ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

EPA Region 5 Records Ctr.
282857

CRL Receipt Date 11/17 FIT Receipt Date 12/13 Review Completed 1/3/89

TO: Leech
FROM: Mary Gzyra
SUBJECT: North Manchester Foundry
PAN: IN0681SB (1 hour charged for review) Case # 12901

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# 8	Low Soil	#	Low Soil
4	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

✓ Incomplete, awaiting ~~[illegible]~~ Soil VOA, inorg; water inorg.

FIT Data Review Findings:

high conc of TICs

Check Data Sheets for Transcription Errors

_____ Compounds were detected in sample(s); see enclosed sheet.

Book No. 9 Page No. _____ Date Sampled 10/12

0759:2

recycled paper

1/3/90

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number 1 EGN15	2 16	3 17	4 EGL18	5 19	6 20	7 21	8 22	9	10	11	12
				Semivolatile Organics												
S, thick l	A,B,E	OCC	P	phenol					460							
Liquid	A,D,B	OCC	HH	bis(2-chloroethyl)ether												
Liquid	A,D,B	OCC	P	2-chlorophenol												
Liquid	A,D,H	SOL	HA	1,3-dichlorobenzene												
Solid	A,D,H	OCC	HA	1,4-dichlorobenzene												
Liquid	A,D,H	SOL	A	benzyl alcohol												
Liquid	A,D,H	OCC	HA	1,2-dichlorobenzene												
Liquid	A,B	OCC	P	2-methylphenol												
	A,D	OCC	HH	bis(2-chloroisopropyl)ether												
Liquid	A,B	OCC	P	4-methylphenol												
	A	OCC	H-Amine	n-nitroso-di-n-dipropylamine												
Solid	A,D	OCC	HH	hexachloroethane												
Liquid	A,D	OCC	NA	nitrobenzene												
Liquid	A,D	OCC	H	isophorone												
Solid	A,D	OCC	P	2-nitrophenol												
Solid	A,B	OCC	P	2,4-dimethylphenol												
Solid	A	OCC	A	benzoic acid												
	A,D	OCC	HH	bis(2-chloroethoxy)methane												
Liquid	A,D	OCC	P	2,4-dichlorophenol												
Liquid	A,D	OCC	HA	1,2,4-trichlorobenzene												
Solid	A	OCC	PAH	naphthalene		80 J		230 J	150 J							
Solid	A,D	OCC	HH	4-chloroaniline												
Liquid	A,D,B	OCC	HH	hexachlorobutadiene												
Solid	A,D	OCC	P	4-chloro-3-methylphenol												
Liquid	A,D	OCC	PAH	2-methylnaphthalene				220 J	140 J							
Liquid	A,D,B	OCC	HH	hexachlorocyclopentadiene												
Solid	A,D	OCC	P	2,4,6-trichlorophenol												
Solid	A,D	OCC	P	2,4,5-trichlorophenol												
Liquid	A,D	OCC	PAH	2-chloronaphthalene												
Solid	A,D	OCC	NH	2-nitroaniline												
Liquid	A,D	OCC	PH,CLA	dimethylphthalate												
Solid	A,D	OCC	PAH	acenaphthylene												
Solid	A,D	OCC	NA	2,6-dinitrotoluene												
Solid	A,D	OCC	NH	3-nitroaniline												
Solid	A,D	OCC	PAH	acenaphthene												
Solid	A,D,G	OCC	P	2,4-dinitrophenol												
Solid	A,D	OCC	P	4-nitrophenol												
Solid	A,D	OCC	A	dibenzofuran		10 J		36 J	22 J							
Solid	A,D	OCC	NA	2,4-dinitrotoluene												
Liquid	A,D	OCC	PH	diethylphthalate												
	A,D	OCC	HH	4-chlorophenyl-phenylether												
Solid	A,D	OCC	PAH	fluorene												
Solid	A,D,E	OCC	NH	4-nitroaniline												
Solid	A,D	OCC	P	4,6-dinitro-2-methylphenol												
Solid	A,D	OCC	NH	n-nitrosodiphenylamine												
Liquid	A,D	OCC	HH	4-bromophenyl-phenylether												
Solid	A,D	OCC	HA	hexachlorobenzene												
Solid	A,D	OCC	P	pentachlorophenol												
Solid	A,D	OCC	PAH	phenanthrene		48 J		170 J								

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number 1	2	3	4	5	6	7	8	9	10	11	12
				Semivolatile Organics, Cont.												
Solid	A,D	OCC	PAH	anthracene												
Liquid	A,D	OCC	PH,CLA	di-n-butylphthalate												
Solid	A,D	OCC	PAH	fluoranthene				80 J		28 J		20 J				
Solid	A,D	OCC	PAH	pyrene						24 J						
Liquid	A,D	OCC	PH,CLA	butylbenzylphthalate												
	A,D	OCC	HA	3,3'-dichlorobenzidine												
Solid	A,D	OCC	PAH	benzo[a]anthracene				33 J								
Solid	A,D	OCC	PAH	chrysene				41 J								
Liquid	A,D	OCC	PH,CLA	bis(2-ethylhexyl)phthalate		39 J		36 J	450	33 J		31 J				
Liquid	A,D	OCC	PH,CLA	di-n-octylphthalate												
Solid	A,D	OCC	PAH	benzo[b]fluoranthene				47 J								
Solid	A,D	OCC	PAH	benzo[k]fluoranthene												
Solid	A,D,K,L	OCC	PAH	benzo[a]pyrene												
Solid	A,D	OCC	PAH	indeno[1,2,3-cd]pyrene												
Solid	A,D	OCC	PAH	dibenzo[a,h]anthracene												
Solid	A,D	OCC	PAH	benzo[q,h,i]perylene												
				Pesticides/PCBs												
Solid	A,D	PSD	PEST	alpha BHC												
Solid	A,D	PSD	PEST	beta BHC												
Solid	A,D	PSD	PEST	delta BHC												
Solid	A,D	PSD	PEST	gamma BHC (Lindane)												
Solid	A,D	PSD	PEST	Heptachlor												
Solid	A,D	PSD	PEST	Aldrin												
Solid	A,D	PSD	PEST	Heptachlor epoxide												
Solid	A,D	PSD	PEST	Endosulfan I												
Solid	A,D,E	PSD	PEST	Dieldrin												
Solid	A,D	PSD	PEST	4,4'-DDE												
Solid	A,D	PSD	PEST	Endrin												
Solid	A,D	PSD	PEST	Endosulfan II												
Solid	A,D	PSD	PEST	4,4'-DDD												
Solid	A,D	PSD	PEST	Endosulfan sulfate												
Solid	A,D	PSD	PEST	4,4'-DDT												
Solid	A,D	PSD	PEST	Methoxychlor (Mariate)												
Solid	A,D	PSD	PEST	Endrin ketone												
Solid	A,D	PSD	PEST	alpha Chlordane												
Solid	A,D	PSD	PEST	gamma Chlordane												
Solid	A,D	PSD	PEST	Toxaphene												
Liquid	A,D	OCC	PCB	Aroclor 1016												
Liquid	A,D	OCC	PCB	Aroclor 1221												
Liquid	A,D	OCC	PCB	Aroclor 1232												
Liquid	A,D	OCC	PCB	Aroclor 1242		12000 J										
Liquid	A,D	OCC	PCB	Aroclor 1248												
Liquid	A,D	OCC	PCB	Aroclor 1254												
Liquid	A,D	OCC	PCB	Aroclor 1260												

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number 1 BGL23	2 24	3 25 (Dup)	4 28 (BK)	5	6	7	8	9	10	11	12
				Semivolatile Organics												
S, thick l	A,B,E	OCC	P	phenol												
Liquid	A,D,B	OCC	HH	bis(2-chloroethyl)ether												
Liquid	A,D,B	OCC	P	2-chlorophenol												
Liquid	A,D,H	SOL	HA	1,3-dichlorobenzene												
Solid	A,D,H	OCC	HA	1,4-dichlorobenzene												
Liquid	A,D,H	SOL	A	benzyl alcohol												
Liquid	A,D,H	OCC	HA	1,2-dichlorobenzene												
Liquid	A,B	OCC	P	2-methylphenol												
	A,D	OCC	HH	bis(2-chloroisopropyl)ether												
Liquid	A,B	OCC	P	4-methylphenol												
	A	OCC	H-Amine	n-nitroso-di-n-dipropylamine												
Solid	A,D	OCC	HH	hexachloroethane												
Liquid	A,D	OCC	NA	nitrobenzene												
Liquid	A,D	OCC	H	isophorone												
Solid	A,D	OCC	P	2-nitrophenol												
Solid	A,B	OCC	P	2,4-dimethylphenol												
Solid	A	OCC	A	benzoic acid												
	A,D	OCC	HH	bis(2-chloroethoxy)methane												
Liquid	A,D	OCC	P	2,4-dichlorophenol												
Liquid	A,D	OCC	HA	1,2,4-trichlorobenzene												
Solid	A	OCC	PAH	naphthalene												
Solid	A,D	OCC	HH	4-chloroaniline												
Liquid	A,D,B	OCC	HH	hexachlorobutadiene												
Solid	A,D	OCC	P	4-chloro-3-methylphenol												
Liquid	A,D	OCC	PAH	2-methylnaphthalene												
Liquid	A,D,B	OCC	HH	hexachlorocyclopentadiene												
Solid	A,D	OCC	P	2,4,6-trichlorophenol												
Solid	A,D	OCC	P	2,4,5-trichlorophenol												
Liquid	A,D	OCC	PAH	2-chloronaphthalene												
Solid	A,D	OCC	NH	2-nitroaniline												
Liquid	A,D	OCC	PH,CLA	dimethylphthalate												
Solid	A,D	OCC	PAH	acenaphthylene												
Solid	A,D	OCC	NA	2,6-dinitrotoluene												
Solid	A,D	OCC	NH	3-nitroaniline												
Solid	A,D	OCC	PAH	acenaphthene												
Solid	A,D,G	OCC	P	2,4-dinitrophenol												
Solid	A,D	OCC	P	4-nitrophenol												
Solid	A,D	OCC	A	dibenzofuran												
Solid	A,D	OCC	NA	2,4-dinitrotoluene												
Liquid	A,D	OCC	PH	diethylphthalate												
	A,D	OCC	HH	4-chlorophenyl-phenylether												
Solid	A,D	OCC	PAH	fluorene												
Solid	A,D,E	OCC	NH	4-nitroaniline												
Solid	A,D	OCC	P	4,6-dinitro-2-methylphenol												
Solid	A,D	OCC	NH	n-nitrosodiphenylamine												
Liquid	A,D	OCC	HH	4-bromophenyl-phenylether												
Solid	A,D	OCC	HA	hexachlorobenzene												
Solid	A,D	OCC	P	pentachlorophenol												
Solid	A,D	OCC	PAH	phenanthrene												

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number 1	2	3	4	5	6	7	8	9	10	11	12
				Semivolatile Organics, Cont.												
Solid	A,D	OCC	PAH	anthracene												
Liquid	A,D	OCC	PH,CLA	di-n-butylphthalate												
Solid	A,D	OCC	PAH	fluoranthene												
Solid	A,D	OCC	PAH	pyrene												
Liquid	A,D	OCC	PH,CLA	butylbenzylphthalate												
	A,D	OCC	NA	3,3'-dichlorobenzidine												
Solid	A,D	OCC	PAH	benzo[a]anthracene												
Solid	A,D	OCC	PAH	chrysene												
Liquid	A,D	OCC	PH,CLA	bis(2-ethylhexyl)phthalate		1 J										
Liquid	A,D	OCC	PH,CLA	di-n-octylphthalate												
Solid	A,D	OCC	PAH	benzo[b]fluoranthene												
Solid	A,D	OCC	PAH	benzo[k]fluoranthene												
Solid	A,D,K,L	OCC	PAH	benzo[a]pyrene												
Solid	A,D	OCC	PAH	indeno[1,2,3-cd]pyrene												
Solid	A,D	OCC	PAH	dibenzo[a,h]anthracene												
Solid	A,D	OCC	PAH	benzo[g,h,i]perylene												
				Pesticides/PCBs												
Solid	A,D	PSD	PEST	alpha BHC												
Solid	A,D	PSD	PEST	beta BHC												
Solid	A,D	PSD	PEST	delta BHC												
Solid	A,D	PSD	PEST	gamma BHC (Lindane)												
Solid	A,D	PSD	PEST	Heptachlor												
Solid	A,D	PSD	PEST	Aldrin												
Solid	A,D	PSD	PEST	Heptachlor epoxide												
Solid	A,D	PSD	PEST	Endosulfan I												
Solid	A,D,E	PSD	PEST	Dieldrin												
Solid	A,D	PSD	PEST	4,4'-DDE												
Solid	A,D	PSD	PEST	Endrin												
Solid	A,D	PSD	PEST	Endosulfan II												
Solid	A,D	PSD	PEST	4,4'-DDD												
Solid	A,D	PSD	PEST	Endosulfan sulfate												
Solid	A,D	PSD	PEST	4,4'-DDT												
Solid	A,D	PSD	PEST	Methoxychlor (Mariate)												
Solid	A,D	PSD	PEST	Endrin ketone												
Solid	A,D	PSD	PEST	alpha Chlordane												
Solid	A,D	PSD	PEST	gamma Chlordane												
Solid	A,D	PSD	PEST	Toxaphene												
Liquid	A,D	OCC	PCB	Aroclor 1016												
Liquid	A,D	OCC	PCB	Aroclor 1221												
Liquid	A,D	OCC	PCB	Aroclor 1232												
Liquid	A,D	OCC	PCB	Aroclor 1242												
Liquid	A,D	OCC	PCB	Aroclor 1248												
Liquid	A,D	OCC	PCB	Aroclor 1254												
Liquid	A,D	OCC	PCB	Aroclor 1260												

12/21

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 12/11/89

SUBJECT: Review of Region V CLP Data
Received for Review on Nov 17, 1989

12/13/89

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory
Patrick J. Chunilla for

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: North Manchester Foundry L.F. SMO case No. 12901

EPA Data Set No. _____ No. of Samples: 12 D.U./Activity Numbers _____

CRL No. _____

SMO Traffic No. EGL 18-25, 28, EGN 15-17

CLP Laboratory: Hazleton Hrs. Required for Review: 14+1=15 WJW

Following are our findings:

This review covers the results of 4 water and 8 soil samples submitted for semivolatile and pesticide/PCB analysis.

Data qualifications are noted in the following review narrative.

Rob Wilhelm
8 DECEMBER 89
ESAT/WESTON

( ) Data are acceptable for use.
(✓) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

Region V

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 12901

SITE North Manchester Foundry L.F.

LABORATORY Hazleton

NO. OF SAMPLES/ MATRIX 4/H_2O - 8/soil

SDG # EGL18

REVIEWER (IF NOT ESD) Weston | ESAT

SOW# 2/88

REVIEWER'S NAME Rob Wilhelm

DPO: ACTION _____ FYI _____

COMPLETION DATE 8 December 89

DATA ASSESSMENT SUMMARY

		VOA	BNA	PEST	OTHER
1.	HOLDING TIMES	-	O	O	
2.	GC/MS TUNE/INSTR. PERFORM.	-	O	O	
3.	CALIBRATIONS	-	O	O	
4.	BLANKS	-	O	O	
5.	SURROGATES	-	O	O	
6.	MATRIX SPIKE/DUP	-	O	O	
7.	OTHER QC	-	O	O	
8.	INTERNAL STANDARDS	-	O	-	
9.	COMPOUND IDENTIFICATION	-	-	-	
10.	SYSTEM PERFORMANCE	-	-	-	
11.	OVERALL ASSESSMENT	-	O	O	

O = Data had no problems/or qualified due to minor problems.
M = Data qualified due to major problems.
Z = Data unacceptable.
X = Problems, but do not affect data.

ACTION ITEMS: _____

AREAS OF CONCERN: _____

NOTABLE PERFORMANCE: _____

DATA QUALIFIERS

Contractor: HAZLETON

Case 12901

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

① Holding Times -

The date sampling does not appear on either of the Organic Traffic Reports. Therefore the date of sampling is assumed to be the same as the date of shipping. All water samples, semivolatile and pesticide/PCB fractions were extracted within seven days of sampling and analyzed within forty days of the date of extraction. All soil samples, both semivolatile and pesticide/PCB fractions, were extracted eleven days after sampling. Therefore all soil samples EGL18-22 and EGN15-17 have positive aromatic values flagged as estimated J and negative aromatic values flagged as estimated quantitation limits UJ for both fractions.

② GC/MS Tuning -

All GC/MS tuning data are within the required QC limits.

③ Calibration -

All semivolatile compounds which did not meet the required calibration QC limits are listed on the attached semivolatile calibration outlier form along with the appropriate qualifiers.

In regard to the pesticide/PCB fraction, the linearity check on the mixed phase column analyzed on 11/15/89 exhibited a %RSD of 26.9%. All sample analyses performed on the DB-5 column had retention time shifts for dibutylchlorendate greater than 0.3%. Pesticide/PCB sample quantitation was performed on DB-5 and DB608 columns. These columns require a percent difference of 15.0% or less. Samples INDA and INDB analyzed 10/26/89 on the DB-608 column had a percent difference of 16.5% for 4,4'-DDT and 27.7% for g. chlordane. INDA and INDB analyzed

Reviewed by: Rob Wilhelm

Phone: (312) 353-2960

Date: 8 DECEMBER 89

DATA QUALIFIERS

Contractor: HAZLETON

Case 12901

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

on 11/7/89 on the DB-5 column, had percent differences of 22.4% for delta-BHC, 15.5% for 4,4'-DDE, 28.1% for 4,4'-DDD, 23.5% for 4,4'-DDT, 59.5% for methoxychlor and 15.1% for endrin ketone. Samples INDA and INDB analyzed 11/10/89 on the DB-5 column had percent differences of 33.7% for alpha-BHC, 40.5% for beta-BHC, 52.5% for delta-BHC, 24.0% for endosulfan I, 46.8% for endosulfan II and 15.4% for g. chlordane. On the mixed-phase confirmation column, INDA showed 21.7% difference for 4,4'-DDT.

Due to the extent to which the pesticide/PCB calibration does not meet the required QC limits, it is necessary to qualify all samples in the pesticide/PCB fraction. All positive values in this fraction are qualified as estimated values, J, and all negative values are qualified as estimated quantitation limits, UJ.

④ Method Blanks:

Semivolatile blank SBLK24 contained 2 mg/L di-n-butyl phthalate and SBLK52 contained 66 mg/kg di-n-butyl phthalate. The samples associated with these blanks which reported detectable amounts of di-n-butyl phthalate were at concentrations less than ten times the amount found in the method blank. Therefore, in these samples di-n-butyl phthalate has been flagged as undetected, U.

All pesticide/PCB method blanks are clean.

⑤ Surrogate Recoveries:

The semivolatile fraction of EGN15 had low recovery for 2,4,6-tribromophenol. No qualification of this sample is necessary.

Reviewed by: Rob Wilhelm

Phone: (312) 353-2960

Date: 8 DECEMBER 89

DATA QUALIFIERS

Contractor: HAZLETON

Case 12901

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

Dibutylchlorendate is not present in sample EGN16. This is due to the dilution made on this sample. All positive values for this sample therefore are qualified as estimated values. J, and all negative values are qualified as estimated detection limits. UJ.

(6) Matrix Spike / Matrix Spike Duplicate -

EGL22 was used as the soil matrix spike / matrix spike duplicate sample and EGL23 for water. The semivolatile water matrix spike and duplicate had all spiking compound recoveries within the QC limits. The semivolatile soil sample EGL22MS had low recovery for 1,4-dichlorobenzene N-nitroso-di-n-propylamine and 1,2,4-Trichlorobenzene. EGL22MSD had low recoveries for 1,4-dichlorobenzene, N-nitroso-di-n-propylamine, 1,2,4-Trichlorobenzene, 2,4-dinitrotoluene and pentachlorophenol. The relative percent difference for pentachlorophenol was 109%.

All pesticide/PCB matrix spikes and matrix spike duplicates had recovery of all spiking compounds within the required QC limits.

(7) Field Duplicates and Blanks

No field duplicates were identified. EGL28 was identified as a field blank. The semivolatile fraction of EGL28 contained di-n-butylphthalate at a level less than ten times the amount in its associated method blank. Therefore di-n-butylphthalate has been flagged as undetected, U.

(8) Internal Standards -

All internal standard areas were within the required QC limits.

Reviewed by: Rob Wilhelm

Phone: (312) 353-2960

Date: 8 DECEMBER 89

DATA QUALIFIERS

Contractor: HAZLETON

Case 12901

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

(9) Compound Quantitation and Reported Detection Limits -
Correct detection limits were reported and quantitation was performed properly with respect to dilution and sample size.

(10) Other Case-Specific Problems -
NONE

Reviewed by: Rob Willhelm

Phone: (312) 353-2960

Date: 8 DECEMBER 89

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 12901 CONTRACTOR Hazleton

Instrument # 51B	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10/31/89			11/1/89 1455											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol	1.36			.836	38.6										
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol															
Dibenzofuran															

AFFECTED SAMPLES:

EGL22MS
EGL22MSD

Reviewer Initials/Date: 12/6/89

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 12901 CONTRACTOR HAZLETON

Instrument # SIB	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10/3/89			11/1/89 1455											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline															
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i)Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

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

Reviewer's Initials/Date: RW 12/6/89

8/87

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 12901 CONTRACTOR HAZLETON

Instrument # FINN	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10/16/89			10/23/89 1916											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol	.106			.141	35.9	J									
Dibenzofuran															

AFFECTED SAMPLES:

SBLK24
EGL23
EGL23MS
EGL23MSD
EGL24
EGL25
EGL28

Reviewer Initials/Date: RJ 12/6/89

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE MSL COMPOUNDS
Page 2

CASE/SAS # 12901 CONTRACTOR HAZLETON

Instrument # Finn	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10/10/89			10/23/89 1946											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline															
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
Bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i)Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

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

Reviewer's Initials/Date: RD 12/6/89

8/87

EXPLAINATION OF DATA QUALIFIERS

For reporting results to the USEPA, the following contract specific qualifiers are to be used. The seven qualifiers defined below are not subject to modification by the laboratory. Up to five qualifiers may be reported on Form I for each compound.

The seven EPA-defined qualifiers to be used are as follows:

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if the sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the sample quantitation limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U)}{D} \times df \qquad \text{where } D = \frac{100 - \%\ \text{moisture}}{100}$$

and df = dilution factor

at 24% moisture, $D = \frac{100-24}{100} = 0.76$

$$\frac{(330\ U)}{.76} \times 10 = 4300\ U$$ rounded to the appropriate number of significant figures

For soil samples subjected to GPC clean-up procedures, the CRQL is also multiplied by 2, to account for the fact that only half of the extract is recovered.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it as 3J. The sample quantitation limit must be adjusted for both dilution and percent moisture as discussed for the U flag, so that if a sample with 24% moisture and a 1 to 10 dilution factor has a calculated concentration of 300 ug/L and a sample quantitation limit of 430 ug/kg, report the concentration as 300J on Form I.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract shall be confirmed by GC/MS.

B - This flag is used when the analyte is 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. This flag must be used for a TIC as well as for a positively identified TCL compound.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. 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 shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: For total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered separately, e.g., a diluted analysis is not required for total xylenes unless the concentration of either peak separately exceeds 200 ug/L.

D - This flag 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 above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - Other specific flags may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the Case Narrative. Begin by using "X". If more than one flag is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B", and "D" flags for some samples.

The combination of flags "BU" or "UB" is expressly prohibited. Blank contaminants are flagged "B" only when they are also detected in the sample.

If analyses at two different dilution factors are required (see Exhibit D), follow the data reporting instructions given in Exhibit D and with the "D" and "E" flags above.

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$$\frac{(330\ U)}{D} \times df \qquad \text{where } D = \frac{100 - \%\ \text{moisture}}{100}$$

and df = dilution factor

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$$\frac{(330\ U)}{.76} \times 10 = 4300\ U$$ rounded to the appropriate number of significant figures

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If analyses at two different dilution factors are required (see Exhibit D), follow the data reporting instructions given in Exhibit D and with the "D" and "E" flags above.

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
(For CLP Use Only)

Case Number: 12901
SAS No. (if applicable):

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

2. Region Number: V
Sampling Co.: FIT
Sampler (Name): Angelo Carpenter
3. Ship To: Hazleton Labs, Inc. (HAZLET) 515 Science Drive Madison, WI 53711 ATTN: Steven Crapi

4. Date Shipped: 10-12-89
Airbill Number: 1060849101
Carrier: F

Triple volume required for matrix spike/duplicate aqueous sample.
Ship medium and high concentration samples in paint cans.
See reverse for additional instructions.

5. Date Received: [illegible]
Received by: Jerri Villarreal
Laboratory Contract Number: [illegible]
Unit Price: [illegible]

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number	(H) Sample Condition on Receipt
EGL23	2	L		X	X	MSD MW1			MLF269	Samples read
EGL24	2	L		X	X				MLF270	cool; intact
EGL25	2	L		X	X				MLF271	under custody and
~~EGL26~~	~~2~~	~~L~~		~~X~~	~~X~~				~~MLF272~~	in good condition
EGL27	~~2~~	~~L~~		~~X~~	~~X~~				~~MLF273~~	[illegible]
EGL28	~~2~~ 3	L		X	X	BLK			MLF274	EGL18
AC										SDG is ~~EGL23~~
										~~SDG Last sample is EGL28~~

Shipment [illegible] complete

EPA Form 9110-2 (8-88) Replaces EPA Form 2075-7, which may be used. Blue - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

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
(For CLP Use Only)

Case Number: 12901
SAS No. (if applicable):

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

2. Region Number: V
Sampling Co.: FIT
Sampler (Name): Angelo Carpodinis
3. Ship To: Hazleton Labs, Inc (HAZLE)
515 Science Drive
Madison WI 53711
ATTN: Steven Gr[illegible]

4. Date Shipped: 10-12-89
Airbill Number: 1060849031
Carrier: F

Triple volume required for matrix spike/duplicate aqueous sample.
Ship medium and high concentration samples in paint cans.
See reverse for additional instructions.

5. Date Received: 10-13-89
Received by: Jerri Villanueva
Laboratory Contract Number: [illegible]
Unit Price: [illegible]

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number	(H) Sample Condition on Receipt
LGN 15	5	L		X	X				MEFZ 61	Samples cool
LGN 16	5	L		X	X				MEFZ 62	cool; intact
LGN 17	5	L		X	X				MEFZ 63	and in custody
LGL 18	5	L		X	X				MEFZ 64	and in good
LGL 19	5	L		X	X				MEFZ 65	condition
LGL 20	5	L		X	X				MEFZ 66	
LGL ~~20~~ 21 AC	5	L		X	X				MEFZ 67	SDG # is EGL 17
LGL 22	5	L		X	X				MEFZ 68	
										SDG Last sample
										SDG EGN17

Shipment D complete

EPA Form 9110-2 (8-88) Replaces EPA Form 2075-7, which may be used. Blue - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

HAZLETON LABORATORIES AMERICA, INC.

3301 KINSMAN BLVD. • P.O. BOX 7545 • MADISON, WI 53707 • (608) 241-4471 • TLX 703956 HAZRAL MDS UD

November 16, 1989

RECEIVED
NOV 17 1989
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

Sample Management Office
Viar and Company
209 Madison Street
Suite 200
Alexandria, VA 22314

CASE NARRATIVE for Case# 12901, SDG# EGL18.

Enclosed is the data package for Case# 12901, SDG# EGL18. Four water and eight soil samples under this case and SDG number were received for semivolatile organic and pesticide/PCB analysis on October 13, 1989. The samples were analyzed and reported according to the protocols provided under our Contract No. 68-01-7418, bid lot #1.

The following list itemizes the SMO numbers associated with this case and SDG:

Case# 12901 (SDG# EGL18) Sample listing

EGL18	EGL19	EGL20	EGL21	EGL22	EGL23
EGL24	EGL25	EGL28	EGN15	EGN16	EGN17

Please note the following summary comments relating to the analytical results and contractual quality control in this case:

- Holding Times. All samples were analyzed within the holding time.
- GC-MS Tuning. All tuning requirements for DFTPP were within contract criteria.
- Instrumental Calibrations. All instrumental calibrations were within contract criteria.
- Method Blanks. The method blanks extracted and analyzed for both fractions were within contract criteria.
- Surrogate Recoveries. All calculated surrogate recoveries were within contract criteria with the following exception:

Pesticide fraction: Dibutylchlorendate (DBC) was not found in the analysis of sample EGN16 (i.e. - 0% recovery) .

- Matrix Spike/Matrix Spike Duplicate. All matrix spike (MS)/matrix spike duplicate (MSD) recoveries were within contract criteria.

- Internal Standard Responses. All internal standard responses met QC requirements.

- TIC Comment. In the semivolatile fraction, the water samples EGL24 and EGL25 showed several TIC peaks identified on the basis of spectra and general retention time region as sterols. The samples were re-extracted past the holding time, and the re-extracts also showed some sterol peaks, but at lower estimated concentrations. Because the re-extracts showed a different TIC peak pattern, and because the peak areas in the re-extracts were lower, these sterol TICs are believed to be due to the use of glassware that was not properly rinsed after being used to extract biota samples. The re-extracts have not been included in the data package.

If you have any questions regarding this case or need any further clarifications, please feel free to call.

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 hard-copy 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.

Steven R. Crupi
Steven R. Crupi
QA/QC Group Leader
Research Associate

11-16-89
Date

cc: EMSL-LV
Region V
Central File
Case File
Dave Hills

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	EGL23	54	57	76	31	42	73		0
02	EGL24	70	77	82	30	43	73		0
03	EGL25	62	66	71	36	49	78		0
04	EGL28	68	75	84	39	52	74		0
05	EGL23MS	49	53	69	32	44	72		0
06	EGL23MSD	64	65	72	34	43	68		0
07	SBLK24	64	66	75	37	52	75		0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl	(33-141)
S4 (PHL)	= Phenol-d5	(10-94)
S5 (2FP)	= 2-Fluorophenol	(21-100)
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	EGL18	57	65	81	58	61	42		0
02	EGL19	32	31	39	33	36	32		0
03	EGL20	52	56	78	52	56	56		0
04	EGL21	30	32	41	31	34	25		0
05	EGL22	54	55	74	53	58	47		0
06	EGN15	54	55	71	56	60	17 *		1
07	EGN16	48	52	61	50	52	25		0
08	EGN17	45	46	69	45	49	31		0
09	EGL22MS	41	47	75	43	44	57		0
10	EGL22MSD	31	35	57	33	33	40		0
11	SBLK52	56	55	80	54	61	34		0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

	EPA SAMPLE NO.	S1 (DBC)#	OTHER
01	EGL23	65	0
02	EGL24	70	0
03	EGL25	69	0
04	EGL28	69	0
05	EGL23MS	74	0
06	EGL23MSD	66	0
07	PBLK02	61	0

ADVISORY QC LIMITS

S1 (DBC) = Dibutlychlorendate (24-154)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (DBC)#	OTHER
01	EGL18	112	0
02	EGL19	91	0
03	EGL20	127	0
04	EGL21	70	0
05	EGL22	103	0
06	EGN15	80	0
07	EGN16	0 D	0
08	EGN17	104	0
09	EGL22MS	93	0
10	EGL22MSD	64	0
11	PBLK03	110	0
12	PBLK01	110	0

ADVISORY QC LIMITS

S1 (DBC) = Dibutlychlorendate (20-150)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix Spike - EPA Sample No.: EGL23

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	200	0	62.0	31	12- 86
2-Chlorophenol	200	0	131	66	27-123
1,4-Dichlorobenzene	100	0	57.0	57	36 97
N-Nitroso-di-n-prop.(1)	100	0	64.0	64	41 116
1,2,4-Trichlorobenzene	100	0	62.8	63	39 98
4-Chloro-3-methylphenol	200	0	142	71	23 97
Acenaphthene	100	0	72.4	72	46-118
4-Nitrophenol	200	0	48.2	24	10- 80
2,4-Dinitrotoluene	100	0	58.8	59	24- 96
Pentachlorophenol	200	0	138	69	9-103
Pyrene	100	0	83.8	84	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	200	64.8	32	-3	42	12- 86
2-Chlorophenol	200	131	66	0	40	27-123
1,4-Dichlorobenzene	100	52.0	52	9	28	36 97
N-Nitroso-di-n-prop.(1)	100	57.4	57	12	38	41 116
1,2,4-Trichlorobenzene	100	56.4	56	12	28	39 98
4-Chloro-3-methylphenol	200	139	70	1	42	23 97
Acenaphthene	100	63.6	64	12	31	46-118
4-Nitrophenol	200	52.6	26	-8	50	10- 80
2,4-Dinitrotoluene	100	55.0	55	7	38	24- 96
Pentachlorophenol	200	119	60	14	50	9-103
Pyrene	100	67.8	68	21	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: 1UL EGL23 91002872 WATER
12901-EGL18 HAZLETON FINN

FORM III SV-1 1/87 Rev.

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix Spike - EPA Sample No.: EGL22 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	4560	0	1790	39	26- 90
2-Chlorophenol	4560	0	1760	39	25-102
1,4-Dichlorobenzene	2280	0	543	24 *	28 104
N-Nitroso-di-n-prop. (1)	2280	0	611	27 *	41 126
1,2,4-Trichlorobenzene	2280	0	639	28 *	38 107
4-Chloro-3-methylphenol	4560	0	2190	48	26 103
Acenaphthene	2280	0	780	34	31-137
4-Nitrophenol	4560	0	1900	42	11-114
2,4-Dinitrotoluene	2280	0	648	28	28- 89
Pentachlorophenol	4560	0	1240	27	17-109
Pyrene	2280	0	1280	56	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	4560	1550	34	14	35	26- 90
2-Chlorophenol	4560	1530	34	14	50	25-102
1,4-Dichlorobenzene	2280	497	22 *	9	27	28 104
N-Nitroso-di-n-prop. (1)	2280	538	24 *	12	38	41 126
1,2,4-Trichlorobenzene	2280	525	23 *	20	23	38 107
4-Chloro-3-methylphenol	4560	2020	44	9	33	26 103
Acenaphthene	2280	707	31	9	19	31-137
4-Nitrophenol	4560	1530	34	21	50	11-114
2,4-Dinitrotoluene	2280	538	24 *	15	47	28- 89
Pentachlorophenol	4560	382	8 *	109 *	47	17-109
Pyrene	2280	1170	51	9	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: 1 out of 11 outside limits
Spike Recovery: 8 out of 22 outside limits

COMMENTS: EGL22 91002869
51B 12901 EGL18

FORM III SV-2 1/87 Rev.

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix Spike - EPA Sample No.: EGL23

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	0.200	0	0.154	77	56-123
Heptachlor	0.200	0	0.218	109	40-131
Aldrin	0.200	0	0.221	111	40-120
Dieldrin	0.500	0	0.554	111	52-126
Endrin	0.500	0	0.568	114	56-121
4,4'-DDT	0.500	0	0.423	85	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	0.200	0.175	88	-13	15	56-123
Heptachlor	0.200	0.182	91	18	20	40-131
Aldrin	0.200	0.184	92	18	22	40-120
Dieldrin	0.500	0.492	98	12	18	52-126
Endrin	0.500	0.510	102	11	21	56-121
4,4'-DDT	0.500	0.408	82	4	27	38-127

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:

FORM III PEST-1 8/87 Rev.

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix Spike - EPA Sample No.: EGL22 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	36.6	0	26.4	72	46-127
Heptachlor	36.6	0	27.0	74	35-130
Aldrin	36.6	0	25.0	68	34-132
Dieldrin	91.4	0	74.6	82	31-134
Endrin	91.4	0	73.3	80	42-139
4,4'-DDT	91.4	0	71.2	78	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	36.6	26.5	72	0	50	46-127
Heptachlor	36.6	27.6	75	-2	31	35-130
Aldrin	36.6	24.5	67	2	43	34-132
Dieldrin	91.4	76.5	84	-3	38	31-134
Endrin	91.4	67.3	74	9	45	42-139
4,4'-DDT	91.4	69.4	76	3	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:

FORM III PEST-2 8/87 Rev.

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Lab File ID: 9104B089 Lab Sample ID: SBLK24

Date Extracted: 10/18/89 Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 10/23/89 Time Analyzed: 2142

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

Instrument ID: FINN

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EGL23	91002872	9104B090	10/23/89
02	EGL24	91002875	9104B093	10/24/89
03	EGL25	91002876	9104B094	10/24/89
04	EGL28	91002877	9104B095	10/24/89
05	EGL23MS	91002873	9104B091	10/23/89
06	EGL23MSD	91002874	9104B092	10/24/89

COMMENTS: 1UL SBLK24 10/18/89 WATER
12901-EGL18 HAZLETON FINN

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Lab File ID: 9105B145 Lab Sample ID: SBLK52

Date Extracted: 10/23/89 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed: 10/31/89 Time Analyzed: 2259

Matrix: (soil/water) SOIL Level: (low/med) LOW

Instrument ID: 51B

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EGL18	91002865	9105B149	11/01/89
02	EGL19	91002866	9105B150	11/01/89
03	EGL20	91002867	9105B151	11/01/89
04	EGL21	91002868	9105B152	11/01/89
05	EGL22	91002869	9105B153	11/01/89
06	EGN15	91002862	9105B146	10/31/89
07	EGN16	91002863	9105B147	11/01/89
08	EGN17	91002864	9105B148	11/01/89
09	EGL22MS	91002870	9115B007	11/01/89
10	EGL22MSD	91002871	9115B008	11/01/89

COMMENTS: SBLK52 10/23/89
51B 12901 EGL18

FORM IV SV

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Lab Sample ID: BLANK01 Lab File ID: _____

Matrix:(soil/water) SOIL Level:(low/med) LOW

Date Extracted: 10/23/89 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed (1): 10/26/89 Date Analyzed (2): 11/15/89

Time Analyzed (1): 0148 Time Analyzed (2): 1545

Instrument ID (1): HP007B Instrument ID (2): HP002

GC Column ID (1): DB-608 GC Column ID (2): MIXPHASE

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EGL18	91002865	10/26/89	11/15/89
02	EGL19	91002866	10/26/89	11/15/89
03	EGL20	91002867	10/26/89	
04	EGL21	91002868	10/26/89	
05	EGL22	91002869	10/26/89	
06	EGN15	91002862	10/26/89	11/15/89
07	EGN17	91002864	10/26/89	
08	EGL22MS	91002870	10/26/89	
09	EGL22MSD	91002871	10/26/89	

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Lab Sample ID: BLANK02 Lab File ID: _____

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

Date Extracted: 10/17/89 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed (1): 11/07/89 Date Analyzed (2): _____

Time Analyzed (1): 1226 Time Analyzed (2): _____

Instrument ID (1): HP006B Instrument ID (2): _____

GC Column ID (1): DB 5 GC Column ID (2): _____

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EGL23	91002872	11/07/89	
02	EGL24	91002875	11/07/89	
03	EGL25	91002876	11/07/89	
04	EGL28	91002877	11/07/89	
05	EGL23MS	91002873	11/07/89	
06	EGL23MSD	91002874	11/07/89	

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Lab Sample ID: BLANK03 Lab File ID: _____

Matrix:(soil/water) SOIL Level:(low/med) LOW

Date Extracted: 10/23/89 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed (1): 11/09/89 Date Analyzed (2): 11/15/89

Time Analyzed (1): 1442 Time Analyzed (2): 1545

Instrument ID (1): HP006B Instrument ID (2): HP002

GC Column ID (1): DB 5 GC Column ID (2): MIXPHASE

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EGN16	91102863	11/09/89	11/15/89

COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK24

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: SBLK24

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9104B089

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/23/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

FORM I SV-1 1/87 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK24

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: SBLK24

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9104B089

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/23/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	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
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	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

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

SBLK24

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: SBLK24

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9104B089

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/23/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I SV-TIC

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK52

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: SBLK52

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B145

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

% Moisture: not dec. 0 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/31/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

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
100-51-6	Benzyl Alcohol	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	1600	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	1600	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	1600	U
131-11-3	Dimethyl Phthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U

FORM I SV-1 1/87 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK52

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: SBLK52

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B145

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

% Moisture: not dec. 0 dec. _____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/31/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1600	U
83-32-9	Acenaphthene	330	U
51-28-5	2,4-Dinitrophenol	1600	U
100-02-7	4-Nitrophenol	1600	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
100-10-6	4-Nitroaniline	1600	U
534-52-1	4,6-Dinitro-2-methylphenol	1600	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	1600	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
84-74-2	Di-n-Butylphthalate	66	J
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	660	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

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK52

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: SBLK52

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B145

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

% Moisture: not dec. 0 dec. _____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/31/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.00

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.68	730	J
2.	UNKNOWN	7.38	200	J

FORM I SV-TIC 1/87 Rev.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK01

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: BLANK01

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/26/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.0	U
319-85-7	beta-BHC	8.0	U
319-86-8	delta-BHC	8.0	U
58-89-9	gamma-BHC (Lindane)	8.0	U
76-44-8	Heptachlor	8.0	U
309-00-2	Aldrin	8.0	U
1024-57-3	Heptachlor epoxide	8.0	U
959-98-8	Endosulfan I	8.0	U
60-57-1	Dieldrin	16	U
72-55-9	4,4'-DDE	16	U
72-20-8	Endrin	16	U
33213-65-9	Endosulfan II	16	U
72-54-8	4,4'-DDD	16	U
1031-07-8	Endosulfan sulfate	16	U
50-29-3	4,4'-DDT	16	U
72-43-5	Methoxychlor	80	U
53494-70-5	Endrin ketone	16	U
5103-71-9	alpha-Chlordane	8.0	U
5103-74-2	gamma-Chlordane	8.0	U
8001-35-2	Toxaphene	160	U
12674-11-2	Aroclor-1016	80	U
11104-28-2	Aroclor-1221	80	U
11141-16-5	Aroclor-1232	80	U
53469-21-9	Aroclor-1242	80	U
12672-29-6	Aroclor-1248	80	U
11097-69-1	Aroclor-1254	160	U
11096-82-5	Aroclor-1260	160	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BLK02

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: BLANK02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/17/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/07/89

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1

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
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK03

Lab Name: HAZLET [illegible] Contract: 68-01-7418

Lab Code: HAZLET [illegible] Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: BLANK03

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/09/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
319-84-6	alpha-BHC	[illegible]	[illegible]
319-85-7	beta-BHC	8.0	U
319-86-8	delta-BHC	8.0	U
58-89-9	gamma-BHC (Lindane)	8.0	U
76-44-8	Heptachlor	8.0	U
309-00-2	Aldrin	8.0	U
1024-57-3	Heptachlor epoxide	8.0	U
959-98-8	Endosulfan I	8.0	U
60-57-1	Dieldrin	16	U
72-55-9	4,4'-DDE	16	U
72-20-8	Endrin	16	U
33213-65-9	Endosulfan II	16	U
72-54-8	4,4'-DDD	16	U
1031-07-8	Endosulfan sulfate	16	U
50-29-3	4,4'-DDT	16	U
72-43-5	Methoxychlor	80	U
53494-70-5	Endrin ketone	16	U
5103-71-9	alpha-Chlordane	8.0	U
5103-74-2	gamma-Chlordane	8.0	U
8001-35-2	Toxaphene	160	U
12674-11-2	Aroclor-1016	80	U
11104-28-2	Aroclor-1221	80	U
11141-16-5	Aroclor-1232	80	U
53469-21-9	Aroclor-1242	80	U
12672-29-6	Aroclor-1248	80	U
11097-69-1	Aroclor-1254	160	U
11096-82-5	Aroclor-1260	160	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL18

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002865

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B149

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 4 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	340	U
111-44-4	bis(2-Chloroethyl)Ether	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
100-51-6	Benzyl Alcohol	340	U
95-50-1	1,2-Dichlorobenzene	340	U
95-48-7	2-Methylphenol	340	U
39638-32-9	bis(2-Chloroisopropyl)Ether	340	U
106-44-5	4-Methylphenol	340	U
621-64-7	N-Nitroso-Di-n-Propylamine	340	U
67-72-1	Hexachloroethane	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
65-85-0	Benzoic Acid	1700	U
111-91-1	bis(2-Chloroethoxy)Methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	230	J
106-47-8	4-Chloroaniline	340	U
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	220	J
77-47-4	Hexachlorocyclopentadiene	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethyl Phthalate	340	U
208-96-8	Acenaphthylene	340	U
606-20-2	2,6-Dinitrotoluene	340	U

FORM I SV-1 1/87 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL18

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002865

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B149

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 4 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	340	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	36	J
121-14-2	2,4-Dinitrotoluene	340	U
84-66-2	Diethylphthalate	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
86-73-7	Fluorene	340	U
100-10-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	170	J
120-12-7	Anthracene	340	U
84-74-2	Di-n-Butylphthalate	340 ~~57~~	~~B~~ U
206-44-0	Fluoranthene	80	J
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	690	U
56-55-3	Benzo(a)anthracene	33	J
218-01-9	Chrysene	41	J
117-81-7	bis(2-Ethylhexyl)phthalate	36	J
117-84-0	Di-n-octylphthalate	340	U
205-99-2	Benzo(b)fluoranthene	47	J
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)Pyrene	340	U
53-70-3	Dibenz(a,h)Anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

(1) - Cannot be separated from Diphenylamine

12/6/89

FORM I SV-2 1/87 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL18

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002865

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B149

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 4 dec. _____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.73	650	~~BJ~~ 4
2. 17301-32-5	UNDECANE, 4,7-DIMETHYL-	18.10	760	J
3. 544-76-3	HEXADECANE	19.84	1200	J
4. 55030-62-1	TRIDECANE, 4,8-DIMETHYL-	20.64	590	J
5. 629-78-7	HEPTADECANE	21.47	1500	J
6. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	21.57	690	J
7. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	23.02	1200	J
8. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	23.15	660	J
9. 62108-21-8	DECANE, 6-ETHYL-2-METHYL-	24.50	850	J
10. 17301-32-5	UNDECANE, 4,7-DIMETHYL-	25.91	440	J
11. 7045-71-8	UNDECANE, 2-METHYL-	27.26	660	J
12. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	28.56	510	J
13. 1560-97-0	DODECANE, 2-METHYL-	29.81	480	J
14. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	30.99	600	J
15. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	32.16	590	J
16. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	33.26	550	J
17. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	34.32	570	J
18. 6418-41-3	TRIDECANE, 3-METHYL-	35.34	420	J
19. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	36.34	530	J
20. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	38.22	440	J

WL 5 Dec 89

FORM I SV-TIC

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL19

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002866

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B150

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 9 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	460	
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
100-51-6	Benzyl Alcohol	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	1800	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	150	J
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	140	J
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethyl Phthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U

FORM I SV-1 1/87 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL19

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002866

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B150

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 9 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	360	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	22	J
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
100-10-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	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	1800	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	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	730	U
56-55-3	Benzo(a)anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)phthalate	450	
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

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL19

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002866

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B150

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 9 dec. _____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1.00

