EPA Region 5 Records Ctr.
355811

L1110900002
S. CALIFORNIA CHEMICAL
ILD 059483081
SF/HRS

CERCLA
Integrated Site Assessment
Analytical Results

Illinois Environmental Protection Agency

2200 Churchill Road
P. O. Box 19276
Springfield, IL 62794-9276

Confidential material may be enclosed.

Printed on Recycled Paper

NAME: So. California Chemical Co.
ILD NUMBER 059483081

TABLE F-1
SUMMARY
(Soil)

SAMPLING POINT	X101	X102	X103	X104	X105	X106	X107	X108	X109	X110	X111
	5-5-94	5-4-94	5-4-94	5-4-94	5-4-94	5-5-94	5-5-94	5-5-94	5-5-94	5-5-94	5-5-94
PARAMETER	(Background)				(Duplicate)						
VOLATILES											
Acetone	8.00 J	--	--	--	--	--	--	--	--	--	--
Tetrachloroethene	11.00 U	--	2.00 J	--	--	2.00 J	--	--	--	--	--
Toluene	1.00 J	--	--	--	--	--	--	--	--	--	--
Ethylbenzene	11.00 U	--	0.60 J	--	--	--	--	--	--	--	--
Xylene(total)	11.00 U	--	3.00 J	2.00 J	2.00 J	--	--	--	--	--	--
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
SEMIVOLATILES											
Isophorone	370.00 U	--	810.00	--	--	--	--	--	--	--	--
Phenanthrene	370.00 U	--	250.00 J	--	--	--	--	--	--	--	31.00 J
Anthracene	370.00 U	--	32.00 J	--	--	--	--	--	--	--	--
Di-n-Butylphthalate	370.00 U	--	47.00 J	--	--	--	--	--	--	--	--
Fluoranthene	370.00 U	--	320.00 J	--	--	--	--	--	--	--	54.00 J
Pyrene	370.00 U	--	250.00 J	--	--	--	--	--	--	--	45.00 J
Benzo(a)anthracene	370.00 U	--	150.00 J	--	--	--	--	--	--	--	--
Chrysene	370.00 U	--	150.00 J	--	--	--	--	--	--	--	--
bis(2-Ethylhexyl)phthalate	21.00 J	34.00 J	57.00 J	47.00 J	62.00 J	74.00 J	48.00 J	54.00 J	53.00 J	250.00 J	40.00 J
Benzo(b)fluoranthene	370.00 U	--	150.00 J	--	--	--	--	--	--	--	--
Benzo(k)fluoranthene	370.00 U	--	120.00 J	--	--	--	--	--	--	--	--
Benzo(a)pyrene	370.00 U	--	120.00 J	--	--	--	--	--	--	--	--
Indeno(1,2,3-cd)pyrene	370.00 U	--	94.00 J	--	--	--	--	--	--	--	--
Benzo(g,h,i)perylene	370.00 U	--	100.00 J	--	--	--	--	--	--	--	--
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
TENTATIVELY IDENTIFIED COMPOUNDS											
Phosphoric acid, dioctadecyl	--	--	--	--	--	760.00 NJ	--	--	--	--	--
gamma.-Sitositol	--	--	--	--	--	910.00 NJ	--	--	--	--	--
Benzo(e)pyrene	--	--	490.00 NJ	--	--	--	--	--	--	--	--
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
PESTICIDES											
Heptachlor	1.90 U	--	5.10 P	--	2.60	--	--	--	--	--	--
4,4'-DDE	3.70 U	--	6.10	--	--	--	--	--	--	--	--
Endrin	3.70 U	--	--	--	--	6.20 P	--	--	--	--	--
4,4'-DDD	3.70 U	--	9.10	--	--	--	--	--	--	--	--
4,4'-DDT	3.70 U	--	6.80 P	--	--	--	--	--	--	--	--
Endrin aldehyde	3.70 U	--	8.60 P	--	--	6.40	--	--	--	--	--
Aroclor-1248	37.00 U	--	120.00	--	--	--	--	--	--	--	--
Aroclor-1254	37.00 U	--	240.00 P	--	--	--	--	--	--	--	--
	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg	ug/Kg
INORGANICS											
Aluminum	12700.00	12900.00	6110.00	7210.00	8770.00	12700.00	12000.00	10600.00	11700.00	3000.00	5020.00
Arsenic	4.20	2.70	7.70	0.83 B	0.97 B	6.50	1.10 B	1.50 B	1.20 B	0.49 B	1.10 B
Barium	87.70	82.90	51.00	43.80 B	47.70	76.10	44.10 B	87.00	50.30	25.20 B	44.80 B
Beryllium	0.44 B	0.52 B	0.81 B	0.27 B	0.30 B	3.40	0.42 B	0.47 B	0.39 B	0.12 B	0.23 B
Cadmium	0.89 U	--	--	--	--	2.80	--	--	--	--	--
Calcium	1430.00	1050.00 B	33000.00	837.00 B	936.00 B	64100.00	1260.00	3460.00	2680.00	1060.00 B	2660.00
Chromium	14.10	55.40	1090.00	18.90	22.80	1150.00	23.30	16.50	18.10	5.50	7.80
Cobalt	6.90 B	5.60 B	22.80	1.70 B	2.40 B	7.00 B	3.30 B	3.80 B	2.80 B	1.20 B	1.90 B
Copper	8.00	1060.00	22400.00	1050.00	1110.00	35400.00	456.00	232.00	29.50	167.00	20.20
Iron	12400.00	20600.00	52100.00	7480.00	8550.00	20100.00	14100.00	10000.00	17300.00	2970.00	5190.00
Lead	10.70	10.20	71.40	9.80	8.90	113.00	7.80	17.10	10.70	11.60	11.70
Magnesium	1800.00	2570.00	19000.00	1180.00	1360.00	41600.00	1740.00	2040.00	2230.00	601.00 B	1160.00 B
Manganese	535.00	112.00	330.00	47.90	51.30	196.00	51.70	181.00	45.40	53.20	97.20
Nickel	7.10 B	14.60	72.00	5.80 B	6.60 B	37.10	11.10	12.10	4.60 B	3.20 B	3.50 B
Potassium	958.00 B	956.00 B	727.00 B	625.00 B	821.00 B	1920.00	812.00 B	989.00 B	958.00 B	253.00 B	390.00 B
SELENIUM	0.40 B	0.26 B	--	0.25 B	--	0.48 B	--	0.31 B	0.23 B	--	--
Silver	0.64 U	--	2.80	--	--	1.10 B	--	--	--	--	--
Sodium	31.40 B	35.30 B	92.00 B	21.00 B	27.80 B	131.00 B	24.30 B	26.20 B	25.60 B	17.30 B	53.20 B
Thallium	0.31 B	0.36 B	3.80 B	0.30 B	0.36 B	0.50 B	0.30 B	0.38 B	0.41 B	0.32 B	0.36 B
Vanadium	29.80	40.70	24.90	16.10	18.20	26.70	28.50	20.50	32.60	6.70 B	10.00 B
Zinc	35.50	54.30	215.00	26.40	28.20	170.00	41.60	47.80	36.40	14.90	24.20
Cyanide	0.57 U	--	0.68	--	--	3.00	0.89	1.50	--	--	--
	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg

NAME: So. California Chemical Co.
ILD NUMBER 059483081

TABLE F-1
SUMMARY
(Groundwater)

SAMPLING POINT PARAMETER	G501 5-4-94 (Background)	G101 5-4-94	G102 5-4-94	G103 5-4-94 (Duplicate)	G502 5-4-94 (Duplicate)
VOLATILES					
Methylene Chloride	1.00 J ug/L	8.00 J ug/L	7.00 J ug/L	12.00 ug/L	1.00 ug/L
SEMIVOLATILES					
bis(2-Ethylhexyl)phthalate	2.00 UJ ug/L	3.00 J ug/L	-- ug/L	-- ug/L	2.00 UJ ug/L
TENTATIVELY IDENTIFIED COMPOUNDS					
Disulfide, dimethyl	-- ug/L	-- ug/L	-- ug/L	8.00 NJ ug/L	-- ug/L
PESTICIDES					
INORGANICS					
Arsenic	2.00 U	7.60 B	5.90 B	5.90 B	2.00 U
Barium	1740.00	218.00	73.60 B	70.60 B	1730.00
Calcium	59800.00	226000.00	67500.00	66700.00	60000.00
Copper	8.90	--	--	--	21.20
Iron	269.00	10000.00	2930.00	1880.00	278.00
Lead	3.60	--	1.00 B	0.72 B	5.60
Magnesium	30600.00	119000.00	35500.00	35200.00	30600.00
Manganese	6.00 U	57.40	36.30	35.40	6.00 U
Nickel	18.00 U	31.30 B	--	--	18.00 U
Potassium	6100.00 U	8340.00	969.00 B	811.00 B	6100.00 U
Selenium	2.00 U	4.30 B	--	1.10 B	2.00 U
Sodium	15600.00	578000.00	10300.00	10400.00	27400.00
Thallium	2.00 U	0.90 B	--	1.10 B	2.00 U
Zinc	49.00 U ug/L	10.60 B ug/L	3.30 B ug/L	4.10 B ug/L	49.00 U ug/L

TARGET COMPOUND LIST

Volatile Target Compounds

Chloromethane	1,2-Dichloropropane
Bromomethane	cis-1,3-Dichloropropene
Vinyl Chlorde	Trichloroethene
Chloroethane	Dibromochloromethane
Methylene Chloride	1,1,2-Trichloroethane
Acetone	Benzene
Carbon Disulfide	trans-1,3-Dichloropropene
1,1-Dichloroethene	Bromoform
1,1-Dichloroethane	4-Methyl-2-pentanone
1,2-Dichloroehtene (total)	2-Hexanone
Chloroform	Tetrachloroethene
1,2-Dichloroethane	1,1,2,2-Tetrachloroethane
2-Butanone	Toluene
1,1,1-Trichloroethane	Chlorobenzene
Carbon Tetrachloride	Ethylbenzene
Vinyl Acetate	Styrene
Bromodichloromethane	Xylenes (total)

Base/Neutral Target Compounds

Hexachloroethane	2,4-Dinitrotoluene
bis(2-Chloroethyl) Ether	Diethylphthalate
Benzyl Alcohol	N-Nitrosodiphenylamine
bis (2-Chloroisopropyl) Ether	Hexachlorobenzene
N-Nitroso-Di-n-Propylamine	Phenanthrene
Nitrobenzene	4-Bromophenyl-phenylether
Hexachlorobutadiene	Anthracene

2-Methylnaphthalene	Di-n-Butylphthalate
1,2,4-Trichlorobenzene	Fluoranthene
Isophorone	Pyrene
Naphthalene	Butylbenzylphthalate
4-Chloroaniline	bis(2-Ethylhexyl)Phthalate
bis(2-chloroethoxy)Methane	Chrysene
Hexachlorocyclopentadiene	Benzo(a)Anthracene
2-Chloronaphthalene	3-3'-Dichlorobenzidene
2-Nitroaniline	Di-n-Octyl Phthalate
Acenaphthylene	Benzo(b)Fluoranthene
3-Nitroaniline	Benzo(k)Fluoranthene
Acenaphthene	Benzo(a)Pyrene
Dibenzofuran	Ideno(1,2,3-cd)Pyrene
Dimethyl Phthalate	Dibenz(a,h)Anthracene
2,6-Dinitrotoluene	Benzo(g,h,i)Perylene
Fluorene	1,2-Dichlorobenzene
4-Nitroaniline	1,3-Dichlorobenzene
4-Chlorophenyl-phenylether	1,4-Dichlorobenzene

Acid Target Compounds

Benzoic Acid	2,4,6-Trichlorophenol
Phenol	2,4,5-Trichlorophenol
2-Chlorophenol	4-Chloro-3-methylphenol
2-Nitrophenol	2,4-Dinitrophenol
2-Methylphenol	2-Methyl-4,6-dinitrophenol
2,4-Dimethylphenol	Pentachlorophenol
4-Methylphenol	4-Nitrophenol
2,4-Dichlorophenol	

Pesticide/PCB Target Compounds

alpha-BHC	Endrin Ketone
beta-BHC	Endosulfan Sulfate
delta-BHC	Methoxychlor
gamma-BHC (Lindane)	alpha-Chlordane
Heptachlor	gamma-Chlordane
Aldrin	Toxaphene
Heptachlor epoxide	Aroclor-1016
Endosulfan I	Aroclor-1221
4,4'-DDE	Aroclor-1232
Dieldrin	Aroclor-1242
Endrin	Aroclor-1248
4,4'-DDD	Aroclor-1254
Endosulfan II	Aroclor-1260
4,4'-DDT	

Inorganic Target Compounds

Aluminum	Manganese
Antimony	Mercury
Arsenic	Nickel
Barium	Potassium
Beryllium	Selenium
Cadmium	Silver
Calcium	Sodium
Chromium	Thallium
Cobolt	Vanadium
Copper	Zinc
Iron	Cyanide
Lead	Sulfide
Magnesium	

DATA QUALIFIERS

QUALIFIER	DEFINITION ORGANICS	DEFINITION INORGANICS
U	Compound was tested for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For soil samples subjected to GPC clean-up procedures, the CRQL is also multiplied by two, to account for the fact that only half of the extract is recovered.	Analyte was analyzed for but not detected.
J	Estimated value. Used when estimating a concentration for tentatively identified compounds (TICS) where a 1:1 response is assumed or when the mass spectral data indicate the presence of a compound that meets the identification criteria and the result is less than the sample quantitation limit but greater than zero. Used in data validation when the quality control data indicate that a value may not be accurate.	Estimated value. Used in data validation when the quality control data indicate that a value may not be accurate.
C	This flag applies to pesticide results where the identification is confirmed by GC/MS.	Method qualifier indicates analysis by the Manual Spectrophotometric method.
B	Analyte was found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	The reported value is less than the CRDL but greater than the instrument detection limit (IDL).
D	Identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor as in the "E" flag, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and <u>all</u> concentration values are flagged with the "D" flag.	Not used.
E	Identifies compounds whose concentrations exceed the calibration range for that specific analysis. All extracts containing compounds exceeding the calibration range must be diluted and analyzed again. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses must be reported on separate Forms I. The Form I for the diluted sample must have the "DL" suffix appended to the sample number.	The reported value is estimated because of the presence of interference.
A	This flag indicates that a TIC is a suspected aldol concentration product formed by the reaction of the solvents used to process the sample in the laboratory.	Method qualifier indicates analysis by Flame Atomic Absorption (AA).
M	Not used.	Duplicate injection (a QC parameter not met).

N	Not used	Spiked sample (a QC parameter not met).
S	Not used.	The reported value was determined by the Method of Standard Additions (MSA).
W	Not used.	Post digestion spike for Furnace AA analysis (a QC parameter) is out of control limits of 85% to 115% recovery, while sample absorbance is less than 50% of spike absorbance.
*	Not used.	Duplicate analysis (a QC parameter not within control limits).
+	Not used.	Correlation coefficient for MSA (a QC parameter) is less than 0.995.
P	Not used.	Method qualifier indicates analysis by ICP (Inductively Coupled Plasma) Spectroscopy.
CV	Not used.	Method qualifier indicates analysis by Cold Vapor AA.
AV	Not used.	Method qualifier indicates analysis by Automated Cold Vapor AA.
AS	Not used.	Method qualifier indicates analysis by Semi-Automated Cold Spectrophotometry.
T	Not used.	Method qualifier indicates Titrimetric analysis.
NR	The analyte was not required to be analyzed.	The analyte was not required to be analyzed.
R	Rejected data. The QC parameters indicate that the data is not usable for any purpose.	Rejected data. The QC parameters indicate that the data is not usable for any purpose.

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 22[illegible]-3 MAY 1 8 REC'D

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		V	IEPA	5/5/94	Fed. Ex

Regional Information: TFA-102

Sampler (Name): Peter Sorensen

Airbill Number:

Non-Superfund Program:

Sampler Signature: Peter J. Sorensen

Site Name: S. Cal. Chemical

City, State: Union, IL

Site Spill ID: ZZ

3. Type of Activity: Lead: SF, PRP, ST, FED; Pre-Remedial: PA, SSI, LSI; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST

5. Ship To: Southwest Labs of Oklahoma
1700 W. Albany Suite C
Broken Arrow, OK 74012

ATTN: Chuck Hoover

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EYL20	2	L		1	X				S-145283-4	6104	5/4/94 13:15	PS	MEX220	B(Field)
EYL20	2	L		6		X			S-145281	6104	5/4/94 13:15	PS	MEX220	B(Field)
EYL20	2	L		6			X		S-145282	6104	5/4/94 13:15	PS	MEX220	B(Field)
EYL17	2	L		1	X				S-145275	6104	5/4/94 13:15	PS	—	B(Trip)
EYL17	2	L		1	X				S-145260	6104	5/4/94 13:15	PS	—	B(Trip)

Shipment for Case complete? (Y/N) Y

Page 1 of 2

Sample used for a spike and/or duplicate:

Additional Sampler Signatures: Mark J. Weber

Chain of Custody Seal Number: 149554/149555

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Peter J. Sorensen	5/5/94 14:00				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

DISTRIBUTION:
Blue - Region Copy Pink - SMO Copy White - Lab Copy for Return to Region Yellow - Lab Copy for Return to SMO

JUN 3 1994

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

O 352883

Org-1

Organic Sample Collection Requirements

"This form replaces both the individual Traffic Report and EPA Chain of Custody Record. If the sampling team elects to use an alternative chain-of-custody form, cross out the bottom portion of this record and indicate that chain-of-custody information is recorded on an alternative form."

Water Samples	Required Volume	Container Type
Extractable Analysis (Low Level)	1 Gallon	1 X 4-Liter Amber Glass Bottle OR 2 X 80-oz. Amber Glass Bottle OR 4 X 1-Liter Amber Glass Bottles
Extractable Analysis (Medium Level*)	1 Gallon	32-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)	80 ml.	2 X 40-ml. Glass Vials

*All Medium and High Level Samples to be Sealed in Metal Can for Shipment

Soil/Sediment Samples	Required Volume	Container Type
Extractable Analysis (Low or Medium Level*)	6 oz.	1 X 8-oz. Wide-Mouth Glass Jar OR
	240 ml.	2 X 4-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)	—	2 X 120 ml. Wide-Mouth Glass Vials†

†Soil VOA Vials under study, subject to change, check to ensure proper sealing.

HIGH CONCENTRATION SAMPLE COLLECTION REQUIREMENTS

Liquid or Solid Samples	Required Volume	Container Type
Extractable and Volatile Analysis	6 oz.	1 X 8-oz. Wide-Mouth Glass Jar

1. Organic Sample Collection Requirements

- Please indicate sample to spike and/or duplicate.
- Ship medium and high concentration samples in paint cans.
- Aqueous samples require one triple-volume sample per twenty for Matrix Spike/Matrix Spike Duplicate.
- Oily samples must be analyzed under the Special Analytical Services (SAS) program.
- Confirmatory analysis and Special Analytical Services (SAS) parameters may require extra volume; for SAS consult specified SAS methods for requirements.
- Additional sample volume not required for method OLC01.

2. Cooler and Sample Documentation

- Complete all sections of the Traffic Report/Chain of Custody Form - Press firmly with a ball point pen to ensure that carbon copies are legible. Check the information and correct any errors.
- Please remember to complete the Chain of Custody information on the form.
- Seal the two sets of laboratory Traffic Report/Chain of Custody form copies in a plastic bag. Include a return address for the cooler. Tape bag under cooler lid.
- Overlap the lid and bottle of each sample container with custody seals.
- Seal each container in a plastic bag.
- Pack medium and high concentration samples in metal cans.
- Cool low waters to 4° C. Cooling of low soils is optional. Do not cool medium or high concentration waters and soils.
- Separate and surround cooler contents with vermiculite or equivalent packaging.
- Seal the cooler, overlapping the lid and body with custody seals.
- FAX SMO a copy of the Traffic Report/Chain of Custody Form as soon as possible. Send SMO the pink copy of the Traffic Report within 5 days.
- In column E RAS analysis indicate number of sample bottles sent for analysis.

3. Sample Shipment Reporting

- PHONE IN ALL SHIPMENTS IMMEDIATELY TO SMO (or to RSCC, if instructed)
  Required information:
  - Case (and/or SAS) Number
  - Date shipped
  - Number of samples by concentration and matrix
  - Carrier and airbill number
  - Next planned shipment

  Leave your name and a number where you can be reached.
- Information for SATURDAY DELIVERIES must be phoned in by 3:00 PM (Eastern) the preceding FRIDAY.
- Report any delays or changes of scope (i.e., changes in number of samples to be collected, matrix changes, etc.)
- CALL IF YOU HAVE ANY QUESTIONS

  USEPA Contract Laboratory Program
  Sample Management Office
  P.O. Box 818
  Alexandria, VA 22313
  Phone: (703) 557-2490
  (703) 684-5678
  FAX: (703) 683-0378

EPA United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 220,3 MAY 12 REC'D

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		V	IEPA	5/5/94	Fed. Ex.

Regional Information: TFA-102

Sampler (Name): Mark J. Weber

Airbill Number:

Non-Superfund Program:

Sampler Signature: Mark J. Weber

Site Name: S. Cal. Chemical

City, State: Union, IL

Site Spill ID: ZZ

3. Type of Activity: Lead: SF, PRP, ST, FED; Pre-Remedial: PA, SSI [X], LSI; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST

5. Ship To: Southwest Labs of Oklahoma, 1700 W. Albany Suite C, Broken Arrow, OK 74012

ATTN: Chuck Hoover

6. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. $NaHSO_4$ 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EYL14	2	L	G	1	X				S-145245-6	G101	5/4/94 11:25	MW	MEX214	—
EYL14	2	L	G	6			X		S-145253	G101	5/4/94 11:25	MW	MEX214	—
EYL14	2	L	G	6		X			S-145247	G101	5/4/94 11:25	MW	MEX214	—
EYL15	2	L	G	1	X				S-145249-0	G102	5/4/94 12:05	MW	MEX215	—
EYL15	2	L	G	6			X		S-145254	G102	5/4/94 12:05	MW	MEX215	—
EYL15	2	L	G	6		X			S-145251	G102	5/4/94 12:05	MW	MEX215	—

Shipment for Case complete? (Y/N): Y

Page 1 of 2

Sample used for a spike and/or duplicate:

Additional Sampler Signatures: Peter [illegible]

Chain of Custody Seal Number: 149554/149555

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mark J. Weber	5/5/94 14:00				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples: ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

DISTRIBUTION:
Blue - Region Copy Pink - SMO Copy White - Lab Copy for Return to Region Yellow - Lab Copy for Return to SMO JUN 3 1994

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

O 352881

Org-1

Organic Sample Collection Requirements

"This form replaces both the individual Traffic Report and EPA Chain of Custody Record. If the sampling team elects to use an alternative chain-of-custody form, cross out the bottom portion of this record and indicate that chain-of-custody information is recorded on an alternative form."

Water Samples	Required Volume	Container Type
Extractable Analysis (Low Level)	1 Gallon	1 X 4-Liter Amber Glass Bottle OR 2 X 80-oz. Amber Glass Bottle OR 4 X 1-Liter Amber Glass Bottles
Extractable Analysis (Medium Level*)	1 Gallon	32-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)	80 ml.	2 X 40-ml. Glass Vials

Soil/Sediment Samples	Required Volume	Container Type
Extractable Analysis (Low or Medium Level*)	6 oz.	1 X 8-oz. Wide-Mouth Glass Jar OR
	240 ml.	2 X 4-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)		2 X 120 ml. Wide-Mouth Glass Vials†

†Soil VOA Vials under study, subject to change, check to ensure proper sealing.

*All Medium and High Level Samples to be Sealed in Metal Can for Shipment

HIGH CONCENTRATION SAMPLE COLLECTION REQUIREMENTS

Liquid or Solid Samples	Required Volume	Container Type
Extractable and Volatile Analysis	6 oz.	1 X 8-oz. Wide-Mouth Glass Jar

1. Organic Sample Collection Requirements

- Please indicate sample to spike and/or duplicate.
- Ship medium and high concentration samples in paint cans.
- Aqueous samples require one triple-volume sample per twenty for Matrix Spike/Matrix Spike Duplicate.
- Oily samples must be analyzed under the Special Analytical Services (SAS) program.
- Confirmatory analysis and Special Analytical Services (SAS) parameters may require extra volume; for SAS consult specified SAS methods for requirements.
- Additional sample volume not required for method OLC01.

2. Cooler and Sample Documentation

- Complete all sections of the Traffic Report/Chain of Custody Form - Press firmly with a ball point pen to ensure that carbon copies are legible. Check the information and correct any errors.
- Please remember to complete the Chain of Custody information on the form.
- Seal the two sets of laboratory Traffic Report/Chain of Custody form copies in a plastic bag. Include a return address for the cooler. Tape bag under cooler lid.
- Overlap the lid and bottle of each sample container with custody seals.
- Seal each container in a plastic bag.
- Pack medium and high concentration samples in metal cans.
- Cool low waters to 4° C. Cooling of low soils is optional. Do not cool medium or high concentration waters and soils.
- Separate and surround cooler contents with vermiculite or equivalent packaging.
- Seal the cooler, overlapping the lid and body with custody seals.
- FAX SMO a copy of the Traffic Report/Chain of Custody Form as soon as possible. Send SMO the pink copy of the Traffic Report within 5 days.
- In column E RAS analysis indicate number of sample bottles sent for analysis.

3. Sample Shipment Reporting

- PHONE IN ALL SHIPMENTS IMMEDIATELY TO SMO (or to RSCC, if instructed)
  Required information:
  - Case (and/or SAS) Number
  - Date shipped
  - Number of samples by concentration and matrix
  - Carrier and airbill number
  - Next planned shipment

  Leave your name and a number where you can be reached.
- Information for SATURDAY DELIVERIES must be phoned in by 3:00 PM (Eastern) the preceding FRIDAY.
- Report any delays or changes of scope (i.e., changes in number of samples to be collected, matrix changes, etc.)
- CALL IF YOU HAVE ANY QUESTIONS

  USEPA Contract Laboratory Program
  Sample Management Office
  P.O. Box 818
  Alexandria, VA 22313
  Phone: (703) 557-2490
  (703) 684-5678
  FAX: (703) 683-0378

EPA United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 22-43 MAY 1 8 REC'D

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		II	IEPA	5-5-94	Fed. Ex.

Regional Information: TFA-102

Sampler (Name): Peter Sorensen

Airbill Number: 1517280833

Non-Superfund Program:

Sampler Signature: Peter J. Sorensen

Site Name: S. Cal. Chemical

City, State: Union, IL

Site Spill ID: ZZ

3. Type of Activity: Lead / Pre-Remedial / Remedial / Removal
SF / PRP / ST / FED / PA / SSI / LSI / RIFS / RD / RA / O&M / NPLD / CLEM / REMA / REM / OIL / UST

5. Ship To: Southwest Labs. of Ok.
1700 W. Albany Suite C
Broken Arrow, OK. 74012
ATTN: Chuck Hoover

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EYL06	5	L	GSBC	6	X				5-145221	X104	5/4/94 16:15	PS	MEXZ06	—
EYL06	5	L	GSBC	6	X				5-145222	X104	5/4/94 16:15	PS	MEXZ06	—
EYL06	5	L	GSBC	6		X	X		5-145223	X104	5/4/94 16:15	PS	MEXZ06	—
EYL07	5	L	GSBC	6	X				5-145224	X105	5/4/94 16:15	PS	MEXZ07	D (EYL06)
EYL07	5	L	GSBC	6	X				5-145225	X105	5/4/94 16:15	PS	MEXZ07	D (EYL06)
EYL07	5	L	GSBC	6		X	X		5-145226	X105	5/4/94 16:15	PS	MEXZ07	D (EYL06)

Shipment for Case complete? (Y/N):

Page 2 of 2

Sample used for a spike and/or duplicate: EYL07

Additional Sampler Signatures: Mark J. Debe

Chain of Custody Seal Number: 149548/149549

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Peter J. Sorensen	5/5/94 14:00				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

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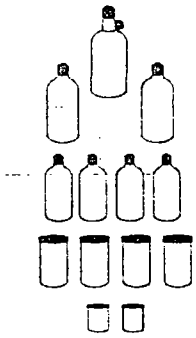
O 352878

Org-1

Organic Sample Collection Requirements

"This form replaces both the individual Traffic Report and EPA Chain of Custody Record. If the sampling team elects to use an alternative chain-of-custody form, cross out the bottom portion of this record and indicate that chain-of-custody information is recorded on an alternative form."

Water Samples	Required Volume	Container Type
Extractable Analysis (Low Level)	1 Gallon	1 X 4-Liter Amber Glass Bottle OR 2 X 80-oz. Amber Glass Bottle OR 4 X 1-Liter Amber Glass Bottles
Extractable Analysis (Medium Level*)	1 Gallon	32-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)	80 ml.	2 X 40-ml. Glass Vials



*All Medium and High Level Samples to be Sealed in Metal Can for Shipment

Soil/Sediment Samples	Required Volume	Container Type
Extractable Analysis (Low or Medium Level*)	6 oz.	1 X 8-oz. Wide-Mouth Glass Jar OR
	240 ml.	2 X 4-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)		2 X 120 ml. Wide-Mouth Glass Vials†

†Soil VOA Vials under study, subject to change, check to ensure proper sealing.

HIGH CONCENTRATION SAMPLE COLLECTION REQUIREMENTS

Liquid or Solid Samples	Required Volume	Container Type
Extractable and Volatile Analysis	6 oz.	1 X 8-oz. Wide-Mouth Glass Jar

1. Organic Sample Collection Requirements

- Please indicate sample to spike and/or duplicate.
- Ship medium and high concentration samples in paint cans.
- Aqueous samples require one triple-volume sample per twenty for Matrix Spike/Matrix Spike Duplicate.
- Oily samples must be analyzed under the Special Analytical Services (SAS) program.
- Confirmatory analysis and Special Analytical Services (SAS) parameters may require extra volume; for SAS consult specified SAS methods for requirements.
- Additional sample volume not required for method OLC01.

2. Cooler and Sample Documentation

- Complete all sections of the Traffic Report/Chain of Custody Form - Press firmly with a ball point pen to ensure that carbon copies are legible. Check the information and correct any errors.
- Please remember to complete the Chain of Custody information on the form.
- Seal the two sets of laboratory Traffic Report/Chain of Custody form copies in a plastic bag. Include a return address for the cooler. Tape bag under cooler lid.
- Overlap the lid and bottle of each sample container with custody seals.
- Seal each container in a plastic bag.
- Pack medium and high concentration samples in metal cans.
- Cool low waters to 4° C. Cooling of low soils is optional. Do not cool medium or high concentration waters and soils.
- Separate and surround cooler contents with vermiculite or equivalent packaging.
- Seal the cooler, overlapping the lid and body with custody seals.
- FAX SMO a copy of the Traffic Report/Chain of Custody Form as soon as possible. Send SMO the pink copy of the Traffic Report within 5 days.
- In column E RAS analysis indicate number of sample bottles sent for analysis.

3. Sample Shipment Reporting

- PHONE IN ALL SHIPMENTS IMMEDIATELY TO SMO (or to RSCC, if instructed)
  Required information:
  - Case (and/or SAS) Number
  - Date shipped
  - Number of samples by concentration and matrix
  - Carrier and airbill number
  - Next planned shipment

  Leave your name and a number where you can be reached.
- Information for SATURDAY DELIVERIES must be phoned in by 3:00 PM (Eastern) the preceding FRIDAY.
- Report any delays or changes of scope (i.e., changes in number of samples to be collected, matrix changes, etc.)
- CALL IF YOU HAVE ANY QUESTIONS

  USEPA Contract Laboratory Program
  Sample Management Office
  P.O. Box 818
  Alexandria, VA 22313
  Phone: (703) 557-2490
  (703) 684-5678
  FAX: (703) 683-0378

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 22043 MAY 12

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		V	IEPA	5-5-94	Fed. Ex.

