzene	99.001	100	99 %	75-125%
<u>RPD DATA</u>				
1,1-Dichloroethene		4 %		< 14%
Trichloroethene		6 %		< 14%
Chlorobenzene		4 %		< 13%

Column: Rtx 502.2
Limits based on 3/90 SOW

** Result is out of limits

114955

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

Please send analytic results and a copy of the signed chain of custody form to:

John Dwyer

Project ID: 14-307-01

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: SEA Laboratory Name: CTT

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
1	B-26-6.0	Glass	3/27/94	2xH	N	Y	NONE	TVH*/BTEX*/TEH*/HNOCS	LWF/2020/LWF/2010	24hr	* Compare TVH, TEH
2	8.5							HOLD	HOLD		Compare by row to
3	B-29-6.0							TVH*/BTEX*/TEH*/HNOCS	LWF/2020/LWF/2010	24hr	Gasoline, Min. Spr.,
4	8.5							HOLD	HOLD		Kerosene, diesel, Motor
5	B-30-6.0							TVH*/BTEX*/TEH*/HNOCS	LWF/2020/LWF/2010	24hr	oil standards
6	8.5							TVH*/BTEX*/TEH*/HNOCS	LWF/2020/LWF/2010	24hr	
7	11.0							HOLD	HOLD		
8	B-31-6.0							TVH*/BTEX*/TEH*/HNOCS	LWF/2020/LWF/2010	24hr	
9	8.5							TVH*/BTEX*/TEH*/HNOCS	LWF/2020/LWF/2010	24hr	
10	11.0							HOLD	HOLD		
11	13.5							HOLD	HOLD		
12	16.0							HOLD	HOLD		
13	B-37-6.0							HOLD	HOLD		
14	8.5							TVH*/BTEX*/TEH*/HNOCS	LWF/2020/LWF/2010	24hr	

1 Joyce Adams 3/27/94
 Released by (Signature), Date
 1 Weiss Associates
 Affiliation
 2 John Dwyer 3/27/94
 Received by (Signature), Date
 2 Weiss Assoc.
 Affiliation

3 John Dwyer 3/27/94
 Released by (Signature), Date
 3 Weiss Assoc.
 Affiliation
 4 _____
 Shipping Carrier, Method, Date
 4 _____
 Affiliation

5 _____
 Released by (Signature), Date
 5 _____
 Affiliation
 6 John Dwyer
 Received by Lab Personnel, Date Seal intact?
 6 CTT 486-2900
 Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other;
 Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround (N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out))
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Notes Level II QA/QC Report
 24 hr Turnaround
 See M. Pearl for Pricing

Please send analytic results and a copy of the signed chain of custody form to:

John Doney
 Project ID: 14-309-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Joyce Adams

Laboratory Name: C+T B 14-309-01

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
15.1	B-37-11.0	Bags	3/27/94	2x4	N	Y	NONE	HOLD			
16.1	13.5							HOLD			
4	B-26-W	w/v	3/27/94	40ml	N	X	NONE	TVH/BETX/AVCS	LUFT/8020/8010	24hr	
1	B-26-W	w/l		1L				TEH	LUFT	24hr	
4	B-29-W	w/v		40ml				TVH/BETX/AVCS	LUFT/8020/8010	24hr	
1	B-29-W	w/l		1L				TEH	LUFT	24hr	
4	B-30-W	w/v		40ml				TVH/BETX/AVCS	LUFT/8020/8010	24hr	
1	B-30-W	w/l		1L				TEH	LUFT	24hr	
4	B-31-W	w/v		40ml				TVH/BETX/AVCS	LUFT/8020/8010	24hr	
1	B-31-W	w/l		1L				TEH	LUFT	24hr	
4	B-37-W	w/v		40ml				TVH/BETX/AVCS	LUFT/8020/8010	24hr	
1	B-37-W	w/l		1L				TEH	LUFT	24hr	
2	TB	w/v		40ml				TVH/BETX/AVCS	LUFT/8020/8010	N	

1 Joyce Adams 3/27/94
 Released by (Signature), Date.
 1 Weiss Associates
 Affiliation
 2 John Doney 3/27/94
 Received by (Signature), Date
 2 Weiss Assoc.
 Affiliation

3 John Doney 3/27/94
 Released by (Signature), Date
 3 Weiss Assoc.
 Affiliation
 4 _____
 Shipping Carrier, Method, Date
 4 _____
 Affiliation

5 _____
 Released by (Signature), Date
 5 _____
 Affiliation
 6 John Doney 3-28-94
 Received by Lab Personnel, Date Seal intact?
 6 C+T 486-0900
 Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other; Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround [N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out)]
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608

Date: 11-APR-94
Lab Job Number: 115015
Project ID: 14-307-01
Location: N/A

Reviewed by:

Reviewed by:

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LABORATORY NUMBER: 115015
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/01,02/94
 DATE REPORTED: 04/05/94

Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS	TVH AS	REPORTING	SURROGATE	
		MINERAL SPIRITS (mg/Kg)	GASOLINE (mg/Kg)		LIMIT (mg/Kg)	RECOVERIES TFT, % BB, %
115015-3	BH-23@10	ND	ND	1	102	93
115015-4	BH-23@12.5	ND	ND	1	106	99
115015-11	BH-36@7.5	ND	ND	1	104	96
115015-12	BH-36@10	ND	ND	1	104	97
115015-17	BH-34@10	ND	ND	1	102	94
115015-18	BH-34@12.5	ND	ND	1	108	99
115015-24	BH-35@10	ND	ND	1	104	95
115015-METHOD BLANK		ND	ND	1	101	93