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	20.77	11000	J
2.	54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	21.77	48000	J
3.	18435-45-5	1-NONADECENE	22.12	14000	J
4.	1921-70-6	PENTADECANE, 2,6,10,14-TETRA	23.49	110000	J
5.	74685-29-3	9-EICOSENE, (E)-	23.89	29000	J
6.	4748-78-1	BENZALDEHYDE, 4-ETHYL-	24.09	11000	J
7.	7225-68-5	DODECANE, 1-CYCLOPENTYL-4-(3	24.45	22000	J
8.	54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	24.67	32000	J
9.	55044-09-2	BENZENE, 1,1'-(OXYDI-2,1-ETH	24.95	14000	J
10.	638-36-8	HEXADECANE, 2,6,10,14-TETRAM	25.91	41000	J
11.	57-11-4	OCTADECANOIC ACID	28.82	76000	J
12.	54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	34.51	11000	J
13.	6418-43-5	HEXADECANE, 3-METHYL-	35.56	12000	J
14.	630-02-4	OCTACOSANE	36.54	15000	J
15.		UNKNOWN	37.34	21000	J
16.	630-02-4	OCTACOSANE	37.51	12000	J
17.		UNKNOWN	38.22	63000	J
18.		UNKNOWN	38.59	9200	J
19.	1611-83-2	2-PROPENAMIDE, 2-METHYL-N-PH	40.27	24000	J
20.	630-07-9	PENTATRIACONTANE	41.09	35000	J

FORM I SV-TIC 1/87 Rev.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL20

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002867

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B151

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 14 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 1.00

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
100-51-6	Benzyl Alcohol	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	1900	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	1900	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethyl Phthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U

FORM I SV-1 1/87 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL20

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002867

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B151

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 14 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	380	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	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
100-10-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	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	1900	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
84-74-2	Di-n-Butylphthalate	380 ~~110~~	~~BJ~~ U
206-44-0	Fluoranthene	28	J
129-00-0	Pyrene	24	J
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	770	U
56-55-3	Benzo(a)anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)phthalate	33	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

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL20

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002867

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B151

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 14 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.1 Dilution Factor: 1.00

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.70	700	~~B~~ 4
2.	UNKNOWN	7.38	320	~~B~~ 4
3. 10544-50-0	SULFUR, MOL. (S8)	26.12	1200	J

wfu 12/8/89

FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL21

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002868

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B152

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 39 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	540	U
111-44-4	bis(2-Chloroethyl)Ether	540	U
95-57-8	2-Chlorophenol	540	U
541-73-1	1,3-Dichlorobenzene	540	U
106-46-7	1,4-Dichlorobenzene	540	U
100-51-6	Benzyl Alcohol	540	U
95-50-1	1,2-Dichlorobenzene	540	U
95-48-7	2-Methylphenol	540	U
39638-32-9	bis(2-Chloroisopropyl)Ether	540	U
106-44-5	4-Methylphenol	540	U
621-64-7	N-Nitroso-Di-n-Propylamine	540	U
67-72-1	Hexachloroethane	540	U
98-95-3	Nitrobenzene	540	U
78-59-1	Isophorone	540	U
88-75-5	2-Nitrophenol	540	U
105-67-9	2,4-Dimethylphenol	540	U
65-85-0	Benzoic Acid	2600	U
111-91-1	bis(2-Chloroethoxy)Methane	540	U
120-83-2	2,4-Dichlorophenol	540	U
120-82-1	1,2,4-Trichlorobenzene	540	U
91-20-3	Naphthalene	540	U
106-47-8	4-Chloroaniline	540	U
87-68-3	Hexachlorobutadiene	540	U
59-50-7	4-Chloro-3-methylphenol	540	U
91-57-6	2-Methylnaphthalene	540	U
77-47-4	Hexachlorocyclopentadiene	540	U
88-06-2	2,4,6-Trichlorophenol	540	U
95-95-4	2,4,5-Trichlorophenol	2600	U
91-58-7	2-Chloronaphthalene	540	U
88-74-4	2-Nitroaniline	2600	U
131-11-3	Dimethyl Phthalate	540	U
208-96-8	Acenaphthylene	540	U
606-20-2	2,6-Dinitrotoluene	540	U

FORM I SV-1 1/87 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL21

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002868

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B152

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 39 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2600	U
83-32-9	Acenaphthene	540	U
51-28-5	2,4-Dinitrophenol	2600	U
100-02-7	4-Nitrophenol	2600	U
132-64-9	Dibenzofuran	540	U
121-14-2	2,4-Dinitrotoluene	540	U
84-66-2	Diethylphthalate	540	U
7005-72-3	4-Chlorophenyl-phenylether	540	U
86-73-7	Fluorene	540	U
100-10-6	4-Nitroaniline	2600	U
534-52-1	4,6-Dinitro-2-methylphenol	2600	U
86-30-6	N-Nitrosodiphenylamine (1)	540	U
101-55-3	4-Bromophenyl-phenylether	540	U
118-74-1	Hexachlorobenzene	540	U
87-86-5	Pentachlorophenol	2600	U
85-01-8	Phenanthrene	540	U
120-12-7	Anthracene	540	U
84-74-2	Di-n-Butylphthalate	540	U
206-44-0	Fluoranthene	540	U
129-00-0	Pyrene	540	U
85-68-7	Butylbenzylphthalate	540	U
91-94-1	3,3'-Dichlorobenzidine	1100	U
56-55-3	Benzo(a)anthracene	540	U
218-01-9	Chrysene	540	U
117-81-7	bis(2-Ethylhexyl)phthalate	540	U
117-84-0	Di-n-octylphthalate	540	U
205-99-2	Benzo(b)fluoranthene	540	U
207-08-9	Benzo(k)fluoranthene	540	U
50-32-8	Benzo(a)pyrene	540	U
193-39-5	Indeno(1,2,3-cd)Pyrene	540	U
53-70-3	Dibenz(a,h)Anthracene	540	U
191-24-2	Benzo(g,h,i)perylene	540	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL21

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002868

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B152

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 39 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 10

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	5.68	990	~~BJ~~ J
2.		UNKNOWN	7.38	480	~~BJ~~ J
3.	10544-50-0	SULFUR, MOL. (S8)	26.09	580	J
4.	55162-61-3	TETRACONTANE, 3,5,24-TRIMETH	36.34	420	J
5.	54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	38.24	360	J
6.	69296-90-8	CYCLOHEXANONE, 2,3,3-TRIMETH	40.12	360	J
7.	7220-78-2	4,8,13-CYCLOTETRADECATRIENE-	40.69	1500	J
8.	22629-28-3	2-PENTANONE, 5-(2-METHYLENEC	41.32	1300	J
9.	931-96-4	3-CYCLOHEXENE-1-CARBOXALDEHY	41.46	940	J
10.	62337-97-7	CYCLOHEXANE, 1,1,2-TRIMETHYL	42.31	780	J

ah 12/8/8

FORM I SV-TIC 1/87 Rev.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL22

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002869

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B153

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 27 dec. _____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	450	U
111-44-4	bis(2-Chloroethyl)Ether	450	U
95-57-8	2-Chlorophenol	450	U
541-73-1	1,3-Dichlorobenzene	450	U
106-46-7	1,4-Dichlorobenzene	450	U
100-51-6	Benzyl Alcohol	450	U
95-50-1	1,2-Dichlorobenzene	450	U
95-48-7	2-Methylphenol	450	U
39638-32-9	bis(2-Chloroisopropyl)Ether	450	U
106-44-5	4-Methylphenol	450	U
621-64-7	N-Nitroso-Di-n-Propylamine	450	U
67-72-1	Hexachloroethane	450	U
98-95-3	Nitrobenzene	450	U
78-59-1	Isophorone	450	U
88-75-5	2-Nitrophenol	450	U
105-67-9	2,4-Dimethylphenol	450	U
65-85-0	Benzoic Acid	2200	U
111-91-1	bis(2-Chloroethoxy)Methane	450	U
120-83-2	2,4-Dichlorophenol	450	U
120-82-1	1,2,4-Trichlorobenzene	450	U
91-20-3	Naphthalene	450	U
106-47-8	4-Chloroaniline	450	U
87-68-3	Hexachlorobutadiene	450	U
59-50-7	4-Chloro-3-methylphenol	450	U
91-57-6	2-Methylnaphthalene	450	U
77-47-4	Hexachlorocyclopentadiene	450	U
88-06-2	2,4,6-Trichlorophenol	450	U
95-95-4	2,4,5-Trichlorophenol	2200	U
91-58-7	2-Chloronaphthalene	450	U
88-74-4	2-Nitroaniline	2200	U
131-11-3	Dimethyl Phthalate	450	U
208-96-8	Acenaphthylene	450	U
606-20-2	2,6-Dinitrotoluene	450	U

FORM I SV-1 1/87 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL22

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002869

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B153

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 27 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2200	U
83-32-9	Acenaphthene	450	U
51-28-5	2,4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	U
132-64-9	Dibenzofuran	450	U
121-14-2	2,4-Dinitrotoluene	450	U
84-66-2	Diethylphthalate	450	U
7005-72-3	4-Chlorophenyl-phenylether	450	U
86-73-7	Fluorene	450	U
100-10-6	4-Nitroaniline	2200	U
534-52-1	4,6-Dinitro-2-methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	450	U
101-55-3	4-Bromophenyl-phenylether	450	U
118-74-1	Hexachlorobenzene	450	U
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	450	U
120-12-7	Anthracene	450	U
84-74-2	Di-n-Butylphthalate	450 ~~140~~	~~B~~ U
206-44-0	Fluoranthene	20	J
129-00-0	Pyrene	450	U
85-68-7	Butylbenzylphthalate	450	U
91-94-1	3,3'-Dichlorobenzidine	900	U
56-55-3	Benzo(a)anthracene	450	U
218-01-9	Chrysene	450	U
117-81-7	bis(2-Ethylhexyl)phthalate	31	J
117-84-0	Di-n-octylphthalate	450	U
205-99-2	Benzo(b)fluoranthene	450	U
207-08-9	Benzo(k)fluoranthene	450	U
50-32-8	Benzo(a)pyrene	450	U
193-39-5	Indeno(1,2,3-cd)Pyrene	450	U
53-70-3	Dibenz(a,h)Anthracene	450	U
191-24-2	Benzo(g,h,i)perylene	450	U

P2= 12/6/89

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL22

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002869

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B153

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 27 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.00

Number TICs found: 17

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.67	850	~~BJ~~ U
2.	UNKNOWN	7.37	400	~~BJ~~ U
3. 10544-50-0	SULFUR, MOL. (S8)	26.09	700	J
4. 17301-29-0	UNDECANE, 3,7-DIMETHYL-	32.14	280	J
5. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	34.32	410	J
6. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	36.34	750	J
7. 10486-19-8	TRIDECANAL	37.69	220	J
8. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	38.24	540	J
9.	UNKNOWN	38.66	230	J
10. 52783-43-4	NONADECANOL	38.84	330	J
11. 7320-37-8	OXIRANE, TETRADECYL-	39.54	220	J
12. 502-69-2	2-PENTADECANONE, 6,10,14-TRI	40.24	290	J
13. 54411-62-0	D-NORANDROSTAN-16-OL, ACETAT	40.69	650	J
14.	UNKNOWN	41.01	440	J
15. 54411-62-0	D-NORANDROSTAN-16-OL, ACETAT	41.49	400	J
16. 54550-08-2	ANDROSTAN-3-ONE, 17-HYDROXY-	41.83	200	J
17. 7683-64-9	SQUALENE	42.33	660	J

FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL23

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002872

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9104B090

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/23/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

FORM I SV-1 1/87 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL23

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002872

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9104B090

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/23/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	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
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10 ~~2~~	~~BJ~~ 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	20	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

(1) - Cannot be separated from Diphenylamine

12/6/89

FORM I SV-2 1/87 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL23

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002872

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 91048090

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/23/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I SV-TIC 1/87 Rev.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL24

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002875

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9104B093

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/24/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

FORM I SV-1 1/87 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL24

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002875

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9104B093

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/24/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	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
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10 ~~2~~	~~BJ~~
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	1	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

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL24

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002875

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9104B093

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/24/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 10544-50-0	SULFUR, MOL. (S8)	32.22	31	J
2. 57-88-5	CHOLESTEROL	46.71	390	J
3. 4651-51-8	ERGOST-5-EN-3-OL, (3.BETA.)-	49.19	24	J
4. 601-57-0	CHOLEST-4-EN-3-ONE	49.76	15	J
5.	UNKNOWN STEROL	49.99	9.0	J
6. 83-47-6	.GAMMA.-SITOSTEROL	51.61	55	J

FORM I SV-TIC 1/87 Rev.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL25

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002876

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9104B094

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/24/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

FORM I SV-1 1/87 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL25

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002876

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9104B094

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/24/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	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
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10 ~~2~~	~~BJ~~ 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	20	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

(1) - Cannot be separated from Diphenylamine

12/6/89

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL25

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002876

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9104B094

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/24/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 10544-50-0	SULFUR, MOL. (S8)	32.19	34	J
2. 57-88-5	CHOLESTEROL	46.69	340	J
3. 4651-51-8	ERGOST-5-EN-3-OL, (3.BETA.)-	49.18	21	J
4. 601-54-7	CHOLEST-5-EN-3-ONE	49.78	11	J
5.	UNKNOWN STEROL	49.99	9.0	J
6. 83-47-6	.GAMMA.-SITOSTEROL	51.59	84	J

FORM I SV-TIC 1/87 Rev

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL28

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002877

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9104B095

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/24/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

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
100-51-6	Benzyl Alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	50	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	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethyl Phthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

FORM I SV-1 1/87 Rev.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL28

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002877

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9104B095

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/24/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	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
100-10-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	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	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-Butylphthalate	10~~3~~	~~B~~ 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	20	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

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL28

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002877

Sample wt/vol: 1000 (g/mL) ML Lab File ID: 9104B095

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/18/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/24/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I SV-TIC 1/87 Rev.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN15

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002862

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B146

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 9 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/31/89

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.00

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
100-51-6	Benzyl Alcohol	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	1800	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	1800	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethyl Phthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U

FORM I SV-1 1/87 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN15

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002862

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B146

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 9 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/31/89

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	360	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	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
100-10-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	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	1800	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
84-74-2	Di-n-Butylphthalate	360 ~~150~~	~~B~~ 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	730	U
56-55-3	Benzo(a)anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)phthalate	360	U
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

PRD 12/6/89

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN15

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002862

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B146

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 9 dec. _____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/31/89

GPC Cleanup: (Y/N) N pH: 6.8 Dilution Factor: 1.00

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.73	800	~~B~~J4
2.	UNKNOWN	7.38	340	~~B~~J4
3. 23178-88-3	3-CYCLOHEXENE-1-METHANOL, . A	39.42	170	J

wh 12/8/

FORM I SV-TIC 1/87 Rev.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN16

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002863

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B147

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 6 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350	U
111-44-4	bis(2-Chloroethyl)Ether	350	U
95-57-8	2-Chlorophenol	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
100-51-6	Benzyl Alcohol	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
39638-32-9	bis(2-Chloroisopropyl)Ether	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-Di-n-Propylamine	350	U
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
65-85-0	Benzoic Acid	1700	U
111-91-1	bis(2-Chloroethoxy)Methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
91-20-3	Naphthalene	80	J
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-methylphenol	350	U
91-57-6	2-Methylnaphthalene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethyl Phthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U

FORM I SV-1 1/87 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN16

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002863

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B147

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 6 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	350	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	10	J
121-14-2	2,4-Dinitrotoluene	350	U
84-66-2	Diethylphthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-10-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	48	J
120-12-7	Anthracene	350	U
84-74-2	Di-n-Butylphthalate	350 ~~110~~	~~BJ~~ U
206-44-0	Fluoranthene	350	U
129-00-0	Pyrene	350	U
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	700	U
56-55-3	Benzo(a)anthracene	350	U
218-01-9	Chrysene	350	U
117-81-7	bis(2-Ethylhexyl)phthalate	39	J
117-84-0	Di-n-octylphthalate	350	U
205-99-2	Benzo(b)fluoranthene	350	U
207-08-9	Benzo(k)fluoranthene	350	U
50-32-8	Benzo(a)pyrene	350	U
193-39-5	Indeno(1,2,3-cd)Pyrene	350	U
53-70-3	Dibenz(a,h)Anthracene	350	U
191-24-2	Benzo(g,h,i)perylene	350	U

TRD 12/6/89

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN16

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002863

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 91C5B147

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 6 dec. _____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 1.00

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.72	760	~~BJ~~ U
2. 544-76-3	HEXADECANE	19.82	1000	J
3. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	21.45	1900	J
4. 54105-67-8	HEPTADECANE, 2,6-DIMETHYL-	21.55	960	J
5. 2974-92-7	1,1'-BIPHENYL, 3,4-DICHLORO-	22.70	2400	J
6. 17301-32-5	UNDECANE, 4,7-DIMETHYL-	23.02	1600	J
7. 37680-65-2	1,1'-BIPHENYL, 2,2',5-TRICHL	23.19	3000	J
8. 55702-46-0	1,1'-BIPHENYL, 2,3,4-TRICHLO	24.05	7200	J
9. 26914-33-0	1,1'-BIPHENYL, TETRACHLORO-	24.32	880	J
10. 55702-46-0	1,1'-BIPHENYL, 2,3,4-TRICHLO	24.52	3400	J
11. 26914-33-0	1,1'-BIPHENYL, TETRACHLORO-	25.06	2800	J
12. 26914-33-0	1,1'-BIPHENYL, TETRACHLORO-	25.17	2400	J
13. 26914-33-0	1,1'-BIPHENYL, TETRACHLORO-	25.26	1400	J
14. 26914-33-0	1,1'-BIPHENYL, TETRACHLORO-	25.62	3300	J
15. 12674-11-2	AROCLOR 1016	25.72	3300	J
16. 41464-40-8	1,1'-BIPHENYL, 2,2',4,5'-TET	25.96	4800	J
17. 33284-53-6	1,1'-BIPHENYL, 2,3,4,5-TETRA	26.59	720	J
18. 32598-13-3	1,1'-BIPHENYL, 3,3',4,4'-TET	26.71	770	J
19. 63194-06-9	1,1'-BIPHENYL, 2,2',4,5,6'-P	26.81	1400	J
20. 1560-97-0	DODECANE, 2-METHYL-	27.24	740	J

WJu 12/8/8

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN17

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002864

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 9105B148

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 9 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/01/89

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

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
100-51-6	Benzyl Alcohol	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
39638-32-9	bis(2-Chloroisopropyl)Ether	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
65-85-0	Benzoic Acid	1800	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	1800	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethyl Phthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U

FORM I SV-1 1/87 Rev.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL18

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002865

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 4 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/26/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

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

CAS NO.	COMPOUND		Q
319-84-6	alpha-BHC	8.3	U
319-85-7	beta-BHC	8.3	U
319-86-8	delta-BHC	8.3	U
58-89-9	gamma-BHC (Lindane)	8.3	U
76-44-8	Heptachlor	8.3	U
309-00-2	Aldrin	8.3	U
1024-57-3	Heptachlor epoxide	8.3	U
959-98-8	Endosulfan I	8.3	U
60-57-1	Dieldrin	17	U
72-55-9	4,4'-DDE	17	U
72-20-8	Endrin	17	U
33213-65-9	Endosulfan II	17	U
72-54-8	4,4'-DDD	17	U
1031-07-8	Endosulfan sulfate	17	U
50-29-3	4,4'-DDT	17	U
72-43-5	Methoxychlor	83	U
53494-70-5	Endrin ketone	17	U
5103-71-9	alpha-Chlordane	8.3	U
5103-74-2	gamma-Chlordane	8.3	U
8001-35-2	Toxaphene	170	U
12674-11-2	Aroclor-1016	83	U
11104-28-2	Aroclor-1221	83	U
11141-16-5	Aroclor-1232	83	U
53469-21-9	Aroclor-1242	83	U
12672-29-6	Aroclor-1248	83	U
11097-69-1	Aroclor-1254	170	U
11096-82-5	Aroclor-1260	170	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL19

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002866

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 9 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/26/89

GPC Cleanup: (Y/N) N pH: 6.6 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.8	U
319-85-7	beta-BHC	8.8	U
319-86-8	delta-BHC	8.8	U
58-89-9	gamma-BHC (Lindane)	8.8	U
76-44-8	Heptachlor	8.8	U
309-00-2	Aldrin	8.8	U
1024-57-3	Heptachlor epoxide	8.8	U
959-98-8	Endosulfan I	8.8	U
60-57-1	Dieldrin	18	U
72-55-9	4,4'-DDE	18	U
72-20-8	Endrin	18	U
33213-65-9	Endosulfan II	18	U
72-54-8	4,4'-DDD	18	U
1031-07-8	Endosulfan sulfate	18	U
50-29-3	4,4'-DDT	18	U
72-43-5	Methoxychlor	88	U
53494-70-5	Endrin ketone	18	U
5103-71-9	alpha-Chlordane	8.8	U
5103-74-2	gamma-Chlordane	8.8	U
8001-35-2	Toxaphene	180	U
12674-11-2	Aroclor-1016	88	U
11104-28-2	Aroclor-1221	88	U
11141-16-5	Aroclor-1232	88	U
53469-21-9	Aroclor-1242	88	U
12672-29-6	Aroclor-1248	88	U
11097-69-1	Aroclor-1254	180	U
11096-82-5	Aroclor-1260	180	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL20

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002867

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 14 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/26/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	9.3	U
319-85-7	beta-BHC	9.3	U
319-86-8	delta-BHC	9.3	U
58-89-9	gamma-BHC (Lindane)	9.3	U
76-44-8	Heptachlor	9.3	U
309-00-2	Aldrin	9.3	U
1024-57-3	Heptachlor epoxide	9.3	U
959-98-8	Endosulfan I	9.3	U
60-57-1	Dieldrin	19	U
72-55-9	4,4'-DDE	19	U
72-20-8	Endrin	19	U
33213-65-9	Endosulfan II	19	U
72-54-8	4,4'-DDD	19	U
1031-07-8	Endosulfan sulfate	19	U
50-29-3	4,4'-DDT	19	U
72-43-5	Methoxychlor	93	U
53494-70-5	Endrin ketone	19	U
5103-71-9	alpha-Chlordane	9.3	U
5103-74-2	gamma-Chlordane	9.3	U
8001-35-2	Toxaphene	190	U
12674-11-2	Aroclor-1016	93	U
11104-28-2	Aroclor-1221	93	U
11141-16-5	Aroclor-1232	93	U
53469-21-9	Aroclor-1242	93	U
12672-29-6	Aroclor-1248	93	U
11097-69-1	Aroclor-1254	190	U
11096-82-5	Aroclor-1260	190	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL21

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002868

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 39 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/26/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	13	U
319-85-7	beta-BHC	13	U
319-86-8	delta-BHC	13	U
58-89-9	gamma-BHC (Lindane)	13	U
76-44-8	Heptachlor	13	U
309-00-2	Aldrin	13	U
1024-57-3	Heptachlor epoxide	13	U
959-98-8	Endosulfan I	13	U
60-57-1	Dieldrin	26	U
72-55-9	4,4'-DDE	26	U
72-20-8	Endrin	26	U
33213-65-9	Endosulfan II	26	U
72-54-8	4,4'-DDD	26	U
1031-07-8	Endosulfan sulfate	26	U
50-29-3	4,4'-DDT	26	U
72-43-5	Methoxychlor	130	U
53494-70-5	Endrin ketone	26	U
5103-71-9	alpha-Chlordane	13	U
5103-74-2	gamma-Chlordane	13	U
8001-35-2	Toxaphene	260	U
12674-11-2	Aroclor-1016	130	U
11104-28-2	Aroclor-1221	130	U
11141-16-5	Aroclor-1232	130	U
53469-21-9	Aroclor-1242	130	U
12672-29-6	Aroclor-1248	130	U
11097-69-1	Aroclor-1254	260	U
11096-82-5	Aroclor-1260	260	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL22

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002869

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 27 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/26/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	11	U
319-85-7	beta-BHC	11	U
319-86-8	delta-BHC	11	U
58-89-9	gamma-BHC (Lindane)	11	U
76-44-8	Heptachlor	11	U
309-00-2	Aldrin	11	U
1024-57-3	Heptachlor epoxide	11	U
959-98-8	Endosulfan I	11	U
60-57-1	Dieldrin	22	U
72-55-9	4,4'-DDE	22	U
72-20-8	Endrin	22	U
33213-65-9	Endosulfan II	22	U
72-54-8	4,4'-DDD	22	U
1031-07-8	Endosulfan sulfate	22	U
50-29-3	4,4'-DDT	22	U
72-43-5	Methoxychlor	110	U
53494-70-5	Endrin ketone	22	U
5103-71-9	alpha-Chlordane	11	U
5103-74-2	gamma-Chlordane	11	U
8001-35-2	Toxaphene	220	U
12674-11-2	Aroclor-1016	110	U
11104-28-2	Aroclor-1221	110	U
11141-16-5	Aroclor-1232	110	U
53469-21-9	Aroclor-1242	110	U
12672-29-6	Aroclor-1248	110	U
11097-69-1	Aroclor-1254	220	U
11096-82-5	Aroclor-1260	220	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL23

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002872

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/17/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/07/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

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
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST 1/87 Rev.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL24

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002875

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/17/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/07/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

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
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST 1/87

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL25

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002876

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/17/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/07/89

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1

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
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST 1/87

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL28

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: 91002877

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/17/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 11/07/89

GPC Cleanup: (Y/N) N pH: 5.0 Dilution Factor: 1

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
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN15

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002862

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 9 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/26/89

GPC Cleanup: (Y/N) N pH: 6.7 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.8	U
319-85-7	beta-BHC	8.8	U
319-86-8	delta-BHC	8.8	U
58-89-9	gamma-BHC (Lindane)	8.8	U
76-44-8	Heptachlor	8.8	U
309-00-2	Aldrin	8.8	U
1024-57-3	Heptachlor epoxide	8.8	U
959-98-8	Endosulfan I	8.8	U
60-57-1	Dieldrin	18	U
72-55-9	4,4'-DDE	18	U
72-20-8	Endrin	18	U
33213-65-9	Endosulfan II	18	U
72-54-8	4,4'-DDD	18	U
1031-07-8	Endosulfan sulfate	18	U
50-29-3	4,4'-DDT	18	U
72-43-5	Methoxychlor	88	U
53494-70-5	Endrin ketone	18	U
5103-71-9	alpha-Chlordane	8.8	U
5103-74-2	gamma-Chlordane	8.8	U
8001-35-2	Toxaphene	180	U
12674-11-2	Aroclor-1016	88	U
11104-28-2	Aroclor-1221	88	U
11141-16-5	Aroclor-1232	88	U
53469-21-9	Aroclor-1242	88	U
12672-29-6	Aroclor-1248	88	U
11097-69-1	Aroclor-1254	180	U
11096-82-5	Aroclor-1260	180	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN16

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91102863

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 6 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/09/89

GPC Cleanup: (Y/N) N pH: 7.2 Dilution Factor: 5

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	43	U
319-85-7	beta-BHC	43	U
319-86-8	delta-BHC	43	U
58-89-9	gamma-BHC (Lindane)	43	U
76-44-8	Heptachlor	43	U
309-00-2	Aldrin	43	U
1024-57-3	Heptachlor epoxide	43	U
959-98-8	Endosulfan I	43	U
60-57-1	Dieldrin	85	U
72-55-9	4,4'-DDE	85	U
72-20-8	Endrin	85	U
33213-65-9	Endosulfan II	85	U
72-54-8	4,4'-DDD	85	U
1031-07-8	Endosulfan sulfate	85	U
50-29-3	4,4'-DDT	85	U
72-43-5	Methoxychlor	430	U
53494-70-5	Endrin ketone	85	U
5103-71-9	alpha-Chlordane	43	U
5103-74-2	gamma-Chlordane	43	U
8001-35-2	Toxaphene	850	U
12674-11-2	Aroclor-1016	430	U
11104-28-2	Aroclor-1221	430	U
11141-16-5	Aroclor-1232	430	U
53469-21-9	Aroclor-1242	12000	
12672-29-6	Aroclor-1248	430	U
11097-69-1	Aroclor-1254	850	U
11096-82-5	Aroclor-1260	850	U

FORM I PEST 1/87 Rev.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN17

Lab Name: HAZLET Contract: 68-01-7418

Lab Code: HAZLET Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: 91002864

Sample wt/vol: 30 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 9 dec. ____ Date Extracted: 10/23/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 10/26/89

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.8	U
319-85-7	beta-BHC	8.8	U
319-86-8	delta-BHC	8.8	U
58-89-9	gamma-BHC (Lindane)	8.8	U
76-44-8	Heptachlor	8.8	U
309-00-2	Aldrin	8.8	U
1024-57-3	Heptachlor epoxide	8.8	U
959-98-8	Endosulfan I	8.8	U
60-57-1	Dieldrin	18	U
72-55-9	4,4'-DDE	18	U
72-20-8	Endrin	18	U
33213-65-9	Endosulfan II	18	U
72-54-8	4,4'-DDD	18	U
1031-07-8	Endosulfan sulfate	18	U
50-29-3	4,4'-DDT	18	U
72-43-5	Methoxychlor	88	U
53494-70-5	Endrin ketone	18	U
5103-71-9	alpha-Chlordane	8.8	U
5103-74-2	gamma-Chlordane	8.8	U
8001-35-2	Toxaphene	180	U
12674-11-2	Aroclor-1016	88	U
11104-28-2	Aroclor-1221	88	U
11141-16-5	Aroclor-1232	88	U
53469-21-9	Aroclor-1242	88	U
12672-29-6	Aroclor-1248	88	U
11097-69-1	Aroclor-1254	180	U
11096-82-5	Aroclor-1260	180	U

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 10/27 FIT Receipt Date 12/1 Review Completed 1/3/90

TO: Tuck
FROM: Mary Gzyra
SUBJECT: North Manchester Foundry
PAN: IN0681SB (1 hour charged for review) Case # 12901

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# 8	Low Soil	#	Low Soil
4	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

✓ Incomplete, awaiting Water & Soil Inorg

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

_____ Compounds were detected in sample(s); see enclosed sheet.

Book No. 9 Page No. _____ Date Sampled 10/12

0759:2

recycled paper

1/3/89

Table 4-___
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED _____ SAMPLES

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number 1	2	3	4	5	6	7	8	9	10	11	12
															dup	[illegible]
				Date												
				Time												
				Well Depth (Feet)												
				CWL Log Number												
				CLP Organic Traffic Report Number	EGN 15	16	17	EGL 18	19	20	21	22	EGL 23	24	25	28
				CLP Inorganic Traffic Report Number												
				Temperature (°C)												
				Specific Conductivity (µmhos/cm)												
				pH												
				Compound Detected (values in µg/L or µg/kg)												
				Volatile Organics												
Gas	A,D,G,I	OCC	HH	chloromethane												
Gas	A,D,G,I	OCC	HH	bromomethane												
Gas	A,D,G,I	OCC	HH	vinyl chloride												
Gas	A,D,G,I	OCC	HH	chloroethane												
Liquid	A,D,H,I	SOL	HH,CLA	methylene chloride		7	4 J	10 J	8							
Liquid	E,H,I,A	SOL	K,CLA	acetone									16	16	5 J	4 J
Liquid	A,H,I	SOL	SH	carbon disulfide												
Liquid	A,D,G,I	SOL	HH	1,1-dichloroethene												
Liquid	A,D,H,G	SOL	HH	1,1-dichloroethane												
Liquid	A,D,G	SOL	HH	1,2-dichloroethene (total)												
Liquid	A,D	SOL	HH	chloroform												
Liquid	A,D,G	SOL	HH	1,2-dichloroethane												
Liquid	A,E,G	SOL	K,CLA	2-butanone (MEK)												
Liquid	A,D	SOL	HH	1,1,1-trichloroethane												
Liquid	A,D	SOL	HH	carbon tetrachloride												
Liquid	A,D,G	SOL	HYD	vinyl acetate												
Liquid	A,D	OCC	HH	bromodichloromethane												
Liquid	A,D,G	SOL	HH	1,2-dichloropropane												
Liquid	A,D,G	SOL	HH	cis-1,3-dichloropropene												
Liquid	A,D,G,B	SOL	HH	trichloroethene												
Liquid	A,D	OCC	HH	dibromochloromethane												
Liquid	A,D	SOL	HH	1,1,2-trichloroethane												
Liquid	A,G	SOL	A	benzene												
Liquid	A,D,G	SOL	HH	trans-1,3-dichloropropene												
Liquid	A,D	SOL	HH,CLA	bromoform												
Liquid	A,E,G	SOL	K,CLA	4-methyl-2-pentanone												
Liquid	A,E,G	SOL	K	2-hexanone												
Liquid	A,D	SOL	HH	tetrachloroethene												
Liquid	A,G,E	SOL	A,CLA	toluene				5 J				15				
Liquid	A,D,E	SOL	HH	1,1,2,2-tetrachloroethane												
Liquid	A,D,G	SOL	HA	chlorobenzene												
Liquid	A,G	SOL	A	ethylbenzene												
Liquid	A,D,G	OCC	A	styrene												
Liquid	A,G	SOL	A	xylenes (total)												

DATA QUALIFIERS

Contractor: SPL, Inc

Case 12901

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

(5) Surrogate Recoveries -

All volatile surrogate recoveries are within the QC limits with the exception of sample EGL18 which has two surrogate recoveries outside of QC limits. This sample was re-analyzed and the same surrogates were outside the QC limits again in sample EGL18RE. Therefore all positive values for samples EGL18 and EGL18RE should be qualified as estimated J, and negative values should be qualified as estimated quantitation limits, UJ.

(6) Matrix Spikes / Matrix Spike Duplicates -

All matrix spike / matrix spike duplicate recoveries are within the QC limits. All RPD's are within QC limits as well.

(7) Field Duplicates and Blanks -

There were no field duplicates included with this case. Sample EGL28 was identified as a field blank. This sample contained acetone at a level below the CRQL and a single unknown TIC.

(8) Internal Standard -

Sample EGL18 had one internal standard, chlorobenzene-d5, whose area was outside of the required QC limits. The sample was re-analyzed and the same internal standard had low area. Positive values for EGL18 and EGL18RE are flagged as estimated, J, and negative values are qualified as estimated quantitation limits, UJ. See Table 4 for compounds affected by this IS.

(9) Compound Quantitation and Reported Detection Limit

Correct limits were used and compound quantitation was performed correctly with respect to sample size and dilutions.

Reviewed by: Rob Wilhelm

Phone: (312) 353-2960

Date: 11/22/89

DATA QUALIFIERS

Contractor: SPL, Inc.

Case 12901

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

(10) Additional Case-Specific Problems -

None

Reviewed by: Rob Wilhelm

Phone: (317) 353-2960

Date: 11/22/89

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE MSL COMPOUNDS

CASE/SAS # 12901 H_2O CONTRACTOR SPL

Instrument #	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10/2/89			10/7/89 1116											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane				.1601	49.2	J									
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone															
Carbon Disulfide				.1125	37.0	J									
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	.1244	7.9	R	.045	2.3	R									
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate				.523	37.1	J									
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
Cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
2-Methyl-2-Pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

√BLK01
EGL28
EGL23
EGL23MS
EGL23MSD
EGL24
EGL25

Reviewer's Initials/Date: RD 11/21/89

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 12981 Sou CONTRACTOR SPL

Instrument # A	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME: 10/5/89	10/5/89			10/17/89 1327			10/18/89 0929								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone	1.504	37.7	J	1.022	32.0	J	1.08	27.8	J						
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	.067	9.4	R	.054	19.4	R	.060	10.4	R						
1,2-Dichloroethane															
1,1,1-Trichloroethane	.331	6.5		.420	26.9	J	.438	32.3	J						
Carbon Tetrachloride	.264	6.8	R	.345	38.3	J	.375	42.0	J						
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
2-Methyl-2-Pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

VBLK02	VBLK03
EGL18	EGL19
EGL20	EGL22
EGL21	EGN16
EGN15	EGN17
	EGN17MS
	EGN17MSD
	EGL18RE

Reviewer's Initials/Date: RW 11/22/89

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

TABLE 4

VOLATILE INTERNAL STANDARDS WITH CORRESPONING TCL ANALYTES ASSIGNED FOR QUANTITATION

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

(surr) = surrogate compound
*Calibration check compounds

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-nitrosodiphenylamine	Butylbenzyl Phthalate	Benzo(b)fluoranthene
2-Chlorophenol	2-Nitrophenol	2,4,5-Trichlorophenol	1,2-Diphenylhydrazine	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	Benzoic acid	2-Nitroaniline	Hexachlorobenzene	bis(2-ethylhexyl Phthalate	Indeno(1,2,3-cd) pyrene
Benzyl Alcohol	bis(2-Chloroethoxy)methane	Dimethyl Phthalate	Pentachlorophenol	Chrysene	Dibenz(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	Naphthalene	Acenaphthene	Di-n-butyl Phthalate		
4-Methylphenol	4-Chloroaniline	2,4-Dinitrophenol	Fluoranthene		
N-nitroso-Di-n-propylamine	Hexachlorobutadiene	4-Nitrophenol			
Hexachloroethane	4-Chloro-3-methylphenol	Dibenzofuran			
2-Fluorophenol (surr)	2-Methylnaphthalene	2,4-Dinitrotoluene			
Phenol-d_6 (surr)	Nitrobenzene-d_5 (surr)	2,6-Dinitrotoluene			
		Diethyl Phthalate			
		4-Chlorophenyl-phenyl ether			
		Fluorene			
		4-Nitroaniline			
		2-Fluorobiphenyl (surr)			
		2,4,6-Tribromo Phenol (surr)			

Surr = surrogate compound

GENERAL DATA QUALIFIERS

For reporting results to the USEPA, the following contract specific qualifiers are to be used. The seven qualifiers defined below are not subject to modification by the laboratory. Up to five qualifiers may be reported on Form I for each compound.

The seven EPA-defined qualifiers to be used are as follows:

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if the sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the sample quantitation limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U)}{D} \times df \qquad \text{where } D = \frac{100 - \%\ \text{moisture}}{100}$$

and df = dilution factor

$$\text{at 24\% moisture, } D = \frac{100-24}{100} = 0.76$$

$$\frac{(330\ U)}{.76} \times 10 = 4300\ U$$ rounded to the appropriate number of significant figures

For soil samples subjected to GPC clean-up procedures, the CRQL is also multiplied by 2, to account for the fact that only half of the extract is recovered.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it as 3J. The sample quantitation limit must be adjusted for both dilution and percent moisture as discussed for the U flag, so that if a sample with 24% moisture and a 1 to 10 dilution factor has a calculated concentration of 300 ug/L and a sample quantitation limit of 430 ug/kg, report the concentration as 300J on Form I.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract shall be confirmed by GC/MS.

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	EGL23	101	104	84	0	0
02	EGL24	103	107	97	0	0
03	EGL25	105	108	95	0	0
04	EGL28	103	111	97	0	0
05	EGL23MS	102	101	104	0	0
06	EGL23MSD	106	109	89	0	0
07	VBLK01	103	105	97	0	0

	QC LIMITS
S1 (TOL) = Toluene-d8	(88-110)
S2 (BFB) = Bromofluorobenzene	(86-115)
S3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

000045

FORM II VOA-1 1/87 Rev.

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	EGL18	124 *	72 *	98	0	2
02	EGL18RE	122 *	70 *	97	0	2
03	EGL19	95	80	95	0	0
04	EGL20	103	104	96	0	0
05	EGL21	104	97	115	0	0
06	EGL22	95	89	97	0	0
07	EGN15	100	98	93	0	0
08	EGN16	106	85	101	0	0
09	EGN17	96	88	93	0	0
10	EGN17MS	97	89	93	0	0
11	EGN17MSD	99	92	94	0	0
12	VBLK02	99	100	96	0	0
13	VBLK03	96	98	101	0	0

		QC LIMITS
S1 (TOL)	= Toluene-d8	(81-117)
S2 (BFB)	= Bromofluorobenzene	(74-121)
S3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

000046

FORM II VOA-2 1/87 Rev.

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix Spike - EPA Sample No.: EGL23

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50.0	0	50.3	101	61-145
Trichloroethene	50.0	0	49.4	99	71-120
Benzene	50.0	0	53.4	107	76-127
Toluene	50.0	0	53.6	107	76-125
Chlorobenzene	50.0	0	51.5	103	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.0	53.4	107	-6	14	61-145
Trichloroethene	50.0	50.0	100	-1	14	71-120
Benzene	50.0	53.7	107	0	11	76-127
Toluene	50.0	54.3	109	-2	13	76-125
Chlorobenzene	50.0	51.9	104	-1	13	75-130

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: CLP,12901,EGL18,EGL23,L,W,E017006,V,EPA
45/3-220@8---INST B1---5.0 MLS

000047

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix Spike - EPA Sample No.: EGN17 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	55.6	0	56.3	101	59-172
Trichloroethene	55.6	0	57.4	103	62-137
Benzene	55.6	0	57.9	104	66-142
Toluene	55.6	0	58.0	104	59-139
Chlorobenzene	55.6	0	58.7	106	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	55.6	58.1	104	-3	22	59-172
Trichloroethene	55.6	62.9	113	-9	24	62-137
Benzene	55.6	63.2	114	-9	21	66-142
Toluene	55.6	60.9	110	-6	21	59-139
Chlorobenzene	55.6	62.3	112	-6	21	60-133

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

* Values outside of QC limits

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

COMMENTS: CLP,12901,EGL18,EGN17,L,S,E017012,V,EPA
45/3-220@8---INST A---5.0 GM

000048

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Lab File ID: 1017VWBB1 Lab Sample ID: VWBLK011017B

Date Analyzed: 10/17/89 Time Analyzed: 1223

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

Instrument ID: B1

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EGL23	E017006	E017006	1449
02	EGL24	E017007	E017007	1647
03	EGL25	E017008	E017008	1728
04	EGL28	E017009	E017009	1403
05	EGL23MS	E017006MS	E017006MS	1526
06	EGL23MSD	E017006MSD	E017006MSD	1606

COMMENTS: CLP,BLANK,,VBLK01,L,W,VWBLK011017B,V,BLANK
45/3-220@8---INST B1

000049

FORM IV VOA 1/87 Rev.

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Lab File ID: 1017VSBA1 Lab Sample ID: VSBLK021017A

Date Analyzed: 10/17/89 Time Analyzed: 1404

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EGL18	E017001	E017001	2106
02	EGL20	E017003	E017003	2236
03	EGL21	E017004	E017004	2321
04	EGN15	E017010	E017010	051

COMMENTS: CLP,BLANK,,VBLK02,L,S,VSBLK021017A,V,BLANK
45/3-220@8---INST A

000050

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Lab File ID: 1018VSBA1 Lab Sample ID: VSBLK031018A

Date Analyzed: 10/18/89 Time Analyzed: 1006

Matrix: (soil/water) SOIL Level:(low/med) LOW

Instrument ID: A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EGL18RE	E017001B	E017001B	1608
02	EGL19	E017002A	E017002A	1131
03	EGL22	E017005A	E017005A	1217
04	EGN16	E017011	E017011	1304
05	EGN17	E017012	E017012	1400
06	EGN17MS	E017012MS	E017012MS	1445
07	EGN17MSD	E017012MSD	E017012MSD	1530

COMMENTS: CLP,BLANK,,VBLK03,L,S,VSBLK031018A,V,BLANK
45/3-220@8---INST A

000051

FORM IV VOA 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: VWBLK011017B

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 1017VWBB1

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 100 Date Analyzed: 10/17/89

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

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	4	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

000282

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: VWBLK011017B

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: 1017VWBB1

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 100 Date Analyzed: 10/17/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.17	15	J

000283

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: VSBLK021017A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1017VSBA1

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ Date Analyzed: 10/17/89

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

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	6	
67-64-1	Acetone	9	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK02

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: VSBLK021017A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1017VSBA1

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ Date Analyzed: 10/17/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.70	69	J

000292

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: VSBLK031018A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1018VSBA1

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ Date Analyzed: 10/18/89

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

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	5	U
67-64-1	Acetone	6	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
VBLK03

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: VSBLK031018A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 1018VSBA1

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. ____ Date Analyzed: 10/18/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.70	45	J

000304

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL18

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017001

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 5 Date Analyzed: 10/17/89

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

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	~~B~~ U
67-64-1	Acetone	14	~~B~~ U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

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000050

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL18

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017001

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 5 Date Analyzed: 10/17/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.70	89	J

G00091

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL18RE

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017001B

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017001B

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 5 Date Analyzed: 10/18/89

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

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	10	J
67-64-1	Acetone	11 ~~6~~	BJ UJ
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	J
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

11/21/89

11/27/89

000072

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL18RE

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017001B

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017001B

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 5 Date Analyzed: 10/18/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.83	60	J

000073

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL19

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017002A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017002A

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 9 Date Analyzed: 10/18/89

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

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	8	
67-64-1	Acetone	~~8~~ 11	~~BJ~~
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

TRD 11/21/89

000086

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL19

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017002A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017002A

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 9 Date Analyzed: 10/18/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.67	65	J

000087

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL20

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017003

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 19 Date Analyzed: 10/17/89

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

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

CAS NO.	COMPOUND		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	13 ~~13~~	~~B~~ U
67-64-1	Acetone	12 ~~9~~	~~BJ~~ UJ
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

PW 11/21/89

000098

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL20

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017003

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 19 Date Analyzed: 10/17/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.70	67	J

000099

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL21

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017004

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 35 Date Analyzed: 10/17/89

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	17	~~B~~ U
67-64-1	Acetone	31	~~B~~ U
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (total)	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	15	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-02-6	trans-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U

Rev 11/21/89

000120

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO

EGL21

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017004

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 35 Date Analyzed: 10/17/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	2.13	94	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL22

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017005A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017005A

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 30 Date Analyzed: 10/18/89

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

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	7 ~~5~~	~~J~~ U
67-64-1	Acetone	14 ~~8~~	~~BJ~~ UJ
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	15	
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL22

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017005A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017005A

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 30 Date Analyzed: 10/18/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.63	60	J

000123

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL23

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: E017006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E017006

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 100 Date Analyzed: 10/17/89

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

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	5	U
67-64-1	Acetone	16	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL23

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: E017006

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E017006

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 100 Date Analyzed: 10/17/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.20	18	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL24

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: E017007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E017007

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 100 Date Analyzed: 10/17/89

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

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	5	U
67-64-1	Acetone	16	
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL24

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: E017007

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E017007

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 100 Date Analyzed: 10/17/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.20	13	J

000147

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL25

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: E017008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E017008

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 100 Date Analyzed: 10/17/89

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

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	5	U
67-64-1	Acetone	~~5~~	~~J~~
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

TEO 11/21/89

W/W 11/27

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.
EGL25

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: E017008

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E017008

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 100 Date Analyzed: 10/17/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.20	12	J

000157

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL28

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: E017009

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E017009

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 100 Date Analyzed: 10/17/89

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

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

CAS NO.	COMPOUND		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	5	U
67-64-1	Acetone	~~10~~ 4	~~U~~ A
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

Rev 11/21/89

11/27/89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL28

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) WATER Lab Sample ID: E017009

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E017009

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 100 Date Analyzed: 10/17/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.20	13	J

on
9

000107

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN15

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017010

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017010

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 14 Date Analyzed: 10/18/89

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

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	10	~~B~~ U
67-64-1	Acetone	12 ~~B~~	~~BJ~~ UJ
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

RD 11/21/89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN15

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017010

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017010

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 14 Date Analyzed: 10/18/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.63	38	J

G00177

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN16

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017011

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017011

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 7 Date Analyzed: 10/18/89

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

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	7	
67-64-1	Acetone	117	~~BJ~~ UJ
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

PLO 11/21/89

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN16

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017011

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017011

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 7 Date Analyzed: 10/18/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.70	38	J

000183

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN17

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017012

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017012

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 10 Date Analyzed: 10/18/89

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

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	~~6~~	~~J~~ U
67-64-1	Acetone	~~11~~ 8	~~BJ~~ U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

Rev 11/21/89

000200

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN17

Lab Name: SPL HOUSTON Contract: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____ SDG No.: EGL18

Matrix: (soil/water) SOIL Lab Sample ID: E017012

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E017012

Level: (low/med) LOW Date Received: 10/13/89

% Moisture: not dec. 10 Date Analyzed: 10/18/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	1.57	71	J

000201

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 11/17 FIT Receipt Date 1/4 Review Completed 1/9/90

TO: Sue C/C
FROM: Mary Gzyra
SUBJECT: North Manchester
PAN: TN0681SB (1 hour charged for review) Case # 12301

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#	Low Soil	# 8	Low Soil
	Low Water	4	Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status [illegible] Completed!!

