ORIGINAL (Red)

139935

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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

DATE : June 7, 1988

SUBJECT: Organic Data Validation for the Fike Site
SAS 3155I Set 28 Batch 1

FROM : Diana Baldi DB
Chemist (3ES23)

TO : Tony D'Appolone
Regional Project Manager (3HW24)

Thru: Pat Krantz PK
Chief, QA Section (3ES23)

Attached is the data review for the first group of high concentration organics samples from the Fike Site (SAS 3155I Set 28) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III ESD.

If you have questions regarding this review or the meaning of the qualifiers, please call me.

Attachment

cc: Doug Doner (3HW15)
Jim Heenehan (3RC21)
Paul Alessio, NUS
Dick Evans, EBASCO
Stepany Del Re, REM III DPO (3HW24) w/o attachments
Tid File:03880506

ORIGINAL
(Red)

WESTON
MANAGERS DESIGNERS/CONSULTANTS
2568A RIVA ROAD
SUITE 300
ANNAPOLIS, MD 21401
PHONE: 301-266-9887

DATE: June 1, 1988

SUBJECT: Organic Data Validation
SAS 3155I, Set No. 28/Report I
Site: Fike Chemical

FROM: Ivan B. DeLoatch IBD
ESAT Data Reviewer

David E. Gallis DG
ESAT Sr. Organic Data Reviewer

TO: Diana Baldi
ESAT Deputy Project Officer

THRU: Gail E. DeRuzzo GD
ESAT Team Manager

Overview:

Special Analytical Service 3155I (SAS 3155I) Set No. 28/Report I contained a total of thirty-seven (37) samples. Eighteen (18) samples were aqueous and nineteen (19) samples were solids. Samples Set 28-24,-33 and -35 were analyzed as two (2) phases and identified as Set 28-24A,-24C,-33A,-33C,-35A and 35C. Included in the set were two (2) trip blanks and three (3) field duplicates. Thirty-five (35) of the samples were analyzed for volatile and extractable target compounds, while two (2) samples were analyzed for volatile target compounds only. All samples were analyzed as per the Special Analytical Service (SAS) High Concentration Statements of Work (SOW) of 7/86. Thirteen (13) of the samples, for which the extracts from the extractable analysis screened to be low level, were reanalyzed using low level protocol and the results were submitted as SAS 3155I Set No. 28/Report III, independent of this report. (See Support Documentation in Appendix F). Units expressed in the data summary of Appendix B are milligrams per kilogram (mg/Kg).

Summary

All compounds with the exceptions of 2-butanone and the volatile fractions of sample Set 28-01 and -21 were successfully analyzed.

Major Problems

- Because of low response factors (RF) for 2-butanone in the initial and continuing calibrations for volatile analysis, all detection limits have been flagged "R" for this compound.

ORIGINAL (Red)

WESTON

- Samples Set 28-01 and -21 each had one volatile surrogate recovery that was less than ten (<10%). Because of this, all quantitations limits for the volatile compounds in these samples have been flagged "R". (See Table I in Appendix F).

Minor Problems

- The holding times for the volatile analysis of all samples were exceeded by fourteen (14) to twenty-three (23) days. (See Table III in Appendix F). Because of this, all positive results have been flagged "L" and all quantitation limits have been flagged "UL", except where qualifiers "B" and "R" were necessary (See above and below).

- Sample Set 28-35C had one (1) volatile surrogate recovery that was below the advisory limits (50-160). But, the qualifiers for exceeding the holding time (as stated above) override the qualifiers that would have been necessary for a low surrogate recovery. (See Table I in Appendix F).

- Three (3) semi-volatile target compounds had response factors (RF) of low precision in the continuing calibrations. These compounds and the affected samples are found in Table IV of Appendix F. Quantitation limits have been flagged "UJ" and positive results have been flagged "J" for these compounds in the associated samples.

Notes

- The trip and method blanks contained the following compounds at the listed maximum concentrations:

Compound	Concentration (mg/Kg)
methylene chloride	4
acetone	14
2-butanone	32

Any sample with concentrations of these common contaminants that was less than ten times (<10x) the above levels were flagged "B" on the data summary form. The dilution factors were taken into account when qualifying the compounds in the samples.

- Samples Set 28-10 and Set 28-36 were sampled and submitted as low level samples, therefore, the samples were not analyzed by

the laboratory because they were not appropriate to the SAS 3155I high concentration protocol. (See Support Documentation in Appendix F).

- Samples Set 28-24,-33 and -35 required phase separation before analysis. They were composed of two (2) phases: water miscible liquid and solids. (See Appendix F).