Regional Information: TFA -102

Sampler (Name): Peter Sorensen

Airbill Number: 1517280833

Non-Superfund Program

Sampler Signature: Peter J. Sorensen

5. Ship To: Southwest Labs, of Oklahoma, 1700 W. Albany Suite C, Broken Arrow, OK 74012, ATTN: Chuck Hoover

Site Name: S. Cal. Chemical

City, State: Union, IL

Site Spill ID: 22

3. Type of Activity: Lead: SF, PRP, ST, FED; Pre-Remedial: PA, SSI [X], LSI; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST

6. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Other (Specify) 6. Ice only N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EYL11	5	L	G	6	X				S-145236	X109	5/5/94 11:25	PS	MEX211	—
EYL11	5	L	G	6	X				S-145237	X109	5/5/94 11:25	PS	MEX211	—
EYL11	5	L	G	6		X	X		S-145238	X109	5/5/94 11:25	PS	MEX211	—
EYL12	5	L	G	6	X				S-145239	X110	5/5/94 11:45	PS	MEX212	—
EYL12	5	L	G	6	X				S-145240	X110	5/5/94 11:45	PS	MEX212	—
EYL12	5	L	G	6		X	X		S-145241	X110	5/5/94 11:45	PS	MEX212	—
EYL13	5	L	G	6	X				S-145242	X111	5/5/94 12:15	PS	MEX213	—
EYL13	5	L	G	6	X				S-145243	X111	5/5/94 12:15	PS	MEX213	—
EYL13	5	L	G	6		X	X		S-145244	X111	5/5/94 12:15	PS	MEX213	—

Shipment for Case complete? (Y/N): Page 2 of 2

Sample used for a spike and/or duplicate

Additional Sampler Signatures: Mark J. Weber

Chain of Custody Seal Number: 149548/149549

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Peter J. Sorensen	5/5/94 14:00				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples: [ ] Accepted (Signature) [ ] Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

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SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

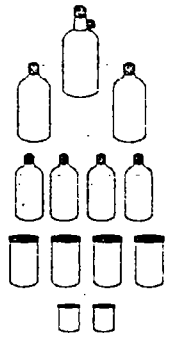
O 352880

Org-1

Organic Sample Collection Requirements

"This form replaces both the individual Traffic Report and EPA Chain of Custody Record. If the sampling team elects to use an alternative chain-of-custody form, cross out the bottom portion of this record and indicate that chain-of-custody information is recorded on an alternative form."

Water Samples	Required Volume	Container Type
Extractable Analysis (Low Level)	1 Gallon	1 X 4-Liter Amber Glass Bottle OR 2 X 80-oz. Amber Glass Bottle OR 4 X 1-Liter Amber Glass Bottles
Extractable Analysis (Medium Level*)	1 Gallon	32-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)	80 ml.	2 X 40-ml. Glass Vials



*All Medium and High Level Samples to be Sealed in Metal Can for Shipment

Soil/Sediment Samples	Required Volume	Container Type
Extractable Analysis (Low or Medium Level*)	6 oz.	1 X 8-oz. Wide-Mouth Glass Jar OR
	240 ml.	2 X 4-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)		2 X 120 ml. Wide-Mouth Glass Vials†

†Soil VOA Vials under study, subject to change, check to ensure proper sealing.

HIGH CONCENTRATION SAMPLE COLLECTION REQUIREMENTS

Liquid or Solid Samples	Required Volume	Container Type
Extractable and Volatile Analysis	6 oz.	1 X 8-oz. Wide-Mouth Glass Jar

1. **Organic Sample Collection Requirements**
   - Please indicate sample to spike and/or duplicate.
   - Ship medium and high concentration samples in paint cans.
   - Aqueous samples require one triple-volume sample per twenty for Matrix Spike/Matrix Spike Duplicate.
   - Oily samples must be analyzed under the Special Analytical Services (SAS) program.
   - Confirmatory analysis and Special Analytical Services (SAS) parameters may require extra volume; for SAS consult specified SAS methods for requirements.
   - Additional sample volume not required for method OLC01.

2. **Cooler and Sample Documentation**
   - Complete all sections of the Traffic Report/Chain of Custody Form - Press firmly with a ball point pen to ensure that carbon copies are legible. Check the information and correct any errors.
   - Please remember to complete the Chain of Custody information on the form.
   - Seal the two sets of laboratory Traffic Report/Chain of Custody form copies in a plastic bag. Include a return address for the cooler. Tape bag under cooler lid.
   - Overlap the lid and bottle of each sample container with custody seals.
   - Seal each container in a plastic bag.
   - Pack medium and high concentration samples in metal cans.
   - Cool low waters to 4° C. Cooling of low soils is optional. Do not cool medium or high concentration waters and soils.
   - Separate and surround cooler contents with vermiculite or equivalent packaging.
   - Seal the cooler, overlapping the lid and body with custody seals.
   - FAX SMO a copy of the Traffic Report/Chain of Custody Form as soon as possible. Send SMO the pink copy of the Traffic Report within 5 days.
   - In column E RAS analysis indicate number of sample bottles sent for analysis.

3. **Sample Shipment Reporting**
   - PHONE IN ALL SHIPMENTS IMMEDIATELY TO SMO (or to RSCC, if instructed)
     Required information:
     - Case (and/or SAS) Number
     - Date shipped
     - Number of samples by concentration and matrix
     - Carrier and airbill number
     - Next planned shipment

     Leave your name and a number where you can be reached.
   - Information for SATURDAY DELIVERIES must be phoned in by 3:00 PM (Eastern) the preceding FRIDAY.
   - Report any delays or changes of scope (i.e., changes in number of samples to be collected, matrix changes, etc.)
   - CALL IF YOU HAVE ANY QUESTIONS

     USEPA Contract Laboratory Program
     Sample Management Office
     P.O. Box 818
     Alexandria, VA 22313
     Phone: (703) 557-2490
     (703) 684-5678
     FAX: (703) 683-0378

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 22045

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		V	IEPA	5-5-94	Fed. Ex.

Regional Information: TFA-102

Sampler (Name): Peter Sorensen

Airbill Number: 1517280833

Non-Superfund Program

Sampler Signature: Peter F Sorensen

5. Ship To: Southwest Labs of Oklahoma, 1700 W. Albany Suite C, Broken Arrow, OK 74012
ATTN: Chuck Hoover

Site Name: S. Cal. Chemical

City, State: Union, IL

Site Spill ID: 22

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF			RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		LSI	O&M	OIL
			NPLD	UST

6. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. $NaHSO_4$ 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EYL03														
6S 5-29-94 ~~EYL03~~	5	L	G	6	X				S-145212	X101	5/5/94 1250	PS	MEX203	—
EYL03	5	L	G	6	X				S-145213	X101	5/5/94 1250	PS	MEX203	—
EYL03	5	L	G	6		X	X		S-145214	X101	5/5/94 1250	PS	MEX203	—
EYL04	5	L	G	6	X				S-145215	X102	5/4/94 1420	PS	MEX204	—
EYL04	5	L	G	6	X				S-145216	X102	5/4/94 1420	PS	MEX204	—
6S ~~EYL05~~														
5-29-94 EYL04	5	L	G	6		X	X		S-145217	X102	5/4/94 1420	PS	MEX204	—
EYL05	5	L	G	6	X				S-145218	X103	5/4/94 15:40	PS	MEX205	—
EYL05	5	L	G	6	X				S-145219	X103	5/4/94 15:40	PS	MEX205	—
EYL05	5	L	G	6		X	X		S-145220	X103	5/4/94 15:40	PS	MEX205	—

Shipment for Case complete? (Y/N)

Page 1 of 2

Sample used for a spike and/or duplicate

Additional Sampler Signatures: Mark J. Weber

Chain of Custody Seal Number: 149548 / 149549

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Peter F Sorensen	5/9/94 14:00				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

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JUN 3 1994

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

O 352874

Org-1

Organic Sample Collection Requirements

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Water Samples	Required Volume	Container Type
Extractable Analysis (Low Level)	1 Gallon	1 X 4-Liter Amber Glass Bottle OR 2 X 80-oz. Amber Glass Bottle OR 4 X 1-Liter Amber Glass Bottles
Extractable Analysis (Medium Level*)	1 Gallon	32-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)	80 ml.	2 X 40-ml. Glass Vials

Soil/Sediment Samples	Required Volume	Container Type
Extractable Analysis (Low or Medium Level*)	6 oz.	1 X 8-oz. Wide-Mouth Glass Jar OR
	240 ml.	2 X 4-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)		2 X 120 ml. Wide-Mouth Glass Vials†

†Soil VOA Vials under study, subject to change, check to ensure proper sealing.

*All Medium and High Level Samples to be Sealed in Metal Can for Shipment

HIGH CONCENTRATION SAMPLE COLLECTION REQUIREMENTS

Liquid or Solid Samples	Required Volume	Container Type
Extractable and Volatile Analysis	6 oz.	1 X 8-oz. Wide-Mouth Glass Jar

1. Organic Sample Collection Requirements

- Please indicate sample to spike and/or duplicate.
- Ship medium and high concentration samples in paint cans.
- Aqueous samples require one triple-volume sample per twenty for Matrix Spike/Matrix Spike Duplicate.
- Oily samples must be analyzed under the Special Analytical Services (SAS) program.
- Confirmatory analysis and Special Analytical Services (SAS) parameters may require extra volume; for SAS consult specified SAS methods for requirements.
- Additional sample volume not required for method OLC01.

2. Cooler and Sample Documentation

- Complete all sections of the Traffic Report/Chain of Custody Form - Press firmly with a ball point pen to ensure that carbon copies are legible. Check the information and correct any errors.
- Please remember to complete the Chain of Custody information on the form.
- Seal the two sets of laboratory Traffic Report/Chain of Custody form copies in a plastic bag. Include a return address for the cooler. Tape bag under cooler lid.
- Overlap the lid and bottle of each sample container with custody seals.
- Seal each container in a plastic bag.
- Pack medium and high concentration samples in metal cans.
- Cool low waters to 4° C. Cooling of low soils is optional. Do not cool medium or high concentration waters and soils.
- Separate and surround cooler contents with vermiculite or equivalent packaging.
- Seal the cooler, overlapping the lid and body with custody seals.
- FAX SMO a copy of the Traffic Report/Chain of Custody Form as soon as possible. Send SMO the pink copy of the Traffic Report within 5 days.
- In column E RAS analysis indicate number of sample bottles sent for analysis.

3. Sample Shipment Reporting

- PHONE IN ALL SHIPMENTS IMMEDIATELY TO SMO (or to RSCC, if instructed)

  Required information:

  Case (and/or SAS) Number
  Date shipped
  Number of samples by concentration and matrix
  Carrier and airbill number
  Next planned shipment

  Leave your name and a number where you can be reached.
- Information for SATURDAY DELIVERIES must be phoned in by 3:00 PM (Eastern) the preceding FRIDAY.
- Report any delays or changes of scope (i.e., changes in number of samples to be collected, matrix changes, etc.)
- CALL IF YOU HAVE ANY QUESTIONS

  USEPA Contract Laboratory Program
  Sample Management Office
  P.O. Box 818
  Alexandria, VA 22313
  Phone: (703) 557-2490
  (703) 684-5678
  FAX: (703) 683-0378

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 22043 MAY 18 RECD

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		V	IEPA	5-5-94	Fed. Ex.

Regional Information: TFA-102

Sampler (Name): Peter Sorensen

Airbill Number: 1517280833

Non-Superfund Program

Sampler Signature: Peter J Sorensen

5. Ship To: Southwest Labs. of Oklahoma, 1700 W. Albany Suite C, Broken Arrow, OK. 74012

ATTN: Chuck Hoover

Site Name: S. Cal. Chemical

City, State: Union IL

Site Spill ID: ZZ

3. Type of Activity: Lead — SF, PRP, ST, FED; Pre-Remedial — PA, SS, LSI; Remedial — RIFS, RD, RA, O&M, NPLD; Removal — CLEM, REMA, REM, OIL, UST

6. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. $NaHSO_4$ 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis VOA	BNA	Pest/ PCB	High only ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EYL08	S	L	G	6	X				S-145227	X106	5/5/94 10:25	PS	MEX208	—
EYL08	S	L	G	6	X				S-145228	X106	5/5/94 10:25	PS	MEX208	—
EYL08	S	L	G	6		X	X		S-145229	X106	5/5/94 10:25	PS	MEX208	—
EYL09	S	L	G	6	X				S-145230	X107	5/5/94 10:45	PS	MEX209	—
EYL09	S	L	G	6	X				S-145231	X107	5/5/94 10:45	PS	MEX209	—
EYL09	S	L	G	6		X	X		S-145232	X107	5/5/94 10:45	PS	MEX209	—
EYL10	S	L	G	6	X				S-145233	X108	5/5/94 11:05	PS	MEX210	—
EYL10	S	L	G	6	X				S-145234	X108	5/5/94 11:05	PS	MEX210	—
EYL10	S	L	G	6		X	X		S-145235	X108	5/5/94 11:05	PS	MEX210	—
											GS			

Shipment for Case complete? (Y/N)

Page 1 of 1

Sample used for a spike and/or duplicate

Additional Sampler Signatures: Mark J. Weber

Chain of Custody Seal Number: 149548/149549

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Peter J Sorensen	5/5/94 14:06				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples: ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

DISTRIBUTION: Blue - Region Copy Pink - SMO Copy White - Lab Copy for Return to Region Yellow - Lab Copy for Return to SMO

JUN 3 1994

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

O 352879

1-6-0

Organic Sample Collection Requirements

"This form replaces both the individual Traffic Report and EPA Chain of Custody Record. If the sampling team elects to use an alternative chain-of-custody form, cross out the bottom portion of this record and indicate that chain-of-custody information is recorded on an alternative form."

Water Samples	Required Volume	Container Type
Extractable Analysis (Low Level)	1 Gallon	1 X 4-Liter Amber Glass Bottle OR 2 X 80-oz. Amber Glass Bottle OR 4 X 1-Liter Amber Glass Bottles
Extractable Analysis (Medium Level*)	1 Gallon	32-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)	80 ml.	2 X 40-ml. Glass Vials

*All Medium and High Level Samples to be Sealed in Metal Can for Shipment

Soil/Sediment Samples	Required Volume	Container Type
Extractable Analysis (Low or Medium Level*)	6 oz.	1 X 8-oz. Wide-Mouth Glass Jar OR
	240 ml.	2 X 4-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)		2 X 120 ml. Wide-Mouth Glass Vials†

†Soil VOA Vials under study, subject to change, check to ensure proper sealing.

HIGH CONCENTRATION SAMPLE COLLECTION REQUIREMENTS

Liquid or Solid Samples	Required Volume	Container Type
Extractable and Volatile Analysis	6 oz.	1 X 8-oz. Wide-Mouth Glass Jar

1. Organic Sample Collection Requirements

- Please indicate sample to spike and/or duplicate.
- Ship medium and high concentration samples in paint cans.
- Aqueous samples require one triple-volume sample per twenty for Matrix Spike/Matrix Spike Duplicate.
- Oily samples must be analyzed under the Special Analytical Services (SAS) program.
- Confirmatory analysis and Special Analytical Services (SAS) parameters may require extra volume; for SAS consult specified SAS methods for requirements.
- Additional sample volume not required for method OLC01.

2. Cooler and Sample Documentation

- Complete all sections of the Traffic Report/Chain of Custody Form - Press firmly with a ball point pen to ensure that carbon copies are legible. Check the information and correct any errors.
- Please remember to complete the Chain of Custody information on the form.
- Seal the two sets of laboratory Traffic Report/Chain of Custody form copies in a plastic bag. Include a return address for the cooler. Tape bag under cooler lid.
- Overlap the lid and bottle of each sample container with custody seals.
- Seal each container in a plastic bag.
- Pack medium and high concentration samples in metal cans.
- Cool low waters to 4° C. Cooling of low soils is optional. Do not cool medium or high concentration waters and soils.
- Separate and surround cooler contents with vermiculite or equivalent packaging.
- Seal the cooler, overlapping the lid and body with custody seals.
- FAX SMO a copy of the Traffic Report/Chain of Custody Form as soon as possible. Send SMO the pink copy of the Traffic Report within 5 days.
- In column E RAS analysis indicate number of sample bottles sent for analysis.

3. Sample Shipment Reporting

- PHONE IN ALL SHIPMENTS IMMEDIATELY TO SMO (or to RSCC, if instructed)
  Required information:
  - Case (and/or SAS) Number
  - Date shipped
  - Number of samples by concentration and matrix
  - Carrier and airbill number
  - Next planned shipment

  Leave your name and a number where you can be reached.
- Information for SATURDAY DELIVERIES must be phoned in by 3:00 PM (Eastern) the preceding FRIDAY.
- Report any delays or changes of scope (i.e., changes in number of samples to be collected, matrix changes, etc.)
- CALL IF YOU HAVE ANY QUESTIONS

  USEPA Contract Laboratory Program
  Sample Management Office
  P.O. Box 818
  Alexandria, VA 22313
  Phone: (703) 557-2490
  (703) 684-5678
  FAX: (703) 683-0378

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Spec[illegible] Analytical Service

[illegible]king List/Chain of Custody

SAS No. 94IE05

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		V	IEPA	5-5-94	FED EX

Regional Information: TFA-102

Sampler (Name): Peter Sorensen

Airbill Number: 1517280866

Non-Superfund Program

Sampler Signature: Peter T Sorensen

Site Name: SO. CALIFORNIA CHEMICAL CO.

City, State: UNION, IL

Site Spill ID: ZZ

3. Type of Activity

Lead		Pre-Remedial		Remedial		Removal	
SF		PA		RIFS		CLEM	
PRP		SSI	X	RD		REMA	
ST		LSI		RA		REM	
FED				O&M		OIL	
				NPLD		UST	

5. Ship To: CENTRAL REGION LAB
USEPA, 10TH FLOOR
536 S. CLARK ST.
CHICAGO, IL 60605
ATTN: BILL SARGENT

6. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil
7. Waste
8. Other (Specify)

7. Preservative (Enter in Column C)
1. HCl
2. HNO3
3. $NAHSO_4$
4. H_2SO_4
5. NAOH
6. Other (SAS) (Specify)
7. Ice only
N. Not preserved

Sample Numbers	A Matrix Enter from Box 6	B Conc Low Med High	C Preservative Used from Box 7	D Analysis	E Sample used for spike and/or duplicate	F Regional Specific Tracking Number or Tag Number	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Designated Field QC
1. 94IE05-D01	2	L	7	BNA	X	5-114512	G502	5/4/94/17:10	PS	D
2. 94IE05-D01	2	L	7	PEST/PCB	X	5-114513	G502	5/4/94/17:10	PS	D
3. 94IE05-D01	2	L	2	TOTAL METALS	X	5-114514	G502	5/4/94/17:10	PS	D
4. 94IE05-D01	2	L	5	CYANIDE	X	5-114517	G502	5/4/94/17:10	PS	D
5.										
6.										
7.										
8.										
9.										
10.										

Shipment for SAS complete? (Y/N) Y

SEAL NO. 157960/157961

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Peter T Sorensen	5-5-94 / 1400				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Received by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form

DISTRIBUTION:
White - Region Copy Yellow - SMO Copy Gold - Lab Copy Pink - Lab Copy for Return to SMO

S 035741

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Special Analytical Service

Packing List/Chain of Custody

SAS No. 94 IE 05

1. Project Code	Account Code	2. Region No. V	Sampling Co. IEPA	4. Date Shipped 5-5-94	Carrier FED EX
Regional Information TFA-102		Sampler (Name) PETE SORENSEN		Airbill Number 1517280866	
Non-Superfund Program		Sampler Signature [signature]		5. Ship To CENTRAL REGION LAB USEPA, 10TH FLOOR 536 S. CLARK ST. CHICAGO, IL 60605 ATTN: BILL SARGENT	
Site Name SO. CALIFORNIA CHEMICAL CO.		3. Type of Activity: Lead / Pre-Remedial: SF, PRP, ST, FED; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST; SSI ☒, LSI			
City, State UNION, IL	Site Spill ID ZZ				

6. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil
7. Waste
8. Other (Specify)

7. Preservative (Enter in Column C)
1. HCl
2. HNO3
3. NAHSO4
4. H2SO4
5. NAOH
6. Other (SAS) (Specify)
7. Ice only
N. Not preserved

Sample Numbers	A Matrix Enter from Box 6	B Conc Low Med High	C Preservative Used from Box 7	D Analysis	E Sample used for spike and/or duplicate	F Regional Specific Tracking Number or Tag Number	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Designated Field QC
1. 94IE05_D01	2	L	1	VOA	X	5-145488-43	G502	5/4/94/17:10	PS	D
2. 94IE05-D01	2	L	7	BNA	X	5-145494-5	G502	5/4/94/17:10	PS	D
3. 94IE05-D01	2	L	7	PEST/PCB	X	5-145496-7	G502	5/4/94/17:10	PS	D
4. 94IE05-D01	2	L	2	TOTAL METALS	X	5-145499-0	G502	5/4/94/17:10	PS	D
5. 94IE05-D01	2	L	5	CYANIDE	X	5-114515-6	G502	5/4/94/17:10	PS	D
6. 94IE05-R01	–	L	7	VOA	X	5-145498	TRIP BLANK	5/4/94/17:10	PS	TB
7. 94IE05-R01	–	L	7	VOA	X	5-114696	TRIP BLANK	5/4/94/17:10	PS	TB
8.										
9.										
10.										

Shipment for SAS complete? (Y/N) Y

SEAL NO. 157958/157959

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	5-5-94 1400				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Received by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form

DISTRIBUTION:
White - Region Copy Yellow - SMO Copy Gold - Lab Copy Pink - Lab Copy for Return to SMO

S 035740

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Special Analytical Service

Tracking List/Chain of Custody

SAS No. 94 IE 05

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		V	IEPA	5-5-94	FED EX

Regional Information: TFA - 102

Sampler (Name): IEPA Peter Sorensen

Airbill Number: 1517280866

Non-Superfund Program

Sampler Signature: Peter T Sorensen

Site Name: SO. CALIFORNIA CHEMICAL CO.

City, State: UNION, IL

Site Spill ID: ZZ

3. Type of Activity

Lead		Pre-Remedial		Remedial		Removal	
SF				RIFS		CLEM	
PRP		PA		RD		REMA	
ST		SSI	X	RA		REM	
FED		LSI		O&M		OIL	
				NPLD		UST	

5. Ship To: CENTRAL REGION LAB, USEPA, 10TH FLOOR, 536 S. CLARK ST., CHICAGO, IL 60605, ATTN: BILL SARGENT

6. Sample Description (Enter in Column A)
1. Surface Water
2. (Ground Water)
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil
7. Waste
8. Other (Specify)

7. Preservative (Enter in Column C)
1. HCl
2. HNO_3
3. $NAHSO_4$
4. H_2SO_4
5. NAOH
6. Other (SAS) (Specify)
7. Ice only
N. Not preserved

Sample Numbers	A Matrix Enter from Box 6	B Conc Low Med High	C Preservative Used from Box 7	D Analysis	E Sample used for spike and/or duplicate	F Regional Specific Tracking Number or Tag Number	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Designated Field QC
1. 94IE05-501	2	L	1	VOA		5-145476-7 ~~G501~~ BC 5/14/94	G501	5-4-94/17:10	PS	—
2. 94IE05-501	2	L	7	BNA		5-145478	G501	5-4-94/17:10	PS	—
3. 94IE05-501	2	L	7	PEST/PCB		5-145479	G501	5-4-94/17:10	PS	—
4. 94IE05-501	2	L	2	TOTAL METALS		5-145480	G501	5-4-94/17:10	PS	—
5. 94IE05-501	2	L	5	CYANIDE		5-145481	G501	5-4-94/17:10	PS	—
6. 94IE05-502	2	L	1	VOA		5-145482-3	FIELD BLANK	5-4-94/17:10	PS	B
7. 94IE05-502	2	L	7	BNA		5-145484	FIELD BLANK	5-4-94/17:10	PS	B
8. 94IE05-502	2	L	7	PEST/PCB		5-145485	FIELD BLANK	5-4-94/17:10	PS	B
9. 94IE05-502	2	L	2	TOTAL METALS		5-145486	FIELD BLANK	5-4-94/17:10	PS	B
10. 94IE05-502	2	L	5	CYANIDE		5-145487	FIELD BLANK	5-4-94/17:10	PS	B

Shipment for SAS complete? (Y/N) Y

SEAL NO. BC SE 157962/157963

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Peter T Sorensen	5-5-94 1400				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Received by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form

DISTRIBUTION:
White - Region Copy Yellow - SMO Copy Gold - Lab Copy Pink - Lab Copy for Return to SMO

S 035743

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

RECEIVED
MAY 25 1994
IEPA/DLPC

Date: MAY 23 1994

Subject: Review of Region 5 Data for SOUTHERN CALIFORNIA CHEMICAL CO.

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To:

Attached are the results for SOUTHERN CALIFORNIA CHEMICAL CO.
CRL request number 940084
for analyses for Mercury
Results are reported for sample designations: 94IE05S01, 94IE05D01, and 94IE05R02.

Results Status:
( ) Acceptable for Use:
(X) Data Qualified, but Acceptable for use:Mercury
( ) Data Unacceptable for Use

( ) Sewer Disposal Criteria Met;

The portion of samples 94IE05S01, 94IE05S03, and 94IE05R02 which were collected and analyzed for mercury should be neutralized disposed of in a drum. The acid dichromate preservative is toxic.

Comments on Data Quality by Reviewer:

The mercury samples were preserved at the CRL . This was performed five days after collection. The procedure require that samples are to be preserved at the time of collection with 0.5% HNO_3 and 0.05% $K_2Cr_2O_7$. The mercury results could be biased low. The results are acceptable for use. Use the data with caution.

Comments by Laboratory Director or Quality Control Coordinator:

Francis A. Awanya 5/18/94

Team Leader and Date (X) Reviewed ( ) Unreviewed

James H. Adams, Jr. 5/20/94

Section Chief and Date (✓) Reviewed ( ) Unreviewed

James H. Adams, Jr. 5/20/94

QC Coordinator and Date (✓) Reviewed ( ) Unreviewed

Sylvia Griffin MAY 2 3 1994

Data Management Coordinator and Date Received

Date Transmitted MAY 2 3 1994

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

940084 TFA.301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: MINERALS - NUTRIENTS

DIVISION/BRANCH SUPERFUND SAMPLE DATE 5/4/94 LAB ARRIVAL DATE 5/6/94 DUE DATE 5/27/94

DU NUMBER TFA DATA SET NUMBER 940084 STUDY SOUTHERN CALIFORNIA CHEMICAL CO. PRIORITY N CONTRACTOR U

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER PHENOLICS UG PHENOL/L MIN 74818	WATER CYANIDE UG CN/L MIN 74919	WATER GROSS ALPHA P CI/L MIN 76020	WATER CR^{+6} UG CR^{+6}/L MIN 74616	WATER MERCURY UG HG/L MIN 74717
94IE05S01	G501 5-145481		X			X 0.1 U
94IE05C01	G502 5-114515-16-17		X			X 0.1 U
94IE05R02	FIELD BLANK 5-145487		X			X 0.1 U
				Assayed by EPA Method 245.2 x DNS		
				Cold Vapor, automated		
				J. Rollo	5/12/94	
				J. Rollo	5/12/94	
						FAA 18/94

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: MAY 2 3 1994

Subject: Review of Region 5 Data for SOUTHERN CALIFORNIA CHEMICAL CO.

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To:

Attached are the results for SOUTHERN CALIFORNIA CHEMICAL CO.
CRL request number 940084
for analyses for Cyanide
Results are reported for sample designations: 94IE05S01, 94IE05D01, and 94IE05R02.

Results Status:
(X) Acceptable for Use: Cyanide
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use

RECEIVED
MAY 25 1994
IEPA/DLPC

( ) Sewer Disposal Criteria Met;

The portion of samples 94IE05S01, 94IE05S03, and 94IE05R02 which were collected and analyzed for cyanide are preserved with sodium hydroxide. They should be neutralized prior to disposal down the drain. The concentrations of cyanide in those samples are less than detection.

Comments on Data Quality by Reviewer:

All the sample results are acceptable for use.

Comments by Laboratory Director or Quality Control Coordinator:

Francis A. Arriaga 5/18/94

Team Leader and Date (X) Reviewed ( ) Unreviewed

James H. Adams, Jr. 5/20/94

Section Chief and Date (✓) Reviewed ( ) Unreviewed

James H. Adams, Jr. 5/20/94

QC Coordinator and Date (✓) Reviewed ( ) Unreviewed

Sylvia Griffin MAY 2 3 1994

Data Management Coordinator and Date Received

Date Transmitted MAY 2 3 1994

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

940084 T.F.A.301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: MINERALS - NUTRIENTS

DIVISION/BRANCH SUPERFUND SAMPLE DATE 5/4/94 LAB ARRIVAL DATE 5/6/94 DUE DATE 5/27/94

DU NUMBER TFA DATA SET NUMBER 940084 STUDY SOUTHERN CALIFORNIA CHEMICAL CO. PRIORITY N CONTRACTOR N

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER PHENOLICS UG PHENOL/L MIN 74818	WATER CYANIDE UG CN/L MIN 74919	WATER GROSS ALPHA P CI/L MIN 76020	WATER CR^{+6} UG CR^{+6}/L MIN 74616	WATER MERCURY UG HG/L MIN 74717
94IEC5S01	G501 5-145481		X SU			
94IEC5C01	G502 5-114515-16-17		X SU			
94IEC5K02	FIELD BLANK 5-145487		X SU			
		Assayed by	EPA Method 335.2		NS	
		Colorimetric	Automated UV			
		J. Rodl	5/12/94			
		J. Rodl	5/12/94			

FAA 5/18/94

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: MAY 2 5 1994.

Subject: Review of Region 5 Data for **SOUTHERN CALIFORNIA CHEMICAL**

From: Charles T. Elly, Director
Region 5 Central Regional Laboratory

To:

Attached are the results for: **SOUTHERN CALIFORNIA CHEMICAL**
CRL request number: **SF940084**
Analyzed for: **VOA (Organics)**
Results are reported for sample designations: 94IE05S01, D01, R02 AND R01
(4 SAMPLES)

Results Status:
(X) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use

(X) Sewer Disposal Criteria Met; Exceptions: none
Comments on Data Quality by Reviewer:

- The samples were analyzed according to the 624VOA SOP with midifications from OLC01 10/92SOW. Samples were analyzed within their holding time and the quality controls were acceptable.
- No problems were observed.

