NARRATIVE

LABORATORY: S W O K CASE: 24752

SITE NAME: Carter Color Coat (MI) SDG: EZD01

results.
The presence of any of the TICs in the samples associated with SBLK1 and SBLK2 is flagged as non-detected "U" when the sample results are less than five (5) times the blank results.
The Semivolatile method blank summary (FORM IV SV) lists the associated samples.

Pesticide/PCB:
PBLKSF is the soil Pesticide method blank. This method blank had no contaminants; therefore, the results are acceptable.
There were sixteen (16) Pesticide instrument blanks. All of them had no contaminants. There were no samples associated with the instrument blanks.
The Pesticide method blank summary (FORM IV PEST) lists the associated samples.

5.SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

Volatile:
The low level soil system monitoring compound SMC1 (TOL) Toluene-d8 was below the QC limits (84-138%) in samples EZD07 (81%) and EZD15 (81%). Any positive Volatile results in samples EZD07 and EZD15 should be considered estimated "J" and non-detected quantitation limits should be considered estimated "UJ".

Semivolatile:
The low level soil surrogate S3(TPH) Terphenyl d14 in the base/neutral fraction was above the QC limits (18-137) in sample EZD09 (141%).
The protocol requires two or more surrogates to be out of control in the same fraction to require qualification; therefore, for sample EZD09 no qualification is needed.

Pesticide/PCB:
The Pesticide soil surrogates outside the QC limits are presented in the Table below:

Sample #	TCX1	TCX2	DCB1	DCB2
EZD01	0D	0D	3530D	3301D
EZD02	0D	0D	1804D	2000D
EZD03	0D	0D	2940D	4636D
EZD04	0D	0D	13721D	6328D
EZD05	-	-	577D	548D
EZD07	0D	0D	0D	4538D
EZD08	-	-	902D	538D

Reviewed by: _____Krystyna Minczuk__Lockheed/ESAT
Date: __August 15th, 1996__

NARRATIVE

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SITE NAME: Carter Color Coat (MI) **SDG: EZD01**

EZD09	0D	0D	376D	897D
EZD10	-	-	365D	635D
EZD11	-	-	9543D	497D
EZD12	-	-	194D	153D
EZD15	-	-	232D	-
EZD16	-	-	466D	446D
EZD17	-	-	502D	571D
EZD18	0D	0D	1306D	0D
EZD01MS	-	-	790D	1178D
EZD01MSD	-	-	1069D	936D

QC LIMITS:
TCX=Tetrachloro-m-xylene (30-150%)
DCB=Decachlorobiphenyl (30-150%)

All high or low recoveries of surrogates were affected by high dilutions and matrix of the samples; therefore, no qualification is applied for all above noted samples.

6.MATRIX SPIKE/SPIKE DUPLICATES

Sample **EZD01** was used as the soil MS/MSD in all three fractions.

Volatile:
All low level soil spike recoveries and RPDs were within the QC limits; therefore, the results are acceptable.

Semivolatile:
Recovery of low level soil matrix spike duplicate for Pyrene (MSD=150%) was above the QC limit (35-142%). The percent RPDs for Acenaphthene (RPD=24%) and Pyrene (40%) were also out of control. Any positive Acenaphthene and Pyrene results in the unspiked sample EZD01 should be considered estimated "J" and non-detected quantitation limits should be considered estimated "UJ".

Pesticide/PCB:
Recoveries of soil matrix spike/matrix spike duplicate for gamma-BHC (MS=0%, MSD=0%), Heptachlor (MS=0%, MSD=0%), Aldrin (MS=0%, MSD=0%), Dieldrin (MS=1644%, MSD=865%), Endrin (MS=458%, MSD=503%) and 4,4'-DDT (MS=395%, MSD=0%) were outside the QC limits. Percent RPD for Dieldrin (RPD=62%) and 4,4'-DDT (RPD=200%) was also out of control. Any positive results for gamma-BHC (Lindane), Heptachlor and Aldrin in the unspiked sample EZD01 should be considered estimated "J", and non-detects as unusable "R". Any positive results for Dieldrin and 4,4'-DDT in the unspiked sample EZD01

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should be considered estimated "J" and non-detected quantitation limits should be considered estimated "UJ".
Any positive results for Endrin in the unspiked sample EZD01 should be considered estimated "J"; non-detects do not have to be qualified.

