



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
ENVIRONMENTAL SCIENCE CENTER
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DATE : September 11, 2002
SUBJECT: Region III Data QA Review
FROM : Fredrick Foreman (32)
Region III ESAT RPO (3ES20)
TO : Romuald Roman
Regional Project Manager (3HS22)

Attached is the organic data validation report for the Valmont TCE site (Case #: 30790, SDG#: C0001, C0004) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III ESD.

If you have any questions regarding this review, please call me at (410) 305-2629.

Attachments

cc: Neil Teamerson (Tetrattech NUS)

TO File: 0007

TDF#: 07848

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DATE: September 10, 2002

SUBJECT: Level M3 Organic Data Validation for Case 30790
SDGs: C0001 and C0004
Site: Valmont TCE

FROM: Michael Roxbury *ML*
Senior Data Reviewer

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TO: Fredrick Foreman
ESAT Region 3 Project Officer

OVERVIEW

Case 30790, Sample Delivery Groups (SDGs) C0001 and C0004, consisted of twenty (20) soil and fifteen (15) aqueous samples submitted to Southwest Laboratory of Oklahoma (SWOK) for volatile, semivolatile and/or pesticide/PCB analyses. The sample set included three (3) trip blanks, one (1) field blank, one (1) rinsate blank and four (4) field duplicate pairs. The trip blanks were analyzed for volatiles only. Samples were analyzed according to Contract Laboratory Program (CLP) Statement of Work (SOW) OLM04.2 through Routine Analysis Services (RAS) program.

SUMMARY

Data were validated according to Region III Modifications to the National Functional Guidelines for Organic Data Review, Level M3. All samples were successfully analyzed for all target compounds except as noted in Major Problem section.

MAJOR PROBLEM

- Semivolatile sample C0025 (SDG C0001) reported zero percent recovery of acid fraction surrogate phenol-d5 in both initial and re-extracted analyses. The re-extraction was performed two (2) days outside the technical holding time of seven (7) days. No positive results were reported in the sample for any acid fraction target compound. Quantitation limits for all acid fraction compounds were rejected and qualified "R" on the Data Summary Forms (DSFs).

MINOR PROBLEMS

- Volatile samples C0020, C0021 and C0018MS (SDG C0004) reported recovery of system monitoring compound 1,2-dichloroethane-d4 outside upper QC limit in the initial analyses. Samples C0020 and C0021 were reanalyzed with similar results confirming a matrix effect. No positive results were reported for either sample. Quantitation limits were qualified "UJ" on DSFs.

- Volatile sample C0028 (SDG C0004) reported area counts for internal standards 1,4-difluorobenzene and chlorobenzene-d5 outside lower QC limits in both initial and reanalysis of the sample. No positive results were reported for compounds associated with these standards. Quantitation limits for affected compounds were qualified "UJ" on DSFs.
- Volatile samples C0020 and C0021 (SDG C0004) each reported area counts for one or more internal standards outside lower QC limits in samples' initial and reanalyses. No positive results were reported in either sample. Results were reported from initial analyses and quantitation limits for target compounds associated with internal standards having area counts outside QC limits were qualified "UJ" on DSFs.
- Several target compounds failed precision criteria [Percent Relative Standard Deviation (%RSD)-or Percent Difference (%D)] in initial and/or continuing calibrations. Positive results for these compounds in affected samples were qualified "J" on DSFs unless superseded by "B". Quantitation limits for compounds with imprecision exceeding the fifty percent (%D > 50%) criteria, were qualified "UJ" on DSFs for affected samples.
- Pesticide/PCB sample C0022 (a field blank associated with SDG C0001) reported recovery of surrogate tetrachloro-m-xylene (TCX) outside lower Quality Control (QC) limits on both columns. Review of the sample chromatograms did not indicate cause for the reported recoveries. Positive results in this sample were qualified "J" unless superseded by "B". Quantitation limits were qualified "UJ" on DSFs.
- Pesticide/PCB samples C0020 and C0021 (SDG C0004) each reported recovery of TCX outside upper QC limit on one column and recovery of decachlorobiphenyl (DCB) outside upper QC limit on both columns. Review of the samples' chromatograms indicate co-eluting non-target compounds that may have interfered with surrogate recovery quantitation. No positive results were reported in sample C0020. The "K" qualifier for positive results in sample C0021 was superseded by "J".
- PCB data were qualified "J" unless superseded by "B" when percent difference (%D) between results detected on two columns exceeded the twenty-five percent (25%) criterion.

NOTES

- The maximum concentrations of all target compounds found in the analyses of sample-associated trip, field, rinsate, storage and method blanks which were used to qualify results relative to blank contamination are listed below. Samples with concentrations of common laboratory contaminants less than ten times (< 10X) highest associated blank concentration or with concentrations of other contaminants less than five times (< 5X) the associated blank concentration have been qualified "B".

SDG
C0001

<u>Compound</u>	<u>Concentration</u>	<u>Associated samples</u>
methylene chloride*	5 J ug/L (VHBLK1)	all samples
bis(2-ethylhexyl)phthalate*	5 B ug/L (RB - C0037)	all samples except C0022, C0037
	0.6 J ug/L (SBLK1)	C0022, C0037
heptachlor	0.034 J ug/L (PBLKWD)	C0022, C0037
	0.035 B ug/L (RB - C0037)	all samples except C0022, C0037
alpha-chlordane	0.0075 J ug/L (FB - C0022)	C0003, C0005, C0009, C0013, C0015, C0016, C0023, C0025
gamma-chlordane	0.012 J ug/L (FB - C0022)	C0003, C0009, C0011, C0013, C0015, C0016, C0023, C0025

SDG
C0004

<u>Compound</u>	<u>Concentration</u>	<u>Associated samples</u>
methylene chloride*	4 B ug/L (FB - C0022)	C0019, C0024, C0026, C0028, C0029, C0030, C0031, C0035, C0036
bis(2-ethylhexyl)phthalate*	5 B ug/L (RB - C0037)	all samples
heptachlor	0.035 J ug/L (RB - C0037)	C00Z5, C0008, C0010, C0012, C0014, C0018, C0026, C0027, C0028, C0029, C0030, C0031, C0035, C0036

SDG C0004	<u>Compound</u>	<u>Concentration</u>	<u>Associated samples</u>
	alpha-chlordane	0.0075 J ug/L (FB - C0022)	C0QZ5, C0028, C0029, C0031
	gamma-chlordane	0.012 J ug/L (FB - C0022)	C0QZ5, C0004, C0006, C0010, C0012, C0014, C0018, C0024, C0028, C0030, C0036

* common laboratory contaminant

- Semivolatile samples C0019, C0020 and C0021 (SDG C0004) were initially analyzed at two fold (2X) dilution due to high concentrations of extractable organics. Sample C0020 was reanalyzed at five fold (5X) dilution to quantitate several polynuclear aromatic hydrocarbon target compounds. Results reported from diluted analysis were identified on DSFs by the "+" symbol. Contract Required Quantitation Limits (CRQLs) are elevated in samples initially analyzed at dilution.
- Pesticide/PCB samples C0019, C0020 and C0021 were initially analyzed at ten fold (10X) dilution and then reanalyzed undiluted. Results from the undiluted analyses were reported on the DSFs for these samples.
- Volatile Matrix Spike/Matrix Spike Duplicate (MS/MSD) analyses of sample C0016 (SDG C0001) reported Relative Percent Differences (RPDs) outside QC limits for trichloroethene, benzene and toluene. No data were qualified based on these outliers in QC analyses.
- Semivolatile samples C0004, C0018, C0026 and C0QZ5 each reported recovery of base/neutral surrogate terphenyl-d14 outside upper QC limit. Samples C0004, C0018, C0024, C0026 and C0035 each reported the recovery of acid fraction surrogate 2,4,6-tribromophenol outside upper QC limit. No data were qualified based on these single surrogate outliers per fraction in these samples.
- Semivolatile MS/MSD analyses of sample C0016 (SDG C0001) and sample C0018 (SDG C0004) reported recovery of spike compound 4-nitrophenol outside upper QC limit in both MS and MSD. No data were qualified based on these QC analyses results.
- Pesticide/PCB calibration verifications (8/11/02, 4:42 and 5:16 for DB17 and DB1701 columns, instrument HP-04; and 8/10/02, 00:52 and 1:22 for DB17 column, instrument HP-16) indicated Percent Differences (%Ds) greater than twenty percent (>20%) for several target compounds. Reanalysis of calibration standards relative to instrument HP-16 resulted in calibration verifications with no calibration outliers. No positive results in affected samples were associated with these failed continuing calibrations; therefore, no data were qualified.

- Pesticide/PCB samples C0004, C0006, C0012, C0018, C0018MS, C0018MSD, C0019, C0024 and C0QZ5 each reported recovery of TCX outside upper QC limit on one column. No results were qualified based on these single surrogate recovery outliers.
- Non-spiked compounds, other than blank contaminants, were detected in sample, matrix spike (MS), and matrix spike duplicate (MSD). Results and precision estimates are tabled below. Units are ug/Kg for samples C0018 and ug/L for sample C0016.

	<u>C0016</u>	<u>C0016MS</u>	<u>C0016MSD</u>	<u>%RSD</u>
2,4-dichlorophenol	ND	0.6 J	0.6 J	0*
diethylphthalate	0.7 J	1 J	0.8 J	18
di-n-butylphthalate	ND	0.9 J	ND	IN

	<u>C0018</u>	<u>C0018MS</u>	<u>C0018MSD</u>	<u>%RSD</u>
4-methylphenol	28 J	ND	ND	IN
acenaphthylene	26 J	ND	27 J	4*
fluorene	22 J	28 J	22 J	14
phenanthrene	290 J	240 J	230 J	13
anthracene	64 J	44 J	44 J	23
carbazole	29 J	24 J	28 J	10
di-n-butylphthalate	22 J	21 J	ND	5*
fluoranthene	510	400	360 J	18
benzo(a)anthracene	210 J	200 J	190 J	5
chrysene	250 J	240 J	230 J	4
benzo(b)fluoranthene	240 J	360 J	360 J	22
benzo(k)fluoranthene	140 J	ND	ND	IN
benzo(a)pyrene	210 J	200 J	200 J	3
indeno(1,2,3-cd)pyrene	180 J	190 J	190 J	3
dibenzo(a,h)anthracene	ND	51 J	51 J	0*
benzo(g,h,i)perylene	130 J	160 J	130 J	12
4,4'-DDE	1.1 J	2.1 J	0.90 J	47
4,4'-DDD	1.0 J	ND	ND	IN
methoxychlor	ND	2.2 J	1.8 J	19

%RSD = Percent Relative Standard Deviation

* Relative Percent Difference reported

ND = Not detected

IN = Indeterminant

- Sampling personnel assigned sample number C0016 to both a sediment sample (location BC-02) and a water sample (location BC-03). The sample number for the sediment sample was changed to C0QZ5 by SMO and is documented in the memo-to-file dated 8/28/02.
- Compounds detected below Contract Required Quantitation Limits (CRQLs) were qualified "J" except when superseded by "B" on the DSFs.

- Tentatively Identified Compounds (TICs) were reviewed during data validation. Compounds identified as condensation reaction products or blank contaminants were crossed off TIC Form Is. Compound identifications were changed to "unknown" when the same compound was reported as eluting at different retention times or the TIC was incorrectly identified as a target compound (eluting at the incorrect RT). TIC Form Is were included in Appendix C only for samples reporting positive TIC results.
- Sample mass other than thirty (30) grams were used in analysis of semivolatile and pesticide/PCB samples associated with this Case. Dilution factors reported on DSFs reflect actual sample mass extracted.
- Data package did not include sampling work sheets that would indicate volatile soil samples were taken using ENCORE type sample tubes. Volatile soil analyses results should be considered as the results of soil samples collected and submitted to the laboratory in four (4) ounce glass jars.

All data for Case 30790, SDGs C0001 and C0004, were reviewed in accordance with Region III Modifications to the National Functional Guidelines for Organic Data Review, September 1994.

ATTACHMENTS

- 1) Appendix A Glossary of Data Qualifier Terms
- 2) Appendix B Data Summary Forms
- 3) Appendix C Tentatively Identified Compounds
- 4) Appendix D Chain of Custody Records
- 5) Appendix E Laboratory Case Narratives

DCN: 30790rpt

Appendix A

Glossary of Data Qualifiers

GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

CODES RELATED TO IDENTIFICATION

(confidence concerning presence or absence of compounds)

U = Not detected. The associated number indicates approximate sample concentration necessary to be detected.

NO CODE = Confirmed identification.

B = Not detected substantially above the level reported in laboratory or field blanks.

R = Unusable result. Analyte may or may not be present in the sample. Supporting data necessary to confirm result.

N = Tentative identification. Consider present. Special methods may be needed to confirm its presence or absence in future sampling efforts.

CODES RELATED TO QUANTITATION

(can be used for both positive results and sample quantitation limits):

J = Analyte present. Reported value may not be accurate or precise.

K = Analyte present. Reported value may be biased high. Actual value is expected to be lower.

L = Analyte present. Reported value may be biased low. Actual value is expected to be higher.

UJ = Not detected, quantitation limit may be inaccurate or imprecise.

UL = Not detected, quantitation limit is probably higher.

OTHER CODES

NJ = Qualitative identification questionable due to poor resolution. Presumptively present at approximate quantity.

Q = No analytical result.

Appendix B

Data Summary Forms

DATA SUMMARY FORM: VOLATILES

Page _1_ of _35_

Case #: 30790

SDG : C0001

Number of Soil Samples : 0

Site :

VALMONT TCE

Number of Water Samples : 15

Lab. :

SWOK

Sample Number :		C0001		C0002		C0003		C0005		C0007		
Sampling Location :		TB-01		TB-02		SW-BC-04		SW-BC-05		SW-BC-06		
Field QC:		Trip Blank		Trip Blank								
Matrix :		Water		Water		Water		Water		Water		
Units :		ug/L		ug/L		ug/L		ug/L		ug/L		
Date Sampled :		07/30/2002		07/30/2002		07/30/2002		07/30/2002		07/30/2002		
Time Sampled :		07:20		07:25		11:45		12:45		14:25		
pH :		<2		<2		<2		<2		<2		
Dilution Factor :		1.0		1.0		1.0		1.0		1.0		
Volatile Compound		CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane		10										
Chloromethane		10										
*Vinyl Chloride		10										
Bromomethane		10										
Chloroethane		10										
Trichlorofluoromethane		10										
*1,1-Dichloroethene		10										
1,1,2-Trichloro-1,2,2-trifluoroethane		10										
Acetone		10										
Carbon Disulfide		10										
Methyl Acetate		10										
*Methylene Chloride		10	4	B	4	B	4	B	4	B	3	B
trans-1,2-Dichloroethene		10										
Methyl tert-Butyl Ether		10										
1,1-Dichloroethane		10										
cis-1,2-Dichloroethene		10										
*2-Butanone		10										
Chloroform		10										
*1,1,1-Trichloroethane		10										
Cyclohexane		10										
*Carbon Tetrachloride		10										
*Benzene		10										
*1,2-Dichloroethane		10										
Trichloroethene		10										
Methylcyclohexane		10										
*1,2-Dichloropropane		10										
Bromodichloromethane		10										
cis-1,3-Dichloropropene		10										
4-Methyl-2-pentanone		10										
*Toluene		10										
trans-1,3-Dichloropropene		10										
1,1,2-Trichloroethane		10										
*Tetrachloroethene		10										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

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DATA SUMMARY FORM: VOLATILES

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Case #: 30790

SDG : C0001

Number of Soil Samples : 0

Site :

VALMONT TCE

Number of Water Samples : 15

Lab. :

SWOK

Sample Number :		C0001		C0002		C0003		C0005		C0007		
Sampling Location :		TB-01		TB-02		SW-BC-04		SW-BC-05		SW-BC-06		
Field QC:		Trip Blank		Trip Blank								
Matrix :		Water		Water		Water		Water		Water		
Units :		ug/L		ug/L		ug/L		ug/L		ug/L		
Date Sampled :		07/30/2002		07/30/2002		07/30/2002		07/30/2002		07/30/2002		
Time Sampled :		07:20		07:25		11:45		12:45		14:25		
pH :		<2		<2		<2		<2		<2		
Dilution Factor :		1.0		1.0		1.0		1.0		1.0		
Volatile Compound		CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-Hexanone		10										
Dibromochloromethane		10										
1,2-Dibromoethane		10										
*Chlorobenzene		10										
*Ethylbenzene		10										
Xylenes (total)		10										
*Styrene		10										
Bromoform		10										
Isopropylbenzene		10										
1,1,2,2-Tetrachloroethane		10										
*1,3-Dichlorobenzene		10										
*1,4-Dichlorobenzene		10										
1,2-Dichlorobenzene		10										
1,2-Dibromo-3-chloropropane		10										
1,2,4-Trichlorobenzene		10										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

Revised 09/99

DATA SUMMARY FORM: VOLATILES

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Case #: 30790

SDG : C0001

Number of Soil Samples : 0

Site :

VALMONT TCE

Number of Water Samples : 15

Lab. :

SWOK

Sample Number :		C0009		C0011		C0013		C0015		C0016		
Sampling Location :		SW-CC-08		SW-CC-07		SW-BC-01		SW-BC-02		SW-BC-03		
Field QC:								Dupl. of C0023				
Matrix :		Water		Water		Water		Water		Water		
Units :		ug/L		ug/L		ug/L		ug/L		ug/L		
Date Sampled :		07/30/2002		07/30/2002		07/31/2002		07/31/2002		07/31/2002		
Time Sampled :		15:45		16:40		08:45		09:40		10:35		
pH :		<2		<2		<2		<2		<2		
Dilution Factor :		1.0		1.0		1.0		1.0		1.0		
Volatile Compound		CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane		10										
Chloromethane		10										
*Vinyl Chloride		10										
Bromomethane		10										
Chloroethane		10										
Trichlorofluoromethane		10										
*1,1-Dichloroethane		10										
1,1,2-Trichloro-1,2,2-trifluoroethane		10										
Acetone		10										
Carbon Disulfide		10										
Methyl Acetate		10										
*Methylene Chloride		10	3	B	4	B	2	B	4	B	4	B
trans-1,2-Dichloroethene		10										
Methyl tert-Butyl Ether		10										
1,1-Dichloroethane		10										
cis-1,2-Dichloroethene		10										
*2-Butanone		10										
Chloroform		10										
*1,1,1-Trichloroethane		10										
Cyclohexane		10										
*Carbon Tetrachloride		10										
*Benzene		10										
*1,2-Dichloroethane		10										
Trichloroethene		10										
Methylcyclohexane		10										
*1,2-Dichloropropane		10										
Bromodichloromethane		10										
cis-1,3-Dichloropropene		10										
4-Methyl-2-pentanone		10										
*Toluene		10										
trans-1,3-Dichloropropene		10										
1,1,2-Trichloroethane		10										
*Tetrachloroethene		10										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

Revised 09/99

DATA SUMMARY FORM: VOLATILES

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Case #: 30790

SDG : C0001

Number of Soil Samples : 0

Site :

VALMONT TCE

Number of Water Samples : 15

Lab. :

SWOK

Sample Number :	C0009	C0011	C0013	C0015	C0016						
Sampling Location :	SW-CC-08	SW-CC-07	SW-BC-01	SW-BC-02	SW-BC-03						
Field QC:				Dupl. of C0023							
Matrix :	Water	Water	Water	Water	Water						
Units :	ug/L	ug/L	ug/L	ug/L	ug/L						
Date Sampled :	07/30/2002	07/30/2002	07/31/2002	07/31/2002	07/31/2002						
Time Sampled :	15:45	16:40	08:45	09:40	10:35						
pH :	<2	<2	<2	<2	<2						
Dilution Factor :	1.0	1.0	1.0	1.0	1.0						
Volatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-Hexanone	10										
Dibromochloromethane	10										
1,2-Dibromoethane	10										
*Chlorobenzene	10										
*Ethylbenzene	10										
Xylenes (total)	10										
*Styrene	10										
Bromoform	10										
Isopropylbenzene	10										
1,1,2,2-Tetrachloroethane	10										
*1,3-Dichlorobenzene	10										
*1,4-Dichlorobenzene	10										
1,2-Dichlorobenzene	10										
1,2-Dibromo-3-chloropropane	10										
1,2,4-Trichlorobenzene	10										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

Revised 09/99

DATA SUMMARY FORM: VOLATILES

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Case #: 30790

SDG: C0001

Number of Soil Samples: 0

Site:

VALMONT TCE

Number of Water Samples: 15

Lab.:

SWOK

Sample Number :	C0022	C0023		C0025		C0037		C0038			
Sampling Location :	FB-01	DUPSW-01		DECON-01		RB-01		TB-03			
Field QC:	Field Blank	Dupl. of C0015				Rinsate Blank		Trip Blank			
Matrix :	Water	Water		Water		Water		Water			
Units :	ug/L	ug/L		ug/L		ug/L		ug/L			
Date Sampled :	07/31/2002	07/31/2002		07/31/2002		08/02/2002		08/01/2002			
Time Sampled :	11:00	12:00		14:10		08:00		08:00			
pH :	<2	<2		<2		<2		<2			
Dilution Factor :	1.0	1.0		1.0		1.0		1.0			
Volatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	10										
Chloromethane	10										
*Vinyl Chloride	10										
Bromomethane	10										
Chloroethane	10										
Trichlorofluoromethane	10										
*1,1-Dichloroethene	10										
1,1,2-Trichloro-1,2,2-trifluoroethane	10										
Acetone	10										
Carbon Disulfide	10										
Methyl Acetate	10										
*Methylene Chloride	10	4	B	3	B	3	B	2	B	1	B
trans-1,2-Dichloroethene	10										
Methyl tert-Butyl Ether	10										
1,1-Dichloroethane	10										
cis-1,2-Dichloroethene	10										
*2-Butanone	10										
Chloroform	10					19					
*1,1,1-Trichloroethane	10										
Cyclohexane	10										
*Carbon Tetrachloride	10										
*Benzene	10										
*1,2-Dichloroethane	10										
Trichloroethene	10										
Methylcyclohexane	10										
*1,2-Dichloropropane	10										
Bromodichloromethane	10					7	J				
cis-1,3-Dichloropropene	10										
4-Methyl-2-pentanone	10										
*Toluene	10										
trans-1,3-Dichloropropene	10										
1,1,2-Trichloroethane	10										
*Tetrachloroethene	10										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

Revised 09/99

DATA SUMMARY FORM: VOLATILES

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Case #: 30790

SDG : C0001

Number of Soil Samples : 0

Site :

VALMONT TCE

Number of Water Samples : 15

Lab. :

SWOK

Sample Number :	C0022	C0023	C0025	C0037	C0038						
Sampling Location :	FB-01	DUPSW-01	DECON-01	RB-01	TB-03						
Field QC:	Field Blank	Dupl. of C0015		Rinsate Blank	Trip Blank						
Matrix :	Water	Water	Water	Water	Water						
Units :	ug/L	ug/L	ug/L	ug/L	ug/L						
Date Sampled :	07/31/2002	07/31/2002	07/31/2002	08/02/2002	08/01/2002						
Time Sampled :	11:00	12:00	14:10	08:00	08:00						
pH :	<2	<2	<2	<2	<2						
Dilution Factor :	1.0	1.0	1.0	1.0	1.0						
Volatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-Hexanone	10										
Dibromochloromethane	10					2	J				
1,2-Dibromoethane	10										
*Chlorobenzene	10										
*Ethylbenzene	10										
Xylenes (total)	10										
*Styrene	10										
Bromoform	10										
Isopropylbenzene	10										
1,1,2,2-Tetrachloroethane	10										
*1,3-Dichlorobenzene	10										
*1,4-Dichlorobenzene	10										
1,2-Dichlorobenzene	10										
1,2-Dibromo-3-chloropropane	10										
1,2,4-Trichlorobenzene	10										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

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DATA SUMMARY FORM: VOLATILES

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :	C0QZ5	C0004		C0006		C0008		C0010			
Sampling Location :	SD-BC-02	SD-BC-04		SD-BC-05		SD-BC-06		SD-CC-08			
Field QC:	Dupl. of C0024										
Matrix :	Soil	Soil		Soil		Soil		Soil			
Units :	ug/Kg	ug/Kg		ug/Kg		ug/Kg		ug/Kg			
Date Sampled :	07/31/2002	07/30/2002		07/30/2002		07/30/2002		07/30/2002			
Time Sampled :	09:50	11:50		12:55		14:35		15:50			
%Moisture :	14	21		20		20		17			
Dilution Factor :	1.0	1.0		1.0		1.0		1.0			
Volatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	10										
Chloromethane	10										
Vinyl Chloride	10										
Bromomethane	10										
Chloroethane	10										
Trichlorofluoromethane	10										
1,1-Dichloroethene	10										
1,1,2-Trichloro-1,2,2-trifluoroethane	10										
Acetone	10										
Carbon Disulfide	10										
Methyl Acetate	10										
Methylene Chloride	10										
trans-1,2-Dichloroethene	10										
Methyl tert-Butyl Ether	10										
1,1-Dichloroethane	10										
cis-1,2-Dichloroethene	10										
2-Butanone	10										
Chloroform	10										
1,1,1-Trichloroethane	10										
Cyclohexane	10										
Carbon Tetrachloride	10										
Benzene	10										
1,2-Dichloroethane	10										
Trichloroethene	10										
Methylcyclohexane	10										
1,2-Dichloropropane	10										
Bromodichloromethane	10										
cis-1,3-Dichloropropene	10										
4-Methyl-2-pentanone	10										
Toluene	10										
trans-1,3-Dichloropropene	10										
1,1,2-Trichloroethane	10										
Tetrachloroethene	10										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

Revised 09/99

DATA SUMMARY FORM: VOLATILES

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :		C0QZ5		C0004		C0006		C0008		C0010		
Sampling Location :		SD-BC-02		SD-BC-04		SD-BC-05		SD-BC-06		SD-CC-08		
Field QC:		Dupl. of C0024										
Matrix :		Soil		Soil		Soil		Soil		Soil		
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		
Date Sampled :		07/31/2002		07/30/2002		07/30/2002		07/30/2002		07/30/2002		
Time Sampled :		09:50		11:50		12:55		14:35		15:50		
%Moisture :		14		21		20		20		17		
Dilution Factor :		1.0		1.0		1.0		1.0		1.0		
Volatile Compound		CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-Hexanone		10										
Dibromochloromethane		10										
1,2-Dibromoethane		10										
Chlorobenzene		10										
Ethylbenzene		10										
Xylenes (total)		10										
Styrene		10										
Bromoform		10										
Isopropylbenzene		10										
1,1,2,2-Tetrachloroethane		10										
1,3-Dichlorobenzene		10										
1,4-Dichlorobenzene		10										
1,2-Dichlorobenzene		10										
1,2-Dibromo-3-chloropropane		10										
1,2,4-Trichlorobenzene		10										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

Revised 09/99

Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK.