TFT = Trifluorotoluene (Limits: 60-140)

BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: MS/MSD

RPD, %	<1	(Limit: <25 %)
RECOVERY, %	109	(Limits: 70-130)

Spiked sample: 115014-1

LABORATORY NUMBER: 115015
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/01,02/94
 DATE REPORTED: 04/05/94

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (ug/L)	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT, % BB, %	
115015-6	BH-23	ND	ND	50	106	108
115015-8	BH-36	ND	ND	50	109	107
115015-19	BH-34	**	150	50	115	107
115015-26	BH-35	ND	ND	50	107	106
115015-METHOD BLANK		ND	ND	50	107	106

TFT = Trifluorotoluene (Limits: 60-140)

BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

**Mineral spirits not reported due to overlap of hydrocarbon ranges.

QA/QC SUMMARY: LCS

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RECOVERY, %	101 (Limits: 70-130)
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LABORATORY NUMBER: 115015
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE EXTRACTED: 04/04/94
 DATE ANALYZED: 04/05/94
 DATE REPORTED: 04/05/94

Extractable Petroleum Hydrocarbons in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	MOTOR OIL RANGE (mg/Kg)	HYDRAULIC FLUID RANGE (mg/Kg)	SURROGATE RECOVERY (Hexacosane)
115015-3	BH-23010	ND(1)	ND(1)	ND(30)	ND(20)	90 %
115015-4	BH-23012.5	ND(1)	ND(1)	ND(30)	ND(20)	88 %
115015-11	BH-3607.5	ND(1)	ND(1)	ND(30)	ND(20)	90 %
115015-12	BH-36010	ND(1)	ND(1)	ND(30)	ND(20)	87 %
115015-17	BH-34010	ND(1)	ND(1)	ND(30)	ND(20)	83 %
115015-18	BH-34012.5	ND(1)	ND(1)	ND(30)	ND(20)	94 %
115015-24	BH-35010	ND(1)	ND(1)	ND(30)	ND(20)	93 %
115015-METHOD BLANK		ND(1)	ND(1)	ND(30)	ND(20)	88 %

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: MS/MSD

RPD, %	2	(Limit: <25 %)
RECOVERY, %	82	(Limits: 50-150)

Spiked sample: 115015-4

LABORATORY NUMBER: 115015
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE EXTRACTED: 04/04/94
 DATE ANALYZED: 04/04/94
 DATE REPORTED: 04/05/94

Extractable Petroleum Hydrocarbons in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/L)	DIESEL RANGE (mg/L)	MOTOR OIL RANGE (mg/L)	HYDRAULIC FLUID RANGE (mg/L)	SURROGATE RECOVERY (Hexacosane)
115015-6	BH-23	ND(1)	ND(1)	ND(20)	ND(20)	88 %
115015-8	BH-36	ND(1)	ND(1)	ND(20)	ND(20)	94 %
115015-19	BH-34	ND(1)	ND(1)	ND(20)	ND(20)	91 %
115015-26	BH-35	ND(1)	ND(1)	ND(20)	ND(20)	95 %
115015-METHOD BLANK		ND(1)	ND(1)	ND(20)	ND(20)	101 %

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	18	(Limit: <25 %)
RECOVERY, %	95	(Limits: 50-150)

LABORATORY NUMBER: 115015
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/01,02/94
 DATE REPORTED: 04/05/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE	TOLUENE	ETHYL	TOTAL	REPORTING	SURROGATE	
		(ug/Kg)	(ug/Kg)	BENZENE (ug/Kg)	XYLENES (ug/Kg)	LIMIT (ug/Kg)	TFT,%	BB,%
115015-3	BH-23@10	ND	ND	ND	ND	5	93	85
115015-4	BH-23@12.5	ND	ND	ND	ND	5	98	90
115015-11	BH-36@7.5	ND	ND	ND	7	5	95	87
115015-12	BH-36@10	ND	ND	ND	ND	5	95	88
115015-17	BH-34@10	ND	ND	ND	ND	5	93	86
115015-18	BH-34@12.5	ND	ND	ND	ND	5	97	90
115015-24	BH-35@10	ND	ND	ND	ND	5	94	86
115015-METHOD BLANK		ND	ND	ND	ND	5	97	88

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

QA/QC SUMMARY: LCS

=====
 RECOVERY, % 96 (Limits: 70-130)
 =====

LABORATORY NUMBER: 115015
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/01,02/94
 DATE REPORTED: 04/05/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB,%	
115015-6	BH-23	ND	ND	ND	ND	0.5	94	91
115015-8	BH-36	ND	ND	ND	0.5	0.5	95	92
115015-19	BH-34	1	10	3	19	0.5	95	92
115015-26	BH-35	ND	ND	ND	ND	0.5	94	90
115015-METHOD BLANK		ND	ND	ND	ND	0.5	94	91

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

QA/QC SUMMARY: BS/BSD

RPD, %	1	(Limit: <25)
RECOVERY, %	98	(Limits: 70-130)

LABORATORY NUMBER: 115015-3
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-23@10

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/07/94
 DATE REPORTED: 04/11/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	110
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LABORATORY NUMBER: 115015-4
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-23@12.5