7.FIELD BLANK AND FIELD DUPLICATE

There were no sample identified as a field blank or field duplicate in this data case.

8.INTERNAL STANDARDS

Volatile:
The internal standards area counts below the QC limits is presented in the Table below:

Sample #	IS1	IS2	IS3
EZD02RE	-	-	263181
EZD03RE	-	-	281285
EZD07RE	99488	230760	158463
EZD08RE	-	231488	132948
EZD09RE	-	-	296240
EZD15RE	-	-	308016
EZD16RE	-	-	241966
EZD17	-	276582	187875
EZD18	-	-	291949
EZD17RE	95945	206294	158618
EZD18RE	-	266634	229390
EZD01	108194	537448	281524
EZD01MS	-	577050	301032
EZD01MSD	-	-	381385
EZD04	78587	334815	145340
EZD06	-	-	358735
EZD02	-	-	344299
EZD03	-	-	344350
EZD04RE	67419	301521	119715
EZD06RE	-	-	366248
EZD07	-	512044	241583
EZD08	-	457688	163549
EZD09	-	-	227850
EZD15	-	-	330167
EZD16	-	-	337602

IS1=(BCM) Bromochloromethane

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Date:__August 15th, 1996__

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IS2=(DFB) 1,4-Difluorobenzene
IS3=(CBZ) Chlorobenzene-d5

The positive results for the target compounds which are quantitated with IS1, IS2 and IS3 for all above noted samples should be considered estimated "J", and non-detected quantitation limits should be considered estimated "UJ".
Please, refer to Table 4 for the list of associated compounds for IS1, IS2 and IS3.

Semivolatile:

The internal standards area counts below the QC limits is presented in the Table below:

Sample #	IS1	IS2	IS3	IS4	IS5	IS6
EZD01				75469	25803	21786
EZD01DL	-	-	58165	74121	41089	-
EZD01MS			-	-	28429	24043
EZD01MSD	-			76679	24566	24064
EZD08	-	-	58041	73623	38583	-
EZD08RE	25007	95200	52062	63964	16853	11588
EZD09	-	-	-	-	53852	37222
EZD09DL	-	-	-	-	-	43529

IS1 (DCB)=1,4-Dichlorobenzene-d4
IS2 (NPT)=Naphthalene-d8
IS3 (ANT)=Acenaphthene-d10
IS4 (PHN)=Phenanthrene-d12
IS5 (CRY) Chrysene-d12
IS6 (PRY) Perylene-d12

The positive results for the target compounds which are quantitated with IS1, IS2, IS3, IS4, IS5 and IS6 for all above noted samples should be considered estimated "J", and non-detected quantitation limits should be considered estimated "UJ".
Please, refer to Table 4 for the list of associated compounds for IS1, IS2, IS3, IS4, IS5 and IS6.

9.COMPOUND IDENTIFICATION

The target compounds and TICs for the Volatile, Semivolatile and Pesticide/PCB fractions were correctly identified.

10.COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

The Volatile, Semivolatile and Pesticide/PCB Target Compounds (TCLs) and Tentative Identified Compounds (TICs) were properly quantitated; therefore, the data are acceptable. The CRQLs were

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SITE NAME: Carter Color Coat (MI) SDG: EZD01

adjusted to reflect all sample dilutions and percent moisture.

11.SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.
GC baselines for the Pesticide analysis was acceptable.

12.ADDITIONAL INFORMATION

Semivolatile:
Target compounds Phenanthrene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Beno(a)pyrene, Indeno(1,2,3-cd)pyrene, Dibenzo(a,h)anthracene, and Benzo(g,h,i)perylene in sample EAD01; bis(2-Ethylhexyl)phthalate in samples EZD07, EZD09; Phenanthrene, Fluoranthene and Pyrene in sample EZD11 exceeded the calibration range.
For any analyte that exceeded the calibration range in the original sample analysis; the results of the diluted analysis should be considered the sample's analyte concentration.

