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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401
(301) 266-9180

DATE : April 12, 1989

SUBJECT: Organic Data Validation for the Delta Quarries Site
Case 10588

FROM : Theresa A. Simpson TAS
Region III Acting ESAT DPO (3ES23)

TO : Donna McCartney
Regional Project Manager (3HW12)

THRU : Patricia J. Krantz TAS for
Chief, QA Section (3ES23)

Attached is the organic data review for the Delta Quarries Site (Case 10588) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III ESD.

If you have any questions regarding this review, please call me.

Attachment

cc: Mark diFeliciantonio, CDM
E. J. Wingert, GCL
Elaine Spiewak (3HW10) (w/o attachments)
TID File: 03890225 Task 1513

WESTON
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DATE: March 31, 1989

SUBJECT: Organic Data Validation for Case 10588
Site: Delta Quarries

FROM: Nicholas Kurlick NK — Senior Analytical Chemist
Sudabeh Rowshan-Kolar SRK — Senior Organic Chemist

TO: Terry Simpson
Acting ESAT Deputy Project Officer

THROUGH: Charles Matkovich CM
ESAT Team Manager

Overview

Case 10588 consisted of three (3) soil samples for full organic analyses and one (1) water sample for volatile analysis only. Included in this case are one (1) trip blank and one (1) field duplicate pair. The laboratory analyzed all samples as a Contract Laboratory Program (CLP) Routine Analytical Service (RAS).

Summary

All samples were successfully analyzed for all target compounds with the exception of 2-butanone. All instrument and method sensitivities were according to the Contract Laboratory Program (CLP) Routine Analytical Services (RAS) protocol.

Major Problem

- The response factors for 2-butanone were less than 0.050 in the initial and continuing calibration standards. Quantitation limits for this compound were qualified "R" (unreliable) in the affected samples. (See Table I in Appendix F).

Minor Problems

- Technical holding times for volatile aromatic analyses were exceeded by one (1) day for all samples. Positive results were qualified "L" and quantitation limits were qualified "UL" for these compounds in all samples. (See Data Summary Forms in Appendix B).

- Several volatile and semi-volatile compounds failed precision criteria for initial and/or continuing calibration standards. Positive results are qualified "J" and quantitation limits are qualified "UJ" for the affected samples. (See Table I and Forms VI and VII in Appendix F).

- All semi-volatile and pesticide samples were extracted three (3) days beyond the technical holding times. Positive results were qualified "J" and quantitation limits were qualified "UJ" for all samples. (See Data Summary Forms in Appendix B)

Notes

- The maximum concentrations of compounds found in the method blanks are listed below. All samples with concentrations of common laboratory contaminants less than ten (<10X) the blank level and uncommon laboratory contaminants less than five times (<5x) the blank level have been qualified as "B" in the data summary. (See Data Summary forms in Appendix B).

Compound	Concentration (ug/Kg)
methylene chloride*	12
acetone*	22
ethyl benzene	4J
bis(2-ethylhexyl)phthalate*	51J

* = common laboratory contaminants

- The reported tentatively identified compounds (TIC) of Appendix D have been reviewed and corrected during data validation. The TICs present in both samples and method blanks have been removed from the Forms I of Appendix D.

- The field duplicate pair (CY762 and CY764) yielded data that were usable for comparison. (See Table II in Appendix F).

All data for Case 10588 was reviewed in accordance with the Functional Guidelines for Evaluating Organic Analyses with Modifications for Use Within Region III. This report addresses only those problems affecting usability.

Attachments

1) Appendix A - Glossary of Data Qualifier Codes
2) Appendix B - Data Summary These include:
   (a) All positive results for target compounds with qualifier flags where applicable.
   (b) All unusable detection limits (qualified "R").
3) Appendix C - Results as Reported by the Laboratory for all Target Compounds
4) Appendix D - Reviewed and Corrected Tentatively Identified Compound Lists
5) Appendix E - DPO Report for Contractual Compliance
6) Appendix F - Support Documentation

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Appendix A

Glossary of Data Qualifiers

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GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

CODES RELATING TO IDENTIFICATION

(confidence concerning presence or absence of compounds):

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

(NO CODE) - Confirmed identification.

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

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

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

CODES RELATED TO QUANTITATION

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

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

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

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

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

UL - Not detected, quantitation limit is probably higher.

OTHER CODES

Q - No analytical result.

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Appendix B

Data Summary

DATA SUMMARY FORM: V O L A T I L E S 1

Site Name: Delta Quarries

WATER SAMPLES
(ug/L)

Case #: 10588 Sampling Date(s): 10/10/88

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

	Sample No.	CY761																			
	Dilution Factor	1.0																			
	Location	TRIP Blank																			
CRQL	COMPOUND																				
10	Chloromethane																				
10	Bromomethane																				
10	*Vinyl Chloride																				
10	Chloroethane																				
5	*Methylene Chloride	13	B																		
10	Acetone																				
5	Carbon Disulfide		UJ																		
5	*1,1-Dichloroethene																				
5	1,1-Dichloroethane																				
5	*Total-1,2-Dichloroethene																				
5	Chloroform																				
5	*1,2-Dichloroethane																				
10	*2-Butanone		R																		
5	*1,1,1-Trichloroethane																				
5	*Carbon Tetrachloride																				
10	Vinyl Acetate																				
5	Bromodichloromethane																				

CRQL = Contract Required Detection Limit *Action Level Exists SEE NARRATIVE FOR CODE DEFINITIONS

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AR301095

DATA SUMMARY FORM: VOLATILES 2

Site Name: Delta Quarries

Case #: 10588 Sampling Date(s): 10/10/88

WATER SAMPLES
(ug/L)

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

CRQL	COMPOUND		
	Sample No.	CY761	
	Dilution Factor	1.0	
	Location	Trip Blank	
5	*1,2-Dichloropropane		
5	Cis-1,3-Dichloropropene		
5	Trichloroethene		
5	Dibromochloromethane		
5	1,1,2-Trichloroethane		
5	*Benzene		UL
5	Trans-1,3-Dichloropropene		
5	Bromoform		
10	4-Methyl-2-pentanone		
10	2-Hexanone		
5	*Tetrachloroethene		
5	1,1,2,2-Tetrachloroethane		
5	*Toluene		UL
5	*Chlorobenzene		UL
5	*Ethylbenzene		UL
5	*Styrene		UL
5	*Total Xylenes		UL

CRDL = Contract Required Detection Limit

*Action Level Exists

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AR301096

DATA SUMMARY FORM: V O L A T I L E S 1

Site Name: Delta Quarries

Case #: 10588 Sampling Date(s): 10/10/88

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit: (CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CY762		CY763		CY764													
	Dilution Factor	0.99		0.98		0.98													
	% Moisture	30		27		20													
	Location	Dup of CY764		SS-4		SS-7													
CRQL	COMPOUND																		
10	Chloromethane																		
10	Bromomethane																		
10	Vinyl Chloride																		
10	Chloroethane																		
5	Methylene Chloride	23	B	21	B	16	B												
10	Acetone	15	B	16	B	36	B												
5	Carbon Disulfide	16	J		UJ	8	J												
5	1,1-Dichloroethene																		
5	1,1-Dichloroethane																		
5	Total-1,2-Dichloroethene					5	J												
5	Chloroform																		
5	1,2-Dichloroethane																		
10	2-Butanone		R		R		R												
5	1,1,1-Trichloroethane																		
5	Carbon Tetrachloride																		
10	Vinyl Acetate																		
5	Bromodichloromethane																		

CRDL = Contract Required Detection Limit

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revised 12/88

AR301097

DATA SUMMARY FORM: V O L A T I L E S 2

Site Name: Delta Quarries

SOIL SAMPLES (ug/Kg)

Case #: 10588 Sampling Date(s): 10/10/88

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CY762		CY763		CY764													
	Dilution Factor	0.99		0.98		0.98													
	% Moisture	30		27		20													
	Location	Dup of CY764		SS-4		SS-7													
CRQL	COMPOUND																		
5	1,2-Dichloropropane																		
5	Cis-1,3-Dichloropropene																		
5	Trichloroethene																		
5	Dibromochloromethane																		
5	1,1,2-Trichloroethane																		
5	Benzene		UL		UL		UL												
5	Trans-1,3-Dichloropropene																		
5	Bromoform																		
10	4-Methyl-2-pentanone																		
10	2-Hexanone																		
5	Tetrachloroethene																		
5	1,1,2,2-Tetrachloroethane																		
5	Toluene		UL	3	L		UL												
5	Chlorobenzene		UL		UL		UL												
5	Ethylbenzene		UL		UL	3	B												
5	Styrene		UL		UL		UL												
5	Total Xylenes		UL		UL		UL												