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/07/94
 DATE REPORTED: 04/11/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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113

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LABORATORY NUMBER: 115015-12
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-36@10

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/08/94
 DATE REPORTED: 04/11/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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110

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LABORATORY NUMBER: 115015-17
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-34@10

DATE SAMPLED: 03/30/94
DATE RECEIVED: 03/31/94
DATE ANALYZED: 04/07/94
DATE REPORTED: 04/11/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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121

LABORATORY NUMBER: 115015-18
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-34@12.5

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/07/94
 DATE REPORTED: 04/11/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	120
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LABORATORY NUMBER: 115015-24
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-35@10

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/08/94
 DATE REPORTED: 04/11/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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116

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LABORATORY NUMBER: 115015-6
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-23

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/05/94
 DATE REPORTED: 04/11/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	4	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	6	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	4	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %	100
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LABORATORY NUMBER: 115015-8
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-36

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/05/94
 DATE REPORTED: 04/11/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	100
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LABORATORY NUMBER: 115015-19
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-34

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/05/94
 DATE REPORTED: 04/11/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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101

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LABORATORY NUMBER: 115015-26
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-35

DATE SAMPLED: 03/30/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/05/94
 DATE REPORTED: 04/11/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	2	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	101
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LABORATORY NUMBER: 115015-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE ANALYZED: 04/07/94
 DATE REPORTED: 04/11/94

 EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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 Surrogate Recovery, % 113
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LABORATORY NUMBER: 115015-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

 DATE ANALYZED: 04/08/94
 DATE REPORTED: 04/11/94

 EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %

117

LABORATORY NUMBER: 115015-METHOD BLANK
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE ANALYZED: 04/05/94
 DATE REPORTED: 04/11/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	101
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MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 115015
 Client: Weiss Associates
 Analysis date: 04/08/94
 Sample type: Soil
 Sample spiked: 115014-001
 Spike file: 096e038
 Spike dup file: 096e039

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	24.66	123 %	OK	59 - 172
Trichloroethene	22.71	114 %	OK	62 - 137
Chlorobenzene	19.65	98 %	OK	60 - 133
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	25.50	128 %	OK	59 - 172
Trichloroethene	24.03	120 %	OK	62 - 137
Chlorobenzene	21.40	107 %	OK	60 - 133
SURROGATES				
Bromobenzene (MS)	128.78	129 %	OK	59 - 172
Bromobenzene (MSD)	127.12	127 %	OK	59 - 172
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	24.66	25.50	3 %	OK	<= 22
Trichloroethene	22.71	24.03	6 %	OK	<= 24
Chlorobenzene	19.65	21.40	9 %	OK	<= 21

MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 115015
 Client: Weiss Associates
 Analysis date: 04/06/94
 Sample type: Water
 Sample spiked: 115049-001
 Spike file: 094W041
 Spike dup file: 094W042

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	22.52	113 %	OK	61 - 145
Trichloroethene	23.87	90 %	OK	71 - 120
Chlorobenzene	17.54	88 %	OK	75 - 130
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	23.52	118 %	OK	61 - 145
Trichloroethene	23.42	87 %	OK	71 - 120
Chlorobenzene	17.72	89 %	OK	75 - 130
SURROGATES				
Bromobenzene (MS)	99.14	99 %	OK	75 - 125
Bromobenzene (MSD)	97.55	98 %	OK	75 - 125
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	5.9611			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	22.52	23.52	4 %	OK	<= 14
Trichloroethene	23.87	23.42	2 %	OK	<= 14
Chlorobenzene	17.54	17.72	1 %	OK	<= 13

MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 115015
 Client: Weiss Associates
 Analysis date: 04/06/94
 Sample type: Soil
 Sample spiked: 114954-001

Spike file: 096E005
 Spike dup file: 096E006

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	18.05	88 %	OK	59 - 172
Trichloroethene	17.84	89 %	OK	62 - 137
Chlorobenzene	18.55	93 %	OK	60 - 133
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	17.49	85 %	OK	59 - 172
Trichloroethene	17.27	86 %	OK	62 - 137
Chlorobenzene	18.18	91 %	OK	60 - 133
SURROGATES				
Bromobenzene (MS)	102.64	103 %	OK	59 - 172
Bromobenzene (MSD)	104.48	104 %	OK	59 - 172
MATRIX RESULTS				
1,1-Dichloroethene	0.47			
Trichloroethene	0			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	18.05	17.49	3 %	OK	<= 22
Trichloroethene	17.84	17.27	3 %	OK	<= 24
Chlorobenzene	18.55	18.18	2 %	OK	<= 21

Please send analytic results and a copy of the signed chain of custody form to:

John Dvay

Project ID: 14-307-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Watts Laboratory Name: Curtis & Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
1	BH-2305	Brass Tube	3/30/94	2" x 6"	N	Y	None	HOLD	HOLD		* Compare Chromatogram
2	BH-2307.5							HOLD	HOLD		to Gasoline, Min Spic
3	BH-23010							TVH*/BTEX*/TEH*/HVOCS*	LUF/8020/LUF/8010	24hr	Diesel, kerosene, Hydn.
4	BH-23012.5							TVH*/BTEX*/TEH*/HVOCS*	LUF/8020/LUF/8010	24hr	Flud & Motor Oil Standards
5	BH-23015							HOLD	HOLD		
6	4 BH-23A	VOA		40ml				TVH*/BTEX*/HVOCS*	LUF/8020/8010	24hr	
7	1 BH-23B	Amber(1l)		1l				TEH*	LUF	24hr	
8	4 BH-36A	VOA		40ml				TVH*/BTEX*/HVOCS*	LUF/8020/8010	24hr	
9	BH-3602.5							HOLD	HOLD		
10	BH-3605							HOLD	HOLD		
11	BH-3607.5							TVH*/BTEX*/TEH*/HVOCS*	LUF/8020/LUF/8010	24hr	
12	BH-36010							TVH*/BTEX*/TEH*/HVOCS*	LUF/8020/LUF/8010	24hr	
13	BH-36012.5							HOLD	HOLD		
14	BH-36B	Amber(1l)		1l				TEH*	LUF	24hr	

1 Alison Watts 3/31/94
 Released by (Signature), Date

1 Weiss Associates
 Affiliation

2 John Dvay 3/31/94
 Received by (Signature), Date

2 Weiss Assoc.
 Affiliation

3 John Dvay 3/31/94
 Released by (Signature), Date

3 Weiss Assoc
 Affiliation

4 _____
 Shipping Carrier, Method, Date

4 _____
 Affiliation

5 _____
 Released by (Signature), Date

5 _____
 Affiliation

6 Terrence K. Morrison 3/31/94 6:20
 Received by Lab Personnel, Date Seal intact?

6 CET
 Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other; Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround (N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out))
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Notes: Level II QA/QC Reporting
 24 hr. turnaround
 See M Pearl for Pricing

Please send analytic results and a copy of the signed chain of custody form to:

John Drey

Project ID: 14-307-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Watts

Laboratory Name: Curtis & Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
15	BH-3405	Brass Tube	3/30/94	2"x6"	N	4	None	HOLD	HOLD		
16	BH-3407.5							HOLD	HOLD		
7	BH-34010							TVH*/BTEX*/TEH*/HVOCs	LWFT/8020/LWFT/8010	24hr	
8	BH-34012.5							TVH*/BTEX*/TEH*/HVOCs	LWFT/8020/LWFT/8010	24hr	
14	BH-34A	VOA		40ml				TVH*/BTEX*/HVOCs	LWFT/8020/8010	24hr	
16	BH-34B	IL		IL				TEH*	LWFT	24hr	
11	BH-3502.5	B.Tube		2"x6"				HOLD	HOLD		
12	BH-3505							HOLD	HOLD		
13	BH-3507.5							HOLD	HOLD		
14	BH-35010							TVH*/BTEX*/TEH*/HVOCs	LWFT/8020/LWFT/8010	24hr	
15	BH-35012.5							HOLD	HOLD		
16	BH-35A	VOA		40ml				TVH*/BTEX*/HVOCs	LWFT/8020/8010	24hr	
17	BH-35B	IL		IL				TEH*	LWFT	24hr	

Alison Watts 3/31/94
 Released by (Signature), Date

Weiss Associates
 Affiliation

John Drey 3/31/94
 Received by (Signature), Date

Weiss Assoc.
 Affiliation

John Drey 3/31/94
 Released by (Signature), Date

Weiss Assoc.
 Affiliation

Shipping Carrier, Method, Date

Affiliation

5 Released by (Signature), Date

5 Affiliation

6 Teresa K. Morrison 3/31/94
 Received by Lab Personnel, Date Seal intact?

6 CET 6:20
 Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other; Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround (N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out))
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608

Date: 11-APR-94
Lab Job Number: 115014
Project ID: 14-307-01
Location: N/A

Reviewed by:

Reviewed by:

This package may be reproduced only in its entirety.

LABORATORY NUMBER: 115014
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/31/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/01/94
 DATE REPORTED: 04/05/94

Total Volatile Hydrocarbons as Gasoline in Soils & Wastes
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS	TVH AS	REPORTING	SURROGATE	
		MINERAL SPIRITS (mg/Kg)	GASOLINE (mg/Kg)		LIMIT (mg/Kg)	TFT, %
115014-1	BH-38@5'	ND	ND	1	105	96
115014-2	BH-38@7.5'	ND	ND	1	103	94
115014-6	BH-39@7.5'	ND	ND	1	102	93
115014-7	BH-39@10'	ND	ND	1	103	96
115014-METHOD	BLANK	ND	ND	1	101	93

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: MS/MSD

=====
 RPD, % <1 (Limit: <25 %)
 RECOVERY, % 109 (Limits: 70-130)
 =====

Spiked sample: 115014-1

LABORATORY NUMBER: 115014
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/31/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/02/94
 DATE REPORTED: 04/05/94

Total Volatile Hydrocarbons as Gasoline in Aqueous Solutions
 California DOHS Method
 LUFT Manual October 1989

LAB ID	CLIENT ID	TVH AS MINERAL SPIRITS (ug/L)	TVH AS GASOLINE (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT, % BB, %	
115014-3	BH-38	ND	ND	50	105	105
115014-8	BH-39	ND	ND	50	107	106
115014-METHOD	BLANK	ND	ND	50	107	106

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.