A large number of SVOA TICs were reported in soil samples:
EZD01 - 33
EZD01DL- 33
EZD02 - 25
EZD03 - 35
EZD04 - 29
EZD05 - 28
EZD06 - 25
EZD07 - 33
EZD07DL- 22
EZD08 - 35
EZD08RE- 35
EZD09 - 19
EZD09DL- 25
EZD10 - 20
EZD11 - 35
EZD11DL- 27
EZD12 - 19
EZD13 - 24
EZD14 - 26
EZD15 - 23
EZD16 - 24
EZD17 - 36
EZD18 - 18

Reviewed by: _____Krystyna Minczuk__Lockheed/ESAT
Date:__August 15th, 1996__

SOUTHWEST LABORATORY OF OKLAHOMA
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918-251-2858

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JUL 23 1996
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

SDG NARRATIVE
July 11, 1996

CONTRACT NO.: 68-D5-0021

CASE NO.: 24752

SAMPLE NOS.: EZD01, EZD01MS, EZD01MSD, EZD02, EZD02RE, EZD03, EZD03RE, EZD04, EZD04RE, EZD05, EZD06, EZD06RE, EZD07, EZD07RE, EZD08, EZD08RE, EZD09, EZD09RE, EZD10, EZD11, EZD12, EZD13, EZD14, EZD15, EZD15RE, EZD16, EZD16RE, EZD17, EZD17RE, EZD18, EZD18RE

SDG NO.: EZD01

VOLATILE FRACTION

Eighteen soil samples were submitted for Volatile Organic Analysis. The samples were analyzed by GC/MS following the OLM03.2 CLP Statement of Work.

Alternate columns used for the analysis of volatile compounds by Method OLM03.2 are the Restek XTI-5 (bonded 5% phenyl-95% dimethyl polysiloxane), 30m, 0.25mm ID, 1um film thickness (Restek #12253) and the DB624, 75m, 0.53mmID Megabore, 3um film thickness (J&W 125-1374).

An alternate trap used for the analysis of volatile compounds by method OLM03.2 is the Vocarb 3000 (Carbopack B/Carboxen 1000 & 1001; Tekmar #2-1066).

The following samples in this SDG (labeled with an "RE") are considered billable since reanalysis was performed to verify internal standard areas: EZD02RE, EZD03RE, EZD04RE, EZD06RE, EZD07RE, EZD08RE, EZD09RE, EZD15RE, EZD16RE, EZD17RE, EZD18RE

No major problems occurred during the analyses of these samples.

Blanks: VBLK1 and VBLK2 contained low level Methylene Chloride contamination below the CRQL.

Surrogates: Samples EZD07 and EZD15 contained surrogates outside QC Recovery Limits. They were reanalyzed and all surrogates fell within QC Limits. Internal standard areas, however, were outside QC Area Recovery Limits on both the original analyses and reanalyses requiring both to be submitted.

Matrix Spikes: No problems.

Internal Standards: Samples EZD02, EZD03, EZD04, EZD06, EZD07, EZD08, EZD09, EZD15, EZD16, EZD17, and EZD18 contained internal standard areas outside QC Area Recovery Limits. They were reanalyzed and all duplicated the original results verifying a matrix effect. Both analyses have been submitted. Sample EZD01 also contained internal standard areas outside QC Area Recovery Limits. Its corresponding MS/MSD duplicated these results verifying a matrix effect.

NOTE: All manual integrations in this data package for GC/MS Volatiles have been performed for one of the following reasons:

a. Data system missed peak during acquisition.
b. Data system improperly integrated peak.

If water samples are contained in this case, their pH data is included on the page accompanying this SDG narrative.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager, or his designee, as verified by the following signature.

Harry M. Borg

Harry M. Borg
Organic Program Manager

July 11, 1996

SOUTHWEST LABORATORY OF OKLAHOMA
1700 West Albany, Suite A / Broken Arrow, OK 74012
918-251-2858

SDG NARRATIVE

July 16, 1996

CONTRACT NO.:	68-D5-0021
CASE NO.:	24752
SAMPLE NOS.:	EZD01, EZD02, EZD03, EZD04, EZD05, EZD06, EZD07, EZD08, EZD09, EZD10, EZD11, EZD12, EZD13, EZD14, EZD15, EZD16, EZD17, EZD18
SDG NO.:	EZD01

SEMIVOLATILE FRACTION

Eighteen soil samples were submitted for Semivolatile Organic Analyses. The samples were analyzed by GC/MS following the OLM03.2 CLP Organic Statement of Work.