CRQL = Contract Required Quantitation Limit

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revised 12/88

AR301098

DATA SUMMARY FORM: B N A S 1

Site Name: Delta Quarries

SOIL SAMPLES (ug/Kg)

Case #: 10588 Sampling Date(s): 10/10/88

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/10

	Sample No.	CY762		CY763		CY764													
	Dilution Factor	1.0		1.0		1.0													
	% Moisture	29		29		21													
	Location	Dup of CY764		SS-4		SS-7													
CRQL	COMPOUND																		
330	Phenol		UJ		UJ		UJ												
330	bis(2-Chloroethyl)ether		UJ		UJ		UJ												
330	2-Chlorophenol		UJ		UJ		UJ												
330	1,3-Dichlorobenzene		UJ		UJ		UJ												
330	1,4-Dichlorobenzene		UJ		UJ		UJ												
330	Benzyl Alcohol		UJ		UJ		UJ												
330	1,2-Dichlorobenzene		UJ		UJ		UJ												
330	2-Methylphenol		UJ		UJ		UJ												
330	bis(2-Chloroisopropyl)ether		UJ		UJ		UJ												
330	4-Methylphenol		UJ		UJ		UJ												
330	N-Nitroso-di-n-propylamine		UJ		UJ		UJ												
330	Hexachloroethane		UJ		UJ		UJ												
330	Nitrobenzene		UJ		UJ		UJ												
330	Isophorone		UJ		UJ		UJ												
330	2-Nitrophenol		UJ		UJ		UJ												
330	2,4-Dimethylphenol		UJ		UJ		UJ												
1600	Benzoic Acid		UJ		UJ		UJ												
330	bis(2-Chloroethoxy)methane		UJ		UJ		UJ												
330	2,4-Dichlorophenol		UJ		UJ		UJ												
330	1,2,4-Trichlorobenzene		UJ		UJ		UJ												
330	Naphthalene		UJ		UJ		UJ												
330	4-Chloroaniline		UJ		UJ		UJ												

CRQL = Contract Required Quantitation Limit

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revised 12/88

AR301099

DATA SUMMARY FORM: B N A S 2

Site Name: Delta Quarries

Case #: 10588 Sampling Date(s): 10/10/88

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit: (CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CY762		CY763		CY764	
	Dilution Factor	1.0		1.0		1.0	
	% Moisture	29		29		21	
	Location	Dup of CY764		SS-4		SS-7	
CRQL	COMPOUND						
330	Hexachlorobutadiene		UJ		UJ		UJ
330	4-Chloro-3-methylphenol		UJ		UJ		UJ
330	2-Methylnaphthalene		UJ		UJ		UJ
330	Hexachlorocyclopentadiene		UJ		UJ		UJ
330	2,4,6-Trichlorophenol		UJ		UJ		UJ
1600	2,4,5-Trichlorophenol		UJ		UJ		UJ
330	2-Chloronaphthalene		UJ		UJ		UJ
1600	2-Nitroaniline		UJ		UJ		UJ
330	Dimethylphthalate		UJ		UJ		UJ
330	Acenaphthylene		UJ		UJ		UJ
330	2,6-Dinitrotoluene		UJ		UJ		UJ
1600	3-Nitroaniline		UJ		UJ		UJ
330	Acenaphthene		UJ		UJ		UJ
1600	2,4-Dinitrophenol		UJ		UJ		UJ
1600	4-Nitrophenol		UJ		UJ		UJ
330	Dibenzofuran		UJ		UJ		UJ
330	2,4-Dinitrotoluene		UJ		UJ		UJ
330	Diethylphthalate	616	J		UJ		UJ
330	4-Chlorophenyl-phenylether		UJ		UJ		UJ
330	Fluorene		UJ		UJ		UJ
1600	4-Nitroaniline		UJ		UJ		UJ
1600	4,6-Dinitro-2-methylphenol		UJ		UJ		UJ

* CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: B N A S 3

Site Name: Delta Quarries

SOIL SAMPLES (ug/Kg)

Case #: 10588 Sampling Date(s): 10/10/88

To calculate sample quantitation limit:
(CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CY760d		CY763		CY764	
	Dilution Factor	1.0		1.0		1.0	
	% Moisture	29		27		21	
	Location	Dup of CY761		SS-4		SS-7	
CRQL	COMPOUND						
330	N-Nitrosodiphenylamine		UJ		UJ		UJ
330	4-Bromophenyl-phenylether		UJ		UJ		UJ
330	Hexachlorobenzene		UJ		UJ		UJ
1600	Pentachlorophenol	150	J		UJ		UJ
330	Phenanthrene		UJ		UJ		UJ
330	Anthracene		UJ		UJ		UJ
330	Di-n-butylphthalate		UJ		UJ		UJ
330	Fluoranthene		UJ		UJ		UJ
330	Pyrene		UJ		UJ		UJ
330	Butylbenzylphthalate		UJ		UJ		UJ
1600	3,3-Dichlorobenzidine		UJ		UJ		UJ
330	Benzo(a)anthracene		UJ		UJ		UJ
330	Chrysene		UJ		UJ		UJ
330	bis(2-Ethylhexyl)phthalate	2,1C	B	90	B	110	B
330	Di-n-octylphthalate		UJ		UJ		UJ
330	Benzo(b)fluoranthene		UJ		UJ		UJ
330	Benzo(k)fluoranthene		UJ		UJ		UJ
330	Benzo(a)pyrene		UJ		UJ		UJ
330	Indeno(1,2,3-cd)pyrene		UJ		UJ		UJ
330	Dibenz(a,h)anthracene		UJ		UJ		UJ
330	Benzo(g,h,i)perylene		UJ		UJ		UJ

CRQL = Contract Required Quantitation Limit

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DATA SUMMARY FORM: PESTICIDES AND PCBS

Site Name: Delta Quarries

Case #: 10588 Sampling Date(s): 10/10/88

SOIL SAMPLES (ug/Kg)

To calculate sample quantitation limit: (CRQL * Dilution Factor) / ((100 - % moisture)/100)

	Sample No.	CY762		CY763		CY764	
	Dilution Factor	1.0		1.0		1.0	
	% Moisture	29		30		21	
	Location	Dup of CY764		SS-4		SS-7	
CRQL	COMPOUND						
8	alpha-BHC		U		U		U
8	beta-BHC		U		U		U
8	delta-BHC		U		U		U
8	Gamma-BHC (Lindane)		U		U		U
8	Heptachlor		U		U		U
8	Aldrin		U		U		U
8	Heptachlor Epoxide		U		U		U
8	Endosulfan I		U		U		U
16	Dieldrin		U		U		U
16	4,4'-DDE	28	J		U		U
16	Endrin		U		U		U
16	Endosulfan II		U		U		U
16	4,4'-DDD	36	J		U		U
16	Endosulfan Sulfate		U		U		U
16	4,4'-DDT	50	J		U		U
80	Methoxychlor		U		U		U
16	Endrin ketone		U		U		U
80	Alpha-Chlordane		U		U		U
80	Gamma-Chlordane		U		U		U
160	Toxaphene		U		U		U
80	Aroclor-1016		U		U		U
80	Aroclor-1221		U		U		U
80	Aroclor-1232		U		U		U
80	Aroclor-1242		U		U		U
80	Aroclor-1248		U		U		U
160	Aroclor-1254		U		U		U
160	Aroclor-1260		U		U		U

CRQL = Contract Required Quantitation Limit

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Appendix C

Results as Reported by the Laboratory
for All Target Compounds

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET -0011

EPA SAMPLE NO.

CY761

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY761

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 5266

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. ____ Date Analyzed: 10/18/88

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	13	B
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	Total Xylenes	5	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET -0027

EPA SAMPLE NO.

CY762

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY762

Sample wt/vol: 5.1 (g/mL) G Lab File ID: 5263

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 30 Date Analyzed: 10/18/88

Column: (pack/cap) PACK Dilution Factor: 0.99

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	23	B
67-64-1	Acetone	15	B
75-15-0	Carbon Disulfide	16	
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	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Total Xylenes	7	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET -0193

EPA SAMPLE NO.