_____ Incomplete, awaiting _____

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

_____ Compounds were detected in sample(s); see enclosed sheet.

Book No. 9 Page No. _____ Date Sampled 10/12

0759:2

recycled paper

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number 1 HEFE 61	2 62	3 63	4 64	5 65	6 66	7 67	8 68	9	10	11	12
				Analyte Detected (values in mg/kg or µg/L)												
Solid	A,D	MES	CSC/CWC	aluminum	16200	1960	5430	2010	1980	1260	4610	4000				
Solid	A,D	MES	HM	antimony												
Solid	A,D	MES	HM	arsenic	10 JN	2.1 JNB	2.6 JN	1.2 JNB	2.9 JN	1.6 JNB	4.4 JN	1.8 JNB				
Solid	A,D	MES	CSC/CWC	barium	168	23.9 B	52	77.6	28 B	19.4 B	55.2 B	42 B				
Solid	A,D	MES	M	beryllium	0.74 B											
Solid	A,D	MES	HM	cadmium					1.2	0.78 B						
Solid	D	MES	CSC/CWC	calcium	3550	1460	578 B	1950	64200	48300	30900	2810				
Solid	A,D	MES	HM	chromium	26.2	6.8	8.1	4.2	13.8	9.4	10.3	8.7				
Solid	A,D	MES	HM	cobalt	15.3	1.4 B	6.3 B	1.7 B	2.6 B	1.9 B	5.0 B	4.1 B				
Solid	A,D	MES	HM	copper	32.3	11.7	6.8	5.9	11.7	9.2	14.2	9.5				
Solid	A,D	MES	HM,CSC;CWC	iron	41800	6600	8990	5340	14600	4140	10300	8570				
Solid	A,D	MES	HM	lead	19.5	5.5	14.6	6.9	17.7	32.4	10.4	11.4				
Solid	A,D	MES	CSC/CWC	magnesium	5280	504 B	1110 B	747 B	39500	22600	10100	9110				
Solid	A,D	MES	HM	manganese	679	79.6	560	72.8	206	179	294	169				
Liquid	A,D	MES	HM	mercury												
Solid	A,D	MES	HM	nickel	55.2	6.2 B	8.4 B	3.4 B	8.3 B	2.5 B	12.4	7.8 B				
Solid	D	MES	CSC,CWC	potassium	1970	231 JB	738 JB	279 JB	193 JB	63.1 JB	625 JB	478 JB				
Solid	A,D	MES	M	selenium												
Solid	A,D	MES	HM	silver						1.3 B						
Solid	D	MES	CSC,CWC	sodium	44.3 B	90.1 B	20 B	362 B	139 B	69.7 B	72.5 B	76.2 B				
Solid	A,D	MES	HM	thallium	1.3 B		0.40 B	0.32 B	0.47 B	0.38 B	0.47 B	0.43 B				
Solid	A,D	MES	HM	vanadium	35.4	2.4 B	14.8	3.0 B	4.2 B	5.4 B	11.4 B	11.3 B				
Solid	A,D	MES	CWL,CSC,HM	zinc	96.5	44.9	31	55	51.1	26.7	52.8	43.4				
Solid	A	IOC	IOC	cyanide		9.9	1.3				6.9					

-- Not detected.

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number 1	2	3	4	5	6	7	8	9	10	11	12
					MEFZ 69	70	71	74								
				Analyte Detected (values in mg/kg or µg/L)												
Solid	A,D	MES	csc/cwc	aluminum			33.1 B									
Solid	A,D	MES	HM	antimony												
Solid	A,D	MES	HM	arsenic	2.2 B	2.3 B	2.2 B									
Solid	A,D	MES	csc/cwc	barium	98 B	239	246									
Solid	A,D	MES	M	beryllium												
Solid	A,D	MES	HM	cadmium												
Solid	D	MES	csc/cwc	calcium	95200	104000	107000	618 B								
Solid	A,D	MES	HM	chromium												
Solid	A,D	MES	HM	cobalt												
Solid	A,D	MES	HM	copper	6.3 JB											
Solid	A,D	MES	HM,csc;cwc	iron	1240	1470	1880									
Solid	A,D	MES	HM	lead		1.7 B	6.4									
Solid	A,D	MES	csc/cwc	magnesium	25800	27800	31300	119 B								
Solid	A,D	MES	HM	manganese	79.1	728	76.6									
Liquid	A,D	MES	HM	mercury												
Solid	A,D	MES	HM	nickel												
Solid	D	MES	csc,cwc	potassium	1090 JB	3740 B	3680 B									
Solid	A,D	MES	M	selenium												
Solid	A,D	MES	HM	silver												
Solid	D	MES	csc,cwc	sodium	21600	71700	72500	458 JB								
Solid	A,D	MES	HM	thallium												
Solid	A,D	MES	HM	vanadium												
Solid	A,D	MES	CWL,csc,HM	zinc	45.7	1080	1500	8.8 B								
Solid	A	IOC	IOC	cyanide												

-- Not detected.

12/29

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 12-29-89

page 1 of 3

1/4/90

SUBJECT: Review of Region V CLP Data
Received for Review on NOV-17-89

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory Jay Thelen

TO: Data User: Art

We have reviewed the data for the following case(s).

SITE NAME: North Manchester SMO case No. 12901

EPA Data Set No. _____ No. of Samples: 12 D.U./Activity Numbers _____

CRL No. _____

SMO Traffic No. MCF261-71, 74

CLP Laboratory: Columbia Hrs. Required for Review: 8.5 + 0.5 + 1.0 x 12/22/89

Following are our findings:

The laboratory's portion of case 12901 contains 8 low level soil samples and 4 low level water samples analyzed for total metals and cyanide.

(See next page)

Bai Yuen 12-15-89

( ) Data are acceptable for use.
(x) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

DATA QUALIFIERS

Contractor: Columbia

Case 12901

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

Water (MEFZ69—71 and 74).

ICP analyses: The preparation blank was found to contain Cu (6.9 µg/l), K (570.5 µg/l), Na (243.8 µg/l). Samples MEFZ69 for Cu, K and MEFZ74 for Na are estimated (J) due to contamination.

GFAA analyses: The lab flagged (W) on samples MEFZ70, 71 and 74 for Se which are estimated (UJ) due to interference.

Other qualifiers: All CN data are acceptable.

The calibration correlation coefficient for Hg (r = 0.989) is less than 0.995. All Hg results are estimated (UJ) due to poor calibration correlation.

Soil (MEFZ61—68)

ICP analyses: The matrix spike recovery for Sb (25.6%) is out of control. All Sb data are less than IDL and are unusable (R).

A CCB contains K (935.5 µg/l). All K data except MEFZ61 are estimated (J) due to contamination.

GFAA analyses: The matrix spike recovery for As (70.0%) is out of control. Sample MEFZ64 was flagged (W) by the lab. All As results except MEFZ64 are estimated (J) due to low bias. MEFZ64 for As is estimated (J) due to low bias and interference.

Reviewed by: [illegible]

Phone:

DATA QUALIFIERS

Contractor: Columbia

Case 12901

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

Other qualifiers: All CN data are acceptable.

The calibration correlation coefficient for Hg ($r = 0.989$) is less than 0.995. All Hg data are estimated (UJ) due to poor calibration correlation.

Reviewed by: Bai Yuen

Phone:

12901

Water (MEFZ69—71 and 74)

ICP analyses: The preparation blank was found to contain Cu (6.9 µg/l), K (570.5 µg/l), Na (243.8 µg/l). Samples MEFZ 69 for Cu, K, and MEFZ 74 for Na are estimated (J) due to contamination.

GFAA analyses: ~~A ICB contains As (1.0 µg/l). Samples MEFZ 69, 71 for As are estimated~~
The lab flagged (W) on samples MEFZ 70, 71, and 74 for Se which are estimated (UJ) due to ~~contamination~~ interference

Other qualifiers: All CN data are acceptable.

The Cal. Coor. Coeff. for Hg ($\gamma = 0.989$) is less than 0.995. All samples are estimated (UJ) due to poor Cal. Coor.

Soil (MEFZ61 — 68)

ICP analyses: The matrix spike for Sb (25.6 %) is out of control. All Sb data are less than IDL and are unusable (R)

~~The preparation blank and ICV were found to contain K (103.02 µg/l) and K (690 µg/l). Samples MEFZ 62, 64 — 68 are estimated (J) due to contamination.~~

A CCB contain K (935.5 µg/l). All K data except MEFZ 61 are estimated (J) due to contamination.

GFAA: The matrix spike for As (70.0 %) is out of control. Sample MEFZ 64 was flagged (W) by the lab. All Samples for As

QC EXCEPTION SUMMARY REPORT

CASE # 12901
DATA SET #
LAB Q.C.# MEF361
DATE: 12-15-89

SITE North Manchester
LAB Columbia
REVIEWED BY [illegible]

MATRIX: Soil, Water
CONC. : Low

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK.
SOIL SAMPLE DUP.

	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER / COMMENTS
	Holding Time	Cal Blanks	Init. Calver	Contin. Calver	Prep. Blk AQ	Prep Blk SOL	ICS %R	LCS % AQ	LCS % SOL	Sol Dup RPD	Sol Spk. %R	AQ Dup RPD	AQ Spk %R	Ser Dln AQ	Ser Dln SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Blind Blank	Blind Spike %R	Split Sample RPD	
Aluminum																								
Antimony											25.6													
Arsenic											70.0													
Barium																								
Beryllium																								
Cadmium																								
Calcium																								
Chromium																								
Cobalt																								
Copper					6.9																			
Iron																								
Lead																								
Magnesium																								
Manganese																								
Mercury																								
Nickel																								
Potassium		935.5			570.5																			
Selenium																								
Silver																								
Sodium					243.8																			
Thallium																								
Tin																								
Vanadium																								
Zinc																								
Cyanide																								

DPO: [ ] ACTION [ ] FYI Region ____

INORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO. 12901 LABORATORY Columbia

SDG NO. MEFZ61 DATA USER Fit

SOW 7/88 REVIEW COMPLETION DATE 12-15-89

NO. OF SAMPLES ____ WATER 8 SOIL ____ OTHER ____

REVIEWER [ ] ESD [ ] ESAT [ ] OTHER, CONTRACT/CONTRACTOR ____

	ICP	AA	Hg	CYANIDE
1. HOLDING TIMES	O			
2. INITIAL CALIBRATIONS	O			
3. CONTINUING CALIBRATIONS	O			
4. FIELD BLANKS ("F" = not applicable)	F			
5. LABORATORY BLANKS	X	O		
6. ICS	O			
7. LCS	O	O		
8. DUPLICATE ANALYSIS	O			
9. MATRIX SPIKE	X	M	O	O
10. MSA		O		
11. SERIAL DILUTION	O			
12. SAMPLE VERIFICATION	O			
13. REGIONAL QC ("F" = not applicable)	F			
14. OVERALL ASSESSMENT	X	M	O	O

O = No problems or minor problems that do not affect data usability.
X = No more than *about* 5% of the data points are qualified as either estimated or unusable.
M = More than *about* 5% of the data points are qualified as estimated.
Z = More than *about* 5% of the data points are qualified as unusable.

DPO ACTION ITEMS: ____

AREAS OF CONCERN: ____

DPO: [ ] ACTION [ ] FYI Region V

INORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO. 12901 LABORATORY Columbia

SDG NO. MEF261 DATA USER Fit

SOW 7/88 REVIEW COMPLETION DATE 12-15-89

NO. OF SAMPLES 4 WATER ____ SOIL ____ OTHER ____

REVIEWER [ ] ESD [ ] ESAT [ ] OTHER, CONTRACT/CONTRACTOR ____

	ICP	AA	Hg	CYANIDE
1. HOLDING TIMES	O			
2. INITIAL CALIBRATIONS	O			
3. CONTINUING CALIBRATIONS	O			
4. FIELD BLANKS ('F' = not applicable)	F			
5. LABORATORY BLANKS	M	O		
6. ICS	O			
7. LCS	O	O		
8. DUPLICATE ANALYSIS	O			
9. MATRIX SPIKE	O			
10. MSA		O		
11. SERIAL DILUTION	O			
12. SAMPLE VERIFICATION	O			
13. REGIONAL QC ('F' = not applicable)	F			
14. OVERALL ASSESSMENT	M	O	O	O

O = No problems or minor problems that do not affect data usability.
X = No more than *about* 5% of the data points are qualified as either estimated or unusable.
M = More than *about* 5% of the data points are qualified as estimated.
Z = More than *about* 5% of the data points are qualified as unusable.

DPO ACTION ITEMS: ____

AREAS OF CONCERN: ____

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

SOW No.: 7/88

EPA Sample No.	Lab Sample ID.
MEFZ61	
MEFZ61D	
MEFZ61S	
MEFZ62	
MEFZ63	
MEFZ64	
MEFZ65	
MEFZ66	
MEFZ67	
MEFZ68	
MEFZ69	
MEFZ69D	
MEFZ69S	
MEFZ70	
MEFZ71	
MEFZ74	

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: Thomas C. Leach Name: Thomas C. Leach

Date: 11/15/89 Title: EPA Contract Manager

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFZ61

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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

Level (low/med): LOW Date Received: 10/13/89

% Solids: 86.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16200			P
7440-36-0	Antimony	4.6	U	N	P
7440-38-2	Arsenic	10.0		N	F
7440-39-3	Barium	168			P
7440-41-7	Beryllium	0.74	B		P
7440-43-9	Cadmium	0.69	U		P
7440-70-2	Calcium	3550			P
7440-47-3	Chromium	26.2			P
7440-48-4	Cobalt	15.3			P
7440-50-8	Copper	32.3			P
7439-89-6	Iron	41800			P
7439-92-1	Lead	19.5			F
7439-95-4	Magnesium	5280			P
7439-96-5	Manganese	679			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	55.2			P
7440-09-7	Potassium	1970			P
7782-49-2	Selenium	0.46	U		F
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	44.3	B		P
7440-28-0	Thallium	1.3	B		F
7440-62-2	Vanadium	35.4			P
7440-66-6	Zinc	96.5			P
	Cyanide	1.2	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFZ62

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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

Level (low/med): LOW Date Received: 10/13/89

% Solids: 92.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1560			P
7440-36-0	Antimony	4.3	U	N	P
7440-38-2	Arsenic	2.1	B	N	F
7440-39-3	Barium	23.9	B		P
7440-41-7	Beryllium	0.22	U		P
7440-43-9	Cadmium	0.65	U		P
7440-70-2	Calcium	1460			P
7440-47-3	Chromium	6.8			P
7440-48-4	Cobalt	1.4	B		P
7440-50-8	Copper	11.7			P
7439-89-6	Iron	6600			P
7439-92-1	Lead	5.5			F
7439-95-4	Magnesium	504	B		P
7439-96-5	Manganese	79.6			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	6.2	B		P
7440-09-7	Potassium	251	B		P
7782-49-2	Selenium	0.43	U		F
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	90.1	B		P
7440-28-0	Thallium	0.22	U		F
7440-62-2	Vanadium	2.4	B		P
7440-66-6	Zinc	44.9			P
	Cyanide	9.9			C

Color Before: BLACK Clarity Before: Texture: FINE

Color After: TAN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFZ63

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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

Level (low/med): LOW Date Received: 10/13/89

% Solids: 89.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5430			P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	2.6		N	F
7440-39-3	Barium	52.0			P
7440-41-7	Beryllium	0.22	U		P
7440-43-9	Cadmium	0.67	U		P
7440-70-2	Calcium	578	B		P
7440-47-3	Chromium	8.1			P
7440-48-4	Cobalt	6.3	B		P
7440-50-8	Copper	6.8			P
7439-89-6	Iron	8990			P
7439-92-1	Lead	14.6			F
7439-95-4	Magnesium	1110	B		P
7439-96-5	Manganese	560			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	8.4	B		P
7440-09-7	Potassium	738	B		P
7782-49-2	Selenium	0.45	U		F
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	20.0	B		P
7440-28-0	Thallium	0.40	B		F
7440-62-2	Vanadium	14.8			P
7440-66-6	Zinc	31.0			P
	Cyanide	1.3			C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: TAN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFZ64

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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

Level (low/med): LOW Date Received: 10/13/89

% Solids: 94.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2010			P
7440-36-0	Antimony	4.2	U	N	P
7440-38-2	Arsenic	1.2	B	NW	F
7440-39-3	Barium	77.6			P
7440-41-7	Beryllium	0.21	U		P
7440-43-9	Cadmium	0.63	U		P
7440-70-2	Calcium	1950			P
7440-47-3	Chromium	4.2			P
7440-48-4	Cobalt	1.7	B		P
7440-50-8	Copper	5.9			P
7439-89-6	Iron	5340			P
7439-92-1	Lead	6.9			F
7439-95-4	Magnesium	747	B		P
7439-96-5	Manganese	72.8			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	3.4	B		P
7440-09-7	Potassium	279	B		P
7782-49-2	Selenium	0.42	U		F
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	362	B		P
7440-28-0	Thallium	0.32	B		F
7440-62-2	Vanadium	3.0	B		P
7440-66-6	Zinc	55.0			P
	Cyanide	1.1	U		C

Color Before: BLACK Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFZ65

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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

Level (low/med): LOW Date Received: 10/13/89

% Solids: 89.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1980			P
7440-36-0	Antimony	4.5	U	N	P
7440-38-2	Arsenic	2.9		N	F
7440-39-3	Barium	28.0	B		P
7440-41-7	Beryllium	0.22	U		P
7440-43-9	Cadmium	1.2			P
7440-70-2	Calcium	64200			P
7440-47-3	Chromium	13.8			P
7440-48-4	Cobalt	2.6	B		P
7440-50-8	Copper	11.7			P
7439-89-6	Iron	14600			P
7439-92-1	Lead	17.7			F
7439-95-4	Magnesium	39500			P
7439-96-5	Manganese	206			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	8.3	B		P
7440-09-7	Potassium	193	B		P
7782-49-2	Selenium	0.45	U		F
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	139	B		P
7440-28-0	Thallium	0.47	B		F
7440-62-2	Vanadium	4.2	B		P
7440-66-6	Zinc	51.1			P
	Cyanide	1.1	U		C

Color Before: BLACK Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFZ66

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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

Level (low/med): LOW Date Received: 10/13/89

% Solids: 84.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1260			P
7440-36-0	Antimony	4.7	U	N	P
7440-38-2	Arsenic	1.6	B	N	F
7440-39-3	Barium	19.4	B		P
7440-41-7	Beryllium	0.24	U		P
7440-43-9	Cadmium	0.78	B		P
7440-70-2	Calcium	48300			P
7440-47-3	Chromium	9.4			P
7440-48-4	Cobalt	1.9	B		P
7440-50-8	Copper	9.2			P
7439-89-6	Iron	4140			P
7439-92-1	Lead	32.4			F
7439-95-4	Magnesium	22600			P
7439-96-5	Manganese	179			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	2.5	B		P
7440-09-7	Potassium	63.1	B		P
7782-49-2	Selenium	0.47	U		F
7440-22-4	Silver	1.3	B		P
7440-23-5	Sodium	69.7	B		P
7440-28-0	Thallium	0.38	B		F
7440-62-2	Vanadium	5.4	B		P
7440-66-6	Zinc	26.7			P
	Cyanide	1.2	U		C

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: TAN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MEFZ67

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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

Level (low/med): LOW Date Received: 10/13/89

% Solids: 68.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4610			P
7440-36-0	Antimony	5.9	U	N	P
7440-38-2	Arsenic	4.4		N	F
7440-39-3	Barium	55.2	B		P
7440-41-7	Beryllium	0.29	U		P
7440-43-9	Cadmium	0.88	U		P
7440-70-2	Calcium	30900			P
7440-47-3	Chromium	10.3			P
7440-48-4	Cobalt	5.0	B		P
7440-50-8	Copper	14.2			P
7439-89-6	Iron	10300			P
7439-92-1	Lead	10.4			F
7439-95-4	Magnesium	10100			P
7439-96-5	Manganese	294			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	12.4			P
7440-09-7	Potassium	625	B		P
7782-49-2	Selenium	0.59	U		F
7440-22-4	Silver	1.5	U		P
7440-23-5	Sodium	72.5	B		P
7440-28-0	Thallium	0.47	B		F
7440-62-2	Vanadium	11.4	B		P
7440-66-6	Zinc	52.8			P
	Cyanide	6.9			C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: TAN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFZ68

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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

Level (low/med): LOW Date Received: 10/13/89

% Solids: 70.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4000			P
7440-36-0	Antimony	5.7	U	N	P
7440-38-2	Arsenic	1.8	B	N	F
7440-39-3	Barium	42.0	B		P
7440-41-7	Beryllium	0.28	U		P
7440-43-9	Cadmium	0.85	U		P
7440-70-2	Calcium	28100			P
7440-47-3	Chromium	8.7			P
7440-48-4	Cobalt	4.1	B		P
7440-50-8	Copper	9.5			P
7439-89-6	Iron	8520			P
7439-92-1	Lead	11.4			F
7439-95-4	Magnesium	9110			P
7439-96-5	Manganese	169			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	7.8	B		P
7440-09-7	Potassium	478	B		P
7782-49-2	Selenium	0.57	U		F
7440-22-4	Silver	1.4	U		P
7440-23-5	Sodium	76.2	B		P
7440-28-0	Thallium	0.43	B		F
7440-62-2	Vanadium	11.3	B		P
7440-66-6	Zinc	43.4			P
	Cyanide	0.71	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: TAN Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFZ69

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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

Level (low/med): LOW Date Received: 10/13/89

% 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	30.0	U		P
7440-36-0	Antimony	20.0	U		P
7440-38-2	Arsenic	2.2	B		F
7440-39-3	Barium	98.0	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	95200			P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	6.3	B		P
7439-89-6	Iron	1240			P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	25800			P
7439-96-5	Manganese	29.1			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	1090	B		P
7782-49-2	Selenium	2.0	U		F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	21600			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	45.7			P
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFZ70

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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

Level (low/med): LOW Date Received: 10/13/89

% 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	30.0	U		P
7440-36-0	Antimony	20.0	U		P
7440-38-2	Arsenic	2.3	B		F
7440-39-3	Barium	239			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	104000			P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	3.0	U		P
7439-89-6	Iron	1470			P
7439-92-1	Lead	1.7	B		F
7439-95-4	Magnesium	29800			P
7439-96-5	Manganese	72.8			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	3740	B		P
7782-49-2	Selenium	2.0	U	W	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	71700			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	1080			P
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFZ71

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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

Level (low/med): LOW Date Received: 10/13/89

% 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	33.1	B		P
7440-36-0	Antimony	20.0	U		P
7440-38-2	Arsenic	2.2	B		F
7440-39-3	Barium	246			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	107000			P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	3.0	U		P
7439-89-6	Iron	1880			P
7439-92-1	Lead	6.4			F
7439-95-4	Magnesium	31300			P
7439-96-5	Manganese	76.6			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	3680	B		P
7782-49-2	Selenium	2.0	U	W	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	72500			P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	1500			P
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFZ74

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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

Level (low/med): LOW Date Received: 10/13/89

% 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	30.0	U		P
7440-36-0	Antimony	20.0	U		P
7440-38-2	Arsenic	1.0	U		F
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	3.0	U		P
7440-70-2	Calcium	618	B		P
7440-47-3	Chromium	3.0	U		P
7440-48-4	Cobalt	4.0	U		P
7440-50-8	Copper	3.0	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	1.0	U		F
7439-95-4	Magnesium	119	B		P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	10.0	U		P
7440-09-7	Potassium	200	U		P
7782-49-2	Selenium	2.0	U	W	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	458	B		P
7440-28-0	Thallium	1.0	U		F
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	8.8	B		P
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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3
BLANKS

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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	30.0	U	30.0	U	30.0	U	30.0	U	6.000	U	P
Antimony	20.0	U	20.0	U	20.0	U	20.0	U	4.000	U	P
Arsenic	-1.0	B	-1.2	B	1.0	U	1.0	U	0.200	U	F
Barium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Cadmium	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Calcium	15.3	B	12.9	B	17.2	B	24.4	B	5.016	B	P
Chromium	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Cobalt	4.0	U	4.0	U	4.0	U	4.0	U	0.800	U	P
Copper	-3.6	B	-4.6	B	4.6	B	3.0	U	0.792	B	P
Iron	4.0	U	4.0	U	57.3	B	23.8	B	-4.316	B	P
Lead	1.0	U	1.0	U	-1.1	B	1.0	U	0.200	U	F
Magnesium	30.0	U	30.0	U	30.0	U	30.0	U	6.000	U	P
Manganese	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.100	U	CV
Nickel	10.0	U	10.0	U	10.0	U	10.0	U	2.000	U	P
Potassium	690.6	B	792.3	B	935.5	B	237.9	B	103.020	B	P
Selenium	2.0	U	2.0	U	2.0	U	2.0	U	0.400	U	F
Silver	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Sodium	50.0	U	50.0	U	50.0	U	50.0	U	10.000	U	P
Thallium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	F
Vanadium	2.0	U	2.0	U	2.0	U	2.0	U	0.400	U	P
Zinc	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	C

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3
BLANKS

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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			30.0	U	30.0	U			30.0	U	P
Antimony			20.0	U	20.0	U			20.0	U	P
Arsenic			-1.0	B					1.0	U	F
Barium			1.0	U	1.0	U			1.0	U	P
Beryllium			1.0	U	1.0	U			1.0	U	P
Cadmium			3.0	U	3.0	U			3.0	U	P
Calcium			10.4	B	26.8	B			35.0	B	P
Chromium			3.0	U	3.0	U			-4.0	B	P
Cobalt			4.0	U	4.0	U			4.0	U	P
Copper			-4.0	B	-4.0	B			6.9	B	P
Iron			4.0	U	48.8	B			-10.9	B	P
Lead			1.0	U	1.0	U	1.0	U	1.0	U	F
Magnesium			30.0	U	30.0	U			-50.3	B	P
Manganese			1.0	U	1.0	U			1.0	U	P
Mercury			0.2	U					0.2	U	CV
Nickel			10.0	U	10.0	U			10.0	U	P
Potassium			200.0	U	200.0	U			570.5	B	P
Selenium			2.0	U	2.0	U	2.0	U	2.0	U	F
Silver			5.0	U	5.0	U			5.0	U	P
Sodium			50.0	U	50.0	U			243.8	B	P
Thallium			1.0	U	1.0	U	1.0	U	1.0	U	F
Vanadium			2.0	U	2.0	U			-3.0	B	P
Zinc			3.0	U	3.0	U			3.0	U	P
Cyanide									10.0	U	C

U.S. EPA - CLP

3
BLANKS

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

Preparation Blank Matrix (soil/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											
Antimony											
Arsenic	1.0	U	1.0	U	1.0	U	1.0	U			F
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

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3
BLANKS

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

Preparation Blank Matrix (soil/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											
Antimony											
Arsenic	1.0	B	1.0	U	1.0	U	1.0	U			F
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEFZ61S

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

Matrix (soil/water): SOIL Level (low/med): LOW
% Solids for Sample: 86.6

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	29.5820		4.6189	U	115.47	25.6	N	P
Arsenic	75-125	16.5127		10.0462		9.24	70.0	N	F
Barium	75-125	622.0970		167.5658		461.89	98.4		P
Beryllium	75-125	11.4781		0.7367	B	11.55	93.0		P
Cadmium	75-125	10.4850		0.6928	U	11.55	90.8		P
Calcium									NR
Chromium	75-125	73.8083		26.2494		46.19	103.0		P
Cobalt	75-125	122.5774		15.2517		115.47	92.9		P
Copper	75-125	85.7898		32.3233		57.74	92.6		P
Iron									NR
Lead		25.6351		19.5150		4.62	132.5		F
Magnesium									NR
Manganese		690.5751		679.4134		115.47	9.7		P
Mercury	75-125	0.4671		0.1040	U	0.52	89.8		CV
Nickel	75-125	164.3995		55.1501		115.47	94.6		P
Potassium									NR
Selenium	75-125	1.7783		0.4619	U	2.31	77.0		F
Silver	75-125	10.6236		1.1547	U	11.55	92.0		P
Sodium									NR
Thallium	75-125	12.0785		1.3164	B	11.55	93.2		F
Vanadium	75-125	152.5681		35.4249		115.47	101.4		P
Zinc	75-125	209.2818		96.4596		115.47	97.7		P
Cyanide	75-125	5.4515		1.1547	U	5.77	94.5		C

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEFZ69S

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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	1902.8000		30.0000	U	2000.00	95.1		P
Antimony	75-125	506.3400		20.0000	U	500.00	101.3		P
Arsenic	75-125	43.1000		2.2000	B	40.00	102.2		F
Barium	75-125	2063.4600		98.0300	B	2000.00	98.3		P
Beryllium	75-125	45.1700		1.0000	U	50.00	90.3		P
Cadmium	75-125	49.5700		3.0000	U	50.00	99.1		P
Calcium									NR
Chromium	75-125	192.2700		3.0000	U	200.00	96.1		P
Cobalt	75-125	468.1900		4.0000	U	500.00	93.6		P
Copper	75-125	246.5800		6.3200	B	250.00	96.1		P
Iron	75-125	2225.7800		1241.4400		1000.00	98.4		P
Lead	75-125	22.0000		1.0000	U	20.00	110.0		F
Magnesium									NR
Manganese	75-125	502.6100		29.1000		500.00	94.7		P
Mercury	75-125	0.9900		0.2000	U	1.00	99.0		CV
Nickel	75-125	487.1400		10.0000	U	500.00	97.4		P
Potassium									NR
Selenium	75-125	9.4000		2.0000	U	10.00	94.0		F
Silver	75-125	46.6700		5.0000	U	50.00	93.3		P
Sodium									NR
Thallium	75-125	49.3000		1.0000	U	50.00	98.6		F
Vanadium	75-125	494.2300		2.0000	U	500.00	98.8		P
Zinc	75-125	535.7700		45.6800		500.00	98.0		P
Cyanide	75-125	92.2550		10.0000	U	100.00	92.3		C

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEFZ61A

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		131.78		20.00	U	120.0	109.8		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.

MEFZ61D

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

Matrix (soil/water): SOIL Level (low/med): LOW

% Solids for Sample: 86.6 % Solids for Duplicate: 87.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		16228.6020		16554.4570		2.0		P
Antimony		4.6189	U	4.6189	U			P
Arsenic	5.8	10.0462		9.1224		9.6		F
Barium	46.2	167.5658		169.0808		0.9		P
Beryllium		0.7367	B	0.8591	B	15.3		P
Cadmium		0.6928	U	0.6928	U			P
Calcium	1154.7	3551.9792		3636.1940		2.3		P
Chromium		26.2494		26.7229		1.8		P
Cobalt	11.5	15.2517		14.1270		7.7		P
Copper		32.3233		34.8591		7.5		P
Iron		41846.8290		45665.0850		8.7		P
Lead		19.5150		18.3603		6.1		F
Magnesium	1154.7	5282.5127		5218.2402		1.2		P
Manganese		679.4134		648.7436		4.6		P
Mercury		0.1040	U	0.1100	U			CV
Nickel		55.1501		57.8314		4.7		P
Potassium	1154.7	1972.2125		1891.1247		4.2		P
Selenium		0.4619	U	0.4619	U			F
Silver		1.1547	U	1.1547	U			P
Sodium		44.3464	B	44.5404	B	0.4		P
Thallium		1.3164	B	1.0393	B	23.5		F
Vanadium	11.5	35.4249		36.8406		3.9		P
Zinc		96.4596		98.6582		2.3		P
Cyanide		1.1547	U	1.1547	U			C

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6
DUPLICATES

EPA SAMPLE NO.

MEFZ69D

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

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

% Solids for Sample: 0.0 % Solids for Duplicate:

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		30.0000	U	30.0000	U			P
Antimony		20.0000	U	20.0000	U			P
Arsenic		2.2000	B	1.7000	B	25.6		F
Barium		98.0300	B	98.6200	B	0.6		P
Beryllium		1.0000	U	1.0000	U			P
Cadmium		3.0000	U	3.0000	U			P
Calcium		95161.7500		96099.2600		1.0		P
Chromium		3.0000	U	3.0000	U			P
Cobalt		4.0000	U	4.0000	U			P
Copper		6.3200	B	5.9900	B	5.4		P
Iron		1241.4400		1255.2800		1.1		P
Lead		1.0000	U	1.0000	U			F
Magnesium		25782.5800		26078.4200		1.1		P
Manganese	15.0	29.1000		29.3600		0.9		P
Mercury		0.2000	U	0.2000	U			CV
Nickel		10.0000	U	10.0000	U			P
Potassium		1094.8900	B	1150.3200	B	4.9		P
Selenium		2.0000	U	2.0000	U			F
Silver		5.0000	U	5.0000	U			P
Sodium	5000.0	21616.4200		21927.0200		1.4		P
Thallium		1.0000	U	1.0000	U			F
Vanadium		2.0000	U	2.0000	U			P
Zinc	20.0	45.6800		45.2800		0.9		P
Cyanide		10.0000	U	10.0000	U			C

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10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

ICP ID Number: TJA-1 Date: 10/15/89

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20		200.0	30.0	P
Antimony	206.80		60.0	20.0	P
Arsenic	193.60		10.0	30.0	P
Barium	493.40		200.0	1.0	P
Beryllium	313.00		5.0	1.0	P
Cadmium	288.80		5.0	3.0	P
Calcium	317.90		5000.0	5.0	P
Chromium	267.70		10.0	3.0	P
Cobalt	228.60		50.0	4.0	P
Copper	324.70		25.0	3.0	P
Iron	259.90		100.0	4.0	P
Lead	220.30		3.0	20.0	P
Magnesium	383.20		5000.0	30.0	P
Manganese	257.60		15.0	1.0	P
Mercury			0.2		
Nickel	231.60		40.0	10.0	P
Potassium	766.50		5000.0	200.0	P
Selenium			5.0		
Silver	328.00		10.0	5.0	P
Sodium	588.90		5000.0	50.0	P
Thallium			10.0		
Vanadium	292.40		50.0	2.0	P
Zinc	213.80		20.0	3.0	P

Comments:

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10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

ICP ID Number: Date: 10/15/89

Flame AA ID Number:

Furnace AA ID Number: VARIAN-2

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony			60.0		
Arsenic	193.70	BZ	10.0	1.0	F
Barium			200.0		
Beryllium			5.0		
Cadmium			5.0		
Calcium			5000.0		
Chromium			10.0		
Cobalt			50.0		
Copper			25.0		
Iron			100.0		
Lead	283.30	BZ	3.0	1.0	F
Magnesium			5000.0		
Manganese			15.0		
Mercury			0.2		
Nickel			40.0		
Potassium			5000.0		
Selenium			5.0		
Silver			10.0		
Sodium			5000.0		
Thallium			10.0		
Vanadium			50.0		
Zinc			20.0		

Comments:

U.S. EPA - CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

ICP ID Number: Date: 10/15/89

Flame AA ID Number: VARIAN-3

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony			60.0		
Arsenic			10.0		
Barium			200.0		
Beryllium			5.0		
Cadmium			5.0		
Calcium			5000.0		
Chromium			10.0		
Cobalt			50.0		
Copper			25.0		
Iron			100.0		
Lead			3.0		
Magnesium			5000.0		
Manganese			15.0		
Mercury	253.70	BD	0.2	0.2	CV
Nickel			40.0		
Potassium			5000.0		
Selenium			5.0		
Silver			10.0		
Sodium			5000.0		
Thallium			10.0		
Vanadium			50.0		
Zinc			20.0		

Comments:

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10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

ICP ID Number: Date: 10/15/89

Flame AA ID Number:

Furnace AA ID Number: VARIAN-4

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony			60.0		
Arsenic	193.70	BZ	10.0	1.0	F
Barium			200.0		
Beryllium			5.0		
Cadmium			5.0		
Calcium			5000.0		
Chromium			10.0		
Cobalt			50.0		
Copper			25.0		
Iron			100.0		
Lead			3.0		
Magnesium			5000.0		
Manganese			15.0		
Mercury			0.2		
Nickel			40.0		
Potassium			5000.0		
Selenium			5.0		
Silver			10.0		
Sodium			5000.0		
Thallium	276.80	BZ	10.0	1.0	F
Vanadium			50.0		
Zinc			20.0		

Comments:

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10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: COLUMBIA ANALYTICAL INC. Contract: 68-W8-0024

Lab Code: COLUMB Case No.: 12901 SAS No.: SDG No.: MEFZ61

ICP ID Number: Date: 10/15/89

Flame AA ID Number:

Furnace AA ID Number: VARIAN-5

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200.0		
Antimony			60.0		
Arsenic	193.70	BZ	10.0	1.0	F
Barium			200.0		
Beryllium			5.0		
Cadmium			5.0		
Calcium			5000.0		
Chromium			10.0		
Cobalt			50.0		
Copper			25.0		
Iron			100.0		
Lead			3.0		
Magnesium			5000.0		
Manganese			15.0		
Mercury			0.2		
Nickel			40.0		
Potassium			5000.0		
Selenium	196.00	BZ	5.0	2.0	F
Silver			10.0		
Sodium			5000.0		
Thallium			10.0		
Vanadium			50.0		
Zinc			20.0		

Comments:

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 11/2 FIT Receipt Date 12/1 Review Completed 12/8/89

TO: Lucky
FROM: Mary Gzyra
SUBJECT: North Manchester
PAN: IN0681SB (1 hour charged for review) Case # 12901/4801

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#_____	Low Soil	#_____	Low Soil
_____	Low Water	_____	Low Water
_____	Drinking Water	7	Drinking Water
_____	Other	_____	Other

Project Data Status _____ Completed!!

✓ Incomplete, awaiting Soil & water org & inorg

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

_____ Compounds were detected in sample(s); see enclosed sheet.

Book No. 9 Page No._____ Date Sampled 10/10

0759:2

recycled paper

12/8/88

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number 1 HEFZ54	2 35	3 56	4 57	5 58	6 59	7 60	8	9	10	11	12
				Analyte Detected (values in mg/kg or ug/L)												
Solid	A,D	MES	CSC/CWC	aluminum	59.2 B					67.1 B	34 B					
Solid	A,D	MES	HM	antimony												
Solid	A,D	MES	HM	arsenic	8.4					7.9						
Solid	A,D	MES	CSC/CWC	barium	190			93.6	195	120						
Solid	A,D	MES	M	beryllium				6.7 JN	7.7 JN	7.7 JN						
Solid	A,D	MES	HM	cadmium												
Solid	D	MES	CSC/CWC	calcium	103000	362 B	242 B	49700	100000	55800	25.1 B					
Solid	A,D	MES	HM	chromium												
Solid	A,D	MES	HM	cobalt												
Solid	A,D	MES	HM	copper		35.2 JKN	40.2 JKN	18.4 JKN		15.9 JKN	38.5 JKN					
Solid	A,D	MES	HM,CSC;CWC	iron	2490	61.3 B	55.5 B	881	3920	957						
Solid	A,D	MES	HM	lead		2.1										
Solid	A,D	MES	CSC/CWC	magnesium	25700	99.9 B	84.3 B	23000	25500	25200	11.7 B					
Solid	A,D	MES	HM	manganese	62.5			51.5	59.2	20.7						
Liquid	A,D	MES	HM	mercury												
Solid	A,D	MES	HM	nickel												
Solid	D	MES	CSC,CWC	potassium	1490 B	1360 B	1300 B	2280	1160 B	1960 B						
Solid	A,D	MES	M	selenium												
Solid	A,D	MES	HM	silver												
Solid	D	MES	CSC,CWC	sodium	8280	251000	245000	36200	5440	30900	240 B					
Solid	A,D	MES	HM	thallium												
Solid	A,D	MES	HM	vanadium												
Solid	A,D	MES	CWL,CSC,HM	zinc		16 B	16 B	87.1	6.7 B	10.6 B	6.7 B					
Solid	A	IOC	IOC	cyanide												

— Not detected.

11/2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 11'29'89

12/1/89

SUBJECT: Review of Region V CLP Data Received for Review on NOV-2-89

FROM: Curtis Ross, Director (5SCRL) Central Regional Laboratory Jay Thakkar

TO: Data User: Fit

We have reviewed the data for the following case(s).

SITE NAME: North Manchester Foundry SMO Case No. 12901/SAS4801E

EPA Data Set No. _____ No. of Samples: 7 D.U./Activity Numbers _____

CRL No. _____

SMO Traffic No. MEF254-60

CLP Laboratory: VERSAR Hrs. Required for Review: 5 + ½ [illegible] 11/22/89

Following are our findings:

SEE NEXT PAGE

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications referenced above. See Data Qualifier sheets and Calibration Outlier forms for flags and additional comments.
( ) Data are preliminary - pending verification by Contractor Laboratory. See Case Summary above.
( ) Data are unacceptable.

R Dilg 11-21-89

cc: Carla Dempsey, CLP Quality Assurance Officer, Analytical Operations Branch
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

DATA QUALIFIERS

Contract Lab: Versar Case No.: 12901 SAS 4801E

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

This review covers the laboratory's portion of Case 12901 SAS 4801E for the analysis of seven waters for metals and cyanide.

Matrix spike recoveries for Cu (79.2%R) and Ag (59.9%R) indicate low bias while the recovery for Be (115.6%R) indicates high bias. All Ag sample results are estimated (UJ) with detection limits possibly elevated. Cu results are qualified below. Be results for MEFZ57, 58, and 59 are estimated (J); the remaining Be results are acceptable.

The duplicate analysis RPD value for Cu (33.6%R) and the duplicate difference (14.2 ug/L) exceeded control limits. All Cu sample results are estimated (J) due to poor precision. Also the reviewer flagged Cu results with an "*" on appropriate reporting Forms.

Except as mentioned below, the remaining ICAP and GFAA sample analyte results are acceptable.

Hg and cyanide results are acceptable.

Field QC: Sample MEFZ60 is designated a field blank. The result for Cu (38.5 ug/L) exceeded the IDL values. Contamination is indicated. Cu results for MEFZ55,56,57, and 59 are so affected but Cu results are already qualified.

Samples MEFZ55 and 56 are designated as field duplicates and exhibit good correlation.

P. Dilg
11-21-89

SPECIAL ANALYTICAL SERVICES
REVIEW DOCUMENT

A. Client FIT

B. Laboratory(s) VERSAR

C. SAS Number C12901 SAS4801E

Site Name NORTH MANCHESTER FOUNDRY

			Task Code(s)
D. Specific Request:	Organics		
	Inorganics	METALS, CYANIDE	
	Other		

			Protocol Code(s)
E. Analytical Methodologies:	Organics		
	Inorganics	SAS4801E SPECIFIED	
	Other		

F. Methods Source EPA

G. Reviewer Name WESTON

H. Reviewer Function or Title ESAT

The purpose of this inquiry is to gain information and recommendations from the SAS Program Principals directly, in order to improve the methodology(ies), QA/QC requirements, or reporting formats for future similar Special Analytical Services. Therefore, please respond in a timely fashion to all questions and requests.

SPECIAL ANALYTICAL SERVICES
CLIENT REVIEW INQUIRY

Please return this inquiry document to SMO after review of the data package for this Special Analytical Service.

A. General Methodologies

1. Did the referenced methodology(ies) or protocol provide technically useful information for this specific SAS request? If not, please explain.

   YES

2. Describe any changes in methodology or other technical improvements that you recommend in order to more adequately perform this specific SAS task.

B. QC Requirements

1. Were the QC procedures adequate for determining the quality of the data for this specific SAS request? If not, describe any problems encountered with the QC information.

YES

2. Describe any changes in the QC requirements that you recommend in order to more adequately perform this specific SAS task.

C. Data Sheets and Report Format

1. Were the reporting deliverables clear and understandable? If not, please explain.

YES

2. What changes in report or deliverable format do you recommend?

D. Other Comments

Enter here any comments or recommendations for items not covered above.

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: VERSAR_INC._____ Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.:MEFZ54

SOW No.: 7/88_

EPA Sample No.	Lab Sample ID
_MEFZ54_____	__84534_____
_MEFZ55_____	__84535_____
_MEFZ55D_____	__84535D_____
_MEFZ55S_____	__84535S_____
_MEFZ56_____	__84536_____
_MEFZ56D_____	__84536D_____
_MEFZ56S_____	__84536S_____
_MEFZ57_____	__84537_____
_MEFZ58_____	__84538_____
_MEFZ58D_____	__84538D_____
_MEFZ58S_____	__84538S_____
_MEFZ59_____	__84539_____
_MEFZ60_____	__84540_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

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:NO_DIGESTION_REQUIRED_FOR_THE_FURNACE_ELEMENTS._____
_____CYANIDE_LAB_NUMBERS_ARE_IN_THE_COMMENT_SECTION_OF_EACH_FORM_I._____
_____

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: Penelope Clayton Name: Penelope Clayton

Date: 10-31-89 Title: Supervisor

COVER PAGE - IN

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEFZ54

Lab Name: VERSAR_INC. Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

Matrix (soil/water): WATER Lab Sample ID: 84534_____

Level (low/med): LOW__ Date Received: 10/11/89

% 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	58.2	B		P
7440-36-0	Antimony	2.0	U	S	F
7440-38-2	Arsenic	8.4		S	F
7440-39-3	Barium	190			P
7440-41-7	Beryllium	2.0	U	N	P
7440-43-9	Cadmium	0.20	U	S	F
7440-70-2	Calcium	103000			P
7440-47-3	Chromium	7.0	U		P
7440-48-4	Cobalt	6.0	U		P
7440-50-8	Copper	6.0	U	N *	P
7439-89-6	Iron	2490			P
7439-92-1	Lead	2.0	U	S	F
7439-95-4	Magnesium	25700			P
7439-96-5	Manganese	62.5			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	20.0	U		P
7440-09-7	Potassium	1490	B		P
7782-49-2	Selenium	2.0	U	S	F
7440-22-4	Silver	5.0	U	N	P
7440-23-5	Sodium	8280			P
7440-28-0	Thallium	2.0	U	S	F
7440-62-2	Vanadium	5.0	U		P
7440-66-6	Zinc	5.0	U		P
	Cyanide	10	U		AS

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

CYANIDE_LAB_NUMBER_IS_84541.

FORM I - IN

7/88

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEFZ55

Lab Name: VERSAR_INC. Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

Matrix (soil/water): WATER Lab Sample ID: 84535_____

Level (low/med): LOW__ Date Received: 10/11/89

% 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	25.0	U		P
7440-36-0	Antimony	2.0	U	S	F
7440-38-2	Arsenic	4.0	U	S	F
7440-39-3	Barium	2.0	U		P
7440-41-7	Beryllium	2.0	U	N	P
7440-43-9	Cadmium	0.20	U	S	F
7440-70-2	Calcium	362	B		P
7440-47-3	Chromium	7.0	U		P
7440-48-4	Cobalt	6.0	U		P
7440-50-8	Copper	35.2		N*	P
7439-89-6	Iron	61.3	B		P
7439-92-1	Lead	2.1	U	S	F
7439-95-4	Magnesium	99.9	B		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	20.0	U		P
7440-09-7	Potassium	1360	B		P
7782-49-2	Selenium	2.0	U	S	F
7440-22-4	Silver	5.0	U	N	P
7440-23-5	Sodium	251000			P
7440-28-0	Thallium	2.0	U	S	F
7440-62-2	Vanadium	5.0	U		P
7440-66-6	Zinc	16.0	B		P
	Cyanide	10	U		AS

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

CYANIDE_LAB_NUMBER_IS_84542.