Sample Number :	C0QZ5	C0004		C0006		C0008		C0010			
Sampling Location :	SD-BC-02	SD-BC-04		SD-BC-05		SD-BC-06		SD-CC-08			
Field QC:	Dupl. of C0024										
Matrix :	Soil	Soil		Soil		Soil		Soil			
Units :	ug/Kg	ug/Kg		ug/Kg		ug/Kg		ug/Kg			
Date Sampled :	07/31/2002	07/30/2002		07/30/2002		07/30/2002		07/30/2002			
Time Sampled :	09:50	11:50		12:55		14:35		15:50			
%Moisture :	14	21		20		20		17			
pH :	7.8	8.0		8.7		8.2		8.0			
Dilution Factor :	0.98	0.99		0.99		0.99		0.98			
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	330										
Phenol	330										
bis-(2-Chloroethyl) ether	330										
2-Chlorophenol	330										
2-Methylphenol	330										
2,2'-oxybis(1-Chloropropane)	330										
Acetophenone	330										
4-Methylphenol	330							500			
N-Nitroso-di-n-propylamine	330										
Hexachloroethane	330										
Nitrobenzene	330										
Isophorone	330										
2-Nitrophenol	330										
2,4-Dimethylphenol	330										
bis(2-Chloroethoxy)methane	330										
2,4-Dichlorophenol	330										
Naphthalene	330										
4-Chloroaniline	330										
Hexachlorobutadiene	330										
Caprolactam	330										
4-Chloro-3-methylphenol	330										
2-Methylnaphthalene	330										
Hexachlorocyclopentadiene	330										
2,4,6-Trichlorophenol	330										
2,4,5-Trichlorophenol	830										
1,1'-Biphenyl	330										
2-Chloronaphthalene	330										
2-Nitroaniline	830										
Dimethylphthalate	330										
2,6-Dinitrotoluene	330										
Acenaphthylene	330			92	J	23	J	86	J		
3-Nitroaniline	830										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

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DATA SUMMARY FORM: VOLATILES

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :		C0012		C0014		C0018		C0019		C0020	
Sampling Location :		SD-CC-07		SD-BC-01		SD-BC-03		SD-CT-09		SD-CT-10	
Field QC:											
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		07/30/2002		07/31/2002		07/31/2002		07/31/2002		07/31/2002	
Time Sampled :		16:50		08:55		10:50		12:10		12:50	
%Moisture :		14		17		16		10		30	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	10								UJ		UJ
Chloromethane	10										UJ
Vinyl Chloride	10										UJ
Bromomethane	10										UJ
Chloroethane	10										UJ
Trichlorofluoromethane	10										UJ
1,1-Dichloroethene	10										UJ
1,1,2-Trichloro-1,2,2-trifluoroethane	10										UJ
Acetone	10										UJ
Carbon Disulfide	10										UJ
Methyl Acetate	10										UJ
Methylene Chloride	10							14	B		UJ
trans-1,2-Dichloroethene	10										UJ
Methyl tert-Butyl Ether	10										UJ
1,1-Dichloroethane	10										UJ
cis-1,2-Dichloroethene	10										UJ
2-Butanone	10										UJ
Chloroform	10										UJ
1,1,1-Trichloroethane	10										UJ
Cyclohexane	10										UJ
Carbon Tetrachloride	10										UJ
Benzene	10										UJ
1,2-Dichloroethane	10										UJ
Trichloroethene	10										UJ
Methylcyclohexane	10										UJ
1,2-Dichloropropane	10										UJ
Bromodichloromethane	10										UJ
cis-1,3-Dichloropropene	10										UJ
4-Methyl-2-pentanone	10										UJ
Toluene	10										UJ
trans-1,3-Dichloropropene	10										UJ
1,1,2-Trichloroethane	10										UJ
Tetrachloroethene	10										UJ

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

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DATA SUMMARY FORM: VOLATILES

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :		C0012		C0014		C0018		C0019		C0020		
Sampling Location :		SD-CC-07		SD-BC-01		SD-BC-03		SD-CT-09		SD-CT-10		
Field QC:												
Matrix :		Soil		Soil		Soil		Soil		Soil		
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		
Date Sampled :		07/30/2002		07/31/2002		07/31/2002		07/31/2002		07/31/2002		
Time Sampled :		16:50		08:55		10:50		12:10		12:50		
%Moisture :		14		17		16		10		30		
Dilution Factor :		1.0		1.0		1.0		1.0		1.0		
Volatile Compound		CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-Hexanone		10										UJ
Dibromochloromethane		10										UJ
1,2-Dibromoethane		10										UJ
Chlorobenzene		10										UJ
Ethylbenzene		10										UJ
Xylenes (total)		10										UJ
Styrene		10										UJ
Bromoform		10										UJ
Isopropylbenzene		10										UJ
1,1,2,2-Tetrachloroethane		10										UJ
1,3-Dichlorobenzene		10										UJ
1,4-Dichlorobenzene		10										UJ
1,2-Dichlorobenzene		10										UJ
1,2-Dibromo-3-chloropropane		10										UJ
1,2,4-Trichlorobenzene		10										UJ

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

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DATA SUMMARY FORM: VOLATILES

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :		C0021		C0024		C0026		C0027		C0028	
Sampling Location :		SD-CT-11		DUPSD-01		SS-19		SB-19-0206		SS-20	
Field QC:				Dupl. of C0025		Dupl. of C0035		Dupl. of C0036			
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		07/31/2002		07/31/2002		08/01/2002		08/01/2002		08/01/2002	
Time Sampled :		13:20		12:01		11:15		11:30		12:15	
%Moisture :		12		14		7		10		6	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Volatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Dichlorodifluoromethane	10		UJ		UJ		UJ				UJ
Chloromethane	10		UJ								
Vinyl Chloride	10		UJ								
Bromomethane	10		UJ								
Chloroethane	10		UJ								
Trichlorofluoromethane	10		UJ								
1,1-Dichloroethene	10		UJ								
1,1,2-Trichloro-1,2,2-trifluoroethane	10		UJ								
Acetone	10		UJ								
Carbon Disulfide	10		UJ								
Methyl Acetate	10		UJ								
Methylene Chloride	10		UJ	15	B	13	B			13	B
trans-1,2-Dichloroethene	10		UJ								
Methyl tert-Butyl Ether	10		UJ								
1,1-Dichloroethane	10		UJ								
cis-1,2-Dichloroethene	10		UJ								
2-Butanone	10		UJ								
Chloroform	10		UJ								
1,1,1-Trichloroethane	10		UJ								UJ
Cyclohexane	10		UJ								UJ
Carbon Tetrachloride	10		UJ								UJ
Benzene	10		UJ								UJ
1,2-Dichloroethane	10		UJ								
Trichloroethene	10		UJ								UJ
Methylcyclohexane	10		UJ								UJ
1,2-Dichloropropane	10		UJ								UJ
Bromodichloromethane	10		UJ								UJ
cis-1,3-Dichloropropene	10		UJ								UJ
4-Methyl-2-pentanone	10		UJ								UJ
Toluene	10		UJ								UJ
trans-1,3-Dichloropropene	10		UJ								UJ
1,1,2-Trichloroethane	10		UJ								UJ
Tetrachloroethene	10		UJ								UJ

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

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DATA SUMMARY FORM: VOLATILES

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :		C0021		C0024		C0026		C0027		C0028		
Sampling Location :		SD-CT-11		DUPSD-01		SS-19		SB-19-0206		SS-20		
Field QC:				Dupl. of C0QZ5		Dupl. of C0035		Dupl. of C0036				
Matrix :		Soil		Soil		Soil		Soil		Soil		
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		
Date Sampled :		07/31/2002		07/31/2002		08/01/2002		08/01/2002		08/01/2002		
Time Sampled :		13:20		12:01		11:15		11:30		12:15		
%Moisture :		12		14		7		10		6		
Dilution Factor :		1.0		1.0		1.0		1.0		1.0		
Volatile Compound		CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-Hexanone		10		UJ								UJ
Dibromochloromethane		10		UJ								UJ
1,2-Dibromoethane		10		UJ								UJ
Chlorobenzene		10		UJ								UJ
Ethylbenzene		10		UJ								UJ
Xylenes (total)		10		UJ								UJ
Styrene		10		UJ								UJ
Bromoform		10		UJ								UJ
Isopropylbenzene		10		UJ								UJ
1,1,2,2-Tetrachloroethane		10		UJ								UJ
1,3-Dichlorobenzene		10		UJ								UJ
1,4-Dichlorobenzene		10		UJ								UJ
1,2-Dichlorobenzene		10		UJ								UJ
1,2-Dibromo-3-chloropropane		10		UJ								UJ
1,2,4-Trichlorobenzene		10		UJ								UJ

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

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Number of Soil Samples : 20

Number of Water Samples : 0

SWOK

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DATA SUMMARY FORM: VOLATILES

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :		C0029		C0030		C0031		C0035		C0036		
Sampling Location :		SB-20-0206		SS-21		SB-21-0206		SS-DUP-01		SB-DUP-01		
Field QC:								Dupl. of C0026		Dupl. of C0027		
Matrix :		Soil		Soil		Soil		Soil		Soil		
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		
Date Sampled :		08/01/2002		08/01/2002		08/01/2002		08/01/2002		08/01/2002		
Time Sampled :		12:30		13:30		13:50		12:00		12:01		
%Moisture :		5		4		6		7		8		
Dilution Factor :		1.0		1.0		1.0		1.0		1.0		
Volatile Compound		CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
2-Hexanone		10										
Dibromochloromethane		10										
1,2-Dibromoethane		10										
Chlorobenzene		10										
Ethylbenzene		10										
Xylenes (total)		10										
Styrene		10										
Bromoform		10										
Isopropylbenzene		10										
1,1,2,2-Tetrachloroethane		10										
1,3-Dichlorobenzene		10										
1,4-Dichlorobenzene		10										
1,2-Dichlorobenzene		10										
1,2-Dibromo-3-chloropropane		10										
1,2,4-Trichlorobenzene		10										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: $(CRQL * Dilution Factor) / (100 - \%Moisture) / 100$

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DATA SUMMARY FORM: BNA

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Case #: 30790

SDG : C0001

Number of Soil Samples : 0

Site :

VALMONT TCE

Number of Water Samples : 12

Lab. :

SWOK.

Sample Number :		C0003		C0005		C0007		C0009		C0011	
Sampling Location :		SW-BC-04		SW-BC-05		SW-BC-06		SW-CC-08		SW-CC-07	
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units :		ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :		07/30/2002		07/30/2002		07/30/2002		07/30/2002		07/30/2002	
Time Sampled :		11:45		12:45		14:25		15:45		16:40	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	10					1	J				
Phenol	10										
bis-(2-Chloroethyl) ether	10										
2-Chlorophenol	10										
2-Methylphenol	10										
2,2'-oxybis(1-Chloropropane)	10										
Acetophenone	10										
4-Methylphenol	10										
N-Nitroso-di-n-propylamine	10										
Hexachloroethane	10										
Nitrobenzene	10										
Isophorone	10										
2-Nitrophenol	10										
2,4-Dimethylphenol	10										
bis(2-Chloroethoxy)methane	10										
2,4-Dichlorophenol	10					0.6	J				
Naphthalene	10										
4-Chloroaniline	10										
Hexachlorobutadiene	10										
Caprolactam	10										
4-Chloro-3-methylphenol	10										
2-Methylnaphthalene	10										
Hexachlorocyclopentadiene	10										
2,4,6-Trichlorophenol	10										
2,4,5-Trichlorophenol	25										
1,1'-Biphenyl	10										
2-Chloronaphthalene	10										
2-Nitroaniline	25										
Dimethylphthalate	10										
2,6-Dinitrotoluene	10										
Acenaphthylene	10										
3-Nitroaniline	25										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

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Case #: 30790

SDG : C0001

Number of Soil Samples : 0

Site :

VALMONT TCE

Number of Water Samples : 12

Lab. :

SWOK

Sample Number :		C0003		C0005		C0007		C0009		C0011	
Sampling Location :		SW-BC-04		SW-BC-05		SW-BC-06		SW-CC-08		SW-CC-07	
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units :		ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :		07/30/2002		07/30/2002		07/30/2002		07/30/2002		07/30/2002	
Time Sampled :		11:45		12:45		14:25		15:45		16:40	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Acenaphthene	10										
2,4-Dinitrophenol	25										
4-Nitrophenol	25										
Dibenzofuran	10										
2,4-Dinitrotoluene	10										
Diethylphthalate	10									1	J
Fluorene	10										
4-Chlorophenyl-phenyl ether	10										
4-Nitroaniline	25										
4,6-Dinitro-2-methylphenol	25										
N-Nitrosodiphenylamine	10										
4-Bromophenyl-phenylether	10										
*Hexachlorobenzene	10										
Atrazine	10										
*Pentachlorophenol	25										
Phenanthrene	10										
Anthracene	10										
Carbazole	10										
Di-n-butylphthalate	10	0.6	J			0.6	J			0.5	J
Fluoranthene	10										
Pyrene	10										
Butylbenzylphthalate	10										
3,3'-Dichlorobenzidine	10										
Benzo(a)anthracene	10										
Chrysene	10										
bis(2-Ethylhexyl)phthalate	10	1	B	3	B	14	B	11	B	11	B
Di-n-octylphthalate	10										
Benzo(b)fluoranthene	10										
Benzo(k)fluoranthene	10										
Benzo(a)pyrene	10										
Indeno(1,2,3-cd)pyrene	10										
Dibenzo(a,h)anthracene	10										
Benzo(g,h,i)perylene	10										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

Revised 09/99

Case #: 30790

SDG : C0001

Number of Soil Samples : 0

Site :

VALMONT TCE

Number of Water Samples : 12

Lab. :

SWOK

Sample Number :		C0013		C0015		C0016		C0022		C0023	
Sampling Location :		SW-BC-01		SW-BC-02		SW-BC-03		FB-01		DUPSW-01	
Field QC:				Dupl. of C0023				Field Blank		Dupl. of C0015	
Matrix :		Water		Water		Water		Water		Water	
Units :		ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :		07/31/2002		07/31/2002		07/31/2002		07/31/2002		07/31/2002	
Time Sampled :		08:45		09:40		10:35		11:00		12:00	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	10										
Phenol	10										
bis-(2-Chloroethyl) ether	10										
2-Chlorophenol	10										
2-Methylphenol	10										
2,2'-oxybis(1-Chloropropane)	10										
Acetophenone	10										
4-Methylphenol	10										
N-Nitroso-di-n-propylamine	10										
Hexachloroethane	10										
Nitrobenzene	10										
Isophorone	10										
2-Nitrophenol	10										
2,4-Dimethylphenol	10										
bis(2-Chloroethoxy)methane	10										
2,4-Dichlorophenol	10										
Naphthalene	10										
4-Chloroaniline	10										
Hexachlorobutadiene	10										
Caprolactam	10	0.8	J	0.9	J						
4-Chloro-3-methylphenol	10										
2-Methylnaphthalene	10										
Hexachlorocyclopentadiene	10										
2,4,6-Trichlorophenol	10										
2,4,5-Trichlorophenol	25										
1,1'-Biphenyl	10										
2-Chloronaphthalene	10										
2-Nitroaniline	25										
Dimethylphthalate	10										
2,6-Dinitrotoluene	10										
Acenaphthylene	10										
3-Nitroaniline	25										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

Revised 09/99

Case #: 30790

SDG : C0001

Number of Soil Samples : 0

Site :

VALMONT TCE

Number of Water Samples : 12

Lab. :

SWOK

Sample Number :		C0013		C0015		C0016		C0022		C0023	
Sampling Location :		SW-BC-01		SW-BC-02		SW-BC-03		FB-01		DUPSW-01	
Field QC:				Dupl. of C0023				Field Blank		Dupl. of C0015	
Matrix :		Water		Water		Water		Water		Water	
Units :		ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :		07/31/2002		07/31/2002		07/31/2002		07/31/2002		07/31/2002	
Time Sampled :		08:45		09:40		10:35		11:00		12:00	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Acenaphthene	10										
2,4-Dinitrophenol	25										
4-Nitrophenol	25										
Dibenzofuran	10										
2,4-Dinitrotoluene	10										
Diethylphthalate	10	0.8	J	0.5	J	0.7	J				
Fluorene	10										
4-Chlorophenyl-phenyl ether	10										
4-Nitroaniline	25										
4,6-Dinitro-2-methylphenol	25										
N-Nitrosodiphenylamine	10										
4-Bromophenyl-phenylether	10										
*Hexachlorobenzene	10										
Atrazine	10										
*Pentachlorophenol	25										
Phenanthrene	10										
Anthracene	10										
Carbazole	10										
Di-n-butylphthalate	10										
Fluoranthene	10										
Pyrene	10										
Butylbenzylphthalate	10										
3,3'-Dichlorobenzidine	10										
Benzo(a)anthracene	10										
Chrysene	10										
bis(2-Ethylhexyl)phthalate	10	8	B	10	B	6	B	2	B	1	B
Di-n-octylphthalate	10										
Benzo(b)fluoranthene	10										
Benzo(k)fluoranthene	10										
Benzo(a)pyrene	10										
Indeno(1,2,3-cd)pyrene	10										
Dibenzo(a,h)anthracene	10										
Benzo(g,h,i)perylene	10										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

Revised 09/99

Case #: 30790

SDG : C0001

Number of Soil Samples : 0

Site :

VALMONT TCE

Number of Water Samples : 12

Lab. :

SWOK

Sample Number :		C0025	C0037								
Sampling Location :		DECON-01	RB-01								
Field QC:			Rinsate Blank								
Matrix :		Water	Water								
Units :		ug/L	ug/L								
Date Sampled :		07/31/2002	08/02/2002								
Time Sampled :		14:10	08:00								
Dilution Factor :		1.0	1.0								
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	10										
Phenol	10		R								
bis-(2-Chloroethyl) ether	10										
2-Chlorophenol	10		R								
2-Methylphenol	10		R								
2,2'-oxybis(1-Chloropropane)	10										
Acetophenone	10										
4-Methylphenol	10		R								
N-Nitroso-di-n-propylamine	10										
Hexachloroethane	10										
Nitrobenzene	10										
Isophorone	10										
2-Nitrophenol	10		R								
2,4-Dimethylphenol	10		R								
bis(2-Chloroethoxy)methane	10										
2,4-Dichlorophenol	10		R								
Naphthalene	10										
4-Chloroaniline	10										
Hexachlorobutadiene	10										
Caprolactam	10										
4-Chloro-3-methylphenol	10		R								
2-Methylnaphthalene	10										
Hexachlorocyclopentadiene	10										
2,4,6-Trichlorophenol	10		R								
2,4,5-Trichlorophenol	25		R								
1,1'-Biphenyl	10										
2-Chloronaphthalene	10										
2-Nitroaniline	25										
Dimethylphthalate	10										
2,6-Dinitrotoluene	10										
Acenaphthylene	10										
3-Nitroaniline	25										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

Revised 09/99

Case #: 30790

SDG : C0001

Number of Soil Samples : 0

Site :

VALMONT TCE

Number of Water Samples : 12

Lab. :

SWOK

Sample Number :		C0025		C0037							
Sampling Location :		DECON-01		RB-01							
Field QC:				Rinsate Blank							
Matrix :		Water		Water							
Units :		ug/L		ug/L							
Date Sampled :		07/31/2002		08/02/2002							
Time Sampled :		14:10		08:00							
Dilution Factor :		1.0		1.0							
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Acenaphthene	10										
2,4-Dinitrophenol	25		R								
4-Nitrophenol	25		R								
Dibenzofuran	10										
2,4-Dinitrotoluene	10										
Diethylphthalate	10										
Fluorene	10										
4-Chlorophenyl-phenyl ether	10										
4-Nitroaniline	25										
4,6-Dinitro-2-methylphenol	25		R								
N-Nitrosodiphenylamine	10										
4-Bromophenyl-phenylether	10										
*Hexachlorobenzene	10										
Atrazine	10										
*Pentachlorophenol	25		R								
Phenanthrene	10										
Anthracene	10										
Carbazole	10										
Di-n-butylphthalate	10										
Fluoranthene	10										
Pyrene	10										
Butylbenzylphthalate	10										
3,3'-Dichlorobenzidine	10										
Benzo(a)anthracene	10										
Chrysene	10										
bis(2-Ethylhexyl)phthalate	10	4	B	5	B						
Di-n-octylphthalate	10										
Benzo(b)fluoranthene	10										
Benzo(k)fluoranthene	10										
Benzo(a)pyrene	10										
Indeno(1,2,3-cd)pyrene	10										
Dibenzo(a,h)anthracene	10										
Benzo(g,h,i)perylene	10										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

Revised 09/99

Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :	C0QZ5	C0004	C0006	C0008	C0010						
Sampling Location :	SD-BC-02	SD-BC-04	SD-BC-05	SD-BC-06	SD-CC-08						
Field QC:	Dupl. of C0024										
Matrix :	Soil	Soil	Soil	Soil	Soil						
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg						
Date Sampled :	07/31/2002	07/30/2002	07/30/2002	07/30/2002	07/30/2002						
Time Sampled :	09:50	11:50	12:55	14:35	15:50						
%Moisture :	14	21	20	20	17						
pH :	7.8	8.0	8.7	8.2	8.0						
Dilution Factor :	0.98	0.99	0.99	0.99	0.98						
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	330										
Phenol	330										
bis-(2-Chloroethyl) ether	330										
2-Chlorophenol	330										
2-Methylphenol	330										
2,2'-oxybis(1-Chloropropane)	330										
Acetophenone	330										
4-Methylphenol	330							500			
N-Nitroso-di-n-propylamine	330										
Hexachloroethane	330										
Nitrobenzene	330										
Isophorone	330										
2-Nitrophenol	330										
2,4-Dimethylphenol	330										
bis(2-Chloroethoxy)methane	330										
2,4-Dichlorophenol	330										
Naphthalene	330										
4-Chloroaniline	330										
Hexachlorobutadiene	330										
Caprolactam	330										
4-Chloro-3-methylphenol	330										
2-Methylnaphthalene	330										
Hexachlorocyclopentadiene	330										
2,4,6-Trichlorophenol	330										
2,4,5-Trichlorophenol	830										
1,1'-Biphenyl	330										
2-Chloronaphthalene	330										
2-Nitroaniline	830										
Dimethylphthalate	330										
2,6-Dinitrotoluene	330										
Acenaphthylene	330			92	J	23	J	86	J		
3-Nitroaniline	830										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

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DATA SUMMARY FORM: BNA

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :	C00Z5	C0004		C0006		C0008		C0010			
Sampling Location :	SD-BC-02	SD-BC-04		SD-BC-05		SD-BC-06		SD-CC-08			
Field QC:	Dupl. of C0024										
Matrix :	Soil	Soil		Soil		Soil		Soil			
Units :	ug/Kg	ug/Kg		ug/Kg		ug/Kg		ug/Kg			
Date Sampled :	07/31/2002	07/30/2002		07/30/2002		07/30/2002		07/30/2002			
Time Sampled :	09:50	11:50		12:55		14:35		15:50			
%Moisture :	14	21		20		20		17			
pH :	7.8	8.0		8.7		8.2		8.0			
Dilution Factor :	0.98	0.99		0.99		0.99		0.98			
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Acenaphthene	330			23	J						
2,4-Dinitrophenol	830										
4-Nitrophenol	830										
Dibenzofuran	330										
2,4-Dinitrotoluene	330										
Diethylphthalate	330							23	J	21	J
Fluorene	330			40	J			54	J		
4-Chlorophenyl-phenyl ether	330										
4-Nitroaniline	830										
4,6-Dinitro-2-methylphenol	830										
N-Nitrosodiphenylamine	330										
4-Bromophenyl-phenylether	330										
Hexachlorobenzene	330										
Atrazine	330										
Pentachlorophenol	830										
Phenanthrene	330	98	J	570		260	J	520			
Anthracene	330			130	J	38	J	110	J		
Carbazole	330			56	J			57	J		
Di-n-butylphthalate	330	38	J	57	J	36	J	49	J	32	J
Fluoranthene	330	140	J	870		270	J	840		34	J
Pyrene	330	150	J	1200		340	J	880		26	J
Butylbenzylphthalate	330			250	J	190	J			27	J
3,3'-Dichlorobenzidine	330										
Benzo(a)anthracene	330	53	J	670		140	J	410			
Chrysene	330	78	J	710		170	J	430			
bis(2-Ethylhexyl)phthalate	330	84	B	330	B	460	B	730	B	66	B
Di-n-octylphthalate	330										
Benzo(b)fluoranthene	330	64	J	1200		260	J	710		30	J
Benzo(k)fluoranthene	330	34	J								
Benzo(a)pyrene	330	54	J	650		130	J	390	J		
Indeno(1,2,3-cd)pyrene	330	59	J	560		120	J	380	J		
Dibenzo(a,h)anthracene	330			150	J	33	J	78	J		
Benzo(g,h,i)perylene	330	37	J	480		110	J	230	J		

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

Revised 09/99

DATA SUMMARY FORM: BNA

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :		C0012		C0014		C0018		C0019		C0020		
Sampling Location :		SD-CC-07		SD-BC-01		SD-BC-03		SD-CT-09		SD-CT-10		
Field QC:												
Matrix :		Soil		Soil		Soil		Soil		Soil		
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg		
Date Sampled :		07/30/2002		07/31/2002		07/31/2002		07/31/2002		07/31/2002		
Time Sampled :		16:50		08:55		10:50		12:10		12:50		
%Moisture :		14		17		16		10		30		
pH :		8.1		7.9		8.0		7.9		7.8		
Dilution Factor :		0.99		1.00		0.99		1.99		1.98 / 4.95		
Semivolatile Compound		CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde		330										
Phenol		330										
bis-(2-Chloroethyl) ether		330										
2-Chlorophenol		330										
2-Methylphenol		330										
2,2'-oxybis(1-Chloropropane)		330										
Acetophenone		330										
4-Methylphenol		330					28	J				
N-Nitroso-di-n-propylamine		330										
Hexachloroethane		330										
Nitrobenzene		330										
Isophorone		330										
2-Nitrophenol		330										
2,4-Dimethylphenol		330										
bis(2-Chloroethoxy)methane		330										
2,4-Dichlorophenol		330										
Naphthalene		330										
4-Chloroaniline		330										
Hexachlorobutadiene		330										
Caprolactam		330										
4-Chloro-3-methylphenol		330										
2-Methylnaphthalene		330							38	J		
Hexachlorocyclopentadiene		330										
2,4,6-Trichlorophenol		330										
2,4,5-Trichlorophenol		830										
1,1'-Biphenyl		330										
2-Chloronaphthalene		330										
2-Nitroaniline		830										
Dimethylphthalate		330										
2,6-Dinitrotoluene		330										
Acenaphthylene		330					26	J			100	J
3-Nitroaniline		830										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

Revised 09/99

Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :		C0012		C0014		C0018		C0019		C0020	
Sampling Location :		SD-CC-07		SD-BC-01		SD-BC-03		SD-CT-09		SD-CT-10	
Field QC:											
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		07/30/2002		07/31/2002		07/31/2002		07/31/2002		07/31/2002	
Time Sampled :		16:50		08:55		10:50		12:10		12:50	
%Moisture :		14		17		16		10		30	
pH :		8.1		7.9		8.0		7.9		7.8	
Dilution Factor :		0.99		1.00		0.99		1.99		1.98 / 4.95	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Acenaphthene	330							92	J	150	J
2,4-Dinitrophenol	830										
4-Nitrophenol	830										
Dibenzofuran	330							62	J	150	J
2,4-Dinitrotoluene	330										
Diethylphthalate	330										
Fluorene	330					22	J	120	J	210	J
4-Chlorophenyl-phenyl ether	330										
4-Nitroaniline	830										
4,6-Dinitro-2-methylphenol	830										
N-Nitrosodiphenylamine	330										
4-Bromophenyl-phenylether	330										
Hexachlorobenzene	330										
Atrazine	330										
Pentachlorophenol	830										
Phenanthrene	330					290	J	2000		7800	
Anthracene	330					64	J	200	J	670	J
Carbazole	330					29	J			1800	J
Di-n-butylphthalate	330	24	J	27	J	22	J	170	J	560	J
Fluoranthene	330					510		2900		23000 +	
Pyrene	330					510		3300		28000 +	
Butylbenzylphthalate	330							2200		970	J
3,3'-Dichlorobenzidine	330										
Benzo(a)anthracene	330					210	J	1100		5800	
Chrysene	330					250	J	1900		13000	
bis(2-Ethylhexyl)phthalate	330	68	B	33	B	240	B	1300	B	1500	B
Di-n-octylphthalate	330										
Benzo(b)fluoranthene	330					240	J	2800		31000 +	
Benzo(k)fluoranthene	330					140	J			6700	
Benzo(a)pyrene	330					210	J	1400		10000	
Indeno(1,2,3-cd)pyrene	330					180	J	1600		17000 +	
Dibenzo(a,h)anthracene	330							330	J	3000	
Benzo(g,h,i)perylene	330					130	J	1300		13000	

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

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+ results reported from diluted analysis

Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :		C0021		C0024		C0026		C0027		C0028	
Sampling Location :		SD-CT-11		DUPSD-01		SS-19		SB-19-0206		SS-20	
Field QC:				Dupl. of C0QZ5		Dupl. of C0035		Dupl. of C0036			
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		07/31/2002		07/31/2002		08/01/2002		08/01/2002		08/01/2002	
Time Sampled :		13:20		12:01		11:15		11:30		12:15	
%Moisture :		12		14		7		10		6	
pH :		7.2		8.1		7.9		7.8		6.9	
Dilution Factor :		1.97		0.99		1.00		0.99		1.00	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	330										
Phenol	330										
bis-(2-Chloroethyl) ether	330										
2-Chlorophenol	330										
2-Methylphenol	330										
2,2'-oxybis(1-Chloropropane)	330										
Acetophenone	330										
4-Methylphenol	330										
N-Nitroso-di-n-propylamine	330										
Hexachloroethane	330										
Nitrobenzene	330										
Isophorone	330										
2-Nitrophenol	330										
2,4-Dimethylphenol	330										
bis(2-Chloroethoxy)methane	330										
2,4-Dichlorophenol	330										
Naphthalene	330										
4-Chloroaniline	330										
Hexachlorobutadiene	330										
Caprolactam	330										
4-Chloro-3-methylphenol	330										
2-Methylnaphthalene	330										
Hexachlorocyclopentadiene	330										
2,4,6-Trichlorophenol	330										
2,4,5-Trichlorophenol	830										
1,1'-Biphenyl	330							20	J		
2-Chloronaphthalene	330										
2-Nitroaniline	830										
Dimethylphthalate	330										
2,6-Dinitrotoluene	330										
Acenaphthylene	330	39	J	23	J						
3-Nitroaniline	830										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