CY762

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY762

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 1268

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 29 dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/03/88

GPC Cleanup: (Y/N) N pH: 3.9 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	460	U
111-44-4	bis(2-Chloroethyl)Ether	460	U
95-57-8	2-Chlorophenol	460	U
541-73-1	1,3-Dichlorobenzene	460	U
106-46-7	1,4-Dichlorobenzene	460	U
100-51-6	Benzyl Alcohol	460	U
95-50-1	1,2-Dichlorobenzene	460	U
95-48-7	2-Methylphenol	460	U
108-60-1	bis(2-Chloroisopropyl)Ether	460	U
106-44-5	4-Methylphenol	460	U
621-64-7	N-Nitroso-Di-n-Propylamine	460	U
67-72-1	Hexachloroethane	460	U
98-95-3	Nitrobenzene	460	U
78-59-1	Isophorone	460	U
88-75-5	2-Nitrophenol	460	U
105-67-9	2,4-Dimethylphenol	460	U
65-85-0	Benzoic Acid	2300	U
111-91-1	bis(2-Chloroethoxy)Methane	460	U
120-83-2	2,4-Dichlorophenol	460	U
120-82-1	1,2,4-Trichlorobenzene	460	U
91-20-3	Naphthalene	460	U
106-47-8	4-Chloroaniline	460	U
87-68-3	Hexachlorobutadiene	460	U
59-50-7	4-Chloro-3-Methylphenol	460	U
91-57-6	2-Methylnaphthalene	460	U
77-47-4	Hexachlorocyclopentadiene	460	U
88-06-2	2,4,6-Trichlorophenol	460	U
95-95-4	2,4,5-Trichlorophenol	2300	U
91-58-7	2-Chloronaphthalene	460	U
88-74-4	2-Nitroaniline	2300	U
131-11-3	Dimethyl Phthalate	460	U
208-96-8	Acenaphthylene	460	U
606-20-2	2,6-Dinitrotoluene	460	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET -0194

EPA SAMPLE NO.

CY762

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY762

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 1268

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 29 dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/03/88

GPC Cleanup: (Y/N) N pH: 3.9 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2300	U
83-32-9	Acenaphthene	460	U
51-28-5	2,4-Dinitrophenol	2300	U
100-02-7	4-Nitrophenol	2300	U
132-64-9	Dibenzofuran	460	U
121-14-2	2,4-Dinitrotoluene	460	U
84-66-2	Diethylphthalate	610	
7005-72-3	4-Chlorophenyl-phenylether	460	U
86-73-7	Fluorene	460	U
100-01-6	4-Nitroaniline	2300	U
534-52-1	4,6-Dinitro-2-Methylphenol	2300	U
86-30-6	N-Nitrosodiphenylamine (1)	460	U
101-55-3	4-Bromophenyl-phenylether	460	U
118-74-1	Hexachlorobenzene	460	U
87-86-5	Pentachlorophenol	150	J
85-01-8	Phenanthrene	460	U
120-12-7	Anthracene	460	U
84-74-2	Di-n-Butylphthalate	460	U
206-44-0	Fluoranthene	460	U
129-00-0	Pyrene	460	U
85-68-7	Butylbenzylphthalate	460	U
91-94-1	3,3'-Dichlorobenzidine	930	U
56-55-3	Benzo(a)Anthracene	460	U
218-01-9	Chrysene	460	U
117-81-7	bis(2-Ethylhexyl)Phthalate	220	BJ
117-84-0	Di-n-Octyl Phthalate	460	U
205-99-2	Benzo(b)Fluoranthene	460	U
207-08-9	Benzo(k)Fluoranthene	460	U
50-32-8	Benzo(a)Pyrene	460	U
193-39-5	Indeno(1,2,3-cd)Pyrene	460	U
53-70-3	Dibenz(a,h)Anthracene	460	U
191-24-2	Benzo(g,h,i)Perylene	460	U

(1) - Cannot be separated from Diphenylamine

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

-0437

EPA SAMPLE NO

CY762

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: ____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY762

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

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 29 dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/88

GPC Cleanup: (Y/N) N pH: 3.9 Dilution Factor: 1.00

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	23	U
72-55-9	4,4'-DDE	28 ~~57~~	SG 11-17-88
72-20-8	Endrin	23	U
33213-65-9	Endosulfan II	23	U
72-54-8	4,4'-DDD	36 ~~72~~	SG 11-17-88
1031-07-8	Endosulfan sulfate	23	U
50-29-3	4,4'-DDT	50 ~~100~~	SG 11-17-88
72-43-5	Methoxychlor	110	U
53494-70-5	Endrin ketone	23	U
5103-71-9	alpha-Chlordane	110	U
5103-74-2	gamma-Chlordane	110	U
8001-35-2	Toxaphene	230	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	230	U
11096-82-5	Aroclor-1260	230	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

-0047

CY763

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY763

Sample wt/vol: 5.4 (g/mL) G Lab File ID: 5265

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 27 Date Analyzed: 10/18/88

Column: (pack/cap) PACK Dilution Factor: 0.98

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	21	B
67-64-1	Acetone	16	B
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	3	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET -0243

EPA SAMPLE NO.

CY763

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY763

Sample wt/vol: 30.1 (g/mL) G Lab File ID: 1269

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 29 dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/03/88

GPC Cleanup: (Y/N) N pH: 3.8 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	460	U
111-44-4	bis(2-Chloroethyl)Ether	460	U
95-57-8	2-Chlorophenol	460	U
541-73-1	1,3-Dichlorobenzene	460	U
106-46-7	1,4-Dichlorobenzene	460	U
100-51-6	Benzyl Alcohol	460	U
95-50-1	1,2-Dichlorobenzene	460	U
95-48-7	2-Methylphenol	460	U
108-60-1	bis(2-Chloroisopropyl)Ether	460	U
106-44-5	4-Methylphenol	460	U
621-64-7	N-Nitroso-Di-n-Propylamine	460	U
67-72-1	Hexachloroethane	460	U
98-95-3	Nitrobenzene	460	U
78-59-1	Isophorone	460	U
88-75-5	2-Nitrophenol	460	U
105-67-9	2,4-Dimethylphenol	460	U
65-85-0	Benzoic Acid	2200	U
111-91-1	bis(2-Chloroethoxy)Methane	460	U
120-83-2	2,4-Dichlorophenol	460	U
120-82-1	1,2,4-Trichlorobenzene	460	U
91-20-3	Naphthalene	460	U
106-47-8	4-Chloroaniline	460	U
87-68-3	Hexachlorobutadiene	460	U
59-50-7	4-Chloro-3-Methylphenol	460	U
91-57-6	2-Methylnaphthalene	460	U
77-47-4	Hexachlorocyclopentadiene	460	U
88-06-2	2,4,6-Trichlorophenol	460	U
95-95-4	2,4,5-Trichlorophenol	2200	U
91-58-7	2-Chloronaphthalene	460	U
88-74-4	2-Nitroaniline	2200	U
131-11-3	Dimethyl Phthalate	460	U
208-96-8	Acenaphthylene	460	U
606-20-2	2,6-Dinitrotoluene	460	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET -0250

EPA SAMPLE NO.

CY763

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY763

Sample wt/vol: 30.1 (g/mL) G Lab File ID: 1269

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 29 dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/03/88

GPC Cleanup: (Y/N) N pH: 3.8 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2200	U
83-32-9	Acenaphthene	460	U
51-28-5	2,4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	U
132-64-9	Dibenzofuran	460	U
121-14-2	2,4-Dinitrotoluene	460	U
84-66-2	Diethylphthalate	460	U
7005-72-3	4-Chlorophenyl-phenylether	460	U
86-73-7	Fluorene	460	U
100-01-6	4-Nitroaniline	2200	U
534-52-1	4,6-Dinitro-2-Methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	460	U
101-55-3	4-Bromophenyl-phenylether	460	U
118-74-1	Hexachlorobenzene	460	U
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	460	U
120-12-7	Anthracene	460	U
84-74-2	Di-n-Butylphthalate	460	U
206-44-0	Fluoranthene	460	U
129-00-0	Pyrene	460	U
85-68-7	Butylbenzylphthalate	460	U
91-94-1	3,3'-Dichlorobenzidine	930	U
56-55-3	Benzo(a)Anthracene	460	U
218-01-9	Chrysene	460	U
117-81-7	bis(2-Ethylhexyl)Phthalate	90	BJ
117-84-0	Di-n-Octyl Phthalate	460	U
205-99-2	Benzo(b)Fluoranthene	460	U
207-08-9	Benzo(k)Fluoranthene	460	U
50-32-8	Benzo(a)Pyrene	460	U
193-39-5	Indeno(1,2,3-cd)Pyrene	460	U
53-70-3	Dibenz(a,h)Anthracene	460	U
191-24-2	Benzo(g,h,i)Perylene	460	U

(1) - Cannot be separated from Diphenylamine

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

-0442

EPA SAMPLE N.