FORM I - IN

7/88

00005

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEFZ56

Lab Name: VERSAR_INC. Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

Matrix (soil/water): WATER Lab Sample ID: 84536_____

Level (low/med): LOW__ Date Received: 10/11/89

% 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	25.0	U		P
7440-36-0	Antimony	2.0	U	S	F
7440-38-2	Arsenic	4.0	U	S	F
7440-39-3	Barium	2.0	U		P
7440-41-7	Beryllium	2.0	U	N	P
7440-43-9	Cadmium	0.20	U	S	F
7440-70-2	Calcium	242	B		P
7440-47-3	Chromium	7.0	U		P
7440-48-4	Cobalt	6.0	U		P
7440-50-8	Copper	40.2		N*	P
7439-89-6	Iron	55.5	B		P
7439-92-1	Lead	2.0	U	S	F
7439-95-4	Magnesium	84.3	B		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	20.0	U		P
7440-09-7	Potassium	1300	B		P
7782-49-2	Selenium	2.0	U	S	F
7440-22-4	Silver	5.0	U	N	P
7440-23-5	Sodium	245000			P
7440-28-0	Thallium	2.0	U	S	F
7440-62-2	Vanadium	5.0	U		P
7440-66-6	Zinc	16.0	B		P
	Cyanide	10	U		AS

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:
CYANIDE_LAB_NUMBER_IS_84543.

FORM I - IN

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEFZ57

Lab Name: VERSAR_INC. Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

Matrix (soil/water): WATER Lab Sample ID: 84537_____

Level (low/med): LOW__ Date Received: 10/11/89

% 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	25.0	U		P
7440-36-0	Antimony	2.0	U	S	F
7440-38-2	Arsenic	4.0	U	S	F
7440-39-3	Barium	93.6			P
7440-41-7	Beryllium	6.7		N	P
7440-43-9	Cadmium	0.20	U	S	F
7440-70-2	Calcium	49700			P
7440-47-3	Chromium	7.0	U		P
7440-48-4	Cobalt	6.0	U		P
7440-50-8	Copper	18.4		N*	P
7439-89-6	Iron	881			P
7439-92-1	Lead	2.0	U	S	F
7439-95-4	Magnesium	23000			P
7439-96-5	Manganese	51.5			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	20.0	U		P
7440-09-7	Potassium	2280			P
7782-49-2	Selenium	2.0	U	S	F
7440-22-4	Silver	5.0	U	N	P
7440-23-5	Sodium	36200			P
7440-28-0	Thallium	2.0	U	S	F
7440-62-2	Vanadium	5.0	U		P
7440-66-6	Zinc	87.1			P
	Cyanide	10	U		AS

QD

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

CYANIDE_LAB_NUMBER_IS_84544.

FORM I - IN

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEFZ58

Lab Name: VERSAR_INC._____ Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

Matrix (soil/water): WATER Lab Sample ID: 84538_____

Level (low/med): LOW__ Date Received: 10/11/89

% 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	25.0	U		P
7440-36-0	Antimony	2.0	U	S	F
7440-38-2	Arsenic	4.0	U	S	F
7440-39-3	Barium	195			P
7440-41-7	Beryllium	7.7		N	P
7440-43-9	Cadmium	0.20	U	S	F
7440-70-2	Calcium	100000			P
7440-47-3	Chromium	7.0	U		P
7440-48-4	Cobalt	6.0	U		P
7440-50-8	Copper	6.0	U	N*	P
7439-89-6	Iron	3920			P
7439-92-1	Lead	2.0	U	S	F
7439-95-4	Magnesium	25500			P
7439-96-5	Manganese	59.2			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	20.0	U		P
7440-09-7	Potassium	1160	B		P
7782-49-2	Selenium	2.0	U	S	F
7440-22-4	Silver	5.0	U	N	P
7440-23-5	Sodium	5440			P
7440-28-0	Thallium	2.0	U	S	F
7440-62-2	Vanadium	5.0	U		P
7440-66-6	Zinc	6.7	B		P
	Cyanide	10	U		AS

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

CYANIDE_LAB_NUMBER_IS_84545.

FORM I - IN

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEFZ59

Lab Name: VERSAR_INC. Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

Matrix (soil/water): WATER Lab Sample ID: 84539_____

Level (low/med): LOW__ Date Received: 10/11/89

% 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	67.1	B		P
7440-36-0	Antimony	2.0	U	S	F
7440-38-2	Arsenic	7.9		S	F
7440-39-3	Barium	120			P
7440-41-7	Beryllium	7.7		N	P
7440-43-9	Cadmium	0.20	U	S	F
7440-70-2	Calcium	55800			P
7440-47-3	Chromium	7.0	U		P
7440-48-4	Cobalt	6.0	U		P
7440-50-8	Copper	15.9		N*	P
7439-89-6	Iron	951			P
7439-92-1	Lead	2.0	U	S	F
7439-95-4	Magnesium	25200			P
7439-96-5	Manganese	20.7			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	20.0	U		P
7440-09-7	Potassium	1960	B		P
7782-49-2	Selenium	2.0	U	S	F
7440-22-4	Silver	5.0	U	N	P
7440-23-5	Sodium	30900			P
7440-28-0	Thallium	2.0	U	S	F
7440-62-2	Vanadium	5.0	U		P
7440-66-6	Zinc	10.6	B		P
	Cyanide	10	U		AS

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

CYANIDE_LAB_NUMBER_IS_84546.

FORM I - IN

7/88

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEFZ60

Lab Name: VERSAR_INC. Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

Matrix (soil/water): WATER Lab Sample ID: 84540_____

Level (low/med): LOW__ Date Received: 10/11/89

% 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	34.0	B		P
7440-36-0	Antimony	2.0	U	S	F
7440-38-2	Arsenic	4.0	U	S	F
7440-39-3	Barium	2.0	U		P
7440-41-7	Beryllium	2.0	U	N	P
7440-43-9	Cadmium	0.20	U	S	F
7440-70-2	Calcium	25.1	B		P
7440-47-3	Chromium	7.0	U		P
7440-48-4	Cobalt	6.0	U		P
7440-50-8	Copper	38.5		N*	P
7439-89-6	Iron	20.0	U		P
7439-92-1	Lead	2.0	U	S	F
7439-95-4	Magnesium	11.7	B		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	20.0	U		P
7440-09-7	Potassium	1000	U		P
7782-49-2	Selenium	2.0	U	S	F
7440-22-4	Silver	5.0	U	N	P
7440-23-5	Sodium	240	B		P
7440-28-0	Thallium	2.0	U	S	F
7440-62-2	Vanadium	5.0	U		P
7440-66-6	Zinc	6.7	B		P
	Cyanide	10	U		AS

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

CYANIDE_LAB_NUMBER_IS_84547.

FORM I - IN

7/88

3
BLANKS

Lab Name: VERSAR_INC._____ Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

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	25.0	U	25.0	U	25.0	U	25.0	U	25.0	U	P
Antimony	2.0	U	2.0	U	2.0	U					F
Arsenic	4.0	U	4.0	U	4.0	U	4.0	U			F
Barium	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	P
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U	2.0	U	P
Cadmium	0.2	U	0.2	U	0.2	U	0.2	U			F
Calcium	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	P
Chromium	7.0	U	7.0	U	7.0	U	7.0	U	7.0	U	P
Cobalt	6.0	U	6.0	U	6.0	U	6.0	U	6.0	U	P
Copper	6.0	U	6.0	U	6.0	U	6.0	U	6.0	U	P
Iron	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	P
Lead	2.0	U	2.0	U	2.0	U	2.0	U			F
Magnesium	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	P
Manganese	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	P
Mercury	0.2	U	0.2	U					0.2	U	CV
Nickel	20.0	U	20.0	U	20.0	U	20.0	U	20.0	U	P
Potassium	1000.0	U	1000.0	U	1000.0	U	1000.0	U	1000.0	U	P
Selenium	2.0	U	2.0	U	2.0	U					F
Silver	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	P
Sodium	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	P
Thallium	2.0	U	2.0	U	2.0	U					F
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	P
Zinc	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	P
Cyanide	10.0	U	10.0	U	10.0	U			10.0	U	AS

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3
BLANKS

Lab Name: VERSAR_INC._____ Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

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			25.0	U							P
Antimony											NR
Arsenic			4.0	U							F
Barium			2.0	U							P
Beryllium			2.0	U							P
Cadmium			0.2	U	0.2	U					F
Calcium			20.0	U							P
Chromium			7.0	U							P
Cobalt			6.0	U							P
Copper			6.0	U							P
Iron			20.0	U							P
Lead			2.0	U							F
Magnesium			10.0	U							P
Manganese			3.0	U							P
Mercury											NR
Nickel			20.0	U							P
Potassium			1000.0	U							P
Selenium											NR
Silver			5.0	U							P
Sodium			50.0	U							P
Thallium											NR
Vanadium			5.0	U							P
Zinc			5.0	U							P
Cyanide									10.0	U	AS

FORM III - IN

7/88

U.S. EPA - CLP

3
BLANKS

Lab Name: VERSAR_INC._____ Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

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	4.0	U	4.0	U	4.0	U	4.0	U			F
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

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEFZ55S

Lab Name: VERSAR_INC.

Contract:

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

Matrix: 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	85-115	1911.4200		25.0000	U	2000.00	95.6		P
Antimony									NR
Arsenic									NR
Barium	85-115	1888.0500		2.0000	U	2000.00	94.4		P
Beryllium	85-115	57.7900		2.0000	U	50.00	115.6	N	P
Cadmium									NR
Calcium	85-115	49409.5200		361.6600	B	50000.00	98.1		P
Chromium	85-115	203.1200		7.0000	U	200.00	101.6		P
Cobalt	85-115	462.9500		6.0000	U	500.00	92.6		P
Copper	85-115	233.0600		35.1500		250.00	79.2	N	P
Iron	85-115	1115.7200		61.2600	B	1000.00	105.4		P
Lead									NR
Magnesium	85-115	23616.8000		99.9000	B	25000.00	94.1		P
Manganese	85-115	474.3700		3.0000	U	500.00	94.9		P
Mercury									NR
Nickel	85-115	473.7200		20.0000	U	500.00	94.7		P
Potassium	85-115	20036.8800		1356.3400	B	20000.00	93.4		P
Selenium									NR
Silver	85-115	29.9500		5.0000	U	50.00	59.9	N	P
Sodium		294686.5200		250777.8300		50000.00	87.8		P
Thallium									NR
Vanadium	85-115	476.7700		5.0000	U	500.00	95.4		P
Zinc	85-115	485.4200		15.9600	B	500.00	93.9		P
Cyanide									NR

Comments:

FORM V (Part 1) - IN

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEFZ56S

Lab Name: VERSAR_INC.

Contract:

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

Matrix: __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									NR
Antimony									NR
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	80-120	1.0900		0.2000	U	1.00	109.0		CV
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

FORM V (Part 1) - IN

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEFZ58S

Lab Name: VERSAR_INC._____ Contract:_____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

Matrix: __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									NR
Antimony									NR
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	80-120	88.9300		10.0000	U	100.00	88.9		AS

Comments:

FORM V (Part 1) - IN

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEFZ55A

Lab Name: VERSAR_INC. Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

Matrix: ____WATER_____ 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									NR
Arsenic									NR
Barium									NR
Beryllium		11.10		2.00	U	4.0	277.5		P
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper		49.40		35.20		12.0	118.3		P
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:

FORM V (Part 2) - IN

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MEFZ55D

Lab Name: VERSAR_INC. Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

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		25.0000	U	25.0000	U			P
Antimony		2.0000	U	2.0000	U			F
Arsenic		4.0000	U	4.0000	U			F
Barium		2.0000	U	2.0000	U			P
Beryllium		2.0000	U	2.0000	U			P
Cadmium		0.2000	U	0.2000	U			F
Calcium	1000.0	361.7000	B	331.2000	B	8.8		P
Chromium		7.0000	U	7.0000	U			P
Cobalt		6.0000	U	6.0000	U			P
Copper	10.0	35.2000		49.4000		33.6	*	P
Iron	100.0	61.3000	B	62.0000	B	1.1		P
Lead	2.0	2.1000		2.0000	U	200.0		F
Magnesium	1000.0	99.9000	B	89.9000	B	10.5		P
Manganese		3.0000	U	3.0000	U			P
Mercury								NR
Nickel		20.0000	U	20.0000	U			P
Potassium	2000.0	1356.3000	B	1308.2000	B	3.6		P
Selenium		2.0000	U	2.0000	U			F
Silver		5.0000	U	5.0000	U			P
Sodium		250777.8000		251001.3000		0.1		P
Thallium		2.0000	U	2.0000	U			F
Vanadium		5.0000	U	5.0000	U			P
Zinc	20.0	16.0000	B	18.2000	B	12.9		P
Cyanide								NR

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MEFZ56D

Lab Name: VERSAR_INC._____ Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

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								NR
Antimony								NR
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		0.2000	U	0.2000	U			CV
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

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6
DUPLICATES

EPA SAMPLE NO.

MEFZ58D

Lab Name: VERSAR_INC._____ Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

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								NR
Antimony								NR
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		10.0000	U	10.0000	U			AS

U.S. EPA - CLP

10

Instrument Detection Limits (Quarterly)

Lab Name: VERSAR_INC. Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

ICP ID Number: _____ Date: 04/15/89

Flame AA ID Number : 2-PE_703____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			100		NR
Antimony			5		NR
Arsenic			5		NR
Barium			50		NR
Beryllium			5		NR
Cadmium			0		NR
Calcium			1000		NR
Chromium			10		NR
Cobalt			10		NR
Copper			10		NR
Iron			100		NR
Lead			2		NR
Magnesium			1000		NR
Manganese			10		NR
Mercury	253.70		0.2	0.2	CV
Nickel			20		NR
Potassium			2000		NR
Selenium			2		NR
Silver			5		NR
Sodium			1000		NR
Thallium			2		NR
Vanadium			10		NR
Zinc			20		NR

Comments:

FORM X - IN

10

Instrument Detection Limits (Quarterly)

Lab Name: VERSAR_INC. Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

ICP ID Number: _____ Date: 04/15/89

Flame AA ID Number : _____

Furnace AA ID Number : 6-PE_5000___

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			100		NR
Antimony			5		NR
Arsenic			5		NR
Barium			50		NR
Beryllium			5		NR
Cadmium			0		NR
Calcium			1000		NR
Chromium			10		NR
Cobalt			10		NR
Copper			10		NR
Iron			100		NR
Lead			2		NR
Magnesium			1000		NR
Manganese			10		NR
Mercury			0.2		NR
Nickel			20		NR
Potassium			2000		NR
Selenium			2		NR
Silver			5		NR
Sodium			1000		NR
Thallium	276.60	BD	2	2.0	F
Vanadium			10		NR
Zinc			20		NR

Comments:

_____

_____

_____

FORM X - IN

10

Instrument Detection Limits (Quarterly)

Lab Name: VERSAR_INC. Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

ICP ID Number: 9-ICAP_61___ Date: 04/15/89

Flame AA ID Number : _____

Furnace AA ID Number : 8-PE_3030___

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20		100	25.0	P
Antimony			5		NR
Arsenic			5		NR
Barium	493.40		50	2.0	P
Beryllium	313.00		5	2.0	P
Cadmium			0		NR
Calcium	317.90		1000	20.0	P
Chromium	267.70		10	7.0	P
Cobalt	228.60		10	6.0	P
Copper	324.70		10	6.0	P
Iron	259.90		100	20.0	P
Lead	283.30	BZ	2	2.0	F
Magnesium	279.50		1000	10.0	P
Manganese	257.60		10	3.0	P
Mercury			0.2		NR
Nickel	231.60		20	20.0	P
Potassium	766.40		2000	1000.0	P
Selenium	196.00	BZ	2	2.0	F
Silver	328.00		5	5.0	P
Sodium	588.90		1000	50.0	P
Thallium			2		NR
Vanadium	294.20		10	5.0	P
Zinc	213.80		20	5.0	P

Comments:

IRON_HIGH_LINE_(271.4_NM)_IDL_=_110_UG/L

MAGNESIUM_HIGH_LINE_(383.2_NM)_IDL_=_23_UG/L

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10

Instrument Detection Limits (Quarterly)

Lab Name: VERSAR_INC._____ Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

ICP ID Number: _____ Date: 04/15/89

Flame AA ID Number : _____

Furnace AA ID Number : 10-PE_3030__

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			100		NR
Antimony	217.80	BZ	5	2.0	F
Arsenic			5		NR
Barium			50		NR
Beryllium			5		NR
Cadmium	228.60	BZ	0.5	0.2	F
Calcium			1000		NR
Chromium			10		NR
Cobalt			10		NR
Copper			10		NR
Iron			100		NR
Lead			2		NR
Magnesium			1000		NR
Manganese			10		NR
Mercury			0.2		NR
Nickel			20		NR
Potassium			2000		NR
Selenium			2		NR
Silver			5		NR
Sodium			1000		NR
Thallium			2		NR
Vanadium			10		NR
Zinc			20		NR

Comments:

FORM X - IN

U.S. EPA - CLP

10

Instrument Detection Limits (Quarterly)

Lab Name: VERSAR_INC. Contract: _____

Lab Code: VERSAR Set No.: 12901 SAS No.: 4801E_ SDG No.: MEFZ54

ICP ID Number: _____ Date: 04/15/89

Flame AA ID Number : _____

Furnace AA ID Number : 11-PE_3030__

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			100		NR
Antimony			5		NR
Arsenic	193.80	BZ	5	4.0	F
Barium			50		NR
Beryllium			5		NR
Cadmium			0		NR
Calcium			1000		NR
Chromium			10		NR
Cobalt			10		NR
Copper			10		NR
Iron			100		NR
Lead			2		NR
Magnesium			1000		NR
Manganese			10		NR
Mercury			0.2		NR
Nickel			20		NR
Potassium			2000		NR
Selenium			2		NR
Silver			5		NR
Sodium			1000		NR
Thallium			2		NR
Vanadium			10		NR
Zinc			20		NR

Comments:

FORM X - IN

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 10/25 FIT Receipt Date 12/1 Review Completed 12/8/89

TO: Lueck
FROM: Mary Gzyra
SUBJECT: North Manchester
PAN: IN0681SB (1 hour charged for review) Case # 12901/481

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#_____	Low Soil	#_____	Low Soil
_____	Low Water	_____	Low Water
7	Drinking Water	_____	Drinking Water
_____	Other	_____	Other

Project Data Status _____ Completed!!

✓ Incomplete, awaiting DW maig, Soil & water org & mg

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

_____ Compounds were detected in sample(s); see enclosed sheet.

Book No. 9 Page No._____ Date Sampled 10/10

0759:2

recycled paper

By 12/8/89

Table 4-__
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED _____ SAMPLES

				Sample Collection Information and Parameters	Sample Number 1	2	3 Alg	4	5	6	BLK	8	9	10	11	12
				Date												
				Time												
				Well Depth (Feet)												
				CWL Log Number												
				CLP Organic Traffic Report Number	EGL 08	09	10	11	BN 12	13	14					
				CLP Inorganic Traffic Report Number												
				Temperature (°C)												
				Specific Conductivity (µmhos/cm)												
				pH												
Physical State*	Waste Characteristics**	Category***	SI Memo	Compound Detected (values in µg/L or µg/kg)												
				Volatile Organics												
Gas	A,D,G,I	OCC	HH	chloromethane												
Gas	A,D,G,I	OCC	HH	bromomethane												
Gas	A,D,G,I	OCC	HH	vinyl chloride												
Gas	A,D,G,I	OCC	HH	chloroethane												
Liquid	A,D,H,I	SOL	HH,CLA	methylene chloride	0.6 J	3	3	0.9 J	4		0.9 J					
Liquid	E,H,I,A	SOL	K,CLA	acetone							6					
Liquid	A,H,I	SOL	SW	carbon disulfide												
Liquid	A,D,G,I	SOL	HH	1,1-dichloroethene												
Liquid	A,D,H,G	SOL	HH	1,1-dichloroethane												
Liquid	A,D,G	SOL	HH	1,2-dichloroethene (total)												
Liquid	A,D	SOL	HH	chloroform												
Liquid	A,D,G	SOL	HH	1,2-dichloroethane												
Liquid	A,E,G	SOL	K,CLA	2-butanone (MEK)												
Liquid	A,D	SOL	HH	1,1,1-trichloroethane												
Liquid	A,D	SOL	HH	carbon tetrachloride												
Liquid	A,D,G	SOL	HYD	vinyl acetate												
Liquid	A,D	OCC	HH	bromodichloromethane												
Liquid	A,D,G	SOL	HH	1,2-dichloropropane												
Liquid	A,D,G	SOL	HH	cis-1,3-dichloropropene												
Liquid	A,D,G,B	SOL	HH	trichloroethene												
Liquid	A,D	OCC	HH	dibromochloromethane												
Liquid	A,D	SOL	HH	1,1,2-trichloroethane												
Liquid	A,G	SOL	A	benzene												
Liquid	A,D,G	SOL	HH	trans-1,3-dichloropropene												
Liquid	A,D	SOL	HH,CLA	bromoform												
Liquid	A,E,G	SOL	K,CLA	4-methyl-2-pentanone												
Liquid	A,E,G	SOL	K	2-hexanone												
Liquid	A,D	SOL	HH	tetrachloroethene												
Liquid	A,G,E	SOL	A,CLA	toluene					0.9 J							
Liquid	A,D,E	SOL	HH	1,1,2,2-tetrachloroethane												
Liquid	A,D,G	SOL	HA	chlorobenzene												
Liquid	A,G	SOL	A	ethylbenzene												
Liquid	A,D,G	OCC	A	styrene												
Liquid	A,G	SOL	A	xylenes (total)												

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number 1	2	3	4	5	6	7	8	9	10	11	12
				Semivolatile Organics												
S, thick l	A,B,E	OCC	P	phenol												
Liquid	A,D,B	OCC	HH	bis(2-chloroethyl)ether												
Liquid	A,D,B	OCC	P	2-chlorophenol												
Liquid	A,D,H	SOL	HA	1,3-dichlorobenzene												
Solid	A,D,H	OCC	HA	1,4-dichlorobenzene												
Liquid	A,D,H	SOL	A	benzyl alcohol												
Liquid	A,D,H	OCC	HA	1,2-dichlorobenzene												
Liquid	A,B	OCC	P	2-methylphenol												
	A,D	OCC	HH	bis(2-chloroisopropyl)ether												
Liquid	A,B	OCC	P	4-methylphenol												
	A	OCC	H-Amine	n-nitroso-di-n-dipropylamine												
Solid	A,D	OCC	HH	hexachloroethane												
Liquid	A,D	OCC	NA	nitrobenzene												
Liquid	A,D	OCC	H	isophorone												
Solid	A,D	OCC	P	2-nitrophenol												
Solid	A,B	OCC	P	2,4-dimethylphenol												
Solid	A	OCC	A	benzoic acid												
	A,D	OCC	HH	bis(2-chloroethoxy)methane												
Liquid	A,D	OCC	P	2,4-dichlorophenol												
Liquid	A,D	OCC	HA	1,2,4-trichlorobenzene												
Solid	A	OCC	PAH	naphthalene							2					
Solid	A,D	OCC	NH	4-chloroaniline												
Liquid	A,D,B	OCC	HH	hexachlorobutadiene												
Solid	A,D	OCC	P	4-chloro-3-methylphenol												
Liquid	A,D	OCC	PAH	2-methylnaphthalene												
Liquid	A,D,B	OCC	HH	hexachlorocyclopentadiene												
Solid	A,D	OCC	P	2,4,6-trichlorophenol												
Solid	A,D	OCC	P	2,4,5-trichlorophenol												
Liquid	A,D	OCC	PAH	2-chloronaphthalene												
Solid	A,D	OCC	NH	2-nitroaniline												
Liquid	A,D	OCC	PH,CLA	dimethylphthalate												
Solid	A,D	OCC	PAH	acenaphthylene												
Solid	A,D	OCC	NA	2,6-dinitrotoluene												
Solid	A,D	OCC	NH	3-nitroaniline												
Solid	A,D	OCC	PAH	acenaphthene												
Solid	A,D,G	OCC	P	2,4-dinitrophenol												
Solid	A,D	OCC	P	4-nitrophenol												
Solid	A,D	OCC	A	dibenzofuran												
Solid	A,D	OCC	NA	2,4-dinitrotoluene												
Liquid	A,D	OCC	PH	diethylphthalate												
	A,D	OCC	HH	4-chlorophenyl-phenylether												
Solid	A,D	OCC	PAH	fluorene												
Solid	A,D,E	OCC	NH	4-nitroaniline												
Solid	A,D	OCC	P	4,6-dinitro-2-methylphenol												
Solid	A,D	OCC	NH	n-nitrosodiphenylamine												
Liquid	A,D	OCC	HH	4-bromophenyl-phenylether												
Solid	A,D	OCC	HA	hexachlorobenzene												
Solid	A,D	OCC	P	pentachlorophenol												
Solid	A,D	OCC	PAH	phenanthrene												

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number 1	2	3	4	5	6	7	8	9	10	11	12
				Semivolatile Organics, Cont.												
Solid	A,D	OCC	PAH	anthracene												
Liquid	A,D	OCC	PH,CLA	di-n-butylphthalate												
Solid	A,D	OCC	PAH	fluoranthene												
Solid	A,D	OCC	PAH	pyrene												
Liquid	A,D	OCC	PH,CLA	butylbenzylphthalate												
	A,D	OCC	NA	3,3'-dichlorobenzidine												
Solid	A,D	OCC	PAH	benzo[a]anthracene												
Solid	A,D	OCC	PAH	chrysene												
Liquid	A,D	OCC	PH,CLA	bis(2-ethylhexyl)phthalate												
Liquid	A,D	OCC	PH,CLA	di-n-octylphthalate												
Solid	A,D	OCC	PAH	benzo[b]fluoranthene												
Solid	A,D	OCC	PAH	benzo[k]fluoranthene												
Solid	A,D,E,L	OCC	PAH	benzo[a]pyrene												
Solid	A,D	OCC	PAH	indeno[1,2,3-cd]pyrene												
Solid	A,D	OCC	PAH	dibenzo[a,h]anthracene												
Solid	A,D	OCC	PAH	benzo[g,h,i]perylene												
				Pesticides/PCBs												
Solid	A,D	PSD	PEST	alpha BHC												
Solid	A,D	PSD	PEST	beta BHC												
Solid	A,D	PSD	PEST	delta BHC												
Solid	A,D	PSD	PEST	gamma BHC (Lindane)												
Solid	A,D	PSD	PEST	Heptachlor												
Solid	A,D	PSD	PEST	Aldrin												
Solid	A,D	PSD	PEST	Heptachlor epoxide												
Solid	A,D	PSD	PEST	Endosulfan I												
Solid	A,D,E	PSD	PEST	Dieldrin												
Solid	A,D	PSD	PEST	4,4'-DDE												
Solid	A,D	PSD	PEST	Endrin												
Solid	A,D	PSD	PEST	Endosulfan II												
Solid	A,D	PSD	PEST	4,4'-DDD												
Solid	A,D	PSD	PEST	Endosulfan sulfate												
Solid	A,D	PSD	PEST	4,4'-DDT												
Solid	A,D	PSD	PEST	Methoxychlor (Mariate)												
Solid	A,D	PSD	PEST	Endrin ketone												
Solid	A,D	PSD	PEST	alpha Chlordane												
Solid	A,D	PSD	PEST	gamma Chlordane												
Solid	A,D	PSD	PEST	Toxaphene												
Liquid	A,D	OCC	PCB	Aroclor 1016												
Liquid	A,D	OCC	PCB	Aroclor 1221												
Liquid	A,D	OCC	PCB	Aroclor 1232												
Liquid	A,D	OCC	PCB	Aroclor 1242												
Liquid	A,D	OCC	PCB	Aroclor 1248												
Liquid	A,D	OCC	PCB	Aroclor 1254												
Liquid	A,D	OCC	PCB	Aroclor 1260												

11/7

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 11/28/89

12/1/89

SUBJECT: Review of Region V CLP Data
Received for Review on 10-25-89

FROM: Curtis Ross, Director (5SCRL) Patrick J. Chinilla for
Central Regional Laboratory

TO: Data User: Zet

We have reviewed the data for the following case(s).

SITE NAME: North Manchester Foundry Lf SMO Case No. 12901 SAS 4801E

EPA Data Set No. _____ No. of Samples: 7 D.U./Activity Numbers TFA/TFA 102

CRL No. _____

SMO Traffic No. EGL08-11, EGN12-14

CLP Laboratory: Compuchem Hrs. Required for Review: 7+1=8 hrs

Following are our findings:

The laboratory received seven (7) drinking water samples on the 11th of October 1989 in good condition for VOA, SVOa and pesticide/PCB analysis.

The field blank EGL14 and field DUPLICATE EGL10 were included in SDG # EGL08 .

The reviewer's narrative and data qualifiers are noted in the following pages.

L. Finkelberg
Weston /ESAT
11.28.89

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications referenced above. See Data Qualifier sheets and Calibration Outlier forms for flags and additional comments.
( ) Data are preliminary - pending verification by Contractor Laboratory. See Case Summary above.
( ) Data are unacceptable.

cc: Carla Dempsey, CLP Quality Assurance Officer, Analytical Operations Branch
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

Region _____

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 12901/4801E

SITE North Manchester

LABORATORY Compuchem

NO. OF SAMPLES/ MATRIX 7 water

SDG # EGL08

REVIEWER (IF NOT ESD) WESTON/ESAT

SOW# 2/88

REVIEWER'S NAME L. Finkelberg

DPO: ACTION _____ FYI _____

COMPLETION DATE 11.21.89

DATA ASSESSMENT SUMMARY

		VOA	BNA	PEST	OTHER
1.	HOLDING TIMES	O	O	O	
2.	GC/MS TUNE/INSTR. PERFORM.	O	O	O	
3.	CALIBRATIONS	O	O	O	
4.	BLANKS	O	O	O	
5.	SURROGATES	O	O	O	
6.	MATRIX SPIKE/DUP	O	O	O	
7.	OTHER QC				
8.	INTERNAL STANDARDS	O	O	—	
9.	COMPOUND IDENTIFICATION				
10.	SYSTEM PERFORMANCE				
11.	OVERALL ASSESSMENT	O	O	O	

O = Data had no problems/or qualified due to minor problems.
M = Data qualified due to major problems.
Z = Data unacceptable.
X = Problems, but do not affect data.

ACTION ITEMS: _____

AREAS OF CONCERN: _____

NOTABLE PERFORMANCE: _____

CONTRACTOR: COMPUCEM CASE 12901/SAS4801E

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

1. HOLDING TIMES:

The laboratory received seven (7) drinking water samples on 11th of October 1989 for VOA, SVOa,pesticides.

The laboratory received these samples in good condition. All volatile analysis met holding time criteria of seven (7) days of VTSR for SAS4801E; all semi-volatile and pesticide fractions were extracted and analyzed within seven (7) days holding time requirements.

2. GC/MS TUNING:

GC/MS tuning complied with the mass list and ion abundance criteria for BFB,DFTPP.

RTs of DDT < 12 min. using pack column OV-101.

DDT degradation check using evaluation mix B, and endrin degradation check using evaluation mix B met QC criteria for SDG # EGL08.

RT shift of DBC on the primary and confirmation columns met QC criteria . RT shift for DBC of two standards INDB and INDA is greater than 2% for packed column, but samples were not effected.

3. CALIBRATION:

Initial and continuing calibration of VOA and SVOa standards were evaluated for the target compound list(TCL) and outliers were recorded on the outlier forms included as part of this narrative.

In the initial and continuing calibration of VOA 1,1,2,2-tetrachloroethane and bromoform did not meet the SPCC criteria.

Linearity check of pesticide standards based on calibration factor (CF) of evaluation mix A,B,C were within 10% RSD on the primary column.

All %D on continuing calibration met 15% criteria for the primary column for SDG # EGL08.

4. METHOD BLANKS :

VBLKTD and VBLKJT are the low level VOA water method blanks. VBLKTD and VBLKJT are clean.

SBLK48 is the low level SVOa water method blank.SBLK48 contained two TICs.

PBLK09 is the low level pesticide water method blank.PBLK09 is clean.

Reviewed by: L. Finkelberg

Phone: 353-2964

Date: 11.21.89

CONTRACTOR: COMPUCHEM CASE 12901/SAS4801E

5. SURROGATE RECOVERY:

VOA, SVOa, pesticide surrogate recoveries met QC criteria.

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE AND RPD:

Sample EGL08 was used as the water spike for low level VOA, SVOa, pesticides.

All VOA and SVOa matrix spikes, matrix spike duplicates, and RPDs met QC criteria.

All pesticide matrix spikes, matrix spike duplicate recoveries met QC criteria.
Two RPDs for Dieldrin and Endrin were out of specification, therefore positive results in unspiked water sample EGL08 are flagged as estimated "J" and non-detected results in the unspiked sample EGL08 flagged as estimated "UJ" with qiantitation limits.

7. FIELD BLANK AND FIELD DUPLICATE:

Water sample EGL10 is a field duplicate, water samples EGL14 is a field blank. EGL10 contained methylene chloride . Field blank contained methylene chloride, acetone and naphthalene.

8. INTERNAL STANDARDS:

All VOA and SVOa internal standard areas and RTs met QC criteria.

9. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS:

All VOA target compound quantitative results were properly reported.
The CRQLs were adjusted to reflect all sample dilutions.

10. ADDITIONAL CASE SPECIFIC PROBLEMS:

This reviewer found no additional case problems to be noted.

Reviewed by: L. Finkelberg
Phone: 353-2964
Date: 11.21.89

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 12901 CONTRACTOR Compuchem

Instrument # 11	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10.15.89			10.16.89 1022			10.16.89 2244								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone															
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	.035	6.7	R	.035	14.3	R	.035	8.6	R						
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															
Acrolein	0.033	5.9	R	.033	6.1	R	.033	21.2	R						
AFFECTED SAMPLES:				VBLKTD			VBLKJT								
				EGN14			EGL08								
				EGN13			EGL08MS								
				EGN12			EGL08MSD								
				EGN11			EGL10								
Reviewer's Initials/Date: L. Finkelberg 11.21.89							EGL09								

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 12901 CONTRACTOR Compuchem

Instrument # CO	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10.13.89			10.15.89 6:08											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol															
Dibenzofuran															

AFFECTED SAMPLES:

SBLK48
EGL08

Reviewer Initials/Date: L. Finkelberg 11.21.89

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE MSL COMPOUNDS
Page 2

CASE/SAS # 12901/4801E CONTRACTOR Compuchem

Instrument # 06	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10.13.89			10.15.89 6:06											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline															
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

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

Reviewer's Initials/Date: L. Finkelberg 11.21.89

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 12901/4801E CONTRACTOR Compuchem

Instrument # 05	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10.16.89			10.17.89 10:26			10.18.89 11:07								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol															
Dibenzofuran															

AFFECTED SAMPLES:

EGN 14	SBLKY8			
EGN 13				
EGN 12				
EGN 11				
EGN 10				
EGN 09				
EGN 0845				
EGN 0845S				

Reviewer Initials/Date: L. Finkelberg 11.21.89

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 12901/4801E CONTRACTOR Compuchem

Instrument # 05	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	10.16.89														
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline															
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

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

Reviewer's Initials/Date: L. Finkelberg 11.21.89

8/87

For reporting results to the USEPA, the following contract specific qualifiers are to be used. The seven qualifiers defined below are not subject to modification by the laboratory. Up to five qualifiers may be reported on Form I for each compound.

The seven EPA-defined qualifiers to be used are as follows:

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if the sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the sample quantitation limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U)}{D} \times df \quad \text{where } D = \frac{100 - \%\ moisture}{100}$$

and df = dilution factor

$$\text{at 24\% moisture, } D = \frac{100-24}{100} = 0.76$$

$$\frac{(330\ U)}{.76} \times 10 = 4300\ U$$ rounded to the appropriate number of significant figures

For soil samples subjected to GPC clean-up procedures, the CRQL is also multiplied by 2, to account for the fact that only half of the extract is recovered.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it as 3J. The sample quantitation limit must be adjusted for both dilution and percent moisture as discussed for the U flag, so that if a sample with 24% moisture and a 1 to 10 dilution factor has a calculated concentration of 300 ug/L and a sample quantitation limit of 430 ug/kg, report the concentration as 300J on Form I.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract shall be confirmed by GC/MS.

B - This flag is used when the analyte is 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. This flag must be used for a TIC as well as for a positively identified TCL compound.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. 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 shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: For total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered separately, e.g., a diluted analysis is not required for total xylenes unless the concentration of either peak separately exceeds 200 ug/L.

D - This flag 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 above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - Other specific flags may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the Case Narrative. Begin by using "X". If more than one flag is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B", and "D" flags for some sample.

The combination of flags "BU" or"UB" is expressly prohibited. Blank contaminants are flagged "B" only when they are also detected in the sample.

If analyses at two different dilution factors are required (see Exhibit D), follow the data reporting instructions given in Exhibit D and with the "D" and "E" flags above.

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
(For CLP Use Only)

SET
Case Number: 12901
SAS No. (if applicable): 4801E

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

2. Region Number: V
Sampling Co.: FIT
Sampler (Name): Angelo Carpodinis
3. Ship To: Compuchem Laboratories, 3308 Chapel Hill/Nelson Hwy, RTP, NC 27709, ATTN: Natalie Carter

4. Date Shipped: 10-10-89
Airbill Number: 1060847042
Carrier: F

Triple volume required for matrix spike/duplicate aqueous sample.
Ship medium and high concentration samples in paint cans.
See reverse for additional instructions.

5. Date Received: 10-11-89
Received by: Joan Purdie
Laboratory Contract Number: SAS# 4801E
Unit Price: 600.00
6. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

RECEIVED IN GOOD CONDITION

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number	(H) Sample Number on Receipt	(I) High Conc. Phases (Check below) Water—MIS Liq.	Non Water—MIS Liq.
EGL08	2	L	X	X	X		RW1 INSD		MEF254	293877		
EGL09	2	L	X	X	X		RW2		MEF255	293887		
EGL10	2	L	X	X	X		DUP		MEF256	293888		
EGL11	2	L	X	X	X		RW3		MEF257	293889		
EGN12	2	L	X	X	X		RW4		MEF258	293890		
EGN13	2	L	X	X	X		RW5		MEF259	293891		
EGN14	~~2~~ 3	L	X	X	X	BLK	BLK		MEF260	293892 fast sample in 500 EGL08		
10-10-89												

Shipment is complete

EPA Form 9110-2 (8-88) Replaces EPA Form 2075-7, which may be used. Blue - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

SET 12901 SAMPLE DATA PACKAGE

753

COMPUCHEM LABORATORIES

EPA CASE NARRATIVE--SET# 12901
Contract# SAS4801E SDG# EGL08
CompuChem Laboratories, Inc.

Sample Numbers: EGL08, EGL09, EGL10, EGL11, EGN12, EGN13, EGN14

This portion of Set# 12901, SAS# 4801E consisted of 7 water samples for low detection limit volatile, semivolatile, and pesticide analysis. The samples were received intact via Federal Express on 10-11-89 in properly sealed shipping containers with traffic reports and chain-of-custody documents.

VOLATILES:
All volatile fractions were extracted and analyzed within holding time requirements. Six of the samples contained TCL compounds which included methylene chloride, acetone, and toluene. None of the samples contained any tentatively identified compounds. Both method blanks met QC criteria. All surrogate recovery criteria were met. The QC matrix spike/matrix spike duplicate results were acceptable.

SEMIVOLATILES:
All semivolatile fractions were extracted and analyzed within holding time requirements. Sample EGN14, which was designated as a blank, contained naphthalene. The presence of this TCL compound could not be attributed to carryover from a previous sample and was considered an actual constituent of the sample. A qualifier was included with the sample. None of the other samples contained any TCL compounds. Each sample contained two tentatively identified compounds which were laboratory artifacts. Sample EGL08 contained one additional tentatively identified compound. All surrogate recovery criteria were met. The QC matrix spike/matrix spike duplicate results were acceptable.

PESTICIDES:
All pesticide fractions were extracted and analyzed within holding time requirements. None of the samples contained any reportable levels of TCL compounds. All surrogate recovery criteria were met. The QC matrix spike/matrix spike duplicate results were acceptable. The RPD values for dieldrin and endrin exceeded QC limits.

LDL COMMENTS:
1. CompuChem is following EPA rounding conventions for CRQL and result reporting. Semivolatile and volatile fractions are being reported to one significant figure below ten.
2. The J values are being reported down to half of the modified CRQL.
3. The word "NO" on quantitation report either means the compounds were not found or the compound results were less than 1/2 the CRQL.

COMPUCHEM LABORATORIES

4. The reporting units for the pesticide fractions are NG/L.

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.

NOTE: This report is paginated for reference and accountability in decreasing numerical sequence.

Janet C. Garrett 10-23-89

Janet C. Garrett 10-23-89
Technical Reviewer

COMPUCHEM LABORATORIES, INC. P.O. Box 12652 3308 Chapel Hill/Nelson Highway Research Triangle Park, NC 27709 (919) 549-8263

2A
WATER VOLATILE SURROGATE RECOVERY

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
01	EGL08	110	95	100		0
02	EGL09	109	94	100		0
03	EGL10	102	91	94		0
04	EGL11	104	99	98		0
05	EGN12	99	91	90		0
06	EGN13	109	102	101		0
07	EGN14	102	95	94		0
08	EGL08MS	96	86	89		0
09	EGL08MSD	110	97	103		0
10	VBLKTD	97	96	92		0
11	VBLKJT	96	94	95		0

	QC LIMITS
S1 (TOL) = Toluene-d8	(88-110)
S2 (BFB) = Bromofluorobenzene	(86-115)
S3 (DCE) = 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	OTHER	TOT OUT
01	EGL08	108	100	121	41	57	95		0
02	EGL09	68	81	101	37	51	110		0
03	EGL10	63	69	90	38	51	112		0
04	EGL11	62	71	87	33	41	93		0
05	EGN12	62	74	94	31	42	89		0
06	EGN13	70	86	104	22	30	60		0
07	EGN14	72	75	93	38	51	92		0
08	EGL08MS	77	84	101	25	31	78		0
09	EGL08MSD	68	73	88	26	34	76		0
10	SBLK48	67	64	84	37	48	69		0
11	SBLK48	62	69	103	38	51	92		0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl	(33-141)
S4 (PHL)	= Phenol-d5	(10-94)
S5 (2FP)	= 2-Fluorophenol	(21-100)
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM LABORATORIES Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

	EPA SAMPLE NO.	S1 (DBC)#	OTHER
01	PBLK09	102	0
02	EGL08MS	96	0
03	EGL08MSD	118	0
04	EGL08	112	0
05	EGL09	94	0
06	EGL10	101	0
07	EGL11	96	0
08	EGN12	91	0
09	EGN13	40	0
10	EGN14	97	0
11			
12			
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29			
30			

ADVISORY QC LIMITS (24-154)

S1 (DBC) = Dibutylchlorendate

Column used to flag recovery values

* Values outside of QC limits

D Surrogates diluted out

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix Spike - EPA Sample No.: EGL08

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	12.5	0	16.1	129	61-145
Trichloroethene	12.5	0	13.5	108	71-120
Benzene	12.5	0	13.5	108	76-127
Toluene	12.5	0	13.5	108	76-125
Chlorobenzene	12.5	0	13.1	105	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	12.5	17.3	138	-7	14	61-145
Trichloroethene	12.5	14.3	114	-5	14	71-120
Benzene	12.5	14.3	114	-5	11	76-127
Toluene	12.5	14.8	118	-9	13	76-125
Chlorobenzene	12.5	14.2	114	-8	13	75-130

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: CLP ,1290,1-EGL0,-EGL0,LOW,WATER,293877,VOLATILE, ,
TUNE: 0011 101789 0053

FORM III VOA-1 1/87 Rev.

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix Spike - EPA Sample No.: EGL08

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	40.0	0	8.50	21	12- 86
2-Chlorophenol	40.0	0	17.4	44	27-123
1,4-Dichlorobenzene	20.0	0	12.3	62	36 97
N-Nitroso-di-n-prop.(1)	20.0	0	11.9	60	41 116
1,2,4-Trichlorobenzene	20.0	0	13.6	68	39 98
4-Chloro-3-methylphenol	40.0	0	14.2	36	23 97
Acenaphthene	20.0	0	15.2	76	46-118
4-Nitrophenol	40.0	0	20.2	51	10- 80
2,4-Dinitrotoluene	20.0	0	14.3	72	24- 96
Pentachlorophenol	40.0	0	22.0	55	9-103
Pyrene	20.0	0	16.8	84	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	40.0	12.0	30	-35	42	12- 86
2-Chlorophenol	40.0	24.8	62	-34	40	27-123
1,4-Dichlorobenzene	20.0	11.2	56	10	28	36 97
N-Nitroso-di-n-prop.(1)	20.0	11.9	60	0	38	41 116
1,2,4-Trichlorobenzene	20.0	12.8	64	6	28	39 98
4-Chloro-3-methylphenol	40.0	19.6	49	-31	42	23 97
Acenaphthene	20.0	14.3	72	5	31	46-118
4-Nitrophenol	40.0	24.2	61	-18	50	10- 80
2,4-Dinitrotoluene	20.0	14.2	71	1	38	24- 96
Pentachlorophenol	40.0	28.4	71	-25	50	9-103
Pyrene	20.0	15.8	79	6	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: CLP ,1290,1-EGL0,-EGL0,LOW,WATER,293877,PEST, ,
TUNE: 0006 101589 0541

FORM III SV-1 1/87 Rev.

3E
WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM LABORATORIES Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix Spike - EPA Sample No.: EGL08

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	0.100	0.000	0.080	80	56-123
Heptachlor	0.100	0.000	0.070	70	40-131
Aldrin	0.100	0.000	0.070	70	40-120
Dieldrin	0.250	0.000	0.200	80	52-126
Endrin	0.250	0.000	0.230	92	56-121
4,4'-DDT	0.250	0.000	0.210	84	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	0.100	0.090	90	12	15	56-123
Heptachlor	0.100	0.080	80	13	20	40-131
Aldrin	0.100	0.080	80	13	22	40-120
Dieldrin	0.250	0.250	100	22 *	18	52-126
Endrin	0.250	0.290	116	23 *	21	56-121
4,4'-DDT	0.250	0.270	108	25	27	38-127

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

* Values outside of QC limits

RPD: 2 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS:

FORM III PEST-1 8/87 Rev.

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Lab File ID: CB891016B11 Lab Sample ID: VBLKJT

Date Analyzed: 10/16/89 Time Analyzed: 2344

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

Instrument ID: 11

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EGL08	293877	CN093877C11	0053
02	EGL09	293887	CR093887C11	0426
03	EGL10	293888	CN093888C11	0334
04	EGL08MS	293878	CN093878C11	0151
05	EGL08MSD	293879	CN093879C11	0247

COMMENTS: CLP ,1290,1-EGL0,-EGN1,LOW,WATER,293892,VOLATILE,BLANK,
TUNE: 0011 101689 2215

page 1 of 1

FORM IV VOA 1/87 Rev.