RECEIVED
MAY 27 1994
IEPA/DLPC

Comments by Laboratory Director or Quality Control Coordinator

Review Record for **SOUTHERN CALIFORNIA CHEMICAL CO. SF940084 VOA**

Midia Fuentes 05/24/93

Team Leader and Task Monitor Date (X) Reviewed ( ) Unreviewed

Chi Fang 5/25/94

Section Chief and Date ( ) Reviewed ( ) Unreviewed

James H. Adams, Jr. 5/25/94

QC Coordinator and Date (✓) Reviewed ( ) Unreviewed

Sylvia Griffin MAY 2 5 1994

Data Management Coordinator and Date Received

Date Transmitted MAY 2 5 1994

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

0509VBLK1

Site Name:S.CALIFORNIA CHEM.CO. Contract:LOCKHEED/ESAT

Lab Code: 5SCRL Case No.: 940084 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 0509VBLK1

Sample wt/vol: 25 (g/mL) ML Lab File ID: >AG255

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- Date Analyzed: 5/09/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	2.	U
75-01-4	Vinyl chloride	1.	U
74-83-9	Bromomethane	1.	U
75-00-3	Chloroethane	1.	U
75-35-4	1,1-Dichloroethene	1.	U
67-64-1	Acetone	3.	U
75-15-0	Carbon disulfide	1.	U
75-09-2	Methylene chloride	1.	U
156-60-5	trans-1,2-Dichloroethene	1.	U
75-34-3	1,1-Dichloroethane	1.	U
156-59-2	cis-1,2-Dichloroethene	1.	U
78-93-3	2-Butanone	3.	U
74-97-5	Bromochloromethane	1.	U
67-66-3	Chloroform	1.	U
71-55-6	1,1,1-trichloroethane	1.	U
56-23-5	Carbon tetrachloride	1.	U
71-43-2	Benzene	1.	U
107-06-2	1,2-Dichloroethane	1.	U
79-01-6	Trichloroethene	1.	U
78-87-5	1,2-Dichloropropane	1.	U
75-27-4	Bromodichloromethane	1.	U
10061-01-5	cis-1,3-dichloropropene	1.	U
108-88-3	Toluene	1.	U
108-10-1	4-Methyl-2-pentanone	3.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
127-18-4	Tetrachloroethene	1.	U
79-00-5	1,1,2-Trichloroethane	3.	U
591-78-6	2-Hexanone	3.	U
124-48-1	Dibromochloromethane	1.	U
106-93-4	1,2-Dibromoethane	1.	U
108-90-7	Chlorobenzene	1.	U
100-41-4	Ethylbenzene	1.	U
1083836423	m &/or p-Xylene	1.	U
95-47-6	o-Xylene	1.	U
100-42-5	Styrene	1.	U
75-25-2	Bromoform	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U

Are there any TICs ? (Please check a box) YES |__| NO |_X_|

1A-2

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

0509VBLK1

Site Name:S.CALIFORNIA CHEM.CO. Contract:LOCKHEED/ESAT

Lab Code: 5SCRL Case No.: 940084 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 0509VBLK1

Sample wt/vol: 25 (g/mL) ML Lab File ID: >AG255

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- Date Analyzed: 5/09/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
541-73-1	1,3-Dichlorobenzene	1.	U
106-46-7	1,4-Dichlorobenzene	1.	U
95-50-1	1,2-Dichlorobenzene	1.	U
96-12-8	1,2-Dibromo-3-chloropropane	3.	U

FORM I-2 VOA 1/89 Rev.

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank.

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

94IE05R02

Site Name: S.CALIFORNIA CHEM.CO. Contract: LOCKHEED/ESAT

Lab Code: 5SCRL Case No.: 940084 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 94IE05R02

Sample wt/vol: 25 (g/mL) ML Lab File ID: >AG257

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- Date Analyzed: 5/09/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	2.	U
75-01-4	Vinyl chloride	1.	U
74-83-9	Bromomethane	1.	U
75-00-3	Chloroethane	1.	U
75-35-4	1,1-Dichloroethene	1.	U
67-64-1	Acetone	33.	
75-15-0	Carbon disulfide	1.	U
75-09-2	Methylene chloride	.9	J
156-60-5	trans-1,2-Dichloroethene	1.	U
75-34-3	1,1-Dichloroethane	1.	U
156-59-2	cis-1,2-Dichloroethene	1.	U
78-93-3	2-Butanone	3.	U
74-97-5	Bromochloromethane	1.	U
67-66-3	Chloroform	1.	U
71-55-6	1,1,1-trichloroethane	1.	U
56-23-5	Carbon tetrachloride	1.	U
71-43-2	Benzene	1.	U
107-06-2	1,2-Dichloroethane	1.	U
79-01-6	Trichloroethene	1.	U
78-87-5	1,2-Dichloropropane	1.	U
75-27-4	Bromodichloromethane	1.	U
10061-01-5	cis-1,3-dichloropropene	1.	U
108-88-3	Toluene	1.	
108-10-1	4-Methyl-2-pentanone	3.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
127-18-4	Tetrachloroethene	1.	U
79-00-5	1,1,2-Trichloroethane	3.	U
591-78-6	2-Hexanone	3.	U
124-48-1	Dibromochloromethane	1.	U
106-93-4	1,2-Dibromoethane	1.	U
108-90-7	Chlorobenzene	1.	U
100-41-4	Ethylbenzene	1.	U
1083836423	m &/or p-Xylene	1.	U
95-47-6	o-Xylene	1.	U
100-42-5	Styrene	1.	U
75-25-2	Bromoform	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U

Are there any TICs ? (Please check a box) YES |_X_| NO |__|

1A-2

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

94IE05R02

Site Name: S.CALIFORNIA CHEM.CO. Contract: LOCKHEED/ESAT

Lab Code: 5SCRL Case No.: 940084 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 94IE05R02

Sample wt/vol: 25 (g/mL) ML Lab File ID: >AG257

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- Date Analyzed: 5/09/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
541-73-1	1,3-Dichlorobenzene	1.	U
106-46-7	1,4-Dichlorobenzene	1.	U
95-50-1	1,2-Dichlorobenzene	1.	U
96-12-8	1,2-Dibromo-3-chloropropane	3.	U

FORM I-2 VOA 1/89 Rev.

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank.

G501

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

94IE05S01

Site Name:S.CALIFORNIA CHEM.CO. Contract:LOCKHEED/ESAT

Lab Code: 5SCRL Case No.: 940084 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 94IE05S01

Sample wt/vol: 25 (g/mL) ML Lab File ID: >AG258

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- Date Analyzed: 5/09/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	2.	U
75-01-4	Vinyl chloride	1.	U
74-83-9	Bromomethane	1.	U
75-00-3	Chloroethane	1.	U
75-35-4	1,1-Dichloroethene	1.	U
67-64-1	Acetone	3.	U
75-15-0	Carbon disulfide	1.	U
75-09-2	Methylene chloride	1.	J
156-60-5	trans-1,2-Dichloroethene	1.	U
75-34-3	1,1-Dichloroethane	1.	U
156-59-2	cis-1,2-Dichloroethene	1.	U
78-93-3	2-Butanone	3.	U
74-97-5	Bromochloromethane	1.	U
67-66-3	Chloroform	1.	U
71-55-6	1,1,1-trichloroethane	1.	U
56-23-5	Carbon tetrachloride	1.	U
71-43-2	Benzene	1.	U
107-06-2	1,2-Dichloroethane	1.	U
79-01-6	Trichloroethene	1.	U
78-87-5	1,2-Dichloropropane	1.	U
75-27-4	Bromodichloromethane	1.	U
10061-01-5	cis-1,3-dichloropropene	1.	U
108-88-3	Toluene	1.	U
108-10-1	4-Methyl-2-pentanone	3.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
127-18-4	Tetrachloroethene	1.	U
79-00-5	1,1,2-Trichloroethane	3.	U
591-78-6	2-Hexanone	3.	U
124-48-1	Dibromochloromethane	1.	U
106-93-4	1,2-Dibromoethane	1.	U
108-90-7	Chlorobenzene	1.	U
100-41-4	Ethylbenzene	1.	U
1083836423	m &/or p-Xylene	1.	U
95-47-6	o-Xylene	1.	U
100-42-5	Styrene	1.	U
75-25-2	Bromoform	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U

Are there any TICs ? (Please check a box) YES |__| NO |_X_|

FORM I VOA 1/89 Rev.

G501

1A-2

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

94IE05S01

Site Name: S.CALIFORNIA CHEM.CO. Contract: LOCKHEED/ESAT

Lab Code: 5SCRL Case No.: 940084 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 94IE05S01

Sample wt/vol: 25 (g/mL) ML Lab File ID: >AG258

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- Date Analyzed: 5/09/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
541-73-1	1,3-Dichlorobenzene	1.	U
106-46-7	1,4-Dichlorobenzene	1.	U
95-50-1	1,2-Dichlorobenzene	1.	U
96-12-8	1,2-Dibromo-3-chloropropane	3.	U

FORM I-2 VOA 1/89 Rev.

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank.

G502

1A

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

94IE05D01

Site Name: S.CALIFORNIA CHEM.CO. Contract: LOCKHEED/ESAT

Lab Code: 5SCRL Case No.: 940084 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 94IE05D01

Sample wt/vol: 25 (g/mL) ML Lab File ID: >AG259

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- Date Analyzed: 5/09/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
74-87-3	Chloromethane	2.	U
75-01-4	Vinyl chloride	1.	U
74-83-9	Bromomethane	1.	U
75-00-3	Chloroethane	1.	U
75-35-4	1,1-Dichloroethene	1.	U
67-64-1	Acetone	3.	U
75-15-0	Carbon disulfide	1.	U
75-09-2	Methylene chloride	1.	
156-60-5	trans-1,2-Dichloroethene	1.	U
75-34-3	1,1-Dichloroethane	1.	U
156-59-2	cis-1,2-Dichloroethene	1.	U
78-93-3	2-Butanone	3.	U
74-97-5	Bromochloromethane	1.	U
67-66-3	Chloroform	1.	U
71-55-6	1,1,1-trichloroethane	1.	U
56-23-5	Carbon tetrachloride	1.	U
71-43-2	Benzene	1.	U
107-06-2	1,2-Dichloroethane	1.	U
79-01-6	Trichloroethene	1.	U
78-87-5	1,2-Dichloropropane	1.	U
75-27-4	Bromodichloromethane	1.	U
10061-01-5	cis-1,3-dichloropropene	1.	U
108-88-3	Toluene	1.	U
108-10-1	4-Methyl-2-pentanone	3.	U
10061-02-6	trans-1,3-Dichloropropene	1.	U
127-18-4	Tetrachloroethene	1.	U
79-00-5	1,1,2-Trichloroethane	3.	U
591-78-6	2-Hexanone	3.	U
124-48-1	Dibromochloromethane	1.	U
106-93-4	1,2-Dibromoethane	1.	U
108-90-7	Chlorobenzene	1.	U
100-41-4	Ethylbenzene	1.	U
1083836423	m &/or p-Xylene	1.	U
95-47-6	o-Xylene	1.	U
100-42-5	Styrene	1.	U
75-25-2	Bromoform	1.	U
79-34-5	1,1,2,2-Tetrachloroethane	1.	U

Are there any TICs ? (Please check a box) YES |_X_| NO |__|

G502

1A-2

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

94IE05D01

Site Name:S.CALIFORNIA CHEM.CO. Contract:LOCKHEED/ESAT

Lab Code: 5SCRL Case No.: 940084 SAS No.: ------ SDG No.: ------

Matrix: (soil/water) WATER Lab Sample ID: 94IE05D01

Sample wt/vol: 25 (g/mL) ML Lab File ID: >AG259

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- Date Analyzed: 5/09/94

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
541-73-1	1,3-Dichlorobenzene	1.	U
106-46-7	1,4-Dichlorobenzene	1.	U
95-50-1	1,2-Dichlorobenzene	1.	U
96-12-8	1,2-Dibromo-3-chloropropane	3.	U

FORM I-2 VOA 1/89 Rev.

Data Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: JUN 0 2 1994

Subject: Review of Region 5 Data for SF 940084 SOUTHERN CALIFORNIA CHEM. CO.

From: Charles T. Elly, Director
Region 5 Central Regional Laboratory

To:

Attached are the results for SF 940084 SOUTHERN CALIFORNIA CHEM. CO.
CRL request number D940084
for analyses for PCB/PESTICIDES
Results are reported for sample designations: 94IE05S01, -D01, -R02

RECEIVED
JUL 13 1994
IEPA/DLPC

Results Status:
(X) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use

( ) Sewer Disposal Criteria Met; Exceptions: none

Comments on Data Quality by Reviewer

GC system performance audits were acceptable. MS/MSD were not required for this data set. Laboratory control standard (LCS) gave acceptable % recoveries. 2 out of 6 TCMX surrogate % recovery values were outside QC limits at 38 % (50 -150 % limits); DCB surrogate recoveries were all acceptable. The method blank and solvent blank were negative for pesticides/PCBs of interest.

The samples were negative for pesticides/PCBs of interest.

Data are acceptable for use.

Comments by Laboratory Director or Quality Control Coordinator

Review Record for SF 940084 SOUTHERN CALIFORNIA CHEM. CO.

Erlinda Evangelista Erlinda Evangelista 6/1/94

Team Leader and Date (X) Reviewed ( ) Unreviewed

Chi M. Tang Chi Tang 6/2/94

Section Chief and Date (✓) Reviewed ( ) Unreviewed

James Adams Jr. James H. Adams Jr. 6/2/94

QC Coordinator and Date ( ) Reviewed ( ) Unreviewed

Sylvia Griffin JUN 0 2 1994

Data Management Coordinator and Date Received

Date Transmitted JUN 0 2 1994

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

ENVIRONMENTAL PROTECTION AGENCY
ESD/CRL REGION 5

DIVISION: SUPERFUND ACTIVITY NO: AFE (TFA) TGB AFL AGD OTHERS:

DATA SET: SF 940084 STUDY: ~~N~~SOUTHERN CAL CHEM CO

SAMPLING DATE: 05-04-94 DATE RECEIVED: 05-06-94 ANALYSIS DUE DATE: 05-27-94

SAMPLE MATRIX: (WATER) SOIL/SEDIMENTS OIL WIPES SLUDGE OTHERS:

REPORTING UNITS: (ug/L) ug/gm mg/L mg/Kg ug

SAMPLE RESULTS - PESTICIDES (PART 1 OF 3)

	SAMPLE NUMBER	ALPHA-BHC	LINDANE	HEPTACHLOR	ALDRIN	HEPT. EPOX.	ENDOS. I	DIELDRIN
1.	94IE05S01	0.020U	0.020U	0.030U	0.020U	0.010U	0.010U	0.010U
2.	94IE05D01	0.020U	0.020U	0.030U	0.020U	0.010U	0.010U	0.010U
3.	94IE05R02	0.020U	0.020U	0.030U	0.020U	0.010U	0.010U	0.010U
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								

ANALYST : **Krystyna Minczuk** KM **DATE:** **05-18-94**

EAM LEADER: LG **DATE:** 6/1/94

CRL PEST FORM I
Page 1 of 3

ENVIRONMENTAL PROTECTION AGENCY
ESD/CRL REGION 5

DIVISION: SUPERFUND ACTIVITY NO: AFE TFA TGB AFL AGD OTHERS:

DATA SET: SF 940084 STUDY: SOUTHERN CAL CHEM CO

SAMPLING DATE: 05-04-94 DATE RECEIVED: 05-06-94 ANALYSIS DUE DATE: 05-27-94

SAMPLE MATRIX: WATER SOIL/SEDIMENTS OIL WIPES SLUDGE OTHERS:

REPORTING UNITS: ug/L ug/gm mg/L mg/Kg ug

SAMPLE RESULTS - PESTICIDES (PART 2 OF 3)

	SAMPLE NUMBER	ENDRIN	ENDOS. 2	P,P'-DDT	METHOXY-CHLOR	BETA-BHC	DELTA-BHC	G-CHLORDANE
1.	94IE05S01	0.010U	0.020U	0.020U	0.020U	0.020U	0.020U	0.025U
2.	94IE05D01	0.010U	0.020U	0.020U	0.020U	0.020U	0.020U	0.025U
3.	94IE05R02	0.010U	0.020U	0.020U	0.020U	0.020U	0.020U	0.025U
4.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								

ANALYST : Krystyna Minczuk KM **DATE:** 05-18-94

TEAM LEADER: LG **DATE:** 6/1/94

CRL PEST FORM I
Page 2 of 3

ENVIRONMENTAL PROTECTION AGENCY
ESD/CRL REGION 5

DIVISION: SUPERFUND ACTIVITY NO: AFE (TFA) TGB AFL AGD OTHERS:

DATA SET: SF 940084 STUDY: SOUTHERN CAL CHEM CO

SAMPLING DATE: 05-04-94 DATE RECEIVED: 05-06-94 ANALYSIS DUE DATE: 05-27-94

SAMPLE MATRIX: (WATER) SOIL/SEDIMENTS OIL WIPES SLUDGE OTHERS:

REPORTING UNITS: (ug/L) ug/gm mg/L mg/Kg ug

SAMPLE RESULTS - PESTICIDES (PART 3 OF 3)

	SAMPLE NUUMBER	A-CHLORDANE	P,P'-DDE	P,P'-DDD	ENDRIN ALDEHYDE	ENDOSULFAN SULFATE	ENDRIN KETONE	TOXAPHENE	TECH. CHLORDANE
1.	94IE05S01	0.025U	0.020U	0.040U	0.050U	0.13U	0.030U	1.00U	0.20U
2.	94IE05D01	0.025U	0.020U	0.040U	0.050U	0.13U	0.030U	1.00U	0.20U
3.	94IE05R02	0.025U	0.020U	0.040U	0.050U	0.13U	0.030U	1.00U	0.20U
4.									
5.									
6.									
7.									
8.									
9.									
10.									
11.									
12.									

ANALYST : Krystyna Minczuk KM **DATE:** 05-18-94

TEAM LEADER: LE **DATE:** 6/1/94

CRL PEST FORM I
Page 3 of 3

ENVIRONMENTAL PROTECTION AGENCY
ESD/CRL REGION 5

DIVISION: SUPERFUND ACTIVITY NO: AFE (TFA) TGB AFL AGD OTHERS:

DATA SET: SF 940084 STUDY: SOUTHERN CAL CHEM CO

SAMPLING DATE: 05-04-94 DATE RECEIVED: 05-06-94 ANALYSIS DUE DATE: 05-27-94

SAMPLE MATRIX: (WATER) SOIL/SEDIMENTS OIL WIPES SLUDGE OTHERS:

REPORTING UNITS: (ug/L) ug/gm mg/L mg/Kg ug ACTION LEVEL:

SAMPLE RESULTS - PCB

	SAMPLE NUMBER	Aroclor 1221	Aroclor 1232	Aroclor 1016/1242	Aroclor 1248	Aroclor 1254	Aroclor 1260
1.	94IE05S01	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U
2.	94IE05D01	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U
3.	94IE05R02	0.20U	0.20U	0.20U	0.20U	0.20U	0.20U
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							

ANALYST : Krystyna Minczuk KM **DATE:** 05-18-94

TEAM LEADER: LE **DATE:** 6/1/94

CRL PCB FORM I
Page 1 of 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 6/21/94

SUBJECT: Review of Region V CLP Data Received for Review on June 7, 1994

FROM: Charles T. Elly, Director (SL-10C) MSP for CTE
Central Regional Laboratory

TO: Data User: IEPA

We have reviewed the data for the following case.

SITE NAME: Southern Cal Chem Co (IL)

CASE and/or SAS NUMBER: 22043 SDG NUMBER: E4L03

Number and Type of Samples: 16 - soils/water

CLP Sample Numbers: E4L03-15, E4L17-18, 20

CLP Laboratory: SWOK Hrs. for Review 24+3 = 27.0 wu

Following are our findings:

The data are acceptable for use with qualification.

RECEIVED
JUN 24 1994
IEPA/DLPC

Mumtaz Pasha
6/21/94

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

CONTRACTOR: SWOK **CASE 22043**

Sixteen (16) samples were submitted to Southwest Laboratories of Oklahoma for low concentration volatile, semivolatile, and pesticide analysis. Samples EYL14 through EYL20 are water samples; samples EYL03 through EYL13 are soil samples.

Samples EYL20 and EYL18 was used for water matrix spike and matrix spike duplicate analysis. Sample EYL07 was used for soil matrix spike and matrix spike duplicate analysis. The following sample pairs are duplicates: EYL06 and EYL07; EYL18 and EYL15. Sample EYL20 is a field blank and sample EYL17 is a volatile trip blank.

This review is based upon the SOW OLM01.

Reviewed by: Robert W. Wenig
Date: June 13, 1994

CONTRACTOR: SWOK CASE 22043

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

1. HOLDING TIMES:

All sampling was performed on 5-4-94 and 5-5-94.

Volatile analysis was performed on 5-13-94 for waters, and on 5-10-94 and 5-11-94 for soils. The 14 day analysis limit was met for preserved waters and soil samples.

Semivolatile extractions for water samples were performed on 5-9-94 within the 7 day holding time. Semivolatile extractions for soil samples were performed on 5-10-94 within the fourteen (14) day holding time. Semivolatile analysis was performed on 5-12-94, 5-13-94, and 5-16-94 the forty (40) day analysis period.

Pesticide extractions for water samples were performed on 5-09-94 within the fourteen (14) day holding time. Semivolatile extractions for soil samples were performed on 5-10-94 within the fourteen (14) day holding time. Pesticide analysis was performed 5-27-94 and 5-28-94 within the forty (40) day analysis period.

Therefore, all holding time criteria were met.

2. GC/MS TUNING AND GC PERFORMANCE:

GC/MS tuning complied with the mass list and ion abundance criteria for BFB and DFTPP. Tuning was provided for each 12 hour period.

For pesticide analysis, the percent breakdown for 4,4'-DDT and endrin met the QC limits of 20% on the DB-17 and DB-1701 columns. The resolution of adjacent pesticide peaks met the acceptance criteria of 60% GC retention time windows for pesticides and PCBs were reported for both columns.

3. CALIBRATION:

Initial and continuing calibration outliers for volatile, semivolatile, and pesticide TCLs are included on the attached forms.

4. METHOD BLANK:

VBLK1 (analyzed 5-10-94) and VBLK2 (analyzed 5-11-94) are the volatile soil method blanks. VBLK1 was clean; VBLK2 was found to contain 21 µg/kg methylene chloride and 8 µg/kg acetone. These common contaminants were also observed in many of the associated volatile soil samples. The presence of these compounds in any of the samples is flagged as nondetect (U) when the sample result is less than (<) 10x the blank result

Reviewed by: Robert W. Wenig
Date: June 13, 1994

CONTRACTOR: SWOK CASE 22043

VBLK3 (analyzed on 5-13-94) is the volatile water method blank. This blank was free of TCL and TIC contamination.

SBLK1 (extracted 5-9-94) is the semivolatile water blank and was found to be free of TCL compounds, but did contain 1 TIC at 2 µg/L. The presence of this TIC compound in any of the samples is flagged as nondetect (U) when the sample result is less than (<) 5x the blank result (noncommon contaminant).

SBLK2 (extracted 5-10-94) is the semivolatile soil blank and was found to be free of TCL compounds but did contain six (6) TICs. These TICs were also observed in the associated samples and are qualified as nondetect "U"if the sample result is less than five times (<5x) the blank result.

PBLKSJ (extracted 5-10-94) is the pesticide soil blank and was found to be free of contamination. PBLKWF (extracted 5-09-94) is the pesticide water blank and was also found to be free of contamination.

5. SURROGATE RECOVERY:

Surrogate recoveries were acceptable for all volatile samples except for the following: EYL08, EYL11RE, EYL12RE. Each of these samples had one or more surrogate recoveries high. Therefore, in these samples all detected volatile target compounds are qualified estimated "J", and nondetects are not qualified.

Surrogate recoveries were acceptable for all semivolatile water and soil samples.

Pesticide surrogate recoveries were not acceptable (low) for the following samples: EYL18 (water); EYL10 (soil); EYL03 (soil). One or more of the recoveries were below the lower QC limit of 60% for these samples. Therefore, these samples are qualified with detected compounds as estimated "J" and nondetects with estimated quantitation limits "UJ".

6. MATRIX SPIKE AND MATRIX SPIKE DUPLICATE ANALYSIS

Sample EYL20 was used for volatile water MS and MSD analysis. All QC criteria were met except for the %RPD of 1,1-dichloroethene, trichloroethene, and toluene. Consequently, positive results are qualified as estimated "J" and nondetects are qualified with an estimated quantitation limit "UJ" for these compounds in the unspiked sample EYL20.

Sample EYL07 was used for the volatile soil MS and MSD analysis. All QC criteria were met. Consequently, positive results are qualified as estimated "J" and nondetects are qualified with an estimated quantitation limit "UJ" for these compounds in the unspiked sample EYL07.

Reviewed by: Robert W. Wenig
Date: June 13, 1994

Sample EYL18 was used for semivolatile water MS and MSD analysis. All QC criteria were met. Sample EYL07 was used for semivolatile soil MS and MSD analysis. All QC criteria were met.

Sample EYL18 was used for pesticide water MS and MSD analysis. The %RPD criteria were not met for the following compounds: gamma-BHC, heptachlor, aldrin, dieldrin, and endrin. Consequently, positive results are qualified as estimated "J" and nondetects are qualified with an estimated quantitation limit "UJ" for these compounds in the unspiked sample EYL18. Sample EYL07 was used for pesticide soil MS and MSD analysis. All QC criteria were met.

7. FIELD BLANK AND FIELD DUPLICATE:

The following sample pairs are duplicates: EYL06 and EYL07; EYL18 and EYL15. Sample EYL20 is a field blank. Sample EYL17 is a volatile trip blank.

Volatile soil samples EYL06 and EYL07 were both found to contain 2 "J" µg/L Xylene (total). No TICs were observed in EYL06; one TIC was observed in EYL07. Volatile water samples EYL15 and EYL18 were found to contain 7 "J" µg/L methylene chloride and 12 µg/L methylene chloride, respectively. Two TICs and one TIC were observed, respectively.

Semivolatile soil samples EYL06 and EYL07 were free of TCL contamination (above the CRQLs) and contained 3 and 5 TICs, respectively. Semivolatile water samples EYL18 and EYL15 were both free of TCL contamination and did have one TIC each.

Pesticide soil samples EYL06 and EYL07 were free of TCL contamination. Pesticide water samples EYL15 and EYL18 were also free of TCl contamination.

Volatile field blank EYL20 was found to contain 12 µg/L methylene chloride, 33 µg/L acetone, and one TIC. This is not acceptable. Semivolatile field blank EYL20 was found to contain no TCLs and two TICs. Pesticide field blank EYL03 was free of contamination. The volatile trip blank EYL17 contained methylene chloride, acetone, and one TIC.

8. INTERNAL STANDARDS:

All volatile internal standard area counts and retention times met QC requirements except for the following which were low: EYL03 (IS#3), EYL03RE (IS#3), EYL05 (IS#3), EYL08 (IS#2, IS#3), EYL11 (IS#2, IS#3), EYL12 (IS#2, IS#3), EYL13 (IS#3), EYL05RE (IS#3), EYL08RE (IS#2, IS#3), EYL12RE (IS#3), and EYL13RE (IS#3RE). Therefore, positive results in these samples, associated with these internal standards are qualified as estimated "J" and nondetects are qualified with estimated quantitated limits "UJ". Refer to Table 4 in the narrative for compounds associated with internal standards.

Reviewed by: __Robert W. Wenig_____
Date:_____June 13, 1994_____

All semivolatile internal standard area counts and retention times met QC requirements except for EYL13 (IS#4, IS#5, IS#6) and EYL13RE (IS#6). Therefore, positive results in these samples associated with these internal standards are qualified as estimated "J" and nondetects are qualified with estimated quantitated limits "UJ". Refer to Table 4 in the narrative for compounds associated with internal standards.

9. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS:

Upon review of the chromatograms, TCL and TIC quantitation is acceptable. The laboratory should be cautioned about reporting positive results for compounds which were observed well below the CRQLs. Generally, results for analytes observed below half of the CRQL are not reported as present. The detection limits are accurate and were adjusted for the percent moisture and the weight of sample used.

10. COMPOUND IDENTIFICATION :

TCL compound identification was accurate. Positive results were properly identified.

Compounds present in the semivolatile samples and also in the associated blank were not properly identified with the "B" flag. The reviewer has placed this flag next to the correct compound on the sample Form 1s.

11. CASE SUMMARY

SOIL SAMPLES

SAMPLE	VOA TCL	VOA TIC	SVOA TCL	SVOA TIC	PEST TCL
EYL03	0	0	0	6	0
EYL03RE	0	1	-	-	-
EYL05	0	0	1	20	3
EYL06	0	0	0	3	0
EYL07	0	1	0	5	1
EYL08	0	0	0	19	1
EYL09	0	0	0	3	0
EYL10	0	1	0	16	0
EYL11	0	0	2	4	0
EYL12	0	0	0	3	0
EYL13	0	0	0	11	0
EYL04	0	1	0	18	0
EYL05RE	1	0	-	-	-
EYL08RE	0	0	-	-	-
EYL11RE	0	0	-	-	-
EYL12RE	0	1	-	-	-
EYL13RE	0	0	0	18	-

Reviewed by: Robert W. Wenig
Date: June 13, 1994

CONTRACTOR: SWOK CASE 22043

WATER SAMPLES

SAMPLE	VOA TCL	VOA TIC	SVOA TCL	SVOA TIC	PEST TCL
EYL14	0	0	0	1	0
EYL15	0	1	0	1	0
EYL17	0	1	-	-	-
EYL18	1	2	0	1	0
EYL20	2	1	0	2	0

BLANK SAMPLES

SAMPLE	VOA TCL	VOA TIC	SVOA TCL	SVOA TIC	PEST TCL
VBLK1	1	1	-	-	-
VBLK2	1	0	-	-	-
VBLK3	0	0	-	-	-
SBLK1	-	-	0	1	-
SBLK2	-	-	0	6	-
PBLKSJ	-	-	-	-	0
PBLKWF	-	-	-	-	0

Sample results do not include TCLs below the CRQLs or pesticide results qualified "P"

Reviewed by: Robert W. Wenig
Date: June 13, 1994

Soil

CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 22043
COLUMN: DB-624 (0.53)

CONTRACTOR: SWOK
SITE NAME: Southern Cal

		1548			0805			0810								
Instrument# 4		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		4-7-94			5-10-94			5-11-94								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01															
Bromomethane	0.10	1.30	39	J												
Vinyl chloride	0.10															
Chloroethane	0.01	.65	34	J				.86	32.6	J						
Methylene chloride	0.01	2.2			1.6	26.9	J									
Acetone	0.01	.48	69	J	.29	38.7	J	.26	45.5	J						
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
1,2-Dichloroethene (total)																
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01	.47						.34	28.3	J						
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane																
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01															
2-Hexanone	0.01	.21						.14	33.6	J						
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
Toluene-d8																
Bromofluorobenzene																
1,2-Dichloroethane-d4																

Samples affected: RW 6-9-94

~~VBLK1~~
VBLK1
EYL03
VBLK2
EYL05-13
EYL03RE
05RE
08RE
11RE-13RE

Reviewer's Init/Date: RW/6-9-94

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

WATER

CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 22043 CONTRACTOR: SWOK
COLUMN: DB-624 (0.53) SITE NAME: Southern Cal

Instrument# R		Initial Cal. 1504			Contin. Cal. 0930			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		4/21/94			5/13/94											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01															
Bromomethane	0.10															
Vinyl chloride	0.10															
Chloroethane	0.01															
Methylene chloride	0.01															
Acetone	0.01	.32	45.1	J	.42	32	J									
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
1,2-Dichloroethene (total)																
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01															
1,1,1-Trichloroethane	0.10	.47			.62	31.6	J									
Carbon tetrachloride	0.10	.44			.57	30.4	J									
Bromodichloromethane	0.20															
1,2-Dichloropropane																
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01		34.3	J												
2-Hexanone	0.01		41.0	J												
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
Toluene-d8																
Bromofluorobenzene																
1,2-Dichloroethane-d4																

Samples affected: VBLK3, EYL14, 15, 17, 18, 20

Reviewer's Init/Date: RN/6-9-94

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 22043 CONTRACTOR: SWOK

COLUMN: WATER SOIL SITE NAME: Southern Cal

Instrument# P		2014 Initial Cal.			0900 Contin. Cal.			0902 Contin. Cal.			0831 Contin. Cal.			Contin. Cal.		
Date/Time:		5/11/94			5/12/94			5/13/94			5/16/94					
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(2-chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
1,3-Dichlorobenzene																
1,4-Dichlorobenzene																
1,2-Dichlorobenzene																
2-Methylphenol	0.70															
2,2'-Oxybis(1-chl-propane)	0.01															
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxyl)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20															
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01															
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01	.215			.115	46.6	J	.126	41.7	J	.151	29.7	J			
4-Nitrophenol	0.01															
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples				
	SBLK1	SBLK2	EYL13RE	
	EYL14	EYL03-13		
	15			
	18			
	20			

Reviewer's Init/Date RW/6-9-94

* These flags should be applied to the analytes on the sample data sheets.