The following column is used for the semivolatile analysis: Restek XTI-5 (bonded 5% phenyl-95% dimethyl polysiloxane), 30m, 0.25mm ID, 0.25um film thickness (Restek #12223).

The following samples in this SDG (labeled with a "DL") are considered billable since these samples were diluted to bring target analytes within linear range: EZD01, EZD07, EZD08, EZD09 and EZD11.

The following sample in this SDG (labeled with and "RE") is considered billable since re-analysis was performed to verify internal standard area recoveries: EZD08RE.

One major problem occurred during the analyses of these samples. Original sample extracts EZD02, EZD05, EZD09, EZD10, EZD12, EZD13 and EZD18 were lost during GPC clean-up. These samples were re-extracted (outside of holding time). See sample extraction log #50146 and #50147.

The following samples had alkanes reported and the reports are included at the end of this SDG narrative: EZD01, EZD01DL, EZD04, EZD05, EZD06, EZD07, EZD07DL, EZD08, EZD08RE, EZD09, EZD09DL, EZD10, EZD11, EZD12, EZD13, EZD14, EZD15, EZD16, EZD17, EZD18, SBLK1 and SBLK2.

Blanks: SBLK1 and SBLK2 had low level phthalate contamination below CRQL.

Surrogates: EZD09 had high recovery of Terphenyl-d14 at 141%.

Matrix Spikes: EZD01 MS/MSD had high RPD's for Acenaphthene at 24% and Pyrene at 40%. EZD01MSD had high spike recovery for Pyrene at 150%.

Internal Standard: The following samples had internal standard area's outside of QC limits: EZD01DL, EZD08, EZD08RE, EZD01, EZD01MS, EZD01MSD, EZD09, EZD09DL.

NOTE: All manual integrations in this data package for GC/MS Volatiles/Semivolatiles have been performed for one of the following reasons:

a. Data system missed peak during acquisition.
b. Data system improperly integrated peak.

If water samples are contained in this case, their pH data is included on the page accompanying this SDG narrative.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager, or his designee, as verified by the following signature.

Harry M. Borg

Harry M. Borg
Organic Program Manager

July 16, 1996

SDG Narrative

Case:	24752
SDG:	EZD01
Contract:	68-D5-0021
Samples:	EZD01, EZD02, EZD03, EZD04, EZD05, EZD06, EZD07, EZD08, EZD09, EZD10, EZD11, EZD12, EZD13, EZD14, EZD15, EZD16, EZD17, EZD18.
Fraction:	Pesticide/PCB

SDG EZD01 consisted of 18 soil samples plus dilutions which were analyzed for pesticide/PCBs. All samples, blanks and spikes were extracted and analyzed according to EPA SOW OLM03.2. The samples were analyzed on J&W Scientific dual analytical columns (30m x 0.32mm ID, 0.25µm film thickness, DB-17 and DB-1701). The DB-17 phase consists of (50%-Phenyl) Methylpolysiloxane and the DB-1701 phase consists of (14%-Cyanopropylphenyl) Methylpolysiloxane. These columns were specifically designed for pesticide/PCB separation as required by the EPA's SOW. All applicable manufacturer's instructions were followed for the analysis of pesticides/PCBs. Manufacturer provided information concerning the performance characteristics of the column are kept on site. Hydrogen was used as the carrier gas for these analyses.

Surrogate recoveries of all method blanks were within limits. The abnormal MS/MSD recoveries were caused by high levels of PAH interference and other analytes present in the sample.