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Lab File ID: CB891016A11 Lab Sample ID: VBLKTD

Date Analyzed: 10/16/89 Time Analyzed: 1134

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

Instrument ID: 11

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EGL11	293889	CN093889B11	2042
02	EGN12	293890	CN093890B11	1951
03	EGN13	293891	CN093891B11	1908
04	EGN14	293892	CN093892B11	1813

COMMENTS: CLP , , , , , , ,VOLATILE,BLANK,
TUNE: 0011 101689 0953

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Lab File ID: GH094704A06 Lab Sample ID: SBLK48

Date Extracted: 10/13/89 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed: 10/15/89 Time Analyzed: 1454

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

Instrument ID: 06

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EGL08	293877	GJ093877B06	10/15/89

COMMENTS: CLP , , , ,LOW,WATER,294704,PEST,BLANK,
TUNE: 0006 101589 0541

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Lab File ID: GJ094704A05 Lab Sample ID: SBLK48

Date Extracted: 10/13/89 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed: 10/18/89 Time Analyzed: 2013

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

Instrument ID: 05

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EGL09	293887	GJ093887A05	10/17/89
02	EGL10	293888	GJ093888A05	10/17/89
03	EGL11	293889	GJ093889A05	10/17/89
04	EGN12	293890	GJ093890A05	10/17/89
05	EGN13	293891	GJ093891A05	10/17/89
06	EGN14	293892	GJ093892A05	10/17/89
07	EGL08MS	293881	GJ093881A05	10/17/89
08	EGL08MSD	293882	GJ093882A05	10/17/89

COMMENTS: CLP , , , ,LOW,WATER,294704,PEST,BLANK,
TUNE: 0005 101889 1055

4C
PESTICIDE METHOD BLANK SUMMARY

Lab Name: COMPUCHEM LABORATORIES Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Lab Sample ID: 294928 Lab File ID: _____

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

Date Extracted: 10/13/89 Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed (1): 10/13/89 Date Analyzed (2): 10/17/89

Time Analyzed (1): 1840 Time Analyzed (2): 2300

Instrument ID (1): 02 Instrument ID (2): 07

GC Column ID (1): OV-101 GC Column ID (2): 2250/2401

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EGL08MS	293884	10/13/89	
02	EGL08MSD	293885	10/13/89	
03	EGL08	293877	10/13/89	
04	EGL09	293887	10/14/89	10/17/89
05	EGL10	293888	10/14/89	10/17/89
06	EGL11	293889	10/14/89	
07	EGN12	293890	10/14/89	
08	EGN13	293891	10/14/89	
09	EGN14	293892	10/14/89	10/18/89
10				
11				
12				
13				
14				
15				
16				
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26				

COMMENTS: _____

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKJT

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

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

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CB891016B11

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

% Moisture: not dec. ____ Date Analyzed: 10/16/89

Column: (pack/cap) PACK Dilution Factor: ~~4.0~~ 1.0

10/23/89

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	2	U
540-59-0	1,2-Dichloroethene (total)	2	U
67-66-3	Chloroform	2	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon Tetrachloride	2	U
108-05-4	Vinyl Acetate	5	U
75-27-4	Bromodichloromethane	2	U
78-87-5	1,2-Dichloropropane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	2	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	2	U
108-10-1	4-Methyl-2-Pentanone	2	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
100-42-5	Styrene	1	U
1330-20-7	Total Xylenes	2	U
107-02-8	Acrolein	25	U
107-13-1	Acrylonitrile	25	U

FORM I VOA 1/87 Rev.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKJT

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

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

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CB891016B11

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

% Moisture: not dec. ____ Date Analyzed: 10/16/89

Column (pack/cap) PACK Dilution Factor: ~~1.0~~ 1.0 gc 10/23/89

Number TICs found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKTD

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

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

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CB891016A11

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

% Moisture: not dec. ____ Date Analyzed: 10/16/89

Column: (pack/cap) PACK Dilution Factor: ~~4.0~~ 1.0

gc 10/23/89

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	2	U
540-59-0	1,2-Dichloroethene (total)	2	U
67-66-3	Chloroform	2	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon Tetrachloride	2	U
108-05-4	Vinyl Acetate	5	U
75-27-4	Bromodichloromethane	2	U
78-87-5	1,2-Dichloropropane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	2	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	2	U
108-10-1	4-Methyl-2-Pentanone	2	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
100-42-5	Styrene	1	U
1330-20-7	Total Xylenes	2	U
107-02-8	Acrolein	25	U
107-13-1	Acrylonitrile	25	U

FORM I VOA 1/87 Rev.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKTD

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

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

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CB891016A11

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

% Moisture: not dec. ____ Date Analyzed: 10/16/89

Column (pack/cap) PACK Dilution Factor: ~~4.0~~ 1.0

11/23/89

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK48

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: SBLK48

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH094704A06

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/15/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

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	U
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	20	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	U
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	U
95-95-4	2,4,5-Trichlorophenol	2	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	1	U
131-11-3	Dimethyl Phthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	1	U

FORM I SV-1 1/87 Rev.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK48

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: SBLK48

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH094704A06

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/15/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

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	U
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	U
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	U
56-55-3	Benzo(a)Anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	U
117-84-0	Di-n-Octyl Phthalate	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	U
53-70-3	Dibenz(a,h)Anthracene	3	U
191-24-2	Benzo(g,h,i)Perylene	4	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK48

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: SBLK48

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GH094704A06

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/15/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.32	28	J
2. 4291-79-6	CYCLOHEXANE, 1-METHYL-2-PROP	6.68	14	J

FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK48

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: SBLK48

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ094704A05

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

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	U
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	20	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	U
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	U
95-95-4	2,4,5-Trichlorophenol	2	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	1	U
131-11-3	Dimethyl Phthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	1	U

FORM I SV-1 1/87 Rev.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK48

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: SBLK48

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ094704A05

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

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	U
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	U
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	U
56-55-3	Benzo(a)Anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	U
117-84-0	Di-n-Octyl Phthalate	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	U
53-70-3	Dibenz(a,h)Anthracene	3	U
191-24-2	Benzo(g,h,i)Perylene	4	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK48

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: SBLK48

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ094704A05

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/18/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	6.47	32	J
2. 4291-79-6	CYCLOHEXANE, 1-METHYL-2-PROP	6.82	14	J

FORM I SV-TIC 1/87 Rev.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK09

Lab Name: COMPUCHEM LABORATORIES Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 294928

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

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

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/13/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 0.10

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) NG/L	Q
319-84-6	alpha-BHC	5.0	U
319-85-7	beta-BHC	5.0	U
319-86-8	delta-BHC	5.0	U
58-89-9	gamma-BHC (Lindane)	5.0	U
76-44-8	Heptachlor	5.0	U
309-00-2	Aldrin	5.0	U
1024-57-3	Heptachlor epoxide	5.0	U
959-98-8	Endosulfan I	5.0	U
60-57-1	Dieldrin	10.	U
72-55-9	4,4'-DDE	10.	U
72-20-8	Endrin	10.	U
33213-65-9	Endosulfan II	10.	U
72-54-8	4,4'-DDD	10.	U
1031-07-8	Endosulfan sulfate	10.	U
50-29-3	4,4'-DDT	10.	U
72-43-5	Methoxychlor	50.	U
53494-70-5	Endrin ketone	10.	U
5103-71-9	alpha-Chlordane	50.	U
5103-74-2	gamma-Chlordane	50.	U
8001-35-2	Toxaphene	100	U
12674-11-2	Aroclor-1016	50.	U
11104-28-2	Aroclor-1221	50.	U
11141-16-5	Aroclor-1232	50.	U
53469-21-9	Aroclor-1242	50.	U
12672-29-6	Aroclor-1248	50.	U
11097-69-1	Aroclor-1254	100	U
11096-82-5	Aroclor-1260	100	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL08

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293877

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CN093877C11

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ Date Analyzed: 10/17/89

Column: (pack/cap) PACK Dilution Factor: ~~4.0~~ 1.0

gc 10/23/89

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	0.6	J
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	2	U
540-59-0	1,2-Dichloroethene (total)	2	U
67-66-3	Chloroform	2	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon Tetrachloride	2	U
108-05-4	Vinyl Acetate	5	U
75-27-4	Bromodichloromethane	2	U
78-87-5	1,2-Dichloropropane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	2	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	2	U
108-10-1	4-Methyl-2-Pentanone	2	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
100-42-5	Styrene	1	U
1330-20-7	Total Xylenes	2	U
107-02-8	Acrolein	25	U
107-13-1	Acrylonitrile	25	U

FORM I VOA 1/87 Rev.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL08

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293877

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CN093877C11

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ Date Analyzed: 10/17/89

Column (pack/cap) PACK Dilution Factor: ~~1.0~~ 1.0

gr 10/23/89

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL09

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293887

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CR093887C11

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ Date Analyzed: 10/17/89

Column: (pack/cap) PACK Dilution Factor: ~~4.0~~ 1.0

AL 10/23/89

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	3	
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	2	U
540-59-0	1,2-Dichloroethene (total)	2	U
67-66-3	Chloroform	2	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon Tetrachloride	2	U
108-05-4	Vinyl Acetate	5	U
75-27-4	Bromodichloromethane	2	U
78-87-5	1,2-Dichloropropane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	2	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	2	U
108-10-1	4-Methyl-2-Pentanone	2	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
100-42-5	Styrene	1	U
1330-20-7	Total Xylenes	2	U
107-02-8	Acrolein	25	U
107-13-1	Acrylonitrile	25	U

FORM I VOA 1/87 Rev.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL09

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293887

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CR093887C11

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ Date Analyzed: 10/17/89

Column (pack/cap) PACK Dilution Factor: ~~1.0~~ 1.0 gc 10/23/89

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL10

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293888

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CN093888C11

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ Date Analyzed: 10/17/89

Column: (pack/cap) PACK Dilution Factor: ~~4.0~~ 1.0

gc 10/23/89

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	3	
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	2	U
540-59-0	1,2-Dichloroethene (total)	2	U
67-66-3	Chloroform	2	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon Tetrachloride	2	U
108-05-4	Vinyl Acetate	5	U
75-27-4	Bromodichloromethane	2	U
78-87-5	1,2-Dichloropropane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	2	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	2	U
108-10-1	4-Methyl-2-Pentanone	2	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
100-42-5	Styrene	1	U
1330-20-7	Total Xylenes	2	U
107-02-8	Acrolein	25	U
107-13-1	Acrylonitrile	25	U

FORM I VOA 1/87 Rev.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL10

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293888

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CN093888C11

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ Date Analyzed: 10/17/89

Column (pack/cap) PACK Dilution Factor: ~~4.0~~ 1.0
JC 10/23/89

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL11

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293889

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CN093889B11

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ Date Analyzed: 10/16/89

Column: (pack/cap) PACK Dilution Factor: ~~4.0~~ 1.0 JK 10/23/89

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	0.9	J
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	2	U
540-59-0	1,2-Dichloroethene (total)	2	U
67-66-3	Chloroform	2	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon Tetrachloride	2	U
108-05-4	Vinyl Acetate	5	U
75-27-4	Bromodichloromethane	2	U
78-87-5	1,2-Dichloropropane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	2	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	2	U
108-10-1	4-Methyl-2-Pentanone	2	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
100-42-5	Styrene	1	U
1330-20-7	Total Xylenes	2	U
107-02-8	Acrolein	25	U
107-13-1	Acrylonitrile	25	U

FORM I VOA 1/87 Rev.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL11

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293889

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CN093889B11

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ Date Analyzed: 10/16/89

Column (pack/cap) PACK Dilution Factor: ~~4.0~~ 1.0
JK 10/23/89

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN12

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293890

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CN093890B11

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ Date Analyzed: 10/16/89

Column: (pack/cap) PACK Dilution Factor: ~~4.0~~ 1.0 10/23/89

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	4	
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	2	U
540-59-0	1,2-Dichloroethene (total)	2	U
67-66-3	Chloroform	2	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon Tetrachloride	2	U
108-05-4	Vinyl Acetate	5	U
75-27-4	Bromodichloromethane	2	U
78-87-5	1,2-Dichloropropane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	2	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	2	U
108-10-1	4-Methyl-2-Pentanone	2	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	0.9	J
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
100-42-5	Styrene	1	U
1330-20-7	Total Xylenes	2	U
107-02-8	Acrolein	25	U
107-13-1	Acrylonitrile	25	U

FORM I VOA 1/87 Rev.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN12

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293890

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CN093890B11

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ Date Analyzed: 10/16/89

Column (pack/cap) PACK Dilution Factor: ~~4.0~~ 1.0
10/23/89

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN13

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293891

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CN093891B11

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ Date Analyzed: 10/16/89

Column: (pack/cap) PACK Dilution Factor: ~~4.0~~ 1.0 10/23/89

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	1	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	2	U
540-59-0	1,2-Dichloroethene (total)	2	U
67-66-3	Chloroform	2	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon Tetrachloride	2	U
108-05-4	Vinyl Acetate	5	U
75-27-4	Bromodichloromethane	2	U
78-87-5	1,2-Dichloropropane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	2	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	2	U
108-10-1	4-Methyl-2-Pentanone	2	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
100-42-5	Styrene	1	U
1330-20-7	Total Xylenes	2	U
107-02-8	Acrolein	25	U
107-13-1	Acrylonitrile	25	U

FORM I VOA 1/87 Rev.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN13

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293891

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CN093891B11

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ Date Analyzed: 10/16/89

Column (pack/cap) PACK Dilution Factor: ~~4.0~~ 1.0

gc 10/23/89

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN14

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293892

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CN093892B11

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ Date Analyzed: 10/16/89

Column: (pack/cap) PACK Dilution Factor: ~~4.0~~ 1.0 10/23/89

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	2	U
74-83-9	Bromomethane	2	U
75-01-4	Vinyl Chloride	2	U
75-00-3	Chloroethane	2	U
75-09-2	Methylene Chloride	0.9	J
67-64-1	Acetone	6	
75-15-0	Carbon Disulfide	3	U
75-35-4	1,1-Dichloroethene	2	U
75-34-3	1,1-Dichloroethane	2	U
540-59-0	1,2-Dichloroethene (total)	2	U
67-66-3	Chloroform	2	U
107-06-2	1,2-Dichloroethane	2	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	2	U
56-23-5	Carbon Tetrachloride	2	U
108-05-4	Vinyl Acetate	5	U
75-27-4	Bromodichloromethane	2	U
78-87-5	1,2-Dichloropropane	2	U
10061-01-5	cis-1,3-Dichloropropene	2	U
79-01-6	Trichloroethene	2	U
124-48-1	Dibromochloromethane	2	U
79-00-5	1,1,2-Trichloroethane	2	U
71-43-2	Benzene	2	U
10061-02-6	Trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	2	U
108-10-1	4-Methyl-2-Pentanone	2	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	2	U
79-34-5	1,1,2,2-Tetrachloroethane	2	U
108-88-3	Toluene	2	U
108-90-7	Chlorobenzene	2	U
100-41-4	Ethylbenzene	2	U
100-42-5	Styrene	1	U
1330-20-7	Total Xylenes	2	U
107-02-8	Acrolein	25	U
107-13-1	Acrylonitrile	25	U

FORM I VOA 1/87 Rev.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN14

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293892

Sample wt/vol: 20.0 (g/mL) ML Lab File ID: CN093892B11

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ Date Analyzed: 10/16/89

Column (pack/cap) PACK Dilution Factor: ~~1.0~~ 1.0

AC 10/23/89

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

FORM I VOA-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL08

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293877

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093877B06

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/15/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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	U
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	20	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	U
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	U
95-95-4	2,4,5-Trichlorophenol	2	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	1	U
131-11-3	Dimethyl Phthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	1	U

FORM I SV-1 1/87 Rev.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL08

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293877

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093877B06

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/15/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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	U
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	U
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	U
56-55-3	Benzo(a)Anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	U
117-84-0	Di-n-Octyl Phthalate	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	U
53-70-3	Dibenz(a,h)Anthracene	3	U
191-24-2	Benzo(g,h,i)Perylene	4	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL08

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293877

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093877B06

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/15/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.85	14	J
2.	LABORATORY ARTIFACT	6.28	44	~~BJ~~ U
3.	LABORATORY ARTIFACT	6.63	22	~~BJ~~ U

11.21.89
L.F.

FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL09

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293887

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093887A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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	U
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	20	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	U
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	U
95-95-4	2,4,5-Trichlorophenol	2	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	1	U
131-11-3	Dimethyl Phthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	1	U

FORM I SV-1 1/87 Rev.

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL09

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293887

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093887A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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	U
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	U
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	U
56-55-3	Benzo(a)Anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	U
117-84-0	Di-n-Octyl Phthalate	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	U
53-70-3	Dibenz(a,h)Anthracene	3	U
191-24-2	Benzo(g,h,i)Perylene	4	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL09

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293887

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093887A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	LABORATORY ARTIFACT	6.45	30	~~BJ~~ U
2.	LABORATORY ARTIFACT	6.80	14	~~BJ~~ U

11.21.89
L.F.

FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL10

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293888

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093888A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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	U
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	20	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	U
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	U
95-95-4	2,4,5-Trichlorophenol	2	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	1	U
131-11-3	Dimethyl Phthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	1	U

FORM I SV-1 1/87 Rev.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL10

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293888

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093888A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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	U
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	U
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	U
56-55-3	Benzo(a)Anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	U
117-84-0	Di-n-Octyl Phthalate	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	U
53-70-3	Dibenz(a,h)Anthracene	3	U
191-24-2	Benzo(g,h,i)Perylene	4	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL10

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293888

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093888A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	LABORATORY ARTIFACT	6.47	34	~~BJ~~ LL
2.	LABORATORY ARTIFACT	6.82	16	~~BJ~~ LL

11.21.89
L.F.

FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL11

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293889

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093889A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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	U
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	20	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	U
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	U
95-95-4	2,4,5-Trichlorophenol	2	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	1	U
131-11-3	Dimethyl Phthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	1	U

FORM I SV-1 1/87 Rev.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL11

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293889

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093889A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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	U
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	U
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	U
56-55-3	Benzo(a)Anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	U
117-84-0	Di-n-Octyl Phthalate	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	U
53-70-3	Dibenz(a,h)Anthracene	3	U
191-24-2	Benzo(g,h,i)Perylene	4	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGL11

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293889

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093889A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	LABORATORY ARTIFACT	6.47	32	J
2.	LABORATORY ARTIFACT	6.82	14	J

FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN12

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293890

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093890A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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	U
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	20	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	U
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	U
95-95-4	2,4,5-Trichlorophenol	2	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	1	U
131-11-3	Dimethyl Phthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	1	U

FORM I SV-1 1/87 Rev.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN12

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293890

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093890A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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	U
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	U
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	U
56-55-3	Benzo(a)Anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	U
117-84-0	Di-n-Octyl Phthalate	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	U
53-70-3	Dibenz(a,h)Anthracene	3	U
191-24-2	Benzo(g,h,i)Perylene	4	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN12

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293890

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093890A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	LABORATORY ARTIFACT	6.47	32	BJ
2.	LABORATORY ARTIFACT	6.80	14	BJ

FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN13

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293891

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093891A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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	U
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	20	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	U
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	U
95-95-4	2,4,5-Trichlorophenol	2	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	1	U
131-11-3	Dimethyl Phthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	1	U

FORM I SV-1 1/87 Rev.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN13

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293891

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093891A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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	U
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	U
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	U
56-55-3	Benzo(a)Anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	U
117-84-0	Di-n-Octyl Phthalate	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	U
53-70-3	Dibenz(a,h)Anthracene	3	U
191-24-2	Benzo(g,h,i)Perylene	4	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN13

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293891

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093891A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	LABORATORY ARTIFACT	6.45	32	~~BJ~~ LL
2.	LABORATORY ARTIFACT	6.80	14	~~BJ~~ LL

11.21.89
L.F.

FORM I SV-TIC 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN14

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293892

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093892A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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	U
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	20	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	U
91-20-3	Naphthalene	2	
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	U
95-95-4	2,4,5-Trichlorophenol	2	U
91-58-7	2-Chloronaphthalene	2	U
88-74-4	2-Nitroaniline	1	U
131-11-3	Dimethyl Phthalate	2	U
208-96-8	Acenaphthylene	2	U
606-20-2	2,6-Dinitrotoluene	1	U

FORM I SV-1 1/87 Rev.

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN14

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293892

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093892A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

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	U
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	U
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	U
56-55-3	Benzo(a)Anthracene	2	U
218-01-9	Chrysene	2	U
117-81-7	bis(2-Ethylhexyl)Phthalate	1	U
117-84-0	Di-n-Octyl Phthalate	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	U
53-70-3	Dibenz(a,h)Anthracene	3	U
191-24-2	Benzo(g,h,i)Perylene	4	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EGN14

Lab Name: COMPUCHEM LABS Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293892

Sample wt/vol: 1000 (g/mL) ML Lab File ID: GJ093892A05

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/17/89

GPC Cleanup: (Y/N) N pH: ____ Dilution Factor: 1.0

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	LAB. ARTIFACT	6.48	30	~~BJ~~ U
2.	LAB. ARTIFACT	6.83	14	~~BJ~~ U

11.21.89
L.F.

FORM I SV-TIC 1/87 Rev.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL08

Lab Name: COMPUCHEM LABORATORIES Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293877

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/13/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 0.50

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) NG/L	Q
319-84-6	alpha-BHC	25.	U
319-85-7	beta-BHC	25.	U
319-86-8	delta-BHC	25.	U
58-89-9	gamma-BHC (Lindane)	25.	U
76-44-8	Heptachlor	25.	U
309-00-2	Aldrin	25.	U
1024-57-3	Heptachlor epoxide	25.	U
959-98-8	Endosulfan I	25.	U
60-57-1	Dieldrin	50.	U
72-55-9	4,4'-DDE	50.	U
72-20-8	Endrin	50.	U
33213-65-9	Endosulfan II	50.	U
72-54-8	4,4'-DDD	50.	U
1031-07-8	Endosulfan sulfate	50.	U
50-29-3	4,4'-DDT	50.	U
72-43-5	Methoxychlor	250	U
53494-70-5	Endrin ketone	50.	U
5103-71-9	alpha-Chlordane	250	U
5103-74-2	gamma-Chlordane	250	U
8001-35-2	Toxaphene	500	U
12674-11-2	Aroclor-1016	250	U
11104-28-2	Aroclor-1221	250	U
11141-16-5	Aroclor-1232	250	U
53469-21-9	Aroclor-1242	250	U
12672-29-6	Aroclor-1248	250	U
11097-69-1	Aroclor-1254	500	U
11096-82-5	Aroclor-1260	500	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL09

Lab Name: COMPUCHEM LABORATORIES Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293887

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/14/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 0.10

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) NG/L	Q
319-84-6	alpha-BHC	5.0	U
319-85-7	beta-BHC	5.0	U
319-86-8	delta-BHC	5.0	U
58-89-9	gamma-BHC (Lindane)	5.0	U
76-44-8	Heptachlor	5.0	U
309-00-2	Aldrin	5.0	U
1024-57-3	Heptachlor epoxide	5.0	U
959-98-8	Endosulfan I	5.0	U
60-57-1	Dieldrin	10.	U
72-55-9	4,4'-DDE	10.	U
72-20-8	Endrin	10.	U
33213-65-9	Endosulfan II	10.	U
72-54-8	4,4'-DDD	10.	U
1031-07-8	Endosulfan sulfate	10.	U
50-29-3	4,4'-DDT	10.	U
72-43-5	Methoxychlor	50.	U
53494-70-5	Endrin ketone	10.	U
5103-71-9	alpha-Chlordane	50.	U
5103-74-2	gamma-Chlordane	50.	U
8001-35-2	Toxaphene	100	U
12674-11-2	Aroclor-1016	50.	U
11104-28-2	Aroclor-1221	50.	U
11141-16-5	Aroclor-1232	50.	U
53469-21-9	Aroclor-1242	50.	U
12672-29-6	Aroclor-1248	50.	U
11097-69-1	Aroclor-1254	100	U
11096-82-5	Aroclor-1260	100	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL10

Lab Name: COMPUCHEM LABORATORIES Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293888

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/14/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 0.10

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) NG/L	Q
319-84-6	alpha-BHC	5.0	U
319-85-7	beta-BHC	5.0	U
319-86-8	delta-BHC	5.0	U
58-89-9	gamma-BHC (Lindane)	5.0	U
76-44-8	Heptachlor	5.0	U
309-00-2	Aldrin	5.0	U
1024-57-3	Heptachlor epoxide	5.0	U
959-98-8	Endosulfan I	5.0	U
60-57-1	Dieldrin	10.	U
72-55-9	4,4'-DDE	10.	U
72-20-8	Endrin	10.	U
33213-65-9	Endosulfan II	10.	U
72-54-8	4,4'-DDD	10.	U
1031-07-8	Endosulfan sulfate	10.	U
50-29-3	4,4'-DDT	10.	U
72-43-5	Methoxychlor	50.	U
53494-70-5	Endrin ketone	10.	U
5103-71-9	alpha-Chlordane	50.	U
5103-74-2	gamma-Chlordane	50.	U
8001-35-2	Toxaphene	100	U
12674-11-2	Aroclor-1016	50.	U
11104-28-2	Aroclor-1221	50.	U
11141-16-5	Aroclor-1232	50.	U
53469-21-9	Aroclor-1242	50.	U
12672-29-6	Aroclor-1248	50.	U
11097-69-1	Aroclor-1254	100	U
11096-82-5	Aroclor-1260	100	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGL11

Lab Name: COMPUCHEM LABORATORIES Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293889

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/14/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 0.10

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) NG/L	Q
319-84-6	alpha-BHC	5.0	U
319-85-7	beta-BHC	5.0	U
319-86-8	delta-BHC	5.0	U
58-89-9	gamma-BHC (Lindane)	5.0	U
76-44-8	Heptachlor	5.0	U
309-00-2	Aldrin	5.0	U
1024-57-3	Heptachlor epoxide	5.0	U
959-98-8	Endosulfan I	5.0	U
60-57-1	Dieldrin	10.	U
72-55-9	4,4'-DDE	10.	U
72-20-8	Endrin	10.	U
33213-65-9	Endosulfan II	10.	U
72-54-8	4,4'-DDD	10.	U
1031-07-8	Endosulfan sulfate	10.	U
50-29-3	4,4'-DDT	10.	U
72-43-5	Methoxychlor	50.	U
53494-70-5	Endrin ketone	10.	U
5103-71-9	alpha-Chlordane	50.	U
5103-74-2	gamma-Chlordane	50.	U
8001-35-2	Toxaphene	100	U
12674-11-2	Aroclor-1016	50.	U
11104-28-2	Aroclor-1221	50.	U
11141-16-5	Aroclor-1232	50.	U
53469-21-9	Aroclor-1242	50.	U
12672-29-6	Aroclor-1248	50.	U
11097-69-1	Aroclor-1254	100	U
11096-82-5	Aroclor-1260	100	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN12

Lab Name: COMPUCHEM LABORATORIES Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293890

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/14/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 0.10

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) NG/L	Q
319-84-6	alpha-BHC	5.0	U
319-85-7	beta-BHC	5.0	U
319-86-8	delta-BHC	5.0	U
58-89-9	gamma-BHC (Lindane)	5.0	U
76-44-8	Heptachlor	5.0	U
309-00-2	Aldrin	5.0	U
1024-57-3	Heptachlor epoxide	5.0	U
959-98-8	Endosulfan I	5.0	U
60-57-1	Dieldrin	10.	U
72-55-9	4,4'-DDE	10.	U
72-20-8	Endrin	10.	U
33213-65-9	Endosulfan II	10.	U
72-54-8	4,4'-DDD	10.	U
1031-07-8	Endosulfan sulfate	10.	U
50-29-3	4,4'-DDT	10.	U
72-43-5	Methoxychlor	50.	U
53494-70-5	Endrin ketone	10.	U
5103-71-9	alpha-Chlordane	50.	U
5103-74-2	gamma-Chlordane	50.	U
8001-35-2	Toxaphene	100	U
12674-11-2	Aroclor-1016	50.	U
11104-28-2	Aroclor-1221	50.	U
11141-16-5	Aroclor-1232	50.	U
53469-21-9	Aroclor-1242	50.	U
12672-29-6	Aroclor-1248	50.	U
11097-69-1	Aroclor-1254	100	U
11096-82-5	Aroclor-1260	100	U

FORM I PEST 1/87 Rev.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN13

Lab Name: COMPUCHEM LABORATORIES Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293891

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/14/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 0.10

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) NG/L	Q
319-84-6	alpha-BHC	5.0	U
319-85-7	beta-BHC	5.0	U
319-86-8	delta-BHC	5.0	U
58-89-9	gamma-BHC (Lindane)	5.0	U
76-44-8	Heptachlor	5.0	U
309-00-2	Aldrin	5.0	U
1024-57-3	Heptachlor epoxide	5.0	U
959-98-8	Endosulfan I	5.0	U
60-57-1	Dieldrin	10.	U
72-55-9	4,4'-DDE	10.	U
72-20-8	Endrin	10.	U
33213-65-9	Endosulfan II	10.	U
72-54-8	4,4'-DDD	10.	U
1031-07-8	Endosulfan sulfate	10.	U
50-29-3	4,4'-DDT	10.	U
72-43-5	Methoxychlor	50.	U
53494-70-5	Endrin ketone	10.	U
5103-71-9	alpha-Chlordane	50.	U
5103-74-2	gamma-Chlordane	50.	U
8001-35-2	Toxaphene	100	U
12674-11-2	Aroclor-1016	50.	U
11104-28-2	Aroclor-1221	50.	U
11141-16-5	Aroclor-1232	50.	U
53469-21-9	Aroclor-1242	50.	U
12672-29-6	Aroclor-1248	50.	U
11097-69-1	Aroclor-1254	100	U
11096-82-5	Aroclor-1260	100	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EGN14

Lab Name: COMPUCHEM LABORATORIES Contract: SAS4801E

Lab Code: COMPU Case No.: 12901 SAS No.: 4801E SDG No.: EGL08

Matrix: (soil/water) WATER Lab Sample ID: 293892

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 10/11/89

% Moisture: not dec. _____ dec. _____ Date Extracted: 10/13/89

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 10/14/89

GPC Cleanup: (Y/N) N pH: _____ Dilution Factor: 0.10

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) NG/L	Q
319-84-6	alpha-BHC	5.0	U
319-85-7	beta-BHC	5.0	U
319-86-8	delta-BHC	5.0	U
58-89-9	gamma-BHC (Lindane)	5.0	U
76-44-8	Heptachlor	5.0	U
309-00-2	Aldrin	5.0	U
1024-57-3	Heptachlor epoxide	5.0	U
959-98-8	Endosulfan I	5.0	U
60-57-1	Dieldrin	10.	U
72-55-9	4,4'-DDE	10.	U
72-20-8	Endrin	10.	U
33213-65-9	Endosulfan II	10.	U
72-54-8	4,4'-DDD	10.	U
1031-07-8	Endosulfan sulfate	10.	U
50-29-3	4,4'-DDT	10.	U
72-43-5	Methoxychlor	50.	U
53494-70-5	Endrin ketone	10.	U
5103-71-9	alpha-Chlordane	50.	U
5103-74-2	gamma-Chlordane	50.	U
8001-35-2	Toxaphene	100	U
12674-11-2	Aroclor-1016	50.	U
11104-28-2	Aroclor-1221	50.	U
11141-16-5	Aroclor-1232	50.	U
53469-21-9	Aroclor-1242	50.	U
12672-29-6	Aroclor-1248	50.	U
11097-69-1	Aroclor-1254	100	U
11096-82-5	Aroclor-1260	100	U

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

DRINKING WATER MEMORANDUM
WELL OWNER'S LOG

DATE: January 5, 1990

TO: State Contact STATE: Indiana

FROM: Jacqueline Lundberg

SUBJECT: Drinking Water Sample Results

SITE NAME: North Manchester Foundry CERCLA ID#: IND981952831

TDD: F05-8901-025 PAN: FIN0681SBW

	NAME	ADDDRESS	CITY
hits	1. North Manchester Water Dept	407 E. Main Street	North Manchester 46962
no hits *	2. N. Manchester Vet Clinic	Rt. 1 Box 54	North Manchester 46962
hits	3. Lee Davis	P.O. Box 149	North Manchester 46962
hits	4. Art Garrison	Rt. 4 Box 19	North Manchester 46962
hits	5. Wilbur Kreider	County Rd 175E, RR3	North Manchester 46962
	6.		
	7. Samples from all	RW #'s (except RW #2)	showed
	8. analyses	indicating contamination	exceeding
	9. secondary	maximum contamination	limits
	10.	Bernard W Palmer	2/7/90

E & E EDP DATE _____

State Contact:

Received By: _____

Date: _____

Note:
Return a signed copy to Tom Clyne at Ecology and Environment, Inc., within 5 working days. Thank you.

QA016(8/31/89)

recycled paper

SAMPLING DATA

RW5

Unknown depth

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 10-10-89

Recipient Information: Wilbur Kreider
Name

County Road 175E, RR3
Street Address

North Manchester IN 46962
City State Zip Code

(219) 982-4326
Telephone Number

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number IND 98 1952 831

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8901-025 ; PAN: FIN0681SB
Yellow: Recipient
Pink: U.S. EPA

DRINKING WATER MEMORANDUM

DATE: 2/7/90

TO: 1. William Messenger, U.S. EPA 2. IN

FROM: Dennis Palmer

SUBJECT: Drinking Water Sample Results

Sample RW5/EGL 13/MEFZ 59

Action Level

☐ No Contamination
No hits above any health-related standards.

☐ Low Level Contamination
Hits just above health-related standards.

☐ Significant Contamination
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

☑ Please check secondary maximum contamination limits for:

Aluminum	✓	Manganese	
Copper		Silver	
Iron	✓	Zinc	

QC 014

Sample: RW5/EGL13/MEFZ59

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDOR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RID (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Volatile Organics																		
CHLOROMETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
BROMOMETHANE	1.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
VINYL CHLORIDE	1.5				F	-	ZERO	2	F	3000	3000	10	50	-	-	-	1.5	A
CHLOROETHANE	1.5				L	-	-	-	D	-	-	-	50-	-	-	-	-	-
METHYLENE CHLORIDE	1				L	-	-	-	F	10000	2000	-	-	60	2000	-	300	B2
ACETONE	5																	
CARBON DISULFIDE	3																	
1,1-DICHLOROETHENE	1.5				F	-	7	7	F	2000	1000	1000	4000	9	400	7	-	C
1,1-DICHLOROETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
1,2-DICHLOROETHENE (TOTAL)	1.5				P	-	70	70	F	4000	1000	1000	1000	10	400	70	-	D
CHLOROFORM	1.5				L	100	-	-	D	-	-	-	-	10	-	-	600	B2
1,2-DICHLOROETHANE	1.5				F	-	ZERO	5	F	700	700	700	2600	-	-	-	40	B2
2-BUTANONE (MEK)	5				-	-	-	-	F	80000	8000	3000	9000	50	900	200	-	D
1,1,1-TRICHLOROETHANE	1.5				F	-	200	200	F	100000	40000	40000	100000	90	1000	200	-	D
CARBON TETRACHLORIDE	1.5				F	-	ZERO	5	F	4000	200	70	300	0.7	30	-	30	B2
VINYL ACETATE	5																	
BROMODICHLOROMETHANE	1.5				L	100	-	-	D	-	-	-	-	2	-	-	-	-
1,2-DICHLOROPROPANE	1.5				P	-	ZERO	5	F	-	90	-	-	-	-	-	60	B2
CIS-1,3-DICHLOROPROPENE	2				L	-	-	-	F	30	30	30	100	0.3	10	-	20	B2
TRICHLOROETHENE	1.5				F	-	ZERO	5	F	-	-	-	-	7	300	-	300	B2
DIBROMOCHLOROMETHANE	1.5				L	100	-	-	D	-	-	-	-	2	-	-	-	-
1,1,2-TRICHLOROETHANE	1.5				-	-	-	-	D	-	-	-	-	30	-	-	-	-
BENZENE	1.5				F	-	ZERO	5	F	200	200	-	-	-	-	-	100	A

DATA Report
Form 17
page 1 of 16

Sample: RW5/EGL13/MEF859

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Division Reg. A	Standards AIPDWR (ug/L)	Standards MCLG (ug/L)	Standards MCL (ug/L)	Division MA A	10-kg Child One-Day (ug/L)	10-kg Child Ten-Day (ug/L)	10-kg Child Longer-Term (ug/L)	70-kg Adult Longer-Term (ug/L)	70-kg Adult RfD (ug/kg/day)	70-kg Adult DWEL (ug/L)	70-kg Adult LIFETIME (ug/L)	ug/L at 10-6 Cancer Risk	Cancer Group
COMMON DESIGNS																		
Volatile Organics (cont)																		
TRANS-1,3-DICHLOROPROPENE	L				L	-	-	-	E	30	30	30	100	0.3	10	-	20	B2
BROMOFORM	1.5				L	100	-	-	D	-	-	-	-	20	-	-	-	-
4-METHYL-2-PENTANONE	1.5																	
2-HEXANONE	5																	
TETRACHLOROETHENE	1.5				P	-	ZERO	5	E	2000	2000	1000	5000	10	500	-	70	B2
TOLUENE	1.5			40 ♦	P	-	2000	2000	E	20000	3000	3000	10000	300	10000	2000	-	-
1,1,2,2-TETRACHLOROETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
CHLOROBENZENE	1.5			100 ♦	P	-	100	100	E	2000	2000	2000	7000	20	700	100	-	D
ETHYLBENZENE	1.5			30 ♦	P	-	700	700	E	30000	3000	1000	3000	100	3000	700	-	D
STYRENE	1			10 ♦	P	-	ZERO	5	E	20000	2000	2000	7000	200	7000	-	1	B2
XYLENES (TOTAL)	1.5			20 ♦	P	-	10000	10000	E	40000	40000	40000	10000	2000	60000	10000	-	D
2-CHLOROETHYL VINYL ETHER	1.5																	
ACROLEIN	25																	
ACRYLONITRILE	25				L	-	-	-	-	-	-	-	-	-	-	-	-	-

Form 17

page 2 of 16

Sample: RW 5/EGL 13/MEFZ 59

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDGR (ug/L)	Standards: ACLG (ug/L)	Standards: ACL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	Health Advisories: 10-kg Child: Ten-Day (ug/L)	Health Advisories: 10-kg Child: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: RID (ug/kg/day)	Health Advisories: 70-kg Adult: DWEL (ug/L)	Health Advisories: 70-kg Adult: Lifetime (ug/L)	Health Advisories: ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Semivolatile Organics																		
PHENOL	2				-	-	-	-	D	-	-	-	-	40	-	-	-	-
BIS(2-CHLOROETHYL)ETHER	1.5																	
2-CHLOROPHENOL	2				L	-	-	-	D	-	-	-	-	5	200	-	-	-
1,3-DICHLOROBENZENE	2				P	-	600	600	F	9000	9000	9000	30000	89	3000	600	-	D
1,4-DICHLOROBENZENE	2				F	-	75	75	F	10000	10000	10000	40000	100	4000	75	-	C
BENZYL ALCOHOL	2																	
1,2-DICHLOROBENZENE	2.5				P	-	600	600	F	9000	9000	9000	30000	89	3000	600	-	D
2-METHYLPHENOL	1																	
N-NITROSO-DI-N-DIPROPYLAMINE	1.5																	
HEXACHLOROETHANE	2																	
NITROBENZENE	2.5																	
ISOPHORONE	2.5				L	-	-	-	D	-	-	-	-	150	-	-	-	-
2-NITROPHENOL	2																	
2,4-DIMETHYLPHENOL	2																	
BENZOIC ACID	20																	
BIS(2-CHLOROETHOXYL)METHANE	2.5																	
2,4-DICHLOROPHENOL	2				L	-	-	-	D	-	-	-	-	3	100	-	-	-
1,2,4-TRICHLOROBENZENE	2				-	-	-	-	D	-	-	-	-	20	-	-	-	-
NAPHTHALENE	2				-	-	-	-	D	-	-	-	-	410	-	-	-	-
4-CHLOROANILINE	2																	
HEXACHLOROBUTADIENE	2.5				-	-	-	-	D	-	-	-	-	2	-	-	5	C
4-CHLORO-3-METHYLPHENOL	1.5																	
2-METHYLNAPHTHALENE	2																	

Form 17
page 3 of 16

Sample: RW5/EGL13/MEFZ59

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RfD (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: LIFETIME (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
COMPOUNDS PRESENT																	
Semivolatile Organics (cont)																	
HEXACHLOROCYCLOPENTADIENE	2				L	-	-	-	-	-	-	-	7	-	-	-	-
2,4,6-TRICHLOROPHENOL	1.5																
2,4,5-TRICHLOROPHENOL	1.5																
2-CHLORONAPHTHALENE	1.5																
2-NITROANILINE	1																
DIMETHYLPHTHALATE	1.5				L	-	-	-	-	-	-	-	-	-	-	-	D
ACENAPHTHYLENE	1.5				-	-	-	-	D	-	-	-	-	-	-	-	-
2,6-DINITROTOLUENE	1																
3-NITROANILINE	2.5																
ACENAPHTHENE	1.5																
2,4-DINITROPHENOL	(15)																
4-NITROPHENOL	1.5																
DIBENZOFURAN	1																
2,4-DINITROTOLUENE	1				L	-	-	-	D	-	-	-	-	-	-	-	-
DIETHYLPHTHALATE	1				-	-	-	-	D	-	-	-	800	-	-	-	D
4-CHLOROPHENYL-PHENYLETHER	1																
FLUORENE	1								L	-	-	-	-	-	-	-	D
4-NITROANILINE	3																
4,6-DINITRO-2-METHYLPHENOL	(15)																
N-NITROSODIPHENYLAMINE A																	
DIPHENYLAMINE A	1.5																
4-BROMOPHENYL-PHENYLETHER	1.5																
HEXACHLOROBENZENE	1.5				-	-	-	-	F	50	50	50	200	0.8	30	-	2	B2

Form 17

page 4 of 16

Sample: RW 5 IEGL 13 IMEFZ 59

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 41, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MRDGW (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Health Advisories: Status HA A	10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RfD (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
COMPOUNDS DETECTED																		
Semivolatile Organics (cont)																		
PENTACHLOROPHENOL	2			30 0	P	-	200	200	F	1000	300	300	1000	30	1000	200	-	D
PHENANTHRENE	1				L	-	-	-	-	-	-	-	-	-	-	-	-	-
ANTHRACENE	2.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
DI-N-BUTYLPHTHALATE	2				L	-	-	-	-	-	-	-	-	100	-	-	-	D
FLUORANTHENE	1.5																	
PYRENE	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
BUTYLBENZYLPHTHALATE	3.5				L	-	-	-	-	-	-	-	-	200	-	-	-	C
BENZO(A)ANTHRACENE AA					L	-	-	-	-	-	-	-	-	-	-	-	-	B2
CHRYSENE AA	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BIS(2-ETHYLHEXYL)PHTHALATE	1				-	-	-	-	D	-	-	-	-	20	-	-	-	B2
DI-N-OCTYLPHTHALATE	1.5																	
BENZO(B)FLUORANTHENE AAA					L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(K)FLUORANTHENE AAA	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(A)PYRENE	2				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
INDENO(1,2,3-C,D)PYRENE	3.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
DIBENZO(A,H)ANTHRACENE	3.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(G,H,I)PERYLENE	4				L	-	-	-	-	-	-	-	-	-	-	-	-	D
4-METHYLPHENOL	1																	
BIS(2-CHLOROISOPROPYL)ETHER	2.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
ANILINE	1.5																	
1,2-DIPHENYLHYDRAZINE	1																	

Form 17

page 5 of 16

Sample: RW 5 / EGL13 / MEFZ 59

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RID (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Pesticide/PCBs																		
ALPHA BHC	(0.010)																	
BETA BHC	(0.005)																	
DELTA BHC	(0.005)																	
GAMMA BHC (LINDANE)	0.005				P	4	0.2	0.2	F	1000	1000	30	100	0.3	10	0.2	3	C
HEPTACHLOR	0.030				P	-	ZERO	0.4	F	10	10	5	5	0.5	20	-	0.8	B2
ALDRIN	0.005																	
HEPTACHLOR EPOXIDE	0.005				P	-	ZERO	0.2	F	10	-	0.1	0.1	0.013	0.4	-	0.4	B2
ENDOSULFAN I	0.010																	
DIELDRIN	0.010				L	-	-	-	F	0.5	0.5	0.5	2	0.05	2	-	0.2	B2
4,4'-DDE	(0.005																	
ENDRIN	0.010				L	0.2	-	-	F	20	5	5	20	0.015	2	0.3	-	E
ENDOSULFAN II	0.010																	
4,4'-DDD	(0.020)																	
ENDOSULFAN SULFATE	(0.10)																	
4,4'-DDT	0.020																	
METHOXYCHLOR (MARIATE)	0.020				P	100	400	400	F	6000	2000	500	2000	50	2000	400	-	D
ENDRINE ALDEHYDE	(0.030)																	
ENDRIN KETONE	(0.030)																	
CHLORDANE	(0.020)				P	-	ZERO	2	F	60	60	0.5	0.5	0.045	2	-	3	B2
ALPHA CHLORDANE	0.020																	
GAMMA CHLORDANE	0.020																	
TOXAPHENE	(0.25)				P	5	ZERO	5	F	500	40	-	-	100	-	-	3	B2
AROCLOR 1016	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2

Form 17

Page 6 of 16

Sample: RW5 /EGL13 /MEFZ59

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	Health Advisories: 10-kg Child: Ten-Day (ug/L)	Health Advisories: 10-kg Child: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: RTD (ug/kg/day)	Health Advisories: 70-kg Adult: DWEL (ug/L)	Health Advisories: 70-kg Adult: Lifetime (ug/L)	Health Advisories: ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Pesticide/PCBs (cont)																		
AROCLOR 1221	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1232	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1242	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1248	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1254	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1260	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2

Form 17

page 7 of 16

Sample: RW5 / EGL 13 / MEFB 59

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards Status Reg. A	Standards MRDLG (ug/L)	Standards MCLG (ug/L)	Standards MCL (ug/L)	Status HA A	Health Advisories 10-Kg Child One-Day (ug/L)	10-Kg Child Ten-Day (ug/L)	10-Kg Child Longer-Term (ug/L)	70-Kg Adult Longer-Term (ug/L)	70-Kg Adult RfD (ug/kg/day)	70-Kg Adult DWEL (ug/L)	70-Kg Adult Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
CHEMICAL DETECTED																			
Analyte Detected	METHOD																		
ALUMINUM	P	100	67.1 B	34 B	50 ¶	L	-	-	-	D	-	-	-	-	-	-	-	-	-
ANTIMONY	F	2				L	-	-	-	D	-	-	-	-	0.4	-	-	-	-
ARSENIC	F	5	7.9			P	50	ZERO	50	D	-	-	-	-	1	-	50	3	A
BARIUM	P	50	120			P	1000	5000	5000	P	5000	5000	5000	5000	-	-	5000	-	D
BERYLLIUM	F	5	7.7 JN			L	-	-	-	D	-	-	-	-	5	-	-	-	B2
CADMIUM	F	0.5				P	10	5	5	P	10	10	5	20	0.5	20	5	-	B
CALCIUM	P	1000	55800	25.1 B															
CHROMIUM	F	10				P	50	100	100	P	1000	1000	200	800	5	200	100	-	D
COBALT	P	10																	
COPPER	P	10	15.9 J*N	38.5 J*N	1000 ¶														
IRON	P	100	95.1		300 ¶														
LEAD (at source)	F	2				P	-	ZERO	5	-	-	-	-	-	-	-	-	-	-
LEAD (at tap)	F	2				P	50	ZERO	TT	-	-	-	-	-	-	-	-	-	-
MAGNESIUM	P	1000	25200	11.7 B															
MANGANESE	P	10	20.7		50 ¶	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MERCURY	C V	0.2				P	2	2	2	P	-	-	-	-	0.3	10	2	-	D
NICKEL	P	20				L	-	-	-	P	1000	1000	2000	600	20	600	200	-	D
POTASSIUM	P	2000	1960 B																
SELENIUM	F	2				P	10	50	50	-	-	-	-	-	-	-	-	-	-
SILVER	P	5			50 ¶	L	50	-	-	D	-	-	-	-	3	-	-	-	-
SODIUM	P	1000	30900	240 B		L	-	-	-	D	-	-	-	-	-	20000	-	-	-
THALLIUM	F	2				L	-	-	-	D	-	-	-	-	0.02	-	-	-	-
TIN	P	40																	

Form 17

page 8 of 16

Sample: RW5 /EGL 13 /MEFZ 59

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MRDLG (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	Health Advisories: 10-kg Child: Ten-Day (ug/L)	Health Advisories: 10-kg Child: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: RfD (ug/kg/day)	Health Advisories: 70-kg Adult: DWEL (ug/L)	Health Advisories: 70-kg Adult: Lifetime (ug/L)	Health Advisories: ug/l at 10-6 Cancer Risk	Cancer Group
CONTINUED DETECTED																			
Analyte Detected (cont)																			
VANADIUM	P	10				L	-	-	-	D	-	-	-	-	20	-	-	-	-
ZINC	P	20	10.6 B	6.7B	5000 #	L	-	-	-	D	-	-	-	-	-	-	-	-	-
CYANIDE	C	10				L	-	-	-	E	200	200	200	800	22	800	200	-	D
BORON	P	80																	
LITHIUM	P	10																	
MOLYBDENUM	P	15																	
TITANIUM	P	25																	
STRONTIUM	P	10																	
YTTRIUM	P	5																	

Detection Limits:
A These Two Parameters Are Reported As A Total
AA These Two Parameters Are Reported As A Total
AAA These Two Parameters Are Reported As A Total
Values In Parentheses Are Estimates. Actual Values Are Being Determined At This Time.