\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 22043
COLUMN:

CONTRACTOR: SWOK
SITE NAME: Southern Cal

		2014			0900			0902			0831					
Instrument# P		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		5/11/94			5/12/94			5/13/94			5/16/94					
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01	.37						.27	27.9	J						
4,6-Dinitro-2-methylphenol	0.01	.19						.12	37.8	J						
N-nitrosodiphenylamine	0.01															
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10															
Pentachlorophenol	0.05	.25			.18	29.5	J									
Phenanthrene	0.70															
Anthracene	0.70															
Carbazole																
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01	.87						1.04	25.8	J						
3,3'-Dichlorobenzidine	0.01															
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0.01	1.03						1.41	37.6	J						
Di-n-octyl phthalate	0.01															
Benzo(b)fluoranthene	0.70															
Benzo(k)fluoranthene	0.70															
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthrancene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0.50															
Phenol-d5	0.80															
2-Fluorophenol	0.60															
2,4,6-Tribromophenol	0.01															
2-Chlorophenol-d4																
1,2-Dichlorobenzene-d4																

Reviewer's Initials/Date: RWN/6-7-94

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIER
PESTICIDE/PCB TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 22043
COLUMN: DB-17 (0.53)

CONTRACTOR: SWOK
SITE NAME: Southern Cal

WATER SOIL

Instrument# HP-02A		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		5/26/94			5/27/94			5/28/94								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
alpha-BHC	0.01															
beta-BHC	0.40															
delta-BHC	0.90															
gamma-BHC	0.01															
Heptachlor	0.01															
Aldrin	0.01															
Heptachlor epoxide	0.10															
Endosulfan I	0.10															
Dieldrin	0.05															
4, 4'-DDE	0.70															
Endrin	0.70															
Endosulfan II	0.01															
4, 4'-DDD	0.60															
Endosulfan sulfate	0.60															
4, 4'-DDT	0.01															
Methoxychlor	0.01		24%	J												
Endrin ketone	0.80															
Endrin aldehyde	0.70															
alpha chlordane	0.01															
gamma chlordane	0.01															
Arochlor 1016																
Arochlor 1221																
Arochlor 1232																
Arochlor 1242																
Arochlor 1248																
Arochlor 1254																
Arochlor 1260																

Affected samples:

	PBLKWF	PBLKSJ		
	EYL14-15	EYL03-07		
	EYL18, 20	EYL08-13		

Reviewer's Init/Date: RW/6-9-94

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIER
PESTICIDE/PCB TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 22063
COLUMN: DB-1701 (0.53)

CONTRACTOR: SWOK
SITE NAME: Southern Cal

Instrument# HP-02A		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		5/26/94			5/27/94			5/28/94								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
alpha-BHC	0.01															
beta-BHC	0.40															
delta-BHC	0.90															
gamma-BHC	0.01															
Heptachlor	0.01															
Aldrin	0.01															
Heptachlor epoxide	0.10															
Endosulfan I	0.10															
Dieldrin	0.05															
4, 4'-DDE	0.70															
Endrin	0.70															
Endosulfan II	0.01															
4, 4'-DDD	0.60															
Endosulfan sulfate	0.60															
4, 4'-DDT	0.01															
Methoxychlor	0.01															
Endrin ketone	0.80															
Endrin aldehyde	0.70															
alpha chlordane	0.01															
gamma chlordane	0.01															
Arochlor 1016																
Arochlor 1221																
Arochlor 1232																
Arochlor 1242																
Arochlor 1248																
Arochlor 1254																
Arochlor 1260																

Affected samples:

	PBLKWF	PBLKS2		
	EYL14-15	EYL03-07		
	EYL18,20	EYL08-13		

Reviewer's Init/Date: RW/6-9-94

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

TABLE 4

(For Multi-Media, Multi-Concentration Analysis)

VOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

Bromochloromethane	1,4-Difluorobenzene	Chlorobenzene-d_5
Chloromethane	Bromoform	2-Hexanone
Bromomethane	1,1,1-Trichloroethane	4-Methyl-2-pentanone
Vinyl chloride	Carbon tetrachloride	Tetrachloroethene
Chloroethane	Bromodichloromethane	1,1,2,2-Tetrachloroethane
Methylene chloride	1,2-Dichloropropane	Toluene
Acetone	trans-1,3-Dichloropropene	Chlorobenzene
Carbon disulfide	Trichloroethene	Ethylbenzene
1,1-Dichloroethene	Dibromochloromethane	Styrene
1,1-Dichloroethane	1,1,2-Trichloroethane	Xylene(total)
1,2-Dichloroethene(total)	Benzene	Bromofluorobenzene(surr,smc)
Chloroform	cis-1,3-Dichloropropene	Toluene-d_8(surr,smc)
1,2-Dichloroethane		
1,2-Dichloroethane-d_4(surr,smc)		
2-Butanone		

SEMIVOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

1,4-Dichlorobenzene-d_4	Naphthalene-d_8	Acenaphthene-d_{10}	Phenanthrene-d_{10}	Chrysene-d_{12}	Perylene-d_{12}
Phenol	Nitrobenzene	Hexachlorocyclopentadiene	4,6-Dinitro-2-methylphenol	Pyrene	Di-n-octyl phthalate
bis(2-chloroethyl)ether	Isophorone	2,4,6-Trichlorophenol	N-nitroso-di-phenylamine	butylbenzyl phthalate	Benzo(b)fluoranthene
2-Chlorophenol	2-Nitrophenol	2,4,5-Trichlorophenol	Carbazole	3,3'-Dichlorobenzidine	Benzo(k)fluoranthene
1,3-Dichlorobenzene	2,4-Dimethylphenol	2-Chloronaphthalene	4-Bromophenyl phenyl ether	Benzo(a)anthracene	Benzo(a)pyrene
1,4-Dichlorobenzene	Naphthalene	2-Nitroaniline	Hexachlorobenzene	bis(2-Ethylhexyl)phthalate	Indeno(1,2,3-cd)pyrene
2,2'-Oxybis-(1-chloropropane)	bis(2-Chloroethoxy)methane	Dimethylphthalate	Pentachlorophenol	Chrysene	Dibenzo(a,h)anthracene
1,2-Dichlorobenzene	2,4-Dichlorophenol	Acenaphthylene	Phenanthrene	Terphenyl-d_{14}(surr)	Benzo(g,h,i)perylene
2-Methylphenol	1,2,4-Trichlorobenzene	3-Nitroaniline	Anthracene		
bis(2-Chloroisopropyl)ether	4-Chloroaniline	Acenaphthene	Di-n-butyl phthalate		
4-Methylphenol	Hexachlorobutadiene	2,4-Dinitrophenol	Fluoranthene		
N-nitroso-di-n-propylamine	4-Chloro-3-methylphenol	4-Nitrophenol			
Hexachloroethane	2-Methylnaphthalene	Dibenzofuran			
2-Fluorophenol(surr)	Nitrobenzene-d_5(surr)	2,4-Dinitrotoluene			
Phenol-d_6(surr)		2,6-Dinitrotoluene			
2-Chlorobenzene-d_4(surr)		Diethyl phthalate			
1,2-Dichlorobenzene-d_4(surr)		4-Chlorophenyl phenyl ether			
		Fluorene			
		4-Nitroaniline			
		2-Fluorobiphenyl(surr)			
		2,4,6-Tribromophenol(surr)			

(surr) - surrogate
(smc) - system monitoring compound

ORGANIC DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature utinized in this document, the following code letters and associated definitions are provide:

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL).

U Indicates that the compound was analyzed, but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.

J Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of a compound but the result is less than the sample quantitation limit, but greater than zero.

R Indicates the data are unusable. (Note: The analyte may or may not be present.)

N Indicates presumptive evidence of a compound. This flag is only used for a tentatively identified compound, where the identification is based on a mass spectral library search.

P Indicates a pesticide/Aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two results is reported.

C Indicates pesticide results that have been confirmed by GC/MS.

B Indicates the analyte is detected in the associated blank as well as the sample.

E Indicates compounds whose concentrations exceed the calibration range of the instrument.

D Indicates an identified compound in an analysis has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analysis.

A Indicates tentatively identified compounds that are suspected to be aldol condensation products.

X Indicates a manual adjustment was made to the program by the operator. The flag is automactically assigned by the computer and has no significance to the analysis result.

G Indicates the TCLP Matrix Spike Recovery was greater than the upper limit of the analytical method.

L Indicates the TCLP Matrix Spike Recovery was less than the lower limit of the analytical method.

T Indicates the analyte is found in the associated TCLP extraction blank as well as in the sample.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: JUN 2 2 1994

Subject: Review of Region 5 Data for Southern California Chemical Co. 4TFA05WUZZ

From: Charles T. Elly, Director Chuck E. Elly
Region 5 Central Regional Laboratory

To: Illinois Environmental Protection Agency

Attached are the results for Southern California Chemical Co. 4TFA05WUZZ
CRL request number 940084
for analyses for Antimony, Arsenic, Cadmium, Lead, Selenium and Thallium
Results are reported for sample designations: 94IE05S01, 94IE05D01 and 94IE05R01

RECEIVED
JUN 24 1994
IEPA/DLPC

Results Status:
(x) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use

(x) Sewer Disposal Criteria Met; Exceptions: Acid preserved samples must be neutralized prior to disposal.

Comments on Data Quality by Reviewer

Thallium results from a blind performance sample analyzed with the samples were biased high, but this does not appear to affect the data, as no thallium was found in the samples. One arsenic result was too negative to be acceptable, so was rerun with the following set.

Comments by Laboratory Director or Quality Control Coordinator

Review Record for Southern California Chemical Co. 4TFA05WUZZ

[illegible] 20 June 94

Team Leader and Date (✓) Reviewed ( ) Unreviewed

James H. Adams, Jr. 6/21/94

Section Chief and Date (✓) Reviewed ( ) Unreviewed

James H. Adams, Jr. 6/21/94

QC Coordinator and Date (✓) Reviewed ( ) Unreviewed

Sylvia Griffin JUN 2 2 1994

Data Management Coordinator and Date Received

Date Transmitted JUN 2 2 1994

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

940084 TFA301 JM 20 Jun 94

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

DIVISION/BRANCH SUPERFUND SAMPLE DATE 5/4/94 LAB ARRIVAL DATE 5/6/94 DUE DATE 5/27/94

DU NUMBER TFA DATA SET NUMBER 940084 STUDY SOUTHERN CALIFORNIA CHEMICAL CO. PRIORITY N CONTRACTOR N

CRL LOG NUMBER	SAMPLE DESCRIPTION	TOTAL METALS WATER TOTAL ICAP UG/L MET111	TOTAL METALS WATER AS UG/L MET161	TOTAL METALS WATER PB UG/L MET1101	TOTAL METALS WATER SB UG/L MET1201	TOTAL METALS WATER SE UG/L MET1211	TOTAL METALS WATER TL UG/L MET1221
94IE05S01	G501 5-145480	X	2u	3.6	2u	2u	2u
94IE05D01	G502 5-145499-500 5-145514	X	2u	5.6	2u	2u	2u
94IE05R02	FIELD BLANK 5-145486	X	2u	2u	2u	2u	2u
			L. Jeanes	L. Jeanes	L. Jeanes	L. Jeanes	L. Jeanes
			5-26-94	5-27-94	5-27-94	5-27-94	5-27-94

94008-1 TFA301

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

9

DIVISION/BRANCH SUPERFUND SAMPLING DATE 5/4/94 LAB ARRIVAL DATE 5/6/94 DUE DATE 5/27/94

DU NUMBER TFA DATASET NUMBER 94008-1 STUDY SOUTHERN CALIFORNIA CHEMICAL CO. PRIORITY N CONTRACTOR N

JVM 20 Jun 94

CRL LOG NUMBER	SAMPLE DESCRIPTION	MATRIX WATER CADMIUM TEST UNITS ug/L ME1235826	
94 IE05			
S01	G501	X 0.2u	5-145480
D01	G502	X 0.4u	5-145499-500/5-114514
R02	FIELD BLANK	X 0.2u	5-145486
		L. Leonova 5/26/94	

CRL V.2: 5

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: JUN 2 2 1994

Subject: Review of Region 5 Data for Southern California Chemical Co. 4TFA05WUZZ

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To: Illinois Environmental Protection Agency

Attached are the results for Southern California Chemical Co. 4TFA05WUZZ
CRL request number 940084
for analyses for ICP
Results are reported for sample designations: 94IE05S01, 94IE05D01 and 94IE05R01

Results Status:
(x) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use

(x) Sewer Disposal Criteria Met; Exceptions: Acid preserved samples must be neutralized prior to disposal.

Comments on Data Quality by Reviewer

Different results for copper and sodium for the field duplicates 94IE05S01 and 94IE05D01 were confirmed by analysis of the undigested samples. Copper was found just above detection (6 μg/L) in the digestion blank, and was high in a blind performance sample run with the samples. There was also an apparent high bias in the blank for zinc, with results just below the detection limit. Neither of these problems appear to affect the data reported, as no zinc above detection was found, and the copper difference in the field duplicates was verified.

Comments by Laboratory Director or Quality Control Coordinator

Review Record for Southern California Chemical Co. 4TFA05WUZZ

John C. Moore 20 June 94

Team Leader and Date (✓) Reviewed ( ) Unreviewed

James H. Adams, Jr. 6/21/94

Section Chief and Date (✓) Reviewed ( ) Unreviewed

James H. Adams, Jr. 6/21/94

QC Coordinator and Date (✓) Reviewed ( ) Unreviewed

Sylvia Griffin JUN 2 2 1994

Data Management Coordinator and Date Received

Date Transmitted JUN 2 2 1994

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

RD
5-18-94

JVM
20 June 94

SAMPLE REPORT

Sample 940084 94IE05S01 Operator RD

Date analyzed 05/17/94 Correction 1.22000 File name RUN230A

Element	Concentration	Units
Aluminum	98.0 U	micrograms/liter
Barium	1740.	micrograms/liter
Beryllium	1.0 U	micrograms/liter
Calcium	59800.	micrograms/liter
Chromium	10.0 U	micrograms/liter
Cobalt	7.0 U	micrograms/liter
Copper	9.9	micrograms/liter
Iron	269.	micrograms/liter
Magnesium	30600.	micrograms/liter
Manganese	6.0 U	micrograms/liter
Nickel	18.0 U	micrograms/liter
Potassium	6100. U	micrograms/liter
Silver	7.0 U	micrograms/liter
Sodium	15600.	micrograms/liter
Vanadium	6.0 U	micrograms/liter
Zinc	49.0 U	micrograms/liter

RD
5-18-94

JVM
6 June 94

SAMPLE REPORT

Sample 940084 94IE05D01 Operator RD

Date analyzed 05/17/94 Correction 1.22000 File name RUN230A

Element	Concentration	Units
Aluminum	98.0 U	micrograms/liter
Barium	1730.	micrograms/liter
Beryllium	1.0 U	micrograms/liter
Calcium	60000.	micrograms/liter
Chromium	10.0 U	micrograms/liter
Cobalt	7.0 U	micrograms/liter
Copper	21.2	micrograms/liter
Iron	278.	micrograms/liter
Magnesium	30600.	micrograms/liter
Manganese	6.0 U	micrograms/liter
Nickel	18.0 U	micrograms/liter
Potassium	6100. U	micrograms/liter
Silver	7.0 U	micrograms/liter
Sodium	27400.	micrograms/liter
Vanadium	6.0 U	micrograms/liter
Zinc	49.0 U	micrograms/liter

5-18-94

JVM
20 June 94

SAMPLE REPORT

Sample 940084 94IE05R02 Operator RD

Date analyzed 05/17/94 Correction 1.22000 File name RUN230A

Element	Concentration	Units
Aluminum	98.0 U	micrograms/liter
Barium	7.0 U	micrograms/liter
Beryllium	1.0 U	micrograms/liter
Calcium	610. U	micrograms/liter
Chromium	10.0 U	micrograms/liter
Cobalt	7.0 U	micrograms/liter
Copper	7.0 U	micrograms/liter
Iron	98.0 U	micrograms/liter
Magnesium	122. U	micrograms/liter
Manganese	6.0 U	micrograms/liter
Nickel	18.0 U	micrograms/liter
Potassium	6100. U	micrograms/liter
Silver	7.0 U	micrograms/liter
Sodium	1220. U	micrograms/liter
Vanadium	6.0 U	micrograms/liter
Zinc	49.0 U	micrograms/liter

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: JUL 1 9 1994

Subject: Review of Region 5 Data for **SOUTHERN CALIFORNIA CHEMICAL**

From: Charles T. Elly, Director
Region 5 Central Regional Laboratory

To:

Attached are the results for: **SOUTHERN CALIFORNIA CHEMICAL**
CRL request number: **SF940084**
Analyzed for: **ABN (Organics)**
Results are reported for sample designations: 94IE05S01, D01 AND R02.
(3 SAMPLES)

Results Status:
(X) Acceptable for Use
(X) Data Qualified, but Acceptable for use for sample 94IE05D01
( ) Data Unacceptable for Use

(X) Sewer Disposal Criteria Met; Exceptions: none
Comments on Data Quality by Reviewer:
1) Samples were analyzed within their holding time and the quality controls were acceptable.
2) In the method blank ABNBL2509, the recoveries of nitrobenzene-d5 and 2-fluorobiphenyl were below their QC limit; therefore, non-detected base/neutral compounds were labelled as unusable "R".
3) Seven compounds from the initial calibration did not met the minimum response factor criteria. Those compounds had been flagged as estimated "J" on FORM 1's.
4) In sample 94IE05D01, phenol-d5 was not detected and 2-fluorophenol had a recovery below the QC limit. Thus, all non-detected acid-extractable compounds in this sample were labelled as unusable "R", while all detected acid analytes were flagged as estimated "J" Sample 94IE05S01 and D01 did not compare well. Sample D01 shows the presence of TICs.

RECEIVED
JUL 20 1994
IEPA/DLPC

Comments by Laboratory Director or Quality Control Coordinator

Review Record for **SOUTHERN CALIFORNIA CHEMICAL SF940084 ABN**

Nidia Fuentes 07/12/~~93~~ 94 cmj

Team Leader and Task Monitor Date (X) Reviewed ( ) Unreviewed

Eli Tang 7/13/94

Section Chief and Date (✓) Reviewed ( ) Unreviewed

James D. Adams, Jr. 7/14/94

QC Coordinator and Date ( ) Reviewed (✓) Unreviewed

Sylvia Griffin JUL 1 8 1994

Data Management Coordinator and Date Received

Date Transmitted JUL 1 9 1994

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

Method Number: CRL 625NS Site: Southern California Chemical

Date Generated: May 20, 1994 Charge Number: 233-51-105

Author: A. Gugliotta TID Number: 05-94-05-11

CASE NARRATIVE

1. Case Description

Three low-level water samples from the Southern California Chemical site were submitted as data set 940084. The samples were analyzed for semivolatile organic compounds (SVOA) by GC/MS utilizing EPA CRL Method 625NS.

The samples (94IE05S01, D01, and R02) were collected on May 4, 1994 and received at the CRL on May 6, 1994. Analyses of a performance evaluation (PE) sample, a laboratory control sample (LCS) and an instrument blank are also included in this case. The LCS and the PE sample were extracted on May 3, 1994. The samples of this case were extracted on May 9, 1994.

The method blanks, labelled as "Lab Blanks," were prepared using reagent water. The samples' pH values were adjusted to below 2.0, and were allowed to stand for 10 minutes prior to extraction. Extractions were performed using the continuous liquid-liquid extraction technique. Samples were concentrated to 1.0 mL using a Kuderna-Danish (K-D) concentrator and nitrogen blow-down techniques, and then the concentrated extracts were transferred to autosampler vials.

The internal standard solution (25 µL at 2000 µg/mL) was added to each of the concentrated extracts. In addition, a 25-µL aliquot of internal standard at 2000 µg/mL was added 1.0 mL of methylene chloride to prepare a sample which was called the "Instrument Blank". The concentration of each internal standard in all samples was 50 ng/µL.

Analyses were performed using the Hewlett-Packard (HP) 5996 GC/MS on May 12, 1994 (initial calibration) and May 13, 1994 (samples). A 1-µL injection was used for the analysis of all samples. Prior to analysis, the injection port was disassembled and cleaned, and septum was replaced. Also, approximately 30 cm of the GC column was cut off of the inlet side.

2. Instrument Tuning

The DFTPP (50 ng) tune criteria from OLC01 (10/92 SOW) were met on May 12 and May 13, 1994. File >WR523 is the tune check for the initial calibration, and file >WR530 is for the continuing calibration and associated samples. The DFTPP mass spectra were produced in accordance with the procedure given in OLC01 (10/92 SOW). DFTPP spectra were generated by first adding the peak apex scan to the scans immediately preceding and following the apex. Then, a single scan prior to the elution of DFTPP was subtracted from the addition of these three spectra. The resulting spectra were evaluated based on the limits in the OLC01 10/92 SOW. (Form V)

3. Calibrations

a. Initial Calibration

A new set of ABN standards were prepared from Supelco and AccuStandard stocks in April 1994. These new standards were used to analyze an initial calibration of the ABN target compounds and surrogates at 5, 10, 25, 50, and 100 ng/µL concentrations on May 12, 1994. All target compounds met the 30% requirement for percent relative standard deviation (%RSD), but pentachlorophenol (28.3% RSD) was the only analyte which did not meet its contractual limit (20.5%). Seven compounds were calibrated at four levels (from 10 to 100 ng/µL): benzoic acid, 2,4-dinitrotoluene, pentachlorophenol, di-*n*-butylphthalate, butyl benzyl phthalate, 3,3'-dichlorobenzidine and bis(2-ethylhexyl)phthalate. Four additional compounds were calibrated at three levels (25 to 100 ng/µL): 2,4-dinitrophenol, 4-nitrophenol, 4-nitroaniline and 4,6-dinitro-2-methylphenol. Aniline was present in the calibration standards, but was not a required analyte and was deleted from the calibration. No samples were quantitated based on this initial calibration. (Form VI)

Seven compounds from the initial calibration did not met the minimum response factor criteria listed in the 10/92 SOW. Six of these seven compounds also failed the minimum RF criteria in the continuing calibration. Table 1 below shows the compounds which had low RFs.

Compound	Avg. RRF	RRF25	Min. Req. RRF
2,4,6-trichlorophenol	0.139	0.167	0.200
2,4,5-trichlorophenol	0.141	0.169	0.200
2-chloronaphthalene	0.472	0.548	0.800
acenaphthylene	0.680	0.812	1.300
benzo[a]anthracene	0.508	0.668	0.800
benzo[a]pyrene	0.683	0.844	0.700
2-fluorobiphenyl	0.573	0.643	0.700

Table 1. Compounds Which Did Not Meet Minimum RRF Criteria

b. Continuing Calibration

One continuing calibration of the ABN target compounds and surrogates is associated with the initial calibration. The continuing calibration was performed at 25 ng/μL on May 13, 1994 (file >WR533). One analyte, pentachlorophenol (39.0 %D), exceeded its requirement for percent deviation given in the 10/92 SOW. Four additional analytes, butyl benzyl phthalate (52.7%), benzo[a]anthracene (31.5%), 3,3'-dichlorobenzidine (60.6%), and bis(2-ethylhexyl)phthalate (83.0%), exceeded the 25% limit. These outliers were flagged as estimated (J) on the Forms 1 of all associated samples. Six compounds, 2,4,6-trichlorophenol, 2,4,5-trichlorphenol, 2-chloronaphthalene, acenaphthylene, benzo[a]anthracene and 2-fluorobiphenyl failed the minimum RRF criteria of the 10/92 SOW. Refer to Table 1.

4. Quality Control

a. Extraction Summary

The samples were extracted on May 9, 1994, and the LCS and PE sample were extracted on May 3, 1994. Analyses were completed on May 14, 1994 and within the forty-day holding time.

b. Analysis Summary

All standards, samples, and method blanks were analyzed in a 12-hour period from the injection of the DFTPP standard (50 ng) on May 12 and May 13, 1994.

c. Surrogate Recovery Summary

Prior to extraction, the samples and the method blank were

spiked with 0.75 mL of ABN surrogate spike at 100 µg/mL.

In the method blank, ABNBL2509, the recoveries of nitrobenzene-d_5 and 2-fluorobiphenyl were below their QC limit; therefore, all nondetected base/neutral compounds were labelled as unusable (R), while all detected base/neutral analytes were flagged as estimated (J).

In sample 94IE05D01, phenol-d_5 was not detected and 2-fluorophenol had a recovery which was below its QC limit. Thus, all nondetected acid-extractable compounds in this sample were labelled as unusable (R), while all detected acid analytes were flagged as estimated (J). Refer to Section 4e.

The instrument blank was intentionally prepared without surrogates; therefore, the recoveries were not reported on Form 2.

The surrogate recoveries in all other samples and the method blanks were within the required Q.C. limits. (Form II)

d. Laboratory Control Sample

Matrix spike and matrix spike duplicate samples were not required for this case. Instead, a laboratory control sample was prepared by spiking reagent water with 750 µL of the ABN spike standard to give a final concentration of 75 µg/L of the matrix spike analytes. Form III shows the calculated recoveries and evaluates them based on the QC limits for MS/MSD samples from CRL Method 625NS. The recoveries of 1,4-dichlorobenzene, 1,2,4-trichlorobenzene and acenaphthene were below their QC limit; therefore, these three compounds were labelled as estimated (J) on the Forms 1 of all samples in this data set. (Form III)

e. Performance Evaluation (PE) Sample

A PE sample was prepared by spiking reagent water with 1000 µL of the solution from ampule PT605. The surrogate standard (750 µL) was added, and the sample was extracted using the methods described in Section 1.

The PE sample was analyzed by GC/MS on 5/14/94. The results of file >WR546 show all internal standards had acceptable areas and all surrogates had acceptable recoveries. Thirteen target analytes were detected, and four of these compounds had estimated concentrations (J). No tentatively identified compounds (TICs) were detected.

f. Internal Standard Area and Retention Time Summary

The 10/92 SOW (OLC01) requires that the retention time of each internal standard must be within ±0.33 minutes of the corresponding retention time in the continuing calibration. Also, the areas of each internal standard must be within ± 40% of the corresponding area in the continuing calibration. All internal standards had retention times and areas within these Q.C. limits. See Form VIII.

g. Field Duplicates

Sample 94IE05D01 is the duplicate of sample 94IE05S01; however, the analytical results do not compare well. In sample S01, no target or tentatively identified compounds were reported. On the other hand, four large peaks from 3.0 to 14.0 minutes were observed in the total ion chromatogram of sample D01. These compounds were reported as TICs. Also, it was noted that the final concentrated extract of S01 had a "golden yellow" color, whereas the extract of D01 was "light brown" in color. See the summary in Section 5b.

5. Sample Results

a. Method Blank Results

The first method blank, ABNBL2509, contained bis(2-ethylhexyl)phthalate at 4 µg/L. Because bis(2-ethylhexyl)phthalate is a common laboratory contaminant, results are qualified as nondetected "U" if the sample concentration is less than 10X the blank result. No target compounds were detected in the second method blank, ABNBL1503. Furthermore, tentatively identified compounds (TICs) were not found in either method blank.

Neither target compounds nor TICs were detected in the instrument blank (file >WR549).

b. Sample Results

Positive results are reported only for compounds whose concentration exceeds one-half the CLP lower quantitation limit. The sample results are summarized in the table below.

Sample	# of TCL Compound	# of TICs
94IE05S01	0	0
94IE05R02	0	0
94IE05D01	0	4

Table 2. Summary of Sample Results

6. Conclusions

The samples in this case were analyzed according to CRL Method 625NS which was modified to include lower calibration points. The samples were analyzed within their holding times, but some surrogate recoveries were outside their Q.C. limits. All supporting data are included as part of the Q.C. section of this data package.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK

Site Name: SOUTHERN CALIFORNIA CHEM. Contract: LOCKHEED/ESAT

Lab Code: CRL Case No.: 940084 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: ABNBL2509

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR540

Level: (low/med) LOW Date Received: 05/09/94

% Moisture: not dec.---- dec. ---- Date Extracted: 05/09/94

Extraction: (Sepf/Cont/Sonc) CONT Date Analyzed: 05/13/94

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	2.	UR
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	UR
106-46-7	1,4-Dichlorobenzene	2.	UR
100-51-6	Benzyl alcohol	2.	UR
95-50-1	1,2-Dichlorobenzene	3.	UR
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	UR
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	2.	UR
67-72-1	Hexachloroethane	2.	UR
98-95-3	Nitrobenzene	3.	UR
78-59-1	Isophorone	3.	UR
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	30.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	UR
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	UJ
91-20-3	Naphthalene	2.	UR
106-47-8	4-Chloroaniline	2.	UR
87-68-3	Hexachlorobutadiene	3.	UR
59-50-7	4-Chloro-3-methylphenol	2.	U
91-57-6	2-Methylnaphthalene	2.	UR
77-47-4	Hexachlorocyclopentadiene	2.	UR
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	UR
88-74-4	2-Nitroaniline	3.	UR
131-11-3	Dimethylphthalate	2.	UR
208-96-8	Acenaphthylene	2.	UR
606-20-2	2,6-Dinitrotoluene	1.	UR

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK

Site Name: SOUTHERN CALIFORNIA CHEM. Contract:LOCKHEED/ESAT

La. Code: CRL Case No.: 940084 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: ABNBL2509

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR540

Level: (low/med) LOW Date Received: 05/09/94

% Moisture: not dec.---- dec. ---- Date Extracted:05/09/94

Extraction: (Sepf/Cont/Sonc) CONT Date Analyzed: 05/13/94

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	UR
83-32-9	Acenaphthene	2.	UJ
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	UR
121-14-2	2,4-Dinitrotoluene	1.	UR
84-66-2	Diethylphthalate	1.	UR
7005-72-3	4-Chlorophenyl-phenylether	1.	UR
86-73-7	Fluorene	1.	UR
100-01-6	4-Nitroaniline	3.	UR
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	UR
101-55-3	4-Bromophenyl-phenylether	2.	UR
118-74-1	Hexachlorobenzene	2.	UR
87-86-5	Pentachlorophenol	2.	UJ
85-01-8	Phenanthrene	1.	UR
120-12-7	Anthracene	3.	UR
84-74-2	Di-n-butylphthalate	2.	UR
206-44-0	Fluoranthene	2.	UR
129-00-0	Pyrene	2.	UR
85-68-7	Butylbenzylphthalate	4.	UR
56-55-3	Benzo(a)anthracene	2.	UR
218-01-9	Chrysene	2.	UR
117-81-7	bis(2-Ethylhexyl)phthalate	4.	J
117-84-0	Di-n-octylphthalate	2.	UR
205-99-2	Benzo(b)fluoranthene	2.	UR
207-08-9	Benzo(k)fluoranthene	2.	UR
50-32-8	Benzo(a)pyrene	2.	UR
193-39-5	Indeno(1,2,3-cd)pyrene	4.	UR
53-70-3	Dibenzo(a,h)anthracene	3.	UR
191-24-2	Benzo(g,h,i)perylene	4.	UR

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS (TICs): YES [ ] NO [X]

6501

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

94IE05S01

Si Name: SOUTHERN CALIFORNIA CHEM Contract: LOCKHEED/ESAT

Lab Code: CRL Case No.: 940084 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 94IE05S01

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR541

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- dec. ---- Date Extracted: 05/09/94

Extraction: (Sepf/Cont/Sonc) CONT Date Analyzed: 05/13/94

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	UJ
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	30.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	UJ
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	2.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	UJ
95-95-4	2,4,5-Trichlorophenol	2.	UJ
91-58-7	2-Chloronaphthalene	2.	UJ
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	UJ
606-20-2	2,6-Dinitrotoluene	1.	U

G501

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

94IE05S01

Si Name: SOUTHERN CALIFORNIA CHEM Contract: LOCKHEED/ESAT

Lab Code: CRL Case No.: 940084 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 94IE05S01

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR541

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- dec. ---- Date Extracted: 05/09/94

Extraction: (Sepf/Cont/Sonc) CONT Date Analyzed: 05/13/94

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	UJ
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	UJ
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	UJ
56-55-3	Benzo(a)anthracene	2.	UJ
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	2.	UJ
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	UJ
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS (TICs): YES [ ] NO [X]

7/12/94

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

94IE05R02

Site Name: SOUTHERN CALIFORNIA CHEM Contract: LOCKHEED/ESAT

La Code: CRL Case No.: 940084 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 94IE05R02

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR542

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- dec. ---- Date Extracted: 05/09/94

Extraction: (Sepf/Cont/Sonc) CONT Date Analyzed: 05/13/94

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	UJ
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	30.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	UJ
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	2.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	UJ
95-95-4	2,4,5-Trichlorophenol	2.	UJ
91-58-7	2-Chloronaphthalene	2.	UJ
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	UJ
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

94IE05R02

Site Name: SOUTHERN CALIFORNIA CHEM Contract: LOCKHEED/ESAT

La Code: CRL Case No.: 940084 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 94IE05R02

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR542

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- dec. ---- Date Extracted: 05/09/94

Extraction: (Sepf/Cont/Sonc) CONT Date Analyzed: 05/13/94

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	UJ
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	UJ
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	UJ
56-55-3	Benzo(a)anthracene	2.	UJ
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	2.	UJ
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	UJ
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS (TICs): YES [ ] NO [X]

MT 7/1/94

G502

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

94IE05D01

Si Name:SOUTHERN CALIFORNIA CHEM Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: 940084 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 94IE05D01

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR543

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- dec. ---- Date Extracted:05/09/94

Extraction: (Sepf/Cont/Sonc) CONT Date Analyzed: 05/13/94

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	UR
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	UR
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	UJ
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	UR
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	UR
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	UR
105-67-9	2,4-Dimethylphenol	2.	UR
65-85-0	Benzoic acid	30.	UR
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	UR
120-82-1	1,2,4-Trichlorobenzene	2.	UJ
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	2.	UR
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	UR
95-95-4	2,4,5-Trichlorophenol	2.	UR
91-58-7	2-Chloronaphthalene	2.	UJ
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

G502

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

94IE05D01

Si Name: SOUTHERN CALIFORNIA CHEM Contract: LOCKHEED/ESAT

Lab Code: CRL Case No.: 940084 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 94IE05D01

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR543

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- dec. ---- Date Extracted: 05/09/94

Extraction: (Sepf/Cont/Sonc) CONT Date Analyzed: 05/13/94

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	UJ
51-28-5	2,4-Dinitrophenol	15.	UR
100-02-7	4-Nitrophenol	2.	UR
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	UR
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	UR
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	UJ
56-55-3	Benzo(a)anthracene	2.	UJ
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	2.	UJ
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	UJ
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS (TICs): YES [X] NO [ ]

MT 7/12/94

G502

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

94IE05D01

La Name: SOUTHERN CALIFORNIA CHEM. Contract: LOCKHEED/ESA

Lab Code: CRL Case No.: 940084 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 94IE05D01

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR543

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec.---- dec. ---- Date Extracted: 05/09/94

Extraction: (Sepf/Cont/Sonc) CONT Date Analyzed: 5/13/94

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

Number TICs found: 4

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	3.19	380.	J
2.	Unknown	5.27	1100.	J
3.	Unknown	5.95	1300.	J
4.	Unknown	13.58	250.	J
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
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19.				
20.				
21.				
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30.				