CY763

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY763

Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 30 dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/88

GPC Cleanup: (Y/N) N pH: 3.8 Dilution Factor: 1.0

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	23	U
72-55-9	4,4'-DDE	23	U
72-20-8	Endrin	23	U
33213-65-9	Endosulfan II	23	U
72-54-8	4,4'-DDD	23	U
1031-07-8	Endosulfan sulfate	23	U
50-29-3	4,4'-DDT	23	U
72-43-5	Methoxychlor	110	U
53494-70-5	Endrin ketone	23	U
5103-71-9	alpha-Chlordane	110	U
5103-74-2	gamma-Chlordane	110	U
8001-35-2	Toxaphene	230	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	230	U
11096-82-5	Aroclor-1260	230	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

0067

CY764

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY764

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 5290

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 20 Date Analyzed: 10/20/88

Column: (pack/cap) PACK Dilution Factor: 0.98

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	16	B
67-64-1	Acetone	36	B
75-15-0	Carbon Disulfide	8	
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	5	J
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6 ~~1~~	~~J~~ U KLS 3
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	3	BJ
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

13

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

-0292 EPA SAMPLE NO.

CY764

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY764

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 1270

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 21 dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/03/88

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
100-51-6	Benzyl Alcohol	420	U
95-50-1	1,2-Dichlorobenzene	420	U
95-48-7	2-Methylphenol	420	U
108-60-1	bis(2-Chloroisopropyl)Ether	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone	420	U
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
65-85-0	Benzoic Acid	2000	U
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethyl Phthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

-0293

CY764

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY764

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 1270

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 21 dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/03/88

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	420	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	840	U
56-55-3	Benzo(a)Anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)Phthalate	110	BJ
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	420	U
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	420	U
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
191-24-2	Benzo(g,h,i)Perylene	420	U

(1) - Cannot be separated from Diphenylamine

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET -0445

EPA SAMPLE NO
CY764

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY764

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

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 21 dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/13/88

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	10	U
319-85-7	beta-BHC	10	U
319-86-8	delta-BHC	10	U
58-89-9	gamma-BHC (Lindane)	10	U
76-44-8	Heptachlor	10	U
309-00-2	Aldrin	10	U
1024-57-3	Heptachlor epoxide	10	U
959-98-8	Endosulfan I	10	U
60-57-1	Dieldrin	20	U
72-55-9	4,4'-DDE	20	U
72-20-8	Endrin	20	U
33213-65-9	Endosulfan II	20	U
72-54-8	4,4'-DDD	20	U
1031-07-8	Endosulfan sulfate	20	U
50-29-3	4,4'-DDT	20	U
72-43-5	Methoxychlor	100	U
53494-70-5	Endrin ketone	20	U
5103-71-9	alpha-Chlordane	100	U
5103-74-2	gamma-Chlordane	100	U
8001-35-2	Toxaphene	200	U
12674-11-2	Aroclor-1016	100	U
11104-28-2	Aroclor-1221	100	U
11141-16-5	Aroclor-1232	100	U
53469-21-9	Aroclor-1242	100	U
12672-29-6	Aroclor-1248	100	U
11097-69-1	Aroclor-1254	200	U
11096-82-5	Aroclor-1260	200	U

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Appendix D

Reviewed and Corrected
Tentatively Identified Compounds

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

-0012

CY761

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY761

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 5266

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. ____ Date Analyzed: 10/18/88

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. ~~76-13-1~~	~~ETHANE, 1,1,2 TRICHLORO-1,2~~ NONANAL	11.44	78	BJ

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

-0028

EPA SAMPLE NO.

CY762

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY762

Sample wt/vol: 5.1 (g/mL) G Lab File ID: 5263

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 30 Date Analyzed: 10/18/88

Column (pack/cap) PACK Dilution Factor: 0.99

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE, 1,1,2-TRICHLORO-1,2,	11.47	120	BJ

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

--0195

EPA SAMPLE NO.

CY762

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY762

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 1268

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 29 dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/03/88

GPC Cleanup: (Y/N) N pH: 3.9 Dilution Factor: 1.00

Number TICs found: 14

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.30	1700	J
2.	UNKNOWN	6.10	58000	J
3. 541-02-6	CYCLOPENTASILOXANE, DECAMETH	* 12.40	240	BJ
4. 540-97-6	CYCLOHEXASILOXANE, DODECAMET	* 15.12	240	BJ
5.	UNKNOWN	22.92	240	J
6.	UNKNOWN	27.44	230	J
7.	UNKNOWN	28.09	470	J
8. 4563-33-1	BENZENEMETHANESULFONAMIDE	28.72	840	J
9.	UNKNOWN	29.76	1500	J
10. 541-02-6	CYCLOPENTASILOXANE, DECAMETH	* 31.01	270	BJ
11.	UNKNOWN	31.64	530	J
12. 541-02-6	CYCLOPENTASILOXANE, DECAMETH	* 31.91	540	BJ
13.	UNKNOWN	34.34	980	J
14. 541-02-6	CYCLOPENTASILOXANE, DECAMETH	* 38.32	310	BJ

* Column Bleed

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

-0048

EPA SAMPLE NO.

CY763

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY763

Sample wt/vol: 5.4 (g/mL) G Lab File ID: 5265

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 27 Date Analyzed: 10/18/88

Column (pack/cap) PACK Dilution Factor: 0.98

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
~~1. 76-13-1~~	~~ETHANE, 1,1,2-TRICHLORO-1,2,~~ MJK 3/21/89	11.44	100	BJ

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1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

-0251

EPA SAMPLE NO.

CY763

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY763

Sample wt/vol: 30.1 (g/mL) G Lab File ID: 1269

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 29 dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/03/88

GPC Cleanup: (Y/N) N pH: 3.8 Dilution Factor: 1.0

Number TICs found: 10

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.22	2100	J
2.	UNKNOWN	6.07	65000	J
3. 540-97-6	CYCLOHEXASILOXANE, DODECAMET	* 15.14	310	BJ
4.	UNKNOWN	26.21	2900	J
5.	UNKNOWN	27.46	190	J
6. 620-05-3	BENZENE, (IODOMETHYL)-	28.74	470	J
7.	UNKNOWN	29.77	1300	J
8. 540-97-6	CYCLOHEXASILOXANE, DODECAMET	* 31.02	190	BJ
9.	UNKNOWN	31.66	390	J
10.	UNKNOWN	34.39	670	J

* Column Bleed

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

-0068

CY764

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY764

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 5290

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 20 Date Analyzed: 10/20/88

Column (pack/cap) PACK Dilution Factor: 0.98

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 135-01-3	BENZENE, 1,2-DIETHYL-	26.41	81	J

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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

-0294

EPA SAMPLE NO.

CY764

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: CY764

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 1270

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. 21 dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/03/88

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.00

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.22	1600	J
2.	UNKNOWN	6.07	54000	J
~~3. 3074-71-3~~	~~HEPTANE, 2,3-DIMETHYL-~~ MNK 3/21/89	6.37	560	BJ
4.	UNKNOWN	6.43	290	J
5. ~~2216-34-4~~	~~OCTANE, 4-METHYL-~~ MNK 3/21/89	6.55	880	BJ
6. 540-97-6	CYCLOHEXASILOXANE, DODECAMET	* 15.12	280	BJ

* Column Bleed

FORM I SV-TIC 1/87 Rev.