It should be noted that when multi-responding compounds are present in a sample, false positives of single response compounds are common. The number of false positives may be reduced by employing a ratio technique in samples which are "clean", containing minimally more peaks than the multi-responder of interest, and do not contain environmentally altered multi-responders. However, "real-life" samples are typically not as previously described. Many times they exhibit highly complex chromatograms and environmentally altered multi-responders which are unable to be ratioed with a great deal of accuracy. Since ECD detection is not a definitive means of detection, single-response analytes in the presence of multi-responders will be reported (as per the method, if a peak is within a target analyte's retention time window on both columns, then it is reported as that target analyte). This alleviates the possibility that false negative results will be reported. However, this may lead to false positives. The end data user should be aware of the limitations of the method and take appropriate care.

All soil samples in this SDG required dilution in order to satisfy D-59/PEST, 10.2.3.1 which states that "all samples must be analyzed at the most concentrated level that is consistent with achieving satisfactory chromatography." The nature of these samples, which contained high levels of target and non-target PAHs (as confirmed by mass spectral analysis), would not allow for analysis at a lesser dilution. The high baseline rise, which was caused by the undiluted samples, interfered with continuing standards causing the percent differences to be unacceptable. The PAH contamination was so great, that the carryover was still grossly apparent after 17 solvent injections. The gas chromatograph analytical columns required days of solvent flushing and the detectors required hydrogen bake-out in order to bring the instrument back to an acceptable level of performance.

All but two samples in this SDG were reported in forms at a dilution. The undiluted sample data is included in the extra data section for review by region.

All samples in this SDG, as noted above, required dilution. This was performed per D-59/PEST, 10.2.3.1, which states that all samples must be analyzed at the most concentrated level that is consistent with achieving satisfactory chromatography. These samples were diluted in order to allow for the continuing calibration to be compliant. Therefore, the dilutions are billable.

The following tables list the total nanograms injected on column for each calibration standard based upon amount injected on column, 1µL or 2µL:

RESOLUTION CHECK

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
gamma-Chlordane	0.01	0.02
Endosulfan I	0.01	0.02
4,4'-DDE	0.02	0.04
Dieldrin	0.02	0.04
Endosulfan Sulfate	0.02	0.04
Endrin Ketone	0.02	0.04
Methoxychlor	0.1	0.2
Tetrachloro-m-xylene	0.02	0.04
Decachlorobiphenyl	0.02	0.04

PERFORMANCE EVALUATION

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
gamma-BHC	0.01	0.02
alpha-BHC	0.01	0.02
4,4'-DDT	0.1	.02
beta-BHC	0.01	0.02
Endrin	0.05	0.1
Methoxychlor	0.25	0.5
Tetrachloro-m-xylene	0.02	0.04
Decachlorobiphenyl	0.02	0.04

INDIVIDUAL STANDARD MIXTURE A -- LOW

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.005	0.01
Heptachlor	0.005	0.01
gamma-BHC	0.005	0.01
Endosulfan I	0.005	0.01
Dieldrin	0.01	0.02
Endrin	0.01	0.02
4,4'-DDD	0.01	0.02
4,4'-DDT	0.01	0.02

Methoxychlor	0.05	0.1
Tetrachloro-m-xylene	0.005	0.01
Decachlorobiphenyl	0.01	0.02

INDIVIDUAL STANDARD MIXTURE B -- LOW

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.005	0.01
delta-BHC	0.005	0.01
Aldrin	0.005	0.01
Heptachlor epoxide	0.005	0.01
alpha-Chlordane	0.005	0.01
gamma-Chlordane	0.005	0.01
4,4'-DDE	0.01	0.02
Endosulfan sulfate	0.01	0.02
Endrin aldehyde	0.01	0.02
Endrin ketone	0.01	0.02
Endosulfan II	0.01	0.02
Tetrachloro-m-xylene	0.005	0.01
Decachlorobiphenyl	0.01	0.02

INDIVIDUAL STANDARD MIXTURE A -- MEDIUM

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.02	0.04
Heptachlor	0.02	0.04
gamma-BHC	0.02	0.04
Endosulfan I	0.02	0.04
Dieldrin	0.04	0.08
Endrin	0.04	0.08
4,4'-DDD	0.04	0.08
4,4'-DDT	0.04	0.08
Methoxychlor	0.2	0.4
Tetrachloro-m-xylene	0.02	0.04
Decachlorobiphenyl	0.04	0.08