RECEIVED
JUN 20 1994
ATTA/DLPC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Region V CLP Data
Received for Review on June 8, 1994

FROM: Charles T. Elly, Director (SL-10C) BT Freeman for/CT Elly
Central Regional Laboratory 6/14/94

TO: Data User: IEPA

We have reviewed the data for the following case.

SITE NAME: Southern Cal Chem Co. (IL)

CASE and/or SAS NUMBER: 22043 SDG NUMBER: MEX203

Number and Type of Samples: 15 - soil/water

CLP Sample Numbers: MEX203 - 15, 17, 20

CLP Laboratory: Oilyek Hrs. for Review 17.2 + 0.5 + 1.5 hr + 0.5 PMM

Following are our findings:

DATA are acceptable for use with qualifications
See attached data review for detail.

BT Freeman
6/14/94

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

SITE: SO. CALIF. CHEM. CO. CASE: 22043
LABORATORY: SILVER SDG: MEXZ03

The laboratory's portion of case 22043 contains 11 low level soil and 4 low level water samples assayed for total metals and total cyanide. The following narrative lists the out of control audits and their possible effects on the results.

EVIDENTIAL AUDIT: All forms are originals. Most of the raw data sheets are originals, those photocopied state where the originals can be found. Some of the original Hg raw data (pp. 266-267) are with case 22090, SDG: MFCG70. The original sample tags, Federal Express airbill, chain of custody forms and DC-1 Form are present. All forms are present and in the order indicated on the Form DC-2 [inventory sheet].

The sample tag number for sample MEXZ05 (#5-145220) does not match the sample tag number listed on the chain of custody (#5-145203) for sample MEXZ05. Upon further inspection by the reviewer, the sample tag indicated it was for sample EYL05, sample MEXZ05's corresponding organic sample, to be assayed for ABN and Pesticides/ PCB. The laboratory was informed (see phone log) and it was determined that the sample bottle labeled MEXZ05 was to be assayed for total metals and CN. The laboratory analyzed the correct sample. Sample tag #5-145203 for MEXZ05 was discovered by the reviewer in the corresponding organic data case for this site.

SOIL SAMPLES [MEXZ03-13]

ICP ANALYSES: The soil duplicate RPD for Cr (22.6%) was flagged by the laboratory. The duplicate difference did not exceed the technical criterion (35% RPD) for soil samples. The soil Cr data are not qualified on this basis. The soil serial dilution audit on Cr (16.9%) is out of control. All soil Cr data are estimated (J) due to interference.

The soil duplicate RPD for Fe (21.0%) was flagged by the laboratory. The duplicate difference did not exceed the technical criterion (35% RPD) for soil samples. All soil Fe data are acceptable.

Reviewed by: James Redlin James Redlin, Lockheed/ESAT
Date: 6/14/94

The soil matrix spike recovery for Sb (59.6%) is out of control. All soil Sb data are estimated (UJ) due to possible elevation of the detection limit.

The soil matrix spike recovery for Cu (423.0 %) was not flagged by the laboratory because the sample concentration was more than 4x the spike level. All soil Cu data are acceptable.

The CCB contains Cd (4.5 µg/L). The Cd result on MEXZ08 is estimated (J) due to contamination.

GFAA ANALYSES: After checking and recalculating the Pb raw data, the reviewer corrected the Pb result for MEXZ12 on Form 1.

After checking and recalculating the Pb raw data, the reviewer added an (S) flag to Pb data on the Form 1 for MEXZ03-12.

The soil matrix spike recovery for As (67.6%) is out of control. The As results for MEXZ06-07 and 09-11 were flagged (W) by the laboratory. As data on MEXZ03-05, 08 and 12-13 are estimated (J) due to low bias. As data on MEXZ06-07 and 09-11 are estimated (J) due to low bias and interference.

The soil matrix spike recovery for Pb (248.2%) is out of control. All soil Pb data are estimated (J) due to high bias.

The Se results for MEXZ07-08 and 11 were flagged (W) by the laboratory. The CCB contains Se (1.0 µg/L). The Se data on MEXZ03-04, 06 and 10 are estimated (J) due to contamination. The Se data on MEXZ08 and 11 are estimated (J) due to contamination and interference. The Se result on MEXZ07 is estimated (UJ) due to interference.

The Tl result for MEXZ08 was flagged (W) by the laboratory. The soil preparation blank contains Tl (0.210 mg/Kg). The CCB contains Tl (1.2, 1.2, 1.3, 1.4 and 1.4 µg/L). The Tl data on MEXZ03-07 and 09-13 are estimated (J) due to contamination. The Tl result on MEXZ08 is estimated (J) due to contamination and interference.

OTHER ANALYSES: All Hg and CN data are acceptable.

Samples MEXZ06/07 are field duplicates that show good correlation.

Reviewed by: James Redlin James Redlin, Lockheed/ESAT
Date: 6/14/94

WATER SAMPLES [MEXZ14-15, 17 and 20]

ICP ANALYSES: The water duplicate RPD for Zn (200.0%) was not flagged by the laboratory because the duplicate difference did not exceed the technical criterion (±CRDL) for water samples. All water Zn data are acceptable.

The water preparation blank contains Fe (8.630 µg/L). The CCB contains Ca (50.6 µg/L) and Fe (34.7 and 21.3 µg/L). The Ca and Fe results on MEXZ20 are estimated (J) due to contamination.

GFAA ANALYSES: The water duplicate RPD for Pb (200.0%) was not flagged by the laboratory because the duplicate difference did not exceed the technical criterion (±CRDL) for water samples. The water Pb data are not qualified on this basis. The Pb results for MEXZ14 and 17 were flagged (W) by the laboratory. The Pb result on MEXZ17 is estimated (J) due to interference. The Pb result on MEXZ14 is estimated (UJ) due to interference.

The water duplicate RPD for Se (200.0%) was not flagged by the laboratory because the duplicate difference did not exceed the technical criterion (±CRDL) for water samples. The water Se data are not qualified on this basis. The water matrix spike recovery for Se (58.3%) is out of control. The CCB contains Se (1.2 & 1.4 µg/L). The Se result for MEXZ17 was flagged (W) by the laboratory. The Se result for MEXZ14 was flagged (+) by the laboratory because the sample, when assayed twice by MSA, failed to have a correlation coefficient greater than 0.995. The Se result on MEXZ14 is estimated (J) due to low bias, contamination and interference. The Se result on MEXZ17 is estimated (J) due to low bias and contamination. The Se results on MEXZ15 and 20 are estimated (UJ) due to possible elevation of the detection limit and interference.

The water preparation blank contains Tl (0.992 µg/L). The CCB contains Tl (1.0 µg/L). The Tl data on MEXZ14 and 17 are estimated (J) due to contamination.

Reviewed by: James Redlin James Redlin, Lockheed/ESAT
Date: 6/14/94

OTHER ANALYSES: All Hg and CN data are acceptable.

Sample MEXZ20 is a field blank containing Pb (0.72 µg/L). The Pb result on MEXZ17 is affected by contamination, but remains qualified as stated above. The Pb result on MEXZ15 is estimated (J) due to contamination.

Samples MEXZ15/17 are field duplicates with a field RPD for Fe (43.7%) that is out of control. The Fe result on MEXZ20 is affected by poor precision, but remains qualified as stated above. The Fe data on MEXZ14, 15 and 17 are estimated (J) due to poor precision.

Reviewed by: James Redlin James Redlin, Lockheed/ESAT
Date: 6/14/94

DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature utinized in this document, the following code letters and associated definitions are provide:

U Indicates the material was analyzed, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

J Indicates the associated value is an estimated quantity.

R Indicates the data are unusable. (Note: The analyte may or may not be present.)

UJ Indicates the material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

E Indicates the reported value is estimated because of the presence of interferences. An explanatory note shall be included under Comments on the Cover Page (if the problem applies to all samples) or on the specific FORM I-IN (if it is an isolated problem).

M Indicates duplicate injection precision is not met.

N Indictaes the spike sample recovery is not within control limits.

S Indicates the reported value was determined by the Method of Standard Addition (MSA).

W Indicates the post-digestion spike for furnace AA analysis is out of control limits (85%-115%), while sample absorbance is less than 50% of the spike absorbance.

+ Indicates the correlation coefficient for the MSA is less than 0.995.

* Indicates the duplicate analysis is not within control limits.

Note: Entering "S", "W" or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

In Reference to Case No(s):
22043

SDG: MEXZ03

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: 6/9/94

Laboratory Name: Silver Labs
Lab Contact: Blake Johnson. 208-784-1258

Region: 5
Regional Contact: Jim Rollin

Call Initiated By: ____ Laboratory x Region

In reference to data for the following sample number(s):
All

Summary of Questions/Issues Discussed:
(1) For The Hg analyses, p. 266 + 267 are copies from SDG: ~~ME~~ MFCG70, what is The case number?

(2) Why was The organic soil sample EYL05 analyzed in place of MEXZ05, even though They are corresponding samples.

Summary of Resolution:
(1) Case number is 22090

(2) Sample number MEXZ05 is in sample Bottle. Wrong Tag put in bottle. Sample Tag labeled MEXZ05 JR found in organic data case. Lab assigned The correct sample.

Carmen Robles
Signature

6/9/94
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No.: 220,3

1. Sample Description (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Rinsate
   5. Soil/Sediment
   6. Oil (High only)
   7. Waste (High only)
   8. Other (Specify)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaOH
   4. H_2SO_4
   5. $K_2CR_2O_7$
   6. Ice only
   7. Other (Specify)
   N. Not preserved

3. Region No.: IV

Sampling Co.: IEPA

Sampler (Name): Peter Simonsen

Sampler Signature: [signature]

4. Type of Activity

Lead		Pre-Remedial		Remedial		Removal	
SF				RIFS		CLEM	
PRP		PA		RD		REMA	
ST		SSI	X	RA		REM	
FED		LSI		O&M		OIL	
				NPLD		UST	

5. Date Shipped: 5/5/94

Carrier: Fed. Ex.

Airbill Number: 1517280844

6. Ship To: Silver Valley Labs. Inc.
One Government Gulch
Kellogg, ID. 83837
ATTN: Russ Alved

7. Date Received -- Received by: 05/06/94 Gordon Cantrell

Laboratory Contract Number: 68-D20042

Unit Price: 94.00

8. Transfer to:

Date Received:

Received by:

Contract Number:

Price:

CLP Sample Numbers (from labels)	A Enter # from Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only: Nitrate/Nitrite	Fluoride	High only: pH	Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Sample Condition on Receipt	L High Conc. Phases (Check below): Solids	Water - MS Liq.	Non Water - MS Liq.
MEX203	S	L		6	X		X					S-145201	X101	5/5/94 12:50	[illegible]	EX03	INTACT			
MEX204	S	L		6	X		X					S-145202	X102	5/4/94 14:20	[illegible]	EX04	↓			
MEX205	S	L		6	X		X					S-145203	X103	5/4/94 15:40	[illegible]	EX05	↓			
MEX206	S	L		6	X		X					S-145204	X104	5/4/94 16:15	[illegible]	EX06	↓			
MEX207	S	L		6	X		X					S-145205	X105	5/4/94 16:15	[illegible]	EX07	↓			

Shipment for Case complete? (Y/N): Y

Page 1 of 2

Sample used for a spike and/or duplicate: MEX207

Additional Sampler Signatures: Mark J. Weber

Chain of Custody Seal Number: 149546/149547

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	5/5/94 14:00				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		Gordon Cantrell	05/06/94 11:15	TAG ON SAMPLE MEXZ05 DOES NOT MATCH C.O.C.	05/06/94

Split Samples: ☐ Accepted (Signature) ☐ Declined

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284

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No.: 22042

1. Sample Description (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Rinsate
   5. Soil/Sediment
   6. Oil (High only)
   7. Waste (High only)
   8. Other (Specify)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaOH
   4. H_2SO_4
   5. $K_2CR_2O_7$
   6. Ice only
   7. Other (Specify)
   N. Not preserved

3. Region No.: V

Sampling Co.: IEPA

Sampler (Name): [illegible]

Sampler Signature: [illegible]

4. Type of Activity

Lead	Pre-Remedial	Remedial	Removal
SF		RIFS	CLEM
PRP	PA	RD	REMA
ST	SSI	RA	REM
FED	LSI	O&M ✓	OIL
		NPLD	UST

5. Date Shipped: 5/5/94

Carrier: Fed Ex.

Airbill Number: 1517280844

6. Ship To: Silver Valley Labs, Inc.
One Government Gulch
Kellogg, ID 83837
ATTN: Russ Alred

7. Date Received -- Received by: 05/06/94 Gordon Anthis

Laboratory Contract Number: 68-D20042

Unit Price: 94.00

8. Transfer to:

Date Received:

Received by:

Contract Number:

Price:

CLP Sample Numbers (from labels)	A Enter # from Box 1	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only: Nitrate/Nitrite	Fluoride	High only: pH	Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Sample Condition on Receipt	L High Conc. Phases (Check below): Solids	Water - Mis Liq.	Non Water - Mis Liq.
MEX208	S	L		6	X		X					S-145206	X106	5/5/94 10:25		EYL08	INTACT			
MEX209	S	L		6	X		X					S-145207	X107	5/5/94 10:45		EYL09				
MEX210	S	L		6	X		X					S-145208	X108	5/5/94 11:05		EYL10				
MEX211	S	L		6	X		X					S-145209	X109	5/5/94 11:25		EYL11				
MEX212	S	L		6	X		X					S-145210	X110	5/5/94 11:45		EYL12				
MEX213	S	L		6	X		X					S-145211	X111	5/5/94 12:15		EYL13				

Shipment for Case complete? (Y/N): Y

Page 1 of 2

Sample used for a spike and/or duplicate:

Additional Sampler Signatures: [illegible]

Chain of Custody Seal Number: 149546 / 149547

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	5/5/94 [illegible]				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		Gordon Anthis	05/06/94 11:15		

Split Samples: ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-1 (Rev. 5-91) Replaces EPA Form (2075-6), previous edition which may be used

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1 352275

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No.: 7201

1. Sample Description (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Rinsate
   5. Soil/Sediment
   6. Oil (High only)
   7. Waste (High only)
   8. Other (Specify)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO_3
   3. NaOH
   4. H_2SO_4
   5. $K_2CR_2O_7$
   6. Ice only
   7. Other (Specify)
   N. Not preserved

3. Region No.: V

Sampling Co.: IEPA

Sampler (Name): Peter Sorensen

Sampler Signature: Peter Sorensen

4. Type of Activity

Lead		Pre-Remedial		Remedial		Removal	
SF				RIFS		CLEM	
PRP		PA		RD		REMA	
ST		SSI	X	RA		REM	
FED		LSI		O&M		OIL	
				NPLD		UST	

5. Date Shipped: 5/5/94

Carrier: Fed. Ex.

Airbill Number: 1517280844

6. Ship To: Silver Valley Labs. Inc. One Government Gulch Kellogg, ID 83837 ATTN: Russ Alred

7. Date Received -- Received by: 05/06/94 Gordon Arthur

Laboratory Contract Number: 68-D20012

Unit Price: 94.00

8. Transfer to

Date Received

Received by

Contract Number

Price

CLP Sample Numbers (from labels)	A Enter # from Box 1	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Low Conc. only Cyanide	Low Conc. only Nitrate/ Nitrite	Low Conc. only Fluoride	High only pH	High only Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Sample Condition on Receipt	L High Conc. Phases (Check below): Solids	Water - MIS Liq.	Non Water - Mis Liq.
MEX214	2	L		3			X					S-145257	6101	5/4/94 11:25		EYL14	INTACT			
MEX214	2	L		2	X							S-145256	6101	5/4/94 11:25		EYL14				
MEX215	2	L		3			X					S-145259	6102	5/4/94 12:05		EYL15				
MEX215	2	L		2	X							S-145258	6102	5/4/94 12:05		EYL15				
MEX217	2	L		2	X							S-145279	6103	5/4/94 12:05		EYL18				
MEX217	2	L		2	X							S-145278	6103	5/4/94 12:05		EYL18				
MEX217	2	L		2	X							S-145277	6103	5/4/94 12:05		EYL18				
MEX217	2	L		3			X					S-145276	6103	5/4/94 12:05		EYL18				
MEX217	2	L		3			X					S-145274	6103	5/4/94 12:05		EYL18				
MEX217	2	L		3			X					S-145273	6103	5/4/94 12:05		EYL18				

Shipment for Case complete? (Y/N)

Page 1 of 2

Sample used for a spike and/or duplicate: MEX217

Additional Sampler Signatures

Chain of Custody Seal Number: 149550 / 149551

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Peter Sorensen	5/5/94 14:10				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	
		Gordon Arthur	05/06/94 11:15		

Split Samples: ☐ Accepted (Signature) ☐ Declined

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Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No.: 77063

1. Sample Description (Enter in Column A)	1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)
2. Preservative (Enter in Column D)	1. HCl 2. HNO_3 3. NaOH 4. H_2SO_4 5. $K_2CR_2O_7$ 6. Ice only 7. Other (Specify) N. Not preserved

3. Region No.: V

Sampling Co.: IEPA

Sampler (Name): Peter Jacobsen

Sampler Signature: Peter J Jacobsen

4. Type of Activity

Lead		Pre-Remedial		Remedial		Removal	
SF		PA		RIFS		CLEM	
PRP		SSI		RD		REMA	
ST		LSI		RA		REM	
FED				O&M	X	OIL	
				NPLD		UST	

5. Date Shipped: 5/5/94

Carrier: Fed Ex.

Airbill Number: 1517280844

6. Ship To: Silver Valley Labs Inc.
One Government Gulch
Kellogg, ID 83837
ATTN: Russ Alred

7. Date Received -- Received by: 05/06/94 Gordon Billin

Laboratory Contract Number: 68-D20042

Unit Price: 94.00

8. Transfer to:

Date Received:

Received by:

Contract Number:

Price:

CLP Sample Numbers (from labels)	A Enter # from Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only: Nitrate/Nitrite	Fluoride	High only: pH	Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Sample Condition on Receipt	L High Conc. Phases (Check below): Solids	Water - MIS Liq.	Non Water - Ms Liq.
MEX220	2	L		3			X					S-145287	6104	5-4-94/1315	PJ	EYL20	INTACT			
MEX220	2	L		2	X							S-145286	6104	5-4-94/1315	PJ	EYL20	↓			

Shipment for Case complete? (Y/N)

Page 1 of 2

Sample used for a spike and/or duplicate: MEX217

Additional Sampler Signatures:

Chain of Custody Seal Number: 149550/149551

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Peter J Jacobsen	5/6/94 11:00				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? (Y/N/none)	
		Gordon Billin	05/06/94 11:15		

Split Samples: ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-1 (Rev. 5-91) Replaces EPA Form (2075-6), previous edition which may be used

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QC EXCEPTION SUMMARY REPORT

CASE\SAS#: 22043 SITE: Southern Calif Chem Co MATRIX: Soil + water WATER SAMPLE SPK: MEXZ17

DATA SET: MEXZ03 LAB: Silver CONC: Low WATER SAMPLE DUP: MEXZ17

LAB QC # _____ REVIEWED BY: J. Rollin Soil - MEXZ03-13 (11) SOIL SAMPLE SPK: MEXZ07

DATE: 6/9/94 water - MEXZ14,15,17,20 (4) SOIL SAMPLE DUP: MEXZ07

FORM #	5/4-5	FORM 2	FORM 2	FORM 3	FORM 3 (ug/L)	FORM 3 (mg/Kg)	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 5	FIELD	Soil FIELD	water FIELD	water FIELD		
ELEMENT	HOLD TIME	INITIAL CALIB	CONTIN CALIB	CALIB BLANK	PREP WATER BLANK	PREP SOIL BLANK	ICS %R	SOIL SPIKE %R	SOIL DUP RPD	LCS AQ	LCS SOIL	SERIAL DILUTION AQUEOUS	SERIAL DILUTION SOIL	AQ DUP RPD	AQ SPIKE %R	BLANK	DUP RPD 06/07	BLANK 20	DUP RPD 15/17	GFAA DUP	GFAA ANALYT SPIKE
ALUMINUM	ok	ok	ok	~~32.7~~			ok			ok	ok	ok					ok				
ANTIMONY								59.6													
ARSENIC								67.6													
BARIUM																					
BERYLLIUM																					
CADMIUM				4.5	~~4.5~~																
CALCIUM				50.6		~~6.894~~												~~50.6~~			
CHROMIUM				~~3.0~~					22.6	(<35%)			16.9								
COBALT																					
COPPER				~~3.1~~	~~3.1~~			(423.0)													
IRON				34.7	8.630	~~2.524~~			21.0	(<35%)								~~10.5~~	43.7		
LEAD								248.2(F)						(200.0)				0.72			
MAGNESIUM				~~47.6~~																	
MANGANESE				~~1.8~~	~~1.8~~																
MERCURY																					
NICKEL																					
POTASSIUM																					
SELENIUM				1.2										(200.0)	58.3						
SILVER																					
SODIUM				~~32.5~~														~~202~~			
THALLIUM				1.3	0.992	0.210															
TIN																					
VANADIUM																					
ZINC				~~3.5~~		~~0.662~~								(200.0)							
CYANIDE																					

PBS - Tl (0 mg/kg) MEXZ03-04, 6-13
PBW - Tl (0.992 ug/L) MEXZ14 & 17

CCB
Cd (4.5 ug/L) MEXZ08
Ca (50.6 ug/L) MEXZ20

Se (0 ug/L) MEXZ03-04, 06, 08, 10-11
Tl (2, 1.2, 1.3, 1.4, 1.4 ug/L) MEXZ03-13

F. Blk - water
Pb (0.72 ug/L) MEXZ15, 1

HSAT 5 060 0

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

I Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043 SAS No.: _____ SDG No.:MEXZ03

SOW No.: ILM02.1

EPA Sample No.	Lab Sample ID
MEXZ03	MEXZ03
MEXZ04	MEXZ04
MEXZ05	MEXZ05
MEXZ06	MEXZ06
MEXZ07	MEXZ07
MEXZ07D	MEXZ07D
MEXZ07S	MEXZ07S
MEXZ08	MEXZ08
MEXZ09	MEXZ09
MEXZ10	MEXZ10
MEXZ11	MEXZ11
MEXZ12	MEXZ12
MEXZ13	MEXZ13
MEXZ14	MEXZ14
MEXZ15	MEXZ15
MEXZ17	MEXZ17
MEXZ17D	MEXZ17D
MEXZ17S	MEXZ17S
MEXZ20	MEXZ20

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

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO_

Comments:

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

Signature: Melba Bencich Name: MELBA BENCICH

Date: JUNE 02, 1994 Title: DOCUMENT CONTROL OFFICER

X101

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ03

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL_ Lab Sample ID: MEXZ03

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: _87.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	12700	_		P_
7440-36-0	Antimony_	5.6	U	N	P_
7440-38-2	Arsenic__	4.2	_	SN	F_
7440-39-3	Barium___	87.7	_		P_
7440-41-7	Beryllium	0.44	B		P_
7440-43-9	Cadmium__	0.89	U		P_
7440-70-2	Calcium__	1430	_		P_
7440-47-3	Chromium_	14.1	_	E*	P_
7440-48-4	Cobalt___	6.9	B		P_
7440-50-8	Copper___	8.0	_		P_
7439-89-6	Iron_____	12400	_	*	P_
7439-92-1	Lead_____	10.7	_	NS	F_
7439-95-4	Magnesium	1800	_		P_
7439-96-5	Manganese	535	_		P_
7439-97-6	Mercury__	0.11	U		CV
7440-02-0	Nickel___	7.1	B		P_
7440-09-7	Potassium	958	B		P_
7782-49-2	Selenium_	0.40	B		F_
7440-22-4	Silver___	0.64	U		P_
7440-23-5	Sodium___	31.4	B		P_
7440-28-0	Thallium_	0.31	B		F_
7440-62-2	Vanadium_	29.8	_		P_
7440-66-6	Zinc_____	35.5	_		P_
_____	Cyanide__	0.57	U		CA
_____	_____	_____	_		__

JR 6/10/94

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
PB_=_3X_DILUTION

X102

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ04

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL_ Lab Sample ID: MEXZ04

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: _84.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12900			P
7440-36-0	Antimony	5.8	U	N	P
7440-38-2	Arsenic	2.7		SN	F
7440-39-3	Barium	62.9			P
7440-41-7	Beryllium	0.52	B		P
7440-43-9	Cadmium	0.92	U		P
7440-70-2	Calcium	1050	B		P
7440-47-3	Chromium	55.4		E*	P
7440-48-4	Cobalt	5.6	B		P
7440-50-8	Copper	1060			P
7439-89-6	Iron	20600		*	P
7439-92-1	Lead	10.2		NS	F
7439-95-4	Magnesium	2570			P
7439-96-5	Manganese	112			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	14.6			P
7440-09-7	Potassium	956	B		P
7782-49-2	Selenium	0.26	B		F
7440-22-4	Silver	0.66	U		P
7440-23-5	Sodium	35.3	B		P
7440-28-0	Thallium	0.36	B		F
7440-62-2	Vanadium	40.7			P
7440-66-6	Zinc	54.3			P
	Cyanide	0.59	U		CA

6/10/94 JR

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
PB_=_3X_DILUTION

X103

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U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ05

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL_ Lab Sample ID: MEXZ05

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: _82.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8110			P
7440-36-0	Antimony	5.9	U	N	P
7440-38-2	Arsenic	7.7		SN	F
7440-39-3	Barium	51.0			P
7440-41-7	Beryllium	0.81	B		P
7440-43-9	Cadmium	0.94	U		P
7440-70-2	Calcium	33000			P
7440-47-3	Chromium	1090		E*	P
7440-48-4	Cobalt	22.8			P
7440-50-8	Copper	22400			P
7439-89-6	Iron	52100		*	P
7439-92-1	Lead	71.4		NS	F
7439-95-4	Magnesium	19000			P
7439-96-5	Manganese	330			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	72.0			P
7440-09-7	Potassium	727	B		P
7782-49-2	Selenium	0.22	U		F
7440-22-4	Silver	2.8			P
7440-23-5	Sodium	92.0	B		P
7440-28-0	Thallium	3.8	B		F
7440-62-2	Vanadium	24.9			P
7440-66-6	Zinc	215			P
	Cyanide	0.68			CA

JR 6/10/94

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
AS_=_2X_DILUTION
PB_=_20X_DILUTION
TL_=_10X_DILUTION

X 104

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ06

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL_ Lab Sample ID: MEXZ06

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: _85.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	7210	_		P_
7440-36-0	Antimony_	5.7	U	N	P_
7440-38-2	Arsenic__	0.83	B	WN	F_
7440-39-3	Barium___	43.8	B		P_
7440-41-7	Beryllium	0.27	B		P_
7440-43-9	Cadmium__	0.91	U		P_
7440-70-2	Calcium__	837	B		P_
7440-47-3	Chromium_	18.9	_	E*	P_
7440-48-4	Cobalt___	1.7	B		P_
7440-50-8	Copper___	1050	_		P_
7439-89-6	Iron____	7480	_	*	P_
7439-92-1	Lead____	9.8	_	NS	F_
7439-95-4	Magnesium	1180	_		P_
7439-96-5	Manganese	47.9	_		P_
7439-97-6	Mercury__	0.12	U		CV
7440-02-0	Nickel___	5.8	B		P_
7440-09-7	Potassium	625	B		P_
7782-49-2	Selenium_	0.25	B		F_
7440-22-4	Silver___	0.65	U		P_
7440-23-5	Sodium___	21.0	B		P_
7440-28-0	Thallium_	0.30	B		F_
7440-62-2	Vanadium_	16.1	_		P_
7440-66-6	Zinc____	26.4	_		P_
_____	Cyanide__	0.58	U		CA
_____	_____	_____	_		__

JR 6/10/94

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:

PB_=_3X_DILUTION

X105

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ07

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL_ Lab Sample ID: MEXZ07

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: _85.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8770			P
7440-36-0	Antimony	5.8	U	N	P
7440-38-2	Arsenic	0.97	B	WN	F
7440-39-3	Barium	47.7			P
7440-41-7	Beryllium	0.30	B		P
7440-43-9	Cadmium	0.92	U		P
7440-70-2	Calcium	939	B		P
7440-47-3	Chromium	22.8		E*	P
7440-48-4	Cobalt	2.4	B		P
7440-50-8	Copper	1110			P
7439-89-6	Iron	8550		*	P
7439-92-1	Lead	8.9		NS	F
7439-95-4	Magnesium	1360			P
7439-96-5	Manganese	51.3			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	6.6	B		P
7440-09-7	Potassium	821	B		P
7782-49-2	Selenium	0.21	U	W	F
7440-22-4	Silver	0.66	U		P
7440-23-5	Sodium	27.8	B		P
7440-28-0	Thallium	0.36	B		F
7440-62-2	Vanadium	18.2			P
7440-66-6	Zinc	28.2			P
	Cyanide	0.59	U		CA