QA/QC SUMMARY: LCS

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RECOVERY, %	101 (Limits: 70-130)
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LABORATORY NUMBER: 115014
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/31/94
DATE RECEIVED: 03/31/94
DATE EXTRACTED: 04/01/94
DATE ANALYZED: 04/06/94
DATE REPORTED: 04/06/94

Extractable Petroleum Hydrocarbons in Soils & Wastes
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	MOTOR OIL RANGE (mg/Kg)	HYDRAULIC FLUID RANGE (mg/Kg)	SURROGATE RECOVERY (Hexacosane)
115014-1	BH-38@5'	ND(1)	ND(1)	ND(30)	ND(20)	81 %
115014-2	BH-38@7.5'	ND(1)	ND(1)	ND(30)	ND(20)	87 %
115014-6	BH-39@7.5'	ND(1)	ND(1)	ND(30)	ND(20)	87 %
115014-7	BH-39@10'	ND(1)	ND(1)	ND(30)	ND(20)	68 %
115014-MB	BH-34@12.5	ND(1)	ND(1)	ND(30)	ND(20)	93 %

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	<1	(Limit: <25 %)
RECOVERY, %	111	(Limits: 50-150)



LABORATORY NUMBER: 115014
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE SAMPLED: 03/31/94
DATE RECEIVED: 03/31/94
DATE EXTRACTED: 04/01/94
DATE ANALYZED: 04/04/94
DATE REPORTED: 04/04/94

Extractable Petroleum Hydrocarbons in Aqueous Solutions
California DOHS Method
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/L)	DIESEL RANGE (mg/L)	MOTOR OIL RANGE (mg/L)	HYDRAULIC FLUID RANGE (mg/L)	SURROGATE RECOVERY (Hexacosane)
115014-4	BH-38	ND(1)	ND(1)	ND(20)	ND(20)	84
115014-9	BH-39	ND(1)	ND(1)	ND(20)	ND(20)	91
115014-METHOD BLANK		ND(1)	ND(1)	ND(20)	ND(20)	92

ND = Not detected at or above reporting limit. Reporting limit indicated in parentheses.

Hexacosane recovery limits (50%-150%)

QA/QC SUMMARY: BS/BSD

RPD, %	4	(Limit: <25 %)
RECOVERY, %	98	(Limits: 50-150)

LABORATORY NUMBER: 115014
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/31/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/01/94
 DATE REPORTED: 04/05/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE	TOLUENE	ETHYL	TOTAL	REPORTING	SURROGATE	
		(ug/Kg)	(ug/Kg)	BENZENE (ug/Kg)	XYLENES (ug/Kg)	LIMIT (ug/Kg)	TFT,%	BB,%
115014-1	BH-3805'	ND	ND	ND	ND	5	97	90
115014-2	BH-3807.5'	ND	ND	ND	ND	5	94	85
115014-6	BH-3907.5'	ND	ND	ND	ND	5	94	86
115014-7	BH-39010'	ND	ND	ND	10	5	94	87
115014-METHOD BLANK		ND	ND	ND	ND	5	97	88

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

QA/QC SUMMARY: LCS

=====

RECOVERY, % 96 (Limits: 70-130)

=====

LABORATORY NUMBER: 115014
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01

DATE SAMPLED: 03/31/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/02/94
 DATE REPORTED: 04/05/94

Benzene, Toluene, Ethyl Benzene, Xylenes by EPA 8020
 Extraction by EPA 5030 Purge and Trap

LAB ID	CLIENT ID	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYL BENZENE (ug/L)	TOTAL XYLENES (ug/L)	REPORTING LIMIT (ug/L)	SURROGATE RECOVERIES TFT,% BB,%	
115014-3	BH-38	ND	ND	ND	ND	5	95	91
115014-8	BH-39	ND	ND	ND	ND	5	94	91
115014-10	TRIP BLANK	ND	ND	ND	ND	5	94	91
115014-METHOD BLANK		ND	ND	ND	ND	5	94	91

TFT = Trifluorotoluene (Limits: 60-140)
 BB = Bromobenzene (Limits: 60-140)

ND = Not detected at or above reporting limit.
 Reporting Limit applies to all analytes.

QA/QC SUMMARY: BS/BSD

RPD, %	1	(Limit: <25)
RECOVERY, %	98	(Limits: 70-130)

LABORATORY NUMBER: 115014-1
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-38@5

DATE SAMPLED: 03/31/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/08/94
 DATE REPORTED: 04/11/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====
 Surrogate Recovery, % 126
 =====

LABORATORY NUMBER: 115014-2
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-38@7.5

DATE SAMPLED: 03/31/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/08/94
 DATE REPORTED: 04/11/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	126
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LABORATORY NUMBER: 115014-6
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-39@7.5

DATE SAMPLED: 03/31/94
DATE RECEIVED: 03/31/94
DATE ANALYZED: 04/08/94
DATE REPORTED: 04/11/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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132

LABORATORY NUMBER: 115014-7
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-39@10

DATE SAMPLED: 03/31/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/08/94
 DATE REPORTED: 04/11/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
 Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %

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127



LABORATORY NUMBER: 115014-3
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: BH-38

DATE SAMPLED: 03/31/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/05/94
 DATE REPORTED: 04/11/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

=====

Surrogate Recovery, %

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99



LABORATORY NUMBER: 115014-8
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01
SAMPLE ID: BH-39

DATE SAMPLED: 03/31/94
DATE RECEIVED: 03/31/94
DATE ANALYZED: 04/05/94
DATE REPORTED: 04/11/94

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %	100
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LABORATORY NUMBER: 115014-10
 CLIENT: WEISS ASSOCIATES
 PROJECT ID: 14-307-01
 SAMPLE ID: TRIP BLANK A