INDIVIDUAL STANDARD MIXTURE B -- MEDIUM

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.02	0.04
delta-BHC	0.02	0.04
Aldrin	0.02	0.04
Heptachlor epoxide	0.02	0.04
alpha-Chlordane	0.02	0.04
gamma-Chlordane	0.02	0.04
4,4'-DDE	0.04	0.08

Endosulfan sulfate	0.04	0.08
Endrin aldehyde	0.04	0.08
Endrin ketone	0.04	0.08
Endosulfan II	0.04	0.08
Tetrachloro-m-xylene	0.02	0.04
Decachlorobiphenyl	0.04	0.08

INDIVIDUAL STANDARD MIXTURE A -- HIGH

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.08	0.16
Heptachlor	0.08	0.16
gamma-BHC	0.08	0.16
Endosulfan I	0.08	0.16
Dieldrin	0.16	0.32
Endrin	0.16	0.32
4,4'-DDD	0.16	0.32
4,4'-DDT	0.16	0.32
Methoxychlor	0.8	1.6
Tetrachloro-m-xylene	0.08	0.16
Decachlorobiphenyl	0.16	0.32

INDIVIDUAL STANDARD MIXTURE B -- HIGH

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.08	0.16
delta-BHC	0.08	0.16
Aldrin	0.08	0.16
Heptachlor epoxide	0.08	0.16
alpha-Chlordane	0.08	0.16
gamma-Chlordane	0.08	0.16
4,4'-DDE	0.16	0.32
Endosulfan sulfate	0.16	0.32
Endrin aldehyde	0.16	0.32
Endrin ketone	0.16	0.32
Endosulfan II	0.16	0.32
Tetrachloro-m-xylene	0.08	0.16
Decachlorobiphenyl	0.16	0.32

MULTI-RESPONSE STANDARD MIXTURES

Compounds	Total nanograms (1µL)	Total nanograms (2µL)
Aroclor-1016	0.1	0.2
Aroclor-1221	0.2	0.4
Aroclor-1232	0.1	0.2
Aroclor-1242	0.1	0.2
Aroclor-1248	0.1	0.2
Aroclor-1254	0.1	0.2

Aroclor-1260	0.1	0.2
Toxaphene	0.5	1.0

All manual integrations in this data package for GC/EC have been performed for one of the following reasons:

a. Data system missed a peak during processing.
b. Data system improperly integrated a peak.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Brett R Dees
GC Laboratory Supervisor
July 19, 1996

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

ab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	VBLK1	104	98	90		0
02	EZD01	109	77	113		0
03	EZD01MS	102	68	99		0
04	EZD01MSD	118	72	84		0
05	EZD04	132	89	113		0
06	EZD06	122	66	95		0
07	EZD05	105	74	89		0
08	VBLK2	102	106	94		0
09	EZD02	101	79	91		0
10	EZD03	94	73	86		0
11	EZD04RE	104	76	114		0
12	EZD06RE	96	73	90		0
13	EZD07	81*	60	78		1
14	EZD08	112	67	83		0
15	EZD09	100	71	87		0
16	EZD10	92	81	80		0
17	EZD11	96	88	84		0
18	EZD15	81*	77	102		1
19	EZD16	104	80	90		0
20	VBLK3	100	102	97		0
21	EZD02RE	117	82	97		0
22	EZD03RE	116	76	99		0
23	EZD07RE	112	77	101		0
24	EZD08RE	127	70	99		0
25	EZD09RE	108	76	98		0
26	EZD12	101	85	100		0
27	EZD13	102	86	100		0
28	EZD15RE	112	88	102		0
29	EZD16RE	116	77	100		0
30	EZD17	107	76	100		0

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	EZD18	99	80	104		0
02	EZD14	113	83	103		0
03	EZD17RE	125	85	112		0
04	EZD18RE	109	81	102		0
05	VBLK4	120	101	113		0
06	VHBLK1	123	105	113		0
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		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3B
SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

ab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix Spike - EPA Sample No.: EZD01 Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	60	0	50	83	59-172
Trichloroethene	60	0	55	92	62-137
Benzene	60	0	60	100	66-142
Toluene	60	0	64	107	59-139
Chlorobenzene	60	0	55	92	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	60	57	95	13	22	59-172
Trichloroethene	60	51	85	8	24	62-137
Benzene	60	65	108	8	21	66-142
Toluene	60	74	123	14	21	59-139
Chlorobenzene	60	59	98	6	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Lab File ID: L21000.D Lab Sample ID: L960612C