NT - Not Tested For

Form 17

Page 9 of 16

DESCRIPTION AND QUALIFIERS

The following are descriptions of the 19 columns listed on the table and the qualifiers to clarify the analytical and health related values.

Column	Description
1. Sample Collection Information and Parameters.	The compounds and analytes analyzed for on this water sample.
2. Detection Limits	The detection limits that a laboratory must meet as part of the analytical service contact.
3. Sample Results	The value determined by this analysis.
4. Lab Blank	Laboratory contamination that may be found in the laboratory blank. A quality control check.
5. Comments	The water reviewer's comments on the usability of the value in the Sample Results column.
6. Status Reg	F-final D-draft L-listed for regulation P-proposed (Phase II draft proposal, based on levels proposed in 1985).

7. NIPDWR- National Interim Primary Drinking Water Regulations: refers to the interim regulatory requirements under the Safe Drinking Water Act (SDWA) of 1974. The NIPDWR specified maximum allowable levels for 22 different contaminants at the consumer's drinking water tap. These interim standards, known as Maximum Contaminant Levels (MCL), were promulgated for 22 contaminants in March 1975, with the intention of revising and promulgating the final National Primary Drinking Water Regulations (NPDWR) a few years later. The values listed in this column are the original MCLs assigned under the interim regulations. The NPDWRs were effected under the SDWA Amendments of June 19, 1986. These revised regulations specify MCLs or treatment techniques for additional contaminants. At this time, 8 additional contaminants (synthetic volatile organic chemicals) have also been

Form 17 page 10 of 16

assigned MCLs. (Code of Federal Regulations, Chapter 40, part 141, et seq.)

8. MCLG- Maximum Contaminant Level Goal: Under the National Primary Drinking Water Regulations, the term MCLG now replaces the previous term RMCL or recommended Maximum Contaminant Levels. Under the 1986 SDWA Amendments, any NPDWR which establishes an MCL must also simultaneously publish an MCLG at the time of proposed rulemaking and promulgation. The MCLG is the maximum level of a contaminant at which no known or anticipated adverse human health effects would occur, and which include an adequate margin of safety. MCLGs are nonenforceable health goals.

9. MCL- Maximum Contaminant Level: Derived from the MCLG, the MCL is the maximum permissible level of a contaminant in drinking water which is delivered to the consumers' tap and used by the general public for drinking. MCLs are legally enforceable. The standards reflect the best achievable levels considering the occurrence, relative source contribution factors, monitoring capability, cost of treatment, available technology and health effects. The standards listed in this column for each contaminant under the NIPDWR are either newly promulgated or revised from the NIPDWR. In a few cases, the enforceable standard has changed; however, in most cases (when comparing columns headed NIPDWR and MCL) the existing interim standard has been revised or has been newly developed.

10. Status HA

F-final
D-draft
L-listed for regulation
P-proposed (Phase II draft proposal, based on levels proposed in 1985).

Health Advisories

The Health Advisory (HA) program is sponsored by the Office of Drinking Water (ODW), and provides information on the health effects, analytical methods and treatment technology useful for dealing with drinking water contamination. Health advisories describe nonregulatory concentrations of drinking water contaminants at which adverse health effects would not be anticipated to occur over specific exposure durations. Health advisories contain a margin of safety, to protect sensitive members of the population. The Health Advisories are developed for one-day, ten-day, longer term and lifetime exposures based on data describing non carcinogenic endpoints of toxicity. The advisories are intended to serve as informal technical guidance to assist Federal, State, and local officials when emergency spills or contaminant situations occur. THEY ARE NOT CONSTRUED AS LEGALLY ENFORCEABLE FEDERAL STANDARDS AND ARE SUBJECT TO CHANGE AS NEW INFORMATION BECOMES AVAILABLE.

Form 17
Page 11 of 16

Health Advisory values for the adult are derived in the same way as for the 10-kg child. Again, certain assumptions are made: The adult is assumed to weigh 70-kg and consume 2 liters of water per day.

10-KG Child

11. 1 day

12. 10 day

13. Longer term

The child is assumed to be a more sensitive population entity. Included in this assumption, is that the body weight of a child is 10 kg and that one liter of water per day is ingested. Under these and other assumption specific to the available toxicological data bases, Health Advisory values have been derived and listed in the respective columns for one-day, ten-day and longer term exposures. Longer term is defined as approximately 7 years, or 10 percent of an individual's lifetime.

70-KG Adult

14. Longer term

As with the 10-kg child, longer term exposure is approximately 7 years or 10 percent of an individual's lifetime.

15. RfD

Reference Dose: formerly known as the Acceptable Daily Intake (ADI), the RfD is an estimate of a daily exposure to the human population (including sensitive subpopulations) that is likely to be without appreciable risk or deleterious effects over a lifetime. The RfD is expressed in units of daily dose.

16. DWEL

Drinking Water Equivalent Lifetime: The medium-specific (i.e., drinking water) lifetime exposure level, assuming 100 percent exposure from that medium, at which adverse noncarcinogenic health effects would not be expected to occur. The DWEL is derived from multiplying the RfD by the adult body weight (70kg) and divided by the adult daily water consumption (2 liters/day)

17. Lifetime

Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. If data are unavailable, a value of 20 percent is assumed for synthetic organic chemical contaminants and a value of 10 percent assumed for inorganic chemical contaminants. The lifetime Health Advisory is determined by multiplying the DWEL by the relative source contribution from drinking water.

Form 17
page 12 of 16

18. µg/L as 10^{-4} Cancer Risk — This column contains values indicating the concentration of the particular contaminant in drinking water that would produce as 10^{-4} excess lifetime cancer risk. Simply stated, if a group of 10,000 persons was exposed to the contaminant at its respective concentration listed in this column, then one individual in the group might be expected to develop cancer (above background incidence) solely from exposure to that contaminant in drinking water.

19. Cancer Group — The Office of Health and Environmental Assessment (OHEA) within EPA's Office of Research and Development (ORD) has developed guidelines for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on the weight of evidence:

Group A - Human carcinogen
Group B - Probable human carcinogen
  Group B consists of two sub-classifications:
    B_1 - limited human evidence but sufficient animal evidence
    B_2 - Sufficient animal evidence, but inadequate or no human evidence
Group C - Possible human carcinogen
Group D - Not classified as to human carcinogenicity
Group E - Evidence of noncarcinogenicity for humans

Qualifiers Used For The Health Related Table

NA - not applicable
PS - performance standard 0.5 NTU - 1.0 NTU
TT - treatment technique
** - no more than 5% of the samples may be positive. For systems collecting fewer than 40 samples/month, no more than 1% may be positive.
*** - guidance
+ - large discrepancies between Lifetime and Longer term HA values may occur because of the Agency's conservative policies, especially with regard to carcinogenicity, relative source contribution, and less than lifetime exposures in chronic toxicity testing. These factors can result in a cumulative UF (uncertainty factor) of 10 to 1,000 when calculating a Lifetime HA.

2306:6

Form 17
page 13 of 16

ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is 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.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
S	S	Analysis by Method of Standard Additions.	Value may be quantitative.
R	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	M	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnance AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

0113:1

Form 17
page 14 of 16

ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is 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.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
s	s	Analysis by Method of Standard Additions.	Value may be quantitative.
N	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	M	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnance AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

0113:1

Form 17
page 15 of 16

D. Analytical Method Qualifiers for Inorganic

"P" for ICP

"A" for Flame AA

"F" for Furnance AA

"CV" for Manual Cold Vapor AA

"AV" for Automated Cold Vapor AA

"AS" for Semi-automated Spectrophotometric

"C" for Manual Spectrophotometric

"T" for Titrimetric

"NR" if the analyte is not required to be analyzed.

Rw4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 10-10-89

Recipient Information: Art Garrison
Name

Rt 4 Box 19
Street Address

North Manchester IN
City State Zip Code

219-982-2038
Telephone Number

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number IND981952831

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8901-015 ; PAN: FIND081SP
Yellow: Recipient
Pink: U.S. EPA

DRINKING WATER MEMORANDUM

DATE: 2/7/90

TO: 1. William Messenger, U.S. EPA 2. IN

FROM: Dennis Palmer

SUBJECT: Drinking Water Sample Results

Sample RW4/EGL12/MEF258

Action Level

☐ No Contamination
No hits above any health-related standards.

☐ Low Level Contamination
Hits just above health-related standards.

☐ Significant Contamination
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

☑ Please check secondary maximum contamination limits for:

Aluminum		Manganese	✓
Copper	✓	Silver	
Iron	✓	Zinc	

QC 014

Sample: RW 4 / EGL 12 / MEFZ 58

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-Kg Child: One-Day (ug/L)	10-Kg Child: Ten-Day (ug/L)	10-Kg Child: Longer-Term (ug/L)	70-Kg Adult: Longer-Term (ug/L)	70-Kg Adult: RID (ug/kg/day)	70-Kg Adult: DWEL (ug/L)	70-Kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Volatile Organics																		
CHLOROMETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
BROMOMETHANE	1.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
VINYL CHLORIDE	1.5				F	-	ZERO	2	F	3000	3000	10	50	-	-	-	1.5	A
CHLOROETHANE	1.5				L	-	-	-	D	-	-	-	50-	-	-	-	-	-
METHYLENE CHLORIDE	1	4			L	-	-	-	F	10000	2000	-	-	60	2000	-	300	B2
ACETONE	5																	
CARBON DISULFIDE	3																	
1,1-DICHLOROETHENE	1.5				F	-	7	7	F	2000	1000	1000	4000	9	400	7	-	C
1,1-DICHLOROETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
1,2-DICHLOROETHENE (TOTAL)	1.5				P	-	70	70	F	4000	1000	1000	1000	10	400	70	-	D
CHLOROFORM	1.5				L	100	-	-	D	-	-	-	-	10	-	-	600	B2
1,2-DICHLOROETHANE	1.5				F	-	ZERO	5	F	700	700	700	2600	-	-	-	40	B2
2-BUTANONE (MEK)	5				-	-	-	-	F	80000	8000	3000	9000	50	900	200	-	D
1,1,1-TRICHLOROETHANE	1.5				F	-	200	200	F	100000	40000	40000	100000	90	1000	200	-	D
CARBON TETRACHLORIDE	1.5				F	-	ZERO	5	F	4000	200	70	300	0.7	30	-	30	B2
VINYL ACETATE	5																	
BROMODICHLOROMETHANE	1.5				L	100	-	-	D	-	-	-	-	2	-	-	-	-
1,2-DICHLOROPROPANE	1.5				P	-	ZERO	5	F	-	90	-	-	-	-	-	60	B2
CIS-1,3-DICHLOROPROPENE	2				L	-	-	-	F	30	30	30	100	0.3	10	-	20	B2
TRICHLOROETHENE	1.5				F	-	ZERO	5	F	-	-	-	-	7	300	-	300	B2
DIBROMOCHLOROMETHANE	1.5				L	100	-	-	D	-	-	-	-	2	-	-	-	-
1,1,2-TRICHLOROETHANE	1.5				-	-	-	-	D	-	-	-	-	30	-	-	-	-
BENZENE	1.5				F	-	ZERO	5	F	200	200	-	-	-	-	-	100	A

DATA Report
Form 17
page 1 of 16

Sample: RW4/EGL12/MEF858

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-Kg Child: One-Day (ug/L)	10-Kg Child: Ten-Day (ug/L)	10-Kg Child: Longer-Term (ug/L)	70-Kg Adult: Longer-Term (ug/L)	70-Kg Adult: RID (ug/kg/day)	70-Kg Adult: HWEL (ug/L)	70-Kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Volatile Organics (cont)																		
TRANS-1,3-DICHLOROPROPENE	1				L	-	-	-	F	30	30	30	100	0.3	10	-	20	B2
BROMOFORM	1.5				L	100	-	-	D	-	-	-	-	20	-	-	-	-
4-METHYL-2-PENTANONE	1.5																	
2-HEXANONE	5																	
TETRACHLOROETHENE	1.5				P	-	ZERO	5	F	2000	2000	1000	5000	10	500	-	70	B2
TOLUENE	1.5	0.9J		40 #	P	-	2000	2000	F	20000	3000	3000	10000	300	10000	2000	-	-
1,1,2,2-TETRACHLOROETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
CHLOROBENZENE	1.5			100 #	P	-	100	100	F	2000	2000	2000	7000	20	700	100	-	D
ETHYLBENZENE	1.5			30 #	P	-	700	700	F	30000	3000	1000	3000	100	3000	700	-	D
STYRENE	1			10 #	P	-	ZERO	5	F	20000	2000	2000	7000	200	7000	-	1	B2
XYLENES (TOTAL)	1.5			20 #	P	-	10000	10000	F	40000	40000	40000	10000	2000	60000	10000	-	D
2-CHLOROETHYL VINYL ETHER	1.5																	
ACROLEIN	25																	
ACRYLONITRILE	25				L	-	-	-	-	-	-	-	-	-	-	-	-	-

Form 17

page 2 of 16

Sample: RW 4 / EGL 12 / MEFZ58

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MTPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	Health Advisories: 10-kg Child: Ten-Day (ug/L)	Health Advisories: 10-kg Child: Lifetime Cancer-Tera (ug/L)	Health Advisories: 70-kg Adult: Lifetime Cancer-Tera (ug/L)	Health Advisories: 70-kg Adult: RfD (ug/kg/day)	Health Advisories: 70-kg Adult: DWEL (ug/L)	Health Advisories: 70-kg Adult: Lifetime (ug/L)	Health Advisories: ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Semivolatile Organics																		
PHENOL	2				-	-	-	-	D	-	-	-	-	40	-	-	-	-
BIS(2-CHLOROETHYL)ETHER	1.5																	
2-CHLOROPHENOL	2				L	-	-	-	D	-	-	-	-	5	200	-	-	-
1,3-DICHLOROBENZENE	2				P	-	600	600	P	9000	9000	9000	30000	89	3000	600	-	D
1,4-DICHLOROBENZENE	2				P	-	75	75	P	10000	10000	10000	40000	100	4000	75	-	C
BENZYL ALCOHOL	2																	
1,2-DICHLOROBENZENE	2.5				P	-	600	600	P	9000	9000	9000	30000	89	3000	600	-	D
2-METHYLPHENOL	1																	
N-NITROSO-DI-N-DIPROPYLAMINE	1.5																	
HEXACHLOROETHANE	2																	
NITROBENZENE	2.5																	
ISOPHORONE	2.5				L	-	-	-	D	-	-	-	-	150	-	-	-	-
2-NITROPHENOL	2																	
2,4-DIMETHYLPHENOL	2																	
BENZOIC ACID	20																	
BIS(2-CHLOROETHOXYL)METHANE	2.5																	
2,4-DICHLOROPHENOL	2				L	-	-	-	D	-	-	-	-	3	100	-	-	-
1,2,4-TRICHLOROBENZENE	2				-	-	-	-	D	-	-	-	-	20	-	-	-	-
NAPHTHALENE	2				-	-	-	-	D	-	-	-	-	410	-	-	-	-
4-CHLOROANILINE	2																	
HEXACHLOROBUTADIENE	2.5				-	-	-	-	D	-	-	-	-	2	-	-	5	C
4-CHLORO-3-METHYLPHENOL	1.5																	
2-METHYLNAPHTHALENE	2																	

Form 17

page 3 of 16

Sample: RW4/EGL12/MEFZ58

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MRDLG (ug/L)	Standards: ACLG (ug/L)	Standards: ACL (ug/L)	Status RA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RfD (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: LifeTime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
COMPOUND DETECTED																		
Semivolatile Organics (cont)																		
HEXACHLOROCYCLOPENTADIENE	2				L	-	-	-	-	-	-	-	-	7	-	-	-	-
2,4,6-TRICHLOROPHENOL	1.5																	
2,4,5-TRICHLOROPHENOL	1.5																	
2-CHLORONAPHTHALENE	1.5																	
2-NITROANILINE	1																	
DIMETHYLPHTHALATE	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
ACENAPHTHYLENE	1.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
2,6-DINITROTOLUENE	1																	
3-NITROANILINE	2.5																	
ACENAPHTHENE	1.5																	
2,4-DINITROPHENOL	(15)																	
4-NITROPHENOL	1.5																	
DIBENZOFURAN	1																	
2,4-DINITROTOLUENE	1				L	-	-	-	D	-	-	-	-	-	-	-	-	-
DIETHYLPHTHALATE	1				-	-	-	-	D	-	-	-	-	800	-	-	-	D
4-CHLOROPHENYL-PHENYLETHER	1																	
FLUORENE	1								L	-	-	-	-	-	-	-	-	D
4-NITROANILINE	2																	
4,6-DINITRO-2-METHYLPHENOL	(15)																	
N-NITROSODIPHENYLAMINE 1																		
DIPHENYLAMINE 1	1.5																	
4-BROMOPHENYL-PHENYLETHER	1.5																	
HEXACHLOROBENZENE	1.5				-	-	-	-	F	50	50	50	200	0.8	30	-	2	B2

Form 17

page 4 of 16

Sample: RW 4 /EGL12 /MEFZ58

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	Health Advisories: 10-kg Child: Ten-Day (ug/L)	Health Advisories: 10-kg Child: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: RfD (ug/kg/day)	Health Advisories: 70-kg Adult: DWEL (ug/L)	Health Advisories: 70-kg Adult: Lifetime (ug/L)	Health Advisories: ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Semivolatile Organics (cont)																		
PENTACHLOROPHENOL	2			30 #	P	-	200	200	F	1000	300	300	1000	30	1000	200	-	D
PHENANTHRENE	1				L	-	-	-	-	-	-	-	-	-	-	-	-	-
ANTHRACENE	2.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
DI-N-BUTYLPHTHALATE	2				L	-	-	-	-	-	-	-	-	100	-	-	-	D
FLUORANTHENE	1.5																	
PYRENE	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
BUTYLBENZYLPHTHALATE	3.5				L	-	-	-	-	-	-	-	-	200	-	-	-	C
BENZO(A)ANTHRACENE AA					L	-	-	-	-	-	-	-	-	-	-	-	-	B2
CHRYSENE AA	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BIS(2-ETHYLHEXYL)PHTHALATE	1				-	-	-	-	D	-	-	-	-	20	-	-	-	B2
DI-N-OCTYLPHTHALATE	1.5																	
BENZO(B)FLUORANTHENE AAA					L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(K)FLUORANTHENE AAA	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(A)PYRENE	2				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
INDENO(1,2,3-C,D)PYRENE	3.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
DIBENZO(A,H)ANTHRCENE	2.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(G,H,I)PERYLENE	4				L	-	-	-	-	-	-	-	-	-	-	-	-	D
4-METHYLPHENOL	1																	
BIS(2-CHLOROISOPROPYL)ETHER	2.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
ANILINE	1.5																	
1,2-DIPHENYLHYDRAZINE	1																	

Form 17

page 5 of 16

Sample: RW 4 / EGL12 / MEFZ58

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards Status Reg. A	Standards MRDLG (ug/L)	Standards MCLG (ug/L)	Standards MCL (ug/L)	Status HA A	Health Advisories 10-kg Child One-Day (ug/L)	Health Advisories 10-kg Child Ten-Day (ug/L)	Health Advisories 10-kg Child Longer-Term (ug/L)	Health Advisories Longer-Term (ug/L)	Health Advisories RfD (mg/kg/day)	Health Advisories 70-kg Adult DWEL (ug/L)	Health Advisories Lifetime (ug/L)	Health Advisories ug/L at 10-4 Cancer Risk	Cancer Group
COMMON DRINKING																		
Pesticide/PCBs																		
ALPHA BHC	(0.010)																	
BETA BHC	(0.005)																	
DELTA BHC	(0.005)																	
GAMMA BHC (LINDANE)	0.005				P	4	0.2	0.2	P	1000	1000	30	100	0.3	10	0.2	3	C
HEPTACHLOR	0.010				P	-	ZERO	0.4	P	10	10	5	5	0.5	20	-	0.8	B2
ALDRIN	0.005																	
HEPTACHLOR EPOXIDE	0.005				P	-	ZERO	0.2	P	10	-	0.1	0.1	0.013	0.4	-	0.4	B2
ENDOSULFAN I	0.010																	
DIELDRIN	0.010				L	-	-	-	P	0.5	0.5	0.5	2	0.05	2	-	0.2	B2
4,4'-DDE	(0.005)																	
ENDRIN	0.010				L	0.2	-	-	P	20	5	5	20	0.015	2	0.3	-	E
ENDOSULFAN II	0.010																	
4,4'-DDD	(0.020)																	
ENDOSULFAN SULFATE	(0.10)																	
4,4'-DDT	0.020																	
METHOXYCHLOR (MARIATE)	0.020				P	100	100	100	P	6000	2000	500	2000	50	2000	100	-	D
ENDRINE ALDEHYDE	(0.030)																	
ENDRIN KETONE	(0.030)																	
CHLORDANE	(0.020)				P	-	ZERO	2	P	60	60	0.5	0.5	0.045	2	-	2	B2
ALPHA CHLORDANE	0.020																	
GAMMA CHLORDANE	0.020																	
TOXAPHENE	(0.25)				P	5	ZERO	5	P	500	40	-	-	100	-	-	2	B2
AROCLOR 1016	0.12				P	-	ZERO	0.5	P	-	-	1	1	-	-	-	0.2	B2

Form 17

Page 6 of 16

Sample: RW4 /EGL 12 /MEFZ 58

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: HIPDOR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RID (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Pesticide/PCBs (cont)																		
AROCLOR 1221	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1232	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1242	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1248	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1254	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1260	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2

Form 17

page 7 of 16

Sample: RW 4 / EGL 12 / MEFZ 58

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards Status Reg. A	Standards MRDLG (ug/L)	Standards ACLG (ug/L)	Standards ACL (ug/L)	Health Advisories Status HA A	10-kg Child One-Day (ug/L)	10-kg Child Ten-Day (ug/L)	10-kg Child Longer-Term (ug/L)	70-kg Adult Longer-Term (ug/L)	70-kg Adult RfD (ug/kg/day)	70-kg Adult DWEL (ug/L)	70-kg Adult Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
CARBON DISULFIDE																			
Analyte Detected	METHOD																		
ALUMINUM	P	100		34 B	50 ↑	L	-	-	-	D	-	-	-	-	-	-	-	-	-
ANTIMONY	F	5				L	-	-	-	D	-	-	-	-	0.4	-	-	-	-
ARSENIC	F	5				P	50	ZERO	50	D	-	-	-	-	1	-	50	3	A
BARIUM	P	50	195			P	1000	5000	5000	F	5000	5000	5000	5000	-	-	5000	-	D
BERYLLIUM	F	5	7.7 JN			L	-	-	-	D	-	-	-	-	5	-	-	-	B2
CADMIUM	F	0.5				P	10	5	5	F	10	10	5	20	0.5	20	5	-	D
CALCIUM	P	1000	100000	25.1 B															
CHROMIUM	F	10				P	50	100	100	F	1000	1000	200	800	5	200	100	-	D
COBALT	P	10																	
COPPER	P	10		385 B	1000 ↑														
IRON	P	100	3920		300 ↑														
LEAD (at source)	F	2				P	-	ZERO	5	-	-	-	-	-	-	-	-	-	-
LEAD (at tap)	F	2				P	50	ZERO	TT	-	-	-	-	-	-	-	-	-	-
MAGNESIUM	P	1000	25500	11.7 B											-				
MANGANESE	P	10	59.2		50 ↑	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MERCURY	CV	0.2				P	2	2	2	F	-	-	-	-	0.3	10	2	-	D
NICKEL	P	20				L	-	-	-	F	1000	1000	2000	600	20	600	200	-	D
POTASSIUM	P	2000	1160 B																
SELENIUM	F	2				P	10	50	50	-	-	-	-	-	-	-	-	-	-
SILVER	P	5			50 ↑	L	50	-	-	D	-	-	-	-	3	-	-	-	-
SODIUM	P	1000	5440	240 B		L	-	-	-	D	-	-	-	-	-	20000	-	-	-
THALLIUM	F	2				L	-	-	-	D	-	-	-	-	0.07	-	-	-	-
TIN	P	10																	

Form 17

page 8 of 16

Sample: RW4 /EGL 12 /MEFB 58

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MRDLG (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status RA A	Health Advisories: 10-kg Child: One-Day (ug/L)	Health Advisories: 10-kg Child: Ten-Day (ug/L)	Health Advisories: 10-kg Child: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: RfD (ug/kg/day)	Health Advisories: 70-kg Adult: DWEL (ug/L)	Health Advisories: 70-kg Adult: Lifetime (ug/L)	Health Advisories: ug/L at 10-4 Cancer Risk	Cancer Group
Analyte Detected (cont)																			
VANADIUM	P	10				L	-	-	-	D	-	-	-	-	20	-	-	-	-
ZINC	P	20	6.7B	6.7B	5000 #	L	-	-	-	D	-	-	-	-	-	-	-	-	-
CYANIDE	C	10				L	-	-	-	E	200	200	200	800	22	800	200	-	D
BORON	P	100																	
LITHIUM	P	10																	
MOLYBDENUM	P	15																	
TITANIUM	P	25																	
STRONTIUM	P	10																	
YTTRIUM	P	5																	

NT - Not Tested For

Detection Limits:
A These Two Parameters Are Reported As A Total
AA These Two Parameters Are Reported As A Total
AAA These Two Parameters Are Reported As A Total
Values In Parentheses Are Estimates. Actual Values Are Being Determined At This Time.

Form 17

Page 9 of 16

DESCRIPTION AND QUALIFIERS

The following are descriptions of the 19 columns listed on the table and the qualifiers to clarify the analytical and health related values.

Column	Description
1. Sample Collection Information and Parameters.	The compounds and analytes analyzed for on this water sample.
2. Detection Limits	The detection limits that a laboratory must meet as part of the analytical service contact.
3. Sample Results	The value determined by this analysis.
4. Lab Blank	Laboratory contamination that may be found in the laboratory blank. A quality control check.
5. Comments	The water reviewer's comments on the usability of the value in the Sample Results column.
6. Status Reg	F-final D-draft L-listed for regulation P-proposed (Phase II draft proposal, based on levels proposed in 1985).

7. NIPDWR- National Interim Primary Drinking Water Regulations: refers to the interim regulatory requirements under the Safe Drinking Water Act (SDWA) of 1974. The NIPDWR specified maximum allowable levels for 22 different contaminants at the consumer's drinking water tap. These interim standards, known as Maximum Contaminant Levels (MCL), were promulgated for 22 contaminants in March 1975, with the intention of revising and promulgating the final National Primary Drinking Water Regulations (NPDWR) a few years later. The values listed in this column are the original MCLs assigned under the interim regulations. The NPDWRs were effected under the SDWA Amendments of June 19, 1986. These revised regulations specify MCLs or treatment techniques for additional contaminants. At this time, 8 additional contaminants (synthetic volatile organic chemicals) have also been

Form 17 page 10 of 16

assigned MCLs. (Code of Federal Regulations, Chapter 40, part 141, et seq.)

8. MCLG- Maximum Contaminant Level Goal: Under the National Primary Drinking Water Regulations, the term MCLG now replaces the previous term RMCL or recommended Maximum Contaminant Levels. Under the 1986 SDWA Amendments, any NPDWR which establishes an MCL must also simultaneously publish an MCLG at the time of proposed rulemaking and promulgation. The MCLG is the maximum level of a contaminant at which no known or anticipated adverse human health effects would occur, and which include an adequate margin of safety. MCLGs are nonenforceable health goals.

9. MCL- Maximum Contaminant Level: Derived from the MCLG, the MCL is the maximum permissible level of a contaminant in drinking water which is delivered to the consumers' tap and used by the general public for drinking. MCLs are legally enforceable. The standards reflect the best achievable levels considering the occurrence, relative source contribution factors, monitoring capability, cost of treatment, available technology and health effects. The standards listed in this column for each contaminant under the NIPDWR are either newly promulgated or revised from the NIPDWR. In a few cases, the enforceable standard has changed; however, in most cases (when comparing columns headed NIPDWR and MCL) the existing interim standard has been revised or has been newly developed.

10. Status HA

F-final
D-draft
L-listed for regulation
P-proposed (Phase II draft proposal, based on levels proposed in 1985).

Health Advisories

The Health Advisory (HA) program is sponsored by the Office of Drinking Water (ODW), and provides information on the health effects, analytical methods and treatment technology useful for dealing with drinking water contamination. Health advisories describe nonregulatory concentrations of drinking water contaminants at which adverse health effects would not be anticipated to occur over specific exposure durations. Health advisories contain a margin of safety, to protect sensitive members of the population. The Health Advisories are developed for one-day, ten-day, longer term and lifetime exposures based on data describing non carcinogenic endpoints of toxicity. The advisories are intended to serve as informal technical guidance to assist Federal, State, and local officials when emergency spills or contaminant situations occur. THEY ARE NOT CONSTRUED AS LEGALLY ENFORCEABLE FEDERAL STANDARDS AND ARE SUBJECT TO CHANGE AS NEW INFORMATION BECOMES AVAILABLE.

Fax 17
page 11 of 16

Health Advisory values for the adult are derived in the same way as for the 10-kg child. Again, certain assumptions are made: The adult is assumed to weigh 70-kg and consume 2 liters of water per day.

10-KG Child

11.	1 day	The child is assumed to be a more sensitive population entity. Included in this assumption, is that the body weight of a child is 10 kg and that one liter of water per day is ingested. Under these and other assumption specific to the available toxicological data bases, Health Advisory values have been derived and listed in the respective columns for one-day, ten-day and longer term exposures. Longer term is defined as approximately 7 years, or 10 percent of an individual's lifetime.
12.	10 day	
13.	Longer term	

70-KG Adult

14.	Longer term	As with the 10-kg child, longer term exposure is approximately 7 years or 10 percent of an individual's lifetime.
15.	RfD	Reference Dose: formerly known as the Acceptable Daily Intake (ADI), the RfD is an estimate of a daily exposure to the human population (including sensitive subpopulations) that is likely to be without appreciable risk or deleterious effects over a lifetime. The RfD is expressed in units of daily dose.
16.	DWEL	Drinking Water Equivalent Lifetime: The medium-specific (i.e., drinking water) lifetime exposure level, assuming 100 percent exposure from that medium, at which adverse noncarcinogenic health effects would not be expected to occur. The DWEL is derived from multiplying the RfD by the adult body weight (70kg) and divided by the adult daily water consumption (2 liters/day)
17.	Lifetime	Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. If data are unavailable, a value of 20 percent is assumed for synthetic organic chemical contaminants and a value of 10 percent assumed for inorganic chemical contaminants. The lifetime Health Advisory is determined by multiplying the DWEL by the relative source contribution from drinking water.

Form 17
page 12 of 16

18. µg/L as 10^{-4} Cancer Risk — This column contains values indicating the concentration of the particular contaminant in drinking water that would produce as 10^{-4} excess lifetime cancer risk. Simply stated, if a group of 10,000 persons was exposed to the contaminant at its respective concentration listed in this column, then one individual in the group might be expected to develop cancer (above background incidence) solely from exposure to that contaminant in drinking water.

19. Cancer Group — The Office of Health and Environmental Assessment (OHEA) within EPA's Office of Research and Development (ORD) has developed guidelines for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on the weight of evidence:

Group A - Human carcinogen
Group B - Probable human carcinogen
  Group B consists of two sub-classifications:
    B_1 - limited human evidence but sufficient animal evidence
    B_2 - Sufficient animal evidence, but inadequate or no human evidence
Group C - Possible human carcinogen
Group D - Not classified as to human carcinogenicity
Group E - Evidence of noncarcinogenicity for humans

Qualifiers Used For The Health Related Table

NA - not applicable
PS - performance standard 0.5 NTU - 1.0 NTU
TT - treatment technique
** - no more than 5% of the samples may be positive. For systems collecting fewer than 40 samples/month, no more than 1% may be positive.
*** - guidance
+ - large discrepancies between Lifetime and Longer term HA values may occur because of the Agency's conservative policies, especially with regard to carcinogenicity, relative source contribution, and less than lifetime exposures in chronic toxicity testing. These factors can result in a cumulative UF (uncertainty factor) of 10 to 1,000 when calculating a Lifetime HA.

Form 17
page 13 of 16

ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is 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.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
s	s	Analysis by Method of Standard Additions.	Value may be quantitative.
R	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	M	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnance AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

0113:1

Form 17
page 14 of 16

ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is 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.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
s	s	Analysis by Method of Standard Additions.	Value may be quantitative.
R	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	M	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnance AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

0113:1

Form 17
page 15 of 16

D. Analytical Method Qualifiers for Inorganic

"P" for ICP

"A" for Flame AA

"F" for Furnance AA

"CV" for Manual Cold Vapor AA

"AV" for Automated Cold Vapor AA

"AS" for Semi-automated Spectrophotometric

"C" for Manual Spectrophotometric

"T" for Titrimetric

"NR" if the analyte is not required to be analyzed.

Rw 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 10-10-89

Recipient Information: Manchester Vet Clinic
Name

Rt 1 Box 54
Street Address

North Manchester IN 46962
City State Zip Code

219 982-6673
Telephone Number

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number IND 981952831

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8901-019 PAN: FIN0089CB
Yellow: Recipient
Pink: U.S. EPA

DRINKING WATER MEMORANDUM

DATE: 2/7/90

TO: 1. William Messenger, U.S. EPA 2. IN

FROM: Dennis Palmer

SUBJECT: Drinking Water Sample Results

Sample RW2/EGL09/MEFZ55

Action Level

- [x] No Contamination
  No hits above any health-related standards.
- [ ] Low Level Contamination
  Hits just above health-related standards.
- [ ] Significant Contamination
  Hits are above health-related standards.

- [ ] Please check the following. They are less than health-related standards but above detection limits.

- [ ] Please check secondary maximum contamination limits for:

Aluminum		Manganese	
Copper		Silver	
Iron		Zinc	

QC 014

Sample: RW 2/EG109 /MEFZ55

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Status Reg. A	Standards MRDGL (ug/L)	Standards ACLG (ug/L)	Standards MCL (ug/L)	Status HA A	10-kg Child One-Day (ug/L)	10-kg Child Ten-Day (ug/L)	10-kg Child Longer-Term (ug/L)	Health Advisories Longer-Term (ug/L)	70-kg Adult RfD (ug/kg/day)	70-kg Adult DWEL (ug/L)	70-kg Adult Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Volatile Organics																		
CHLOROMETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
BROMOMETHANE	1.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
VINYL CHLORIDE	1.5				F	-	ZERO	2	F	3000	3000	10	50	-	-	-	1.5	A
CHLOROETHANE	1.5				L	-	-	-	D	-	-	-	50-	-	-	-	-	-
METHYLENE CHLORIDE	1	3			L	-	-	-	F	10000	2000	-	-	60	2000	-	300	B2
ACETONE	5																	
CARBON DISULFIDE	5																	
1,1-DICHLOROETHENE	1.5				F	-	7	7	F	2000	1000	1000	4000	9	400	7	-	C
1,1-DICHLOROETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
1,2-DICHLOROETHENE (TOTAL)	1.5				F	-	70	70	F	4000	1000	1000	1000	10	400	70	-	D
CHLOROFORM	1.5				L	100	-	-	D	-	-	-	-	10	-	-	600	B2
1,2-DICHLOROETHANE	1.5				F	-	ZERO	5	F	700	700	700	2600	-	-	-	40	B2
2-BUTANONE (MEK)	5				-	-	-	-	F	80000	8000	3000	9000	50	900	200	-	D
1,1,1-TRICHLOROETHANE	1.5				F	-	200	200	F	100000	40000	40000	100000	90	1000	200	-	D
CARBON TETRACHLORIDE	1.5				F	-	ZERO	5	F	4000	200	70	300	0.7	30	-	30	B2
VINYL ACETATE	5																	
BROMODICHLOROMETHANE	1.5				L	100	-	-	D	-	-	-	-	2	-	-	-	-
1,2-DICHLOROPROPANE	1.5				F	-	ZERO	5	F	-	90	-	-	-	-	-	60	B2
CIS-1,3-DICHLOROPROPENE	2				L	-	-	-	F	30	30	30	100	0.3	10	-	20	B2
TRICHLOROETHENE	1.5				F	-	ZERO	5	F	-	-	-	-	7	300	-	300	B2
DIBROMOCHLOROMETHANE	1.5				L	100	-	-	D	-	-	-	-	2	-	-	-	-
1,1,2-TRICHLOROETHANE	1.5				-	-	-	-	D	-	-	-	-	30	-	-	-	-
BENZENE	1.5				F	-	ZERO	5	F	200	200	-	-	-	-	-	100	A

DATA Report
Form 17
page 1 of 16

Sample: RW2/EG109/MEF8 55

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MTBWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child One-Day (ug/L)	10-kg Child Ten-Day (ug/L)	10-kg Child Longer-Term (ug/L)	70-kg Adult Longer-Term (ug/L)	70-kg Adult RfD (ug/kg/day)	70-kg Adult DWEL (ug/L)	70-kg Adult Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
COMMON DETECTED																		
Volatile Organics (cont)																		
TRANS-1,3-DICHLOROPROPENE	1				L	-	-	-	F	30	30	30	100	0.3	10	-	20	B2
BROMOFORM	1.5				L	100	-	-	D	-	-	-	-	20	-	-	-	-
4-METHYL-2-PENTANONE	1.5																	
2-HEXANONE	5																	
TETRACHLOROETHENE	1.5				P	-	ZERO	5	F	2000	2000	1000	5000	10	500	-	70	B2
TOLUENE	1.5			40 ♦	P	-	2000	2000	F	20000	3000	3000	10000	300	10000	2000	-	-
1,1,2,2-TETRACHLOROETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
CHLOROBENZENE	1.5			100 ♦	P	-	100	100	F	2000	2000	2000	7000	20	700	100	-	D
ETHYLBENZENE	1.5			30 ♦	P	-	700	700	F	30000	3000	1000	3000	100	3000	700	-	D
STYRENE	1			10 ♦	P	-	ZERO	5	F	20000	2000	2000	7000	200	7000	-	1	B2
XYLENES (TOTAL)	1.5			20 ♦	P	-	10000	10000	F	40000	40000	40000	10000	2000	40000	10000	-	D
2-CHLOROETHYL VINYL ETHER	1.5																	
ACROLEIN	25																	
ACRYLONITRILE	25				L	-	-	-	-	-	-	-	-	-	-	-	-	-

Form 17

page 2 of 16

Sample: KW2 /EGLD9 /MEF2 55

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards Reg. A	Standards HIPDOR (ug/L)	Standards ACLG (ug/L)	Standards ACL (ug/L)	Risk Hi A	10-kg Child DAF=Day (ug/L)	10-kg Child 10=Day (ug/L)	10-kg Child Lifetime (ug/L)	70-kg Adult Lifetime (ug/L)	70-kg Adult RfD (ug/kg/day)	70-kg Adult DWEL (ug/L)	70-kg Adult Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Semivolatile Organics																		
PHENOL	2				-	-	-	-	D	-	-	-	-	40	-	-	-	-
BIS(2-CHLOROETHYL)ETHER	1.5																	
2-CHLOROPHENOL	2				L	-	-	-	D	-	-	-	-	5	200	-	-	-
1,3-DICHLOROBENZENE	2				P	-	600	600	F	9000	9000	9000	30000	89	3000	600	-	D
1,4-DICHLOROBENZENE	2				F	-	75	75	F	10000	10000	10000	40000	100	4000	75	-	C
BENZYL ALCOHOL	2																	
1,2-DICHLOROBENZENE	2.5				P	-	600	600	F	9000	9000	9000	30000	89	3000	600	-	D
2-METHYLPHENOL	1																	
N-NITROSO-DI-N-DIPROPYLAMINE	1.5																	
HEXACHLOROETHANE	2																	
NITROBENZENE	2.5																	
ISOPHORONE	2.5				L	-	-	-	D	-	-	-	-	150	-	-	-	-
2-NITROPHENOL	2																	
2,4-DIMETHYLPHENOL	2																	
BENZOIC ACID	20																	
BIS(2-CHLOROETHOXY)METHANE	2.5																	
2,4-DICHLOROPHENOL	2				L	-	-	-	D	-	-	-	-	3	100	-	-	-
1,2,4-TRICHLOROBENZENE	2				-	-	-	-	D	-	-	-	-	20	-	-	-	-
NAPHTHALENE	2				-	-	-	-	D	-	-	-	-	410	-	-	-	-
4-CHLOROANILINE	2																	
HEXACHLOROBUTADIENE	2.5				-	-	-	-	D	-	-	-	-	2	-	-	5	C
4-CHLORO-3-METHYLPHENOL	1.5																	
2-METHYLNAPHTHALENE	2																	

Form 17

page 3 of 16

Sample: RW2 / EGL09 / MEFZ55

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MRDLG (ug/L)	Standards: ACLG (ug/L)	Standards: ACL (ug/L)	Status: RA A	Health Advisories: 10-kg Child: One-Day (ug/L)	Health Advisories: 10-kg Child: Ten-Day (ug/L)	Health Advisories: 10-kg Child: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: RfD (ug/kg/day)	Health Advisories: 70-kg Adult: DWEL (ug/L)	Health Advisories: 70-kg Adult: Lifetime (ug/L)	Health Advisories: ug/L at 10-4 Cancer Risk	Cancer Group
COMPOUND DESIGNATED																		
Semivolatile Organics (cont)																		
HEXACHLOROCYCLOPENTADIENE	2				L	-	-	-	-	-	-	-	-	7	-	-	-	-
2,4,6-TRICHLOROPHENOL	1.5																	
2,4,5-TRICHLOROPHENOL	1.5																	
2-CHLORONAPHTHALENE	1.5																	
2-NITROANILINE	1																	
DIMETHYLPHTHALATE	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
ACENAPHTHYLENE	1.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
2,6-DINITROTOLUENE	1																	
3-NITROANILINE	2.5																	
ACENAPHTHENE	1.5																	
2,4-DINITROPHENOL	(15)																	
4-NITROPHENOL	1.5																	
DIBENZOFURAN	1																	
2,4-DINITROTOLUENE	1				L	-	-	-	D	-	-	-	-	-	-	-	-	-
DIETHYLPHTHALATE	1				-	-	-	-	D	-	-	-	-	800	-	-	-	D
4-CHLOROPHENYL-PHENYLETHER	1																	
FLUORENE	1								L	-	-	-	-	-	-	-	-	D
4-NITROANILINE	2																	
4,6-DINITRO-2-METHYLPHENOL	(15)																	
N-NITROSODIPHENYLAMINE A																		
DIPHENYLAMINE A	1.5																	
4-BROMOPHENYL-PHENYLETHER	1.5																	
HEXACHLOROBENZENE	1.5				-	-	-	-	E	50	50	50	200	0.8	30	-	2	B2

Form 17

page 4 of 16

Sample: RW 2 1EGL09 1MEF255

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Contaminant Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Status Reg. A	Standards MRDGW (ug/L)	MCLG (ug/L)	MCL (ug/L)	Status MA A	Health Advisories 10-Kg Child One-Day (ug/L)	Ten-Day (ug/L)	Longer-Term (ug/L)	Adult Longer-Term (ug/L)	RfD (ug/kg/day)	DWEL (ug/L)	Effected (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
CONTROL DETECTED																		
Semivolatile Organics (cont)																		
PENTACHLOROPHENOL	2			30 0	P	-	200	200	F	1000	300	300	1000	30	1000	200	-	D
PHENANTHRENE	1				L	-	-	-	-	-	-	-	-	-	-	-	-	-
ANTHRACENE	2.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
DI-N-BUTYLPHTHALATE	2				L	-	-	-	-	-	-	-	-	100	-	-	-	D
FLUORANTHENE	1.5																	
PYRENE	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
BUTYLBENZYLPHTHALATE	3.5				L	-	-	-	-	-	-	-	-	200	-	-	-	C
BENZO(A)ANTHRACENE AA					L	-	-	-	-	-	-	-	-	-	-	-	-	B2
CHRYSENE AA	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BIS(2-ETHYLHEXYL)PHTHALATE	1				-	-	-	-	D	-	-	-	-	20	-	-	-	B2
DI-N-OCTYLPHTHALATE	1.5																	
BENZO(B)FLUORANTHENE AAA					L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(K)FLUORANTHENE AAA	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(A)PYRENE	2				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
INDENO(1,2,3-C,D)PYRENE	3.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
DIBENZO(A,H)ANTHRACENE	2.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(G,H,I)PERYLENE	4				L	-	-	-	-	-	-	-	-	-	-	-	-	D
4-METHYLPHENOL	1																	
BIS(2-CHLOROISOPROPYL)ETHER	2.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
ANILINE	1.5																	
1,2-DIPHENYLHYDRAZINE	1																	

Form 17

page 5 of 16

Sample: RW 2 / EGL09 / MEFZ55

AMALTYCICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards Status Reg. A	Standards MRDWR (ug/L)	Standards MCLG (ug/L)	Standards MCL (ug/L)	Health Advisories Status RA A	Health Advisories 10-kg Child One-Day (ug/L)	Health Advisories 10-kg Child Ten-Day (ug/L)	Health Advisories 10-kg Child Longer-Term (ug/L)	Health Advisories 70-kg Adult Longer-Term (ug/L)	Health Advisories 70-kg Adult RfD (ug/kg/day)	Health Advisories 70-kg Adult DWEL (ug/L)	Health Advisories 70-kg Adult Lifetime (ug/L)	Health Advisories ug/L at 10-4 Cancer Risk	Cancer Group
COBRAS DETECTED																		
Pesticide/PCBs																		
ALPHA BHC	(0.210)																	
BETA BHC	(0.205)																	
DELTA BHC	(0.205)																	
GAMMA BHC (LINDANE)	0.005				P	4	0.2	0.2	P	1000	1000	30	100	0.3	10	0.2	3	C
HEPTACHLOR	0.030				P	-	ZERO	0.4	P	10	10	5	5	0.5	20	-	0.8	B2
ALDRIN	0.005																	
HEPTACHLOR EPOXIDE	0.005				P	-	ZERO	0.2	P	10	-	0.1	0.1	0.013	0.4	-	0.4	B2
ENDOSULFAN I	0.010																	
DIELDRIN	0.010				L	-	-	-	P	0.5	0.5	0.5	2	0.05	2	-	0.2	B2
4,4'-DDE	(0.005)																	
ENDRIN	0.010				L	0.2	-	-	P	20	5	5	20	0.015	2	0.3	-	E
ENDOSULFAN II	0.010																	
4,4'-DDD	(0.020)																	
ENDOSULFAN SULFATE	(0.10)																	
4,4'-DDT	0.020																	
METHOXYCHLOR (MARIATE)	0.020				P	100	100	100	P	6000	2000	500	2000	50	2000	100	-	D
ENDRINE ALDEHYDE	(0.030)																	
ENDRIN KETONE	(0.030)																	
CHLORDANE	(0.020)				P	-	ZERO	2	P	60	60	0.5	0.5	0.045	2	-	3	B2
ALPHA CHLORDANE	0.020																	
GAMMA CHLORDANE	0.020																	
TOXAPHENE	(0.23)				P	5	ZERO	5	P	300	40	-	-	100	-	-	3	B2
AROCLOR 1016	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2

Form 17

Page 6 of 16

Sample: RW2 1EGL09 1MEFZ55

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: HIPDGR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-Kg Child: One-Day (ug/L)	Health Advisories: 10-Kg Child: Ten-Day (ug/L)	Health Advisories: 10-Kg Child: Longer-Term (ug/L)	Health Advisories: 70-Kg Adult: Longer-Term (ug/L)	Health Advisories: 70-Kg Adult: RTD (ug/kg/day)	Health Advisories: 70-Kg Adult: DWEL (ug/L)	Health Advisories: 70-Kg Adult: Lifetime (ug/L)	Health Advisories: ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Pesticide/PCBs (cont)																		
AROCLOR 1221	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1232	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1242	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1248	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1254	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1260	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2

Form 17

page 7 of 16

Sample: RW2 / EGL09 / MEFZ55

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MRDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RfD (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
COMPOUND DETECTED																			
Analyte Detected	METHOD																		
ALUMINUM	P	100		34B	50 #	L	-	-	-	D	-	-	-	-	-	-	-	-	-
ANTIMONY	F	5				L	-	-	-	D	-	-	-	-	0.4	-	-	-	-
ARSENIC	F	5				P	50	ZERO	50	D	-	-	-	-	1	-	50	3	A
BARIUM	P	50				P	1000	5000	5000	F	5000	5000	5000	5000	-	-	5000	-	D
BERYLLIUM	F	5				L	-	-	-	D	-	-	-	-	5	-	-	-	B2
CADMIUM	F	0.5				P	10	5	5	F	10	10	5	20	0.5	20	5	-	B
CALCIUM	P	1000	362 B	25.1 B															
CHROMIUM	F	10				P	50	100	100	F	1000	1000	200	800	5	200	100	-	D
COBALT	P	10																	
COPPER	P	10	35.2 J*N	38.5 JN	1000 #														
IRON	P	100	61.3 B		300 #														
LEAD (at source)	F	2				P	-	ZERO	5	-	-	-	-	-	-	-	-	-	-
LEAD (at tap)	F	2	2.1			P	50	ZERO	TT	-	-	-	-	-	-	-	-	-	-
MAGNESIUM	P	1000	99.9 B	11.7B															
MANGANESE	P	10			50 #	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MERCURY	CV	0.2				P	2	2	2	F	-	-	-	-	0.3	10	2	-	D
NICKEL	P	20				L	-	-	-	F	1000	1000	2000	600	20	600	200	-	D
POTASSIUM	P	2000	1360 B																
SELENIUM	F	2				P	10	50	50	-	-	-	-	-	-	-	-	-	-
SILVER	P	5			50 #	L	50	-	-	D	-	-	-	-	3	-	-	-	-
SODIUM	P	1000	251000	240B		L	-	-	-	D	-	-	-	-	-	20000	-	-	-
THALLIUM	F	2				L	-	-	-	D	-	-	-	-	0.02	-	-	-	-
TIN	P	40																	

Form 17

Page 8 of 16

Sample: RW2 /EGL09 /MEFZ55

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status MA A	Health Advisories: 10-kg Child: One-Day (ug/L)	Health Advisories: 10-kg Child: Ten-Day (ug/L)	Health Advisories: 10-kg Child: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: RfD (ug/kg/day)	Health Advisories: 70-kg Adult: DWEL (ug/L)	Health Advisories: 70-kg Adult: Lifetime (ug/L)	Health Advisories: ug/l at 10-4 Cancer Risk	Cancer Group
Compound Detected																			
Analyte Detected (cont)																			
VANADIUM	P	10				L	-	-	-	D	-	-	-	-	20	-	-	-	-
ZINC	P	20	16B	6.7B	5000 #	L	-	-	-	D	-	-	-	-	-	-	-	-	-
CYANIDE	C	10				L	-	-	-	E	200	200	200	800	22	800	200	-	D
BORON	P	80																	
LITHIUM	P	10																	
MOLYBDENUM	P	15																	
TITANIUM	P	25																	
STRONTIUM	P	10																	
YTTRIUM	P	5																	

Detection Limits:
A These Two Parameters Are Reported As A Total
AA These Two Parameters Are Reported As A Total
AAA These Two Parameters Are Reported As A Total
Values In Parentheses Are Estimates. Actual Values Are Being Determined At This Time.