- Three sets of Field Duplicates were analyzed, but only two sets had positive results to use for precision estimates. For one of the sets of duplicates (sample Set 28-33 and sample Set 28-34) used for precision estimates, weighted phase quantitations were combined for samples Set 28-33A and Set 28-33C before the relative percent difference (RPD) was calculated against sample Set 28-34. The RPD values for these duplicate analyses are found in Table II of Appendix F.

- All reported concentrations in the data summary of Appendix B are based on wet weight.

- Some of the values reported on the data summary form may deviate slightly from the laboratory reported values due to rounding techniques.

All data was reviewed for compliance with the Special Analytical Service (SAS) request 3155I and validated in accordance with the Functional Guidelines for Evaluating Organics Analyses with Modifications for Use Within Region III. The text of this report addresses only the problems affecting usability.

<u>Attachments</u>

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

ORIGINAL
(Red)

WESTON

Appendix A

Glossary of Data Qualifier Codes

ORIGINAL (Red)

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.

WESTON

ORIGINAL
(Red)

Appendix B

Data Summary Forms

ORIGINAL
(Red)

AR301772

DATA SUMMARY FORM: VOLATILES

Case Number: SAS 31551/28-I

Site Name: Fike Chemical

Date of Sampling: 3/1/88 - 3/3/88

WATER SAMPLES (aqueous)
(mg/Kg)

To calculate sample quantitation limit:
(CROL x Dilution Factor)

SEE GLOSSARY FOR CODE DEFINITIONS

	Sample No.	SET28-06		SET28-07		SET28-08		SET28-09		SET28-11		SET28-15		SET28-14		SET28-16		SET28-18		SET28-20	
	Dilution Factor	1		1		1		1		1		1		1		1		1		1	
	Location									Trip Blank				Trip Blank						Duplicate of SET28-18	
CROL*	COMPOUND																				
5	Chloromethane		UL		UL		UL		UL		UL		UL		UL		UL		UL		UL
5	Bromomethane		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
5	#VINYL CHLORIDE		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
5	Chloroethane		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
2.5	Methylene Chloride	12	B	5	B	7	B	13	B			2	B	4	B	5	B	4	B	4	B
5	Acetone		UL		UL		UL		UL				UL	11	B		UL		UL		UL
2.5	Carbon Disulfide		↓		↓		↓		↓		↓		↓		UL		↓		↓		↓
2.5	#1,1-DICHLOROETHENE		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
2.5	1,1-Dichloroethane		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
2.5	#TOTAL-1,2-DICHLOROETHENE		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
2.5	Chloroform		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
2.5	#1,2-DICHLOROETHANE		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
5	#2-BUTANONE		R		R		R		R		R	8	B	13	B	11	B		R	23	B
2.5	#1,1,1-TRICHLOROETHANE		UL		UL		UL		UL		UL		UL		UL		UL		UL		UL
2.5	#CARBON TETRACHLORIDE		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
5	Vinyl Acetate		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
2.5	Bromodichloromethane		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
2.5	#1,2-DICHLOROPROPANE		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
2.5	Cis-1,3-Dichloropropene		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
2.5	Trichloroethene		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
2.5	Dibromochloromethane		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
2.5	1,1,2-Trichloroethane		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
2.5	#BENZENE		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
2.5	Trans-1,3-Dichloropropene		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
5	2-Chloroethylvinylether		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓

* CROL = Contract Required Quantitation Limit

\# Action Level Exist

ORIGINAL (Red)