Revised 09/99

Case #: 30790

SDG: C0004

Number of Soil Samples: 20

Site:

VALMONT TCE

Number of Water Samples: 0

Lab.:

SWOK

Sample Number :	C0021			C0024		C0026		C0027		C0028	
Sampling Location :	SD-CT-11			DUPSD-01		SS-19		SB-19-0206		SS-20	
Field QC:				Dupl. of C0025		Dupl. of C0035		Dupl. of C0036			
Matrix :	Soil			Soil		Soil		Soil		Soil	
Units :	ug/Kg			ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :	07/31/2002			07/31/2002		08/01/2002		08/01/2002		08/01/2002	
Time Sampled :	13:20			12:01		11:15		11:30		12:15	
%Moisture :	12			14		7		10		6	
pH :	7.2			8.1		7.9		7.8		6.9	
Dilution Factor :	1.97			0.99		1.00		0.99		1.00	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Acenaphthene	330										
2,4-Dinitrophenol	830										
4-Nitrophenol	830										
Dibenzofuran	330										
2,4-Dinitrotoluene	330										
Diethylphthalate	330										
Fluorene	330	48	J	20	J						
4-Chlorophenyl-phenyl ether	330										
4-Nitroaniline	830										
4,6-Dinitro-2-methylphenol	830										
N-Nitrosodiphenylamine	330										
4-Bromophenyl-phenylether	330										
Hexachlorobenzene	330										
Atrazine	330										
Pentachlorophenol	830										
Phenanthrene	330	710	J	320	J	84	J			130	J
Anthracene	330	90	J	50	J						
Carbazole	330	270	J	23	J						
Di-n-butylphthalate	330	55	J	22	J	120	J	28	J	31	J
Fluoranthene	330	1500		440		170	J			210	J
Pyrene	330	1500		550		180	J			220	J
Butylbenzylphthalate	330			27	J	130	J			200	J
3,3'-Dichlorobenzidine	330										
Benzo(a)anthracene	330	450	J	260	J	69	J			73	J
Chrysene	330	1300		310	J	110	J			120	J
bis(2-Ethylhexyl)phthalate	330	270	B	230	B	150	B	45	B	95	B
Di-n-octylphthalate	330										
Benzo(b)fluoranthene	330			450		150	J			190	J
Benzo(k)fluoranthene	330	3100									
Benzo(a)pyrene	330	810		220	J	67	J			90	J
Indeno(1,2,3-cd)pyrene	330	1600		180	J	69	J			92	J
Dibenzo(a,h)anthracene	330	190	J	59	J	21	J			19	J
Benzo(g,h,i)perylene	330	1200		160	J	57	J			83	J

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

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DATA SUMMARY FORM: BNA

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :		C0029		C0030		C0031		C0035		C0036	
Sampling Location :		SB-20-0206		SS-21		SB-21-0206		SS-DUP-01		SB-DUP-01	
Field QC:								Dupl. of C0026		Dupl. of C0027	
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		08/01/2002		08/01/2002		08/01/2002		08/01/2002		08/01/2002	
Time Sampled :		12:30		13:30		13:50		12:00		12:01	
%Moisture :		5		4		6		7		8	
pH :		6.3		7.9		7.0		6.7		6.4	
Dilution Factor :		1.00		0.99		0.99		0.99		1.00	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Benzaldehyde	330										
Phenol	330										
bis-(2-Chloroethyl) ether	330										
2-Chlorophenol	330										
2-Methylphenol	330										
2,2'-oxybis(1-Chloropropane)	330										
Acetophenone	330										
4-Methylphenol	330										
N-Nitroso-di-n-propylamine	330										
Hexachloroethane	330										
Nitrobenzene	330										
Isophorone	330										
2-Nitrophenol	330										
2,4-Dimethylphenol	330										
bis(2-Chloroethoxy)methane	330										
2,4-Dichlorophenol	330										
Naphthalene	330										
4-Chloroaniline	330										
Hexachlorobutadiene	330										
Caprolactam	330										
4-Chloro-3-methylphenol	330										
2-Methylnaphthalene	330										
Hexachlorocyclopentadiene	330										
2,4,6-Trichlorophenol	330										
2,4,5-Trichlorophenol	830										
1,1'-Biphenyl	330										
2-Chloronaphthalene	330										
2-Nitroaniline	830										
Dimethylphthalate	330										
2,6-Dinitrotoluene	330										
Acenaphthylene	330										
3-Nitroaniline	830										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

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DATA SUMMARY FORM: BNA

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :		C0029		C0030		C0031		C0035		C0036	
Sampling Location :		SB-20-0206		SS-21		SB-21-0206		SS-DUP-01		SB-DUP-01	
Field QC:								Dupl. of C0026		Dupl. of C0027	
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		08/01/2002		08/01/2002		08/01/2002		08/01/2002		08/01/2002	
Time Sampled :		12:30		13:30		13:50		12:00		12:01	
%Moisture :		5		4		6		7		8	
pH :		6.3		7.9		7.0		6.7		6.4	
Dilution Factor :		1.00		0.99		0.99		0.99		1.00	
Semivolatile Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Acenaphthene	330										
2,4-Dinitrophenol	830										
4-Nitrophenol	830										
Dibenzofuran	330										
2,4-Dinitrotoluene	330										
Diethylphthalate	330										
Fluorene	330										
4-Chlorophenyl-phenyl ether	330										
4-Nitroaniline	830										
4,6-Dinitro-2-methylphenol	830										
N-Nitrosodiphenylamine	330										
4-Bromophenyl-phenylether	330										
Hexachlorobenzene	330										
Atrazine	330										
Pentachlorophenol	830										
Phenanthrene	330	22	J	31	J			83	J		
Anthracene	330										
Carbazole	330										
Di-n-butylphthalate	330	28	J			42	J	48	J		
Fluoranthene	330	42	J	38	J			130	J		
Pyrene	330	39	J	37	J			140	J		
Butylbenzylphthalate	330	98	J	26	J	190	J	140	J		
3,3'-Dichlorobenzidine	330										
Benzo(a)anthracene	330			23	J			67	J		
Chrysene	330	21	J	27	J			90	J		
bis(2-Ethylhexyl)phthalate	330	64	B	230	B	94	B	100	B	28	B
Di-n-octylphthalate	330										
Benzo(b)fluoranthene	330			29	J			140	J		
Benzo(k)fluoranthene	330										
Benzo(a)pyrene	330							72	J		
Indeno(1,2,3-cd)pyrene	330							72	J		
Dibenzo(a,h)anthracene	330							21	J		
Benzo(g,h,i)perylene	330							54	J		

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

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DATA SUMMARY FORM: PESTICIDES AND PCBS

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Case #: 30790

SDG: C0001

Number of Soil Samples: 0

Site:

VALMONT TCE

Number of Water Samples: 12

Lab.:

SWOK

Sample Number :		C0003		C0005		C0007		C0009		C0011	
Sampling Location :		SW-BC-04		SW-BC-05		SW-BC-06		SW-CC-08		SW-CC-07	
Field QC:											
Matrix :		Water		Water		Water		Water		Water	
Units :		ug/L		ug/L		ug/L		ug/L		ug/L	
Date Sampled :		07/30/2002		07/30/2002		07/30/2002		07/30/2002		07/30/2002	
Time Sampled :		11:45		12:45		14:25		15:45		16:40	
Dilution Factor :		1.0		1.0		1.0		1.0		1.0	
Pesticide/PCB Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	0.050										
beta-BHC	0.050										
delta-BHC	0.050										
*gamma-BHC (Lindane)	0.050										
*Heptachlor	0.050	0.033	B	0.029	B	0.026	B	0.032	B	0.030	B
Aldrin	0.050										
Heptachlor epoxide	0.050										
Endosulfan I	0.050										
Dieldrin	0.10										
4,4'-DDE	0.10										
*Endrin	0.10										
Endosulfan II	0.10										
4,4'-DDD	0.10										
Endosulfan sulfate	0.10										
4,4'-DDT	0.10										
*Methoxychlor	0.50										
Endrin ketone	0.10										
Endrin aldehyde	0.10										
alpha-Chlordane	0.050	0.0074	B	0.0058	B			0.0064	B		
gamma-Chlordane	0.050	0.012	B					0.010	B	0.010	B
*Toxaphene	5.0										
*Aroclor-1016	1.0										
*Aroclor-1221	2.0										
*Aroclor-1232	1.0										
*Aroclor-1242	1.0										
*Aroclor-1248	1.0										
*Aroclor-1254	1.0										
*Aroclor-1260	1.0										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

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DATA SUMMARY FORM: PESTICIDES AND PCBS

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Case #: 30790

SDG : C0001

Number of Soil Samples : 0

Site :

VALMONT TCE

Number of Water Samples : 12

Lab. :

SWOK

Sample Number :	C0013	C0015	C0016	C0022	C0023						
Sampling Location :	SW-BC-01	SW-BC-02	SW-BC-03	FB-01	DUPSW-01						
Field QC:		Dupl. of C0023		Field Blank	Dupl. of C0015						
Matrix :	Water	Water	Water	Water	Water						
Units :	ug/L	ug/L	ug/L	ug/L	ug/L						
Date Sampled :	07/31/2002	07/31/2002	07/31/2002	07/31/2002	07/31/2002						
Time Sampled :	08:45	09:40	10:35	11:00	12:00						
Dilution Factor :	1.0	1.0	1.0	1.0	1.0						
Pesticide/PCB Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	0.050								UJ		
beta-BHC	0.050								UJ		
delta-BHC	0.050								UJ		
*gamma-BHC (Lindane)	0.050								UJ		
*Heptachlor	0.050	0.035	B	0.048	B	0.038	B	0.033	B	0.045	B
Aldrin	0.050								UJ		
Heptachlor epoxide	0.050								UJ		
Endosulfan I	0.050								UJ		
Dieldrin	0.10								UJ		
4,4'-DDE	0.10								UJ		
*Endrin	0.10								UJ		
Endosulfan II	0.10								UJ	0.0039	J
4,4'-DDD	0.10								UJ		
Endosulfan sulfate	0.10								UJ		
4,4'-DDT	0.10								UJ		
*Methoxychlor	0.50								UJ		
Endrin ketone	0.10								UJ		
Endrin aldehyde	0.10								UJ	0.0070	J
alpha-Chlordane	0.050	0.0085	B	0.017	B	0.013	B	0.0075	J	0.020	B
gamma-Chlordane	0.050	0.013	B	0.031	B	0.024	B	0.012	J	0.029	B
*Toxaphene	5.0								UJ		
*Aroclor-1016	1.0								UJ		
*Aroclor-1221	2.0								UJ		
*Aroclor-1232	1.0								UJ		
*Aroclor-1242	1.0								UJ		
*Aroclor-1248	1.0								UJ		
*Aroclor-1254	1.0								UJ		
*Aroclor-1260	1.0								UJ		

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

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DATA SUMMARY FORM: PESTICIDES AND PCBS

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Case #: 30790

SDG : C0001

Number of Soil Samples : 0

Site :

VALMONT TCE

Number of Water Samples : 12

Lab. :

SWOK

Sample Number :		C0025		C0037							
Sampling Location :		DECON-01		RB-01							
Field QC:				Rinsate Blank							
Matrix :		Water		Water							
Units :		ug/L		ug/L							
Date Sampled :		07/31/2002		08/02/2002							
Time Sampled :		14:10		08:00							
Dilution Factor :		1.0		1.0							
Pesticide/PCB Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	0.050										
beta-BHC	0.050										
delta-BHC	0.050										
*gamma-BHC (Lindane)	0.050										
*Heptachlor	0.050	0.030	B	0.035	B						
Aldrin	0.050										
Heptachlor epoxide	0.050										
Endosulfan I	0.050										
Dieldrin	0.10										
4,4'-DDE	0.10										
*Endrin	0.10										
Endosulfan II	0.10										
4,4'-DDD	0.10										
Endosulfan sulfate	0.10										
4,4'-DDT	0.10										
*Methoxychlor	0.50										
Endrin ketone	0.10										
Endrin aldehyde	0.10										
alpha-Chlordane	0.050	0.0055	B	0.0049	J						
gamma-Chlordane	0.050	0.010	B	0.012	J						
*Toxaphene	5.0										
*Aroclor-1016	1.0										
*Aroclor-1221	2.0										
*Aroclor-1232	1.0										
*Aroclor-1242	1.0										
*Aroclor-1248	1.0										
*Aroclor-1254	1.0										
*Aroclor-1260	1.0										

CRQL = Contract Required Quantitation Limit

*Action Level Exists

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor)

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DATA SUMMARY FORM: PESTICIDES AND PCBS

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :	C00Z5	C0004	C0006	C0008	C0010						
Sampling Location :	SD-BC-02	SD-BC-04	SD-BC-05	SD-BC-06	SD-CC-08						
Field QC:	Dupl. of C0024										
Matrix :	Soil	Soil	Soil	Soil	Soil						
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg						
Date Sampled :	07/31/2002	07/30/2002	07/30/2002	07/30/2002	07/30/2002						
Time Sampled :	09:50	11:50	12:55	14:35	15:50						
%Moisture :	14	21	20	20	17						
pH :	7.8	8.0	8.7	8.2	8.0						
Dilution Factor :	0.99	1.00	1.00	0.99	0.99						
Pesticide/PCB Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	1.7										
beta-BHC	1.7										
delta-BHC	1.7					1.3	J				
gamma-BHC (Lindane)	1.7										
Heptachlor	1.7	1.6	B					4.2	B	0.86	B
Aldrin	1.7										
Heptachlor epoxide	1.7										
Endosulfan I	1.7										
Dieldrin	3.3										
4,4'-DDE	3.3			13	J						
Endrin	3.3										
Endosulfan II	3.3			0.41	J						
4,4'-DDD	3.3										
Endosulfan sulfate	3.3							0.89	J		
4,4'-DDT	3.3										
Methoxychlor	17			4.9	J						
Endrin ketone	3.3			1.8	J	0.49	J				
Endrin aldehyde	3.3										
alpha-Chlordane	1.7	0.68	B								
gamma-Chlordane	1.7	1.2	B	1.9	B	1.9	B	3.2	J	0.40	B
Toxaphene	170										
Aroclor-1016	33										
Aroclor-1221	67										
Aroclor-1232	33										
Aroclor-1242	33										
Aroclor-1248	33										
Aroclor-1254	33										
Aroclor-1260	33										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

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DATA SUMMARY FORM: PESTICIDES AND PCBS

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :		C0012		C0014		C0018		C0019		C0020	
Sampling Location :		SD-CC-07		SD-BC-01		SD-BC-03		SD-CT-09		SD-CT-10	
Field QC:											
Matrix :		Soil		Soil		Soil		Soil		Soil	
Units :		ug/Kg		ug/Kg		ug/Kg		ug/Kg		ug/Kg	
Date Sampled :		07/30/2002		07/31/2002		07/31/2002		07/31/2002		07/31/2002	
Time Sampled :		16:50		08:55		10:50		12:10		12:50	
%Moisture :		14		17		16		10		30	
pH :		8.1		7.9		8.0		7.9		7.8	
Dilution Factor :		1.00		1.00		0.99		0.99		1.00	
Pesticide/PCB Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	1.7							0.34	J		
beta-BHC	1.7										
delta-BHC	1.7										
gamma-BHC (Lindane)	1.7										
Heptachlor	1.7	1.0	B	1.1	B	1.9	B				
Aldrin	1.7										
Heptachlor epoxide	1.7										
Endosulfan I	1.7										
Dieldrin	3.3										
4,4'-DDE	3.3					1.1	J			11	J
Endrin	3.3										
Endosulfan II	3.3									6.6	J
4,4'-DDD	3.3					1.0	J				
Endosulfan sulfate	3.3										
4,4'-DDT	3.3					0.90	J				
Methoxychlor	17										
Endrin ketone	3.3									12	J
Endrin aldehyde	3.3										
alpha-Chlordane	1.7										
gamma-Chlordane	1.7	0.51	B	0.57	B	1.3	B				
Toxaphene	170										
Aroclor-1016	33										
Aroclor-1221	67										
Aroclor-1232	33										
Aroclor-1242	33										
Aroclor-1248	33										
Aroclor-1254	33										
Aroclor-1260	33										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

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DATA SUMMARY FORM: PESTICIDES AND PCBS

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :	C0021	C0024	C0026	C0027	C0028						
Sampling Location :	SD-CT-11	DUPSD-01	SS-19	SB-19-0206	SS-20						
Field QC:		Dupl. of C0QZ5	Dupl. of C0035	Dupl. of C0036							
Matrix :	Soil	Soil	Soil	Soil	Soil						
Units :	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg						
Date Sampled :	07/31/2002	07/31/2002	08/01/2002	08/01/2002	08/01/2002						
Time Sampled :	13:20	12:01	11:15	11:30	12:15						
%Moisture :	12	14	7	10	6						
pH :	7.2	8.1	7.9	7.8	6.9						
Dilution Factor :	0.98	1.00	1.00	0.98	1.00						
Pesticide/PCB Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	1.7										
beta-BHC	1.7										
delta-BHC	1.7										
gamma-BHC (Lindane)	1.7										
Heptachlor	1.7					1.5	B	1.3	B	1.3	B
Aldrin	1.7										
Heptachlor epoxide	1.7										
Endosulfan I	1.7										
Dieldrin	3.3					3.9	J			1.1	J
4,4'-DDE	3.3										
Endrin	3.3			2.1	J						
Endosulfan II	3.3										
4,4'-DDD	3.3										
Endosulfan sulfate	3.3										
4,4'-DDT	3.3										
Methoxychlor	17										
Endrin ketone	3.3										
Endrin aldehyde	3.3										
alpha-Chlordane	1.7									0.55	B
gamma-Chlordane	1.7			1.3	B					0.49	B
Toxaphene	170										
Aroclor-1016	33										
Aroclor-1221	67										
Aroclor-1232	33										
Aroclor-1242	33										
Aroclor-1248	33										
Aroclor-1254	33										
Aroclor-1260	33										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

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DATA SUMMARY FORM: PESTICIDES AND PCBS

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Case #: 30790

SDG : C0004

Number of Soil Samples : 20

Site :

VALMONT TCE

Number of Water Samples : 0

Lab. :

SWOK

Sample Number :	C0029	C0030		C0031		C0035		C0036			
Sampling Location :	SB-20-0206	SS-21		SB-21-0206		SS-DUP-01		SB-DUP-01			
Field QC:						Dupl. of C0026		Dupl. of C0027			
Matrix :	Soil	Soil		Soil		Soil		Soil			
Units :	ug/Kg	ug/Kg		ug/Kg		ug/Kg		ug/Kg			
Date Sampled :	08/01/2002	08/01/2002		08/01/2002		08/01/2002		08/01/2002			
Time Sampled :	12:30	13:30		13:50		12:00		12:01			
%Moisture :	5	4		6		7		8			
pH :	6.3	7.9		7.0		6.7		6.4			
Dilution Factor :	0.99	0.99		0.98		1.00		1.00			
Pesticide/PCB Compound	CRQL	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	1.7										
beta-BHC	1.7										
delta-BHC	1.7										
gamma-BHC (Lindane)	1.7										
Heptachlor	1.7	1.6	B	1.5	B	1.3	B	1.3	B	1.6	B
Aldrin	1.7										
Heptachlor epoxide	1.7										
Endosulfan I	1.7										
Dieldrin	3.3							6.0	J		
4,4'-DDE	3.3							0.13	J		
Endrin	3.3										
Endosulfan II	3.3										
4,4'-DDD	3.3										
Endosulfan sulfate	3.3										
4,4'-DDT	3.3										
Methoxychlor	17										
Endrin ketone	3.3										
Endrin aldehyde	3.3										
alpha-Chlordane	1.7	0.44	B			0.69	B				
gamma-Chlordane	1.7			1.0	B					0.81	B
Toxaphene	170										
Aroclor-1016	33										
Aroclor-1221	67										
Aroclor-1232	33										
Aroclor-1242	33										
Aroclor-1248	33										
Aroclor-1254	33										
Aroclor-1260	33										

CRQL = Contract Required Quantitation Limit

SEE NARRATIVE FOR CODE DEFINITIONS

To calculate sample quantitation limits: (CRQL * Dilution Factor) / (100 - %Moisture) / 100

Revised 09/99

Appendix C

Tentatively Identified Compounds

1F
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0001

Lab Name: SWL-TULSA

Contract: 68W99079

TRIP BLANK

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.01

Sample wt/vol: 5 (g/mL) ML

Lab File ID: L080507.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: not dec. _____

Date Analyzed: 08/05/02

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

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

Number TICs found: 1

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	18.48	5	J
2.				
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1F
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0008

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.08

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: L080909.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: not dec. 20

Date Analyzed: 08/10/02

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. 624-92-0	DISULFIDE, DIMETHYL	11.17	40	JN
2.				
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1F
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0021RE

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.25RA

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: L081115.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: not dec. 12

Date Analyzed: 08/12/02

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.	UNKNOWN	14.63	6	J
2.				
3.				
4.				
5.				
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1F
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0028RE

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50475.03RA

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: L081216.D

Level: (low/med) LOW

Date Received: 08/03/02

% Moisture: not dec. 6

Date Analyzed: 08/12/02

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 7397-46-8	BORINIC ACID, DIETHYL-, METH	20.18	12	JN
2. 123-72-8	BUTANAL	20.21	7	JN
3.				
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0003

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.03

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080811.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT
CONCENTRATION UNITS:

Number TICs found: 3

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.21	3	BJ
2.	UNKNOWN	8.28	3	J
3.	UNKNOWN	8.52	4	J
4.				
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DU
9/5/02

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0005

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.05

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080812.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT

CONCENTRATION UNITS:

Number TICs found: 3

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.21	6	BJ
2.	UNKNOWN	8.28	2	J
3.	UNKNOWN	8.52	3	J
4.				
5.				
6.				
7.				
8.				
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W
9/5/02

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA-SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0007

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.07

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080813.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT

Number TICs found: 22

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.21	4	BJ
2. 67-71-0	DIMETHYL SULFONE	4.24	3	JN
3.	UNKNOWN	4.34	3	J
4. 20324-32-7	2-PROPANOL, 1-(2-METHOXY-1-MET	5.14	3	JN
5.	UNKNOWN	5.77	4	J
6. 55956-25-7	2-PROPANOL, 1-[1-METHYL-2-(2-P	8.28	9	JN
7.	UNKNOWN	8.34	7	J
8.	UNKNOWN	8.51	3	J
9. 104-46-1	BENZENE, 1-METHOXY-4-(1-PROPEN	8.83	8	JN
10. 50397-64-3	ACETIC ACID, [(4-METHYLPHENYL)	11.31	3	JN
11.	UNKNOWN	12.65	3	J
12. 70-55-3	BENZENESULFONAMIDE, 4-METHYL-	12.73	3	JN
13.	UNKNOWN	12.81	8	J
14.	UNKNOWN	13.60	4	J
15.	UNKNOWN	13.91	3	J
16.	UNKNOWN	13.97	3	J
17.	UNKNOWN	14.30	7	J
18.	UNKNOWN	17.08	5	J
19.	UNKNOWN	17.15	4	J
20.	UNKNOWN	17.21	3	J
21.	UNKNOWN	17.30	6	J
22.	UNKNOWN	18.00	3	J
23.				
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0009

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.09

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080814.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT

CONCENTRATION UNITS:

Number TICs found: 2

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.21	5	BJ
2.	UNKNOWN	20.36	2	J
3.				
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9/6/02

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0015

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.15

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080906.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT
CONCENTRATION UNITS:

Number TICs found: 5

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.20	6	BJ
2. 5131-66-8	2-PROPANOL, 1-BUTOXY-	4.45	3	JN
3. 3302-10-1	HEXANOIC ACID, 3,5,5-TRIMETHYL	6.97	7	JN
4. 55956-25-7	2-PROPANOL, 1-[1-METHYL-2-(2-P	8.27	9	JN
5. 54305-61-2	2-BUTANOL, 3,3'-OXYBIS-	8.32	6	JN
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0016

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.16

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080907.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT
CONCENTRATION UNITS:

Number TICs found: 6

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.20	6	BJ
2.	UNKNOWN	4.45	2	J
3. 3302-10-1	HEXANOIC ACID, 3,5,5-TRIMETHYL	6.93	2	JN
4. 55956-25-7	2-PROPANOL, 1-[1-METHYL-2-(2-P	8.27	3	JN
5.	UNKNOWN	8.51	5	J
6.	UNKNOWN	20.37	5	J
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9/5/02

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0022

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

FIELD BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 50465.26

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080910.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT

CONCENTRATION UNITS:

Number TICs found: 1

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.21	4	BJ
2.				
3.				
4.				
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DU
9/5/02

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0023

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.27

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080911.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT

CONCENTRATION UNITS:

Number TICs found: 7

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.21	5	BJ
2. 5131-66-8	2-PROPANOL, 1-BUTOXY-	4.45	3	JN
3. 3302-10-1	HEXANOIC ACID, 3,5,5-TRIMETHYL	6.97	7	JN
4. 55956-25-7	2-PROPANOL, 1-[1-METHYL-2-(2-P	8.27	9	JN
5.	UNKNOWN	8.32	6	J
6.	UNKNOWN	8.51	14	J
7.	UNKNOWN	20.38	2	J
8.				
9.				
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0025

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.29

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080912.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Number TICs found: 11

CAS. NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.37	12	J
2.	UNKNOWN	4.21	3	BJ
3.	UNKNOWN	4.85	4	J
4.	UNKNOWN	5.08	2	J
5.	UNKNOWN	5.37	3	J
6.	UNKNOWN	5.89	30	J
7.	UNKNOWN	7.42	39	J
8.	UNKNOWN	7.74	10	J
9.	UNKNOWN	7.86	15	J
10.	UNKNOWN	8.56	4	J
11.	UNKNOWN	9.64	8	J
12.				
13.				
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DU
9/5/02

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0025RE

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.29RE

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: J2081306.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/09/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/13/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT

Number TICs found: 10

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.68	7	J
2.	UNKNOWN	0.78	9	J
3.	UNKNOWN	1.84	3	J
4.	UNKNOWN	2.22	2	J
5.	UNKNOWN	2.67	6	J
6.	UNKNOWN	2.71	18	J
7.	UNKNOWN	3.57	30	J
8.	UNKNOWN	3.85	9	J
9.	UNKNOWN	3.96	10	J
10.	UNKNOWN	5.22	4	J
11.				
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0037

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Rinsate Blank

Matrix: (soil/water) WATER

Lab Sample ID: 50475.09

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080810.D

Level: (low/med) LOW

Date Received: 08/03/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.21	3	BJ
2.				
3.				
4.				
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9/5/02

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0QZ5

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.19

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: J2080913.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 14 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 7.8

Extraction: (Type) SONC
CONCENTRATION UNITS:

Number TICs found: 22

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.73	640	BJ
2. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY	0.89	13000	ADJN
3.	UNKNOWN	1.52	460	BJ
4.	UNKNOWN	1.74	740	BJ
5.	UNKNOWN	2.65	1800	J
6.	UNKNOWN	2.80	550	BJ
7. 544-63-8	TETRADECANOIC ACID	10.60	980	JN
8. 112-41-4	1-DODECENE	11.69	750	JN
9. 112-88-9	1-OCTADECENE	12.54	450	JN
10. 7773-83-3	1-DOCOSANETHIOL	13.66	1300	JN
11. 112-85-6	DOCOSANOIC ACID	14.07	460	JN
12.	UNKNOWN	15.07	740	J
13. 6624-79-9	1-DOTRIACONTANOL	15.65	820	JN
14.	2-HEPTACOSANONE	15.73	2100	JN
15. 7616-22-0	.GAMMA.-TOCOPHEROL	16.33	630	JN
16.	UNKNOWN	16.43	650	J
17.	UNKNOWN	16.63	1100	J
18. 83-47-6	.GAMMA.-SITOSTEROL	17.40	1900	JN
19.	UNKNOWN	17.72	630	J
20.	UNKNOWN	17.77	750	J
21. 123-28-4	PROPANOIC ACID, 3,3'-THIOBIS-	18.61	630	BJN
22.	UNKNOWN	19.19	1500	J
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0004

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.04

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: J2080920.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 21 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 22