NT - Not Tested For

Form 17

page 9 of 16

DESCRIPTION AND QUALIFIERS

The following are descriptions of the 19 columns listed on the table and the qualifiers to clarify the analytical and health related values.

Column	Description
1. Sample Collection Information and Parameters.	The compounds and analytes analyzed for on this water sample.
2. Detection Limits	The detection limits that a laboratory must meet as part of the analytical service contact.
3. Sample Results	The value determined by this analysis.
4. Lab Blank	Laboratory contamination that may be found in the laboratory blank. A quality control check.
5. Comments	The water reviewer's comments on the usability of the value in the Sample Results column.
6. Status Reg	F-final D-draft L-listed for regulation P-proposed (Phase II draft proposal, based on levels proposed in 1985).

7. NIPDWR- National Interim Primary Drinking Water Regulations: refers to the interim regulatory requirements under the Safe Drinking Water Act (SDWA) of 1974. The NIPDWR specified maximum allowable levels for 22 different contaminants at the consumer's drinking water tap. These interim standards, known as Maximum Contaminant Levels (MCL), were promulgated for 22 contaminants in March 1975, with the intention of revising and promulgating the final National Primary Drinking Water Regulations (NPDWR) a few years later. The values listed in this column are the original MCLs assigned under the interim regulations. The NPDWRs were effected under the SDWA Amendments of June 19, 1986. These revised regulations specify MCLs or treatment techniques for additional contaminants. At this time, 8 additional contaminants (synthetic volatile organic chemicals) have also been

Form 17 page 10 of 16

assigned MCLs. (Code of Federal Regulations, Chapter 40, part 141, et seq.)

8. MCLG- Maximum Contaminant Level Goal: Under the National Primary Drinking Water Regulations, the term MCLG now replaces the previous term RMCL or recommended Maximum Contaminant Levels. Under the 1986 SDWA Amendments, any NPDWR which establishes an MCL must also simultaneously publish an MCLG at the time of proposed rulemaking and promulgation. The MCLG is the maximum level of a contaminant at which no known or anticipated adverse human health effects would occur, and which include an adequate margin of safety. MCLGs are nonenforceable health goals.

9. MCL- Maximum Contaminant Level: Derived from the MCLG, the MCL is the maximum permissible level of a contaminant in drinking water which is delivered to the consumers' tap and used by the general public for drinking. MCLs are legally enforceable. The standards reflect the best achievable levels considering the occurrence, relative source contribution factors, monitoring capability, cost of treatment, available technology and health effects. The standards listed in this column for each contaminant under the NIPDWR are either newly promulgated or revised from the NIPDWR. In a few cases, the enforceable standard has changed; however, in most cases (when comparing columns headed NIPDWR and MCL) the existing interim standard has been revised or has been newly developed.

10. Status HA

F-final
D-draft
L-listed for regulation
P-proposed (Phase II draft proposal, based on levels proposed in 1985).

Health Advisories

The Health Advisory (HA) program is sponsored by the Office of Drinking Water (ODW), and provides information on the health effects, analytical methods and treatment technology useful for dealing with drinking water contamination. Health advisories describe nonregulatory concentrations of drinking water contaminants at which adverse health effects would not be anticipated to occur over specific exposure durations. Health advisories contain a margin of safety, to protect sensitive members of the population. The Health Advisories are developed for one-day, ten-day, longer term and lifetime exposures based on data describing non carcinogenic endpoints of toxicity. The advisories are intended to serve as informal technical guidance to assist Federal, State, and local officials when emergency spills or contaminant situations occur. THEY ARE NOT CONSTRUED AS LEGALLY ENFORCEABLE FEDERAL STANDARDS AND ARE SUBJECT TO CHANGE AS NEW INFORMATION BECOMES AVAILABLE.

Exh 17
page 11 of 16

Health Advisory values for the adult are derived in the same way as for the 10-kg child. Again, certain assumptions are made: The adult is assumed to weigh 70-kg and consume 2 liters of water per day.

10-KG Child

11.	1 day	The child is assumed to be a more sensitive population entity. Included in this assumption, is that the body weight of a child is 10 kg and that one liter of water per day is ingested. Under these and other assumption specific to the available toxicological data bases, Health Advisory values have been derived and listed in the respective columns for one-day, ten-day and longer term exposures. Longer term is defined as approximately 7 years, or 10 percent of an individual's lifetime.
12.	10 day	
13.	Longer term	

70-KG Adult

14.	Longer term	As with the 10-kg child, longer term exposure is approximately 7 years or 10 percent of an individual's lifetime.
15.	RfD	Reference Dose: formerly known as the Acceptable Daily Intake (ADI), the RfD is an estimate of a daily exposure to the human population (including sensitive subpopulations) that is likely to be without appreciable risk or deleterious effects over a lifetime. The RfD is expressed in units of daily dose.
16.	DWEL	Drinking Water Equivalent Lifetime: The medium-specific (i.e., drinking water) lifetime exposure level, assuming 100 percent exposure from that medium, at which adverse noncarcinogenic health effects would not be expected to occur. The DWEL is derived from multiplying the RfD by the adult body weight (70kg) and divided by the adult daily water consumption (2 liters/day)
17.	Lifetime	Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. If data are unavailable, a value of 20 percent is assumed for synthetic organic chemical contaminants and a value of 10 percent assumed for inorganic chemical contaminants. The lifetime Health Advisory is determined by multiplying the DWEL by the relative source contribution from drinking water.

Form 17
page 12 of 16

18. µg/L as 10^{-4} Cancer Risk — This column contains values indicating the concentration of the particular contaminant in drinking water that would produce as 10^{-4} excess lifetime cancer risk. Simply stated, if a group of 10,000 persons was exposed to the contaminant at its respective concentration listed in this column, then one individual in the group might be expected to develop cancer (above background incidence) solely from exposure to that contaminant in drinking water.

19. Cancer Group — The Office of Health and Environmental Assessment (OHEA) within EPA's Office of Research and Development (ORD) has developed guidelines for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on the weight of evidence:

Group A - Human carcinogen
Group B - Probable human carcinogen
  Group B consists of two sub-classifications:
    B_1 - limited human evidence but sufficient animal evidence
    B_2 - Sufficient animal evidence, but inadequate or no human evidence
Group C - Possible human carcinogen
Group D - Not classified as to human carcinogenicity
Group E - Evidence of noncarcinogenicity for humans

Qualifiers Used For The Health Related Table

NA - not applicable
PS - performance standard 0.5 NTU - 1.0 NTU
TT - treatment technique
** - no more than 5% of the samples may be positive. For systems collecting fewer than 40 samples/month, no more than 1% may be positive.
*** - guidance
+ - large discrepancies between Lifetime and Longer term HA values may occur because of the Agency's conservative policies, especially with regard to carcinogenicity, relative source contribution, and less than lifetime exposures in chronic toxicity testing. These factors can result in a cumulative UF (uncertainty factor) of 10 to 1,000 when calculating a Lifetime HA.

2306:6

Form 17
page 13 of 16

ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is 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.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
s	s	Analysis by Method of Standard Additions.	Value may be quantitative.
R	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	M	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnance AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

0113:1

Form 17
page 14 of 16

ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is 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.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
s	s	Analysis by Method of Standard Additions.	Value may be quantitative.
N	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	M	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnance AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

0113:1

Form 17
Page 15 of 16

D. Analytical Method Qualifiers for Inorganic

"P" for ICP

"A" for Flame AA

"F" for Furnance AA

"CV" for Manual Cold Vapor AA

"AV" for Automated Cold Vapor AA

"AS" for Semi-automated Spectrophotometric

"C" for Manual Spectrophotometric

"T" for Titrimetric

"NR" if the analyte is not required to be analyzed.

Rw3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 10-10-89

Recipient Information: Lee Davis
Name

P.O. Box 149
Street Address

North Manchester IN 46962
City State Zip Code

219-982-2181
Telephone Number

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number IND981952831

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8901-025; PAN: FIN0681SB
Yellow: Recipient
Pink: U.S. EPA

DRINKING WATER MEMORANDUM

DATE: 2/7/90

TO: 1. William Messenger, U.S. EPA 2. IN

FROM: Dennis Palmer

SUBJECT: Drinking Water Sample Results

Sample RW3/EGL11/MEFZ57

Action Level

☐ No Contamination
No hits above any health-related standards.

☐ Lov Level Contamination
Hits just above health-related standards.

☐ Significant Contamination
Hits are above health-related standards.

☐ Please check the following. They are less than health-related standards but above detection limits.

☑ Please check secondary maximum contamination limits for:

Aluminum		Manganese	
Copper		Silver	
Iron	✓	Zinc	

QC 014

Sample: RW3/EGL 11/MEFZ 57

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards Status Reg. A	Standards MRDGL (ug/L)	Standards ACLG (ug/L)	Standards ACL (ug/L)	Status HA A	Health Advisories 10-kg Child One-Day (ug/L)	Health Advisories 10-kg Child Ten-Day (ug/L)	Health Advisories 10-kg Child Longer-Term (ug/L)	Health Advisories 70-kg Adult Longer-Term (ug/L)	Health Advisories 70-kg Adult RfD (ug/kg/day)	Health Advisories 70-kg Adult DWEL (ug/L)	Health Advisories 70-kg Adult Lifetime (ug/L)	Health Advisories ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Volatile Organics																		
CHLOROMETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
BROMOMETHANE	1.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
VINYL CHLORIDE	1.5				F	-	ZERO	2	F	3000	3000	10	50	-	-	-	1.5	A
CHLOROETHANE	1.5				L	-	-	-	D	-	-	-	50	-	-	-	-	-
METHYLENE CHLORIDE	1	0.9J			L	-	-	-	F	10000	2000	-	-	60	2000	-	300	B2
ACETONE	5																	
CARBON DISULFIDE	3																	
1,1-DICHLOROETHENE	1.5				F	-	7	7	F	2000	1000	1000	4000	9	400	7	-	C
1,1-DICHLOROETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
1,2-DICHLOROETHENE (TOTAL)	1.5				P	-	70	70	F	4000	1000	1000	1000	10	400	70	-	D
CHLOROFORM	1.5				L	100	-	-	D	-	-	-	-	10	-	-	600	B2
1,2-DICHLOROETHANE	1.5				F	-	ZERO	5	F	700	700	700	2600	-	-	-	40	B2
2-BUTANONE (MEK)	5				-	-	-	-	F	80000	8000	3000	9000	50	900	200	-	D
1,1,1-TRICHLOROETHANE	1.5				F	-	200	200	F	100000	40000	40000	100000	90	1000	200	-	D
CARBON TETRACHLORIDE	1.5				F	-	ZERO	5	F	4000	200	70	300	0.7	30	-	30	B2
VINYL ACETATE	5																	
BROMODICHLOROMETHANE	1.5				L	100	-	-	D	-	-	-	-	2	-	-	-	-
1,2-DICHLOROPROPANE	1.5				P	-	ZERO	5	F	-	90	-	-	-	-	-	60	B2
CIS-1,3-DICHLOROPROPENE	2				L	-	-	-	F	30	30	30	100	0.3	10	-	20	B2
TRICHLOROETHENE	1.5				F	-	ZERO	5	F	-	-	-	-	7	300	-	300	B2
DIBROMOCHLOROMETHANE	1.5				L	100	-	-	D	-	-	-	-	2	-	-	-	-
1,1,2-TRICHLOROETHANE	1.5				-	-	-	-	D	-	-	-	-	30	-	-	-	-
BENZENE	1.5				F	-	ZERO	5	F	200	200	-	-	-	-	-	100	A

DATA Report
Form 17
page 10 of 16

Sample: RW3 / EGL 11 / MEF8 57

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RfD (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Volatile Organics (cont)																		
TRANS-1,3-DICHLOROPROPENE	1				L	-	-	-	F	30	30	30	100	0.3	10	-	20	B2
BROMOFORM	1.5				L	100	-	-	D	-	-	-	-	20	-	-	-	-
4-METHYL-2-PENTANONE	1.5																	
2-HEXANONE	5																	
TETRACHLOROETHENE	1.5				P	-	ZERO	5	F	2000	2000	1000	5000	10	500	-	70	B2
TOLUENE	1.5			40 #	P	-	2000	2000	F	20000	3000	3000	10000	300	10000	2000	-	-
1,1,2,2-TETRACHLOROETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
CHLOROBENZENE	1.5			100 #	P	-	100	100	F	2000	2000	2000	7000	20	700	100	-	D
ETHYLBENZENE	1.5			30 #	P	-	700	700	F	30000	3000	1000	3000	100	3000	700	-	D
STYRENE	1			10 #	P	-	ZERO	5	F	20000	2000	2000	7000	200	7000	-	1	B2
XYLENES (TOTAL)	1.5			20 #	P	-	10000	10000	F	40000	40000	40000	10000	2000	40000	10000	-	D
2-CHLOROETHYL VINYL ETHER	1.5																	
ACROLEIN	25																	
ACRYLONITRILE	25				L	-	-	-	-	-	-	-	-	-	-	-	-	-

Form 17

page 2 of 16

Sample: RW3 /EGL11 /MEFZ57

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: HIPDGR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	Health Advisories: 10-kg Child: Ten-Day (ug/L)	Health Advisories: 10-kg Child: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: RID (ug/kg/day)	Health Advisories: 70-kg Adult: DWEL (ug/L)	Health Advisories: 70-kg Adult: Lifetime (ug/L)	Health Advisories: ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Semivolatile Organics																		
PHENOL	2				-	-	-	-	D	-	-	-	-	40	-	-	-	-
BIS(2-CHLOROETHYL)ETHER	1.5																	
2-CHLOROPHENOL	2				L	-	-	-	D	-	-	-	-	5	200	-	-	-
1,3-DICHLOROBENZENE	2				P	-	600	600	F	9000	9000	9000	30000	89	3000	600	-	D
1,4-DICHLOROBENZENE	2				F	-	75	75	F	10000	10000	10000	40000	100	4000	75	-	C
BENZYL ALCOHOL	2																	
1,2-DICHLOROBENZENE	2.5				P	-	600	600	F	9000	9000	9000	30000	89	3000	600	-	D
2-METHYLPHENOL	1																	
N-NITROSO-DI-N-DIPROPYLAMINE	1.5																	
HEXACHLOROETHANE	2																	
NITROBENZENE	2.5																	
ISOPHORONE	2.5				L	-	-	-	D	-	-	-	-	150	-	-	-	-
2-NITROPHENOL	2																	
2,4-DIMETHYLPHENOL	2																	
BENZOIC ACID	20																	
BIS(2-CHLOROETHOXYL)METHANE	2.5																	
2,4-DICHLOROPHENOL	2				L	-	-	-	D	-	-	-	-	3	100	-	-	-
1,2,4-TRICHLOROBENZENE	2				-	-	-	-	D	-	-	-	-	20	-	-	-	-
NAPHTHALENE	2				-	-	-	-	D	-	-	-	-	410	-	-	-	-
4-CHLOROANILINE	2																	
HEXACHLOROBUTADIENE	2.5				-	-	-	-	D	-	-	-	-	2	-	-	5	C
4-CHLORO-3-METHYLPHENOL	1.5																	
2-METHYLNAPHTHALENE	2																	

Form 17
page 3 of 16

Sample: RW3 /EGL 11 /MEFZ57

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards Status Reg. A	Standards NIPDWR (ug/L)	Standards ACLS (ug/L)	Standards RCL (ug/L)	Status RA A	Health Advisories 10-kg Child One-Day (ug/L)	Health Advisories 10-kg Child Ten-Day (ug/L)	Health Advisories 10-kg Child Longer-Term (ug/L)	Health Advisories Longer-Term (ug/L)	Health Advisories RfD (ug/kg/day)	Health Advisories 70-kg Adult DWEL (ug/L)	Health Advisories Lifetime (ug/L)	Health Advisories ug/L at 10-4 Cancer Risk	Cancer Group
[illegible]																		
Semivolatile Organics (cont)																		
HEXACHLOROCYCLOPENTADIENE	2				L	-	-	-	-	-	-	-	-	7	-	-	-	-
2,4,6-TRICHLOROPHENOL	1.5																	
2,4,5-TRICHLOROPHENOL	1.5																	
2-CHLORONAPHTHALENE	1.5																	
2-NITROANILINE	1																	
DIMETHYLPHTHALATE	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
ACENAPHTHYLENE	1.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
2,6-DINITROTOLUENE	1																	
3-NITROANILINE	2.5																	
ACENAPHTHENE	1.5																	
2,4-DINITROPHENOL	(15)																	
4-NITROPHENOL	1.5																	
DIBENZOFURAN	1																	
2,4-DINITROTOLUENE	1				L	-	-	-	D	-	-	-	-	-	-	-	-	-
DIETHYLPHTHALATE	1				-	-	-	-	D	-	-	-	-	800	-	-	-	D
4-CHLOROPHENYL-PHENYLETHER	1																	
FLUORENE	1								L	-	-	-	-	-	-	-	-	D
4-NITROANILINE	2																	
4,6-DINITRO-2-METHYLPHENOL	(15)																	
N-NITROSODIPHENYLAMINE A																		
DIPHENYLAMINE A	1.5																	
4-BROMOPHENYL-PHENYLETHER	1.5																	
HEXACHLOROBENZENE	1.5				-	-	-	-	E	50	50	50	200	0.8	30	-	2	B2

Form 17

page 4 of 16

Sample: RW3 IEGL 11 IMEFZ 57

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards Status Reg. A	Standards RIPDWR (ug/L)	Standards MCLG (ug/L)	Standards MCL (ug/L)	Status HA A	Health Advisories 10-kg Child One-Day (ug/L)	Health Advisories 10-kg Child Ten-Day (ug/L)	Health Advisories 10-kg Child Longer-Term (ug/L)	Health Advisories 70-kg Adult Longer-Term (ug/L)	Health Advisories 70-kg Adult RfD (ug/kg/day)	Health Advisories 70-kg Adult DWEL (ug/L)	Health Advisories 70-kg Adult Lifetime (ug/L)	Health Advisories ug/L at 10-4 Cancer Risk	Cancer Group
~~COMPOUND DETECTED~~																		
Semivolatile Organics (cont)																		
PENTACHLOROPHENOL	2			30 #	P	-	200	200	F	1000	300	300	1000	30	1000	200	-	D
PHENANTHRENE	1				L	-	-	-	-	-	-	-	-	-	-	-	-	-
ANTHRACENE	2.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
DI-N-BUTYLPHTHALATE	2				L	-	-	-	-	-	-	-	-	100	-	-	-	D
FLUORANTHENE	1.5																	
PYRENE	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
BUTYLBENZYLPHTHALATE	3.5				L	-	-	-	-	-	-	-	-	200	-	-	-	C
BENZO(A)ANTHRACENE AA					L	-	-	-	-	-	-	-	-	-	-	-	-	B2
CHRYSENE AA	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BIS(2-ETHYLHEXYL)PHTHALATE	1				-	-	-	-	D	-	-	-	-	20	-	-	-	B2
DI-N-OCTYLPHTHALATE	1.5																	
BENZO(B)FLUORANTHENE AAA					L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(K)FLUORANTHENE AAA	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(A)PYRENE	2				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
INDENO(1,2,3-C,D)PYRENE	3.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
DIBENZO(A,H)ANTHRACENE	2.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(G,H,I)PERYLENE	4				L	-	-	-	-	-	-	-	-	-	-	-	-	D
4-METHYLPHENOL	1																	
BIS(2-CHLOROISOPROPYL)ETHER	2.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
AMILINE	1.5																	
1,2-DIPHENYLHYDRAZINE	1																	

Form 17

Page 5 of 16

Sample: RW3 /EGL11 /MEFZ57

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MCDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Health Advisories: Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	Health Advisories: 10-kg Child: Ten-Day (ug/L)	Health Advisories: 10-kg Child: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: RfD (ug/kg/day)	Health Advisories: 70-kg Adult: DWEL (ug/L)	Health Advisories: 70-kg Adult: Lifetime (ug/L)	Health Advisories: ug/L at 10-4 Cancer Risk	Cancer Group
COMMON DRINKING																		
Pesticides/PCBs																		
ALPHA BHC	(0.010)																	
BETA BHC	(0.005)																	
DELTA BHC	(0.005)																	
GAMMA BHC (LINDANE)	0.005				P	4	0.2	0.2	F	1000	1000	30	100	0.3	10	0.2	3	C
HEPTACHLOR	0.030				P	-	ZERO	0.4	F	10	10	5	5	0.5	20	-	0.8	B2
ALDRIN	0.005																	
HEPTACHLOR EPOXIDE	0.005				P	-	ZERO	0.2	F	10	-	0.1	0.1	0.013	0.4	-	0.4	B2
ENDOSULFAN I	0.010																	
DIELDRIN	0.010				L	-	-	-	F	0.5	0.5	0.5	2	0.05	2	-	0.2	B2
4,4'-DDE	(0.005)																	
ENDRIN	0.010				L	0.2	-	-	F	20	5	5	20	0.015	2	0.3	-	E
ENDOSULFAN II	0.010																	
4,4'-DDD	(0.020)																	
ENDOSULFAN SULFATE	(0.10)																	
4,4'-DDT	0.020																	
METHOXYCHLOR (MARIATE)	0.020				P	100	100	100	F	6000	2000	300	2000	50	2000	100	-	D
ENDRINE ALDEHYDE	(0.030)																	
ENDRIN KETONE	(0.030)																	
CHLORDANE	(0.020)				P	-	ZERO	2	F	60	60	0.5	0.5	0.045	2	-	2	B2
ALPHA CHLORDANE	0.020																	
GAMMA CHLORDANE	0.020																	
TOXAPHENE	(0.75)				P	5	ZERO	5	F	300	10	-	-	100	-	-	3	B2
AROCLOR 1016	0.10				P	-	ZERO	0.5	P	-	-	1	1	-	-	-	0.5	B2

Form 17

Page 6 of 16

Sample: RW3 /EGL11 /MEFZ 57

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: HIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	Health Advisories: 10-kg Child: Ten-Day (ug/L)	Health Advisories: 10-kg Child: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: RfD (ug/kg/day)	Health Advisories: 70-kg Adult: DWLL (ug/L)	Health Advisories: 70-kg Adult: Lifetime (ug/L)	Health Advisories: ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Pesticide/PCBs (cont)																		
AROCLOR 1221	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1232	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1242	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1248	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1254	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1260	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2

Form 17

page 7 of 16

Sample: RW3 /EGL11 /MEFZ57

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RID (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																			
Analyte Detected	Method																		
ALUMINUM	P	100		34B	50 #	L	-	-	-	D	-	-	-	-	-	-	-	-	-
ANTIMONY	F	5				L	-	-	-	D	-	-	-	-	0.4	-	-	-	-
ARSENIC	F	5				P	50	ZERO	30	D	-	-	-	-	1	-	50	3	A
BARIUM	P	50	93.6			P	1000	5000	5000	F	5000	5000	5000	5000	-	-	5000	-	D
BERYLLIUM	F	5	6.7 JN			L	-	-	-	D	-	-	-	-	5	-	-	-	B2
CADMIUM	F	0.5				P	10	5	5	F	40	40	5	20	0.5	20	5	-	D
CALCIUM	P	1000	49700	25.1B															
CHROMIUM	F	10				P	50	100	100	F	1000	1000	200	800	5	200	100	-	D
COBALT	P	10																	
COPPER	P	10	18.4 JN	38.5JN	1000 #														
IRON	P	100	881		300 #														
LEAD (at source)	F	2				P	-	ZERO	5	-	-	-	-	-	-	-	-	-	-
LEAD (at tap)	F	2				P	50	ZERO	TT	-	-	-	-	-	-	-	-	-	-
MAGNESIUM	P	1000	23000	11.7B															
MANGANESE	P	10	51.5		50 #	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MERCURY	CV	0.2				P	2	2	2	F	-	-	-	-	0.3	10	2	-	D
NICKEL	P	20				L	-	-	-	F	1000	1000	2000	600	20	600	200	-	D
POTASSIUM	P	2000	2280																
SELENIUM	F	2				P	10	50	50	-	-	-	-	-	-	-	-	-	-
SILVER	P	5			50 #	L	50	-	-	D	-	-	-	-	3	-	-	-	-
SODIUM	P	1000	36200	240B		L	-	-	-	D	-	-	-	-	-	20000	-	-	-
THALLIUM	F	2				L	-	-	-	D	-	-	-	-	0.07	-	-	-	-
TIN	P	40																	

Form 17

page 8 of 16

Sample: RW3 /EGL 11 /MEF8 57

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Status Reg. A	Standards MRDWQ (ug/L)	Standards MCLG (ug/L)	Standards MCL (ug/L)	Status HA A	Health Advisories 10-kg Child One-Day (ug/L)	Health Advisories 10-kg Child Ten-Day (ug/L)	Health Advisories 10-kg Child Longer-Term (ug/L)	Health Advisories 70-kg Adult Longer-Term (ug/L)	Health Advisories 70-kg Adult RfD (ug/kg/day)	Health Advisories 70-kg Adult DWEL (ug/L)	Health Advisories 70-kg Adult Lifetime (ug/L)	Health Advisories ug/l at 10-4 Cancer Risk	Cancer Group
Analyte Detected																			
Analyte Detected (cont)																			
VANADIUM	P	10				L	-	-	-	D	-	-	-	-	20	-	-	-	-
ZINC	P	10	87.1	6.78	5000 #	L	-	-	-	D	-	-	-	-	-	-	-	-	-
CYANIDE	C	10				L	-	-	-	E	200	200	200	800	22	800	200	-	D
BORON	P	100																	
LITHIUM	P	10																	
MOLYBDENUM	P	15																	
TITANIUM	P	15																	
STRONTIUM	P	10																	
YTTRIUM	P	1																	

Detection Limits:
A These Two Parameters Are Reported As A Total
AA These Two Parameters Are Reported As A Total
AAA These Two Parameters Are Reported As A Total
Values In Parentheses Are Estimates. Actual Values Are Being Determined At This Time.

NT - Not Tested For

Form 17

Page 9 of 16

DESCRIPTION AND QUALIFIERS

The following are descriptions of the 19 columns listed on the table and the qualifiers to clarify the analytical and health related values.

Column	Description
1. Sample Collection Information and Parameters.	The compounds and analytes analyzed for on this water sample.
2. Detection Limits	The detection limits that a laboratory must meet as part of the analytical service contact.
3. Sample Results	The value determined by this analysis.
4. Lab Blank	Laboratory contamination that may be found in the laboratory blank. A quality control check.
5. Comments	The water reviewer's comments on the usability of the value in the Sample Results column.
6. Status Reg	F-final D-draft L-listed for regulation P-proposed (Phase II draft proposal, based on levels proposed in 1985).

7. NIPDWR- National Interim Primary Drinking Water Regulations: refers to the interim regulatory requirements under the Safe Drinking Water Act (SDWA) of 1974. The NIPDWR specified maximum allowable levels for 22 different contaminants at the consumer's drinking water tap. These interim standards, known as Maximum Contaminant Levels (MCL), were promulgated for 22 contaminants in March 1975, with the intention of revising and promulgating the final National Primary Drinking Water Regulations (NPDWR) a few years later. The values listed in this column are the original MCLs assigned under the interim regulations. The NPDWRs were effected under the SDWA Amendments of June 19, 1986. These revised regulations specify MCLs or treatment techniques for additional contaminants. At this time, 8 additional contaminants (synthetic volatile organic chemicals) have also been

Form 17 page 10 of 16

assigned MCLs. (Code of Federal Regulations, Chapter 40, part 141, et seq.)

8. MCLG- Maximum Contaminant Level Goal: Under the National Primary Drinking Water Regulations, the term MCLG now replaces the previous term RMCL or recommended Maximum Contaminant Levels. Under the 1986 SDWA Amendments, any NPDWR which establishes an MCL must also simultaneously publish an MCLG at the time of proposed rulemaking and promulgation. The MCLG is the maximum level of a contaminant at which no known or anticipated adverse human health effects would occur, and which include an adequate margin of safety. MCLGs are nonenforceable health goals.

9. MCL- Maximum Contaminant Level: Derived from the MCLG, the MCL is the maximum permissible level of a contaminant in drinking water which is delivered to the consumers' tap and used by the general public for drinking. MCLs are legally enforceable. The standards reflect the best achievable levels considering the occurrence, relative source contribution factors, monitoring capability, cost of treatment, available technology and health effects. The standards listed in this column for each contaminant under the NIPDWR are either newly promulgated or revised from the NIPDWR. In a few cases, the enforceable standard has changed; however, in most cases (when comparing columns headed NIPDWR and MCL) the existing interim standard has been revised or has been newly developed.

10. Status HA

F-final
D-draft
L-listed for regulation
P-proposed (Phase II draft proposal, based on levels proposed in 1985).

Health Advisories

The Health Advisory (HA) program is sponsored by the Office of Drinking Water (ODW), and provides information on the health effects, analytical methods and treatment technology useful for dealing with drinking water contamination. Health advisories describe nonregulatory concentrations of drinking water contaminants at which adverse health effects would not be anticipated to occur over specific exposure durations. Health advisories contain a margin of safety, to protect sensitive members of the population. The Health Advisories are developed for one-day, ten-day, longer term and lifetime exposures based on data describing non carcinogenic endpoints of toxicity. The advisories are intended to serve as informal technical guidance to assist Federal, State, and local officials when emergency spills or contaminant situations occur. THEY ARE NOT CONSTRUED AS LEGALLY ENFORCEABLE FEDERAL STANDARDS AND ARE SUBJECT TO CHANGE AS NEW INFORMATION BECOMES AVAILABLE.

Health Advisory values for the adult are derived in the same way as for the 10-kg child. Again, certain assumptions are made: The adult is assumed to weigh 70-kg and consume 2 liters of water per day.

10-KG Child

11.	1 day	The child is assumed to be a more sensitive population entity. Included in this assumption, is that the body weight of a child is 10 kg and that one liter of water per day is ingested. Under these and other assumption specific to the available toxicological data bases, Health Advisory values have been derived and listed in the respective columns for one-day, ten-day and longer term exposures. Longer term is defined as approximately 7 years, or 10 percent of an individual's lifetime.
12.	10 day	
13.	Longer term	

70-KG Adult

14.	Longer term	As with the 10-kg child, longer term exposure is approximately 7 years or 10 percent of an individual's lifetime.
15.	RfD	Reference Dose: formerly known as the Acceptable Daily Intake (ADI), the RfD is an estimate of a daily exposure to the human population (including sensitive subpopulations) that is likely to be without appreciable risk or deleterious effects over a lifetime. The RfD is expressed in units of daily dose.
16.	DWEL	Drinking Water Equivalent Lifetime: The medium-specific (i.e., drinking water) lifetime exposure level, assuming 100 percent exposure from that medium, at which adverse noncarcinogenic health effects would not be expected to occur. The DWEL is derived from multiplying the RfD by the adult body weight (70kg) and divided by the adult daily water consumption (2 liters/day)
17.	Lifetime	Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. If data are unavailable, a value of 20 percent is assumed for synthetic organic chemical contaminants and a value of 10 percent assumed for inorganic chemical contaminants. The lifetime Health Advisory is determined by multiplying the DWEL by the relative source contribution from drinking water.

Form 17
page 12 of 16

18. µg/L as 10^{-4} Cancer Risk — This column contains values indicating the concentration of the particular contaminant in drinking water that would produce as 10^{-4} excess lifetime cancer risk. Simply stated, if a group of 10,000 persons was exposed to the contaminant at its respective concentration listed in this column, then one individual in the group might be expected to develop cancer (above background incidence) solely from exposure to that contaminant in drinking water.

19. Cancer Group — The Office of Health and Environmental Assessment (OHEA) within EPA's Office of Research and Development (ORD) has developed guidelines for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on the weight of evidence:

Group A - Human carcinogen
Group B - Probable human carcinogen
  Group B consists of two sub-classifications:
    B_1 - limited human evidence but sufficient animal evidence
    B_2 - Sufficient animal evidence, but inadequate or no human evidence
Group C - Possible human carcinogen
Group D - Not classified as to human carcinogenicity
Group E - Evidence of noncarcinogenicity for humans

Qualifiers Used For The Health Related Table

NA - not applicable
PS - performance standard 0.5 NTU - 1.0 NTU
TT - treatment technique
** - no more than 5% of the samples may be positive. For systems collecting fewer than 40 samples/month, no more than 1% may be positive.
*** - guidance
+ - large discrepancies between Lifetime and Longer term HA values may occur because of the Agency's conservative policies, especially with regard to carcinogenicity, relative source contribution, and less than lifetime exposures in chronic toxicity testing. These factors can result in a cumulative UF (uncertainty factor) of 10 to 1,000 when calculating a Lifetime HA.

2306:6

Form 17
page 13 of 16

ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is 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.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
s	s	Analysis by Method of Standard Additions.	Value may be quantitative.
R	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	M	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnance AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

0113:1

Form 17 page 14 of 16

ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is 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.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE		DEFINITION	INTERPRETATION
OLD	NEW		
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
s	s	Analysis by Method of Standard Additions.	Value may be quantitative.
R	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	M	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnance AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

0113:1

Form 17
Page 15 of 16

D. Analytical Method Qualifiers for Inorganic

"P" for ICP

"A" for Flame AA

"F" for Furnance AA

"CV" for Manual Cold Vapor AA

"AV" for Automated Cold Vapor AA

"AS" for Semi-automated Spectrophotometric

"C" for Manual Spectrophotometric

"T" for Titrimetric

"NR" if the analyte is not required to be analyzed.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

RW 1
~120 Ct.

REPLY TO THE ATTENTION OF:

Sample Collection Date: 10 - 10 - 89

Recipient Information: North Manchester Water Department
Name

407 E. Main Street
Street Address

North Manchester IN 46962
City State Zip Code

(219) 982-2993
Telephone Number

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number IND 981952831

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8901-025; PAN: FIN06815B
Yellow: Recipient
Pink: U.S. EPA

DRINKING WATER MEMORANDUM

DATE: 2/7/90

TO: 1. William Messenger, U.S. EPA 2. IN

FROM: Dennis Palmer

SUBJECT: Drinking Water Sample Results

Sample RW 1/EGL08/MEFZ54

Action Level

- [ ] No Contamination
  No hits above any health-related standards.
- [ ] Low Level Contamination
  Hits just above health-related standards.
- [ ] Significant Contamination
  Hits are above health-related standards.

- [ ] Please check the following. They are less than health-related standards but above detection limits.

- [x] Please check secondary maximum contamination limits for:

Aluminum	✓	Manganese	✓
Copper	✓	Silver	
Iron	✓	Zinc	

Tom Clyne

Tom Clyne

Sample: RW1 / EGL08 / MEFZ 54

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDOR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RID (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Volatile Organics																		
CHLOROMETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
BROMOMETHANE	1.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
VINYL CHLORIDE	1.5				F	-	ZERO	2	F	3000	3000	10	50	-	-	-	1.5	A
CHLOROETHANE	1.5				L	-	-	-	D	-	-	-	50-	-	-	-	-	-
METHYLENE CHLORIDE	1	0.6 J			L	-	-	-	F	10000	2000	-	-	60	2000	-	300	B2
ACETONE	5																	
CARBON DISULFIDE	3																	
1,1-DICHLOROETHENE	1.5				F	-	7	7	F	2000	1000	1000	4000	9	400	7	-	C
1,1-DICHLOROETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
1,2-DICHLOROETHENE (TOTAL)	1.5				P	-	70	70	F	4000	1000	1000	1000	10	400	70	-	D
CHLOROFORM	1.5				L	100	-	-	D	-	-	-	-	10	-	-	600	B2
1,2-DICHLOROETHANE	1.5				F	-	ZERO	5	F	700	700	700	2600	-	-	-	40	B2
2-BUTANONE (MEK)	5				-	-	-	-	F	80000	8000	3000	9000	50	900	200	-	D
1,1,1-TRICHLOROETHANE	1.5				F	-	200	200	F	100000	40000	40000	100000	90	1000	200	-	D
CARBON TETRACHLORIDE	1.5				F	-	ZERO	5	F	4000	200	70	300	0.7	30	-	30	B2
VINYL ACETATE	5																	
BROMODICHLOROMETHANE	1.5				L	100	-	-	D	-	-	-	-	2	-	-	-	-
1,2-DICHLOROPROPANE	1.5				P	-	ZERO	5	F	-	90	-	-	-	-	-	60	B2
CIS-1,3-DICHLOROPROPENE	2				L	-	-	-	F	30	30	30	100	0.3	10	-	20	B2
TRICHLOROETHENE	1.5				F	-	ZERO	5	F	-	-	-	-	7	300	-	300	B2
DIBROMOCHLOROMETHANE	1.5				L	100	-	-	D	-	-	-	-	2	-	-	-	-
1,1,2-TRICHLOROETHANE	1.5				-	-	-	-	D	-	-	-	-	30	-	-	-	-
BENZENE	1.5				F	-	ZERO	5	F	200	200	-	-	-	-	-	100	A

DATA Report
Form 17
page 1 of 16

Sample: RW1/EG108/MEF8 54

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: State Reg. A	Standards: MTBWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	State HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RfD (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
~~COMPOUND DETECTED~~																		
Volatile Organics (cont)																		
TRANS-1,3-DICHLOROPROPENE	1				L	-	-	-	E	30	30	30	100	0.3	10	-	20	B2
BROMOFORM	1.5				L	100	-	-	E	-	-	-	-	20	-	-	-	-
4-METHYL-2-PENTANONE	1.5																	
2-HEXANONE	5																	
TETRACHLOROETHENE	1.5				P	-	ZERO	5	E	2000	2000	1000	5000	10	500	-	70	B2
TOLUENE	1.5			40 #	P	-	2000	2000	E	20000	3000	3000	10000	300	10000	2000	-	-
1,1,2,2-TETRACHLOROETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
CHLOROBENZENE	1.5			100 #	P	-	100	100	E	2000	2000	2000	7000	20	700	100	-	D
ETHYLBENZENE	1.5			30 #	P	-	700	700	E	30000	3000	1000	3000	100	3000	700	-	D
STYRENE	1			10 #	P	-	ZERO	5	E	20000	2000	2000	7000	200	7000	-	1	B2
XYLENES (TOTAL)	1.5			20 #	P	-	10000	10000	E	40000	40000	40000	10000	2000	60000	10000	-	D
2-CHLOROETHYL VINYL ETHER	1.5																	
ACROLEIN	25																	
ACRYLONITRILE	25				L	-	-	-	-	-	-	-	-	-	-	-	-	-

Form 17

page 2 of 16

Sample: RW1 /EG108/MEFZ54

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MRDDR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	Health Advisories: 10-kg Child: Ten-Day (ug/L)	Health Advisories: 10-kg Child: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: RfD (ug/kg/day)	Health Advisories: 70-kg Adult: DWEL (ug/L)	Health Advisories: 70-kg Adult: Lifetime (ug/L)	Health Advisories: ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Semivolatile Organics																		
PHENOL	2				-	-	-	-	D	-	-	-	-	40	-	-	-	-
BIS(2-CHLOROETHYL)ETHER	1.5																	
2-CHLOROPHENOL	2				L	-	-	-	D	-	-	-	-	5	200	-	-	-
1,3-DICHLOROBENZENE	2				F	-	600	600	F	9000	9000	9000	30000	89	3000	600	-	D
1,4-DICHLOROBENZENE	2				F	-	75	75	F	10000	10000	10000	40000	100	4000	75	-	C
BENZYL ALCOHOL	2																	
1,2-DICHLOROBENZENE	2.5				F	-	600	600	F	9000	9000	9000	30000	89	3000	600	-	D
2-METHYLPHENOL	1																	
N-NITROSO-DI-N-DIPROPYLAMINE	1.5																	
HEXACHLOROETHANE	2																	
NITROBENZENE	2.5																	
ISOPHORONE	2.5				L	-	-	-	D	-	-	-	-	130	-	-	-	-
2-NITROPHENOL	2																	
2,4-DIMETHYLPHENOL	2																	
BENZOIC ACID	20																	
BIS(2-CHLOROETHOXYL)METHANE	2.5																	
2,4-DICHLOROPHENOL	2				L	-	-	-	D	-	-	-	-	3	100	-	-	-
1,2,4-TRICHLOROBENZENE	2				-	-	-	-	D	-	-	-	-	20	-	-	-	-
NAPHTHALENE	2				-	-	-	-	D	-	-	-	-	410	-	-	-	-
4-CHLOROANILINE	2																	
HEXACHLOROBUTADIENE	2.5				-	-	-	-	D	-	-	-	-	2	-	-	5	C
4-CHLORO-3-METHYLPHENOL	1.5																	
2-METHYLNAPHTHALENE	2																	