AR301124

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Appendix E

DPO Report for Contractual Compliance

WESTON

ORGANIC DATA VALIDATION SUMMARY

Date Review Completed: 3/21/89
Case No.: 10588
Site Name: Delta Quarries
Sample Nos.: CY761-CY764

Contract Lab.: IT(PA)
Contract No.: 68-01-7470
Lab DPO: Charles Sands
Reviewer: Nicholas J. Kurlick
From: Region III/ESAT
Phone: (301) 266-9887

MATRIX	CONCENTRATION low	med	high	MATRIX RELATED COMMENTS
soil/solid	3			
aqueous	1			
other				

VOLATILES	OK	FYI	Action	COMMENT
GC/MS tuning--BFB	X			
Initial Calibration		X		See notes 1 and 2
Continuing Calibration		X		See notes 1 and 2
Surrogate Recovery	X			
Matrix Spikes	X			
Reagent Blanks		X		See note 3
Holding Times	X			

SEMI-VOLATILES	OK	FYI	Action	COMMENT
GC/MS tuning--DFTPP	X			
Initial Calibration		X		See note 2
Continuing Calibration		X		See note 2
Surrogate Recovery	X			
Matrix Spikes		X		See note 4
Reagent Blanks		X		See note 3
Holding Times	X			

PESTICIDES	OK	FYI	Action	COMMENT
Instrument Performance	X			
Initial Calibration	X			
Continuing Calibration	X			
Surrogate Recovery	X			
Matrix Spikes	X			
Reagent Blanks	X			
Holding Times	X			

OVERALL CASE	OK	FYI	Action	
Compound Identification	X			
Data Completeness	X			

REVIEWER'S COMMENTS:

DOCUMENTATION ATTACHED (see following pages)

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Organic Data Validation Summary

Note 1 - The response factors for 2-butanone were less than 0.050 in the initial and continuing calibrations. (See Table I in Appendix F).

Note 2 - The %D values for several compounds exceeded precision criteria in the initial and continuing calibration standards. (See Table I in Appendix F).

Note 3 - The maximum concentrations of the following compounds were found in the laboratory method blanks.

Compound	Concentration (ug/Kg)
methylene chloride*	12
acetone*	22
ethyl benzene	4J
bis(2-ethylhexyl)phthalate*	51J

* = common laboratory contaminants

Note 4 - The semi-volatile analysis of sample CY764 MS/MSD had two (2) out of twenty-two (22) spike recoveries outside quality control limits. (See Form III in Appendix F).

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Appendix F

Support Documentation

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Case 10588

TABLE I

Compounds and Associated Samples Affected by Calibration Uncertainty

Volatiles	CY761	CY762	CY763	CY764
carbon disulfide	C	C	C	C
2-butanone	R	R	R	R
Semi-volatiles				
benzoic acid		C	C	C
4-chloroaniline		C	C	C
2-chloronaphthalene		C	C	C
2-nitroaniline		C	C	C
3-nitroaniline		C	C	C
2,4-dinitrophenol		C	C	C
4-nitrophenol		C	C	C
fluorene		C	C	C
4-nitroaniline		C	C	C
benzo(g,h,i)perylene		C	C	C

R = The RF was less than 0.050 in the initial or continuing calibration. Detection limits are qualified "R".

C = The %D values exceeded 25% in the continuing calibrations. Positive results are qualified "J" and quantitation limits are qualified "UJ".

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Case 10588

Table II
Comparison of Field Duplicates (ug/Kg)

Compound	CY762	CY764	RPD
carbon disulfide	16J	8J	67
total 1,2-dichloroethene	ND	5J	IND
1,2-dichloroethane	ND	1J	IND
diethylphthalate	610	ND	IND
pentachlorophenol	150J	ND	IND
p,p'-DDE	28	ND	IND
p,p'-DDD	36	ND	IND
p,p'-DDT	50	ND	IND

RPD = Relative Percent Difference
ND = Not Detected
IND = Indeterminate

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix Spike - EPA Sample No.: CY764 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	8410	0	6090	72	26- 90
2-Chlorophenol	8410	0	6600	78	25-102
1,4-Dichlorobenzene	4200	0	2920	70	28 104
N-Nitroso-di-n-prop.(1)	4200	0	3190	76	41 126
1,2,4-Trichlorobenzene	4200	0	2870	68	38 107
4-Chloro-3-methylphenol	8410	0	6810	81	26 103
Acenaphthene	4200	0	3300	79	31-137
4-Nitrophenol	8410	0	7690	91	11-114
2,4-Dinitrotoluene	4200	0	4580	109 *	28- 89
Pentachlorophenol	8410	0	7140	85	17-109
Pyrene	4200	0	3740	89	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	8410	6470	77	-7	35	26-90
2-Chlorophenol	8410	6930	82	-5	50	25-102
1,4-Dichlorobenzene	4200	2870	68	3	27	28 104
N-Nitroso-di-n-prop.(1)	4200	3480	83	-9	38	41 126
1,2,4-Trichlorobenzene	4200	2930	70	-3	23	38 107
4-Chloro-3-methylphenol	8410	7140	85	-5	33	26 103
Acenaphthene	4200	3320	79	0	19	31-137
4-Nitrophenol	8410	6930	82	10	50	11-114
2,4-Dinitrotoluene	4200	4120	98 *	11	47	28- 89
Pentachlorophenol	8410	6260	74	14	47	17-109
Pyrene	4200	3390	81	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: 0 out of 11 outside limits
Spike Recovery: 2 out of 22 outside limits

COMMENTS: CY764 10/20/88 BN/A KWD
4501 GCBA FSCC USEPA CASE#10588 SDG#CY761

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Instrument ID: FINN Calibration Date(s): 10/14/88 10/14/88

Matrix:(soil/water) _____ Level:(low/med) _____ Column:(pack/cap) PACK

Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = 5195 RRF50 = 5196
RRF100= 5197 RRF150= 5198 RRF200= 5199

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane #	1.091	0.972	0.898	0.858	0.979	0.960	9.3#
Bromomethane	1.327	1.174	1.281	1.336	1.354	1.294	5.6
Vinyl Chloride *	1.383	1.219	1.120	1.151	1.282	1.231	8.6*
Chloroethane	0.866	0.820	0.794	0.798	0.776	0.811	4.3
Methylene Chloride	2.433	1.620	1.394	1.331	1.316	1.619	29.1
Acetone	0.874	0.560	0.422	0.482	0.507	0.569	31.2
Carbon Disulfide	3.154	3.010	2.830	2.786	2.954	2.947	5.0
1,1-Dichloroethene *	1.327	1.199	1.079	1.051	1.139	1.159	9.5*
1,1-Dichloroethane #	3.193	2.890	2.553	2.662	2.710	2.802	8.9#
1,2-Dichloroethene (total)	1.510	1.364	1.225	1.248	1.278	1.325	8.8
Chloroform *	3.078	2.657	2.526	2.457	2.549	2.653	9.3*
1,2-Dichloroethane	2.184	2.019	1.831	1.877	1.926	1.967	7.1
2-Butanone	0.032	0.035	0.031	0.035	0.034	0.033	5.5
1,1,1-Trichloroethane	0.474	0.444	0.412	0.413	0.434	0.435	5.9
Carbon Tetrachloride	0.372	0.367	0.345	0.348	0.373	0.361	3.7
Vinyl Acetate	0.949	0.915	0.882	0.941	0.735	0.884	9.9
Bromodichloromethane	0.584	0.569	0.543	0.582	0.576	0.571	2.9
1,2-Dichloropropane *	0.464	0.428	0.399	0.411	0.405	0.421	6.2*
cis-1,3-Dichloropropene	0.576	0.552	0.508	0.538	0.537	0.542	4.6
Trichloroethene	0.408	0.380	0.355	0.365	0.383	0.378	5.3
Dibromochloromethane	0.430	0.444	0.446	0.474	0.478	0.454	4.6
1,1,2-Trichloroethane	0.354	0.338	0.316	0.323	0.321	0.330	4.7
Benzene	1.063	0.942	0.872	0.879	0.876	0.926	8.8
Trans-1,3-Dichloropropene	0.475	0.481	0.450	0.476	0.476	0.472	2.6
Bromoform #	0.306	0.353	0.367	0.410	0.426	0.372	12.8#
4-Methyl-2-Pentanone	0.681	0.706	0.625	0.681	0.648	0.668	4.8
2-Hexanone	0.486	0.507	0.430	0.508	0.481	0.482	6.6
Tetrachloroethene	0.488	0.438	0.409	0.414	0.433	0.436	7.2
1,1,2,2-Tetrachloroethane #	0.801	0.771	0.717	0.767	0.718	0.755	4.8#
Toluene *	0.900	0.789	0.722	0.729	0.705	0.769	10.4*
Chlorobenzene #	1.094	1.004	0.930	0.946	0.955	0.986	6.7#
Ethylbenzene *	0.572	0.522	0.477	0.475	0.480	0.505	8.3*
Styrene	1.117	1.037	0.955	0.962	0.965	1.007	6.9
Total Xylenes	0.686	0.596	0.530	0.536	0.547	0.579	11.3
Toluene-d8	1.195	1.242	1.144	1.131	1.167	1.176	3.8
BFB	0.833	0.890	0.823	0.837	0.859	0.848	3.2
1,2-Dichloroethane-d4	1.789	1.923	1.733	1.779	1.877	1.820	4.3