Date Analyzed: 06/12/96 Time Analyzed: 2157

GC Column: DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: L

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EZD01	25973.01	L21017.D	0622
02	EZD01MS	25973.01MS	L21018.D	0651
03	EZD01MSD	25973.01MSD	L21019.D	0719
04	EZD04	25973.04	L21020.D	0748
05	EZD06	25973.06	L21021.D	0817
06	EZD05	25973.05	L21022.D	0846
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COMMENTS:

page 01 of 01

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK2

ab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Lab File ID: L21028.D Lab Sample ID: L960613A

Date Analyzed: 06/14/96 Time Analyzed: 0029

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: L

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EZD02	25973.02	L21034.D	0342
02	EZD03	25973.03	L21035.D	0413
03	EZD04RE	25973.04RA	L21036.D	0445
04	EZD06RE	25973.06RA	L21038.D	0548
05	EZD07	25973.07	L21039.D	0619
06	EZD08	25973.08	L21040.D	0651
07	EZD09	25973.09	L21041.D	0721
08	EZD10	25973.10	L21042.D	0751
09	EZD11	25973.11	L21043.D	0822
10	EZD15	25973.15	L21045.D	0925
11	EZD16	25973.16	L21046.D	0958
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COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK3

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Lab File ID: C20647.D Lab Sample ID: C960621A

Date Analyzed: 06/21/96 Time Analyzed: 0919

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: C

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EZD02RE	25973.02RA	C20654.D	1241
02	EZD03RE	25973.03RA	C20655.D	1308
03	EZD07RE	25973.07RA	C20657.D	1402
04	EZD08RE	25973.08RA	C20658.D	1429
05	EZD09RE	25973.09RA	C20659.D	1456
06	EZD12	25973.12	C20660.D	1523
07	EZD13	25973.13	C20661.D	1550
08	EZD15RE	25973.15RA	C20663.D	1645
09	EZD16RE	25973.16RA	C20664.D	1712
10	EZD17	25973.17	C20665.D	1759
11	EZD18	25973.18	C20666.D	1825
12	EZD14	25973.14	C20667.D	1851
13	EZD17RE	25973.17RA	C20668.D	1923
14	EZD18RE	25973.18RA	C20669.D	1949
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COMMENTS:

page 01 of 01

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK4

ab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Lab File ID: C20720.D Lab Sample ID: C960622B

Date Analyzed: 06/23/96 Time Analyzed: 0016

GC Column:DB-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: C

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	VHBLK1	VHBLK1	C20723.D	0136
02				
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COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: L960612C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L21000.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 06/12/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK1

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: L960612C

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L21000.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 06/12/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK2

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: L960613A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L21028.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 06/14/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK2

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: L960613A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L21028.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 06/14/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK3

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: C960621A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C20647.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 06/21/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK3

ab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: C960621A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C20647.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 06/21/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK4

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: C960622B

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C20720.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 06/23/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK4

ab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: C960622B

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C20720.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 06/23/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VHBLK1

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: VHBLK1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C20723.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 06/23/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLK1

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: VHBLK1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C20723.D

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 06/23/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EZD01 SS1

ıb Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: 25973.01

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L21017.D

Level: (low/med) LOW Date Received: 06/12/96

% Moisture: not dec. 17 Date Analyzed: 06/13/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12	B
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EZD01

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: 25973.01

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L21017.D

Level: (low/med) LOW Date Received: 06/12/96

% Moisture: not dec. 17 Date Analyzed: 06/13/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-54-3	Hexane	6.792	6	NJ
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EZD02 SS2