AR301773

DNIR SUMMARY FORM: VOLATILES

Case Number: SAS 31551/28-I

Site Name: Fike Chemical

Date of Sampling: 3/1/88 - 3/3/88

WATER SAMPLES (aqueous) (mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

CRQL*	COMPOUND	SET28-22		SET28-23		SET28-24A		SET28-25		SET28-26		SET28-29		SET28-33A		SET28-35A	
	Dilution Factor	1		1		1		1		1		1		1		1	
	Location																
5	Chloromethane		UL		UL		UL		UL		UL		UL		UL		UL
5	Bromomethane		↓		↓		↓		↓		↓		↓		↓		↓
5	*VINYL CHLORIDE		↓		↓		↓		↓		↓		↓		↓		↓
5	Chloroethane		↓		↓		↓		↓		↓		↓		↓		↓
2.5	Methylene Chloride	4	B	2	B	2	B	1	B	2	B	4	B		↓		↓
5	Acetone		UL		UL	11	B		UL	18	B		UL		↓		↓
2.5	Carbon Disulfide		↓		↓		UL		↓		UL		↓		↓		↓
2.5	*1,1-DICHLOROETHENE		↓		↓		↓		↓		↓		↓		↓		↓
2.5	1,1-Dichloroethane		↓		↓		↓		↓		↓		↓		↓		↓
2.5	*TOTAL-1,2-DICHLOROETHENE		↓		↓		↓		↓		↓		↓		↓		↓
2.5	Chloroform		↓		↓		↓		↓		↓		↓		↓		↓
2.5	*1,2-DICHLOROETHANE		↓		↓		↓		↓		↓		↓		↓		↓
5	*2-BUTANONE	22	B	23	B	24	B	19	B	23	B	25	B	15	B	13	B
2.5	*1,1,1-TRICHLOROETHANE	4	L		UL		UL		UL		UL	1	L		UL		UL
2.5	*CARBON TETRACHLORIDE		UL		↓		↓		↓		↓		UL		↓		↓
5	Vinyl Acetate		↓		↓		↓		↓		↓		↓		↓		↓
2.5	Bromodichloromethane		↓		↓		↓		↓		↓		↓		↓		↓
2.5	*1,2-DICHLOROPROPANE		↓		↓		↓		↓		↓		↓		↓		↓
2.5	Cis-1,3-Dichloropropene		↓		↓		↓		↓		↓		↓		↓		↓
2.5	Trichloroethene	1	L		↓		↓		↓		↓		↓		↓		↓
2.5	Dibromochloromethane		UL		↓		↓		↓		↓		↓		↓		↓
2.5	1,1,2-Trichloroethane		↓		↓		↓		↓		↓		↓		↓		↓
2.5	*BENZENE		↓	1	L		↓		↓		↓		↓		↓	44	L
2.5	Tra[illegible],3-Dichloropropene		↓		UL		↓		↓		↓		↓		↓		UL
5	2-Ch[illegible]roethylvinylether		↓		UL		↓		↓		↓		↓		↓		UL

* CRQL = Contract Required Quantitation Limit

* Action Level Exist

AR301774

DATA SUMMARY FORM: VOLATILES AND BNAs

Case Number: SAS 3155I / 28-I

Site Name: Fike Chemical

Date of Sampling: 3/1/88 - 3/3/88

WATER SAMPLES (aqueous)

(mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

ORIGINAL (Red)

AR301774

CRQL**	COMPOUND	SET28-06		SET28-07		SET28-08		SET28-09		SET28-11		SET28-13		SET28-14		SET28-16		SET28-18		SET28-20	
	Dilution Factor	1		1		1		1		1		1		1		1		1		1	
	Location									Trip Blank				Trip Blank						Duplicate of SET 28-18	
2.5	Bromoform		UL		UL		UL		UL		UL		UL		UL		UL		UL		UL
5	4-Methyl-2-pentanone	8	L					15	L												
5	2-Hexanone		UL						UL												
2.5	*TETRACHLOROETHENE																				
2.5	1,1,2,2-Tetrachloroethane																				
2.5	*TOLUENE											5	L								
2.5	Chlorobenzene												UL								
2.5	*ETHYLBENZENE																				
2.5	*STYRENE																				
2.5	*TOTAL XYLENES																				
20	Phenol		Q		Q		Q		Q		Q		Q		Q		Q		Q		Q
20	bis(2-Chloroethyl)ether																				
20	2-Chlorophenol																				
20	*1,3-DICHLOROBENZENE																				
20	*1,4-DICHLOROBENZENE																				
20	Benzyl Alcohol																				
20	1,2-Dichlorobenzene																				
20	2-Methylphenol																				
20	bis(2-Chloroisopropyl)ether																				
20	4-Methylphenol																				
20	N-Nitroso-di-n-propylamine																				
20	Hexachloroethane																				
20	Nitrobenzene																				
20	Isophorone																				
20	2-Nitrophenol																				

** CRQL = Contract Required Quantitation Limit

* Action Level Exists

DATA SUMMARY FORM: VOLATILES AND BNAs

ORIGINAL
(Red)

AR30177

Case Number: SAS 3155I/28-I
Site Name: Fike Chemical
Date of Sampling: 3/1/88 - 3/3/88