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-0112

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Instrument ID: FINN Calibration date: 10/18/88 Time: 1602

Lab File ID: 5261 Init. Calib. Date(s): 10/14/88 10/14/88

Matrix:(soil/water) _____ Level:(low/med) _____ Column:(pack/cap) PACK

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Chloromethane	#	0.960	1.183	-23.2	#
Bromomethane		1.294	1.310	-1.2	
Vinyl Chloride	*	1.231	1.444	-17.3	*
Chloroethane		0.811	0.949	-17.0	
Methylene Chloride		1.619	1.824	-12.7	
Acetone		0.569	0.691	-21.4	
Carbon Disulfide		2.947	3.877	-31.6	
1,1-Dichloroethene	*	1.159	1.279	-10.4	*
1,1-Dichloroethane	#	2.802	3.125	-11.5	#
1,2-Dichloroethene (total)		1.325	1.351	-2.0	
Chloroform	*	2.653	2.920	-10.1	*
1,2-Dichloroethane		1.967	2.123	-7.9	
2-Butanone		0.033	0.039	-18.2	
1,1,1-Trichloroethane		0.435	0.466	-7.1	
Carbon Tetrachloride		0.361	0.381	-5.5	
Vinyl Acetate		0.884	1.060	-19.9	
Bromodichloromethane		0.571	0.601	-5.3	
1,2-Dichloropropane	*	0.421	0.459	-9.0	*
cis-1,3-Dichloropropene		0.542	0.555	-2.4	
Trichloroethene		0.378	0.358	5.3	
Dibromochloromethane		0.454	0.475	-4.6	
1,1,2-Trichloroethane		0.330	0.319	3.3	
Benzene		0.926	0.933	-0.8	
Trans-1,3-Dichloropropene		0.472	0.490	-3.8	
Bromoform	#	0.372	0.382	-2.7	#
4-Methyl-2-Pentanone		0.668	0.746	-11.7	
2-Hexanone		0.482	0.524	-8.7	
Tetrachloroethene		0.436	0.409	6.2	
1,1,2,2-Tetrachloroethane	#	0.755	0.753	0.3	#
Toluene	*	0.769	0.730	5.1	*
Chlorobenzene	#	0.986	0.970	1.6	#
Ethylbenzene	*	0.505	0.477	5.5	*
Styrene		1.007	1.040	-3.3	
Total Xylenes		0.579	0.571	1.4	
Toluene-d8		1.176	1.257	-6.9	
BFB		0.848	0.898	-5.9	
1,2-Dichloroethane-d4		1.820	2.125	-16.8	

Samples
VBLK 1
CY762
CY763
CY761

FORM VII VOA 1/87 Rev.

AR301133

VOLATILE CONTINUING CALIBRATION CHECK

40619
-0117

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Instrument ID: FINN Calibration date: 10/19/88 Time: 1443

Lab File ID: 5284 Init. Calib. Date(s): 10/14/88 10/14/88

Matrix:(soil/water) _____ Level:(low/med) _____ Column:(pack/cap) PACK

Min RRF50 for SPCC(#) = 0.300 (0.250 for Bromoform) Max %D for CCC(*) = 25.0%

COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.960	1.116	-16.3	#
Bromomethane		1.294	1.417	-9.5	
Vinyl Chloride	*	1.231	1.355	-10.1	*
Chloroethane		0.811	0.960	-18.4	
Methylene Chloride		1.619	1.783	-10.1	
Acetone		0.569	0.621	-9.1	
Carbon Disulfide		2.947	3.839	-30.3	
1,1-Dichloroethene	*	1.159	1.262	-8.9	*
1,1-Dichloroethane	#	2.802	2.887	-3.0	#
1,2-Dichloroethene (total)		1.325	1.308	1.3	
Chloroform	*	2.653	2.684	-1.2	*
1,2-Dichloroethane		1.967	1.997	-1.5	
2-Butanone		0.033	0.036	-9.1	
1,1,1-Trichloroethane		0.435	0.439	-0.9	
Carbon Tetrachloride		0.361	0.362	-0.3	
Vinyl Acetate		0.884	0.968	-9.5	
Bromodichloromethane		0.571	0.553	3.2	
1,2-Dichloropropane	*	0.421	0.422	-0.2	*
cis-1,3-Dichloropropene		0.542	0.521	3.9	
Trichloroethene		0.378	0.361	4.5	
Dibromochloromethane		0.454	0.449	1.1	
1,1,2-Trichloroethane		0.330	0.309	6.4	
Benzene		0.926	0.880	5.0	
Trans-1,3-Dichloropropene		0.472	0.457	3.2	
Bromoform	#	0.372	0.352	5.4	#
4-Methyl-2-Pentanone		0.668	0.708	-6.0	
2-Hexanone		0.482	0.574	-19.1	
Tetrachloroethene		0.436	0.394	9.6	
1,1,2,2-Tetrachloroethane	#	0.755	0.670	11.3	#
Toluene	*	0.769	0.709	7.8	*
Chlorobenzene	#	0.986	0.927	6.0	#
Ethylbenzene	*	0.505	0.568	-12.5	*
Styrene		1.007	1.015	-0.8	
Total Xylenes		0.579	0.566	2.2	
Toluene-d8		1.176	1.215	-3.3	
BFB		0.848	0.999	-17.8	
1,2-Dichloroethane-d4		1.820	2.054	-12.9	

Samples:
VBLK2
CY764MS
CY764MSD
CY764

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

5 of 14 -0326

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Instrument ID: 4501 Calibration Date(s): 10/25/88 10/25/88

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = 1144 RRF50 = 1139
RRF80 = 1143 RRF120= 1142 RRF160= 1141

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol *	2.253	2.199	2.298	2.713	2.705	2.434	10.4*
bis(2-Chloroethyl)Ether	1.579	1.477	1.601	1.621	1.593	1.574	3.6
2-Chlorophenol	1.943	1.857	1.996	2.069	2.080	1.989	4.7
1,3-Dichlorobenzene	1.579	1.443	1.531	1.624	1.686	1.573	5.9
1,4-Dichlorobenzene *	1.750	1.667	1.564	1.735	1.751	1.693	4.7*
Benzyl Alcohol	0.837	0.853	0.862	0.958	0.956	0.893	6.6
1,2-Dichlorobenzene	1.582	1.461	1.545	1.551	1.585	1.545	3.2
2-Methylphenol	1.202	1.134	1.143	1.209	1.253	1.188	4.2
bis(2-Chloroisopropyl)Ether	1.609	1.496	1.590	1.526	1.643	1.573	3.8
4-Methylphenol	1.222	1.025	1.190	1.204	1.314	1.191	8.8
N-Nitroso-Di-n-Propylamine #	1.239	1.149	1.243	1.188	1.291	1.222	4.5#
Hexachloroethane	0.866	0.790	0.870	0.863	0.871	0.852	4.1
Nitrobenzene	0.394	0.377	0.411	0.412	0.418	0.402	4.2
Isophorone	0.543	0.485	0.515	0.511	0.514	0.514	4.0
2-Nitrophenol *	0.179	0.185	0.165	0.198	0.198	0.185	[illegible]*
2,4-Dimethylphenol	0.326	0.311	0.324	0.315	0.338	0.323	3.3
Benzoic Acid		0.061	0.073	0.090	0.105	0.082	23.5
bis(2-Chloroethoxy)Methane	0.326	0.292	0.308	0.323	0.320	0.314	4.4
2,4-Dichlorophenol *	0.292	0.284	0.290	0.311	0.297	0.295	3.5*
1,2,4-Trichlorobenzene	0.275	0.249	0.273	0.286	0.259	0.268	5.4
Naphthalene	1.093	1.000	1.019	0.937	0.803	0.970	11.2
4-Chloroaniline	0.094	0.254	0.211	0.098	0.323	0.196	50.8
Hexachlorobutadiene *	0.140	0.135	0.136	0.135	0.134	0.136	1.7*
4-Chloro-3-Methylphenol *	0.285	0.268	0.286	0.301	0.301	0.288	4.8*
2-Methylnaphthalene	0.481	0.437	0.459	0.498	0.499	0.475	5.6
Hexachlorocyclopentadiene #	0.237	0.301	0.268	0.268	0.288	0.272	8.9#
2,4,6-Trichlorophenol *	0.382	0.405	0.445	0.425	0.437	0.419	6.1*
2,4,5-Trichlorophenol		0.398	0.403	0.370	0.399	0.393	3.9
2-Chloronaphthalene	1.659	1.691	1.769	1.624	1.635	1.676	3.5
2-Nitroaniline		0.444	0.506	0.509	0.512	0.493	6.6
Dimethyl Phthalate	1.190	1.221	1.312	1.168	1.267	1.232	4.7
Acenaphthylene	1.867	1.847	2.013	1.858	1.937	1.904	3.7
2,6-Dinitrotoluene	0.396	0.391	0.410	0.397	0.407	0.400	2.0
3-Nitroaniline		0.222	0.126	0.242	0.317	0.227	34.6
Acenaphthene *	1.096	1.164	1.273	1.227	1.308	1.214	7.0*
2,4-Dinitrophenol #		0.157	0.159	0.191	0.212	0.180	14.8#
4-Nitrophenol #		0.088	0.091	0.112	0.122	0.103	16.0#