JR 6/10/94

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:

PB_=_3X_DILUTION

X106

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U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ08

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL_ Lab Sample ID: MEXZ08

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: _60.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12700			P
7440-36-0	Antimony	8.1	U	N	P
7440-38-2	Arsenic	6.5		SN	F
7440-39-3	Barium	76.1			P
7440-41-7	Beryllium	3.4			P
7440-43-9	Cadmium	2.8			P
7440-70-2	Calcium	64100			P
7440-47-3	Chromium	1150		E*	P
7440-48-4	Cobalt	7.0	B		P
7440-50-8	Copper	35400			P
7439-89-6	Iron	20100		*	P
7439-92-1	Lead	113		NS	F
7439-95-4	Magnesium	41600			P
7439-96-5	Manganese	196			P
7439-97-6	Mercury	0.17	U		CV
7440-02-0	Nickel	37.1			P
7440-09-7	Potassium	1920			P
7782-49-2	Selenium	0.48	B	W	F
7440-22-4	Silver	1.1	B		P
7440-23-5	Sodium	131	B		P
7440-28-0	Thallium	0.50	B	W	F
7440-62-2	Vanadium	26.7			P
7440-66-6	Zinc	170			P
	Cyanide	3.0			CA

JR 6/10/94

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
PB_=_20X_DILUTION

X107

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ09

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL_ Lab Sample ID: MEXZ09

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: _85.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	12000	_		P_
7440-36-0	Antimony_	5.8	U	N	P_
7440-38-2	Arsenic__	1.1	B	WN	F_
7440-39-3	Barium___	44.1	B		P_
7440-41-7	Beryllium	0.42	B		P_
7440-43-9	Cadmium__	0.92	U		P_
7440-70-2	Calcium__	1260	_		P_
7440-47-3	Chromium_	23.3	_	E*	P_
7440-48-4	Cobalt___	3.3	B		P_
7440-50-8	Copper___	458	_		P_
7439-89-6	Iron____	14100	_	*	P_
7439-92-1	Lead____	7.8	_	NS	F_
7439-95-4	Magnesium	1740	_		P_
7439-96-5	Manganese	51.7	_		P_
7439-97-6	Mercury__	0.12	U		CV
7440-02-0	Nickel___	11.1	_		P_
7440-09-7	Potassium	812	B		P_
7782-49-2	Selenium_	0.21	U		F_
7440-22-4	Silver___	0.66	U		P_
7440-23-5	Sodium___	24.3	B		P_
7440-28-0	Thallium_	0.30	B		F_
7440-62-2	Vanadium_	28.5	_		P_
7440-66-6	Zinc____	41.6	_		P_
_____	Cyanide__	0.89	_		CA

JR 6/10/94

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
PB_=_3X_DILUTION

x 108

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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ10

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL_ Lab Sample ID: MEXZ10

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: _79.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum_	10600			P_	
7440-36-0	Antimony_	6.2	U	N	P_	
7440-38-2	Arsenic__	1.5	B	WN	F_	
7440-39-3	Barium___	87.0			P_	
7440-41-7	Beryllium	0.47	B		P_	
7440-43-9	Cadmium__	0.98	U		P_	
7440-70-2	Calcium__	3460			P_	
7440-47-3	Chromium_	16.5		E*	P_	
7440-48-4	Cobalt___	3.8	B		P_	
7440-50-8	Copper___	232			P_	
7439-89-6	Iron____	10000		*	P_	
7439-92-1	Lead____	17.1		N S	F_	JR 6/10/94
7439-95-4	Magnesium	2040			P_	
7439-96-5	Manganese	181			P_	
7439-97-6	Mercury__	0.13	U		CV	
7440-02-0	Nickel___	12.1			P_	
7440-09-7	Potassium	989	B		P_	
7782-49-2	Selenium_	0.31	B		F_	
7440-22-4	Silver___	0.70	U		P_	
7440-23-5	Sodium___	26.2	B		P_	
7440-28-0	Thallium_	0.38	B		F_	
7440-62-2	Vanadium_	20.5			P_	
7440-66-6	Zinc____	47.8			P_	
	Cyanide__	1.5			CA	

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:

PB_=_5X_DILUTION

X109

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U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ11

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL_ Lab Sample ID: MEXZ11

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: _83.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11700			P
7440-36-0	Antimony	5.9	U	N	P
7440-38-2	Arsenic	1.2	B	WN	F
7440-39-3	Barium	50.3			P
7440-41-7	Beryllium	0.39	B		P
7440-43-9	Cadmium	0.94	U		P
7440-70-2	Calcium	2680			P
7440-47-3	Chromium	18.1		E*	P
7440-48-4	Cobalt	2.8	B		P
7440-50-8	Copper	29.5			P
7439-89-6	Iron	17300		*	P
7439-92-1	Lead	10.7		NS	F
7439-95-4	Magnesium	2230			P
7439-96-5	Manganese	45.4			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	4.6	B		P
7440-09-7	Potassium	958	B		P
7782-49-2	Selenium	0.23	B	W	F
7440-22-4	Silver	0.67	U		P
7440-23-5	Sodium	25.6	B		P
7440-28-0	Thallium	0.41	B		F
7440-62-2	Vanadium	32.6			P
7440-66-6	Zinc	36.4			P
	Cyanide	0.60	U		CA

JR 6/10/94

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
PB_=_3X_DILUTION

X 110

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ12

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL_ Lab Sample ID: MEXZ12

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: _89.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum_	3000	_		P_	
7440-36-0	Antimony_	5.5	U	N	P_	
7440-38-2	Arsenic__	0.49	B	N	F_	
7440-39-3	Barium___	25.2	B		P_	
7440-41-7	Beryllium	0.12	B		P_	
7440-43-9	Cadmium__	0.88	U		P_	
7440-70-2	Calcium__	1060	B		P_	
7440-47-3	Chromium_	5.5	_	E*	P_	
7440-48-4	Cobalt___	1.2	B		P_	
7440-50-8	Copper___	167	_		P_	
7439-89-6	Iron_____	2970	_	*	P_	
7439-92-1	Lead_____	11.6 ~~7.7~~	_	NS	F_	JR 6/10/94
7439-95-4	Magnesium	601	B		P_	
7439-96-5	Manganese	53.2	_		P_	
7439-97-6	Mercury__	0.11	U		CV	
7440-02-0	Nickel___	3.2	B		P_	
7440-09-7	Potassium	253	B		P_	
7782-49-2	Selenium_	0.20	U		F_	
7440-22-4	Silver___	0.63	U		P_	
7440-23-5	Sodium___	17.3	B		P_	
7440-28-0	Thallium_	0.32	B		F_	
7440-62-2	Vanadium_	6.7	B		P_	
7440-66-6	Zinc_____	14.9	_		P_	
_____	Cyanide__	0.56	U		CA	
_____	_____	_____	_		__	

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:

PB_=_2X_DILUTION

X III

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ13

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL_ Lab Sample ID: MEXZ13

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: _83.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5020			P
7440-36-0	Antimony	5.9	U	N	P
7440-38-2	Arsenic	1.1	B	N	F
7440-39-3	Barium	44.8	B		P
7440-41-7	Beryllium	0.23	B		P
7440-43-9	Cadmium	0.93	U		P
7440-70-2	Calcium	2660			P
7440-47-3	Chromium	7.8		E*	P
7440-48-4	Cobalt	1.9	B		P
7440-50-8	Copper	20.2			P
7439-89-6	Iron	5190		*	P
7439-92-1	Lead	11.7 ~~8.9~~		NS	F
7439-95-4	Magnesium	1160	B		P
7439-96-5	Manganese	97.2			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	3.5	B		P
7440-09-7	Potassium	390	B		P
7782-49-2	Selenium	0.22	U		F
7440-22-4	Silver	0.67	U		P
7440-23-5	Sodium	53.2	B		P
7440-28-0	Thallium	0.36	B		F
7440-62-2	Vanadium	10.0	B		P
7440-66-6	Zinc	24.2			P
	Cyanide	0.60	U		CA

BR 06/01/94

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

PB_=_2X_DILUTION

G101

13

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ14

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): WATER Lab Sample ID: MEXZ14

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	15.7	U		P_
7440-36-0	Antimony_	24.6	U		P_
7440-38-2	Arsenic__	7.6	B		F_
7440-39-3	Barium___	218			P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	3.9	U		P_
7440-70-2	Calcium__	226000			P_
7440-47-3	Chromium_	1.8	U		P_
7440-48-4	Cobalt___	3.1	U		P_
7440-50-8	Copper___	2.9	U		P_
7439-89-6	Iron____	10000			P_
7439-92-1	Lead____	0.50	U	W	F_
7439-95-4	Magnesium	119000			P_
7439-96-5	Manganese	57.4			P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	31.3	B		P_
7440-09-7	Potassium	8340			P_
7782-49-2	Selenium_	4.3	B	+N	F_
7440-22-4	Silver___	2.8	U		P_
7440-23-5	Sodium___	578000			P_
7440-28-0	Thallium_	0.90	B	W	F_
7440-62-2	Vanadium_	2.3	U		P_
7440-66-6	Zinc____	10.6	B		P_
	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

G102

14

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ15

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): WATER Lab Sample ID: MEXZ15

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	15.7	U		P_
7440-36-0	Antimony_	24.6	U		P_
7440-38-2	Arsenic__	5.9	B		F_
7440-39-3	Barium___	73.6	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	3.9	U		P_
7440-70-2	Calcium__	67500	_		P_
7440-47-3	Chromium_	1.8	U		P_
7440-48-4	Cobalt___	3.1	U		P_
7440-50-8	Copper___	2.9	U		P_
7439-89-6	Iron____	2930	_		P_
7439-92-1	Lead____	1.0	B		F_
7439-95-4	Magnesium	35500	_		P_
7439-96-5	Manganese	36.3	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	9.7	U		P_
7440-09-7	Potassium	969	B		P_
7782-49-2	Selenium_	0.90	U	N	F_
7440-22-4	Silver___	2.8	U		P_
7440-23-5	Sodium___	10300	_		P_
7440-28-0	Thallium_	0.80	U		F_
7440-62-2	Vanadium_	2.3	U		P_
7440-66-6	Zinc____	3.3	B		P_
	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

G103

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ17

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): WATER Lab Sample ID: MEXZ17

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	15.7	U		P_
7440-36-0	Antimony_	24.6	U		P_
7440-38-2	Arsenic__	5.9	B		F_
7440-39-3	Barium___	70.6	B		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	3.9	U		P_
7440-70-2	Calcium__	66700	_		P_
7440-47-3	Chromium_	1.8	U		P_
7440-48-4	Cobalt___	3.1	U		P_
7440-50-8	Copper___	2.9	U		P_
7439-89-6	Iron_____	1880	_		P_
7439-92-1	Lead_____	0.72	B	W	F_
7439-95-4	Magnesium	35200	_		P_
7439-96-5	Manganese	35.4	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	9.7	U		P_
7440-09-7	Potassium	811	B		P_
7782-49-2	Selenium_	1.1	B	WN	F_
7440-22-4	Silver___	2.8	U		P_
7440-23-5	Sodium___	10400	_		P_
7440-28-0	Thallium_	1.1	B		F_
7440-62-2	Vanadium_	2.3	U		P_
7440-66-6	Zinc_____	4.1	B		P_
	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

G104

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U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEXZ20

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): WATER Lab Sample ID: MEXZ20

Level (low/med): LOW__ Date Received: 05/06/94

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	15.7	U		P_
7440-36-0	Antimony_	24.6	U		P_
7440-38-2	Arsenic__	0.90	U		F_
7440-39-3	Barium___	0.50	U		P_
7440-41-7	Beryllium	0.30	U		P_
7440-43-9	Cadmium__	3.9	U		P_
7440-70-2	Calcium__	50.6	B		P_
7440-47-3	Chromium_	1.8	U		P_
7440-48-4	Cobalt___	3.1	U		P_
7440-50-8	Copper___	2.9	U		P_
7439-89-6	Iron_____	10.5	B		P_
7439-92-1	Lead_____	0.72	B		F_
7439-95-4	Magnesium	25.7	U		P_
7439-96-5	Manganese	1.7	U		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	9.7	U		P_
7440-09-7	Potassium	411	U		P_
7782-49-2	Selenium_	0.90	U	N	F_
7440-22-4	Silver___	2.8	U		P_
7440-23-5	Sodium___	202	B		P_
7440-28-0	Thallium_	0.80	U		F_
7440-62-2	Vanadium_	2.3	U		P_
7440-66-6	Zinc_____	2.8	U		P_
	Cyanide__	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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3
BLANKS

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	15.7	U	15.7	U	15.7	U	15.7	U	15.700	U	P
Antimony	24.6	U	24.6	U	-34.4	B	24.6	U	24.600	U	P
Arsenic	0.9	U	0.9	U	0.9	U	0.9	U	0.900	U	F
Barium	0.5	U	0.5	U	0.5	U	0.7	B	0.500	U	P
Beryllium	0.3	U	0.3	U	0.3	U	0.3	U	0.300	U	P
Cadmium	3.9	U	3.9	U	4.5	B	3.9	U	3.900	U	P
Calcium	26.2	U	26.2	U	26.2	U	26.2	U	26.200	U	P
Chromium	1.8	U	1.8	U	1.8	U	1.8	U	-3.273	B	P
Cobalt	3.1	U	3.1	U	3.1	U	3.1	U	3.100	U	P
Copper	2.9	U	2.9	U	2.9	U	3.1	B	2.900	U	P
Iron	5.0	U	5.0	U	5.0	U	5.0	U	8.630	B	P
Lead	44.1	U	44.1	U	44.1	U	44.1	U			P
Magnesium	25.7	U	25.7	U	25.7	U	25.7	U	25.700	U	P
Manganese	1.7	U	1.7	U	1.7	U	1.8	B	1.700	U	P
Mercury	0.2	U	0.2	U	0.2	U			0.200	U	CV
Nickel	9.7	U	9.7	U	9.7	U	9.7	U	9.700	U	P
Potassium	411.0	U	411.0	U	411.0	U	411.0	U	411.000	U	P
Selenium	0.9	U	0.9	U	0.9	U			0.900	U	F
Silver	2.8	U	-3.4	B	-4.1	B	2.8	U	2.800	U	P
Sodium	32.5	U	32.5	U	32.5	U	32.5	U	32.500	U	P
Thallium	1.3	B	1.2	B	1.2	B	1.3	B	0.992	B	F
Vanadium	2.3	U	2.3	U	2.3	U	2.3	U	2.300	U	P
Zinc	3.3	B	2.8	U	2.8	U	3.3	B	2.800	U	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	CA

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BLANKS

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Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			15.7	U					3.140	U	P
Antimony			24.6	U					-10.325	B	P
Arsenic	0.9	U	0.9	U	0.9	U	0.9	U	0.180	U	F
Barium			0.5	U					0.100	U	P
Beryllium			0.3	U					0.060	U	P
Cadmium	3.9	U	3.9	U	3.9	U	3.9	U	0.780	U	P
Calcium			26.2	U					6.894	B	P
Chromium			3.0	B					0.360	U	P
Cobalt			3.1	U					0.620	U	P
Copper			2.9	U					0.580	U	P
Iron			5.0	U					2.529	B	P
Lead			44.1	U					8.820	U	P
Magnesium			25.7	U					5.140	U	P
Manganese			1.7	U					0.340	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.100	U	CV
Nickel			9.7	U					1.940	U	P
Potassium			411.0	U					82.200	U	P
Selenium	1.0	B	0.9	U	1.0	B	0.9	U	0.180	U	F
Silver			-4.8	B					-1.302	B	P
Sodium			32.5	U					6.500	U	P
Thallium			1.4	B	1.4	B			0.210	B	F
Vanadium			2.3	U					0.460	U	P
Zinc			2.8	U					0.662	B	P
Cyanide			10.0	U					0.500	U	CA

U.S. EPA - CLP

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BLANKS

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L_

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	15.7	U	32.7	B	15.7	U	15.7	U			P
Antimony	24.6	U	24.6	U	24.6	U	24.6	U			P
Arsenic			0.9	U							F
Barium	0.5	U	0.5	U	0.5	U	0.5	U			P
Beryllium	0.3	U	0.3	U	0.3	U	0.3	U			P
Cadmium											NR
Calcium	26.2	U	50.6	B	26.2	U	26.2	U			P
Chromium	1.8	U	1.8	U	1.8	U	1.8	U			P
Cobalt	3.1	U	3.1	U	3.1	U	-4.1	B			P
Copper	2.9	U	2.9	U	2.9	U	2.9	U			P
Iron	5.0	U	34.7	B	21.3	B	25.4	B			P
Lead	0.5	U	0.5	U	0.5	U	0.5	U	0.500	U	F
Magnesium	25.7	U	47.6	B	25.7	U	35.5	B			P
Manganese	1.7	U	1.7	U	1.7	U	1.7	U			P
Mercury			0.2	U							CV
Nickel	9.7	U	9.7	U	9.7	U	9.7	U			P
Potassium	411.0	U	411.0	U	411.0	U	411.0	U			P
Selenium			0.9	U							F
Silver	2.8	U	2.8	U	2.8	U	2.8	U			P
Sodium	32.5	U	32.5	U	32.5	U	32.5	U			P
Thallium	0.8	U	1.0	B	0.8	U	0.8	U			F
Vanadium	2.3	U	2.3	U	2.3	U	2.3	U			P
Zinc	2.8	U	2.8	U	2.8	U	2.8	U			P
Cyanide											NR

U.S. EPA - CLP

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BLANKS

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic	0.9	U	0.9	U	0.9	U					F
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead			0.5	U	0.5	U			0.100	U	F
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium	0.9	U	0.9	U	1.2	B					F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

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BLANKS

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead	0.5	U	0.5	U	0.5	U	0.5	U			F
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium	0.9	U	0.9	U	0.9	U					F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

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BLANKS

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead			-0.6	B							F
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium	1.3	B	1.4	B	0.9	U	1.4	B			F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

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BLANKS

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead	0.5	U	0.5	U	-0.7	B					F
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

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BLANKS

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or mg/kg): _____

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead	0.5	U	0.5	U	0.5	U	0.5	U			F
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEXZ07S

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL__ Level (low/med): LOW___

% Solids for Sample: _85.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	75-125	69.9254		5.7746	U	117.37	59.6	N	P
Arsenic	75-125	7.3223		0.9714	B	9.39	67.6	N	F
Barium	75-125	531.0059		47.7420		469.48	102.9		P
Beryllium	75-125	11.9099		0.2962	B	11.74	98.9		P
Cadmium	75-125	11.4810		0.9155	U	11.74	97.8		P
Calcium									NR
Chromium	75-125	70.2643		22.7775		46.95	101.1		P
Cobalt	75-125	123.4984		2.4467	B	117.37	103.1		P
Copper		1361.3993		1113.1481		58.69	423.0		P
Iron									NR
Lead	75-125	129.8871		10.3521	U	117.37	110.7		P
Magnesium									NR
Manganese	75-125	177.7758		51.3364		117.37	107.7		P
Mercury	75-125	0.5440		0.1174	U	0.59	92.2		CV
Nickel	75-125	124.8648		6.5786	B	117.37	100.8		P
Potassium									NR
Selenium	75-125	2.3995		0.2113	U	2.35	102.1		F
Silver	75-125	12.1585		0.6573	U	11.74	103.6		P
Sodium									NR
Thallium	75-125	13.5115		0.3577	B	11.74	112.0		F
Vanadium	75-125	134.4181		18.2272		117.37	99.0		P
Zinc	75-125	144.1864		28.2352		117.37	98.8		P
Cyanide	75-125	26.0901		0.5869	U	29.34	88.9		CA

Comments:
PB_=_3X_DILUTION_ON_SR

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEXZ07S

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL__ Level (low/med): LOW___

% Solids for Sample: _85.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead	75-125	20.5859		8.9437		4.69	248.2	N	F
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:
PB_=_3X_DILUTION_ON_SR

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEXZ17S

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): WATER_ Level (low/med): LOW___

% Solids for Sample: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	1942.5510		15.7000	U	2000.00	97.1		P
Antimony	75-125	497.3310		24.6000	U	500.00	99.5		P
Arsenic	75-125	45.8350		5.8830	B	40.00	99.9		F
Barium	75-125	2026.2940		70.5920	B	2000.00	97.8		P
Beryllium	75-125	49.4390		0.3000	U	50.00	98.9		P
Cadmium	75-125	44.5880		3.9000	U	50.00	89.2		P
Calcium									NR
Chromium	75-125	192.0560		1.8000	U	200.00	96.0		P
Cobalt	75-125	488.1420		3.1000	U	500.00	97.6		P
Copper	75-125	245.4600		2.9000	U	250.00	98.2		P
Iron	75-125	2835.4820		1881.7480		1000.00	95.4		P
Lead	75-125	17.3330		0.7180	B	20.00	83.1		F
Magnesium									NR
Manganese	75-125	529.2470		35.4370		500.00	98.8		P
Mercury	75-125	0.9140		0.2000	U	1.00	91.4		CV
Nickel	75-125	474.1830		9.7000	U	500.00	94.8		P
Potassium									NR
Selenium	75-125	6.8910		1.0650	B	10.00	58.3	N	F
Silver	75-125	51.4560		2.8000	U	50.00	102.9		P
Sodium									NR
Thallium	75-125	51.5180		1.0800	B	50.00	100.9		F
Vanadium	75-125	488.5030		2.3000	U	500.00	97.7		P
Zinc	75-125	498.1790		4.1310	B	500.00	98.8		P
Cyanide	75-125	101.4950		10.0000	U	100.00	101.5		CA

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEXZ07A

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water) : SOIL__ Level (low/med): LOW___

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Aluminum									NR
Antimony		116.04		24.60	U	120.0	96.7		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MEXZ07D

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _85.2 % Solids for Duplicate: __84.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		8772.2913		9493.9087		7.9		P
Antimony		5.7746	U	5.7746	U			P
Arsenic		0.9714	B	1.1493	B	16.8		F
Barium	46.9	47.7420		55.2413		14.6		P
Beryllium		0.2962	B	0.3671	B	21.4		P
Cadmium		0.9155	U	0.9155	U			P
Calcium		938.6434	B	989.2169	B	5.2		P
Chromium		22.7775		28.5725		22.6	*	P
Cobalt		2.4467	B	2.7411	B	11.3		P
Copper		1113.1481		1292.5894		14.9		P
Iron		8546.0441		10546.1498		21.0	*	P
Lead		10.3521	U	10.3521	U			P
Magnesium	1173.7	1356.6953		1498.0263		9.9		P
Manganese		51.3364		62.0059		18.8		P
Mercury		0.1174	U	0.1174	U			CV
Nickel		6.5786	B	5.3624	B	20.4		P
Potassium		820.5207	B	865.8045	B	5.4		P
Selenium		0.2113	U	0.2113	U			F
Silver		0.6573	U	0.6573	U			P
Sodium		27.7869	B	26.6258	B	4.3		P
Thallium		0.3577	B	0.3577	B	0.0		F
Vanadium	11.7	18.2272		21.0045		14.2		P
Zinc		28.2352		32.2810		13.4		P
Cyanide		0.5869	U	0.5869	U			CA

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MEXZ07D

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _85.2 % Solids for Duplicate: __84.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic								NR
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium								NR
Cobalt								NR
Copper								NR
Iron								NR
Lead		8.9437		10.4930		15.9		F
Magnesium								NR
Manganese								NR
Mercury								NR
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MEXZ17D

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

Matrix (soil/water): WATER Level (low/med): _LOW__

% Solids for Sample: __0.0 % Solids for Duplicate: ___0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		15.7000	U	15.7000	U			P
Antimony		24.6000	U	24.6000	U			P
Arsenic		5.8830	B	5.6650	B	3.8		F
Barium		70.5920	B	71.3170	B	1.0		P
Beryllium		0.3000	U	0.3000	U			P
Cadmium		3.9000	U	3.9000	U			P
Calcium		66658.2420		67601.9610		1.4		P
Chromium		1.8000	U	1.8000	U			P
Cobalt		3.1000	U	3.1000	U			P
Copper		2.9000	U	2.9000	U			P
Iron		1881.7480		1907.3000		1.3		P
Lead		0.7180	B	0.5000	U	200.0		F
Magnesium		35169.8440		35682.5470		1.4		P
Manganese	15.0	35.4370		36.2920		2.4		P
Mercury		0.2000	U	0.2000	U			CV
Nickel		9.7000	U	9.7000	U			P
Potassium		811.3550	B	990.7700	B	19.9		P
Selenium		1.0650	B	0.9000	U	200.0		F
Silver		2.8000	U	2.8000	U			P
Sodium	5000.0	10372.8570		10490.4380		1.1		P
Thallium		1.0800	B	1.1690	B	7.9		F
Vanadium		2.3000	U	2.3000	U			P
Zinc		4.1310	B	2.8000	U	200.0		P
Cyanide		10.0000	U	10.0000	U			CA

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

ICP ID Number: ICP61E_____ Date: 04/15/94

Flame AA ID Number : _____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	15.7	P
Antimony	206.84		60	24.6	P
Arsenic			10		NR
Barium	493.41		200	0.5	P
Beryllium	313.04		5	0.3	P
Cadmium	228.80		5	3.9	P
Calcium	317.93		5000	26.2	P
Chromium	267.72		10	1.8	P
Cobalt	228.62		50	3.1	P
Copper	324.75		25	2.9	P
Iron	259.94		100	5.0	P
Lead	220.35		3	44.1	P
Magnesium	279.08		5000	25.7	P
Manganese	257.61		15	1.7	P
Mercury			0.2		NR
Nickel	231.60		40	9.7	P
Potassium	766.49		5000	411.0	P
Selenium			5		NR
Silver	328.07		10	2.8	P
Sodium	589.00		5000	32.5	P
Thallium			10		NR
Vanadium	292.40		50	2.3	P
Zinc	213.86		20	2.8	P

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

L. Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

ICP ID Number: _____ Date: 04/15/94

Flame AA ID Number : _____

Furnace AA ID Number : AA30_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BD	3	0.5	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

ICP ID Number: _____ Date: 04/15/94

Flame AA ID Number : _____

Furnace AA ID Number : AA40Z_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium	276.80	BZ	10	0.8	F
Vanadium			50		NR
Zinc			20		NR

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

L , Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

ICP ID Number: _____ Date: 04/15/94

Flame AA ID Number : _____

Furnace AA ID Number : 300Z-1_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	193.70	BZ	10	0.9	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

ICP ID Number: _____ Date: 04/15/94

Flame AA ID Number : _____

Furnace AA ID Number : 300Z-2_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium	196.00	BZ	5	0.9	F
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

1 Name: SVL_ANALYTICAL_INC._____ Contract: 68-D20042_

Lab Code: SILVER Case No.: 22043_ SAS No.: _____ SDG No.: MEXZ03

ICP ID Number: _____ Date: 04/15/94

Flame AA ID Number : VGA76_____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.2	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. _____ CERCLIS No. IL

Case No. 22043 Site Name Location: Southern Cal Chem C

Contractor or EPA Lab: Oilver Data User: IEPA

No. of Samples: 15 Date Samples or Data Received: 6-8-94

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ___ NO ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No. of samples claimed: 15 No. of samples received: 15

Received by: AD Harris Date: 6-8-94

Received by LSSS: A. C. Harvey Date: 6-8-94

Review started: 6/9/94 Reviewer Signature: J. Rollin

Total time spent on review: 17.2 +0.5 +1.5 hr RMF 6/13/94 +0.5 PMM Date review completed: 6/13/94

Copied by: Marvin Date: 06-15-94

Mailed to user by: AD Harris Date: 6-15-94

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____
Inorganic Data Complete( ) Suitable for Intended Purpose( ) ✓ if ol
Organic Data Complete ( ) Suitable for Intended Purpose( ) lis
Dioxin Data Complete ( ) Suitable for Intended Purpose( ) prblm
SAS Data Complete ( ) Suitable for Intended Purpose( ) below
PROBLEMS: Please indicate reasons why data are not suitable fo your uses.

Received by Data Mgmt. Coordinator for Files Date: _____

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

S D G N A R R A T I V E

June 6, 1994

CASE NO.: 22043

SAMPLE NOS.: EYL03 thru EYL15, EYL17, EYL18, EYL20

SDG NO.: EYL03

VOLATILE FRACTION

Eleven soil samples and five water samples were submitted for Volatile Organic Analysis. The samples were analyzed by GC/MS following the 3/90 CLP Statement of Work.

No major problems occurred during the analyses of these samples. PH Data is included at the end of this narrative.

Blanks: VBLK2 contained low level acetone contamination below CRQL and methylene chloride contamination less than 5 times the CRQL.

Surrogates: Samples EYL08, EYL11RE, and EYL12RE contained surrogates outside QC Recovery Limits.

Matrix Spikes: Samples EYL03MS and EYL03MSD contained all compounds within QC Recovery Limits, but 3 compounds outside %RPD Limits. No reanalysis was performed.

Internal Standards: Samples EYL03, EYL05, EYL08, EYL11, EYL12, and EYL13 contained internal standards outside QC Limits. They were reanalyzed and duplicated the results, verifying matrix effect of the sample. Sample EYL11RE contained surrogates outside QC Recovery Limits.

SEMIVOLATILE FRACTION

Eleven soil samples and four water samples were submitted for Semivolatile Organic Analysis. The samples were analyzed by GC/MS following the 3/90 CLP Organic Statement of Work.

No major problems occurred during the analyses of these samples.

Blanks: No problems.

Surrogates: No problems.

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

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Matrix Spikes: No problems.

Internal Standards: The following samples contained internal standard areas outside QC Limits: EYL13 and EYL13RE.

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.

All raw data for Pest/PCB Florisil Cartridge Check included in data packages are copies of the originals, which are kept in the files at Southwest Laboratory of Oklahoma. This is done to facilitate usage of these calibrations in more than one data package.

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

Harry M. Borg

Harry M. Borg
Organic Program Manager

June 6, 1994

SDG Narrative

Case:	22043
SDG:	EYL03
Samples:	EYL14, EYL15, EYL18, EYL20, EYL03, EYL04, EYL05, EYL06, EYL07, EYL08, EYL09, EYL10, EYL11, EYL12, EYL13.
Fraction:	Pesticide/PCB
Date:	6/3/94

SDG EYL03 consisted of 4 water samples and 11 soil samples analyzed for pesticide/PCBs. All samples, blanks and spikes were extracted and analyzed according to EPA SOW OLM01.8. No problems occurred during the analysis of this SDG.