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.72	400	BJ
2. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHYL	0.88	12000	ABJN
3.	UNKNOWN	1.38	280	BJ
4.	UNKNOWN	1.52	1700	BJ
5.	UNKNOWN	1.74	690	BJ
6.	UNKNOWN	2.66	2500	J
7.	UNKNOWN	3.19	400	J
8.	UNKNOWN	3.94	330	J
9. 57-10-3	HEXADECANOIC ACID	10.60	580	JN
10.	UNKNOWN AMIDE	12.96	1200	BJ
11.	10-HENEICOSENE (C,T)	13.67	460	JN
12. 112-88-9	1-OCTADECENE	14.71	670	JN
13.	UNKNOWN AMIDE	15.09	1100	J
14. 207-08-9	BENZO[K]FLUORANTHENE	15.27	500	JN
15. 40710-32-5	NONAHEXACONTANOIC ACID	15.65	490	JN
16.	UNKNOWN	15.74	310	J
17.	UNKNOWN	16.22	320	J
18.	UNKNOWN	16.43	530	J
19.	UNKNOWN	17.40	690	J
20. 2034-72-2	STIGMASTA-3,5-DIEN-7-ONE	17.77	370	JN
21.	3,4:8,9-DIBENZPYRENE	18.24	300	JN
22.	UNKNOWN	18.38	400	J
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24.				
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0006

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.06

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: J2080915.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 20 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 8.7

Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 24

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.73	1300	BJ
2.	UNKNOWN	0.77	680	BJ
3. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY	0.87	37000	ABJN
4.	UNKNOWN	1.38	1100	BJ
5.	UNKNOWN	1.43	550	BJ
6.	UNKNOWN	1.52	6100	BJ
7.	UNKNOWN	1.73	2400	BJ
8.	UNKNOWN	1.84	570	J
9.	UNKNOWN	2.66	8000	J
10.	UNKNOWN	2.79	1600	BJ
11. 57-10-3	HEXADECANOIC ACID	10.63	2300	JN
12. 112-80-1	OLEIC ACID	11.70	1100	JN
13.	UNKNOWN	11.96	530	J
14.	UNKNOWN AMIDE	12.95	670	BJ
15. 123-95-5	OCTADECANOIC ACID, BUTYL ESTER	13.10	620	JN
16. 1599-67-3	1-DOCOSENE	13.66	710	JN
17. 6971-40-0	17-PENTATRIACONTENE	14.70	890	JN
18.	UNKNOWN AMIDE	15.10	700	J
19.	UNKNOWN	15.74	730	J
20.	UNKNOWN	16.20	480	J
21.	UNKNOWN	16.43	600	J
22. 57-88-5	CHOLESTEROL	16.55	3500	JN
23. 83-47-6	.GAMMA.-SITOSTEROL	17.40	1500	JN
24.	UNKNOWN	18.56	550	J
25.				
26.				
27.				
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DO
9/5/02

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0008

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.08

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: J2080722.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 20 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 8.2

Extraction: (Type) SONC
CONCENTRATION UNITS:

Number TICs found: 23

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.74	1300	BJ
2.	UNKNOWN	0.79	470	BJ
3. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY	0.90	32000	ABJN
4.	UNKNOWN	1.40	610	BJ
5.	UNKNOWN	1.55	3400	BJ
6.	UNKNOWN	1.76	1800	BJ
7.	UNKNOWN	2.67	3400	J
8.	UNKNOWN	2.80	1000	BJ
9. 2613-89-0	PROPANEDIOIC ACID, PHENYL-	4.49	620	JN
10.	UNKNOWN	8.85	420	J
11.	UNKNOWN	9.04	410	J
12.	UNKNOWN	9.79	600	J
13. 109-29-5	OXACYCLOHEPTADECAN-2-ONE	10.52	1900	JN
14. 57-10-3	HEXADECANOIC ACID	10.66	1700	JN
15. 60-33-3	9,12-OCTADECADIENOIC ACID (Z,Z	11.71	690	JN
16. 112-80-1	OLEIC ACID	11.78	1900	JN
17.	UNKNOWN	12.24	880	J
18.	UNKNOWN	12.70	770	J
19. 80-97-7	CHOLESTANOL	16.41	910	JN
20. 57-88-5	CHOLESTEROL	16.58	6500	JN
21. 83-47-6	.GAMMA.-SITOSTEROL	17.44	610	JN
22.	UNKNOWN	18.42	710	J
23.	UNKNOWN	18.99	650	J
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0010

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.10

Sample wt/vol: 30.5 (g/mL) G

Lab File ID: J2080714.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 8.0

Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 22

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.74	1800	BJ
2.	UNKNOWN	0.80	380	BJ
3. 123-42-2	2-PENTANONE, 4-HYDROXY 4-METHYL	0.90	42000	ABJN
4.	UNKNOWN	0.99	230	J
5. 108-38-3	BENZENE, 1,3-DIMETHYL-	1.02	350	JN
6.	UNKNOWN	1.41	530	BJ
7.	UNKNOWN	1.45	540	BJ
8.	UNKNOWN	1.55	3900	BJ
9.	UNKNOWN	1.77	940	BJ
10.	UNKNOWN	1.89	120	J
11.	UNKNOWN	1.99	130	J
12.	UNKNOWN	2.33	140	J
13.	UNKNOWN	2.66	1300	J
14.	UNKNOWN	2.78	540	BJ
15.	UNKNOWN	3.96	420	J
16.	UNKNOWN	8.67	490	BJ
17.	UNKNOWN AMIDE	10.66	190	BJ
18.	UNKNOWN AMIDE	11.82	250	J
19.	UNKNOWN AMIDE	11.95	410	BJ
20.	UNKNOWN AMIDE	13.00	5700	BJ
21.	UNKNOWN AMIDE	13.14	240	BJ
22. 123-28-4	PROPANOIC ACID, 3,3'-THIOBIS	18.64	6100	BJN
23.				
24.				
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28.				
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0012

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.12

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: J2080713.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 14 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 8.1

Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 23

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.74	1500	BJ
2.	UNKNOWN	0.80	370	BJ
3. 123-42-2	2-PENTANONE, 4-HYDROXY 4-METHY	0.90	32000	ABJN
4.	UNKNOWN	1.41	490	BJ
5.	UNKNOWN	1.44	420	BJ
6.	UNKNOWN	1.54	3000	BJ
7.	UNKNOWN	1.76	1200	BJ
8.	UNKNOWN	1.88	150	J
9.	UNKNOWN	1.98	180	J
10.	UNKNOWN	2.32	110	J
11.	UNKNOWN	2.66	1600	J
12.	UNKNOWN	2.79	360	BJ
13.	UNKNOWN	3.96	420	J
14.	UNKNOWN	4.40	78	J
15.	UNKNOWN	6.76	110	J
16.	UNKNOWN AMIDE	10.66	120	BJ
17.	UNKNOWN	11.74	90	J
18.	UNKNOWN AMIDE	11.82	86	J
19.	UNKNOWN AMIDE	11.94	130	BJ
20.	BUTYL HEXADECANOATE	11.99	170	BJN
21.	UNKNOWN	12.99	2400	J
22.	UNKNOWN	13.13	200	BJ
23. 123-28-4	PROPANOIC ACID, 3,3'-THIOBIS	18.63	200	BJN
24.				
25.				
26.				
27.				
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0014

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.14

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: J2080712.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 17 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 7.9

Extraction: (Type) SONC

Number TICs found: 23

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.68	140	BJ
2.	UNKNOWN	0.74	1700	BJ
3.	UNKNOWN	0.79	450	BJ
4. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY	0.90	38000	ABJN
5.	UNKNOWN	0.98	280	BJ
6. 108-38-3	BENZENE, 1,3-DIMETHYL-	1.02	560	JN
7.	UNKNOWN	1.41	570	BJ
8.	UNKNOWN	1.44	310	BJ
9.	UNKNOWN	1.55	2800	BJ
10.	UNKNOWN	1.76	1700	BJ
11.	UNKNOWN	1.87	300	J
12.	UNKNOWN	1.99	210	J
13.	UNKNOWN	2.32	190	J
14.	UNKNOWN	2.66	3200	J
15.	UNKNOWN	3.96	540	J
16.	UNKNOWN	10.90	180	J
17.	UNKNOWN	11.99	230	J
18.	UNKNOWN AMIDE	12.98	540	BJ
19.	UNKNOWN	13.13	130	BJ
20.	UNKNOWN	16.59	340	J
21.	UNKNOWN	17.21	140	J
22. 83-47-6	. GAMMA.-SITOSTEROL	17.44	220	JN
23. 123-28-4	PROPANOIC ACID, 3,3' THIOBIS ,	18.64	6200	BJN
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0018

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.20

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: J2080717.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 16 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 8.0

Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 22

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.74	1800	BJ
2.	UNKNOWN	0.80	440	BJ
3. 123-42-2	2-PENTANONE, 4-HYDROXY 4-METHY	0.91	43000	ABJN
4.	UNKNOWN	0.98	210	BJ
5.	UNKNOWN	1.41	720	BJ
6.	UNKNOWN	1.45	260	BJ
7.	UNKNOWN	1.56	3600	BJ
8.	UNKNOWN	1.77	2100	BJ
9.	UNKNOWN	1.88	210	J
10.	UNKNOWN	1.98	230	J
11.	UNKNOWN	2.67	5100	J
12.	UNKNOWN	2.82	2100	BJ
13.	UNKNOWN	3.28	240	J
14.	UNKNOWN	8.67	430	BJ
15.	UNKNOWN AMIDE	11.82	320	J
16.	UNKNOWN AMIDE	11.95	400	BJ
17.	UNKNOWN AMIDE	13.00	5700	BJ
18.	UNKNOWN	16.57	330	J
19.	UNKNOWN	16.62	320	J
20.	UNKNOWN	17.44	520	J
21.	1,2:3,4-DIBENZPYRENE	18.26	250	JN
22. 123-28-4	PROPANOIC ACID, 3,3'-THIOBIS	18.65	8500	BJN
23.				
24.				
25.				
26.				
27.				
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29.				
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0019

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.23

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: J2080723.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 10 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y

pH: 7.9

Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 21

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.73	1600	BJ
2. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY	0.87	36000	ABJN
3.	UNKNOWN	1.40	680	BJ
4.	UNKNOWN	1.55	4100	BJ
5.	UNKNOWN	1.75	4000	BJ
6.	UNKNOWN	2.33	490	J
7.	UNKNOWN	2.67	6200	J
8.	UNKNOWN	2.79	910	BJ
9.	UNKNOWN	3.21	900	J
10.	UNKNOWN	4.33	940	J
11.	UNKNOWN PAH	10.03	490	J
12. 57-10-3	HEXADECANOIC ACID	10.64	510	JN
13. 192-97-2	BENZO[E]PYRENE	15.32	850	JN
14.	UNKNOWN	16.00	510	J
15.	UNKNOWN	16.27	750	J
16. 19594-90-2	A-NORCHOLESTAN-3-ONE, 5-ETHENY	16.60	1000	JN
17. 193-39-5	INDENO[1,2,3-CD]PYRENE	17.21	610	JN
18.	UNKNOWN	17.46	1300	J
19.	UNKNOWN	17.77	690	J
20.	UNKNOWN	18.46	640	J
21. 191-07-1	CORONENE	18.65	680	JN
22.				
23.				
24.				
25.				
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0020

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.24

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: J2080724.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 30 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y

pH: 7.8

Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 22

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.73	1900	BJ
2. 123-42-2	2-PENTANONE, 4-HYDROXY 4-METHY	0.86	48000	ABJN
3.	UNKNOWN	1.55	2700	BJ
4.	UNKNOWN	1.75	4500	BJ
5.	UNKNOWN	2.67	9700	J
6.	UNKNOWN	2.79	1500	BJ
7.	UNKNOWN PAH	12.85	1600	J
8.	UNKNOWN PAH	13.02	1300	J
9. 198-55-0	PERYLENE	15.33	5900	JN
10. 55724-47-5	4-PIPERIDINEACETIC ACID, 1-ACE	16.61	1800	JN
11.	UNKNOWN PAH	16.73	2500	J
12. 191-24-2	BENZO[CHI]PERYLENE UNKNOWN	17.21	1500	JN
13. 83-47-6	.GAMMA.-SITOSTEROL	17.45	3100	JN
14. 559-70-6	.BETA.-AMYRIN	17.74	2300	JN
15. 1058-61-3	STIGMAST-4-EN-3-ONE	17.99	2100	JN
16. 20475-86-9	URS-12-EN-24-OIC ACID, 3-OXO-	18.15	4500	JN
17.	[3,4:9,10]DIBENZPYRENE	18.30	4400	JN
18. 192-65-4	NAPHTHO[1,2,3,4-DEF]CHRYSENE	18.37	2000	JN
19. 191-07-1	CORONENE	18.66	2300	JN
20.	[3,4:9,10]DIBENZPYRENE	18.70	3100	JN
21. 192-65-4	NAPHTHO[1,2,3,4-DEF]CHRYSENE	18.82	1800	JN
22.	UNKNOWN	20.05	1600	J
23.				
24.				
25.				
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0024

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.28

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: J2080914.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 14 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 8.1

Extraction: (Type) SONC
CONCENTRATION UNITS:

Number TICs found: 23

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.72	430	BJ
2. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY	0.89	9700	ABJN
3.	UNKNOWN	1.39	230	BJ
4.	UNKNOWN	1.52	1300	BJ
5.	UNKNOWN	1.74	630	BJ
6.	UNKNOWN	2.66	2700	J
7.	UNKNOWN	2.80	280	BJ
8.	UNKNOWN	3.19	260	J
9. 57-10-3	HEXADECANOIC ACID	10.60	460	JN
10. 41446-68-8	3-TETRADECENE, (E)-	11.69	310	JN
11. 4599-67-3	1-DOCOSENE UNKNOWN	13.66	490	JN
12. 1599-67-3	1-DOCOSENE UNKNOWN	14.69	950	JN
13.	UNKNOWN	15.07	290	J
14.	2-HEPTACOSANONE	15.74	900	JN
15. 7616-22-0	.GAMMA.-TOCOPHEROL	16.33	260	JN
16.	UNKNOWN	16.43	480	J
17.	COPROSTAN-3-ONE	16.54	730	JN
18.	UNKNOWN	16.62	470	J
19.	UNKNOWN PAH	17.15	210	J
20.	UNKNOWN	17.32	220	J
21. 83-47-6	.GAMMA.-SITOSTEROL	17.40	1200	JN
22.	[3,4:9,10]DIBENZPYRENE	18.24	200	JN
23.	UNKNOWN	18.56	300	J
24.				
25.				
26.				
27.				
28.				
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30.				

815

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0026

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50475.01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: J2080911.D

Level: (low/med) LOW

Date Received: 08/03/02

% Moisture: 7 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

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

Number TICs found: 22

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHYL	0.89	12000	ABJN
2.	UNKNOWN	1.53	1500	BJ
3.	UNKNOWN	1.73	820	BJ
4.	UNKNOWN	2.65	1800	J
5. 638-66-4	OCTADECANAL	14.37	860	JN
6.	UNKNOWN	14.70	5800	J
7. 112-85-6	DOCOSANOIC ACID	15.06	1900	JN
8.	UNKNOWN ORGANIC ACID	16.00	1200	J
9. 7390-81-0	OXIRANE, HEXADECYL-	16.28	4100	JN
10.	UNKNOWN	16.63	1000	J
11.	UNKNOWN ORGANIC ACID	16.88	920	J
12.	1-HEXACOSANAL	17.15	2800	JN
13. 83-47-6	. GAMMA. -SITOSTEROL	17.40	8400	JN
14.	UNKNOWN	17.48	2000	J
15.	UNKNOWN	17.55	1300	J
16.	UNKNOWN	17.59	1200	J
17.	UNKNOWN	17.70	1900	J
18. 1058-61-3	STIGMAST-4-EN-3-ONE	17.94	2400	JN
19.	UNKNOWN	18.11	1100	J
20.	UNKNOWN	18.21	1700	J
21.	UNKNOWN	18.37	870	J
22.	UNKNOWN	18.59	1200	J
23.				
24.				
25.				
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0020DL

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.24DL

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: J2080917.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 30 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: 7.8

Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 22

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY	0.83	50000	ABDJN
2.	UNKNOWN	1.73	5000	BDJ
3.	UNKNOWN	2.63	9400	DJ
4. 7773-83-3	1-DOCOSANETHIOL	13.66	4100	DJN
5. 1090-13-7	5,12-NAPHTHACENEDIONE	14.08	2700	DJN
6. 629-73-2	1-HEXADECENE	14.70	7900	DJN
7. 198-55-0	PERYLENE	15.28	12000	DJN
8.	UNKNOWN	15.74	4500	DJ
9.	UNKNOWN	16.44	3900	DJ
10.	UNKNOWN PAH	16.67	6400	DJ
11. 191-26-4	DIBENZO[DEF,MNO]CHRYSENE	17.16	3500	DJN
12. 83-47-6	.GAMMA.-SITOSTEROL	17.41	9500	DJN
13.	UNKNOWN	17.70	6000	DJ
14.	UNKNOWN	17.94	7300	DJ
15. 464-97-1	URS-12-ENE	18.10	12000	DJN
16.	1,2:4,5-DIBENZPYRENE	18.24	9700	DJN
17.	3,4:8,9-DIBENZPYRENE	18.31	6400	DJN
18. 191-07-1	CORONENE	18.60	6300	DJN
19.	3,4:8,9-DIBENZPYRENE	18.66	7600	DJN
20. 192-65-4	NAPHTHO[1,2,3,4-DEF]CHRYSENE	18.77	4200	DJN
21.	UNKNOWN	20.00	4200	DJ
22.	UNKNOWN	20.31	3700	DJ
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24.				
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DJ
9/5/02

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0021

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.25

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: J2080725.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 12 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y

pH: 7.2

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

Number TICs found: 23

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.73	1400	BJ
2. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY	0.87	39000	ABJN
3.	UNKNOWN	1.40	770	BJ
4.	UNKNOWN	1.55	4300	BJ
5.	UNKNOWN	1.75	3500	BJ
6.	UNKNOWN	2.67	6500	J
7.	UNKNOWN	2.80	1100	BJ
8.	UNKNOWN	3.21	1000	J
9. 57-10-3	HEXADECANOIC ACID	10.64	1100	JN
10.	UNKNOWN	15.11	690	J
11. 192-97-2	BENZO[E]PYRENE	15.31	1000	JN
12.	UNKNOWN	15.58	520	J
13.	UNKNOWN	16.03	560	J
14. 56554-91-7	12-OCTADECENAL	16.33	890	JN
15.	UNKNOWN	17.19	720	J
16. 83-47-6	.GAMMA.-SITOSTEROL	17.44	3800	JN
17.	UNKNOWN	17.54	820	J
18.	UNKNOWN	17.75	810	J
19.	UNKNOWN	17.98	1300	J
20. 50-24-8	PREDNISOLONE	18.15	800	JN
21. 192-65-4	NAPHTHO[1,2,3,4-DEF]CHRYSENE	18.27	2700	JN
22.	UNKNOWN	18.46	2200	J
23. 191-07-1	CORONENE	18.64	660	JN
24.				
25.				
26.				
27.				
28.				
29.				
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765

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0027

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50475.02

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: J2080905.D

Level: (low/med) LOW

Date Received: 08/03/02

% Moisture: 10 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.8

Extraction: (Type) SONC
CONCENTRATION UNITS:

Number TICs found: 23

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.73	1600	BJ
2. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHYL-	0.89	38000	ABJN
3.	UNKNOWN	0.97	360	BJ
4. 108-38-3	BENZENE, 1,3-DIMETHYL-	1.00	1500	JN
5.	UNKNOWN	1.43	230	BJ
6.	UNKNOWN	1.53	320	BJ
7.	UNKNOWN	1.73	1700	BJ
8.	UNKNOWN	2.64	910	J
9.	UNKNOWN	2.76	380	BJ
10. 112-72-1	1-TETRADECANOL	6.71	1800	JN
11.	UNKNOWN	8.64	500	BJ
12.	UNKNOWN AMIDE	10.62	220	BJ
13.	UNKNOWN	11.11	220	BJ
14.	UNKNOWN	11.78	270	J
15.	UNKNOWN AMIDE	11.92	350	BJ
16.	UNKNOWN	12.97	5200	J
17.	UNKNOWN	17.39	570	J
18. 638-95-9	.ALPHA.-AMYRIN	17.49	1300	JN
19.	UNKNOWN	17.56	320	J
20.	UNKNOWN	17.69	610	J
21.	UNKNOWN	18.21	5400	J
22. 123-28-4	PROPANOIC ACID, 3,3'-THIOBIS	18.61	5700	BJN
23.	UNKNOWN	18.84	1700	BJ
24.				
25.				
26.				
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1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0030

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50475.05

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: J2080907.D

Level: (low/med) LOW

Date Received: 08/03/02

% Moisture: 4 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 7.9

Extraction: (Type) SONC
CONCENTRATION UNITS:

Number TICs found: 26

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.68	130	BJ
2.	UNKNOWN	0.74	2000	BJ
3.	UNKNOWN	0.77	530	BJ
4.	UNKNOWN	0.90	44000	BJ
5.	UNKNOWN	0.96	370	BJ
6. 108-38-3	BENZENE, 1,3-DIMETHYL-	1.00	860	JN
7.	UNKNOWN	1.38	300	BJ
8.	UNKNOWN	1.43	220	BJ
9.	UNKNOWN	1.54	270	BJ
10.	UNKNOWN	1.63	120	BJ
11.	UNKNOWN	1.74	3300	BJ
12.	UNKNOWN	1.83	1400	BJ
13.	UNKNOWN	2.29	210	J
14.	UNKNOWN	2.58	420	J
15.	UNKNOWN	2.64	450	J
16.	UNKNOWN	2.76	520	BJ
17.	UNKNOWN	8.63	140	BJ
18.	UNKNOWN AMIDE	10.62	160	BJ
19.	UNKNOWN AMIDE	11.78	150	J
20.	UNKNOWN AMIDE	11.91	220	BJ
21.	UNKNOWN AMIDE	12.95	2500	BJ
22.	UNKNOWN	15.92	95	J
23.	UNKNOWN	17.40	92	J
24.	UNKNOWN	18.20	390	J
25.	UNKNOWN	18.40	1300	J
26. 123-28-4	PROPANOIC ACID, 3,3'-THIOBIS	18.59	370	BJN
27.				
28.				
29.				
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9/5/02

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0031

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50475.06

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: J2080908.D

Level: (low/med) LOW

Date Received: 08/03/02

% Moisture: 6 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 7.0

Extraction: (Type) SONC
CONCENTRATION UNITS:

Number TICs found: 22

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.73	1300	BJ
2. 123-42-2	2-PENTANONE, 4-HYDROXY 4-METHYL	0.89	31000	ADJN
3.	UNKNOWN	0.96	210	BJ
4. 95-47-6	BENZENE, 1,2-DIMETHYL	1.00	460	BJN
5.	UNKNOWN	1.37	170	BJ
6.	UNKNOWN	1.42	200	BJ
7.	UNKNOWN	1.53	230	BJ
8.	UNKNOWN	1.73	2300	BJ
9.	UNKNOWN	1.84	350	J
10.	UNKNOWN	2.29	140	J
11.	UNKNOWN	2.58	360	J
12.	UNKNOWN	2.63	470	J
13.	UNKNOWN	2.76	390	BJ
14.	UNKNOWN	3.19	150	J
15.	UNKNOWN	3.25	89	J
16.	UNKNOWN	6.70	130	J
17.	UNKNOWN	11.68	200	J
18.	UNKNOWN AMIDE	12.94	440	BJ
19. 83-47-6	.GAMMA.-SITOSTEROL	17.38	510	JN
20. 1058-61-3	STIGMAST-4-EN-3-ONE	17.93	120	JN
21.	UNKNOWN	18.40	240	J
22. 123-28-4	PROPANOIC ACID, 3,3'-THIOBIS	18.59	170	BJN
23.				
24.				
25.				
26.				
27.				
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29.				
30.				

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0035

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50475.07

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: J2080922.D

Level: (low/med) LOW

Date Received: 08/03/02

% Moisture: 7 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7

Extraction: (Type) SONC
CONCENTRATION UNITS:

Number TICs found: 22

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.74	730	BJ
2. 123-42-2	2-PENTANONE, 4-HYDROXY 4-METHYL	0.90	16000	ADJN
3.	UNKNOWN	1.53	1600	BJ
4.	UNKNOWN	1.74	1000	BJ
5.	UNKNOWN	2.64	1700	J
6. 57-10-3	HEXADECANOIC ACID	10.61	860	JN
7. 1599-67-3	1-DOCOSENE	13.66	1300	JN
8. 2461-18-9	OXIRANE, [(DODECYLOXY)METHYL]-	14.70	4400	JN
9. 112-85-6	DOCOSANOIC ACID	15.07	1300	JN
10.	2-PENTACOSANONE	15.75	760	JN
11. 57-11-4	OCTADECANOIC ACID	16.01	760	JN
12.	1-HEXACOSANAL	16.29	3900	JN
13.	UNKNOWN	16.64	1100	J
14.	1-HEXACOSANAL	17.16	2500	JN
15.	UNKNOWN	17.32	770	J
16.	UNKNOWN	17.41	4800	J
17.	UNKNOWN	17.49	1500	J
18.	UNKNOWN	17.61	950	J
19.	UNKNOWN	17.70	1200	J
20. 1058-61-3	STIGMAST-4-EN-3-ONE	17.95	1700	JN
21.	UNKNOWN	18.22	1400	J
22. 123-28-4	PROPANOIC ACID, 3,3'-THIOBIS	18.61	2100	BJN
23.				
24.				
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27.				
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1101

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0036

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50475.08

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: J2080906.D

Level: (low/med) LOW

Date Received: 08/03/02

% Moisture: 8 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 6.4

Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 22

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.73	740	BJ
2.	UNKNOWN	0.78	220	BJ
3. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHYL	0.89	18000	ABJN
4.	UNKNOWN	0.97	170	BJ
5. 95-47-6	BENZENE, 1,2-DIMETHYL	1.00	490	BJN
6.	UNKNOWN	1.42	110	BJ
7.	UNKNOWN	1.53	120	BJ
8.	UNKNOWN	1.74	950	BJ
9.	UNKNOWN	1.85	170	J
10.	UNKNOWN	2.58	110	J
11.	UNKNOWN	2.64	250	J
12.	UNKNOWN	2.76	200	BJ
13. 112-53-8	1-DODECANOL	6.71	1700	BJN
14.	UNKNOWN	8.64	600	BJ
15. 57-10-3	HEXADECANOIC ACID	10.58	98	JN
16.	UNKNOWN	11.10	230	BJ
17.	UNKNOWN AMIDE	12.95	87	BJ
18.	UNKNOWN	14.69	130	J
19.	UNKNOWN	17.39	120	J
20.	UNKNOWN	18.20	690	J
21. 123-28-4	PROPANOIC ACID, 3,3'-THIOBIS	18.61	5900	BJN
22.	UNKNOWN	18.83	280	BJ
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1145

Appendix D

Chain of Custody Records

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/08/02

DATA FILE: J2080713.D

SAMPLE ID: C0012

MATRIX: SOIL

LAB ID: 50465.12

DATE ANALYZED: 08/07/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 003221-61-2	OCTANE, 2-METHYL-	0.98	213
2) 000627-08-7	PROPANE, 1-(1-METHYLETHOXY)-	2.32	114
3) 000000-00-0	TRANS-1-METHYL-2-(4-METHYLPENTYL)CY	6.76	105
4) 000629-99-2	PENTACOSANE	8.67	154

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/08/02

DATA FILE: J2080712.D

SAMPLE ID: C0014

MATRIX: SOIL

LAB ID: 50465.14

DATE ANALYZED: 08/07/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
-------	----------	----	-----------------------

1) 002213-23-2	HEPTANE, 2,4-DIMETHYL-	1.55	2845
2) 074663-85-7	CYCLOPROPANE, NONYL-	6.74	2017
3) 000294-62-2	CYCLODODECANE	8.67	704

8/13/02
EP

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/08/02

DATA FILE: J2080717.D

SAMPLE ID: C0018

MATRIX: SOIL

LAB ID: 50465.20

DATE ANALYZED: 08/07/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000294-62-2	CYCLODODECANE	6.75	2368