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

6 of 19
0327

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Instrument ID: 4501 Calibration Date(s): 10/25/88 10/25/88

Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = 1144 RRF50 = 1139
RRF80 = 1143 RRF120= 1142 RRF160= 1141

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Dibenzofuran	1.710	1.703	1.828	1.711	1.673	1.725	3.5
2,4-Dinitrotoluene	0.454	0.493	0.490	0.492	0.516	0.489	4.6
Diethylphthalate	1.174	1.162	1.194	1.120	1.195	1.169	2.6
4-Chlorophenyl-phenylether	0.479	0.518	0.535	0.502	0.532	0.513	4.5
Fluorene	1.802	1.865	1.953	1.806	1.837	1.853	3.3
4-Nitroaniline		0.121	0.153	0.182	0.169	0.156	16.9
4,6-Dinitro-2-Methylphenol		0.112	0.108	0.135	0.136	0.123	12.1
N-Nitrosodiphenylamine (1) *	0.585	0.536	0.566	0.573	0.603	0.573	4.3*
4-Bromophenyl-phenylether	0.140	0.153	0.154	0.145	0.153	0.149	4.2
Hexachlorobenzene	0.228	0.244	0.235	0.234	0.243	0.237	2.8
Pentachlorophenol *		0.117	0.125	0.129	0.139	0.128	7.1*
Phenanthrene	0.760	0.766	0.857	0.810	0.849	0.808	5.6
Anthracene	0.780	0.807	0.826	0.845	0.801	0.812	3.1
Di-n-Butylphthalate	0.996	0.930	1.010	0.979	0.890	0.961	5.2
Fluoranthene *	1.090	1.093	1.173	1.174	1.100	1.126	3.9*
Pyrene	1.887	1.614	1.851	1.977	1.547	1.775	10.4
Butylbenzylphthalate	0.628	0.528	0.620	0.659	0.622	0.611	8.1
3,3'-Dichlorobenzidine	0.240	0.189	0.163	0.158	0.176	0.185	17.8
Benzo(a)Anthracene	1.483	1.453	1.600	1.638	1.559	1.547	5.0
Chrysene	1.292	1.261	1.356	1.404	1.227	1.308	5.5
bis(2-Ethylhexyl)Phthalate	0.864	0.774	0.922	0.934	0.917	0.882	7.5
Di-n-Octyl Phthalate *	2.314	2.081	2.407	2.659	2.683	2.429	10.3*
Benzo(b)Fluoranthene	1.412	1.409	1.652	1.642	1.730	1.569	9.5
Benzo(k)Fluoranthene	1.467	1.507	1.579	1.422	1.523	1.500	3.9
Benzo(a)Pyrene *	1.323	1.292	1.329	1.402	1.399	1.349	3.6*
Indeno(1,2,3-cd)Pyrene	1.736	1.852	1.933	1.968	1.982	1.894	5.4
Dibenz(a,h)Anthracene	0.841	0.959	0.973	0.980	1.089	0.968	9.1
Benzo(g,h,i)Perylene	1.694	1.553	1.643	1.599	1.637	1.625	3.2
Nitrobenzene-d5	0.269	0.248	0.268	0.263	0.285	0.267	5.0
2-Fluorobiphenyl	1.498	1.510	1.519	1.488	1.524	1.508	1.0
Terphenyl-d14	0.798	0.805	0.836	0.959	0.891	0.858	7.9
Phenol-d5	2.319	2.180	2.313	2.331	2.335	2.296	2.8
2-Fluorophenyl	1.468	1.388	1.478	1.469	1.533	1.467	3.5
2,4,6-Tribromophenol	0.144	0.167	0.154	0.140	0.153	0.152	6.9

(1) Cannot be separated from Diphenylamine

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

7of19 -0363

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Instrument ID: 4501 Calibration date: 11/03/88 Time: 1251

Lab File ID: 1265 Init. Calib. Date(s): 10/25/88 10/25/88

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D	
Phenol *	2.434	1.850	24.0	*
bis(2-Chloroethyl)Ether	1.574	1.726	-9.7	
2-Chlorophenol	1.989	1.699	14.6	
1,3-Dichlorobenzene	1.573	1.508	4.1	
1,4-Dichlorobenzene *	1.693	1.559	7.9	*
Benzyl Alcohol	0.893	0.772	13.6	
1,2-Dichlorobenzene	1.545	1.543	0.1	
2-Methylphenol	1.188	1.016	14.5	
bis(2-Chloroisopropyl)Ether	1.573	1.617	-2.8	
4-Methylphenol	1.191	1.063	10.8	
N-Nitroso-Di-n-Propylamine #	1.222	0.968	20.8	#
Hexachloroethane	0.852	0.658	22.8	
Nitrobenzene	0.402	0.324	19.4	
Isophorone	0.514	0.491	4.5	
2-Nitrophenol *	0.185	0.203	-9.7	*
2,4-Dimethylphenol	0.323	0.283	12.4	
Benzoic Acid	0.082	0.051	37.8	
bis(2-Chloroethoxy)Methane	0.314	0.309	1.6	
2,4-Dichlorophenol *	0.295	0.298	-1.0	*
1,2,4-Trichlorobenzene	0.268	0.308	-14.9	
Naphthalene	0.970	1.066	-9.9	
4-Chloroaniline	0.196	0.110	43.9	
Hexachlorobutadiene *	0.136	0.152	-11.8	*
4-Chloro-3-Methylphenol *	0.288	0.254	11.8	*
2-Methylnaphthalene	0.475	0.567	-19.4	
Hexachlorocyclopentadiene #	0.272	0.218	19.9	#
2,4,6-Trichlorophenol *	0.419	0.345	17.7	*
2,4,5-Trichlorophenol	0.393	0.334	15.0	
2-Chloronaphthalene	1.676	1.249	25.5	
2-Nitroaniline	0.493	0.346	29.8	
Dimethyl Phthalate	1.232	1.072	13.0	
Acenaphthylene	1.904	1.630	14.4	
2,6-Dinitrotoluene	0.400	0.330	17.5	
3-Nitroaniline	0.227	0.118	48.0	
Acenaphthene *	1.214	1.103	9.1	*
2,4-Dinitrophenol #	0.180	0.107	40.6	#
4-Nitrophenol #	0.103	0.067	35.0	#

Samples
SBLK1
CY762
CY763
CY764
CY764MS
CY764MSD

FORM VII SV-1 1/87 Rev.