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: 25973.02

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L21034.D

Level: (low/med) LOW Date Received: 06/12/96

% Moisture: not dec. 32 Date Analyzed: 06/14/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	22	B
67-64-1	Acetone	15	U
75-15-0	Carbon Disulfide	15	U
75-35-4	1,1-Dichloroethene	15	U
75-34-3	1,1-Dichloroethane	15	U
540-59-0	1,2-Dichloroethene (total)	15	U
67-66-3	Chloroform	15	U
107-06-2	1,2-Dichloroethane	15	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	15	U
56-23-5	Carbon Tetrachloride	15	U
75-27-4	Bromodichloromethane	15	U
78-87-5	1,2-Dichloropropane	15	U
10061-01-5	cis-1,3-Dichloropropene	15	U
79-01-6	Trichloroethene	15	U
124-48-1	Dibromochloromethane	15	U
79-00-5	1,1,2-Trichloroethane	15	U
71-43-2	Benzene	15	U
10061-02-6	trans-1,3-Dichloropropene	15	U
75-25-2	Bromoform	15	U
108-10-1	4-Methyl-2-Pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	15	U
79-34-5	1,1,2,2-Tetrachloroethane	15	U
108-88-3	Toluene	15	U
108-90-7	Chlorobenzene	15	U
100-41-4	Ethylbenzene	15	U
100-42-5	Styrene	15	U
1330-20-7	Xylene (Total)	15	U

u KH 8/08/96

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EZD02

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: 25973.02

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L21034.D

Level: (low/med) LOW Date Received: 06/12/96

% Moisture: not dec. 32 Date Analyzed: 06/14/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EZD02RE SS2

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: 25973.02RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C20654.D

Level: (low/med) LOW Date Received: 06/12/96

% Moisture: not dec. 32 Date Analyzed: 06/21/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	55	
67-64-1	Acetone	15	U
75-15-0	Carbon Disulfide	15	U
75-35-4	1,1-Dichloroethene	15	U
75-34-3	1,1-Dichloroethane	15	U
540-59-0	1,2-Dichloroethene (total)	15	U
67-66-3	Chloroform	15	U
107-06-2	1,2-Dichloroethane	15	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	15	U
56-23-5	Carbon Tetrachloride	15	U
75-27-4	Bromodichloromethane	15	U
78-87-5	1,2-Dichloropropane	15	U
10061-01-5	cis-1,3-Dichloropropene	15	U
79-01-6	Trichloroethene	15	U
124-48-1	Dibromochloromethane	15	U
79-00-5	1,1,2-Trichloroethane	15	U
71-43-2	Benzene	15	U
10061-02-6	trans-1,3-Dichloropropene	15	U
75-25-2	Bromoform	15	U
108-10-1	4-Methyl-2-Pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	15	U
79-34-5	1,1,2,2-Tetrachloroethane	15	U
108-88-3	Toluene	15	U
108-90-7	Chlorobenzene	15	U
100-41-4	Ethylbenzene	15	U
100-42-5	Styrene	15	U
1330-20-7	Xylene (Total)	15	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EZD02RE

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: 25973.02RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C20654.D

Level: (low/med) LOW Date Received: 06/12/96

% Moisture: not dec. 32 Date Analyzed: 06/21/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EZD03 SS3

ab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: 25973.03

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L21035.D

Level: (low/med) LOW Date Received: 06/12/96

% Moisture: not dec. 29 Date Analyzed: 06/14/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	21	B
67-64-1	Acetone	14	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (Total)	14	U

u KH 8/08/96

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EZD03

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: 25973.03

Sample wt/vol: 5.0 (g/mL) G Lab File ID: L21035.D

Level: (low/med) LOW Date Received: 06/12/96

% Moisture: not dec. 29 Date Analyzed: 06/14/96

GC Column:DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EZD03RE SS3

ab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: 25973.03RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C20655.D

Level: (low/med) LOW Date Received: 06/12/96

% Moisture: not dec. 29 Date Analyzed: 06/21/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	70	
67-64-1	Acetone	14	U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	14	U
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (Total)	14	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EZD03RE

Lab Name: SWL-TULSA Contract: 68-D5-0021

Lab Code: SWOK Case No.: 24752 SAS No.: SDG No.: EZD01

Matrix: (soil/water) SOIL Lab Sample ID: 25973.03RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C20655.D

Level: (low/med) LOW Date Received: 06/12/96

% Moisture: not dec. 29 Date Analyzed: 06/21/96

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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