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/13/02

DATA FILE: J2080723.D

SAMPLE ID: C0019

MATRIX: SOIL

LAB ID: 50465.23

DATE ANALYZED: 08/07/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 001120-21-4	UNDECANE	3.06	498
2) 017301-23-4	UNDECANE, 2,6-DIMETHYL-	4.02	1211
3) 062016-34-6	OCTANE, 2,3,7-TRIMETHYL-	4.49	1880
4) 000629-50-5	TRIDECANE	4.74	830
5) 013151-34-3	DECANE, 3-METHYL-	4.92	586
6) 013151-34-3	DECANE, 3-METHYL-	5.63	534
7) 000544-85-4	DOTRIACONTANE	7.90	1231
8) 000544-76-3	HEXADECANE	8.31	2043
9) 000629-78-7	HEPTADECANE	8.71	1850
10) 001921-70-6	PENTADECANE, 2,6,10,14-TETRAMETHYL-	8.76	2644
11) 001560-89-0	HEPTADECANE, 2-METHYL-	9.47	1413
12) 006975-98-0	DECANE, 2-METHYL-	9.52	2524
13) 000629-94-7	HENEICOSANE	10.17	686
14) 000112-95-8	EICOSANE	10.83	671
15) 000544-76-3	HEXADECANE	11.46	497
16) 000638-67-5	TRICOSANE	14.75	1190

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/08/02

DATA FILE: J2080724.D

SAMPLE ID: C0020

MATRIX: SOIL

LAB ID: 50465.24

DATE ANALYZED: 08/08/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000629-99-2	PENTACOSANE	14.75	1814
2) 013475-77-9	EICOSANE, 9-OCTYL-	15.69	2200
3) 013475-77-9	EICOSANE, 9-OCTYL-	16.58	2488

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080917.D

SAMPLE ID: C0020DL
LAB ID: 50465.24DL

MATRIX: SOIL
DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000593-49-7	HEPTACOSANE	15.66	6954
2) 000593-49-7	HEPTACOSANE	16.54	6387

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/08/02

DATA FILE: J2080725.D

SAMPLE ID: C0021
LAB ID: 50465.25

MATRIX: SOIL
DATE ANALYZED: 08/08/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
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1) 003074-71-3	HEPTANE, 2,3-DIMETHYL	1.40	773
2) 000593-45-3	OCTADECANE	14.75	2504
3) 000629-97-0	DOCOSANE	15.69	5688
4) 013475-77-9	EICOSANE, 9-OCTYL-	16.57	8570
5) 013475-75-7	PENTADECANE, 8-HEXYL-	17.41	1901

8-14-02

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080914.D

SAMPLE ID: C0024

MATRIX: SOIL

LAB ID: 50465.28

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
-------	----------	----	-----------------------

1) 000627-08-7	PROPANE, 1-(1-METHYLETHOXY)-	0.73	430	8/14/02 SP
2) 054833-48-6	HEPTADECANE, 2,6,10,15-TETRAMETHYL-	15.65	372	

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080911.D

SAMPLE ID: C0026

MATRIX: SOIL

LAB ID: 50475.01

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000112-95-8	EICOSANE	15.65	10072
2) 000629-92-5	NONADECANE	16.54	8555

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080905.D

SAMPLE ID: C0027
LAB ID: 50475.02

MATRIX: SOIL
DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
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1) 002216-33-3	OCTANE, 3-METHYL-	0.78	412
2) 039546-80-0	NEOPENTYLIDENECYCLOHEXANE	18.84	1681

8/14/02
62

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080912.D

SAMPLE ID: C0028

MATRIX: SOIL

LAB ID: 50475.03

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000295-48-7	CYCLOPENTADECANE	14.70	4497
2) 000629-92-5	NONADECANE	15.66	6360
3) 000629-92-5	NONADECANE	16.54	5225

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080910.D

SAMPLE ID: C0029

MATRIX: SOIL

LAB ID: 50475.04

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 005756-37-6	PENTANE, 1-(1-METHYLETHOXY)-	2.59	767
2) 000544-76-3	HEXADECANE	15.65	2065
3) 000593-49-7	HEPTACOSANE	16.53	1606

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8/14/02

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080907.D

SAMPLE ID: C0030

MATRIX: SOIL

LAB ID: 50475.05

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000627-08-7	PROPANE, 1-(1-METHYLETHOXY)	0.68	134
2) 017348-59-3	PROPANE, 2-METHYL-2-(1-METHYLETHOXY)	0.90	44380
3) 000627-08-7	PROPANE, 1-(1-METHYLETHOXY)	1.43	215
4) 013837-66-6	M-MENTHANE, (1S,3R)-(+)-	1.63	121
5) 000294-62-2	CYCLODODECANE	6.70	193
6) 000629-99-2	PENTACOSANE	13.68	110
7) 000629-94-7	HENEICOSANE	14.70	226
8) 000112-95-8	EICOSANE	15.17	116
9) 000112-95-8	EICOSANE	15.64	251
10) 000112-40-3	DODECANE	16.53	252

8/14/02



SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080908.D

SAMPLE ID: C0031

MATRIX: SOIL

LAB ID: 50475.06

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 002216-30-0	HEPTANE, 2,5-DIMETHYL-	0.77	306
2) 000294-62-2	CYCLODODECANE	8.63	128
3) 000544-76-3	HEXADECANE	13.69	132
4) 000112-95-8	EICOSANE	14.69	270
5) 000630-01-3	HEXACOSANE	15.17	165
6) 000638-67-5	TRICOSANE	15.64	291
7) 001560-88-9	OCTADECANE, 2-METHYL-	16.09	134
8) 000629-99-2	PENTACOSANE	16.53	415
9) 013475-77-9	EICOSANE, 9-OCTYL-	16.95	97

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080922.D

SAMPLE ID: C0035

MATRIX: SOIL

LAB ID: 50475.07

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000112-95-8	EICOSANE	15.66	7821
2) 006912-07-8	HEXADECANE, 5-BUTYL-	16.54	7533
3) 000630-03-5	NONACOSANE	17.37	2010

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080906.D

SAMPLE ID: C0036

MATRIX: SOIL

LAB ID: 50475.08

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000112-95-8	EICOSANE	15.64	127

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080913.D

SAMPLE ID: C0QZ5

MATRIX: SOIL

LAB ID: 50465.19

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000930-02-9	OCTADECANE, 1-(ETHENYLOXY)-	14.69	2032
2) 000629-59-4	TETRADECANE	16.53	589

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/08/02

DATA FILE: J2080711.D

SAMPLE ID: SBLK1

MATRIX: SOIL

LAB ID: BL0805SB

DATE ANALYZED: 08/07/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 062338-09-4	DECANE, 2,2,3-TRIMETHYL-	11.74	194

Diana Hoke

From: Rogers, Holly [Holly.Rogers@dyncorp.com]
Sent: Monday, August 05, 2002 10:04 AM
To: Diana Hoke (E-mail); Steve Markham (E-mail)
Cc: Betty Ann Jeffery (E-mail); Dan Slizys (E-mail); John Kwedar (E-mail); Khin-Cho
Thaung (E-mail)
Subject: Region 03 |Case 30790 | Lab SWOK | Issue TR/COC discrepancy - sam ple level |
FINAL

Diana,

Following is the resolution from Region 3 regarding the TR/COC discrepancy issues for this Case. Per the Region, the lab should use sample ID C0016 for the water sample C0016. SMO has assigned a new CLP sample ID C0QZ5 for the soil sample C0016. The lab should note this issue in the Case/SDG narrative and proceed with the analysis of the samples. Since sample ID C0017 was not listed on the TR and was not received, this is not an issue.

Please let me know if you have any other questions or problems.

Thanks,
Holly

Holly Rogers
DynCorp Systems and Solutions, LLC
CLP Coordinator for Regions 3 & 9
703-264-9526
holly.rogers@dyncorp.com

—Original Message—

From: Slizys.Dan@epamail.epa.gov [mailto:Slizys.Dan@epamail.epa.gov]
Sent: Monday, August 05, 2002 10:37 AM
To: Rogers, Holly; Roman.Romuald@epamail.epa.gov; slobodar@ttnus.com;
teamersonn@ttnus.com
Cc: R3_Clients.EPA@epamail.epa.gov
Subject: Re: NEW ISSUE |Case 30790 | Lab SWOK | Issue TR/COC discrepancy -
sample level

Holly,

The lab must document all of the issues in the case narrative. The lab can retain the water sample ID as C0016. Please provide a new CLP ID to the soil sample (C0016). The lab can proceed with the analysis of samples.

The EPA is being notified of the findings and the field personnel are requested to write a memo to file to clarify the TR/COC and sample ID issues.

Dan Slizys

From: "Rogers, Holly" <Holly.Rogers@dyncorp.com>
To: Betty Jeffery/ESC/R3/USEPA/US@EPA, Dan Slizys/ESC/R3/USEPA/US@EPA,
John Kwedar/ESC/R3/USEPA/US@EPA, Khin-Cho
Thaung/ESC/R3/USEPA/US@EPA

cc:
Subject: NEW ISSUE |Case 30790 | Lab SWOK | Issue TR/COC discrepancy -
sample level
08/05/02 09:28 AM

The lab is still waiting on a resolution to this issue. Please advise the lab how to proceed.

Thanks,
Holly

Holly Rogers
DynCorp Systems and Solutions, LLC
CLP Coordinator for Regions 3 & 9
703-264-9526
holly.rogers@dyncorp.com

-----Original Message-----

From: Jeffery.Betty@epamail.epa.gov
[mailto:Jeffery.Betty@epamail.epa.gov]
Sent: Friday, August 02, 2002 2:19 PM
To: Marian.Murphy@ttemi.com; Rogers, Holly
Cc: R3_ESC-CLIENTS.EPA@epamail.epa.gov
Subject: NEW ISSUE |Case 30790 | Lab SWOK | Issue TR/COC discrepancy - sample level

Marian, here is another issue that needs clarification. Thanks

----- Forwarded by Betty Jeffery/ESC/R3/USEPA/US on 08/02/02 02:18 PM

-----From: "Rogers, Holly" <Holly.Rogers@dyncorp.com>

To: Betty Jeffery/ESC/R3/USEPA/US@EPA, Dan Slizys/ESC/R3/USEPA/US@EPA,
John Kwedar/ESC/R3/USEPA/US@EPA, Khin-Cho
Thaung/ESC/R3/USEPA/US@EPA
cc:
Subject: NEW ISSUE |Case 30790 | Lab SWOK | Issue TR/COC discrepancy - sample level

08/02/02 01:12 PM

Following is an email from SWOK regarding samples received today for Case 30790. Sample C0016 is listed twice on the TR - once as a soil sample and once as a water sample. No sample C0017 was received and this sample ID was not listed on the TR. The water sample C0016 was sent with extra volume and is designated on the TR as the lab QC sample. The lab believes that the soil sample C0016 should be listed on the TR as sample ID C0017.

Please advise on how the lab should proceed.

Thanks,
Holly

Holly Rogers
DynCorp Systems and Solutions, LLC
CLP Coordinator for Regions 3 & 9
703-264-9526
holly.rogers@dyncorp.com

-----Original Message-----

From: DHoke@swlab.com [mailto:DHoke@swlab.com]
Sent: Friday, August 02, 2002 12:56 PM
To: Rogers, Holly
Subject: Region 3|Case # 30790| Sample ID discrepancy

Hi Holly,

12 soils and 13 waters arrived today for VOA/BNAP/PEST analyses. Sample ID C0016 is indicated on the COC as a water and a soil. There is actually a water sample and soil sample labeled C0016. There is no sample C0017. It is evident that the water sample is the appropriate sample for this ID since it was specified for QC and there was extra volume sent. It would appear then that the soil sample labeled C0016 should actually be C0017. The lab will proceed with hand-correcting the paper work and the label on the soil bottle to reflect that the soil sample is actually C0017 and noting the situation in the SDG narrative unless otherwise instructed by the region.

Thank you,
Diana

Diana L. Hoke
Organic Program Manager
SWLO

Diana Hoke

From: Rogers, Holly [Holly.Rogers@dyncorp.com]
Sent: Tuesday, August 06, 2002 11:02 AM
To: Diana Hoke (E-mail); Steve Markham (E-mail)
Cc: Betty Ann Jeffery (E-mail); Dan Slizys (E-mail); John Kwedar (E-mail); Khin-Cho Thaug (E-mail)
Subject: Region 03 | Case 30790 | Lab SWOK | Issue Laboratory Problems | F INAL

Diana,

In accordance with previous direction from Region 3, the lab will perform the silica gel cleanup as necessary and will note the issue and the reason for cleanup in the Case/SDG narrative.

Please let me know if you have any other questions or problems.

Thanks,
Holly

Holly Rogers
DynCorp Systems and Solutions, LLC
CLP Coordinator for Regions 3 & 9
703-264-9526
holly.rogers@dyncorp.com

-----Original Message-----

From: DHoke@swlab.com [<mailto:DHoke@swlab.com>]
Sent: Tuesday, August 06, 2002 11:54 AM
To: Rogers, Holly
Subject: Region3| Case #30790| request to do silica gel cleanup

Hi Holly,

Due to the dark brown color of the extracts for the soil samples in this case, the lab is requesting permission to perform silica gel cleanup on these extracts.

Thank you,
Diana

Diana L. Hoke
Organic Program Manager
SWOK



USEPA Contract Laboratory Program Organic Traffic Report & Chain of Custody Record

Case No: 30790

DAS No:

R

Region: 3	Date Shipped: 8/1/02	Chain of Custody Record	Sampler Signature: <i>Neil Teamerson</i>
Project Code: 4192	Carrier Name: FedEx		
Account Code:	Airbill: 828684645830	Relinquished By (Date / Time)	Received By (Date / Time)
CERCLIS ID:	Shipped to: Southwest Labs of Oklahoma, Inc.	1 <i>Neil Teamerson</i> 8-1-02/1600	
Spill ID:	1700 West Albany Suite C	2	
Site Name/State: Valmont TCE 7/30/02/PA	Broken Arrow OK 74012	3	
Project Leader: Neil Teamerson	(918) 251-0545	4	
Action: Combined RI/FS			
Sampling Co: Tetra Tech NUS Inc.			

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
C0019	Sediment/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-232 (Ice Only), 3-233 (Ice Only), 3-234 (Ice Only) (3)	SD-CT-09 /	S: 7/31/02 12:10	MC0019	--
C0020	Sediment/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-236 (Ice Only), 3-237 (Ice Only), 3-238 (Ice Only) (3)	SD-CT-10 /	S: 7/31/02 12:50	MC0020	--
C0021	Sediment/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-240 (Ice Only), 3-241 (Ice Only), 3-242 (Ice Only) (3)	SD-CT-11 /	S: 7/31/02 13:20	MC0021	--
C0022	Field QC/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-244 (HCL), 3-245 (HCL), 3-246 (HCL), 3-247 (Ice Only), 3-248 (Ice Only), 3-249 (Ice Only), 3-250 (Ice Only) (7)	FB-01 /	S: 7/31/02 11:00	MC0022	PE Field Blank per MI 9/3/02
C0023	Surface Water/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-253 (HCL), 3-254 (HCL), 3-255 (HCL), 3-256 (Ice Only), 3-257 (Ice Only), 3-258 (Ice Only), 3-259 (Ice Only) (7)	DUPSW-01 /	S: 7/31/02 12:00	MC0023	Field Duplicate OF C0015 (SW-BE-V)
C0024	Sediment/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-262 (Ice Only), 3-263 (Ice Only), 3-264 (Ice Only) (3)	DUPSD-01 /	S: 7/31/02 12:01	MC0024	Field Duplicate OF C0016 (SD-BE-V)
C0025	Decon. Water/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-266 (HCL), 3-267 (HCL), 3-268 (HCL), 3-269 (Ice Only), 3-270 (Ice Only), 3-271 (Ice Only), 3-272 (Ice Only) (7)	DECON-01 /	S: 7/31/02 14:10	MC0025	--

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC: C0016, C0018	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced _____
BNA/PEST = CLP TCL Semivolatiles and Pesticides/PC, VOA = CLP TCL Volatiles			

TR Number: 3-424838327-080102-0002

PR provides preliminary results. Requests for preliminary results will increase analytical costs.
Send Copy to: Contract Laboratory Analytical Services Support, 2000 Edmund Halley Dr., Reston, VA. 20191-3436 Phone 703/264-9348 Fax 703/264-922

RE: NON COPY

F2V5.0.66 Page 4 of 4



USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 30790

DAS No:

R

Region: 3 Project Code: 4192 Account Code: CERCLIS ID: Spill ID: Site Name/State: Valmont TCE 7/30/02/PA Project Leader: Neil Teamerson Action: Combined RI/FS Sampling Co: Tetra Tech NUS Inc.	Date Shipped: 8/2/02 Carrier Name: FedEx Airbill: 828684645966 Shipped to: Southwest Labs of Oklahoma, Inc. 1700 West Albany Suite C Broken Arrow OK 74012 (918) 251-0545	Chain of Custody Record <table border="1"><tr><td>Relinquished By</td><td>(Date / Time)</td><td>Sampler Signature: <i>D. Hartigan</i></td><td>Received By</td><td>(Date / Time)</td></tr><tr><td>1 <i>D. Hartigan</i></td><td>8/2/02 17:00</td><td></td><td></td><td></td></tr><tr><td>2</td><td></td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td></tr></table>	Relinquished By	(Date / Time)	Sampler Signature: <i>D. Hartigan</i>	Received By	(Date / Time)	1 <i>D. Hartigan</i>	8/2/02 17:00				2					3					4				
Relinquished By	(Date / Time)	Sampler Signature: <i>D. Hartigan</i>	Received By	(Date / Time)																							
1 <i>D. Hartigan</i>	8/2/02 17:00																										
2																											
3																											
4																											

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No/ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	QC Type
C0037	Field QC/ Daniel Hartigan	L/G	BNAP/EST (21), VOA (21)	3-318 (HCL), 3-319 (HCL), 3-320 (HCL), 3-321 (Ice Only), 3-322 (Ice Only), 3-323 (Ice Only), 3-324 (Ice Only) (7)	RB-01 /	S: 8/2/02	8:00	MC0037	Rinsate
C0038	Field QC/ Daniel Hartigan	L/G	VOA (21)	3-327 (HCL), 3-328 (HCL), 3-329 (HCL) (3)	TB-03 /	S: 8/1/02	8:00		Trip Blank

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____
BNA/PEST = CLP TCL Semivolatiles and Pesticides/PC, VOA = CLP TCL Volatiles			

TR Number: 3-424838327-080202-0003

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

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USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 30790

DAS No:

R

Region: 3 Project Code: 4192 Account Code: CERCLIS ID: Spill ID: Site Name/State: Valmont TCE 7/30/02/PA Project Leader: Neil Teamerson Action: Combined RI/FS Sampling Co: Tetra Tech NUS Inc.	Date Shipped: 8/1/02 Carrier Name: FedEx Airbill: 828684645830 Shipped to: Southwest Labs of Oklahoma, Inc. 1700 West Albany Suite C Broken Arrow OK 74012 (918) 251-0545	Chain of Custody Record <table border="1"><tr><td>Relinquished By</td><td>(Date / Time)</td><td>Received By</td><td>(Date / Time)</td></tr><tr><td>1 <i>Neil Teamerson</i></td><td>8-1-02/1600</td><td></td><td></td></tr><tr><td>2</td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td></tr></table>	Relinquished By	(Date / Time)	Received By	(Date / Time)	1 <i>Neil Teamerson</i>	8-1-02/1600			2				3				4				Sampler Signature: <i>Neil Teamerson</i>
Relinquished By	(Date / Time)	Received By	(Date / Time)																				
1 <i>Neil Teamerson</i>	8-1-02/1600																						
2																							
3																							
4																							

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	QC Type
C0001	Field QC/ Neb Dedic	L/G	VOA (21)	3-100 (HCL), 3-101 (HCL), 3-102 (HCL) (3)	TB-01 /	S: 7/30/02	7:20		Trip Blank
C0002	Field QC/ Neb Dedic	L/G	VOA (21)	3-103 (HCL), 3-104 (HCL), 3-105 (HCL) (3)	TB-02 /	S: 7/30/02	7:25		Trip Blank
C0003	Surface Water/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-106 (HCL), 3-107 (HCL), 3-108 (HCL), 3-109 (Ice Only), 3-110 (Ice Only), 3-111 (Ice Only), 3-112 (Ice Only) (7)	SW-BC-04 /	S: 7/30/02	11:45	MC0003	-
C0004	Sediment/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-115 (Ice Only), 3-116 (Ice Only), 3-117 (Ice Only) (3)	SD-BC-04 /	S: 7/30/02	11:50	MC0004	-
C0005	Surface Water/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-119 (HCL), 3-120 (HCL), 3-121 (HCL), 3-122 (Ice Only), 3-123 (Ice Only), 3-124 (Ice Only), 3-125 (Ice Only) (7)	SW-BC-05 /	S: 7/30/02	12:45	MC0005	-
C0006	Sediment/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-128 (Ice Only), 3-129 (Ice Only), 3-130 (Ice Only) (3)	SD-BC-05 /	S: 7/30/02	12:55	MC0006	-
C0007	Surface Water/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-132 (HCL), 3-133 (HCL), 3-134 (HCL), 3-135 (Ice Only), 3-136 (Ice Only), 3-137 (Ice Only), 3-138 (Ice Only) (7)	SW-BC-06 /	S: 7/30/02	14:25	MC0007	-

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC: C0016, C0018	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced _____
BNA/PEST = CLP TCL Semivolatiles and Pesticides/PC, VOA = CLP TCL Volatiles			

TR Number: 3-424838327-080102-0002

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Organic Traffic Report & Chain of Custody Record

Case No: 30790

DAS No:

R

Region: 3 Project Code: 4192 Account Code: CERCLIS ID: Spill ID: Site Name/State: Valmont TCE 7/30/02/PA Project Leader: Neil Teamerson Action: Combined RI/FS Sampling Co: Tetra Tech NUS Inc.	Date Shipped: 8/1/02 Carrier Name: FedEx Airbill: 828684645830 Shipped to: Southwest Labs of Oklahoma, Inc. 1700 West Albany Suite C Broken Arrow OK 74012 (918) 251-0545	Chain of Custody Record Relinquished By (Date / Time) Received By (Date / Time) 1 <i>Neil Teamerson</i> 8-1-02/16:00 2 3 4	Sampler Signature: <i>Neil Teamerson</i>
--	---	--	---

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
C0008	Sediment/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-141 (Ice Only), 3-142 (Ice Only), 3-143 (Ice Only) (3)	SD-BC-06 /	S: 7/30/02 14:35	MC0008	-
C0009	Surface Water/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-145 (HCL), 3-146 (HCL), 3-147 (HCL), 3-148 (Ice Only), 3-149 (Ice Only), 3-150 (Ice Only), 3-151 (Ice Only) (7)	SW-CC-08 /	S: 7/30/02 15:45	MC0009	-
C0010	Sediment/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-154 (Ice Only), 3-155 (Ice Only), 3-156 (Ice Only) (3)	SD-CC-08 /	S: 7/30/02 15:50	MC0010	-
C0011	Surface Water/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-158 (HCL), 3-159 (HCL), 3-160 (HCL), 3-161 (Ice Only), 3-162 (Ice Only), 3-163 (Ice Only), 3-164 (Ice Only) (7)	SW-CC-07 /	S: 7/30/02 16:40	MC0011	-
C0012	Sediment/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-167 (Ice Only), 3-168 (Ice Only), 3-169 (Ice Only) (3)	SD-CC-07 /	S: 7/30/02 16:50	MC0012	-
C0013	Surface Water/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-171 (HCL), 3-172 (HCL), 3-173 (HCL), 3-174 (Ice Only), 3-175 (Ice Only), 3-176 (Ice Only), 3-177 (Ice Only) (7)	SW-BC-01 /	S: 7/31/02 8:45	MC0013	-
C0014	Sediment/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-180 (Ice Only), 3-181 (Ice Only), 3-182 (Ice Only) (3)	SD-BC-01 /	S: 7/31/02 8:55	MC0014	-

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC: C0016, C0018	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced _____
BNA/PEST = CLP TCL Semivolatiles and Pesticides/PC, VOA = CLP TCL Volatiles			

TR Number: 3-424838327-080102-0002

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RELIEF COPY

EPA USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 30790

DAS No:

R

Region: 3 Project Code: 4192 Account Code: CERCLIS ID: Spill ID: Site Name/State: Valmont TCE 7/30/02/PA Project Leader: Neil Teamerson Action: Combined RI/FS Sampling Co: Tetra Tech NUS Inc.	Date Shipped: 8/1/02 Carrier Name: FedEx Airbill: 828684645830 Shipped to: Southwest Labs of Oklahoma, Inc. 1700 West Albany Suite C Broken Arrow OK 74012 (918) 251-0545	Chain of Custody Record Relinquished By (Date / Time) 1 <i>Neil Reddy</i> 8-1-02/1600 2 3 4	Sampler Signature: <i>Neil Reddy</i> Received By (Date / Time)
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ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	QC Type
C0015	Surface Water/ Neb Dedic	L/G	BNAP/EST (21), VOA (21)	3-184 (HCL), 3-185 (HCL), 3-186 (HCL), 3-187 (Ice Only), 3-188 (Ice Only), 3-189 (Ice Only), 3-190 (Ice Only) (7)	SW-BC-02/	S: 7/31/02	9:40	MC0015	-
<i>COQ25</i> C0016	Sediment/ Neb Dedic	L/G	BNAP/EST (21), VOA (21)	3-193 (Ice Only), 3-194 (Ice Only), 3-195 (Ice Only) (3)	SD-BC-02 /	S: 7/31/02	9:50	MC0016	<i>per memo to file 8/28/02 MLR</i>
C0016	Surface Water/ Neb Dedic	L/G	BNAP/EST (21), VOA (21)	3-197 (HCL), 3-198 (HCL), 3-199 (HCL), 3-200 (HCL), 3-201 (HCL), 3-202 (HCL), 3-203 (HCL), 3-204 (HCL), 3-205 (HCL), 3-206 (Ice Only), 3-207 (Ice Only), 3-208 (Ice Only), 3-209 (Ice Only), 3-210 (Ice Only), 3-211 (Ice Only), 3-212 (Ice Only), 3-213 (Ice Only), 3-214 (Ice Only), 3-215 (Ice Only), 3-216 (Ice Only), 3-217 (Ice Only) (21)	SW-BC-03/	S: 7/31/02	10:35	MC0016	-
C0018	Sediment/ Neb Dedic	L/G	BNAP/EST (21), VOA (21)	3-224 (Ice Only), 3-225 (Ice Only), 3-226 (Ice Only), 3-227 (Ice Only), 3-228 (Ice Only), 3-229 (Ice Only) (6)	SD-BC-03	S: 7/31/02	10:50	MC0018	-

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC: C0016, C0018	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced _____
BNA/PEST = CLP TCL Semivolatiles and Pesticides/PC, VOA = CLP TCL Volatiles			

TR Number: 3-424838327-080102-0002

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EPA USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 30790

DAS No:

R

Region: 3 Project Code: 4192 Account Code: CERCLIS ID: Spill ID: Site Name/State: Valmont TCE 7/30/02/PA Project Leader: Neil Teamerson Action: Combined RI/FS Sampling Co: Tetra Tech NUS Inc.	Date Shipped: 8/1/02 Carrier Name: FedEx Airbill: 828684645830 Shipped to: Southwest Labs of Oklahoma, Inc. 1700 West Albany Suite C Broken Arrow OK 74012 (918) 251-0545	Chain of Custody Record Relinquished By (Date / Time) 1 <i>Neil Teamerson</i> 8-1-02/1600 2 3 4	Sampler Signature: <i>Neil Teamerson</i> Received By (Date / Time)
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ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No./ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
C0019	Sediment/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-232 (Ice Only), 3-233 (Ice Only), 3-234 (Ice Only) (3)	SD-CT-09 /	S: 7/31/02 12:10	MC0019	--
C0020	Sediment/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-236 (Ice Only), 3-237 (Ice Only), 3-238 (Ice Only) (3)	SD-CT-10 /	S: 7/31/02 12:50	MC0020	--
C0021	Sediment/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-240 (Ice Only), 3-241 (Ice Only), 3-242 (Ice Only) (3)	SD-CT-11 /	S: 7/31/02 13:20	MC0021	--
C0022	Field QC/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-244 (HCL), 3-245 (HCL), 3-246 (HCL), 3-247 (Ice Only), 3-248 (Ice Only), 3-249 (Ice Only), 3-250 (Ice Only) (7)	FB-01 /	S: 7/31/02 11:00	MC0022	PE Field Blank for M 9/3/02
C0023	Surface Water/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-253 (HCL), 3-254 (HCL), 3-255 (HCL), 3-256 (Ice Only), 3-257 (Ice Only), 3-258 (Ice Only), 3-259 (Ice Only) (7)	DUPSW-01 /	S: 7/31/02 12:00	MC0023	Field Duplicate of C0015 (SW-BE-V. N.D. 8-1-02)
C0024	Sediment/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-262 (Ice Only), 3-263 (Ice Only), 3-264 (Ice Only) (3)	DUPSD-01 /	S: 7/31/02 12:01	MC0024	Field Duplicate of C0016 (SD-BE-V.)
C0025	Decon. Water/ Neb Dedic	L/G	BNA/PEST (21), VOA (21)	3-266 (HCL), 3-267 (HCL), 3-268 (HCL), 3-269 (Ice Only), 3-270 (Ice Only), 3-271 (Ice Only), 3-272 (Ice Only) (7)	DECON-01 /	S: 7/31/02 14:10	MC0025	--