Form 17

page 3 of 16

Sample: RW1 /EGL08 /MEFZ 54

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child One-Day (ug/L)	Health Advisories: 10-kg Child Ten-Day (ug/L)	Health Advisories: 10-kg Child Longer-Term (ug/L)	Health Advisories: 70-kg Adult Longer-Term (ug/L)	Health Advisories: 70-kg Adult RfD (ug/kg/day)	Health Advisories: 70-kg Adult DWEL (ug/L)	Health Advisories: 70-kg Adult Lifetime (ug/L)	Health Advisories: 70-kg Adult ug/L at 10-4 Cancer Risk	Cancer Group
COMPOUNDS DETECTED																		
Semivolatile Organics (cont)																		
HEXACHLOROCYCLOPENTADIENE	2				L	-	-	-	-	-	-	-	-	7	-	-	-	-
2,4,6-TRICHLOROPHENOL	1.5																	
2,4,5-TRICHLOROPHENOL	1.5																	
2-CHLORONAPHTHALENE	1.5																	
2-NITROANILINE	1																	
DIMETHYLPHTHALATE	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
ACENAPHTHYLENE	1.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
2,6-DINITROTOLUENE	1																	
3-NITROANILINE	2.5																	
ACENAPHTHENE	1.5																	
2,4-DINITROPHENOL	(15)																	
4-NITROPHENOL	1.5																	
DIBENZOFURAN	1																	
2,4-DINITROTOLUENE	1				L	-	-	-	D	-	-	-	-	-	-	-	-	-
DIETHYLPHTHALATE	1				-	-	-	-	D	-	-	-	-	800	-	-	-	D
4-CHLOROPHENYL-PHENYLETHER	1																	
FLUORENE	1								L	-	-	-	-	-	-	-	-	D
4-NITROANILINE	2																	
4,6-DINITRO-2-METHYLPHENOL	(15)																	
N-NITROSODIPHENYLAMINE A																		
DIPHENYLAMINE A	1.5																	
4-BROMOPHENYL-PHENYLETHER	1.5																	
HEXACHLOROBENZENE	1.5				-	-	-	-	E	50	50	50	200	0.8	30	-	2	B2

Form 17

page 4 of 16

Sample: RW1 1EGL08 /MEFZ54

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: RIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status WA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	Health Advisories: Longer-Term (ug/L)	70-kg Adult: RfD (ug/kg/day)	70-kg Adult: HNEL (ug/L)	70-kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
COMPOUND DETECTED																		
Semivolatile Organics (cont)																		
PENTACHLOROPHENOL	1			30 #	P	-	200	200	F	1000	300	300	1000	30	1000	200	-	D
PHENANTHRENE	1				L	-	-	-	-	-	-	-	-	-	-	-	-	-
ANTHRACENE	2.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
DI-N-BUTYLPHTHALATE	2				L	-	-	-	-	-	-	-	-	100	-	-	-	D
FLUORANTHENE	1.5																	
PYRENE	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
BUTYLBENZYLPHTHALATE	3.5				L	-	-	-	-	-	-	-	-	200	-	-	-	C
BENZO(A)ANTHRACENE AA					L	-	-	-	-	-	-	-	-	-	-	-	-	B2
CHRYSENE AA	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BIS(2-ETHYLHEXYL)PHTHALATE	1				-	-	-	-	D	-	-	-	-	20	-	-	-	B2
DI-N-OCTYLPHTHALATE	1.5																	
BENZO(B)FLUORANTHENE AA					L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(K)FLUORANTHENE AA	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(A)PYRENE	2				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
INDENO(1,2,3-C,D)PYRENE	3.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
DIBENZO(A,H)ANTHRACENE	2.5				L	-	-	-	-	-	-	-	-	-	-	-	-	B2
BENZO(G,H,I)PERYLENE	4				L	-	-	-	-	-	-	-	-	-	-	-	-	D
4-METHYLPHENOL	1																	
BIS(2-CHLOROISOPROPYL)ETHER	2.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
ANILINE	1.5																	
1,2-DIPHENYLHYDRAZINE	1																	

Form 17

Page 5 of 16

Sample: RW1 / EGL08 / MEFZ54

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RID (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																		
Pesticide/PCBs																		
ALPHA BHC	(0.010)																	
BETA BHC	(0.005)																	
DELTA BHC	(0.005)																	
GAMMA BHC (LINDANE)	0.005				P	4	0.2	0.2	F	1000	1000	30	100	0.3	10	0.2	3	C
HEPTACHLOR	0.030				P	-	ZERO	0.4	F	10	10	5	5	0.5	20	-	0.8	B2
ALDRIN	0.005																	
HEPTACHLOR EPOXIDE	0.005				P	-	ZERO	0.2	F	10	-	0.1	0.1	0.013	0.4	-	0.4	B2
ENDOSULFAN I	0.010																	
DIELDRIN	0.010				L	-	-	-	F	0.5	0.5	0.5	2	0.05	2	-	0.2	B2
4,4'-DDE	(0.005																	
ENDRIN	0.010				L	0.2	-	-	F	20	5	5	20	0.015	2	0.3	-	E
ENDOSULFAN II	0.010																	
4,4'-DDD	(0.020)																	
ENDOSULFAN SULFATE	(0.10)																	
4,4'-DDT	0.020																	
METHOXYCHLOR (MARIATE)	0.020				P	100	400	400	F	6000	2000	500	2000	50	2000	400	-	D
ENDRINE ALDEHYDE	(0.030)																	
ENDRIN KETONE	(0.030)																	
CHLORDANE	(0.020)				P	-	ZERO	2	F	60	60	0.5	0.5	0.045	2	-	3	B2
ALPHA CHLORDANE	0.020																	
GAMMA CHLORDANE	0.020																	
TOXAPHENE	(0.25)				P	5	ZERO	5	F	500	40	-	-	100	-	-	3	B2
AROCLOR 1016	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2

Form 17

page 6 of 16

Sample: RW1 1EGL08 1MEF254

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MTBDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RfD (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
COMPOUND DETECTED																		
Pesticide/PCBs (cont)																		
AROCLOR 1221	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1232	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1242	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1248	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1254	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1260	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2

Form 17

page 7 of 16

Sample: RW1 /EGL08 /MEFZ54

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status HA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RfD (ug/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
CONTROL DEVICES																			
Analyte Detected	METHOD																		
ALUMINUM	P	100	58.2 B	34 B	50 *	L	-	-	-	D	-	-	-	-	-	-	-	-	-
ANTIMONY	F	5				L	-	-	-	D	-	-	-	-	0.4	-	-	-	-
ARSENIC	F	5	8.4			P	50	ZERO	50	D	-	-	-	-	1	-	50	3	A
BARIUM	P	50	190			P	1000	5000	5000	F	5000	5000	5000	5000	-	-	5000	-	D
BERYLLIUM	F	5				L	-	-	-	D	-	-	-	-	5	-	-	-	B2
CADMIUM	F	0.5				P	10	5	5	F	40	40	5	20	0.5	20	5	-	D
CALCIUM	P	1000	103000	25.1 B															
CHROMIUM	F	10				P	50	100	100	F	1000	1000	200	800	5	200	100	-	D
COBALT	P	10																	
COPPER	P	10		38.5 JN	1000 *														
IRON	P	100	2490		300 *														
LEAD (at source)	F	2				P	-	ZERO	5	-	-	-	-	-	-	-	-	-	-
LEAD (at tap)	F	2				P	50	ZERO	TT	-	-	-	-	-	-	-	-	-	-
MAGNESIUM	P	1000	25200	11.7 B															
MANGANESE	P	10	62.5		50 *	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MERCURY	CV	0.2				P	2	2	2	F	-	-	-	-	0.3	10	2	-	D
NICKEL	P	20				L	-	-	-	F	1000	1000	2000	600	20	600	200	-	D
POTASSIUM	P	2000	1490																
SELENIUM	F	2				P	10	50	50	-	-	-	-	-	-	-	-	-	-
SILVER	P	5			50 *	L	50	-	-	D	-	-	-	-	3	-	-	-	-
SODIUM	P	1000	8280	240 B		L	-	-	-	D	-	-	-	-	-	20000	-	-	-
THALLIUM	F	2				L	-	-	-	D	-	-	-	-	0.07	-	-	-	-
TIN	P	10																	

Form 17

Page 8 of 16

Sample: RW1 /EGL08 /MEFB54

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION #1, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: NIPDWR (ug/L)	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Status MA A	Health Advisories: 10-kg Child: One-Day (ug/L)	Health Advisories: 10-kg Child: Ten-Day (ug/L)	Health Advisories: 10-kg Child: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: Longer-Term (ug/L)	Health Advisories: 70-kg Adult: RfD (ug/kg/day)	Health Advisories: 70-kg Adult: DWEL (ug/L)	Health Advisories: Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Compound Detected																			
Analyte Detected (cont)																			
VANADIUM	P	10				L	-	-	-	D	-	-	-	-	20	-	-	-	-
ZINC	P	20		67B	5000 #	L	-	-	-	D	-	-	-	-	-	-	-	-	-
CYANIDE	C	10				L	-	-	-	E	200	200	200	800	22	800	200	-	D
BORON	P	80																	
LITHIUM	P	10																	
MOLYBDENUM	P	15																	
TITANIUM	P	25																	
STRONTIUM	P	10																	
YTTRIUM	P	5																	

Detection Limits:
A These Two Parameters Are Reported As A Total
AA These Two Parameters Are Reported As A Total
AAA These Two Parameters Are Reported As A Total
Values In Parentheses Are Estimates. Actual Values Are Being Determined At This Time.

NT - Not Tested For

Form 17

Page 9 of 16

DESCRIPTION AND QUALIFIERS

The following are descriptions of the 19 columns listed on the table and the qualifiers to clarify the analytical and health related values.

Column	Description
1. Sample Collection Information and Parameters.	The compounds and analytes analyzed for on this water sample.
2. Detection Limits	The detection limits that a laboratory must meet as part of the analytical service contact.
3. Sample Results	The value determined by this analysis.
4. Lab Blank	Laboratory contamination that may be found in the laboratory blank. A quality control check.
5. Comments	The water reviewer's comments on the usability of the value in the Sample Results column.
6. Status Reg	F-final D-draft L-listed for regulation P-proposed (Phase II draft proposal, based on levels proposed in 1985).

7. NIPDWR- National Interim Primary Drinking Water Regulations: refers to the interim regulatory requirements under the Safe Drinking Water Act (SDWA) of 1974. The NIPDWR specified maximum allowable levels for 22 different contaminants at the consumer's drinking water tap. These interim standards, known as Maximum Contaminant Levels (MCL), were promulgated for 22 contaminants in March 1975, with the intention of revising and promulgating the final National Primary Drinking Water Regulations (NPDWR) a few years later. The values listed in this column are the original MCLs assigned under the interim regulations. The NPDWRs were effected under the SDWA Amendments of June 19, 1986. These revised regulations specify MCLs or treatment techniques for additional contaminants. At this time, 8 additional contaminants (synthetic volatile organic chemicals) have also been

assigned MCLs. (Code of Federal Regulations, Chapter 40, part 141, et seq.)

8. MCLG- Maximum Contaminant Level Goal: Under the National Primary Drinking Water Regulations, the term MCLG now replaces the previous term RMCL or recommended Maximum Contaminant Levels. Under the 1986 SDWA Amendments, any NPDWR which establishes an MCL must also simultaneously publish an MCLG at the time of proposed rulemaking and promulgation. The MCLG is the maximum level of a contaminant at which no known or anticipated adverse human health effects would occur, and which include an adequate margin of safety. MCLGs are nonenforceable health goals.

9. MCL- Maximum Contaminant Level: Derived from the MCLG, the MCL is the maximum permissible level of a contaminant in drinking water which is delivered to the consumers' tap and used by the general public for drinking. MCLs are legally enforceable. The standards reflect the best achievable levels considering the occurrence, relative source contribution factors, monitoring capability, cost of treatment, available technology and health effects. The standards listed in this column for each contaminant under the NIPDWR are either newly promulgated or revised from the NIPDWR. In a few cases, the enforceable standard has changed; however, in most cases (when comparing columns headed NIPDWR and MCL) the existing interim standard has been revised or has been newly developed.

10. Status HA

F-final
D-draft
L-listed for regulation
P-proposed (Phase II draft proposal, based on levels proposed in 1985).

Health Advisories

The Health Advisory (HA) program is sponsored by the Office of Drinking Water (ODW), and provides information on the health effects, analytical methods and treatment technology useful for dealing with drinking water contamination. Health advisories describe nonregulatory concentrations of drinking water contaminants at which adverse health effects would not be anticipated to occur over specific exposure durations. Health advisories contain a margin of safety, to protect sensitive members of the population. The Health Advisories are developed for one-day, ten-day, longer term and lifetime exposures based on data describing non carcinogenic endpoints of toxicity. The advisories are intended to serve as informal technical guidance to assist Federal, State, and local officials when emergency spills or contaminant situations occur. THEY ARE NOT CONSTRUED AS LEGALLY ENFORCEABLE FEDERAL STANDARDS AND ARE SUBJECT TO CHANGE AS NEW INFORMATION BECOMES AVAILABLE.

Form 17
page 11 of 16

Health Advisory values for the adult are derived in the same way as for the 10-kg child. Again, certain assumptions are made: The adult is assumed to weigh 70-kg and consume 2 liters of water per day.

10-KG Child

11.	1 day	The child is assumed to be a more sensitive population entity. Included in this assumption, is that the body weight of a child is 10 kg and that one liter of water per day is ingested. Under these and other assumption specific to the available toxicological data bases, Health Advisory values have been derived and listed in the respective columns for one-day, ten-day and longer term exposures. Longer term is defined as approximately 7 years, or 10 percent of an individual's lifetime.
12.	10 day	
13.	Longer term	

70-KG Adult

14.	Longer term	As with the 10-kg child, longer term exposure is approximately 7 years or 10 percent of an individual's lifetime.
15.	RfD	Reference Dose: formerly known as the Acceptable Daily Intake (ADI), the RfD is an estimate of a daily exposure to the human population (including sensitive subpopulations) that is likely to be without appreciable risk or deleterious effects over a lifetime. The RfD is expressed in units of daily dose.
16.	DWEL	Drinking Water Equivalent Lifetime: The medium-specific (i.e., drinking water) lifetime exposure level, assuming 100 percent exposure from that medium, at which adverse noncarcinogenic health effects would not be expected to occur. The DWEL is derived from multiplying the RfD by the adult body weight (70kg) and divided by the adult daily water consumption (2 liters/day)
17.	Lifetime	Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. If data are unavailable, a value of 20 percent is assumed for synthetic organic chemical contaminants and a value of 10 percent assumed for inorganic chemical contaminants. The lifetime Health Advisory is determined by multiplying the DWEL by the relative source contribution from drinking water.

Form 17
page 12 of 16

18. µg/L as 10^{-4} Cancer Risk — This column contains values indicating the concentration of the particular contaminant in drinking water that would produce as 10^{-4} excess lifetime cancer risk. Simply stated, if a group of 10,000 persons was exposed to the contaminant at its respective concentration listed in this column, then one individual in the group might be expected to develop cancer (above background incidence) solely from exposure to that contaminant in drinking water.

19. Cancer Group — The Office of Health and Environmental Assessment (OHEA) within EPA's Office of Research and Development (ORD) has developed guidelines for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on the weight of evidence:

Group A - Human carcinogen
Group B - Probable human carcinogen
  Group B consists of two sub-classifications:
    B_1 - limited human evidence but sufficient animal evidence
    B_2 - Sufficient animal evidence, but inadequate or no human evidence
Group C - Possible human carcinogen
Group D - Not classified as to human carcinogenicity
Group E - Evidence of noncarcinogenicity for humans

Qualifiers Used For The Health Related Table

NA - not applicable
PS - performance standard 0.5 NTU - 1.0 NTU
TT - treatment technique
** - no more than 5% of the samples may be positive. For systems collecting fewer than 40 samples/month, no more than 1% may be positive.
*** - guidance
+ - large discrepancies between Lifetime and Longer term HA values may occur because of the Agency's conservative policies, especially with regard to carcinogenicity, relative source contribution, and less than lifetime exposures in chronic toxicity testing. These factors can result in a cumulative UF (uncertainty factor) of 10 to 1,000 when calculating a Lifetime HA.

Form 17
page 13 of 16

ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is 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.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
s	s	Analysis by Method of Standard Additions.	Value may be quantitative.
R	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	M	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnance AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

0113:1

Form II
page 14 of 16

ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is 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.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to inteference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
s	s	Analysis by Method of Standard Additions.	Value may be quantitative.
N	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions in less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	M	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnance AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

0113:1

Form 17
page 15 of 16

D. Analytical Method Qualifiers for Inorganic

"P" for ICP

"A" for Flame AA

"F" for Furnance AA

"CV" for Manual Cold Vapor AA

"AV" for Automated Cold Vapor AA

"AS" for Semi-automated Spectrophotometric

"C" for Manual Spectrophotometric

"T" for Titrimetric

"NR" if the analyte is not required to be analyzed.

B - This flag is used when the analyte is 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. This flag must be used for a TIC as well as for a positively identified TCL compound.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. 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 shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: For total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered separately, e.g., a diluted analysis is not required for total xylenes unless the concentration of either peak separately exceeds 200 ug/L.

D - This flag 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 above, the "DL" suffix is appended to the sample number on the Form I for the diluted sample, and all concentration values reported on that Form I are flagged with the "D" flag.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

X - Other specific flags may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the Case Narrative. Begin by using "X". If more than one flag is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B", and "D" flags for some sample.

The combination of flags "BU" or"UB" is expressly prohibited. Blank contaminants are flagged "B" only when they are also detected in the sample.

If analyses at two different dilution factors are required (see Exhibit D), follow the data reporting instructions given in Exhibit D and with the "D" and "E" flags above.

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
(For CLP Use Only)

Case Number: 12901
SAS No. (if applicable):

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

2. Region Number: I
Sampling Co.: FIT
Sampler (Name): Angelo [illegible]
3. Ship To: SLP [illegible] (SLP) [illegible] 77054 [illegible] Rielsen

4. Date Shipped: 10-12-89
Airbill Number: 1060847020
Carrier: F

Triple volume required for matrix spike/duplicate aqueous sample.
Ship medium and high concentration samples in paint cans.
See reverse for additional instructions.

5. Date Received: 10-13-89
Received by: D. Gonzalez
Laboratory Contract Number: 68-01-7431
Unit Price: $88200 0
6. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number	(H) Sample Condition on Receipt	(I) High Conc. Phases (Check below) Solid	Water—MIS Liq.	Non Water—MIS Liq.
LGN15	5	L	X						MCF261				
LGN16	5	L	X						MCF262				
LGN17	5	L	X						MCF263				
LGL18	5	L	X						MCF264				
LGL19	5	L	X						MCF265				
LGL20	5	L	X						MCF266				
LGL21	5	L	X						MCF267				
LGL22	5	L	X						MCF268				
									SDG-EGL18				
									SDG- FINAL SAMPLE				
						Shipment is complete							

000041

EPA Form 9110-2 (8-88) Replaces EPA Form 2075-7, which may be used Blue - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

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
(For CLP Use Only)

Case Number: 12[illegible]
SAS No. (if applicable):

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

2. Region Number: V
Sampling Co.: FIT
Sampler (Name): Angelo Carpodimis

3. Ship To: SLI Inc (SLP) [illegible] Innovation Drive [illegible] TX 77054 [illegible] Kelsey

Triple volume required for matrix spike/duplicate aqueous sample.
Ship medium and high concentration samples in paint cans.
See reverse for additional instructions.

4. Date Shipped: 10/12/89
Airbill Number: 1060849064
Carrier: F

5. Date Received: 10-13-89
Received by: D. Gonzalez
Laboratory Contract Number: 68-01-7431
Unit Price: $882000

6. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number	(H) Sample Condition on Receipt	(I) High Conc. Phases (Check below) Solid	Water—MIS Liq.	Non Water—MIS Liq.
EGL 23	2	L	X			MS1 + MSD			MLRZ 69				
EGL 24	2	L	X						MLRZ 70				
EGL 25	2	L	X						MLRZ 71				
~~EGL 26~~	~~2~~	~~L~~	~~X~~						~~MLRZ 72~~				
~~EGL 26.27~~	~~2~~	~~L~~	~~X~~						~~MLRZ 73~~				
EGL 28	3	L	X			BLK			MLRZ 74				
									SDG- EGL18				
			Shipment is complete					CH 10-13-89	~~SDG-F~~				

000043

EPA Form 9110-2 (8-88) Replaces EPA Form 2075-7, which may be used. Blue - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

SAMPLE DELIVERY GROUP (SDG)
TRAFFIC REPORT (TR) COVER SHEET

Lab Name: SPL HOUSTON Contract No.: 68-01-7431

Lab Code: SPL Case No.: 12901 SAS No.: _____-____

Full Sample Analysis Price in Contract: $882000

SDG No./First Sample in SDG: EGL18 Sample Receipt Date: 10/13/89 (MM/DD/YY)
(Lowest EPA Sample Number in first shipment of samples received under SDG)

Last Sample in SDG: EGN17 Sample Receipt Date: 10/13/89 (MM/DD/YY)
(Highest EPA Sample Number in last shipment of samples received under SDG)

EPA Sample Numbers in the SDG (listed in alphanumeric order):

1	EGL18	11	EGN16
2	EGL19	12	EGN17
3	EGL20	13	
4	EGL21	14	
5	EGL22	15	
6	EGL23	16	
7	EGL24	17	
8	EGL25	18	
9	EGL28	19	
10	EGN15	20	

Note: There are a maximum of 20 field samples in an SDG.

Attach Traffic Reports to this form in an alphanumeric order (i.e., the order listed on this form).

000042

Darline Gonzales
Sample Custodian

10/13/89
Date

Confined X

SAMPLE PROPOSAL
FIT REGION V

1. Date Form Completed 9/15/89

2. Account # FIN0 681S B TDD # F05-8901-025

EPA I.D. # IND981952831

3. Site Name, City, State North Manchester Foundry Landfill
North Manchester, IN

4. Team Leader Larry Lueck Sampler Angelo Carpodinis

5. Number and Type of Samples:

Soil/Sediment 8 Surface Water – Ground Water 4 –

Residential/Municipal Wells 5 Other

Number of Blanks 2 Number of Duplicates 2

only took LW 2 cause that soil flow were

6. RAS Parameters Requested:

A/B/N X Pest/PCB X Volatiles X Metals X Cyanide X

SAS Parameters Requested:

7. Expected Sampling Date(s): W/O 10/9

Expected Shipping Date(s): W/O 10/9

8. Lab Used For Analysis: Organic SOIL BNA P/P LOW H2O " " HAZLET LOW SOIL + H2O VOA (SPL) RW - COMPUCHEM

Inorganic SOIL/H2O COLUMBIA RW VERSAR

SAS

9. Case Number 12901 SAS Number 4801E/4801E

10. Airbill Numbers:

ABN P/P Organic Lab HAZLET 1060849101 # Coolers 2 # Samples 4 LW

Inorganic Lab COLUMBIA 1060849053 # Coolers 1 # Samples 4 LW

VOA ~~CRL/SAS Lab~~ SLP 1060849020 # Coolers 1 # Samples 4 LW

10/12

RW Compuchem 3888096133 1060849042 C 1 S 7

RW Versar 1060849016 C 1 S 7

10/10

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill

CASE NUMBER 12901

SAMPLE #/STATION LOCATION S1

SAMPLING DATE 10-12-89 SAMPLING TIME 1220

ORGANIC TRAFFIC NUMBER E-GN15

INORGANIC TRAFFIC NUMBER MEF261

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	Extractables	5-134417	F9206133
8 oz	Metals / CN⁻	5-134420	F9206133
120 ml	VOA	5-134418	G6170858
120 ml	VOA	5-134419	G6170858

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Brown Clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill

CASE NUMBER 12901

SAMPLE #/STATION LOCATION S2

SAMPLING DATE 10-12-89 SAMPLING TIME 1300

ORGANIC TRAFFIC NUMBER E-GN16

INORGANIC TRAFFIC NUMBER MEF268

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	Extractables	5-134 421	F9206133
8 oz	Metals & CN⁻	5-134 424	F9206133
120 ml	VOA	5-134 488	G6170258
120 ml	VOA	5-134 483	G6170258

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Black sand

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Faraday Landfill

CASE NUMBER 12901

SAMPLE #/STATION LOCATION S3

SAMPLING DATE 10-12-89 SAMPLING TIME 1315

ORGANIC TRAFFIC NUMBER E-GN17

INORGANIC TRAFFIC NUMBER MEFZ63

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	Extractables	5-134425	F9206133
8 oz	Metals / CN⁻	5-134428	F9206133
120 ml	VOA	5-134426	G6170252
120 ml	VOA	5-134427	G6170252

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: tan silty clay soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH n/a

CONDUCTIVITY n/a

TEMPERATURE n/a

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill

CASE NUMBER 12901

SAMPLE #/STATION LOCATION 54

SAMPLING DATE 10-18-89 SAMPLING TIME 1330

ORGANIC TRAFFIC NUMBER E-6618

INORGANIC TRAFFIC NUMBER MEF264

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	Extractables	5-134489	F9206133
8 oz	Metals / CN⁻	5-134438	F9206133
120 ml	VOA	5-134430	G6170258
120 ml	VOA	5-134431	G6170258

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Black and gray foundry sand

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill

CASE NUMBER 12901

SAMPLE #/STATION LOCATION SS

SAMPLING DATE 10-12-89 SAMPLING TIME 1330

ORGANIC TRAFFIC NUMBER E-GL 19

INORGANIC TRAFFIC NUMBER ME F2 65

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	Extractables	5-134 433	F9206133
8 oz	Metals / CN⁻	5 134 436	F9206133
120 ml	VOA	5-134 434	G6170872
120 ml	VOA	5-134 435	G6170872

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Black and gray sand and other unknown waste.

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill

CASE NUMBER 12901

SAMPLE #/STATION LOCATION S6

SAMPLING DATE 10-12-89 SAMPLING TIME 1140

ORGANIC TRAFFIC NUMBER E-6680

INORGANIC TRAFFIC NUMBER MEC 66

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	Extractables	5-134437	F9206143
8 oz	Metals / CN⁻	5-134440	F9206143
120 ml	VOA	5-134438	G6170878
120 ml	VOA	5-134439	G6170272

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Sediment

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill

CASE NUMBER 12901

SAMPLE #/STATION LOCATION 57

SAMPLING DATE 10-12-89 SAMPLING TIME 1150

ORGANIC TRAFFIC NUMBER E-GL81

INORGANIC TRAFFIC NUMBER MEF267

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	Extractables	5-134441	F9206143
8 oz	Metals & CN⁻	5-134444	F9206143
120 ml	VOA	5-134412	G6170272
120 ml	VOA	5-134413	G6170272

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Sediment

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill

CASE NUMBER 12901

SAMPLE #/STATION LOCATION 58

SAMPLING DATE 1-1-89 SAMPLING TIME 12:0

ORGANIC TRAFFIC NUMBER E-GL22

INORGANIC TRAFFIC NUMBER MEF268

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz	Extractables	5-134445	F9206143
8 oz	Metals / CN-	5-134446	F9206143
120 ml	VOA	5-134447	G6170272
120 ml	VOA	5-134448	G6170272

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Sediment

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH N/A

CONDUCTIVITY N/A

TEMPERATURE N/A

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill / F05-8901-085

CASE NUMBER 12901

SAMPLE #/STATION LOCATION MW1

SAMPLING DATE 10-12-89 SAMPLING TIME 1500

ORGANIC TRAFFIC NUMBER E-GL23

INORGANIC TRAFFIC NUMBER MEKZ69

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz ambers	Extractables	5-134449	A9173083
80 oz ambers	Extractables	5-134450	A9173083
40 ml vials	VOA	5-134451	B9201133
40 ml vials	VOA	5-134452	B9201133
1 L plastics	Metals	5-134453	C9208863
1 L plastics	Cyanide	5-134454	C9208863

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Not clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH 7.84

CONDUCTIVITY 700

TEMPERATURE 20

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill / F05-8901-085

CASE NUMBER 12901

SAMPLE #/STATION LOCATION MSD

SAMPLING DATE 10-12-89 SAMPLING TIME 1300

ORGANIC TRAFFIC NUMBER E-6C83

INORGANIC TRAFFIC NUMBER ME —

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz ambers	Extractables	5-134455	A9173093
80 oz ambers	Extractables	5-134456	A9173093
40 ml vials	VOA	5-134457	B9201133
40 ml vials	VOA	5-134458	B9201133
40 ml vials	VOA	5-134459	B9201133
40 ml vials	VOA	5-134460	B9201133

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Not clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH 7.24

CONDUCTIVITY 700

TEMPERATURE 20°

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill / F05-8901-085

CASE NUMBER 12901

SAMPLE #/STATION LOCATION MW2

SAMPLING DATE 10-12-89 SAMPLING TIME 1500

ORGANIC TRAFFIC NUMBER E-GL84

INORGANIC TRAFFIC NUMBER MEF370

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz amber	Extractables	5-134461	A9173023
80 oz amber	Extractables	5-134462	A9173023
40 ml vial	VOA	5-134463	B9201133
40 ml vials	VOA	5-134464	B9201133
1 L plastics	Metals	5-134465	C9208263
1 L plastics	Cyanide	5-134466	C9208263

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: Muddy

INSTRUMENT READINGS

pH 7.06

CONDUCTIVITY 1100

TEMPERATURE 16°

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill / FOS-8901-085
CASE NUMBER 12901

SAMPLE #/STATION LOCATION DUP

SAMPLING DATE 10-12-89 SAMPLING TIME 1500

ORGANIC TRAFFIC NUMBER E-6L25
INORGANIC TRAFFIC NUMBER MEFZ71

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz amber	Extractables	5-134 467	A9173083
80 oz amber	Extractables	5-134 468	A9173013
40 ml vials	VOA	5-134 469	B9201133
40 ml vials	VOA	5-134 470	B9201133
1 L plastics	Metals	5-134 471	C9208263
1 L plastics	Cyanide	5-134 472	C9208263

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Muddy

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH 7.06

CONDUCTIVITY 1100

TEMPERATURE 16°

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill / F05-8901-085

CASE NUMBER 12901

SAMPLE #/STATION LOCATION BLK

SAMPLING DATE 10-12-89 SAMPLING TIME 1130

ORGANIC TRAFFIC NUMBER E-6628

INORGANIC TRAFFIC NUMBER ME1274

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
80 oz amber	Extractables	5-134 485	A9193053
80 oz amber	Extractables	5-134 486	A9193053
40 ml vial	VOA	5-134 487	B9201133
40 ml vials	VOA	5-134 488	B9201133
1 L plastics	Metals	5-134 489	C9208863
1 L plastics	Cyanide	5-134 490	C9208863

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH 6.74

CONDUCTIVITY 1.5

TEMPERATURE 20°

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill / IOE-8901-095

CASE NUMBER 12901

SAMPLE #/STATION LOCATION RW1

SAMPLING DATE 10-12-89 SAMPLING TIME 1:35

ORGANIC TRAFFIC NUMBER E-GL08

INORGANIC TRAFFIC NUMBER ME F254

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
1 L amber	Extractables	5-134 351	H9163083
1 L amber	Extractables	5-134 352	H9163083
1 L amber	Extractables	5-134 353	H9163083
40 ml vials	VOA	5-134 354	B9201123
40 ml vials	VOA	5-134 355	B9201123
40 ml vials	VOA	5-134 356	B9201123
1 L plastic	Metals	5-134 357	C9205463
1 L plastic	CN-	5-134 358	C9205463

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH 7.27

CONDUCTIVITY 680

TEMPERATURE 13°

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill / 105-8901-095

CASE NUMBER 12901

SAMPLE #/STATION LOCATION MSD

SAMPLING DATE 10-12-89 SAMPLING TIME 1435

ORGANIC TRAFFIC NUMBER E-6608

INORGANIC TRAFFIC NUMBER ME —

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
1L ambers	Extractables	5-134359	H916 3083
1L ambers	Extractables	5-134360	H916 3083
1L ambers	Extractables	5-134361	H916 3083
1L ambers	Extractables	5-134362	H916 3083
1L ambers	Extractables	5-134363	H916 3083
40 ml vials	VOA	5-134364	B920 1123
40 ml vials	VOA	5-134365	B920 1123
40 ml vials	VOA	5-134366	B920 1123
40 ml vials	VOA	5-134367	B920 1123
40 ml vials	VOA	5-134368	B920 1123

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH 7.27

CONDUCTIVITY 680

TEMPERATURE 13°

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill / 105-0901-045

CASE NUMBER 12901

SAMPLE #/STATION LOCATION RW2

SAMPLING DATE 10-12-89 SAMPLING TIME 14-5

ORGANIC TRAFFIC NUMBER E-6609

INORGANIC TRAFFIC NUMBER ME F255

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
1 L amber	Extractables	5-134369	H9163083
1 L amber	Extractables	5-134370	H9163083
1 L amber	Extractables	5-134371	H9163083
40 ml vials	VOA	5-134372	B9201123
40 ml vials	VOA	5-134373	B9201123
40 ml vials	VOA	5-134374	B9201123
1 L poly	Metals	5-134375	C9205463
1 L poly	CN-	5-134376	C9205463

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH 7.32

CONDUCTIVITY 1000

TEMPERATURE 17°

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill / 105-8901-095

CASE NUMBER 12901

SAMPLE #/STATION LOCATION DUP

SAMPLING DATE 10-12-89 SAMPLING TIME 14:15

ORGANIC TRAFFIC NUMBER E-6616

INORGANIC TRAFFIC NUMBER ME 2 56

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
1 L amber	Extractables	5-134377	H9163083
1 L amber	Extractables	5-134378	H9163083
1 L amber	Extractables	5-134379	H9163083
40 ml vials	VOA	5-134380	B9201123
40 ml vials	VOA	5-134381	B9201123
40 ml vials	VOA	5-134382	B9201123
1 L plastic	Metals	5-134383	C9205463
1 L plastic	CN-	5-134384	C9205463

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH 7.32

CONDUCTIVITY 1000

TEMPERATURE 17°

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill / 105-890-095

CASE NUMBER 12901

SAMPLE #/STATION LOCATION PW3

SAMPLING DATE 10-12-89 SAMPLING TIME 1500

ORGANIC TRAFFIC NUMBER E-6611

INORGANIC TRAFFIC NUMBER MEF257

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
1 L amber	Extractables	5-134385	H9163083
1 L amber	Extractables	5-134386	H9163083
1 L amber	Extractables	5-134387	H9163083
40 ml vials	VOA	5-134388	B9201123
40 ml vials	VOA	5-134389	B9201123
40 ml vials	VOA	5-134390	B9201123
1 L plastic	Metals	5-134391	C9205463
1 L plastic	CN-	5-134392	C9205463

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: none

INSTRUMENT READINGS

pH 7.68

CONDUCTIVITY 540

TEMPERATURE 16°

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill / 105-8901-095

CASE NUMBER 12901

SAMPLE #/STATION LOCATION RW4

SAMPLING DATE 10-12-89 SAMPLING TIME 1535

ORGANIC TRAFFIC NUMBER E-GN 12

INORGANIC TRAFFIC NUMBER MEF258

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
1 L amber	Extractables	5-134393	H9163083
1 L amber	Extractables	5-134394	H9163083
1 L amber	Extractables	5-134395	H9163083
40 ml vials	VOA	5-134396	B9201123
40 ml vials	VOA	5-134397	B9201123
40 ml vials	VOA	5-134398	B9201123
1 L Plastic	Metals	5-134399	C9205463
1 L Plastic	CN-	5-134400	C9205463

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH 7.13

CONDUCTIVITY 610

TEMPERATURE ≈ 19°

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill /105 - 8901 - 095

CASE NUMBER 12901

SAMPLE #/STATION LOCATION RW5

SAMPLING DATE 10-12-89 SAMPLING TIME 1535

ORGANIC TRAFFIC NUMBER E-GN13

INORGANIC TRAFFIC NUMBER ME F259

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
1 L amber	Extractables	5-134 401	H9163083
1 L amber	Extractables	5-134 402	H9163083
1 L amber	Extractables	5-134 403	H9163083
40 ml vials	VOA	5-134 404	B9201123
40 ml vials	VOA	5-134 405	B9201123
40 ml vials	VOA	5-134 406	B9201123
1 L plastic	Metals	5-134 407	C9205463
1 L poly	CN-	5-134 408	C9205463

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH 7.53

CONDUCTIVITY 550

TEMPERATURE 14°

SAMPLE DESCRIPTION

SITE NAME/TDD# North Manchester Foundry Landfill / IOS - 8901 - 085

CASE NUMBER 12901

SAMPLE #/STATION LOCATION BLK

SAMPLING DATE 10-12-89 SAMPLING TIME 1415

ORGANIC TRAFFIC NUMBER E- FN14

INORGANIC TRAFFIC NUMBER ME FZ 60

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
1 L amber	Extractables	5-134	H9163083
1 L amber	Extractables	5-134	H9163083
1 L amber	Extractables	5-134	H9163083
40 ml vials	VOA	5-134	B9201123
40 ml vials	VOA	5-134	B9201123
40 ml vials	VOA	5-134	B9201123
1 L Plastic	Metals	5-134	C9205463
1 L Plastic	CN-	5-134	C9205463

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: None

INSTRUMENT READINGS

pH 6.42

CONDUCTIVITY 2

TEMPERATURE 17°

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO IND981952831

PROJ. ACCT. NO. FIN0681SB

TDD F05-8901-025

SPLIT SAMPLES ACCEPTED(✓) DECLINED( )

FACILITY/OCCUPANT NAME: North Manchester Foundry Landfill

FACILITY/OCCUPANT ADDRESS: 203 Wabash Street, North Manchester, IN 46962

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR*	ITR*	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
S1	10-11-89	1270		LGN15	MCF261	S1	X	X	X	X	X			Soil
S2	10-11-89	1300	✓	LGN16	MCF262	S2 backfill	X	X	X	X	X			Soil
S3	10-11-89	1315	✓	LGN17	MCF263	S3 Fill bch. 1 fill	X	X	X	X	X			Soil
S4	10-11-89	1320	✓	LGL18	MCF264	S4 near mon. well	X	X	X	X	X			Soil
S5	10-11-89	1330	✓	LGL19	MCF265	S5 by barrel pile	X	X	X	X	X			Soil
S6	10-11-89	1140		LGL20	MCF266	S6	X	X	X	X	X			Soil
S7	10-11-89	1150		LGL21	MCF267	S7	X	X	X	X	X			Soil
S8	10-11-89	1210		LGL22	MCF268	S8	X	X	X	X	X			Soil
MW1	10-11-89	1200		LGL23	MCF269	MW1	X	X	X	X	X			Monitoring well
MSD	10-11-89	1200		LGL23	—	MSD	X	X	X					Monitoring well
MW2	10-11-89	1500		LGL24	MCF270	MW2	X	X	X	X	X			Monitoring well
DUP	10-11-89	1500		LGL25	MCF271	DUP	X	X	X	X	X			Monitoring well
~~MW3~~	~~10-11-89~~			~~LGL26~~	~~MCF272~~	~~MW3~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~			~~Monitoring well~~
~~MW4~~	~~10-11-89~~			~~LGL27~~	~~MCF273~~	~~MW4~~	~~X~~	~~X~~	~~X~~	~~X~~	~~X~~			~~Monitoring well~~
BLK	10-11-89	1130		LGL28	MCF274	BLK	X	X	X	X	X			Distilled H_2O

A.C. 10-12-89

TRANSFERRED BY: [signature] 10-12-89 1615
(Signature) (Date) (Time)

RECEIVED BY: [signature] 10/12/89 1615
(Signature) (Date) (Time)

TITLE: President, North Manchester Foundry

TELEPHONE: (219) 182-2191

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO IND981952831

PROJ. ACCT. NO. FIN06815B/FT1305

TDD F05-890-1025

SPLIT SAMPLES ACCEPTED( ) DECLINED(✓)

FACILITY/OCCUPANT NAME: North Manchester, IN, Water Department

FACILITY/OCCUPANT ADDRESS: 407 E. Main St. N. Manchester, IN 46962

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR*	ITR*	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
RW1	10/10/89	2:35				RW1 + MSD	✓	✓	✓	✓	✓			

TRANSFERRED BY (Signature) 10/10/89 (Date) 1435 (Time)

RECEIVED BY: (Signature) 10/10/89 (Date) 1435 (Time)

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

TITLE: ASST Town Manager

TELEPHONE: 219-982-2993

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO IND981952531

PROJ. ACCT. NO. FIND 6515B

TDD F05-8901-025

SPLIT SAMPLES ACCEPTED( ) DECLINED(X)

FACILITY/OCCUPANT NAME Manchester Veterinary Clinic

FACILITY/OCCUPANT ADDRESS Rt 1 Box 54 46962 North Manchester IN

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR#	ITR#	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES (✓)	PESTICIDES/PCBS (✓)	VOLATILES (✓)	METALS (✓)	CYANIDE (✓)			MATRIX
RW2	10/10/89	1445				RW2	X	^	X	X	X			Drinking H2O

TRANSFERRED BY: [signature] (Signature) 10/10/89 (Date) 1445 (Time)

RECEIVED BY: Manchester Vet Clinic (Signature) 10/10/89 (Date) 1445 (Time)

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

TITLE: Homeowner

TELEPHONE: 219 982-6673

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO: IND981952831

PROJ. ACCT. NO.: FIN0681SB

TDD: FOS-8901-025

SPLIT SAMPLES: ACCEPTED( ) DECLINED(X)

FACILITY/OCCUPANT NAME: Lee Davis

FACILITY/OCCUPANT ADDRESS: P.O. Box 149 46962 North Manchester IN

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR#	ITR#	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES (✓)	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX Low Conc Matrix
RW3	10/10/89	1500				RW3	X	X	X	X	X			Drinking

TRANSFERRED BY: [signature] (Signature) 10/10/89 (Date) 1500 (Time)

RECEIVED BY: Lee Davis (Signature) 10/10/89 (Date) 1500 (Time)

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

TITLE: Homeowner

TELEPHONE: 219-982-2181

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO IND981952831

PROJ. ACCT. NO. F IN0681SB

TDD 105-5901-005

SPLIT SAMPLES ACCEPTED( ) DECLINED(✓)

FACILITY/OCCUPANT NAME Art Garrison

FACILITY/OCCUPANT ADDRESS Rt 4 Box 19 North Manchester IN

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR*	ITR*	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX Low Conc Matrix
RW4	10/10/89	1535				RW4	X	X	X	X	X			Drinking H2O

TRANSFERRED BY [signature] (Signature) 10/10/89 (Date) 1535 (Time)

RECEIVED BY: Art Garrison (Signature) 10/10/89 (Date) 1535 (Time)

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

TITLE Homowner TELEPHONE 219-982-2038

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO IND981752831

PROJ. ACCT. NO. FIN06815B / FT1305

TDD F05-890-1025

SPLIT SAMPLES ACCEPTED( ) DECLINED(✓)

FACILITY/OCCUPANT NAME: Wilbur Kreider

FACILITY/OCCUPANT ADDRESS: County Road 175E, RR3 North Manchester, IN 46962

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR*	ITR*	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
RW5	10/10/89	1535				RW5	✓	✓	✓	✓	✓			

TRANSFERRED BY: [signature] (Signature) 10/10/89 (Date) 1535 (Time)

RECEIVED BY: [signature] (Signature) 10/10/89 (Date) 1535 (Time)

TITLE: homeowner

TELEPHONE:

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

SOUTHERN PETROLEUM LABORATORIES, INC.

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

CASE NARRATIVE

Laboratory: SPL, INC. Case: 12901

Sample Numbers:

EGL18	EGL24
EGL19	EGL25
EGL20	EGL28
EGL21	EGN15
EGL22	EGN16
EGL23	EGN17

SDG: EGL18

Contract: 68-01-7431

One tentatively identified component was identified in samples and blanks. This early eluting unknown peak is probably from the change of pressure in the mass spectrometer source from both the trap and water vapor.

MS/MSD's were done for both low level soil and low level water. One sample (EGL18) had surrogates out of the acceptable range. This sample was reanalyzed and showed the same phenomenon. This sample appeared to be a black carbon type soil almost like coal. This probably caused absorption of the soil internal standards and/or the surrogates.

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.

Tseng-Ying Fan
Supervisor-GC/MS

10-23-89
Date

P.O. BOX 20807 HOUSTON, TX 77225 | P.O. BOX 31780 LAFAYETTE, LA 70503 | 1000 RIVERBEND, SUITE F ST. ROSE, LA 70087 | 459 HUGHES DRIVE TRAVERSE CITY, MI 49684 | P.O. BOX 546 CARTHAGE, TX 75633

12/2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 11/28/89

12/1/89

SUBJECT: Review of Region V CLP Data Received for Review on 10-27-89

FROM: Curtis Ross, Director (5SCRL) Patrick J. Churilla for
Central Regional Laboratory

TO: Data User: -Jrt

We have reviewed the data for the following case(s).

SITE NAME: North Manchester Foundry Lf SMO Case No. 12901

EPA Data Set No. _____ No. of Samples: 12 D.U./Activity Numbers _____

CRL No. _____

SMO Traffic No. EGL18-25, 28, EGN15-17

CLP Laboratory: SPL Hrs. Required for Review: 12+1=13 WW

Following are our findings:

This review covers 8 soil and 4 water samples (EGL18-25, EGL28 and EGN15-17) for volatile analysis only at low levels.

The reviewer's narrative and data qualifiers follow.

Rob Wilhelm (Weston/ESAT)
22 NOVEMBER 89

( ) Data are acceptable for use.
(✓) Data are acceptable for use with qualifications referenced above. See Data Qualifier sheets and Calibration Outlier forms for flags and additional comments.
( ) Data are preliminary - pending verification by Contractor Laboratory. See Case Summary above.
( ) Data are unacceptable.

cc: Carla Dempsey, CLP Quality Assurance Officer, Analytical Operations Branch
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

Region V

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 12901

SITE Northern Manchester Foundry

LABORATORY SDL, Inc.

NO. OF SAMPLES/ MATRIX 8/soil - 4/H_2O

SDG # EGL18

REVIEWER (IF NOT ESD) Weston/ESAT

SOW# 2/88

REVIEWER'S NAME Ted Wilhelm

DPO: ACTION _____ FYI _____

COMPLETION DATE 11/22/89

DATA ASSESSMENT SUMMARY

		VOA	BNA	PEST	OTHER
1.	HOLDING TIMES	O			
2.	GC/MS TUNE/INSTR. PERFORM.	O			
3.	CALIBRATIONS	O			
4.	BLANKS	O			
5.	SURROGATES	O			
6.	MATRIX SPIKE/DUP	O			
7.	OTHER QC	O			
8.	INTERNAL STANDARDS	O			
9.	COMPOUND IDENTIFICATION				
10.	SYSTEM PERFORMANCE				
11.	OVERALL ASSESSMENT	O			

O = Data had no problems/or qualified due to minor problems.
M = Data qualified due to major problems.
Z = Data unacceptable.
X = Problems, but do not affect data.

ACTION ITEMS: _____

AREAS OF CONCERN: _____

NOTABLE PERFORMANCE: _____

DATA QUALIFIERS

Contractor: SPL, Inc.

Case 12901

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

① Holding Times -

Since the sampling date does not appear on the Organic Traffic Report, it is assumed that the date of sample collection is the same as the date of shipment. Therefore, all samples were analyzed within the seven day holding time for water and the ten day holding time for soil.

② GC/MS Tuning -

All GC/MS Tuning data are within the required QC limits.

③ Calibration -

All compounds which did not fall within the required calibration QC limits are listed on the calibration auditing forms along with the appropriate qualifier, except for the surrogate 1,2-dichloroethane-d4, from the continuing calibration sample VSSTD501017A run at 1327 on 10/17/89. This compound had a percent difference of 28.6% in the continuing calibration and therefore all positive hits in the related samples should be considered as estimated values (J).

④ Method Blanks -

All three volatile method blanks contain some contaminant. VBLK01, a low level water blank, contains methylene chloride. VBLK02 and VBLK03 are both low level soil blanks. VBLK02 contains both methylene chloride and acetone. VBLK03 contains acetone only. All three blanks contain a single unknown TIC. If the above listed contaminants are found in an associated sample as listed in Form IV at less than 10X the blank level, the compound in the associated sample is flagged with the quant limit, U.

Reviewed by: Bob Wilhelm

Phone: (312) 353-2960

Date: 11/22/89