DATE SAMPLED: 03/31/94
 DATE RECEIVED: 03/31/94
 DATE ANALYZED: 04/05/94
 DATE REPORTED: 04/11/94

EPA 8010
 Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %	102
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LABORATORY NUMBER: 115014-METHOD BLANK
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE ANALYZED: 04/07/94
DATE REPORTED: 04/11/94

EPA 8010: Volatile Halocarbons in Soils & Wastes
Extraction Method: EPA 5030 - Purge & Trap

Compound	RESULT ug/Kg	REPORTING LIMIT ug/Kg
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl chloride	ND	10
Chloroethane	ND	10
Methylene chloride	ND	20
Trichlorofluoromethane	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
cis-1,2-Dichloroethene	ND	5
trans-1,2-Dichloroethene	ND	5
Chloroform	ND	5
Freon 113	ND	5
1,2-Dichloroethane	ND	5
1,1,1-Trichloroethane	ND	5
Carbon tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
cis-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
1,1,2-Trichloroethane	ND	5
trans-1,3-Dichloropropene	ND	5
Dibromochloromethane	ND	5
Bromoform	ND	10
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Chlorobenzene	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

Surrogate Recovery, %	112
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LABORATORY NUMBER: 115014-METHOD BLANK
CLIENT: WEISS ASSOCIATES
PROJECT ID: 14-307-01

DATE ANALYZED: 04/05/94
DATE REPORTED: 04/11/94

EPA 8010
Purgeable Halocarbons in Water

Compound	Result ug/L	Reporting Limit ug/L
Chloromethane	ND	2
Bromomethane	ND	2
Vinyl chloride	ND	2
Chloroethane	ND	2
Methylene chloride	ND	20
Trichlorofluoromethane	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
cis-1,2-Dichloroethene	ND	1
trans-1,2-Dichloroethene	ND	1
Chloroform	ND	1
Freon 113	ND	1
1,2-Dichloroethane	ND	1
1,1,1-Trichloroethane	ND	1
Carbon tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
cis-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
1,1,2-Trichloroethane	ND	1
trans-1,3-Dichloropropene	ND	1
Dibromochloromethane	ND	1
Bromoform	ND	2
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
1,3-Dichlorobenzene	ND	1
1,4-Dichlorobenzene	ND	1
1,2-Dichlorobenzene	ND	1

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

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Surrogate Recovery, %	99
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MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 115014
 Client: Weiss Associates
 Analysis date: 04/08/94
 Sample type: Soil
 Sample spiked: 115014-001

Spike file: 096e038
 Spike dup file: 096e039

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	24.66	123 %	OK	59 - 172
Trichloroethene	22.71	114 %	OK	62 - 137
Chlorobenzene	19.65	98 %	OK	60 - 133
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	25.50	128 %	OK	59 - 172
Trichloroethene	24.03	120 %	OK	62 - 137
Chlorobenzene	21.40	107 %	OK	60 - 133
SURROGATES				
Bromobenzene (MS)	128.78	129 %	OK	59 - 172
Bromobenzene (MSD)	127.12	127 %	OK	59 - 172
MATRIX RESULTS				
1,1-Dichloroethene	0			
Trichloroethene	0			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethene	24.66	25.50	3 %	OK	<= 22
Trichloroethene	22.71	24.03	6 %	OK	<= 24
Chlorobenzene	19.65	21.40	9 %	OK	<= 21

MS/MSD SUMMARY SHEET FOR EPA 8010

Laboratory Number: 115014
 Client: Weiss Associates
 Analysis date: 04/04/94
 Sample type: Water
 Sample spiked: 114848-003

Spike file: 094W006
 Spike dup file: 094W007

8010 MS/MSD DATA (spiked at 20 ppb)

SPIKE COMPOUNDS	READING	RECOVERY	STATUS	LIMITS
1,1-Dichloroethene	28.32	123 %	OK	61 - 145
Trichloroethene	20.44	100 %	OK	71 - 120
Chlorobenzene	19.63	98 %	OK	75 - 130
SPIKE DUP COMPOUNDS				
1,1-Dichloroethene	28.48	124 %	OK	61 - 145
Trichloroethene	20.97	103 %	OK	71 - 120
Chlorobenzene	20.48	102 %	OK	75 - 130
SURROGATES				
Bromobenzene (MS)	99.51	100 %	OK	75 - 125
Bromobenzene (MSD)	99.89	100 %	OK	75 - 125
MATRIX RESULTS				
1,1-Dichloroethene	3.7626			
Trichloroethene	0.4251			
Chlorobenzene	0			

RPD DATA

8010 COMPOUNDS	SPIKE	SPIKE DUP	RPD	STATUS	LIMITS
1,1-Dichloroethe	28.32	28.48	1 %	OK	<= 14
Trichloroethene	20.44	20.97	3 %	OK	<= 14
Chlorobenzene	19.63	20.48	4 %	OK	<= 13

Please send analytic results and a copy of the signed chain of custody form to:

John Drey

Project ID: 14-307-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Watts

Laboratory Name: Curtis Tompkins

No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
1	BH-3805	Steel tube	3/31/94	2"x4"	N	Y	None	TVH*/BTEX/TEH*/HVOCs	LWFT/8020/LWFT/8010	24hr	*Compare Chromatogram to
2	BH-3807.5	"	"	"	↓	↓	↓	TVH*/BTEX/TEH*/HVOCs	LWFT/8020/LWFT/8010	24hr	Gasoline, Min Spr, Aerosol, Diesel
3	BH-38A	VOA	"	40ml	↓	↓	↓	TVH*/BTEX/HVOCs	LWFT/8020/8010	24hr	Hydr. fluid. 5/10/10/10 standards
4	BH-38B	Amber	"	10	↓	↓	↓	TEH*	LWFT	24hr	*Amber bottles had sulphuric acid, but was rinsed before use
5	BH-3905	STEEL TUBE	"	2"x4"	↓	↓	↓	HOLD	HOLD		
6	BH-3907.5	"	"	4	↓	↓	↓	TVH*/BTEX/TEH*/HVOCs	LWFT/8020/LWFT/8010	24hr	use
7	BH-3910	"	"	"	↓	↓	↓	TVH*/BTEX/TEH*/HVOCs	LWFT/8020/LWFT/8010	24hr	
8	BH-39A	VOA	"	40ml	↓	↓	↓	TVH*/BTEX/HVOCs	LWFT/8020/8010	24hr	
9	BH-39B	Amber	"	10*	↓	↓	↓	TEH*	LWFT	24hr	rinsed as above
10	Trip Blank A	VOA	"	40ml	↓	↓	HCL	BTEX/HVOCs	8020/8010	24hr	
11	Trip Blank B	VOA	"	40ml	↓	↓	"	HOLD	HOLD		

1 [Signature] 3/31/94
 Released by (Signature), Date
 1 Weiss Associates
 Affiliation
 2 [Signature] 3/31/94
 Received by (Signature), Date
 2 Weiss Associates
 Affiliation

3 [Signature] 3/31/94
 Released by (Signature), Date
 3 Weiss Assoc
 Affiliation
 4 _____
 Shipping Carrier, Method, Date
 4 _____
 Affiliation

5 _____
 Released by (Signature), Date
 5 _____
 Affiliation
 6 [Signature] 3/31/94 x
 Received by Lab Personnel, Date seal intact?
 6 CET 6:20
 Affiliation, Telephone

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other; Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround [N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out)]
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

Notes: Level II QA/QC reporting
 24hr turnaround
 See M Pearl For Pricing



GTEL

ENVIRONMENTAL
LABORATORIES, INC.

Western Region

4080 Pike Lane, Suite C
Concord, CA 94520
(510) 685-7852
(800) 544-3422 Inside CA
FAX (510) 825-0720

Client Number: WSS02WSS02
Consultant Project Number: 14-30-7-01
Work Order Number: C4-04-0044
Date Reissued: 06-08-94

June 8, 1994

John Duey
Weiss Associates
5500 Shellmound Street
Emeryville, CA 94608

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 04/04/94.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services, Laboratory certification number E1075, to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Rashmi Shah
Laboratory Director

ANALYTICAL RESULTS
Volatile Halocarbons and Aromatics in Water
EPA Methods 8010 and 8020^a

GTEL Sample Number		01	03	05 ^b	P040494
Client Identification		BH-38A	BH-39A	TRIP BLANK	METHOD BLANK
Date Sampled		03/31/94	03/31/94	03/31/94	-
Date Analyzed		04/04/94	04/04/94	04/04/94	04/04/94
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Chloromethane	0.5	<0.5	<0.5	<0.5	<0.5
Bromomethane	0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	1	<1	<1	<1	<1
Chloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Methylene chloride	0.5	<0.5	<0.5	2	0.7
1,1-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Carbon tetrachloride	0.5	<0.5	<0.5	<0.5	<0.5
Bromodichloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloropropane	0.5	<0.5	<0.5	<0.5	<0.5
cis-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	0.5	<0.5	<0.5	<0.5	<0.5
Dichlorodifluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Dibromochloromethane	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	0.5	<0.5	<0.5	<0.5	<0.5
trans-1,3-Dichloropropene	0.5	<0.5	<0.5	<0.5	<0.5
2-Chloroethylvinyl ether	1	<1	<1	<1	<1
Bromoform	0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	0.5	<0.5	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	0.5	<0.5	<0.5	<0.5	<0.5
Chlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	0.5	<0.5	<0.5	<0.5	<0.5
Trichlorofluoromethane	0.5	<0.5	<0.5	<0.5	<0.5
Benzene	0.5	NR	NR	<0.5	<0.5
Toluene	0.5	NR	NR	<0.5	<0.5
Ethylbenzene	0.5	NR	NR	<0.5	<0.5
Xylenes, total	0.5	NR	NR	<0.5	<0.5
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		96.2	109	103	107

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Bromofluorobenzene surrogate recovery acceptability limits are 65 - 135%. NR = Not Requested.
- b. Methylene Chloride possibly laboratory contamination. No Backup sample available for reanalysis.

ANALYTICAL RESULTS

Aromatic Volatile Organics and
 Total Petroleum Hydrocarbons as Gasoline in Water

EPA Methods 5030, 8020, and Modified 8015a

GTEL Sample Number		01	03	Q040494	
Client Identification		BH-38A	BH-39A	METHOD BLANK	
Date Sampled		03/31/94	03/31/94	--	
Date Analyzed		04/04/94	04/04/94	04/04/94	
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.3	<0.3	<0.3	<0.3	
Toluene	0.3	<0.3	<0.3	<0.3	
Ethylbenzene	0.3	<0.3	<0.3	<0.3	
Xylene, total	0.5	<0.5	<0.5	<0.5	
TPH as Gasoline	10	<10	<10	<10	
TPH as Mineral Spirits	10	<10	<10	<10	
Detection Limit Multiplier		1	1	1	
BFB surrogate, % recovery		99.2	105	97.2	

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%.