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC: C0016, C0018	Additional Sampler Signature(s):	Chain of Custody Seal Number:
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EPA USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 30790

DAS No:

R

Region: 3 Project Code: 4192 Account Code: CERCLIS ID: Spill ID: Site Name/State: Valmont TCE 7/30/02/PA Project Leader: Neil Teamerson Action: Combined RI/FS Sampling Co: Tetra Tech NUS Inc.	Date Shipped: 8/2/02 Carrier Name: FedEx Airbill: 828684645966 Shipped to: Southwest Labs of Oklahoma, Inc. 1700 West Albany Suite C Broken Arrow OK 74012 (918) 251-0545	Chain of Custody Record <table border="1"> <tr> <th>Relinquished By</th> <th>(Date / Time)</th> <th>Received By</th> <th>(Date / Time)</th> </tr> <tr> <td>1 <i>D.H.G.</i></td> <td>8/2/02 17:00</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4</td> <td></td> <td></td> <td></td> </tr> </table>	Relinquished By	(Date / Time)	Received By	(Date / Time)	1 <i>D.H.G.</i>	8/2/02 17:00			2				3				4				Sampler Signature: <i>D.H.G.</i>
Relinquished By	(Date / Time)	Received By	(Date / Time)																				
1 <i>D.H.G.</i>	8/2/02 17:00																						
2																							
3																							
4																							

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No/ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	QC Type
C0026	Surface Soil (0"-12")/ Daniel Hartigan	L/G	BNAP/EST (21), VOA (21)	3-275 (Ice Only), 3-276 (Ice Only), 3-277 (Ice Only) (3)	SS-19 /	S: 8/1/02	11:15	MC0026	-
C0027	Subsurface Soil (>12")/ Daniel Hartigan	L/G	BNAP/EST (21), VOA (21)	3-279 (Ice Only), 3-280 (Ice Only), 3-281 (Ice Only) (3)	SB-19-0206 /	S: 8/1/02	11:30	MC0027	-
C0028	Surface Soil (0"-12")/ Daniel Hartigan	L/G	BNAP/EST (21), VOA (21)	3-283 (Ice Only), 3-284 (Ice Only), 3-285 (Ice Only) (3)	SS-20 /	S: 8/1/02	12:15	MC0028	-
C0029	Subsurface Soil (>12")/ Daniel Hartigan	L/G	BNAP/EST (21), VOA (21)	3-287 (Ice Only), 3-288 (Ice Only), 3-289 (Ice Only) (3)	SB-20-0206 /	S: 8/1/02	12:30	MC0029	-
C0030	Surface Soil (0"-12")/ Daniel Hartigan	L/G	BNAP/EST (21), VOA (21)	3-310 (Ice Only), 3-311 (Ice Only), 3-312 (Ice Only), 3-313 (Ice Only), 3-314 (Ice Only), 3-315 (Ice Only) (6)	SS-21 /	S: 8/1/02	13:30	MC0030	-
C0031	Subsurface Soil (>12")/ Daniel Hartigan	L/G	BNAP/EST (21), VOA (21)	3-295 (Ice Only), 3-296 (Ice Only), 3-297 (Ice Only) (3)	SB-21-0206 /	S: 8/1/02	13:50	MC0031	-
C0035	Surface Soil (0"-12")/ Daniel Hartigan	L/G	BNAP/EST (21), VOA (21)	3-302 (Ice Only), 3-303 (Ice Only), 3-304 (Ice Only) (3)	SS-DUP-01 /	S: 8/1/02	12:00	MC0035	Field Duplicate of C0026
C0036	Subsurface Soil (>12")/ Daniel Hartigan	L/G	BNAP/EST (21), VOA (21)	3-306 (Ice Only), 3-307 (Ice Only), 3-308 (Ice Only) (3)	SB-DUP-01 /	S: 8/1/02	12:01	MC0036	Field Duplicate of C0027

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____

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Region: 3 Project Code: 4192 Account Code: CERCLIS ID: Spill ID: Site Name/State: Valmont TCE 7/30/02/PA Project Leader: Neil Teamerson Action: Combined RI/FS Sampling Co: Tetra Tech NUS Inc.	Date Shipped: 8/2/02 Carrier Name: FedEx Airbill: 828684645966 Shipped to: Southwest Labs of Oklahoma, Inc. 1700 West Albany Suite C Broken Arrow OK 74012 (918) 251-0545	Chain of Custody Record Relinquished By (Date / Time) 1 <u>D. Hartigan</u> 8/2/02 17:00 2 3 4 Sampler Signature: <u>D. Hartigan</u> Received By (Date / Time)
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ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No/ PRESERVATIVE	STATION LOCATION	SAMPLE COLLECT DATE/TIME		INORGANIC SAMPLE No.	QC Type
C0037	Field QC/ Daniel Hartigan	L/G	BNAP/EST (21), VOA (21)	3-318 (HCL), 3-319 (HCL), 3-320 (HCL), 3-321 (Ice Only), 3-322 (Ice Only), 3-323 (Ice Only), 3-324 (Ice Only) (7)	RB-01 /	S: 8/2/02	8:00	MC0037	Rinsate
C0038	Field QC/ Daniel Hartigan	L/G	VOA (21)	3-327 (HCL), 3-328 (HCL), 3-329 (HCL) (3)	TB-03 /	S: 8/1/02	8:00		Trip Blank

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Chain of Custody Seal Number:
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BNAP/EST = CLP TCL Semivolatiles and Pesticides/PC, VOA = CLP TCL Volatiles			

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TTNUS

U.S. EPA Region III Sample Scheduling Request Form

RAS CASE No: CT1404 30790		DAS No:		NSF No:	
Date: 07/29/02		Data Validation Level: M-3		EPA Lab Reply:	
Site Name: Valmont TCE				Cost:	
Address: Deer Run Road			City: West Hazleton		State: PA
Latitude:		Longitude:		Anal +Val Data TAT:42 days	
Program: SUPERFUND		CERCLIS No: PAD982363970		Activity: RI/FS	
Account No: 00T0NFAX031MC001		Operable Unit:		Spill ID:	
Preparer: Russell Sloboda		RPM/PO: Romuald Roman		Site Leader: Neil Teamerson	
Phone: 610-491-9688		Phone: 215-814-3212		Phone: 610-491-9688	
FAX: 610-491-9645		FAX: 215-814-3002		FAX: 610-491-9645	
E-mail: slobodar@ttnus.com		E-mail: Romuald Roman@epamail.epa.gov		E-mail: Teamersonn@ttnus.com	
EPA CO: Al Plnero		Contract Type: RAC 3		Prime: Tetra Tech NUS	
				Sub:	
Lab Assignment Date:		Analytical TAT: 21 days		Ship Date From: 7/29/02	
Organic Lab: SWOK				Ship Date To: 7/31/02	
Inorganic Lab: CHEM				Carrier:	
SAMPLES	METHOD	PARAMETER		MATRIX	
43	OLM04.2	TCL		Soil/Sed	
16	OLM04.2	TCL		AQ (Not Drinking Water)	
43	FLM04.1	TM+CN		Soils	
13	ILM04.1	TM+CN		AQ	

NOTE: Data validation levels M3 & IM2 require justification. QC field samples must be included as part of total number of samples.

- Special Instructions: Send results to: Neil Teamerson, Tetra Tech NUS 600 Clarke Ave., Ste. 3, King of Prussia, PA 19406
- Objectives / Project Plan ID / Permit ID: validated data used later for risk assessment
- Program / Project / Permit Reporting Limits According to method used.
- DQO (QC Requirements) According to method used.

**TETRA TECH NUS, INC.**

600 Clark Avenue, Suite 3 • King of Prussia, PA 19406-1433
(610) 491-9688 • FAX (610) 491-9645 • www.tetratech.com

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PHIL-16504

August 28, 2002

Project Number 4192

Ms. Lisa Penix
ESAT RSCC
Lockheed Martin Environmental Services
EPA Environmental Science Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

Reference: RAC 3 Program
EPA Contract No. 68-S8-3003

Subject: Memorandum to File: Case No. 30790
Valmont TCE Site
Remedial Investigation/Feasibility Study (RI/FS)
EPA Work Assignment No. 044-RICO-031M

Dear Ms. Penix:

This is a memo to file correcting documentation errors for the subject sampling event. Organic Sample No. C0016, collected on July 31, 2002, was used twice for the sediment sample collected at Station No. BC-02 and the surface water sample collected at Station No. BC-03 (refer to Traffic Report No. 3-42483827-080102-0002).

The sediment sample collected at Station No. BC-02 should be renumbered as C0QZ5. This change applies to Sample Tag Nos. 3-193, 3-194, and 3-195. The samples should be analyzed for TCL semivolatile organics, pesticides and PCBs, and volatile organics. The respective traffic report should be changed to reflect the new sample number as well.

Please call me if you have any questions or comments.

Sincerely,

Neil Teamerson
Project Manager

NT/vh

c: Rom Roman (EPA Region 3)
File 3.2

Appendix E

Laboratory Case Narratives

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

SDG NARRATIVE

August 21, 2002

CONTRACT NO.: 68W99079

CASE NO.: 30790

SAMPLE NOS.: C0001, C0002, C0003, C0005, C0007, C0009, C0011, C0013, C0015, C0016, C0016MS,
C0016MSD, C0022, C0023, C0025, C0037, C0038

SDG NO.: C0001

VOLATILE FRACTION

Fifteen water samples plus MS/MSD were submitted for Volatile Organic Analysis. The samples were analyzed by GC/MS following the OLM04.2 CLP Statement of Work.

Alternate columns used for the analysis of volatile compounds by Method OLM04.2 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).

Alternate traps used for the analysis of volatile compounds by method OLM04.2 are the Supelco Vocab 3000 (Carbopack B-10cm, Carboxen 1000-6cm, Carboxen 1001-1cm) and the Tekmar #2 (Tenax-15cm, silica gel-7.5cm).

No significant problems occurred during the analyses of these samples.

Blanks: VBLK2 contained low chloroform contamination less than the CRQL. VBLK3 contained low level methylene chloride contamination less than the CRQL.

Surrogates: All surrogates were within their QC recovery limits.

Matrix Spikes: All compounds were within their QC recovery limits. Three compounds exceeded their RPD limits.

Internal Standards: All internal standard areas were within their QC recovery limits.

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 diskette has been authorized by the Laboratory Manager, or his/her designee, as verified by the following signature.

Diana L. Hoke

Diana L. Hoke
Organic Program Manager

August 21, 2002

SOUTHWEST LABORATORY OF OKLAHOMA
(SWL-TULSA)
1700 West Albany, Suite A/ Broken Arrow, OK 74012
918-251-2858
SDG NARRATIVE
August 16, 2002

CONTRACT: 68W99079
CASE NO: 30790
SDG NO: C0001
SAMPLES: C0003, C0005, C0007, C0009, C0011, C0013, C0015, C0016, C0016MS, C0016MSD, C0022, C0023, C0025, C0025RE and C0037.

SEMIVOLATILE FRACTION

Twelve water samples plus MS/MSD were submitted for semivolatile organic analyses. The samples were analyzed by GC/MS following the OLM04.2 CLP Organic Statement of Work.

The following column is used for the semivolatile analysis: Restek XT1-5 (bonded 5% phenyl-95% dimethyl polysiloxane), 30m, 0.25mm ID, 0.25um film thickness (Restek #12223).

No significant problems were encountered with the delivery, extraction or analyses of these samples. Note: Sample C0025 had 0% recovery of Phenol-d5. The sample was re-extracted and reanalyzed and again had 0% recovery of Phenol-d5, indicating matrix effects.

Sample coolers arrived at 4.9, 3.6 and 3.1 degrees Celsius. Note: All cooler temperatures are taken with a ISO 9001 certified RayTek Model # 3MC11 infra-red (IR) temperature detector using the cooler temperature blanks when submitted with the samples. The DC-1 forms indicate which samples if any did not have cooler temperature blanks submitted, in these cases, the temperature is taken from a random sample within the cooler.

The following samples had alkanes reported and the reports are included at the end of this SDG Narrative: C0003, C0005, C0009, C0011, C0013, C0015, C0016, C0022, C0023, C0025 and C0037.

The following samples labeled with a RE are considered billable since they required re-extraction and reanalysis and the re-extract confirmed the low surrogate indicating matrix effects: C0025RE.

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

Surrogates: All surrogates were within QC recovery limits with the following exceptions: As noted above, samples C0025 and C0025RE had 0% recovery for Phenol-d5.

Matrix Spike: All matrix spike compounds were within QC recovery limits with the following exceptions: C0016MS and MSD had slightly high recovery for 4-Nitrophenol at 100% and 89%, respectively. The upper limit being 80%.

Internal standards: All internal standard areas were within QC limits.

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 diskette has been authorized by the Laboratory Manager, or his/her designee, as verified by the following signature.


Diana L. Hoke
Organic Program Manager

August 16, 2002

SOUTHWEST LABORATORY OF OKLAHOMA
(SWL-TULSA)
1700 West Albany, Suite A/ Broken Arrow, OK 74012
918-251-2858
SDG NARRATIVE
August 14, 2002

CONTRACT: 68W99079
CASE NO: 30790
SDG NO: C0001
SAMPLES: C0003, C0005, C0007, C0009, C0011, C0013, C0015, C0016, C0016MS, C0016MSD, C0022, C0023, C0025 and C0037.
FRACTION: Pesticide/PCB

Twelve water samples plus MS/MSD were analyzed for Pesticides/PCB, by EPA SOW OLM04.2.

Columns: samples were analyzed on J&W (agilent technologies) dual analytical columns, DB17, length 30m, id 0.32 mm, film thickness 0.25 um) and DB1701, length 30m, id 0.32 mm, film thickness 0.25 um) 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 on the performance characteristics of the columns are kept on site. Hydrogen was used as the carrier gas for all sample analyses.

Note: Many soil samples can cause analysis problems due to interference peaks in the sample chromatograms along with degrading instrument performance. It should be noted that when large numbers of "interference" peaks and/or multi-response targets are present in a sample, false positives of single response compounds are common. Since ECD detection is not a definitive means of detection, single-response analytes in the presence of interference are reported 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 lessens 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.

Florisil Check: All recoveries were within QC limits.

GPC calibration verification: All recoveries were within QC limits.

Samples were sulfur cleaned.

Surrogates: All surrogate recoveries were within QC limits.

Matrix Spikes: All matrix spike recoveries were within QC limits.

Retention Times: All retention times were within QC limits.

Resolution Checks: All Resolution Checks were within QC limits.

Breakdown Products: All Breakdown products were within QC limits.

Initial Calibrations: All QC within limits.

Calibration Verifications: All QC within limits.

Blanks: PBLKWD had low level heptachlor contamination detected below CRQL.

The following tables list the total nanograms injected on column for each calibration standard based upon amount injected, 0.5 μ L, 1 μ L, or 2 μ L: Note: All calibration and sample analyses are done using 1 μ L injected and split on to two columns. Therefore amount on each column is 0.5 μ L injected.

RESOLUTION CHECK

Compounds	Total nanograms (0.5 μ L)	Total nanograms (1 μ L)	Total nanograms (2 μ L)
gamma-Chlordane	0.005	0.01	0.02
Endosulfan I	0.005	0.01	0.02
4,4'-DDE	0.01	0.02	0.04
Dieldrin	0.01	0.02	0.04
Endosulfan Sulfate	0.01	0.02	0.04
Endrin Ketone	0.01	0.02	0.04
Methoxychlor	0.5	0.1	0.2
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.01	0.02	0.04

PERFORMANCE EVALUATION

Compounds	Total nanograms (0.5 μ L)	Total nanograms (1 μ L)	Total nanograms (2 μ L)
gamma-BHC	0.005	0.01	0.02
alpha-BHC	0.005	0.01	0.02
4,4'-DDT	0.05	0.1	0.2
beta-BHC	0.005	0.01	0.02
Endrin	0.025	0.05	0.1
Methoxychlor	0.125	0.25	0.5
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.01	0.02	0.04

INDIVIDUAL STANDARD MIXTURE A - LOW

Compounds	Total nanograms (0.5 μ L)	Total nanograms (1 μ L)	Total nanograms (2 μ L)
alpha-BHC	0.0025	0.005	0.01
Heptachlor	0.0025	0.005	0.01
gamma-BHC	0.0025	0.005	0.01
Endosulfan I	0.0025	0.005	0.01
Dieldrin	0.005	0.01	0.02
Endrin	0.005	0.01	0.02
4,4'-DDD	0.005	0.01	0.02
4,4'-DDT	0.005	0.01	0.02
Methoxychlor	0.025	0.05	0.1
Tetrachloro-m-xylene	0.0025	0.005	0.01
Decachlorobiphenyl	0.005	0.01	0.02

INDIVIDUAL STANDARD MIXTURE B -- LOW

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.0025	0.005	0.01
delta-BHC	0.0025	0.005	0.01
Aldrin	0.0025	0.005	0.01
Heptachlor epoxide	0.0025	0.005	0.01
alpha-Chlordane	0.0025	0.005	0.01
gamma-Chlordane	0.0025	0.005	0.01
4,4'-DDE	0.005	0.01	0.02
Endosulfan sulfate	0.005	0.01	0.02
Endrin aldehyde	0.005	0.01	0.02
Endrin ketone	0.005	0.01	0.02
Endosulfan II	0.005	0.01	0.02
Tetrachloro-m-xylene	0.0025	0.005	0.01
Decachlorobiphenyl	0.005	0.01	0.02

INDIVIDUAL STANDARD MIXTURE A -- MEDIUM

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.01	0.02	0.04
Heptachlor	0.01	0.02	0.04
gamma-BHC	0.01	0.02	0.04
Endosulfan I	0.01	0.02	0.04
Dieldrin	0.02	0.04	0.08
Endrin	0.02	0.04	0.08
4,4'-DDD	0.02	0.04	0.08
4,4'-DDT	0.02	0.04	0.08
Methoxychlor	0.1	0.2	0.4
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.02	0.04	0.08

INDIVIDUAL STANDARD MIXTURE B -- MEDIUM

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.01	0.02	0.04
delta-BHC	0.01	0.02	0.04
Aldrin	0.01	0.02	0.04
Heptachlor epoxide	0.01	0.02	0.04
alpha-Chlordane	0.01	0.02	0.04
gamma-Chlordane	0.01	0.02	0.04
4,4'-DDE	0.02	0.04	0.08
Endosulfan sulfate	0.02	0.04	0.08
Endrin aldehyde	0.02	0.04	0.08
Endrin ketone	0.02	0.04	0.08
Endosulfan II	0.02	0.04	0.08
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.02	0.04	0.08

INDIVIDUAL STANDARD MIXTURE A -- HIGH

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.04	0.08	0.16
Heptachlor	0.04	0.08	0.16
gamma-BHC	0.04	0.08	0.16
Endosulfan I	0.04	0.08	0.16
Dieldrin	0.08	0.16	0.32
Endrin	0.08	0.16	0.32
4,4'-DDD	0.08	0.16	0.32
4,4'-DDT	0.08	0.16	0.32
Methoxychlor	0.4	0.8	1.6
Tetrachloro-m-xylene	0.04	0.08	0.16
Decachlorobiphenyl	0.08	0.16	0.32

INDIVIDUAL STANDARD MIXTURE B -- HIGH

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.04	0.08	0.16
delta-BHC	0.04	0.08	0.16
Aldrin	0.04	0.08	0.16
Heptachlor epoxide	0.04	0.08	0.16
alpha-Chlordane	0.04	0.08	0.16
gamma-Chlordane	0.04	0.08	0.16
4,4'-DDE	0.08	0.16	0.32
Endosulfan sulfate	0.08	0.16	0.32
Endrin aldehyde	0.08	0.16	0.32
Endrin ketone	0.08	0.16	0.32
Endosulfan II	0.08	0.16	0.32
Tetrachloro-m-xylene	0.04	0.08	0.16
Decachlorobiphenyl	0.08	0.16	0.32

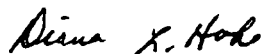
MULTI-RESPONSE STANDARD MIXTURES

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
Aroclor-1016	0.05	0.1	0.2
Aroclor-1221	0.1	0.2	0.4
Aroclor-1232	0.05	0.1	0.2
Aroclor-1242	0.05	0.1	0.2
Aroclor-1248	0.05	0.1	0.2
Aroclor-1254	0.05	0.1	0.2
Aroclor-1260	0.05	0.1	0.2
Toxaphene	0.25	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.

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Diana L. Hoke
Organic Program Manager

August 14, 2002

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080811.D

SAMPLE ID: C0003

MATRIX: WATER

LAB ID: 50465.03

DATE ANALYZED: 08/08/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
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1) 000489-20-3	CYCLOPENTANE, 1,2-DIMETHYL-3-(1-MET	4.54	4
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SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080812.D

SAMPLE ID: C0005

MATRIX: WATER

LAB ID: 50465.05

DATE ANALYZED: 08/08/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
1) 000617-78-7	PENTANE, 3-ETHYL-	4.50	2
2) 004291-79-6	CYCLOHEXANE, 1-METHYL-2-PROPYL-	4.54	4

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080814.D

SAMPLE ID: C0009

MATRIX: WATER

LAB ID: 50465.09

DATE ANALYZED: 08/08/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
1) 000565-75-3	PENTANE, 2,3,4-TRIMETHYL-	4.50	2
2) 004291-79-6	CYCLOHEXANE, 1-METHYL-2-PROPYL-	4.54	4

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080815.D

SAMPLE ID: C0011

MATRIX: WATER

LAB ID: 50465.11

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
1) 000565-75-3	PENTANE, 2,3,4-TRIMETHYL-	4.50	2
2) 004291-79-6	CYCLOHEXANE, 1-METHYL-2-PROPYL-	4.54	4

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080905.D

SAMPLE ID: C0013

MATRIX: WATER

LAB ID: 50465.13

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
1) 004291-79-6	CYCLOHEXANE, 1-METHYL-2-PROPYL-	4.54	3

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080906.D

SAMPLE ID: C0015
LAB ID: 50465.15

MATRIX: WATER
DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
1) 000565-75-3	PENTANE, 2,3,4-TRIMETHYL-	4.50	2
2) 002207-03-6	CYCLOHEXANE, 1,3-DIMETHYL-, TRANS-	4.54	4

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080907.D

SAMPLE ID: C0016

MATRIX: WATER

LAB ID: 50465.16

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
1) 000489-20-3	CYCLOPENTANE, 1,2-DIMETHYL-3-(1-MET	4.54	4

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080910.D

SAMPLE ID: C0022

MATRIX: WATER

LAB ID: 50465.26

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
1) 004291-79-6	CYCLOHEXANE, 1-METHYL-2-PROPYL-	4.54	4

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080911.D

SAMPLE ID: C0023

MATRIX: WATER

LAB ID: 50465.27

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
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1) 002207-04-7	CYCLOHEXANE, 1,4-DIMETHYL-, TRANS-	4.54	3
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SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080912.D

SAMPLE ID: C0025

MATRIX: WATER

LAB ID: 50465.29

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
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1) 000589-90-2	CYCLOHEXANE, 1,4-DIMETHYL-	4.54	3
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SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080810.D

SAMPLE ID: C0037

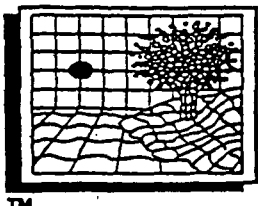
MATRIX: WATER

LAB ID: 50475.09

DATE ANALYZED: 08/08/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
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1) 004549-31-9	HEPTANE, 1,7-DIBROMO-	4.54	3
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VOLATILES GC/MS pH FORM---EPA

Ref: SWL-OV-101, Rev. 2.0

Form ID: OV-101-pHEPA-F

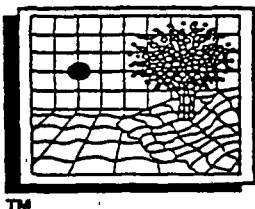
Location/File ID: QCFORMS ON 'SWLO\ORGANICS\pHEPA.DOC

CASE EPA

SDG# 50465

LAB ID	CLIENT SAMPLE ID	pH	ANALYST	DATE TESTED
50465.01	C0001	42	RD	8/05/02
.02	C0002	42		
.03	C0003	42		
.05	C0005	42		
.07	C0007	42		
.09	C0009	42		
.11	C0011	42		
.13	C0013	42		
.15	C0015	42		
.16	C0016	42		
.17ms	" ms	42		
.18msD	" msD	42		
.26	C0022	42		
.27	C0023	42		
.29	C0025	42		
			RD	8/05/02

COMMENTS: _____



VOLATILES GC/MS pH FORM---EPA

Ref: SWL-OV-101, Rev. 2.0

Form ID: OV-101-pHEPA-F

Location/File ID: QCFORMS ON 'SWLO' \ORGANICS\ PHEPA.DOC

CASE EPA

SDG# _____

LAB ID	CLIENT SAMPLE ID	pH	ANALYST	DATE TESTED
50475.09	C0037	42	LD	8/05/02
50475.10	C0038	42	↓	↓
/				

COMMENTS: _____

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

SDG NARRATIVE

August 16, 2002

CONTRACT NO.: 68W99079

CASE NO.: 30790

SAMPLE NOS.: C0004, C0006, C0008, C0010, C0012, C0014, C0QZ5, C0018, C0018MS, C0018MSD, C0019, C0020, C0020RE, C0021, C0021RE, C0024, C0026, C0027, C0028, C0028RE, C0029, C0030, C0031, C0035, C0036

SDG NO.: C0004

VOLATILE FRACTION.

Twenty soil samples plus MS/MSD were submitted for Volatile Organic Analysis. The samples were analyzed by GC/MS following the OLM04.2 CLP Statement of Work.

Alternate columns used for the analysis of volatile compounds by Method OLM04.2 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).

Alternate traps used for the analysis of volatile compounds by method OLM04.2 are the Supelco Vocab 3000 (Carbopack B-10cm, Carboxen 1000-6cm, Carboxen 1001-1cm) and the Tekmar #2 (Tenax-15cm, silica gel-7.5cm).

No significant problems occurred during the analyses of these samples.

Blanks: VBLK1 contained low methylene chloride contamination less than the CRQL. VBLK2 contained low level 1,2,4-trichlorobenzene contamination less than the CRQL

Surrogates: Sample C0018MS contained surrogates outside QC recovery limits. They were within limits in the sample and the MSD. No reanalysis was done per protocol. Samples C0020 and C0021 contained surrogates outside QC recovery limits. Each reanalysis duplicated its original result, verifying a matrix effect. Both sets of data are submitted.

Matrix Spikes: All compounds were within their QC recovery limits.

Internal Standards: Sample C0028 contained internal standard areas outside QC recovery limits. The reanalysis duplicated the original result, verifying a matrix effect. Both sets of data are submitted.

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 diskette has been authorized by the Laboratory Manager, or his/her designee, as verified by the following signature.

Diana L. Hoke

Diana L. Hoke
Organic Program Manager

August 16, 2002

SOUTHWEST LABORATORY OF OKLAHOMA
(SWL-TULSA)
1700 West Albany, Suite A/ Broken Arrow, OK 74012
918-251-2858
SDG NARRATIVE
August 16, 2002

CONTRACT: 68W99079
CASE NO: 30790
SDG NO: C0004
SAMPLES: C0004, C0006, C0008, C0010, C0012, C0014, C0QZ5, C0018, C0018MS, C0018MSD,
C0019, C0020, C0020DL, C0021, C0024, C0026, C0027, C0028, C0029, C0030,
C0031, C0035 and C0036.

SEMIVOLATILE FRACTION

Twenty soil samples plus MS/MSD were submitted for semivolatile organic analyses. The samples were analyzed by GC/MS following the OLM04.2 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 problems were encountered with the delivery, extraction or analyses of these samples: (1) there was a discrepancy with the TR/COC. Sample C0016 is listed twice on the TR (once as a soil and once as a water). The soil sample was assigned CLP ID C0QZ5, per the region. The lab hand-corrected the COC form (see email log). (2) Samples C0019, C0020 and C0021 were analyzed at initial dilutions due to high concentrations of extractable organics. Sample C0020 would not concentrate below a final volume of 1.0ml and required further dilution to get all target analytes within instruments linear range.