Brett R. Dees

Brett R. Dees

GC Group Leader

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLK3	95	87	93		0
02	EYL14	93	100	96		0
03	EYL15	96	104	101		0
04	EYL17	101	98	100		0
05	EYL18	98	98	99		0
06	EYL20	104	99	102		0
07	EYL20MS	95	102	102		0
08	EYL20MSD	100	98	101		0
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		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(88-110)
SMC2 (BFB)	= Bromofluorobenzene	(86-115)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	VBLK1	100	90	95		0
02	EYL03	118	87	103		0
03	VBLK2	97	95	100		0
04	EYL03RE	116	95	106		0
05	EYL05	106	92	109		0
06	EYL06	113	100	108		0
07	EYL07	96	89	96		0
08	EYL07MS	105	98	108		0
09	EYL07MSD	105	93	105		0
10	EYL08	134	102	125*		1
11	EYL09	111	99	115		0
12	EYL10	117	105	117		0
13	EYL11	123	101	118		0
14	EYL12	132	102	121		0
15	EYL13	116	96	112		0
16	EYL04	121	95	115		0
17	EYL05RE	119	95	117		0
18	EYL08RE	117	89	114		0
19	EYL11RE	121	112	126*		1
20	EYL12RE	126	115*	127*		2
21	EYL13RE	115	100	115		0
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		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

3A
WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix Spike - EPA Sample No.: EYL20

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	32	64	61-145
Trichloroethene	50	0	38	76	71-120
Benzene	50	0	44	88	76-127
Toluene	50	0	42	84	76-125
Chlorobenzene	50	0	42	84	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC
1,1-Dichloroethene	50	52	104	48*	14	61-145
Trichloroethene	50	46	92	19*	14	71-120
Benzene	50	48	96	9	11	76-127
Toluene	50	49	98	15*	13	76-125
Chlorobenzene	50	47	94	11	13	75-130

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

* Values outside of QC limits

RPD: 3 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3B
SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix Spike - EPA Sample No.: EYL07 Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	57	0	57	100	59-172
Trichloroethene	57	0	59	104	62-137
Benzene	57	0	63	110	66-142
Toluene	57	0	64	112	59-139
Chlorobenzene	57	0	62	109	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	57	56	98	2	22	59-172
Trichloroethene	57	58	102	2	24	62-137
Benzene	57	62	109	1	21	66-142
Toluene	57	63	110	2	21	59-139
Chlorobenzene	57	60	105	4	21	60-133

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

* Values outside of QC limits

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

COMMENTS: _____

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Lab File ID: UE570.D Lab Sample ID: U940510A

Date Analyzed: 05/10/94 Time Analyzed: 0847

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

Instrument ID: U

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EYL03	18600.01	UE593.D	1903
02				
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COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK2

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Lab File ID: UE600.D Lab Sample ID: U940511A

Date Analyzed: 05/11/94 Time Analyzed: 0931

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

Instrument ID: U

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EYL03RE	18600.01RA	UE603.D	1104
02	EYL05	18600.03	UE605.D	1150
03	EYL06	18600.04	UE606.D	1213
04	EYL07	18600.05	UE607.D	1237
05	EYL07MS	18600.05MS	UE608.D	1300
06	EYL07MSD	18600.05MSD	UE609.D	1323
07	EYL08	18600.06	UE610.D	1346
08	EYL09	18600.07	UE611.D	1410
09	EYL10	18600.08	UE612.D	1433
10	EYL11	18600.09	UE613.D	1456
11	EYL12	18600.10	UE614.D	1524
12	EYL13	18600.11	UE615.D	1547
13	EYL04	18600.02	UE617.D	1634
14	EYL05RE	18600.03RA	UE618.D	1657
15	EYL08RE	18600.06RA	UE619.D	1720
16	EYL11RE	18600.09RA	UE620.D	1744
17	EYL12RE	18600.10RA	UE621.D	1807
18	EYL13RE	18600.11RA	UE622.D	1830
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COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK3

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Lab File ID: R16629.D Lab Sample ID: R940513A

Date Analyzed: 05/13/94 Time Analyzed: 1036

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

Instrument ID: R

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EYL14	18600.12	R16633.D	1211
02	EYL15	18600.13	R16634.D	1235
03	EYL17	18600.14	R16635.D	1259
04	EYL18	18600.15	R16636.D	1324
05	EYL20	18600.16	R16637.D	1347
06	EYL20MS	18600.16MS	R16638.D	1412
07	EYL20MSD	18600.16MSD	R16639.D	1436
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COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: U940510A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE570.D

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

% Moisture: not dec. 0 Data Analyzed: 05/10/94

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

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK1

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: U940510A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE570.D

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

% Moisture: not dec. 0 Data Analyzed: 05/10/94

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

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

VBLK2

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: U940511A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE600.D

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

% Moisture: not dec. 0 Data Analyzed: 05/11/94

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	21	
67-64-1	Acetone	8	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK2

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: U940511A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE600.D

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

% Moisture: not dec. 0 Data Analyzed: 05/11/94

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

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

Number TICs found: 0

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

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

EPA SAMPLE NO.

VBLK3

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: R940513A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: R16629.D

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

% Moisture: not dec. _____ Data Analyzed: 05/13/94

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

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

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

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK3

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: R940513A

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: R16629.D

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

% Moisture: not dec. _____ Data Analyzed: 05/13/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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X101

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL03

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.01

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE593.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 11 Data Analyzed: 05/10/94

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	8	J
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	1	J
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (Total)	11	U

X101

EPA SAMPLE NO.

EYL03

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.01

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE593.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 11 Data Analyzed: 05/10/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
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6.				
7.				
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10.				
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30.				

X 101

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL03RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.01RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE603.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 11 Data Analyzed: 05/11/94

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

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

RWW 6-9-94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	32	B U
67-64-1	Acetone	14	B U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (Total)	11	U

X101

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL03RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.01RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE603.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 11 Data Analyzed: 05/11/94

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	15.508	7	J
2.				
3.				
4.				
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X102

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL04

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.02

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE617.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 16 Data Analyzed: 05/11/94

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

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

RWW 6-9-94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	17	B U
67-64-1	Acetone	48	B U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U

X102

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL04

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.02

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE617.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 16 Data Analyzed: 05/11/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
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X103

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL05

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.03

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE605.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 19 Data Analyzed: 05/11/94

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

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

RWW 6-9-94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	43	B U
67-64-1	Acetone	22	B U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	2	J
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	0.6	J
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	3	J

X103

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL05

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.03

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE605.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 19 Data Analyzed: 05/11/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
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27.				
28.				
29.				
30.				

X103

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL05RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.03RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE618.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 19 Data Analyzed: 05/11/94

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

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

RWW 6-9-94

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

X103

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL05RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.03RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE618.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 19 Data Analyzed: 05/11/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
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X104

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL06

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.04

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE606.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 15 Data Analyzed: 05/11/94

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

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

Rev 6-9-94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	38	B U
67-64-1	Acetone	14	B U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	2	J

X104

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL06

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.04

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE606.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 15 Data Analyzed: 05/11/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
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X105

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL07

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.05

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE607.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 13 Data Analyzed: 05/11/94

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

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

RWW 6-9-94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	33	B U
67-64-1	Acetone	11 ~~10~~	~~B~~ U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (Total)	2	J

X105

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL07

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.05

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE607.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 13 Data Analyzed: 05/11/94

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	15.483	12	J
2.				
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X106

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL08

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.06

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE610.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 30 Data Analyzed: 05/11/94

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

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

RWN 6-9-94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	82	B BU
67-64-1	Acetone	14	~~B~~ U
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	2	J
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (Total)	14	U

X106

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL08

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.06

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE610.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 30 Data Analyzed: 05/11/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
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X106

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL08RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.06RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE619.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 30 Data Analyzed: 05/11/94

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

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

RWN 6-9-94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	20	B
67-64-1	Acetone	51	B
75-15-0	Carbon Disulfide	14	U
75-35-4	1,1-Dichloroethene	14	U
75-34-3	1,1-Dichloroethane	14	U
540-59-0	1,2-Dichloroethene (total)	14	U
67-66-3	Chloroform	14	U
107-06-2	1,2-Dichloroethane	14	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	14	U
56-23-5	Carbon Tetrachloride	14	U
75-27-4	Bromodichloromethane	14	U
78-87-5	1,2-Dichloropropane	14	U
10061-01-5	cis-1,3-Dichloropropene	14	U
79-01-6	Trichloroethene	14	U
124-48-1	Dibromochloromethane	14	U
79-00-5	1,1,2-Trichloroethane	14	U
71-43-2	Benzene	14	U
10061-02-6	trans-1,3-Dichloropropene	14	U
75-25-2	Bromoform	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	2	J
79-34-5	1,1,2,2-Tetrachloroethane	14	U
108-88-3	Toluene	14	U
108-90-7	Chlorobenzene	14	U
100-41-4	Ethylbenzene	14	U
100-42-5	Styrene	14	U
1330-20-7	Xylene (Total)	14	U

X106

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL08RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.06RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE619.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 30 Data Analyzed: 05/11/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
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X107

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL09

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.07

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE611.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 13 Data Analyzed: 05/11/94

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

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

RWW 6-9-94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	47	B U
67-64-1	Acetone	15	B U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (Total)	11	U

GLM

X 107

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL09

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.07

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE611.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 13 Data Analyzed: 05/11/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
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X108

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL10

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.08

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE612.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 18 Data Analyzed: 05/11/94

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

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

RNW 6-9-94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	45	B
67-64-1	Acetone	12 ~~9~~	~~B~~ U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U

X108

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL10

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.08

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE612.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 18 Data Analyzed: 05/11/94

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	15.480	8	J
2.				
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X109

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL11

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.09

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE613.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 14 Data Analyzed: 05/11/94

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

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

RWW 6-9-94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	44	B U
67-64-1	Acetone	12 ~~7~~	~~JB~~ U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U

X109

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL11

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.09

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE613.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 14 Data Analyzed: 05/11/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
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X109

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL11RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.09RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE620.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 14 Data Analyzed: 05/11/94

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

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

RWW 6-9-94

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

X109

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL11RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.09RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE620.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 14 Data Analyzed: 05/11/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
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X110

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL12

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.10

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE614.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 8 Data Analyzed: 05/11/94

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

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

RWM 6-9-94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	43	B U
67-64-1	Acetone	13	B U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (Total)	11	U

X110

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL12

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.10

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE614.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 8 Data Analyzed: 05/11/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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X110

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL12RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.10RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE621.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 8 Data Analyzed: 05/11/94

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

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

RNW 6-9-94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11 ~~10~~	~~JB~~ U
67-64-1	Acetone	11 ~~4~~	~~JB~~ U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (Total)	11	U

126A

X 110

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL12RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.10RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE621.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 8 Data Analyzed: 05/11/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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X106

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL08

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.06

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8428.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 30 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	470	U
111-44-4	bis(2-Chloroethyl)Ether	470	U
95-57-8	2-Chlorophenol	470	U
541-73-1	1,3-Dichlorobenzene	470	U
106-46-7	1,4-Dichlorobenzene	470	U
95-50-1	1,2-Dichlorobenzene	470	U
95-48-7	2-Methylphenol	470	U
108-60-1	2,2'-oxybis(1-Chloropropane)	470	U
106-44-5	4-Methylphenol	470	U
621-64-7	N-Nitroso-di-n-propylamine	470	U
67-72-1	Hexachloroethane	470	U
98-95-3	Nitrobenzene	470	U
78-59-1	Isophorone	470	U
88-75-5	2-Nitrophenol	470	U
105-67-9	2,4-Dimethylphenol	470	U
111-91-1	bis(2-Chloroethoxy)methane	470	U
120-83-2	2,4-Dichlorophenol	470	U
120-82-1	1,2,4-Trichlorobenzene	470	U
91-20-3	Naphthalene	470	U
106-47-8	4-Chloroaniline	470	U
87-68-3	Hexachlorobutadiene	470	U
59-50-7	4-Chloro-3-Methylphenol	470	U
91-57-6	2-Methylnaphthalene	470	U
77-47-4	Hexachlorocyclopentadiene	470	U
88-06-2	2,4,6-Trichlorophenol	470	U
95-95-4	2,4,5-Trichlorophenol	1100	U
91-58-7	2-Chloronaphthalene	470	U
88-74-4	2-Nitroaniline	1100	U
131-11-3	Dimethylphthalate	470	U
208-96-8	Acenaphthylene	470	U
606-20-2	2,6-Dinitrotoluene	470	U
99-09-2	3-Nitroaniline	1100	U
83-32-9	Acenaphthene	470	U

X106

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL08

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.06

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8428.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 30 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1100	U
100-02-7	4-Nitrophenol	1100	U
132-64-9	Dibenzofuran	470	U
121-14-2	2,4-Dinitrotoluene	470	U
84-66-2	Diethylphthalate	470	U
7005-72-3	4-Chlorophenyl-phenylether	470	U
86-73-7	Fluorene	470	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-methylphenol	1100	U
86-30-6	N-Nitrosodiphenylamine (1)	470	U
101-55-3	4-Bromophenyl-phenylether	470	U
118-74-1	Hexachlorobenzene	470	U
87-86-5	Pentachlorophenol	1100	U
85-01-8	Phenanthrene	470	U
120-12-7	Anthracene	470	U
86-74-8	Carbazole	470	U
84-74-2	Di-n-butylphthalate	470	U
206-44-0	Fluoranthene	470	U
129-00-0	Pyrene	470	U
85-68-7	Butylbenzylphthalate	470	U
91-94-1	3,3'-Dichlorobenzidine	470	U
56-55-3	Benzo(a)anthracene	470	U
218-01-9	Chrysene	470	U
117-81-7	bis(2-Ethylhexyl)phthalate	74	J
117-84-0	Di-n-octylphthalate	470	U
205-99-2	Benzo(b)fluoranthene	470	U
207-08-9	Benzo(k)fluoranthene	470	U
50-32-8	Benzo(a)pyrene	470	U
193-39-5	Indeno(1,2,3-cd)pyrene	470	U
53-70-3	Dibenz(a,h)anthracene	470	U
191-24-2	Benzo(g,h,i)perylene	470	U

X 106

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL08

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.06

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8428.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 30 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.1

RWW 6-9-94

Number TICs found: 24

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.247	140	BJ U
2. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.619	18000	BANJ U
3.	UNKNOWN	14.345	140	J
4.	UNKNOWN	14.964	130	J
5.	UNKNOWN AMIDE	15.076	180	BJ U
6.	UNKNOWN AMIDE	16.213	2100	BJ U
7.	UNKNOWN	17.372	110	J
8.	UNKNOWN	17.912	100	J
9.	UNKNOWN AMIDE	18.453	1100	BJ U
10.	UNKNOWN	18.644	160	J
11.	UNKNOWN ALKANE	18.903	180	J
12. 19047-85-9	Phosphonic acid, dioctadecyl	18.971	760	NJ
13.	UNKNOWN ALKANE	19.838	240	J
14.	UNKNOWN	20.154	120	J
15.	UNKNOWN	20.435	130	J
16.	UNKNOWN ALKANE	20.898	190	J
17.	UNKNOWN	21.078	400	J
18.	UNKNOWN	21.213	780	J
19.	UNKNOWN	21.258	300	J
20.	UNKNOWN	21.382	250	J
21. 83-47-6	.gamma.-Sitosterol	21.653	910	NJ
22.	UNKNOWN	21.755	360	J
23.	UNKNOWN	22.014	230	J
24.	UNKNOWN	22.160	120	J
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X107

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL09

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.07

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8429.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 13 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-Methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	920	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	920	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
99-09-2	3-Nitroaniline	920	U
83-32-9	Acenaphthene	380	U

X107

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL09

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.07

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8429.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 13 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	920	U
100-02-7	4-Nitrophenol	920	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	920	U
534-52-1	4,6-Dinitro-2-methylphenol	920	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	920	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-butylphthalate	380	U
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	380	U
56-55-3	Benzo(a)anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)phthalate	48	J
117-84-0	Di-n-octylphthalate	380	U
205-99-2	Benzo(b)fluoranthene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	380	U
193-39-5	Indeno(1,2,3-cd)pyrene	380	U
53-70-3	Dibenz(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U

X107

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL09

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.07

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8429.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 13 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.1

RWN 6-9-94

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 109-69-3	Butane, 1-chloro-	2.067	4900	BNJ U
2. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.630	19000	BANJ U
3.	UNKNOWN ORGANIC ACID	10.848	96	J
4.	UNKNOWN AMIDE	15.075	120	BJ U
5.	UNKNOWN AMIDE	16.211	1400	B U
6.	UNKNOWN	17.370	93	
7.	UNKNOWN AMIDE	18.449	1100	BJ U
8.	UNKNOWN	18.641	94	J
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X108

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL10

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.08

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8430.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 18 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	980	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	980	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
99-09-2	3-Nitroaniline	980	U
83-32-9	Acenaphthene	400	U

X108

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL10

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.08

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8430.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 18 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	980	U
100-02-7	4-Nitrophenol	980	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	980	U
534-52-1	4,6-Dinitro-2-methylphenol	980	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	980	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-butylphthalate	400	U
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)phthalate	54	J
117-84-0	Di-n-octylphthalate	400	U
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
53-70-3	Dibenz(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U

X108

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL10

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.08

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8430.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 18 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

RWW 6-9-94

Number TICs found: 21

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 109-69-3	Butane, 1-chloro-	2.067	5900	BNJ U
2.	UNKNOWN	2.258	92	B J U
3. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.619	17000	BANJ U
4.	UNKNOWN ORGANIC ACID	10.848	88	J
5.	UNKNOWN	14.974	120	J
6.	UNKNOWN	15.075	160	J
7.	UNKNOWN AMIDE	16.211	2400	B J U
8.	UNKNOWN	16.290	95	J
9.	UNKNOWN ALKANE	17.921	100	J
10.	UNKNOWN AMIDE	18.449	1100	B J U
11.	UNKNOWN ALKANE	18.900	210	J
12.	UNKNOWN	19.035	120	J
13.	UNKNOWN ALKANE	19.372	120	J
14.	UNKNOWN ALKANE	19.845	300	J
15.	UNKNOWN	19.991	160	J
16.	UNKNOWN ALKANE	20.892	200	J
17.	UNKNOWN	21.083	160	J
18.	UNKNOWN	21.207	710	J
19.	UNKNOWN	21.376	120	J
20.	UNKNOWN	21.736	230	J
21.	UNKNOWN	21.973	97	J
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X111

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL13

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.11

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE615.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 18 Data Analyzed: 05/11/94

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

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

RWN 6-9-94

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

X111

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL13

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.11

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE615.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 18 Data Analyzed: 05/11/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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XIII

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL13RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.11RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE622.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 18 Data Analyzed: 05/11/94

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

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

RNN 6-9-94

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12 ~~11~~	~~JB~~ U
67-64-1	Acetone	12 ~~8~~	~~JB~~ U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U

X111

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL13RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.11RA

Sample wt/vol: 5.0 (g/mL) G Lab File ID: UE622.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. 18 Data Analyzed: 05/11/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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G101

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL14

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.12

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: R16633.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. _____ Data Analyzed: 05/13/94

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	8	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U

G101

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL14

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.12

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: R16633.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. _____ Data Analyzed: 05/13/94

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

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

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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G102

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL15

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.13

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: R16634.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. _____ Data Analyzed: 05/13/94

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

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

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

G102

EPA SAMPLE NO.

EYL15

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.13

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: R16634.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. _____ Data Analyzed: 05/13/94

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	18.020	14	J
2.				
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL17

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.14

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: R16635.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. _____ Data Analyzed: 05/13/94

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

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

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

TRIP BLANK

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL17

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.14

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: R16635.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. _____ Data Analyzed: 05/13/94

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	18.025	15	J
2.					
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G103

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL18

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.15

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: R16636.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. _____ Data Analyzed: 05/13/94

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

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

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

G103

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL18

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.15

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: R16636.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. _____ Data Analyzed: 05/13/94

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/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	624-92-0	Disulfide, dimethyl	9.113	8	NJ
2.		UNKNOWN	18.031	15	J
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16517

FIELD BLANK

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL20

ab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.16

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: R16637.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. _____ Data Analyzed: 05/13/94

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

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	12	
67-64-1	Acetone	33	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U

FIELD BLANK

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL20

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.16

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: R16637.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: not dec. _____ Data Analyzed: 05/13/94

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	18.039	8	J
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2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
01	SBLK1	69	69	83	63	60	65	65	65	0
02	EYL14	67	64	45	62	60	75	65	67	0
03	EYL15	66	68	50	62	57	67	62	64	0
04	EYL18	70	72	52	66	62	77	67	71	0
05	EYL18MS	62	64	53	56	54	75	59	62	0
06	EYL18MSD	67	68	49	60	59	77	65	68	0
07	EYL20	69	70	90	60	57	63	62	65	0
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		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(35-114)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(33-141)	
S4 (PHL)	= Phenol-d5	(10-110)	
S5 (2FP)	= 2-Fluorophenol	(21-110)	
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)	
S7 (2CP)	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
01	SBLK2	58	59	61	53	52	56	55	57	0
02	EYL03	57	57	54	51	51	64	53	56	0
03	EYL04	54	56	51	52	52	60	52	55	0
04	EYL05	55	56	63	53	49	55	50	55	0
05	EYL06	30	32	32	29	27	29	29	31	0
06	EYL07	49	51	47	46	43	53	45	49	0
07	EYL07MS	60	64	61	55	57	65	57	61	0
08	EYL07MSD	61	62	61	53	56	67	55	60	0
09	EYL08	46	51	50	46	40	50	44	47	0
10	EYL09	60	63	55	58	53	57	56	60	0
11	EYL10	53	59	57	53	46	55	50	51	0
12	EYL11	62	66	56	55	56	57	57	62	0
13	EYL12	63	69	60	56	52	45	58	64	0
14	EYL13	56	67	59	52	47	42	49	56	0
15	EYL13RE	60	67	72	43	46	41	45	56	0
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		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(23-120)	
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)	
S3 (TPH)	= Terphenyl-d14	(18-137)	
S4 (PHL)	= Phenol-d5	(24-113)	
S5 (2FP)	= 2-Fluorophenol	(25-121)	
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7 (2CP)	= 2-Chlorophenol-d4	(20-130)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(20-130)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix Spike - EPA Sample No.: EYL18

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	75	0	47	63	12-110
2-Chlorophenol	75	0	47	63	27-123
1,4-Dichlorobenzene	50	0	29	58	36- 97
N-Nitroso-di-n-prop.(1)	50	0	25	50	41-116
1,2,4-Trichlorobenzene	50	0	32	64	39- 98
4-Chloro-3-Methylphenol	75	0	54	72	23- 97
Acenaphthene	50	0	36	72	46-118
4-Nitrophenol	75	0	56	75	10- 80
2,4-Dinitrotoluene	50	0	37	74	24- 96
Pentachlorophenol	75	0	57	76	9-103
Pyrene	50	0	37	74	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	75	49	65	3	42	12-110
2-Chlorophenol	75	50	67	6	40	27-123
1,4-Dichlorobenzene	50	32	64	10	28	36- 97
N-Nitroso-di-n-prop.(1)	50	27	54	8	38	41-116
1,2,4-Trichlorobenzene	50	34	68	6	28	39- 98
4-Chloro-3-Methylphenol	75	55	73	1	42	23- 97
Acenaphthene	50	37	74	3	31	46-118
4-Nitrophenol	75	59	79	5	50	10- 80
2,4-Dinitrotoluene	50	38	76	3	38	24- 96
Pentachlorophenol	75	60	80	5	50	9-103
Pyrene	50	37	74	0	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS:

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix Spike - EPA Sample No.: EYL07 Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	2900	0	1700	59	26- 90
2-Chlorophenol	2900	0	1700	59	25-102
1,4-Dichlorobenzene	1900	0	1200	63	28-104
N-Nitroso-di-n-prop.(1)	1900	0	1600	84	41-126
1,2,4-Trichlorobenzene	1900	0	1200	63	38-107
4-Chloro-3-Methylphenol	2900	0	2000	69	26-103
Acenaphthene	1900	0	1400	74	31-137
4-Nitrophenol	2900	0	2300	79	11-114
2,4-Dinitrotoluene	1900	0	1200	63	28- 89
Pentachlorophenol	2900	0	1900	66	17-109
Pyrene	1900	0	1100	58	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	2900	1600	55	7	35	26- 90
2-Chlorophenol	2900	1700	59	0	50	25-102
1,4-Dichlorobenzene	1900	1200	63	0	27	28-104
N-Nitroso-di-n-prop.(1)	1900	1500	79	6	38	41-126
1,2,4-Trichlorobenzene	1900	1200	63	0	23	38-107
4-Chloro-3-Methylphenol	2900	2000	69	0	33	26-103
Acenaphthene	1900	1400	74	0	19	31-137
4-Nitrophenol	2900	2300	79	0	50	11-114
2,4-Dinitrotoluene	1900	1200	63	0	47	28- 89
Pentachlorophenol	2900	1900	66	0	47	17-109
Pyrene	1900	1100	58	0	36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK1

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Lab File ID: P8401.D Lab Sample ID: BL050905

Instrument ID: P Date Extracted: 05/09/94

Matrix: (soil/water) WATER Date Analyzed: 05/12/94

Level:(low/med) LOW Time Analyzed: 1328

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EYL14	18600.12	P8402.D	05/12/94
02	EYL15	18600.13	P8403.D	05/12/94
03	EYL18	18600.15	P8404.D	05/12/94
04	EYL18MS	18600.15MS	P8405.D	05/12/94
05	EYL18MSD	18600.15MSD	P8406.D	05/12/94
06	EYL20	18600.16	P8407.D	05/12/94
07				
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COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK2

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Lab File ID: P8420.D Lab Sample ID: BL051001

Instrument ID: P Date Extracted: 05/10/94

Matrix: (soil/water) SOIL Date Analyzed: 05/13/94

Level:(low/med) LOW Time Analyzed: 1041

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EYL03	18600.01	P8421.D	05/13/94
02	EYL04	18600.02	P8422.D	05/13/94
03	EYL05	18600.03	P8423.D	05/13/94
04	EYL06	18600.04	P8424.D	05/13/94
05	EYL07	18600.05	P8425.D	05/13/94
06	EYL07MS	18600.05MS	P8426.D	05/13/94
07	EYL07MSD	18600.05MSD	P8427.D	05/13/94
08	EYL08	18600.06	P8428.D	05/13/94
09	EYL09	18600.07	P8429.D	05/13/94
10	EYL10	18600.08	P8430.D	05/13/94
11	EYL11	18600.09	P8431.D	05/13/94
12	EYL12	18600.10	P8432.D	05/13/94
13	EYL13	18600.11	P8433.D	05/13/94
14	EYL13RE	18600.11RA	P8444.D	05/16/94
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COMMENTS:

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: BL050905

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8401.D

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

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/09/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: BL050905

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8401.D

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

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/09/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK1

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: BL050905

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8401.D

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

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/09/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALCOHOL	4.157	2	J
2.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: BL051001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8420.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)Ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	330	U
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-Methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	800	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	800	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	330	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: BL051001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8420.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	800	U
100-02-7	4-Nitrophenol	800	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	800	U
534-52-1	4,6-Dinitro-2-methylphenol	800	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
101-55-3	4-Bromophenyl-phenylether	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	800	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	330	U
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenz(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

749A

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK2

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: BL051001

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8420.D

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

% Moisture: 0 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 109-69-3	Butane, 1-chloro-	2.089	6500	NJ
2.	UNKNOWN	2.269	76	J
3. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.618	15000	AJ
4.	UNKNOWN AMIDE	15.049	130	J
5.	UNKNOWN AMIDE	16.196	1800	J
6.	UNKNOWN AMIDE	18.432	880	J
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X101

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL03

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.01

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8421.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 11 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)Ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-di-n-propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-Methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	900	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	900	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
99-09-2	3-Nitroaniline	900	U
83-32-9	Acenaphthene	370	U

X101

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL03

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.01

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8421.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 11 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	900	U
100-02-7	4-Nitrophenol	900	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	900	U
534-52-1	4,6-Dinitro-2-methylphenol	900	U
86-30-6	N-Nitrosodiphenylamine (1)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	900	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
86-74-8	Carbazole	370	U
84-74-2	Di-n-butylphthalate	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	370	U
56-55-3	Benzo(a)anthracene	370	U
218-01-9	Chrysene	370	U
117-81-7	bis(2-Ethylhexyl)phthalate	21	J
117-84-0	Di-n-octylphthalate	370	U
205-99-2	Benzo(b)fluoranthene	370	U
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	370	U
193-39-5	Indeno(1,2,3-cd)pyrene	370	U
53-70-3	Dibenz(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

X101

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL03

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.01

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8421.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 11 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Number TICs found: 11

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

RWN 6-9-9

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	109-69-3	Butane, 1-chloro-	2.112	7700	B NJ	U
2.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.641	17000	B ANJ	U
3.		UNKNOWN AMIDE	15.052	93	BJ	U
4.		UNKNOWN AMIDE	16.188	1300	B J	U
5.		UNKNOWN AMIDE	18.437	1100	B J	U
6.		UNKNOWN	18.628	96		
7.		UNKNOWN ALKANE	18.887	79	J	
8.		UNKNOWN ALKANE	19.831	120	J	
9.		UNKNOWN	21.191	1100	J	
10.		UNKNOWN	21.349	120	J	
11.		UNKNOWN	22.417	75	J	
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X102

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL04

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.02

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8422.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 16 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	950	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	950	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	950	U
83-32-9	Acenaphthene	390	U

X102

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL04

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.02

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8422.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 16 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	950	U
100-02-7	4-Nitrophenol	950	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	950	U
534-52-1	4,6-Dinitro-2-methylphenol	950	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	950	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	390	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	34	J
117-84-0	Di-n-octylphthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenz(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

X102

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL04

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.02

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8422.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 16 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.3

Number TICs found: 24

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

RNW 6-7-94

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 109-69-3	Butane, 1-chloro-	2.100	7500	B NJ U
2.	UNKNOWN	2.269	94	B J U
3.	UNKNOWN ALKANE	3.315	420	J
4.	UNKNOWN	3.506	310	J
5. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.630	18000	B ANJ U
6.	UNKNOWN ALKANE	3.709	310	J
7.	UNKNOWN ALKANE	5.318	93	J
8.	UNKNOWN ALKANE	5.453	110	J
9.	UNKNOWN ALKANE	5.667	410	J
10.	UNKNOWN ALKANE	5.723	180	J
11.	UNKNOWN	5.903	170	J
12.	UNKNOWN ALKANE	6.128	250	J
13.	UNKNOWN ALKANE	6.184	120	J
14.	UNKNOWN AMIDE	15.056	140	B J U
15.	UNKNOWN AMIDE	16.192	1400	B J U
16.	UNKNOWN AMIDE	18.442	1100	B J U
17.	UNKNOWN	18.633	160	J
18.	UNKNOWN ALKANE	18.892	150	J
19.	UNKNOWN	18.948	200	J
20.	UNKNOWN ALKANE	19.826	190	J
21.	UNKNOWN	21.199	1000	J
22.	UNKNOWN	21.357	520	J
23.	UNKNOWN	21.740	130	J
24.	UNKNOWN	22.021	140	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL05

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.03

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8423.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 19 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-oxybis(1-Chloropropane)	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-di-n-propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	810	
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-Methylphenol	410	U
91-57-6	2-Methylnaphthalene	21	J
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	990	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	990	U
131-11-3	Dimethylphthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U
99-09-2	3-Nitroaniline	990	U
83-32-9	Acenaphthene	410	U

X103

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL05

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.03

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8423.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 19 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	990	U
100-02-7	4-Nitrophenol	990	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	990	U
534-52-1	4,6-Dinitro-2-methylphenol	990	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	990	U
85-01-8	Phenanthrene	250	J
120-12-7	Anthracene	32	J
86-74-8	Carbazole	410	U
84-74-2	Di-n-butylphthalate	47	J
206-44-0	Fluoranthene	320	J
129-00-0	Pyrene	250	J
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)anthracene	150	J
218-01-9	Chrysene	150	J
117-81-7	bis(2-Ethylhexyl)phthalate	57	J
117-84-0	Di-n-octylphthalate	410	U
205-99-2	Benzo(b)fluoranthene	150	J
207-08-9	Benzo(k)fluoranthene	120	J
50-32-8	Benzo(a)pyrene	120	J
193-39-5	Indeno(1,2,3-cd)pyrene	94	J
53-70-3	Dibenz(a,h)anthracene	410	U
191-24-2	Benzo(g,h,i)perylene	100	J

X103

EPA SAMPLE NO.