AR301137

SEMIVOLATILE CONTINUING CALIBRATION CHECK

871
-0364

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Instrument ID: 4501 Calibration date: 11/03/88 Time: 1251

Lab File ID: 1265 Init. Calib. Date(s): 10/25/88 10/25/88

Min RRF50 for SPCC(#) = 0.050 Max %D for CCC(*) = 25.0%

COMPOUND	RRF	RRF50	%D	
Dibenzofuran	1.725	1.561	9.5	
2,4-Dinitrotoluene	0.489	0.404	17.4	
Diethylphthalate	1.169	1.003	14.2	
4-Chlorophenyl-phenylether	0.513	0.495	3.5	
Fluorene	1.853	1.370	26.1	
4-Nitroaniline	0.156	0.099	36.5	
4,6-Dinitro-2-Methylphenol	0.123	0.111	9.8	
N-Nitrosodiphenylamine (1) *	0.573	0.454	20.8	*
4-Bromophenyl-phenylether	0.149	0.174	-16.8	
Hexachlorobenzene	0.237	0.237	0.0	
Pentachlorophenol *	0.128	0.119	7.0	*
Phenanthrene	0.808	0.891	-10.3	
Anthracene	0.812	0.904	-11.3	
Di-n-Butylphthalate	0.961	0.988	-2.8	
Fluoranthene *	1.126	1.222	-8.5	*
Pyrene	1.775	1.638	7.7	
Butylbenzylphthalate	0.611	0.544	11.0	
3,3'-Dichlorobenzidine	0.185	0.199	-7.6	
Benzo(a)Anthracene	1.547	1.385	10.5	
Chrysene	1.308	1.236	5.5	
bis(2-Ethylhexyl)Phthalate	0.882	0.844	4.3	
Di-n-Octyl Phthalate *	2.429	1.838	24.3	*
Benzo(b)Fluoranthene	1.569	1.531	2.4	
Benzo(k)Fluoranthene	1.500	1.213	19.1	
Benzo(a)Pyrene *	1.349	1.239	8.2	*
Indeno(1,2,3-cd)Pyrene	1.894	1.421	25.0	
Dibenz(a,h)Anthracene	0.968	0.929	4.0	
Benzo(g,h,i)Perylene	1.625	1.148	29.4	
Nitrobenzene-d5	0.267	0.242	9.4	
2-Fluorobiphenyl	1.508	1.314	12.9	
Terphenyl-d14	0.858	0.827	3.6	
Phenol-d5	2.296	1.558	32.1	
2-Fluorophenyl	1.467	1.199	18.3	
2,4,6-Tribromophenol	0.152	0.161	-5.9	

Samples:
SBLK1
CY762
CY763
CY764
CY764MS
CY764MSD

(1) Cannot be separated from Diphenylamine

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET -0139

EPA SAMPLE NO.

VBLK1

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: VBLK-10-18-88

Sample wt/vol: 5.2 (g/mL) G Lab File ID: 5262

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

% Moisture: not dec. ____ Date Analyzed: 10/18/88

Column: (pack/cap) PACK Dilution Factor: 0.99

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

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	9	
67-64-1	Acetone	11	
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	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

-0140

EPA SAMPLE NO.

VBLK1

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: VBLK-10-18-88

Sample wt/vol: 5.2 (g/mL) G Lab File ID: 5262

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

% Moisture: not dec. ____ Date Analyzed: 10/18/88

Column (pack/cap) PACK Dilution Factor: 0.99

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE, 1,1,2-TRICHLORO-1,2,	11.47	88	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET -0157

EPA SAMPLE NO.

VBLK2

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: VBLK-10-19-88

Sample wt/vol: 5.1 (g/mL) G Lab File ID: 5286

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

% Moisture: not dec. ____ Date Analyzed: 10/19/88

Column: (pack/cap) PACK Dilution Factor: 0.98

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	12	
67-64-1	Acetone	22	
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	4	J
100-42-5	Styrene	5	U
1330-20-7	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

-0158

EPA SAMPLE NO.

VBLK2

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: VBLK-10-19-88

Sample wt/vol: 5.1 (g/mL) G Lab File ID: 5286

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

% Moisture: not dec. ____ Date Analyzed: 10/19/88

Column (pack/cap) PACK Dilution Factor: 0.98

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 76-13-1	ETHANE, 1,1,2-TRICHLORO-1,2,	11.44	7	J
2.	UNKNOWN	31.37	110	J

FORM I VOA-TIC 1/87 Rev.

AR301142

13A

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: 0487

PBLK1

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: PBLK 10 20 88

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

Level: (low/med) LOW Date Received: 10/12/88

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/12/88

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

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	80	U
5103-74-2	gamma-Chlordane	80	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 -0383

EPA SAMPLE NO.
SBLK1

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: SBLK-10-20-88

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 1267

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/03/88

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	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
108-60-1	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

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET -0384

EPA SAMPLE NO.

SBLK1

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: SBLK-10-20-88

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 1267

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/03/88

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	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
100-01-6	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	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	660	U
56-55-3	Benzo(a)Anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)Phthalate	51	J
117-84-0	Di-n-Octyl Phthalate	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

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

-0385

EPA SAMPLE NO.: 16 A

SBLK1

Lab Name: IT PITTSBURGH Contract: 68-01-7470

Lab Code: ITPA Case No.: 10588 SAS No.: _____ SDG No.: CY761

Matrix: (soil/water) SOIL Lab Sample ID: SBLK-10-20-88

Sample wt/vol: 30.0 (g/mL) G Lab File ID: 1267

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

% Moisture: not dec. ____ dec. ____ Date Extracted: 10/20/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 11/03/88

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

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	5.28	1500	J
2.	UNKNOWN	6.10	49000	J
3. 3074-71-3	HEPTANE, 2,3-DIMETHYL-	6.40	510	J
4. 2216-34-4	OCTANE, 4-METHYL-	6.58	790	J
5. 541-02-6	CYCLOPENTASILOXANE, DECAMETH	* 12.42	270	J
6. 540-97-6	CYCLOHEXASILOXANE, DODECAMET	* 15.12	250	J
7. 540-97-6	CYCLOHEXASILOXANE, DODECAMET	* 17.54	120	J

* Column Bleed

T.D 03540725

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In Reference to Case No(s):

10588

Task 1513

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

Date of Call: 21 March 89

Laboratory Name: ITPA

Lab Contact: Steve Cochenour

Region: Region III

Regional Contact: N. Kulick (ESAT)

Call Initiated By: ___ Laboratory ✓ Region

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

SMLK1

Summary of Questions/Issues Discussed:

Method used to calculate the blank's surrogate recoveries

Summary of Resolution:

Laboratory will survey data and attempt to return a call today.

N Kulick
Signature

3/21/89
Date

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

AR301147

10 of 19

In Reference to Case No(s): 10588

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

trk 1513

Date of Call: 21 Mar 89

Laboratory Name: ITPA

Lab Contact: Steve Cochenour

Region: Region III

Regional Contact: N. Kurlick (CESAT)

Call Initiated By: ___ Laboratory ✓ Region

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

CY764MS

Summary of Questions/Issues Discussed:

Equation used to calculate matrix spike recoveries.

Summary of Resolution:

Laboratory was very helpful in explaining their equation used to calculate matrix spikes for pesticides

Signature [signature] Date 3/21/89

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

AR301148

In Reference to Case No(s): 10588

Task 1513

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: 22 Mar 89

Laboratory Name: ITPA

Lab Contact: Steve Cochenour

Region: Region III

Regional Contact: N. Kuchek (ESAT)

Call Initiated By: ___ Laboratory ✓ Region

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

C4764

Summary of Questions/Issues Discussed:

Missing spectrum of 1,2 dichloroethane to verify presence

Summary of Resolution:

Lab will check into the matter

Signature

3/22/89
Date

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

AR301149

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
CENTRAL REGIONAL LABORATORY
839 BESTGATE ROAD
ANNAPOLIS, MARYLAND 21401
(301) 266-9180

DATE : FEB 9 1989

SUBJECT: Region III CLP Data QA Review

FROM : Patricia J. Krantz (3ES23)
Chief, Quality Assurance, Region III

TO : Carla Dempsey (OS-230)
QAO, AOB

Attached is a Region III CLP Data Review done by Weston reviewers under the ESAT contract:

Case No.: 10702

Sitename: Delta Quarries

Laboratory: Recra (md.)

Reviewer: Ellis

Attachment

cc: EPA Site RPM
Gareth Pearson, EMSL-LV
Regional DPO: Chuck Sands Region III