ANALYTICAL RESULTS

Hydrocarbons in Water

Method: GC-FID^a

GTEL Sample Number		02	04	GCJ 040594	
Client Identification		BH-38B	BH-39B	METHOD BLANK	
Date Sampled		03/31/94	03/31/94	--	
Date Extracted		04/04/94	04/04/94	04/04/94	
Date Analyzed		04/05/94	04/05/94	04/05/94	
Analyte	Detection Limit, ug/L	Concentration, ug/L			
TPH as kerosene	10	<10	<10	<10	
TPH as diesel fuel	10	<10	<10	<10	
TPH as motor oil	100	<100	<100	<100	
Detection Limit Multiplier		1	1	1	
O-Terphenyl surrogate, % recovery		78.5	73.3	74.6	

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, USEPA, November, 1986. O-Terphenyl surrogate acceptability limits are 50-150%.

QC Matrix Spike and Duplicate Spike Results

Matrix: Water

Analyte	Sample ID	Spike Amount	Units	Recovery, %	Duplicate Recovery, %	RPD, %	Control Limits
Modified EPA 8020:							
Benzene	C4040014-7	20.0	ug/L	89.0	90.0	1.1	57.3 - 138
Toluene	C4040014-7	20.0	ug/L	86.0	86.5	0.6	63.0 - 134
Ethylbenzene	C4040014-7	20.0	ug/L	84.5	86.0	1.8	59.3 - 137
Xylene, total	C4040014-7	60.0	ug/L	88.0	89.2	1.4	59.3 - 144
GC-FID:							
Diesel	C4040021	1509	ug/L	84.3	76.4	9.83	63 - 127
EPA 8010/8020:							
Chlorobenzene	C4030551-4	20	ug/L	97.5	102	4.5	63.5 - 129
Benzene	C4030551-4	20	ug/L	94.1	90.6	3.8	57.3 - 138
Toluene	C4030551-4	20	ug/L	96.0	93.5	2.6	63 - 134
Ethylbenzene	C4030551-4	20	ug/L	95.2	92.7	2.7	59.3 - 137
Xylene, total	C4030551-4	60	ug/L	103	98.4	4.6	59.3 - 144
1,1-Dichloroethene	C4030551-4	20	ug/L	95.5	84.5	12.2	44.6 - 150
Trichloroethene	C4030551-4	20	ug/L	94.0	94.0	0	61.5 - 133
Chloroform	C4030551-4	20	ug/L	104	98.0	5.9	64.3 - 133

Please send analytic results and a copy of the signed chain of custody form to:

John Dwey in on P
 Project ID: 14-307-01

Lab Personnel:

PLEASE INCLUDE QA/QC DATA IF BOX IS CHECKED.

- 1) Specify analytic method and detection limit in report.
- 2) Notify us if there are any anomalous peaks in GC or other scans.
- 3) ANY QUESTIONS/CLARIFICATIONS: CALL US.

RUSH

CHAIN-OF-CUSTODY RECORD AND ANALYTIC INSTRUCTIONS

Sampled by: Alison Watts Laboratory Name: _____

REL #	No. of Containers	Sample ID	Container Type	Sample Date	Vol ²	Fil ³	Ref ⁴	Preservative (specify)	Analyze for	Analytic Method	Turn ⁵	COMMENTS
1	4	BH-38A	VOA	3/31/94	40ml	N	Y	NONE	TVH*/BTEX/HVOCs	LUFT/8020/8010	24h	
2	1	BH-38B	Amber	"	1L	"	"	"	TEH*	LUFT	24h	
3	4	BH-39A	VOA	"	40ml	"	"	"	TVH*/BTEX/HVOCs	LUFT/8020/8010	24h	
4	1	BH-39B	Amber	"	1L	"	"	See Note	TEH*	LUFT	24h	note: BH-39B container preserved with Sulphonic acid, but rinsed before use.
5	1	Tripp Blank A	VOA	"	40ml	"	"	HCL	BTEX/HVOCs	8020/8010	24h	

1 Alison Watts 3/31/94
 Released by (Signature), Date
 1 Weiss Associates
 Affiliation
 2 John Dwey 3/31/94
 Received by (Signature), Date
 2 Weiss Associates
 Affiliation

3 John Dwey 4/4/94
 Released by (Signature), Date
 3 Weiss Associates
 Affiliation
 4 John Weber 4-4-94
 Shipping Carrier, Method, Date 9:00 AM
 4 GTEL
 Affiliation

5 John Weber
 Released by (Signature), Date
 5 GTEL
 Affiliation
 6 Rick Williams 4-4-94
 Received by Lab Personnel, Date Seal intact?
 6 1085-7852
 Affiliation, Telephone

CH040044
 F2/1 A3/4

1 Sample Type Codes: W = Water, S = Soil, Describe Other; Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B - Clear/Brown Glass, Describe Other;
 Cap Codes: PT = Plastic, Teflon Lined 2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
 5 Turnaround [N = Normal, W = 1 Week, R = 24 Hour, HOLD (write out)]
 ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

CC: VOA
 EXT.
 SVOA