Sample coolers arrived at 4.9, 3.6, and 3.1 degrees Celsius. Note: All cooler temperatures are taken with a ISO 9001 certified RayTek Model # 3MC11 infra-red (IR) temperature detector using the cooler temperature blanks when submitted with the samples. The DC-1 forms indicate which samples if any did not have cooler temperature blanks submitted, in these cases, the temperature is taken from a random sample within the cooler.

The following samples had alkanes reported and the reports are included at the end of this SDG Narrative: C0004, C0010, C0012, C0014, C0018, C0019, C0020, C0020DL, C0021, C0024, C0026, C0027, C0028, C0029, C0030, C0031, C0035, C0036, C0QZ5 and SBLK1.

The following samples labeled with a DL are considered billable since they required dilutions to get all target analytes within instruments linear range: C0020DL.

Blanks: SBLK1 had low level phthalate contamination detected below the CRQL.

Surrogates: All surrogates were within QC recovery limits with the following exceptions: Samples C0018, C0026 C0020DL and C0004 had high recovery for Terphenyl-d14 and 2,4,6-Tribromophenol ranging from 123% to 157%. Sample C0QZ5 had high recovery for Terphenyl-d14 at 145%. C0024 and C0035 had high recovery for 2,4,6-Tribromophenol at 124% and 141%, respectively.

Matrix Spike: All matrix spike compounds were within QC recovery limits with the following exceptions: C0018MS and MSD had high recovery for 4-Nitrophenol at 138% and 131%, respectively.

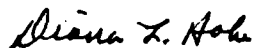
Internal standards: All internal standard areas were within QC limits.

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 diskette has been authorized by the Laboratory Manager, or his/her designee, as verified by the following signature.



Diana L. Hoke
Organic Program Manager

August 16, 2002

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

SDG NARRATIVE

August 22, 2002

CONTRACT: 68W99079

CASE NO: 30790

SDG NO: C0004

SAMPLES: C0004, C0006, C0008, C0010, C0012, C0014, C0QZ5, C0018, C0018MS, C0018MSD, C0019, C0019DL, C0020, C0020DL, C0021, C0021DL, C0024, C0026, C0027, C0028, C0029, C0030, C0031, C0035 and C0036.

FRACTION: Pesticide/PCB

Twenty soil samples plus MS/MSD were analyzed for Pesticides/PCBs, by EPA SOW OLM04.2.

Columns: The soil samples were analyzed on J&W (agilent technologies) dual analytical columns, DB17, length 30m, id 0.32 mm, film thickness 0.25 um) and DB1701, length 30m, id 0.32 mm, film thickness 0.25 um) 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 on the performance characteristics of the columns and they are kept on site. Helium was used as the carrier gas for all sample analyses.

Note: Many environmental samples can cause analysis problems due to interference peaks in the sample chromatograms along with degrading instrument performance. It should be noted that when large numbers of "interference" peaks and/or multi-response targets are present in a sample, false positives of single response compounds are common. Since ECD detection is not a definitive means of detection, single-response analytes in the presence of interference are reported 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 lessens 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.

No major problems were encountered during the extraction or analyses of these samples. Sample E0157 required a dilution to get target analytes within instruments linear range. Note: As per clarification by SMO, samples that had target compounds detected on both columns and had a concentration above the linear range on one column (E-flag) were not diluted if the percent difference in concentrations between the two columns was greater than 25%.

GPC Check: All recoveries were within QC limits.

Florisil Check: All recoveries were within QC limits.

Silica Gel Cleanup: To avoid problems routinely encountered during the analyses of soil samples by this method, permission was obtained to perform additional cleanup on the soil samples (see communication log). However, the silica gel cleaned sample batch contained target analyte contamination above CRQL in the extraction blank. The silica gel samples were not reported. The sample extracts were dark colored and contained high interferences resulting in high surrogate recoveries and calibration verification failure. Samples C0019, C0020 and C0021 were analyzed initially at a 10-fold dilution anticipating high levels of interferences and then again at no dilution. Both sets of data have been reported.

Samples were sulfur cleaned.

Retention Times: All retention times were within method acceptance criteria.

Resolution Checks: All Resolution Checks were within method acceptance criteria.

Breakdown Products: All Breakdown products were within method acceptance criteria.

Initial Calibrations: All components within method acceptance criteria.

Calibration Verifications: All components within method acceptance criteria with the following exceptions: INDAMCB analyzed on 8/10/02 at 0022Hrs had high %D for Heptachlor at 30.0%. INDBMCB analyzed on 8/10/02 at 0122Hrs had high %D for beta-BHC at 30.0%. INDAM4Q analyzed on 8/11/02 at 0409Hrs on column DB17 had low %D for EndosulfanI At 30.0%, 4,4'-DDT at 50.0%, Methoxychlor at 28.0% and DCB at 30.0%. INDBM4Q analyzed on 8/11/02 at 0516Hrs had low %D for Endosulfan sulfate at 30.0%, Endrin aldehyde at 35.0%, and DCB at 30.0%. INDAM4Q on column DB1701 had low recovery for 4,4'-DDT at 40.0% and Methoxychlor at 27.0%. INDAM4R analyzed on 8/11/02 at 0549Hrs on column DB17 had low %d for DDT at 40.0% and DCB at 30.0%. INDBM4R analyzed on 8/11/02 at 0622Hrs had low %D for Endrin Aldehyde and DCB at 30.0%. INDAM4Ranalyzed on 8/11/02 at 0549Hrs on co,umn DB1701 had low %D for DDT at 35.0%. INDBM4R analyzed on 8/11/02 at 0622Hrs had low %D for Endrin aldehyde at 40.0%

Blanks: PBLKSA and PBLKSB had low level heptachlor contamination below CRQL.

Surrogates: All surrogates were within QC recovery limits with the following exceptions: Several samples had high recovery for TCX on one column ranging from 152% to 280%. Samples C0020DL, C0021DL had high DCB recovery on one column at 700% and 190%. And samples C0020 and C0021 had high DCB recovery on both columns ranging from 166% to 600%.

Matrix Spikes: All matrix spike recoveries and %RPDs were within QC limits.

The following tables list the total nanograms injected on column for each calibration standard based upon amount injected, 0.5µL, 1µL, or 2µL. Note: All calibration and sample analyses are done using 1µl injected and split on to two columns. Therefore amount on each column is 0.5 µL injected.

RESOLUTION CHECK

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
gamma-Chlordane	0.005	0.01	0.02
Endosulfan I	0.005	0.01	0.02
4,4'-DDE	0.01	0.02	0.04
Dieldrin	0.01	0.02	0.04
Endosulfan Sulfate	0.01	0.02	0.04
Endrin Ketone	0.01	0.02	0.04
Methoxychlor	0.5	0.1	0.2
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.01	0.02	0.04

PERFORMANCE EVALUATION

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
gamma-BHC	0.005	0.01	0.02
alpha-BHC	0.005	0.01	0.02
4,4'-DDT	0.05	0.1	0.2
beta-BHC	0.005	0.01	0.02
Endrin	0.025	0.05	0.1
Methoxychlor	0.125	0.25	0.5
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.01	0.02	0.04

INDIVIDUAL STANDARD MIXTURE A - LOW

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.0025	0.005	0.01
Heptachlor	0.0025	0.005	0.01
gamma-BHC	0.0025	0.005	0.01
Endosulfan I	0.0025	0.005	0.01
Dieldrin	0.005	0.01	0.02
Endrin	0.005	0.01	0.02
4,4'-DDD	0.005	0.01	0.02
4,4'-DDT	0.005	0.01	0.02
Methoxychlor	0.025	0.05	0.1
Tetrachloro-m-xylene	0.0025	0.005	0.01
Decachlorobiphenyl	0.005	0.01	0.02

INDIVIDUAL STANDARD MIXTURE B - LOW

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.0025	0.005	0.01
delta-BHC	0.0025	0.005	0.01
Aldrin	0.0025	0.005	0.01
Heptachlor epoxide	0.0025	0.005	0.01
alpha-Chlordane	0.0025	0.005	0.01
gamma-Chlordane	0.0025	0.005	0.01
4,4'-DDE	0.005	0.01	0.02
Endosulfan sulfate	0.005	0.01	0.02
Endrin aldehyde	0.005	0.01	0.02
Endrin ketone	0.005	0.01	0.02
Endosulfan II	0.005	0.01	0.02
Tetrachloro-m-xylene	0.0025	0.005	0.01
Decachlorobiphenyl	0.005	0.01	0.02

INDIVIDUAL STANDARD MIXTURE A - MEDIUM

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.01	0.02	0.04
Heptachlor	0.01	0.02	0.04
gamma-BHC	0.01	0.02	0.04
Endosulfan I	0.01	0.02	0.04
Dieldrin	0.02	0.04	0.08
Endrin	0.02	0.04	0.08
4,4'-DDD	0.02	0.04	0.08
4,4'-DDT	0.02	0.04	0.08
Methoxychlor	0.1	0.2	0.4
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.02	0.04	0.08

INDIVIDUAL STANDARD MIXTURE B - MEDIUM

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.01	0.02	0.04
delta-BHC	0.01	0.02	0.04
Aldrin	0.01	0.02	0.04
Heptachlor epoxide	0.01	0.02	0.04
alpha-Chlordane	0.01	0.02	0.04
gamma-Chlordane	0.01	0.02	0.04
4,4'-DDE	0.02	0.04	0.08
Endosulfan sulfate	0.02	0.04	0.08
Endrin aldehyde	0.02	0.04	0.08
Endrin ketone	0.02	0.04	0.08
Endosulfan II	0.02	0.04	0.08
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.02	0.04	0.08

INDIVIDUAL STANDARD MIXTURE A – HIGH

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.04	0.08	0.16
Heptachlor	0.04	0.08	0.16
gamma-BHC	0.04	0.08	0.16
Endosulfan I	0.04	0.08	0.16
Dieldrin	0.08	0.16	0.32
Endrin	0.08	0.16	0.32
4,4'-DDD	0.08	0.16	0.32
4,4'-DDT	0.08	0.16	0.32
Methoxychlor	0.4	0.8	1.6
Tetrachloro-m-xylene	0.04	0.08	0.16
Decachlorobiphenyl	0.08	0.16	0.32

INDIVIDUAL STANDARD MIXTURE B – HIGH

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.04	0.08	0.16
delta-BHC	0.04	0.08	0.16
Aldrin	0.04	0.08	0.16
Heptachlor epoxide	0.04	0.08	0.16
alpha-Chlordane	0.04	0.08	0.16
gamma-Chlordane	0.04	0.08	0.16
4,4'-DDE	0.08	0.16	0.32
Endosulfan sulfate	0.08	0.16	0.32
Endrin aldehyde	0.08	0.16	0.32
Endrin ketone	0.08	0.16	0.32
Endosulfan II	0.08	0.16	0.32
Tetrachloro-m-xylene	0.04	0.08	0.16
Decachlorobiphenyl	0.08	0.16	0.32

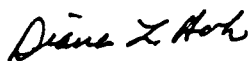
MULTI-RESPONSE STANDARD MIXTURES

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
Aroclor-1016	0.05	0.1	0.2
Aroclor-1221	0.1	0.2	0.4
Aroclor-1232	0.05	0.1	0.2
Aroclor-1242	0.05	0.1	0.2
Aroclor-1248	0.05	0.1	0.2
Aroclor-1254	0.05	0.1	0.2
Aroclor-1260	0.05	0.1	0.2
Toxaphene	0.25	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/her designee, as verified by the following signature.



Diana L. Hoke
Organic Program Manager

August 22, 2002

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080920.D

SAMPLE ID: C0004

MATRIX: SOIL

LAB ID: 50465.04

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000629-50-5	TRIDECANE	8.67	367
2) 000629-50-5	TRIDECANE	10.13	460
3) 014167-59-0	TETRATRIACONTANE	10.79	302
4) 000629-92-5	NONADECANE	16.54	859

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/08/02

DATA FILE: J2080714.D

SAMPLE ID: C0010

MATRIX: SOIL

LAB ID: 50465.10

DATE ANALYZED: 08/07/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
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1) 074663-85-7. CYCLOPROPANE, NONYL-

6.75

2049

**TETRA TECH NUS, INC.**

600 Clark Avenue, Suite 3 • King of Prussia, PA 19406-1433
(610) 491-9688 • FAX (610) 491-9645 • www.tetrattech.com

VALIDATOR'S COPY

PHIL-16504

August 28, 2002

Project Number 4192

Ms. Lisa Penix
ESAT RSCC
Lockheed Martin Environmental Services
EPA Environmental Science Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

Reference: RAC 3 Program
EPA Contract No. 68-S8-3003

Subject: Memorandum to File: Case No. 30790
Valmont TCE Site
Remedial Investigation/Feasibility Study (RI/FS)
EPA Work Assignment No. 044-RICO-031M

Dear Ms. Penix:

This is a memo to file correcting documentation errors for the subject sampling event. Organic Sample No. C0016, collected on July 31, 2002, was used twice for the sediment sample collected at Station No. BC-02 and the surface water sample collected at Station No. BC-03 (refer to Traffic Report No. 3-42483827-080102-0002).

The sediment sample collected at Station No. BC-02 should be renumbered as C0QZ5. This change applies to Sample Tag Nos. 3-193, 3-194, and 3-195. The samples should be analyzed for TCL semivolatile organics, pesticides and PCBs, and volatile organics. The respective traffic report should be changed to reflect the new sample number as well.

Please call me if you have any questions or comments.

Sincerely,

Neil Teamerson
Project Manager

NT/vh

c: Rom Roman (EPA Region 3)
File 3.2

Appendix E

Laboratory Case Narratives

SOUTHWEST LABORATORY OF OKLAHOMA
(SWL-TULSA)
1700 West Albany, Suite A/ Broken Arrow, OK 74012
918-251-2858
SDG NARRATIVE
August 16, 2002

CONTRACT: 68W99079
CASE NO: 30790
SDG NO: C0001
SAMPLES: C0003, C0005, C0007, C0009, C0011, C0013, C0015, C0016, C0016MS, C0016MSD, C0022, C0023, C0025, C0025RE and C0037.

SEMIVOLATILE FRACTION

Twelve water samples plus MS/MSD were submitted for semivolatile organic analyses. The samples were analyzed by GC/MS following the OLM04.2 CLP Organic Statement of Work.

The following column is used for the semivolatile analysis: Restek XT1-5 (bonded 5% phenyl-95% dimethyl polysiloxane), 30m, 0.25mm ID, 0.25um film thickness (Restek #12223).

No significant problems were encountered with the delivery, extraction or analyses of these samples. Note: Sample C0025 had 0% recovery of Phenol-d5. The sample was re-extracted and reanalyzed and again had 0% recovery of Phenol-d5, indicating matrix effects.

Sample coolers arrived at 4.9, 3.6 and 3.1 degrees Celsius. Note: All cooler temperatures are taken with a ISO 9001 certified RayTek Model # 3MC11 infra-red (IR) temperature detector using the cooler temperature blanks when submitted with the samples. The DC-1 forms indicate which samples if any did not have cooler temperature blanks submitted, in these cases, the temperature is taken from a random sample within the cooler.

The following samples had alkanes reported and the reports are included at the end of this SDG Narrative: C0003, C0005, C0009, C0011, C0013, C0015, C0016, C0022, C0023, C0025 and C0037.

The following samples labeled with a RE are considered billable since they required re-extraction and reanalysis and the re-extract confirmed the low surrogate indicating matrix effects: C0025RE.

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

Surrogates: All surrogates were within QC recovery limits with the following exceptions: As noted above, samples C0025 and C0025RE had 0% recovery for Phenol-d5.

Matrix Spike: All matrix spike compounds were within QC recovery limits with the following exceptions: C0016MS and MSD had slightly high recovery for 4-Nitrophenol at 100% and 89%, respectively. The upper limit being 80%.

Internal standards: All internal standard areas were within QC limits.

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 diskette has been authorized by the Laboratory Manager, or his/her designee, as verified by the following signature.

Diana L. Hoke

Diana L. Hoke
Organic Program Manager

August 16, 2002

The following tables list the total nanograms injected on column for each calibration standard based upon amount injected, 0.5 μ L, 1 μ L, or 2 μ L: Note: All calibration and sample analyses are done using 1 μ L injected and split on to two columns. Therefore amount on each column is 0.5 μ L injected.

RESOLUTION CHECK

Compounds	Total nanograms (0.5 μ L)	Total nanograms (1 μ L)	Total nanograms (2 μ L)
gamma-Chlordane	0.005	0.01	0.02
Endosulfan I	0.005	0.01	0.02
4,4'-DDE	0.01	0.02	0.04
Dieldrin	0.01	0.02	0.04
Endosulfan Sulfate	0.01	0.02	0.04
Endrin Ketone	0.01	0.02	0.04
Methoxychlor	0.5	0.1	0.2
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.01	0.02	0.04

PERFORMANCE EVALUATION

Compounds	Total nanograms (0.5 μ L)	Total nanograms (1 μ L)	Total nanograms (2 μ L)
gamma-BHC	0.005	0.01	0.02
alpha-BHC	0.005	0.01	0.02
4,4'-DDT	0.05	0.1	0.2
beta-BHC	0.005	0.01	0.02
Endrin	0.025	0.05	0.1
Methoxychlor	0.125	0.25	0.5
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.01	0.02	0.04

INDIVIDUAL STANDARD MIXTURE A – LOW

Compounds	Total nanograms (0.5 μ L)	Total nanograms (1 μ L)	Total nanograms (2 μ L)
alpha-BHC	0.0025	0.005	0.01
Heptachlor	0.0025	0.005	0.01
gamma-BHC	0.0025	0.005	0.01
Endosulfan I	0.0025	0.005	0.01
Dieldrin	0.005	0.01	0.02
Endrin	0.005	0.01	0.02
4,4'-DDD	0.005	0.01	0.02
4,4'-DDT	0.005	0.01	0.02
Methoxychlor	0.025	0.05	0.1
Tetrachloro-m-xylene	0.0025	0.005	0.01
Decachlorobiphenyl	0.005	0.01	0.02

INDIVIDUAL STANDARD MIXTURE A -- HIGH

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.04	0.08	0.16
Heptachlor	0.04	0.08	0.16
gamma-BHC	0.04	0.08	0.16
Endosulfan I	0.04	0.08	0.16
Dieldrin	0.08	0.16	0.32
Endrin	0.08	0.16	0.32
4,4'-DDD	0.08	0.16	0.32
4,4'-DDT	0.08	0.16	0.32
Methoxychlor	0.4	0.8	1.6
Tetrachloro-m-xylene	0.04	0.08	0.16
Decachlorobiphenyl	0.08	0.16	0.32

INDIVIDUAL STANDARD MIXTURE B -- HIGH

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.04	0.08	0.16
delta-BHC	0.04	0.08	0.16
Aldrin	0.04	0.08	0.16
Heptachlor epoxide	0.04	0.08	0.16
alpha-Chlordane	0.04	0.08	0.16
gamma-Chlordane	0.04	0.08	0.16
4,4'-DDE	0.08	0.16	0.32
Endosulfan sulfate	0.08	0.16	0.32
Endrin aldehyde	0.08	0.16	0.32
Endrin ketone	0.08	0.16	0.32
Endosulfan II	0.08	0.16	0.32
Tetrachloro-m-xylene	0.04	0.08	0.16
Decachlorobiphenyl	0.08	0.16	0.32

MULTI-RESPONSE STANDARD MIXTURES

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
Aroclor-1016	0.05	0.1	0.2
Aroclor-1221	0.1	0.2	0.4
Aroclor-1232	0.05	0.1	0.2
Aroclor-1242	0.05	0.1	0.2
Aroclor-1248	0.05	0.1	0.2
Aroclor-1254	0.05	0.1	0.2
Aroclor-1260	0.05	0.1	0.2
Toxaphene	0.25	0.5	1.0

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080811.D

SAMPLE ID: C0003

MATRIX: WATER

LAB ID: 50465.03

DATE ANALYZED: 08/08/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
1) 000489-20-3	CYCLOPENTANE, 1,2-DIMETHYL-3-(1-MET	4.54	4

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080814.D

SAMPLE ID: C0009

MATRIX: WATER

LAB ID: 50465.09

DATE ANALYZED: 08/08/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
1) 000565-75-3	PENTANE, 2,3,4-TRIMETHYL-	4.50	2
2) 004291-79-6	CYCLOHEXANE, 1-METHYL-2-PROPYL-	4.54	4

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080905.D

SAMPLE ID: C0013
LAB ID: 50465.13

MATRIX: WATER
DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
1) 004291-79-6	CYCLOHEXANE, 1-METHYL-2-PROPYL-	4.54	3

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080907.D

SAMPLE ID: C0016

MATRIX: WATER

LAB ID: 50465.16

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
1) 000489-20-3	CYCLOPENTANE, 1,2-DIMETHYL-3-(1-MET	4.54	4

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080911.D

SAMPLE ID: C0023

MATRIX: WATER

LAB ID: 50465.27

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
1) 002207-04-7	CYCLOHEXANE, 1,4-DIMETHYL-, TRANS-	4.54	3

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: S2080810.D

SAMPLE ID: C0037

MATRIX: WATER

LAB ID: 50475.09

DATE ANALYZED: 08/08/02

CAS #	COMPOUND	RT	EST. CONC (ug/L)
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1) 004549-31-9 HEPTANE, 1,7-DIBROMO-

4.54

3

1F
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0001

TRIP BLANK

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.01

Sample wt/vol: 5 (g/mL) ML

Lab File ID: L080507.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: not dec. _____

Date Analyzed: 08/05/02

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

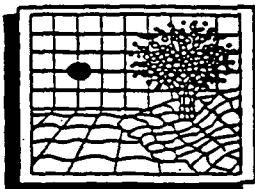
Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	18.48	5	J
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VOLATILES GC/MS pH FORM--EPA

Ref: SWL-OV-101, Rev. 2.0

Form ID: OV-101-pHEPA-F

Location/File ID: QCFORMS ON 'SWLO\ORGANICS\PHEPA.DOC

CASE EPA

SDG# _____

LAB ID	CLIENT SAMPLE ID	pH	ANALYST	DATE TESTED
50475.09	C0037	42	LD	8/05/02
50475.10	C0038	42	↓	↓
/				

COMMENTS: _____

1F
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0021RE

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.25RA

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: L081115.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: not dec. 12

Date Analyzed: 08/12/02

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.	UNKNOWN	14.63	6	J
2.				
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SOUTHWEST LABORATORY OF OKLAHOMA
(SWL-TULSA)
1700 West Albany, Suite A/ Broken Arrow, OK 74012
918-251-2858

SDG NARRATIVE

August 16, 2002

CONTRACT: 68W99079

CASE NO: 30790

SDG NO: C0004

SAMPLES: C0004, C0006, C0008, C0010, C0012, C0014, C0QZ5, C0018, C0018MS, C0018MSD, C0019, C0020, C0020DL, C0021, C0024, C0026, C0027, C0028, C0029, C0030, C0031, C0035 and C0036.

SEMIVOLATILE FRACTION

Twenty soil samples plus MS/MSD were submitted for semivolatile organic analyses. The samples were analyzed by GC/MS following the OLM04.2 CLP Organic Statement of Work.

The following column is used for the semivolatile analysis: Restek XT1-5 (bonded 5% phenyl-95% dimethyl polysiloxane), 30m, 0.25mm ID, 0.25um film thickness (Restek #12223).

The following problems were encountered with the delivery, extraction or analyses of these samples: (1) there was a discrepancy with the TR/COC. Sample C0016 is listed twice on the TR (once as a soil and once as a water). The soil sample was assigned CLP ID C0QZ5, per the region. The lab hand-corrected the COC form (see email log). (2) Samples C0019, C0020 and C0021 were analyzed at initial dilutions due to high concentrations of extractable organics. Sample C0020 would not concentrate below a final volume of 1.0ml and required further dilution to get all target analytes within instruments linear range.

Sample coolers arrived at 4.9, 3.6, and 3.1 degrees Celsius. Note: All cooler temperatures are taken with a ISO 9001 certified RayTek Model # 3MC11 infra-red (IR) temperature detector using the cooler temperature blanks when submitted with the samples. The DC-1 forms indicate which samples if any did not have cooler temperature blanks submitted, in these cases, the temperature is taken from a random sample within the cooler.

The following samples had alkanes reported and the reports are included at the end of this SDG Narrative: C0004, C0010, C0012, C0014, C0018, C0019, C0020, C0020DL, C0021, C0024, C0026, C0027, C0028, C0029, C0030, C0031, C0035, C0036, C0QZ5 and SBLK1.

The following samples labeled with a DL are considered billable since they required dilutions to get all target analytes within instruments linear range: C0020DL.

Blanks: SBLK1 had low level phthalate contamination detected below the CRQL.

Surrogates: All surrogates were within QC recovery limits with the following exceptions: Samples C0018, C0026 C0020DL and C0004 had high recovery for Terphenyl-d14 and 2,4,6-Tribromophenol ranging from 123% to 157%. Sample C0QZ5 had high recovery for Terphenyl-d14 at 145%. C0024 and C0035 had high recovery for 2,4,6-Tribromophenol at 124% and 141%, respectively.

Matrix Spike: All matrix spike compounds were within QC recovery limits with the following exceptions: C0018MS and MSD had high recovery for 4-Nitrophenol at 138% and 131%, respectively.

Internal standards: All internal standard areas were within QC limits.

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0003

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.03

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080811.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.21	3	BJ
2.	UNKNOWN	8.28	3	J
3.	UNKNOWN	8.52	4	J
4.				
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9/5/02

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

SDG NARRATIVE

August 22, 2002

CONTRACT: 68W99079

CASE NO: 30790

SDG NO: C0004

SAMPLES: C0004, C0006, C0008, C0010, C0012, C0014, C0QZ5, C0018,
C0018MS, C0018MSD, C0019, C0019DL, C0020, C0020DL, C0021,
C0021DL, C0024, C0026, C0027, C0028, C0029, C0030, C0031, C0035
and C0036.

FRACTION: Pesticide/PCB

Twenty soil samples plus MS/MSD were analyzed for Pesticides/PCBs, by EPA SOW OLM04.2.

Columns: The soil samples were analyzed on J&W (agilent technologies) dual analytical columns, DB17, length 30m, id 0.32 mm, film thickness 0.25 um) and DB1701, length 30m, id 0.32 mm, film thickness 0.25 um) 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 on the performance characteristics of the columns and they are kept on site. Helium was used as the carrier gas for all sample analyses.

Note: Many environmental samples can cause analysis problems due to interference peaks in the sample chromatograms along with degrading instrument performance. It should be noted that when large numbers of "interference" peaks and/or multi-response targets are present in a sample, false positives of single response compounds are common. Since ECD detection is not a definitive means of detection, single-response analytes in the presence of interference are reported 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 lessens 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.

No major problems were encountered during the extraction or analyses of these samples. Sample E0157 required a dilution to get target analytes within instruments linear range. Note: As per clarification by SMO, samples that had target compounds detected on both columns and had a concentration above the linear range on one column (E-flag) were not diluted if the percent difference in concentrations between the two columns was greater than 25%.

GPC Check: All recoveries were within QC limits.

Florisil Check: All recoveries were within QC limits.

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0007

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.07

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080813.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT

Number TICs found: 22

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.21	4	BJ
2. 67-71-0	DIMETHYL SULFONE	4.24	3	JN
3.	UNKNOWN	4.34	3	J
4. 20324-32-7	2-PROPANOL, 1-(2-METHOXY-1-MET	5.14	3	JN
5.	UNKNOWN	5.77	4	J
6. 55956-25-7	2-PROPANOL, 1-[1-METHYL-2-(2-P	8.28	9	JN
7.	UNKNOWN	8.34	7	J
8.	UNKNOWN	8.51	3	J
9. 104-46-1	BENZENE, 1-METHOXY-4-(1-PROPEN	8.83	8	JN
10. 50397-64-3	ACETIC ACID, [(4-METHYLPHENYL)	11.31	3	JN
11.	UNKNOWN	12.65	3	J
12. 70-55-3	BENZENESULFONAMIDE, 4-METHYL-	12.73	3	JN
13.	UNKNOWN	12.81	8	J
14.	UNKNOWN	13.60	4	J
15.	UNKNOWN	13.91	3	J
16.	UNKNOWN	13.97	3	J
17.	UNKNOWN	14.30	7	J
18.	UNKNOWN	17.08	5	J
19.	UNKNOWN	17.15	4	J
20.	UNKNOWN	17.21	3	J
21.	UNKNOWN	17.30	6	J
22.	UNKNOWN	18.00	3	J
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The following tables list the total nanograms injected on column for each calibration standard based upon amount injected, 0.5 μ L, 1 μ L, or 2 μ L. Note: All calibration and sample analyses are done using 1 μ L injected and split on to two columns. Therefore amount on each column is 0.5 μ L injected.