EYL05

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.03

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8423.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 19 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

Number TICs found: 24

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

RWH 6-9-94

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 109-69-3	Butane, 1-chloro-	2.123	8400	B NJ
2. 123-42-2	2-Pentanone, 4-hydroxy-4-met	3.653	20000	B ANJ
3.	UNKNOWN	14.969	130	J
4.	UNKNOWN AMIDE	16.210	1300	B J
5.	UNKNOWN AMIDE	18.459	800	B J
6.	UNKNOWN	18.538	150	
7.	UNKNOWN	18.651	140	J
8.	UNKNOWN	18.776	240	J
9.	UNKNOWN ALKANE	18.912	320	J
10.	UNKNOWN	19.003	220	J
11.	UNKNOWN	19.048	200	J
12.	UNKNOWN	19.071	190	J
13.	UNKNOWN	19.150	180	J
14. 192-97-2	Benzo[e]pyrene	19.263	490	NJ
15.	UNKNOWN	19.513	200	J
16.	UNKNOWN	19.593	130	J
17.	UNKNOWN	19.684	200	J
18.	UNKNOWN	19.808	230	J
19.	UNKNOWN ALKANE	19.865	250	J
20.	UNKNOWN	20.171	260	J
21.	UNKNOWN	20.228	150	J
22.	UNKNOWN	20.659	140	J
23.	UNKNOWN	21.237	410	J
24.	UNKNOWN	21.521	160	J
25.				
26.				
27.				
28.				
29.				
30.				

X104

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL06

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.04

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8424.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 15 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	940	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	940	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	940	U
83-32-9	Acenaphthene	390	U

X104

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL06

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.04

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8424.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 15 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	940	U
100-02-7	4-Nitrophenol	940	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	940	U
534-52-1	4,6-Dinitro-2-methylphenol	940	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	940	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	390	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	47	J
117-84-0	Di-n-octylphthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenz(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

X104

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL06

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.04

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8424.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 15 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 5.6

Rwd 6-9-94

Number TICs found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	109-69-3	Butane, 1-chloro-	2.089	7200	B NJ
2.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.596	8800	B ANJ
3.		UNKNOWN	15.063	89	J
4.		UNKNOWN AMIDE	16.200	790	B J
5.		UNKNOWN AMIDE	18.440	890	B J
6.		UNKNOWN	18.643	110	J
7.		UNKNOWN	21.200	180	J
8.					
9.					
10.					
11.					
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15.					
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28.					
29.					
30.					

X105

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL07

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.05

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8425.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 13 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 4.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-Methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	920	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	920	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
99-09-2	3-Nitroaniline	920	U
83-32-9	Acenaphthene	380	U

X105

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL07

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.05

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8425.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 13 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 4.8

RMW 6-9-94

Number TICs found: 9

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	109-69-3	Butane, 1-chloro-	2.100	6600	~~B~~NJ U
2.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.630	14000	~~B~~ANJ U
3.		UNKNOWN ORGANIC ACID	10.848	110	J
4.		UNKNOWN	14.435	77	J
5.		UNKNOWN	15.064	91	J
6.		UNKNOWN AMIDE	16.200	840	~~B~~ J U
7.		UNKNOWN AMIDE	18.450	1200	~~B~~ J U
8.		UNKNOWN	18.642	220	J
9.		UNKNOWN	21.197	200	J
10.					
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X105

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL07

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.05

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8425.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 13 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 4.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	920	U
100-02-7	4-Nitrophenol	920	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	920	U
534-52-1	4,6-Dinitro-2-methylphenol	920	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	920	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-butylphthalate	380	U
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	380	U
56-55-3	Benzo(a)anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)phthalate	62	J
117-84-0	Di-n-octylphthalate	380	U
205-99-2	Benzo(b)fluoranthene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	380	U
193-39-5	Indeno(1,2,3-cd)pyrene	380	U
53-70-3	Dibenz(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U

X109

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL11

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.09

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8431.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-Methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	930	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	930	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
99-09-2	3-Nitroaniline	930	U
83-32-9	Acenaphthene	380	U

X109

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL11

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.09

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8431.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	930	U
100-02-7	4-Nitrophenol	930	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	930	U
534-52-1	4,6-Dinitro-2-methylphenol	930	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	930	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-butylphthalate	380	U
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	380	U
56-55-3	Benzo(a)anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)phthalate	53	J
117-84-0	Di-n-octylphthalate	380	U
205-99-2	Benzo(b)fluoranthene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	380	U
193-39-5	Indeno(1,2,3-cd)pyrene	380	U
53-70-3	Dibenz(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U

X101

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL03

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600-01

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 11 decanted: (Y/N) N Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/10/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/27/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.9	U
319-85-7	beta-BHC	1.9	U
319-86-8	delta-BHC	1.9	U
58-89-9	gamma-BHC (Lindane)	1.9	U
76-44-8	Heptachlor	1.9	U
309-00-2	Aldrin	1.9	U
1024-57-3	Heptachlor epoxide	1.9	U
959-98-8	Endosulfan I	1.9	U
60-57-1	Dieldrin	3.7	U
72-55-9	4,4'-DDE	3.7	U
72-20-8	Endrin	3.7	U
33213-65-9	Endosulfan II	3.7	U
72-54-8	4,4'-DDD	3.7	U
1031-07-8	Endosulfan sulfate	3.7	U
50-29-3	4,4'-DDT	3.7	U
72-43-5	Methoxychlor	19	U
53494-70-5	Endrin ketone	3.7	U
7421-93-4	Endrin aldehyde	3.7	U
5103-71-9	alpha-Chlordane	1.9	U
5103-74-2	gamma-Chlordane	1.9	U
8001-35-2	Toxaphene	190	U
12674-11-2	Aroclor-1016	37	U
11104-28-2	Aroclor-1221	75	U
11141-16-5	Aroclor-1232	37	U
53469-21-9	Aroclor-1242	37	U
12672-29-6	Aroclor-1248	37	U
11097-69-1	Aroclor-1254	37	U
11096-82-5	Aroclor-1260	37	U

X102

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL04

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600-02

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 16 decanted: (Y/N) N Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/10/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/27/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 5.3 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.0	U
319-85-7	beta-BHC	2.0	U
319-86-8	delta-BHC	2.0	U
58-89-9	gamma-BHC (Lindane)	2.0	U
76-44-8	Heptachlor	2.0	U
309-00-2	Aldrin	2.0	U
1024-57-3	Heptachlor epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
60-57-1	Dieldrin	3.9	U
72-55-9	4,4'-DDE	3.9	U
72-20-8	Endrin	3.9	U
33213-65-9	Endosulfan II	3.9	U
72-54-8	4,4'-DDD	3.9	U
1031-07-8	Endosulfan sulfate	3.9	U
50-29-3	4,4'-DDT	3.9	U
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin ketone	3.9	U
7421-93-4	Endrin aldehyde	3.9	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor-1016	39	U
11104-28-2	Aroclor-1221	80	U
11141-16-5	Aroclor-1232	39	U
53469-21-9	Aroclor-1242	39	U
12672-29-6	Aroclor-1248	39	U
11097-69-1	Aroclor-1254	39	U
11096-82-5	Aroclor-1260	39	U

X103

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL05

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600-03

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 19 decanted: (Y/N) N Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/10/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/27/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.9 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	5.1	P
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.1	U
72-55-9	4,4'-DDE	6.1	
72-20-8	Endrin	4.1	U
33213-65-9	Endosulfan II	4.1	U
72-54-8	4,4'-DDD	9.1	
1031-07-8	Endosulfan sulfate	4.1	U
50-29-3	4,4'-DDT	6.8	P
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4.1	U
7421-93-4	Endrin aldehyde	8.6	P
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor-1016	41	U
11104-28-2	Aroclor-1221	83	U
11141-16-5	Aroclor-1232	41	U
53469-21-9	Aroclor-1242	41	U
12672-29-6	Aroclor-1248	120	
11097-69-1	Aroclor-1254	240	P
11096-82-5	Aroclor-1260	41	U

X104

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL06

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600-04

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 15 decanted: (Y/N) N Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/10/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/27/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 5.6 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.0	U
319-85-7	beta-BHC	2.0	U
319-86-8	delta-BHC	2.0	U
58-89-9	gamma-BHC (Lindane)	2.0	U
76-44-8	Heptachlor	2.0	U
309-00-2	Aldrin	2.0	U
1024-57-3	Heptachlor epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
60-57-1	Dieldrin	3.9	U
72-55-9	4,4'-DDE	3.9	U
72-20-8	Endrin	3.9	U
33213-65-9	Endosulfan II	3.9	U
72-54-8	4,4'-DDD	3.9	U
1031-07-8	Endosulfan sulfate	3.9	U
50-29-3	4,4'-DDT	3.9	U
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin ketone	3.9	U
7421-93-4	Endrin aldehyde	3.9	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor-1016	39	U
11104-28-2	Aroclor-1221	79	U
11141-16-5	Aroclor-1232	39	U
53469-21-9	Aroclor-1242	39	U
12672-29-6	Aroclor-1248	39	U
11097-69-1	Aroclor-1254	39	U
11096-82-5	Aroclor-1260	39	U

X105

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL07

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600-05

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 13 decanted: (Y/N) N Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/10/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/28/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 4.8 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.0	U
319-85-7	beta-BHC	2.0	U
319-86-8	delta-BHC	2.0	U
58-89-9	gamma-BHC (Lindane)	2.0	U
76-44-8	Heptachlor	2.6	
309-00-2	Aldrin	2.0	U
1024-57-3	Heptachlor epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
60-57-1	Dieldrin	3.8	U
72-55-9	4,4'-DDE	3.8	U
72-20-8	Endrin	3.8	U
33213-65-9	Endosulfan II	3.8	U
72-54-8	4,4'-DDD	3.8	U
1031-07-8	Endosulfan sulfate	3.8	U
50-29-3	4,4'-DDT	3.8	U
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin ketone	3.8	U
7421-93-4	Endrin aldehyde	3.8	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor-1016	38	U
11104-28-2	Aroclor-1221	77	U
11141-16-5	Aroclor-1232	38	U
53469-21-9	Aroclor-1242	38	U
12672-29-6	Aroclor-1248	38	U
11097-69-1	Aroclor-1254	38	U
11096-82-5	Aroclor-1260	38	U

X106

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL08

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600-06

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 30 decanted: (Y/N) N Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/10/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/28/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.1 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.4	U
319-85-7	beta-BHC	2.4	U
319-86-8	delta-BHC	2.4	U
58-89-9	gamma-BHC (Lindane)	2.4	U
76-44-8	Heptachlor	2.4	U
309-00-2	Aldrin	2.4	U
1024-57-3	Heptachlor epoxide	2.4	U
959-98-8	Endosulfan I	2.4	U
60-57-1	Dieldrin	4.7	U
72-55-9	4,4'-DDE	4.7	U
72-20-8	Endrin	6.2	P
33213-65-9	Endosulfan II	4.7	U
72-54-8	4,4'-DDD	4.7	U
1031-07-8	Endosulfan sulfate	4.7	U
50-29-3	4,4'-DDT	4.7	U
72-43-5	Methoxychlor	24	U
53494-70-5	Endrin ketone	4.7	U
7421-93-4	Endrin aldehyde	6.4	
5103-71-9	alpha-Chlordane	2.4	U
5103-74-2	gamma-Chlordane	2.4	U
8001-35-2	Toxaphene	240	U
12674-11-2	Aroclor-1016	47	U
11104-28-2	Aroclor-1221	96	U
11141-16-5	Aroclor-1232	47	U
53469-21-9	Aroclor-1242	47	U
12672-29-6	Aroclor-1248	47	U
11097-69-1	Aroclor-1254	47	U
11096-82-5	Aroclor-1260	47	U

X107

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL09

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600-07

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 13 decanted: (Y/N) N Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/10/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/28/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.1 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.0	U
319-85-7	beta-BHC	2.0	U
319-86-8	delta-BHC	2.0	U
58-89-9	gamma-BHC (Lindane)	2.0	U
76-44-8	Heptachlor	2.0	U
309-00-2	Aldrin	2.0	U
1024-57-3	Heptachlor epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
60-57-1	Dieldrin	3.8	U
72-55-9	4,4'-DDE	3.8	U
72-20-8	Endrin	3.8	U
33213-65-9	Endosulfan II	3.8	U
72-54-8	4,4'-DDD	3.8	U
1031-07-8	Endosulfan sulfate	3.8	U
50-29-3	4,4'-DDT	3.8	U
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin ketone	3.8	U
7421-93-4	Endrin aldehyde	3.8	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor-1016	38	U
11104-28-2	Aroclor-1221	77	U
11141-16-5	Aroclor-1232	38	U
53469-21-9	Aroclor-1242	38	U
12672-29-6	Aroclor-1248	38	U
11097-69-1	Aroclor-1254	38	U
11096-82-5	Aroclor-1260	38	U

X108

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL10

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600-08

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 18 decanted: (Y/N) N Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/10/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/28/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.9 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.0	U
72-55-9	4,4'-DDE	4.0	U
72-20-8	Endrin	4.0	U
33213-65-9	Endosulfan II	4.0	U
72-54-8	4,4'-DDD	4.0	U
1031-07-8	Endosulfan sulfate	4.0	U
50-29-3	4,4'-DDT	4.0	U
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4.0	U
7421-93-4	Endrin aldehyde	4.0	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	82	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	40	U
11096-82-5	Aroclor-1260	40	U

X109

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL11

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600-09

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 14 decanted: (Y/N) N Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/10/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/28/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.6 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.0	U
319-85-7	beta-BHC	2.0	U
319-86-8	delta-BHC	2.0	U
58-89-9	gamma-BHC (Lindane)	2.0	U
76-44-8	Heptachlor	2.0	U
309-00-2	Aldrin	2.0	U
1024-57-3	Heptachlor epoxide	2.0	U
959-98-8	Endosulfan I	2.0	U
60-57-1	Dieldrin	3.8	U
72-55-9	4,4'-DDE	3.8	U
72-20-8	Endrin	3.8	U
33213-65-9	Endosulfan II	3.8	U
72-54-8	4,4'-DDD	3.8	U
1031-07-8	Endosulfan sulfate	3.8	U
50-29-3	4,4'-DDT	3.8	U
72-43-5	Methoxychlor	20	U
53494-70-5	Endrin ketone	3.8	U
7421-93-4	Endrin aldehyde	3.8	U
5103-71-9	alpha-Chlordane	2.0	U
5103-74-2	gamma-Chlordane	2.0	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor-1016	38	U
11104-28-2	Aroclor-1221	78	U
11141-16-5	Aroclor-1232	38	U
53469-21-9	Aroclor-1242	38	U
12672-29-6	Aroclor-1248	38	U
11097-69-1	Aroclor-1254	38	U
11096-82-5	Aroclor-1260	38	U

X110

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL12

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600-10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 8 decanted: (Y/N) N Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/10/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/28/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.2 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.8	U
319-85-7	beta-BHC	1.8	U
319-86-8	delta-BHC	1.8	U
58-89-9	gamma-BHC (Lindane)	1.8	U
76-44-8	Heptachlor	1.8	U
309-00-2	Aldrin	1.8	U
1024-57-3	Heptachlor epoxide	1.8	U
959-98-8	Endosulfan I	1.8	U
60-57-1	Dieldrin	3.6	U
72-55-9	4,4'-DDE	3.6	U
72-20-8	Endrin	3.6	U
33213-65-9	Endosulfan II	3.6	U
72-54-8	4,4'-DDD	3.6	U
1031-07-8	Endosulfan sulfate	3.6	U
50-29-3	4,4'-DDT	3.6	U
72-43-5	Methoxychlor	18	U
53494-70-5	Endrin ketone	3.6	U
7421-93-4	Endrin aldehyde	3.6	U
5103-71-9	alpha-Chlordane	1.8	U
5103-74-2	gamma-Chlordane	1.8	U
8001-35-2	Toxaphene	180	U
12674-11-2	Aroclor-1016	36	U
11104-28-2	Aroclor-1221	73	U
11141-16-5	Aroclor-1232	36	U
53469-21-9	Aroclor-1242	36	U
12672-29-6	Aroclor-1248	36	U
11097-69-1	Aroclor-1254	36	U
11096-82-5	Aroclor-1260	36	U

XIII

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL13

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600-11

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: 18 decanted: (Y/N) N Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/10/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/28/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 6.9 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC (Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	4.0	U
72-55-9	4,4'-DDE	4.0	U
72-20-8	Endrin	4.0	U
33213-65-9	Endosulfan II	4.0	U
72-54-8	4,4'-DDD	4.0	U
1031-07-8	Endosulfan sulfate	4.0	U
50-29-3	4,4'-DDT	4.0	U
72-43-5	Methoxychlor	21	U
53494-70-5	Endrin ketone	4.0	U
7421-93-4	Endrin aldehyde	4.0	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210	U
12674-11-2	Aroclor-1016	40	U
11104-28-2	Aroclor-1221	82	U
11141-16-5	Aroclor-1232	40	U
53469-21-9	Aroclor-1242	40	U
12672-29-6	Aroclor-1248	40	U
11097-69-1	Aroclor-1254	40	U
11096-82-5	Aroclor-1260	40	U

G101

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL14

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600-12

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/09/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/27/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.2 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. _____ CERCLIS No. IL

Case No. 22043 Site Name Location: Southern Cal Chem C

Contractor or EPA Lab: SWOK Data User: IEPA

No. of Samples: 16 Date Samples or Data Received: 6-7-94

Have Chain-of-Custody records been received? YES ✓ NO ____
Have traffic reports or packing lists been received? YES ✓ NO ____
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ____
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ____
No. of samples claimed: 16 No. of samples received: 16

Received by: A D Harris Date: 6-7-94

Received by LSSS: A C Harvey Date: 6-7-94

Review started: 6-8-94 Reviewer Signature: RNNeng

Total time spent on review: 24 Date review completed: 6-13-94

Copied by: Marvin Date: 06-22-94

Mailed to user by: A D Harris Date: 6-22-94

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, SSCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____
Inorganic Data Complete[ ] Suitable for Intended Purpose[ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose[ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose[ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose[ ] below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: _____

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL20

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600-16

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/09/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/27/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

X 109

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL11

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.09

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8431.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 14 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.6

RMW 6-9-94

Number TICs found: 10

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	109-69-3	Butane, 1-chloro-	2.123	8400	B NJ
2.		UNKNOWN	2.292	93	B J
3.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.641	20000	B ANJ
4.		UNKNOWN AMIDE	15.087	130	B J
5.		UNKNOWN AMIDE	16.212	1100	B J
6.		UNKNOWN AMIDE	17.370	100	J
7.		UNKNOWN AMIDE	18.461	1500	B J
8.		UNKNOWN	18.641	96	J
9.		UNKNOWN	19.035	100	J
10.		UNKNOWN	21.972	360	J
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12.					
13.					
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X110

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL12

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8432.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 8 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360	U
111-44-4	bis(2-Chloroethyl)Ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-di-n-propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-Methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	870	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	870	U
131-11-3	Dimethylphthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U
99-09-2	3-Nitroaniline	870	U
83-32-9	Acenaphthene	360	U

X110

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL12

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8432.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 8 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

RWW 6-9-94

Number TICs found: 8

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	109-69-3	Butane, 1-chloro-	2.134	8400	B NJ
2.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.652	18000	B ANJ
3.		UNKNOWN ORGANIC ACID	10.860	140	J
4.		UNKNOWN AMIDE	15.087	120	B J
5.		UNKNOWN AMIDE	16.211	1400	B J
6.		UNKNOWN	17.369	100	J
7.		UNKNOWN AMIDE	18.460	1600	B J
8.		UNKNOWN	18.640	120	J
9.					
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X110

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL12

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.10

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8432.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 8 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	870	U
100-02-7	4-Nitrophenol	870	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	870	U
534-52-1	4,6-Dinitro-2-methylphenol	870	U
86-30-6	N-Nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	870	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
86-74-8	Carbazole	360	U
84-74-2	Di-n-butylphthalate	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	360	U
56-55-3	Benzo(a)anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)phthalate	250	J
117-84-0	Di-n-octylphthalate	360	U
205-99-2	Benzo(b)fluoranthene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
50-32-8	Benzo(a)pyrene	360	U
193-39-5	Indeno(1,2,3-cd)pyrene	360	U
53-70-3	Dibenz(a,h)anthracene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U

XIII

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL13

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.11

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8433.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 18 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	980	U
100-02-7	4-Nitrophenol	980	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	980	U
534-52-1	4,6-Dinitro-2-methylphenol	980	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	980	U
85-01-8	Phenanthrene	31	J
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-butylphthalate	400	U
206-44-0	Fluoranthene	54	J
129-00-0	Pyrene	45	J
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)phthalate	40	J
117-84-0	Di-n-octylphthalate	400	U
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
53-70-3	Dibenz(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U

X111

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL13

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.11

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8433.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 18 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	980	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	980	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
99-09-2	3-Nitroaniline	980	U
83-32-9	Acenaphthene	400	U

XIII

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL13RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.11RA

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8444.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 18 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/16/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	980	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	980	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
99-09-2	3-Nitroaniline	980	U
83-32-9	Acenaphthene	400	U

XIII

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL13

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.11

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8433.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 18 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/13/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

RWW 6-9-94

Number TICs found: 16

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.	109-69-3	Butane, 1-chloro-	2.089	8500	B NJ	U
2.		UNKNOWN	2.269	120	B J	U
3.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.619	17000	B ANJ	U
4.		UNKNOWN	14.974	85	J	
5.		UNKNOWN	15.086	170		
6.		UNKNOWN AMIDE	16.210	2000	B	U
7.		UNKNOWN	17.368	150	J	
8.		UNKNOWN	17.919	95	J	
9.		UNKNOWN AMIDE	18.447	1400	B J	U
10.		UNKNOWN	18.650	120	J	
11.		UNKNOWN ALKANE	18.909	210	J	
12.		UNKNOWN	19.089	120	J	
13.		UNKNOWN ALKANE	19.842	210	J	
14.		UNKNOWN	20.889	130	J	
15.		UNKNOWN	21.215	250	J	
16.		UNKNOWN	21.766	140	J	
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XIII

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL13RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.11RA

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8444.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 18 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(uL) Date Analyzed: 05/16/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

RWW 6-9-94

Number TICs found: 24

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	109-69-3	Butane, 1-chloro-	2.123	4300	BNJ
2.		UNKNOWN	2.292	110	BJ
3.		UNKNOWN	2.359	100	J
4.	141-79-7	3-Penten-2-one, 4-methyl-	3.113	94	ANJ
5.	123-42-2	2-Pentanone, 4-hydroxy-4-met	3.653	20000	B ANJ
6.		UNKNOWN	3.721	100	J
7.		UNKNOWN	14.361	170	J
8.		UNKNOWN	14.700	220	J
9.		UNKNOWN	14.993	2100	J
10.		UNKNOWN AMIDE	15.027	1200	BJ
11.		UNKNOWN	15.118	520	J
12.		UNKNOWN ALKANE	15.658	420	J
13.		UNKNOWN AMIDE	16.154	2000	BJ
14.		UNKNOWN ORGANIC ACID	16.199	1700	J
15.		UNKNOWN ALKANE	16.244	550	J
16.		UNKNOWN	16.672	540	J
17.		UNKNOWN ALKANE	16.796	470	J
18.		UNKNOWN ALKANE	17.336	460	J
19.		UNKNOWN ALKANE	17.865	430	J
20.		UNKNOWN AMIDE	18.395	2100	BJ
21.		UNKNOWN ALKANE	18.845	500	J
22.		UNKNOWN ALKANE	19.319	370	J
23.		UNKNOWN ALKANE	19.781	520	J
24.		UNKNOWN	21.618	350	J
25.					
26.					
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XIII

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL13RE

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) SOIL Lab Sample ID: 18600.11RA

Sample wt/vol: 30.0 (g/mL) G Lab File ID: P8444.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: 18 decanted: (Y/N) N Date Extracted: 05/10/94

Concentrated Extract Volume: 500(UL) Date Analyzed: 05/16/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	980	U
100-02-7	4-Nitrophenol	980	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	980	U
534-52-1	4,6-Dinitro-2-methylphenol	980	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	980	U
85-01-8	Phenanthrene	44	J
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-butylphthalate	400	U
206-44-0	Fluoranthene	51	J
129-00-0	Pyrene	54	J
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)anthracene	26	J
218-01-9	Chrysene	38	J
117-81-7	bis(2-Ethylhexyl)phthalate	68	J
117-84-0	Di-n-octylphthalate	400	U
205-99-2	Benzo(b)fluoranthene	33	J
207-08-9	Benzo(k)fluoranthene	42	J
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
53-70-3	Dibenz(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U

G101

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL14

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.12

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8402.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/09/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	3	J
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

639A

G101

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL14

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.12

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8402.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/09/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

G102

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL15

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.13

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8403.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/09/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

G101

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL14

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.12

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8402.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/09/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.2

RNW 6-9-94

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALCOHOL	4.157	3	JB
2.	UNKNOWN ORGANIC ACID	7.924	33	J
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G102

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL15

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.13

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8403.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/09/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.4

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ORGANIC ACID	7.934	54	J
2.					
3.					
4.					
5.					
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G102

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL15

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.13

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8403.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/09/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

G-103

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL18

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.15

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8404.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/09/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

G/03

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL18

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.15

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8404.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/09/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

G102

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL15

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600-13

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/09/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/27/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

G103

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL18

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600-15

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: 05/06/94

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/09/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/27/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 8.3 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

G103

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL18

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.15

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8404.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/09/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.3

RAN 6-9-94

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.157	2	J BC
2.	UNKNOWN ORGANIC ACID	7.935	50	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL20

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.16

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8407.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/09/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EYL20

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.16

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8407.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/09/94

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EYL20

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: 18600.16

Sample wt/vol: 1000 (g/mL) ML Lab File ID: P8407.D

Level: (low/med) LOW Date Received: 05/06/94

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/09/94

Concentrated Extract Volume: 1000(uL) Date Analyzed: 05/12/94

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.4

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.561	4	J
2.	UNKNOWN	11.340	7	J
3.				
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X101

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

GC Column(1): DB-17 ID: 0.53(mm) GC Column(2): DB-1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLKWF	80	118	94	91			0
02	EYL14	78	145	80	78			0
03	EYL15	92	130	70	68			0
04	EYL18	86	142	48*	47*			2
05	EYL20	102	125	83	81			0
06	EYL18MS	102	152*	56*	56*			3
07	EYL18MSD	83	128	58*	58*			2

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

781

X101

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D2-0013

.b Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

GC Column(1): DB-17 ID: 0.53(mm) GC Column(2): DB-1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLKSJ	74	102	110	120			0
02	EYL03	58*	97	84	90			1
03	EYL04	70	106	100	110			0
04	EYL05	60	86	92	97			0
05	EYL06	64	101	93	108			0
06	EYL07	70	109	98	112			0
07	EYL08	88	122	124	137			0
08	EYL09	76	139	100	111			0
09	EYL10	58*	97	78	86			1
10	EYL11	64	86	99	101			0
11	EYL12	64	84	97	101			0
12	EYL13	71	108	102	109			0
13	EYL07MS	76	116	107	123			0
14	EYL07MSD	80	115	112	127			0

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

782

X101

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D2-0013

b Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix Spike - EPA Sample No.: EYL18

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	0.500	0	0.503	101	56-123
Heptachlor	0.500	0	0.534	107	40-131
Aldrin	0.500	0	0.419	84	40-120
Dieldrin	1.000	0	0.976	98	52-126
Endrin	1.000	0	1.04	104	56-121
4,4'-DDT	1.000	0	0.883	88	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	0.500	0.398	80	23 *	15	56-123
Heptachlor	0.500	0.432	86	22 *	20	40-131
Aldrin	0.500	0.314	63	29 *	22	40-120
Dieldrin	1.000	0.756	76	25 *	18	52-126
Endrin	1.000	0.779	78	29 *	21	56-121
4,4'-DDT	1.000	0.782	78	12	27	38-127

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

* Values outside of QC limits

RPD: 5 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS:

X101

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SWL-TULSA Contract: 68-D2-0013

b Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix Spike - EPA Sample No.: EYL07

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	19.100	0	14.3	75	46-127
Heptachlor	19.100	2.57	15.5	68	35-130
Aldrin	19.100	0	15.2	80	34-132
Dieldrin	38.300	0	30.6	80	31-134
Endrin	38.300	0	32.1	84	42-139
4,4'-DDT	38.300	0	35.1	92	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	19.100	15.0	79	5	50	46-127
Heptachlor	19.100	16.2	71	4	31	35-130
Aldrin	19.100	15.9	83	4	43	34-132
Dieldrin	38.300	32.6	85	6	38	31-134
Endrin	38.300	34.1	89	6	45	42-139
4,4'-DDT	38.300	36.0	94	2	50	23-134

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

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKWF

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Lab Sample ID: PBLKWF Lab File ID: _____

Matrix:(soil/water) WATER Extraction:(SepF/Cont/Sonc) CONT

Sulfur Cleanup: (Y/N) N Date Extracted: 05/09/94

Date Analyzed (1): 05/27/94 Date Analyzed (2): 05/27/94

Time Analyzed (1): 1531 Time Analyzed (2): 1531

Instrument ID (1): HP-02A Instrument ID (2): HP-02B

GC Column (1): DB-17 ID: 0.53 (mm) GC Column (2): DB-1701 ID: 0.53 (mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EYL14	18600-12	05/27/94	05/27/94
02	EYL15	18600-13	05/27/94	05/27/94
03	EYL18	18600-15	05/27/94	05/27/94
04	EYL20	18600-16	05/27/94	05/27/94
05	EYL18MS	18600-15MS	05/27/94	05/27/94
06	EYL18MSD	18600-15MSD	05/27/94	05/27/94

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKSJ

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Lab Sample ID: PBLKSJ Lab File ID: _____

Matrix:(soil/water) SOIL Extraction:(SepF/Cont/Sonc) SONC

Sulfur Cleanup: (Y/N) N Date Extracted: 05/10/94

Date Analyzed (1): 05/27/94 Date Analyzed (2): 05/27/94

Time Analyzed (1): 2112 Time Analyzed (2): 2112

Instrument ID (1): HP-02A Instrument ID (2): HP-02B

GC Column (1): DB-17 ID: 0.53 (mm) GC Column (2): DB-1701 ID: 0.53 (mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EYL03	18600-01	05/27/94	05/27/94
02	EYL04	18600-02	05/27/94	05/27/94
03	EYL05	18600-03	05/27/94	05/27/94
04	EYL06	18600-04	05/27/94	05/27/94
05	EYL07	18600-05	05/28/94	05/28/94
06	EYL08	18600-06	05/28/94	05/28/94
07	EYL09	18600-07	05/28/94	05/28/94
08	EYL10	18600-08	05/28/94	05/28/94
09	EYL11	18600-09	05/28/94	05/28/94
10	EYL12	18600-10	05/28/94	05/28/94
11	EYL13	18600-11	05/28/94	05/28/94
12	EYL07MS	18600-05MS	05/28/94	05/28/94
13	EYL07MSD	18600-05MSD	05/28/94	05/28/94

COMMENTS:

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKSJ

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

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

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 05/10/94

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 05/27/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
58-89-9	gamma-BHC (Lindane)	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	3.3	U
72-55-9	4,4'-DDE	3.3	U
72-20-8	Endrin	3.3	U
33213-65-9	Endosulfan II	3.3	U
72-54-8	4,4'-DDD	3.3	U
1031-07-8	Endosulfan sulfate	3.3	U
50-29-3	4,4'-DDT	3.3	U
72-43-5	Methoxychlor	17	U
53494-70-5	Endrin ketone	3.3	U
7421-93-4	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	33	U
11104-28-2	Aroclor-1221	67	U
11141-16-5	Aroclor-1232	33	U
53469-21-9	Aroclor-1242	33	U
12672-29-6	Aroclor-1248	33	U
11097-69-1	Aroclor-1254	33	U
11096-82-5	Aroclor-1260	33	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKWF

Lab Name: SWL-TULSA Contract: 68-D2-0013

Lab Code: SWOK Case No.: 22043 SAS No.: _____ SDG No.: EYL03

Matrix: (soil/water) WATER Lab Sample ID: PBLKWF

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

% Moisture: _____ decanted: (Y/N) ___ Date Received: _____

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: 05/09/94

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 05/27/94

Injection Volume: 2.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U