RESOLUTION CHECK

Compounds	Total nanograms (0.5 μ L)	Total nanograms (1 μ L)	Total nanograms (2 μ L)
gamma-Chlordane	0.005	0.01	0.02
Endosulfan I	0.005	0.01	0.02
4,4'-DDE	0.01	0.02	0.04
Dieldrin	0.01	0.02	0.04
Endosulfan Sulfate	0.01	0.02	0.04
Endrin Ketone	0.01	0.02	0.04
Methoxychlor	0.5	0.1	0.2
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.01	0.02	0.04

PERFORMANCE EVALUATION

Compounds	Total nanograms (0.5 μ L)	Total nanograms (1 μ L)	Total nanograms (2 μ L)
gamma-BHC	0.005	0.01	0.02
alpha-BHC	0.005	0.01	0.02
4,4'-DDT	0.05	0.1	0.2
beta-BHC	0.005	0.01	0.02
Endrin	0.025	0.05	0.1
Methoxychlor	0.125	0.25	0.5
Tetrachloro-m-xylene	0.01	0.02	0.04
Decachlorobiphenyl	0.01	0.02	0.04

INDIVIDUAL STANDARD MIXTURE A - LOW

Compounds	Total nanograms (0.5 μ L)	Total nanograms (1 μ L)	Total nanograms (2 μ L)
alpha-BHC	0.0025	0.005	0.01
Heptachlor	0.0025	0.005	0.01
gamma-BHC	0.0025	0.005	0.01
Endosulfan I	0.0025	0.005	0.01
Dieldrin	0.005	0.01	0.02
Endrin	0.005	0.01	0.02
4,4'-DDD	0.005	0.01	0.02
4,4'-DDT	0.005	0.01	0.02
Methoxychlor	0.025	0.05	0.1
Tetrachloro-m-xylene	0.0025	0.005	0.01
Decachlorobiphenyl	0.005	0.01	0.02

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68W99079

C0011

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.11

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080815.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT
CONCENTRATION UNITS:

Number TICs found: 2

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.21	5	BJ
2.	UNKNOWN	4.36	2	J
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9/5/02 ✓

INDIVIDUAL STANDARD MIXTURE A – HIGH

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
alpha-BHC	0.04	0.08	0.16
Heptachlor	0.04	0.08	0.16
gamma-BHC	0.04	0.08	0.16
Endosulfan I	0.04	0.08	0.16
Dieldrin	0.08	0.16	0.32
Endrin	0.08	0.16	0.32
4,4'-DDD	0.08	0.16	0.32
4,4'-DDT	0.08	0.16	0.32
Methoxychlor	0.4	0.8	1.6
Tetrachloro-m-xylene	0.04	0.08	0.16
Decachlorobiphenyl	0.08	0.16	0.32

INDIVIDUAL STANDARD MIXTURE B – HIGH

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
beta-BHC	0.04	0.08	0.16
delta-BHC	0.04	0.08	0.16
Aldrin	0.04	0.08	0.16
Heptachlor epoxide	0.04	0.08	0.16
alpha-Chlordane	0.04	0.08	0.16
gamma-Chlordane	0.04	0.08	0.16
4,4'-DDE	0.08	0.16	0.32
Endosulfan sulfate	0.08	0.16	0.32
Endrin aldehyde	0.08	0.16	0.32
Endrin ketone	0.08	0.16	0.32
Endosulfan II	0.08	0.16	0.32
Tetrachloro-m-xylene	0.04	0.08	0.16
Decachlorobiphenyl	0.08	0.16	0.32

MULTI-RESPONSE STANDARD MIXTURES

Compounds	Total nanograms (0.5µL)	Total nanograms (1µL)	Total nanograms (2µL)
Aroclor-1016	0.05	0.1	0.2
Aroclor-1221	0.1	0.2	0.4
Aroclor-1232	0.05	0.1	0.2
Aroclor-1242	0.05	0.1	0.2
Aroclor-1248	0.05	0.1	0.2
Aroclor-1254	0.05	0.1	0.2
Aroclor-1260	0.05	0.1	0.2
Toxaphene	0.25	0.5	1.0

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0015

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.15

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080906.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT

CONCENTRATION UNITS:

Number TICs found: 5

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.20	6	BJ
2. 5131-66-8	2-PROPANOL, 1-BUTOXY-	4.45	3	JN
3. 3302-10-1	HEXANOIC ACID, 3,5,5-TRIMETHYL	6.97	7	JN
4. 55956-25-7	2-PROPANOL, 1-[1-METHYL-2-(2-P	8.27	9	JN
5. 54305-61-2	2-BUTANOL, 3,3'-OXYBIS-	8.32	6	JN
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9/5/02

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080920.D

SAMPLE ID: C0004

MATRIX: SOIL

LAB ID: 50465.04

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000629-50-5	TRIDECANE	8.67	367
2) 000629-50-5	TRIDECANE	10.13	460
3) 014167-59-0	TETRATRIACONTANE	10.79	302
4) 000629-92-5	NONADECANE	16.54	859

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68W99079

C0022

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

FIELD BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 50465.26

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080910.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT

CONCENTRATION UNITS:

Number TICs found: 1

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.21	4	BJ
2.				
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DJ
9/5/02

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/08/02

DATA FILE: J2080713.D

SAMPLE ID: C0012

MATRIX: SOIL

LAB ID: 50465.12

DATE ANALYZED: 08/07/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 003221-61-2	OCTANE, 2-METHYL-	0.98	213
2) 000627-08-7	PROPANE, 1-(1-METHYLETHOXY)-	2.32	114
3) 000000-00-0	TRANS-1-METHYL-2-(4-METHYLPENTYL)CY	6.76	105
4) 000629-99-2	PENTACOSANE	8.67	154

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68W99079

C0025

Lab Code: SWOK

Case No.: 30790 SAS No.:

SDG No.: C0001

Matrix: (soil/water) WATER

Lab Sample ID: 50465.29

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080912.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT

Number TICs found: 11

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.37	12	J
2.	UNKNOWN	4.21	3	BJ
3.	UNKNOWN	4.85	4	J
4.	UNKNOWN	5.08	2	J
5.	UNKNOWN	5.37	3	J
6.	UNKNOWN	5.89	30	J
7.	UNKNOWN	7.42	39	J
8.	UNKNOWN	7.74	10	J
9.	UNKNOWN	7.86	15	J
10.	UNKNOWN	8.56	4	J
11.	UNKNOWN	9.64	8	J
12.				
13.				
14.				
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9/5/02

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/08/02

DATA FILE: J2080717.D

SAMPLE ID: C0018

MATRIX: SOIL

LAB ID: 50465.20

DATE ANALYZED: 08/07/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000294-62-2	CYCLODODECANE	6.75	2368

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68W99079

C0037

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0001

PRIVATE BLANK

Matrix: (soil/water) WATER

Lab Sample ID: 50475.09

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2080810.D

Level: (low/med) LOW

Date Received: 08/03/02

% Moisture: _____ decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: _____

Extraction: (Type) CONT

CONCENTRATION UNITS:

Number TICs found: 1

(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.21	3	BJ
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
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9/1/02

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/08/02

DATA FILE: J2080724.D

SAMPLE ID: C0020

MATRIX: SOIL

LAB ID: 50465.24

DATE ANALYZED: 08/08/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000629-99-2	PENTACOSANE	14.75	1814
2) 013475-77-9	EICOSANE, 9-OCTYL-	15.69	2200
3) 013475-77-9	EICOSANE, 9-OCTYL-	16.58	2488

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68W99079

C0004

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.04

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: J2080920.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 21 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 8.0

Extraction: (Type) SONC
CONCENTRATION UNITS:

Number TICs found: 22

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.72	400	BJ
2. 123-42-2	2-PENTANONE, 4-HYDROXY 4-METHY	0.88	12000	ABJN
3.	UNKNOWN	1.28	280	BJ
4.	UNKNOWN	1.52	1700	BJ
5.	UNKNOWN	1.74	690	BJ
6.	UNKNOWN	2.66	2500	J
7.	UNKNOWN	3.19	400	J
8.	UNKNOWN	3.94	330	J
9. 57-10-3	HEXADECANOIC ACID	10.60	580	JN
10.	UNKNOWN AMIDE	12.96	1200	BJ
11.	10-HENEICOSENE (C,T)	13.67	460	JN
12. 112-88-9	1-OCTADECENE	14.71	670	JN
13.	UNKNOWN AMIDE	15.09	1100	J
14. 207-08-9	BENZO[K]FLUORANTHENE	15.27	500	JN
15. 40710-32-5	NONAHEXACONTANOIC ACID	15.65	490	JN
16.	UNKNOWN	15.74	310	J
17.	UNKNOWN	16.22	320	J
18.	UNKNOWN	16.43	530	J
19.	UNKNOWN	17.40	690	J
20. 2034-72-2	STIGMASTA-3,5-DIEN-7-ONE	17.77	370	JN
21.	3,4:8,9-DIBENZPYRENE	18.24	300	JN
22.	UNKNOWN	18.38	400	J
23.				
24.				
25.				
26.				
27.				
28.				
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30.				

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/08/02

DATA FILE: J2080725.D

SAMPLE ID: C0021

MATRIX: SOIL

LAB ID: 50465.25

DATE ANALYZED: 08/08/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 003074-71-3	HEPTANE, 2,3-DIMETHYL	1.40	773
2) 000593-45-3	OCTADECANE	14.75	2504
3) 000629-97-0	DOCOSANE	15.69	5688
4) 013475-77-9	EICOSANE, 9-OCTYL-	16.57	8570
5) 013475-75-7	PENTADECANE, 8-HEXYL-	17.41	1901

Em 8-14-02

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0008

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465:08

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: J2080722.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 20 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 8.2

Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 23

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.74	1300	BJ
2.	UNKNOWN	0.79	470	BJ
3. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY	0.90	33000	ABJN
4.	UNKNOWN	1.40	610	BJ
5.	UNKNOWN	1.55	3400	BJ
6.	UNKNOWN	1.76	1800	BJ
7.	UNKNOWN	2.67	3400	J
8.	UNKNOWN	2.80	1000	BJ
9. 2613-89-0	PROPANEDIOIC ACID, PHENYL-	4.49	620	JN
10.	UNKNOWN	8.85	420	J
11.	UNKNOWN	9.04	410	J
12.	UNKNOWN	9.79	600	J
13. 109-29-5	OXACYCLOHEPTADECAN-2-ONE	10.52	1900	JN
14. 57-10-3	HEXADECANOIC ACID	10.66	1700	JN
15. 60-33-3	9,12-OCTADECADIENOIC ACID (2,2	11.71	690	JN
16. 112-80-1	OLEIC ACID	11.78	1900	JN
17.	UNKNOWN	12.24	880	J
18.	UNKNOWN	12.70	770	J
19. 80-97-7	CHOLESTANOL	16.41	910	JN
20. 57-88-5	CHOLESTEROL	16.58	6500	JN
21. 83-47-6	.GAMMA.-SITOSTEROL	17.44	610	JN
22.	UNKNOWN	18.42	710	J
23.	UNKNOWN	18.99	650	J
24.				
25.				
26.				
27.				
28.				
29.				
30.				

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080911.D

SAMPLE ID: C0026

MATRIX: SOIL

LAB ID: 50475.01

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000112-95-8	EICOSANE	15.65	10072
2) 000629-92-5	NONADECANE	16.54	8555

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0012

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.12

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: J2080713.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 14 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 8.1

Extraction: (Type) SONC

Number TICs found: 23

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.74	1500	BJ
2.	UNKNOWN	0.80	370	BJ
3. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHYL	0.90	32000	ABJN
4.	UNKNOWN	1.41	490	BJ
5.	UNKNOWN	1.44	420	BJ
6.	UNKNOWN	1.54	3000	BJ
7.	UNKNOWN	1.76	1200	BJ
8.	UNKNOWN	1.88	150	J
9.	UNKNOWN	1.98	180	J
10.	UNKNOWN	2.32	110	J
11.	UNKNOWN	2.66	1600	J
12.	UNKNOWN	2.79	360	BJ
13.	UNKNOWN	3.96	420	J
14.	UNKNOWN	4.40	78	J
15.	UNKNOWN	6.76	110	J
16.	UNKNOWN AMIDE	10.66	120	BJ
17.	UNKNOWN	11.74	90	J
18.	UNKNOWN AMIDE	11.82	86	J
19.	UNKNOWN AMIDE	11.94	130	BJ
20.	BUTYL HEXADECANOATE	11.99	170	BJN
21.	UNKNOWN	12.99	2400	J
22.	UNKNOWN	13.13	200	BJ
23. 123-28-4	PROPANOIC ACID, 3,3'-THIOBIS	18.63	200	BJN
24.				
25.				
26.				
27.				
28.				
29.				
30.				

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080912.D

SAMPLE ID: C0028

MATRIX: SOIL

LAB ID: 50475.03

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000295-48-7	CYCLOPENTADECANE	14.70	4497
2) 000629-92-5	NONADECANE	15.66	6360
3) 000629-92-5	NONADECANE	16.54	5225

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0018

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.20

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: J2080717.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 16 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/07/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 22

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.74	1800	BJ
2.	UNKNOWN	0.80	440	BJ
3. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHYL	0.91	43000	ABJN
4.	UNKNOWN	0.98	210	BJ
5.	UNKNOWN	1.41	720	BJ
6.	UNKNOWN	1.45	260	BJ
7.	UNKNOWN	1.56	3600	BJ
8.	UNKNOWN	1.77	2100	BJ
9.	UNKNOWN	1.88	210	J
10.	UNKNOWN	1.98	230	J
11.	UNKNOWN	2.67	5100	J
12.	UNKNOWN	2.82	2100	BJ
13.	UNKNOWN	3.28	240	J
14.	UNKNOWN	8.67	430	BJ
15.	UNKNOWN AMIDE	11.82	320	J
16.	UNKNOWN AMIDE	11.95	400	BJ
17.	UNKNOWN AMIDE	13.00	5700	BJ
18.	UNKNOWN	16.57	330	J
19.	UNKNOWN	16.62	320	J
20.	UNKNOWN	17.44	520	J
21.	1,2:3,4-DIBENZOPYRENE	18.26	250	JN
22. 123-28-4	PROPANOIC ACID, 3,3'-THIOBIS	18.65	8500	BJN
23.				
24.				
25.				
26.				
27.				
28.				
29.				
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SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080907.D

SAMPLE ID: C0030

MATRIX: SOIL

LAB ID: 50475.05

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000627-08-7	PROPANE, 1-(1-METHYLETHOXY)	0.68	134
2) 017348-59-3	PROPANE, 2-METHYL-2-(1-METHYLETHOXY)	0.90	44380
3) 000627-08-7	PROPANE, 1-(1-METHYLETHOXY)	1.43	215
4) 013837-66-6	M-MENTHANE, (1S,3R)-(+)-	1.63	121
5) 000294-62-2	CYCLODODECANE	6.70	193
6) 000629-99-2	PENTACOSANE	13.68	110
7) 000629-94-7	HENEICOSANE	14.70	226
8) 000112-95-8	EICOSANE	15.17	116
9) 000112-95-8	EICOSANE	15.64	251
10) 000112-40-3	DODECANE	16.53	252

8/14/02



1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0020

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.24

Sample wt/vol: 30.3 (g/mL) G

Lab File ID: J2080724.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 30 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y

pH: 7.8

Extraction: (Type) SONC
CONCENTRATION UNITS:

Number TICs found: 22

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.73	1900	BJ
2. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHYL	0.86	48000	ABJN
3.	UNKNOWN	1.55	2700	BJ
4.	UNKNOWN	1.75	4500	BJ
5.	UNKNOWN	2.67	9700	J
6.	UNKNOWN	2.79	1500	BJ
7.	UNKNOWN PAH	12.85	1600	J
8.	UNKNOWN PAH	13.02	1300	J
9. 198-55-0	PERYLENE	15.33	5900	JN
10. 55724-47-5	4-PIPERIDINEACETIC ACID, 1-ACE	16.61	1800	JN
11.	UNKNOWN PAH	16.73	2500	J
12. 191-24-2	BENZO[CHI]PERYLENE UNKNOWN	17.21	1500	JN
13. 83-47-6	.GAMMA.-SITOSTEROL	17.45	3100	JN
14. 559-70-6	.BETA.-AMYRIN	17.74	2300	JN
15. 1058-61-3	STIGMAST-4-EN-3-ONE	17.99	2100	JN
16. 20475-86-9	URS-12-EN-24-OIC ACID, 3-OXO-	18.15	4500	JN
17.	[3,4:9,10]DIBENZPYRENE	18.30	4400	JN
18. 192-65-4	NAPHTHO[1,2,3,4-DEF]CHRYSENE	18.37	2000	JN
19. 191-07-1	CORONENE	18.66	2300	JN
20.	[3,4:9,10]DIBENZPYRENE	18.70	3100	JN
21. 192-65-4	NAPHTHO[1,2,3,4-DEF]CHRYSENE	18.82	1800	JN
22.	UNKNOWN	20.05	1600	J
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080922.D

SAMPLE ID: C0035

MATRIX: SOIL

LAB ID: 50475.07

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000112-95-8	EICOSANE	15.66	7821
2) 006912-07-8	HEXADECANE, 5-BUTYL-	16.54	7533
3) 000630-03-5	NONACOSANE	17.37	2010

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0021

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50465.25

Sample wt/vol: 30.4 (g/mL) G

Lab File ID: J2080725.D

Level: (low/med) LOW

Date Received: 08/02/02

% Moisture: 12 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/08/02

Injection Volume: 2.0 (uL)

Dilution Factor: 2.0

GPC Cleanup: (Y/N) Y

pH: 7.2

Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 23

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.73	1400	BJ
2. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY-	0.87	39000	ABJN
3.	UNKNOWN	1.40	770	BJ
4.	UNKNOWN	1.55	4300	BJ
5.	UNKNOWN	1.75	3500	BJ
6.	UNKNOWN	2.67	6500	J
7.	UNKNOWN	2.80	1100	BJ
8.	UNKNOWN	3.21	1000	J
9. 57-10-3	HEXADECANOIC ACID	10.64	1100	JN
10.	UNKNOWN	15.11	690	J
11. 192-97-2	BENZO[E]PYRENE	15.31	1000	JN
12.	UNKNOWN	15.58	520	J
13.	UNKNOWN	16.03	560	J
14. 56554-91-7	12-OCTADECENAL	16.33	890	JN
15.	UNKNOWN	17.19	720	J
16. 83-47-6	GAMMA.-SITOSTEROL	17.44	3800	JN
17.	UNKNOWN	17.54	820	J
18.	UNKNOWN	17.75	810	J
19.	UNKNOWN	17.98	1300	J
20. 50-24-8	PREDNISOLONE	18.15	800	JN
21. 192-65-4	NAPHTHO[1,2,3,4-DEF]CHRYSENE	18.27	2700	JN
22.	UNKNOWN	18.46	2200	J
23. 191-07-1	CORONENE	18.64	660	JN
24.				
25.				
26.				
27.				
28.				
29.				
30.				

SOUTHWEST LABORATORY OF OKLAHOMA
GC/MS LABORATORY : ALKANE REPORT

REPORT DATE: 08/09/02

DATA FILE: J2080913.D

SAMPLE ID: C0QZ5

MATRIX: SOIL

LAB ID: 50465.19

DATE ANALYZED: 08/09/02

CAS #	COMPOUND	RT	EST. CONC (ug/Kg)
1) 000930-02-9	OCTADECANE, 1-(ETHENYLOXY)-	14.69	2032
2) 000629-59-4	TETRADECANE	16.53	589

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0026

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50475.01

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: J2080911.D

Level: (low/med) LOW

Date Received: 08/03/02

% Moisture: 7 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

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

Number TICs found: 22

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123-42-2	2-PENTANONE, 4-HYDROXY 4-METHY	0.89	12000	ADJN
2.	UNKNOWN	1.53	1500	BJ
3.	UNKNOWN	1.73	820	BJ
4.	UNKNOWN	2.65	1800	J
5. 638-66-4	OCTADECANAL	14.37	860	JN
6.	UNKNOWN	14.70	5800	J
7. 112-85-6	DOCOSANOIC ACID	15.06	1900	JN
8.	UNKNOWN ORGANIC ACID	16.00	1200	J
9. 7390-81-0	OXIRANE, HEXADECYL-	16.28	4100	JN
10.	UNKNOWN	16.63	1000	J
11.	UNKNOWN ORGANIC ACID	16.88	920	J
12.	1-HEXACOSANAL	17.15	2800	JN
13. 83-47-6	.GAMMA.-SITOSTEROL	17.40	8400	JN
14.	UNKNOWN	17.48	2000	J
15.	UNKNOWN	17.55	1300	J
16.	UNKNOWN	17.59	1200	J
17.	UNKNOWN	17.70	1900	J
18. 1058-61-3	STIGMAST-4-EN-3-ONE	17.94	2400	JN
19.	UNKNOWN	18.11	1100	J
20.	UNKNOWN	18.21	1700	J
21.	UNKNOWN	18.37	870	J
22.	UNKNOWN	18.59	1200	J
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Diana Hoke

From: Rogers, Holly [Holly.Rogers@dyncorp.com]
Sent: Monday, August 05, 2002 10:04 AM
To: Diana Hoke (E-mail); Steve Markham (E-mail)
Cc: Betty Ann Jeffery (E-mail); Dan Slizys (E-mail); John Kwedar (E-mail); Khin-Cho Thaug (E-mail)
Subject: Region 03 |Case 30790 | Lab SWOK | Issue TR/COC discrepancy - sam ple level | FINAL

Diana,

Following is the resolution from Region 3 regarding the TR/COC discrepancy issues for this Case. Per the Region, the lab should use sample ID C0016 for the water sample C0016. SMO has assigned a new CLP sample ID C0QZ5 for the soil sample C0016. The lab should note this issue in the Case/SDG narrative and proceed with the analysis of the samples. Since sample ID C0017 was not listed on the TR and was not received, this is not an issue.

Please let me know if you have any other questions or problems.

Thanks,
Holly

Holly Rogers
DynCorp Systems and Solutions, LLC
CLP Coordinator for Regions 3 & 9
703-264-9526
holly.rogers@dyncorp.com

—Original Message—

From: Slizys.Dan@epamail.epa.gov [mailto:Slizys.Dan@epamail.epa.gov]
Sent: Monday, August 05, 2002 10:37 AM
To: Rogers, Holly; Roman.Romuald@epamail.epa.gov; slobodar@ttnus.com; teamersonn@ttnus.com
Cc: R3_Clients.EPA@epamail.epa.gov
Subject: Re: NEW ISSUE |Case 30790 | Lab SWOK | Issue TR/COC discrepancy - sample level

Holly,

The lab must document all of the issues in the case narrative. The lab can retain the water sample ID as C0016. Please provide a new CLP ID to the soil sample (C0016). The lab can proceed with the analysis of samples.

The EPA is being notified of the findings and the field personnel are requested to write a memo to file to clarify the TR/COC and sample ID issues.

Dan Slizys

From: "Rogers, Holly" <Holly.Rogers@dyncorp.com>
To: [Betty Jeffery/ESC/R3/USEPA/US@EPA](mailto:Betty.Jeffery/ESC/R3/USEPA/US@EPA), [Dan Slizys/ESC/R3/USEPA/US@EPA](mailto:Dan.Slizys/ESC/R3/USEPA/US@EPA), [John Kwedar/ESC/R3/USEPA/US@EPA](mailto:John.Kwedar/ESC/R3/USEPA/US@EPA), [Khin-Cho Thaug/ESC/R3/USEPA/US@EPA](mailto:Khin.Cho/ESC/R3/USEPA/US@EPA)

cc:

Subject: NEW ISSUE |Case 30790 | Lab SWOK | Issue TR/COC discrepancy - sample level
08/05/02 09:28 AM

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

C0028

Lab Name: SWL-TULSA

Contract: 68W99079

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50475.03

Sample wt/vol: 30.1 (g/mL) G

Lab File ID: J2080912.D

Level: (low/med) LOW

Date Received: 08/03/02

% Moisture: 6 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 6.9

Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 22

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123-42-2	2-PENTANONE, 4-HYDROXY-4-METHY	0.88	14000	ADJN
2.	UNKNOWN	1.74	1400	BJ
3.	UNKNOWN	1.83	910	BJ
4.	UNKNOWN	2.63	1100	J
5. 57-10-3	HEXADECANOIC ACID	10.62	1000	JN
6. 1599-67-3	1-DOCOSENE	13.65	1700	JN
7. 112-85-6	DOCOSANOIC ACID UNKNOWN	14.08	1100	JN
8. 112-85-6	DOCOSANOIC ACID UNKNOWN	15.08	2200	JN
9.	UNKNOWN ORGANIC ACID	16.01	1600	J
10. 638-66-4	OCTADECANAL	16.29	1300	JN
11.	2-PENTACOSANONE	16.64	1100	JN
12.	UNKNOWN ORGANIC ACID	16.90	1800	J
13. 7390-81-0	OXIRANE, HEXADECYL-	17.16	1300	JN
14.	UNKNOWN	17.32	1100	J
15. 83-47-6	.GAMMA.-SITOSTEROL	17.42	6500	JN
16.	UNKNOWN	17.49	1700	J
17.	UNKNOWN	17.59	1700	J
18.	UNKNOWN	17.71	2200	J
19. 1058-61-3	STIGMAST-4-EN-3-ONE	17.95	1100	JN
20.	UNKNOWN	18.22	2500	J
21.	UNKNOWN	18.29	1100	J
22.	UNKNOWN	18.75	5200	J
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935

12 soils and 13 waters arrived today for VOA/BNA/PEST analyses. Sample ID C0016 is indicated on the COC as a water and a soil. There is actually a water sample and soil sample labeled C0016. There is no sample C0017. It is evident that the water sample is the appropriate sample for this ID since it was specified for QC and there was extra volume sent. It would appear then that the soil sample labeled C0016 should actually be C0017. The lab will proceed with hand-correcting the paper work and the label on the soil bottle to reflect that the soil sample is actually C0017 and noting the situation in the SDG narrative unless otherwise instructed by the region.

Thank you,
Diana

Diana L. Hoke
Organic Program Manager
SWLO

1G
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name: SWL-TULSA

Contract: 68W99079

C0030

Lab Code: SWOK

Case No.: 30790

SAS No.:

SDG No.: C0004

Matrix: (soil/water) SOIL

Lab Sample ID: 50475.05

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: J2080907.D

Level: (low/med) LOW

Date Received: 08/03/02

% Moisture: 4 decanted: (Y/N) N

Date Extracted: 08/05/02

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 08/09/02

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y

pH: 7.9

Extraction: (Type) SONC

CONCENTRATION UNITS:

Number TICs found: 26

(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	0.68	130	BJ
2.	UNKNOWN	0.74	2000	BJ
3.	UNKNOWN	0.77	530	BJ
4.	UNKNOWN	0.90	44000	BJ
5.	UNKNOWN	0.96	370	BJ
6. 108-38-3	BENZENE, 1,3-DIMETHYL-	1.00	860	JN
7.	UNKNOWN	1.38	300	BJ
8.	UNKNOWN	1.43	220	BJ
9.	UNKNOWN	1.54	270	BJ
10.	UNKNOWN	1.63	120	BJ
11.	UNKNOWN	1.74	3300	BJ
12.	UNKNOWN	1.83	1400	BJ
13.	UNKNOWN	2.29	210	J
14.	UNKNOWN	2.58	420	J
15.	UNKNOWN	2.64	450	J
16.	UNKNOWN	2.76	520	BJ
17.	UNKNOWN	0.63	140	BJ
18.	UNKNOWN AMIDE	10.62	160	BJ
19.	UNKNOWN AMIDE	11.78	150	J
20.	UNKNOWN AMIDE	11.91	220	BJ
21.	UNKNOWN AMIDE	12.95	2500	BJ
22.	UNKNOWN	15.92	95	J
23.	UNKNOWN	17.40	92	J
24.	UNKNOWN	18.20	390	J
25.	UNKNOWN	18.40	1300	J
26. 123-28-4	PROPANOIC ACID, 3,3' THIOBIS	18.59	370	BJN
27.				
28.				
29.				
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De
9/5/02