WATER SAMPLES (aqueous)
(mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

CRQL*	COMPOUND	SET 28-22		SET 28-23		SET 28-24A		SET 28-25		SET 28-26		SET 28-29		SET 28-33A		SET 28-35A				
	Dilution Factor	/ / /		/ / /		/ / /		/ /		/ /		/ /		/ / /		/ /				
	Location																			
2.5	Bromoform		UL		UL		UL		UL		UL		UL		UL		UL			
5	4-Methyl-2-pentanone			4	L	9	L			16	L									
5	2-Hexanone				UL		UL				UL									
2.5	*TETRACHLOROETHENE					1	L													
2.5	1,1,2,2-Tetrachloroethane						UL													
2.5	*TOLUENE	1	L			1	L									18	L			
2.5	Chlorobenzene	16	L			4	L										UL			
2.5	*ETHYLBENZENE		UL				UL			1	L						UL			
2.5	*STYRENE										UL					4	L			
2.5	*TOTAL XYLENES									5	L					8	L			
20	Phenol			7	J				Q		Q		Q				Q			
20	bis(2-Chloroethyl)ether																			
20	2-Chlorophenol																			
20	*1,3-DICHLOROBENZENE																			
20	*1,4-DICHLOROBENZENE																			
20	Benzyl Alcohol																			
20	1,2-Dichlorobenzene																			
20	2-Methylphenol																			
20	bis(2-Chloroisopropyl)ether																			
20	4-Methylphenol																			
20	N-Nitroso-di-n-propylamine																			
20	Hexachloroethane																			
20	Nitrobenzene																			
20	Isophorone																			
20	2-Nitrophenol																			

* CRQL = Contract Required Quantitation Limit

* Action Level Exists

AR301775

DNIA SUMMARY FORM: D N A s

ORIGINAL (Red)

AR301776

Case Number: SAS 3155I/28-I
Site Name: Fike Chemical
Date of Sampling: 3/1/88 - 3/3/88

WATER SAMPLES (aqueous) (mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

CRQL*	COMPOUND	SET28-22	SET28-23	SET28-24A	SET28-25	SET28-26	SET28-27	SET28-33A	SET28-35A		
	Sample No. / Dilution Factor	1	1	1				1			
	Location										
20	2,4-Dimethylphenol				Q	Q	Q		Q		
100	Benzoic Acid										
20	bis(2-Chloroethoxy)methane										
20	2,4-Dichlorophenol										
20	1,2,4-Trichlorobenzene										
20	Naphthalene							16 J			
20	4-Chloroaniline			5 J							
20	Hexachlorobutadiene										
20	4-Chloro-3-methylphenol										
20	2-Methylnaphthalene										
20	Hexachlorocyclopentadiene										
20	2,4,6-Trichlorophenol										
100	2,4,5-Trichlorophenol										
20	2-Chloronaphthalene										
100	2-Nitroaniline										
20	Dimethyl phthalate										
20	Acenaphthylene										
20	2,6-Dinitrotoluene										
100	3-Nitroaniline										
20	Acenaphthene										
100	2,4-Dinitrophenol							UJ			
100	4-Nitrophenol										
20	Dibenzofuran										
100	2,4-Dinitrotoluene										
20	Diethylphthalate										

* CRQL = Contract Required Quantitation Limit

N Action Level Exists

DATA SUMMARY FORM: B H A s

ORIGINAL (Red)

AR301777

Case Number: SAS 3155I / 28-I

Site Name: Fike Chemical

Date of Sampling: 3/1/88 - 3/3/88

WATER SAMPLES (aqueous) (mg/Kg)

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

SEE GLOSSARY FOR DEFINITIONS

CRQL*	COMPOUND	SET 28-22	SET 28-23	SET 28-24A	SET 28-25	SET 28-26	SET 28-29	SET 28-33A	SET 28-35A		
	Sample No.	SET 28-22	SET 28-23	SET 28-24A	SET 28-25	SET 28-26	SET 28-29	SET 28-33A	SET 28-35A		
	Dilution Factor	1	1	1				1			
	Location										
20	4-Chlorophenyl-phenylether				Q	Q	Q		Q		
20	Fluorene										
100	4-Nitroaniline										
100	4,6-Dinitro-2-methylphenol										
20	N-Nitrosodiphenylamine										
20	4-Bromophenyl-phenylether										
20	Hexachlorobenzene										
100	*PENTACHLOROPHENOL										
20	Phenanthrene										
20	Anthracene										
20	Di-n-butylphthalate										
20	Fluoranthene										
20	Pyrene										
20	Butylbenzylphthalate	56	27								
40	3,3-Dichlorobenzidine										
20	Benzo(a)anthracene										
20	Chrysene										
20	bis(2-Ethylhexyl)phthalate										
20	Di-n-octyl phthalate			4 J							
20	Benzo(b)fluoranthene							UJ			
20	Benzo(k)fluoranthene										
20	Benzo(a)pyrene										
20	Indeno(1,2,3-cd)pyrene										
20	Dibenz(a,h)anthracene										
20	Benzo(g,h,i)perylene										

* ( ) = Contract Required Quantitation Limit) ion Level Exists

Case Number: SAS 31551/28-I

Site Name: Fike Chemical

Date of Sampling: 3/1/88 - 3/3/88

DATA SUMMARY FORM: PESTICIDES

WATER SAMPLES (aqueous) (mg/Kg)

To calculate sample quantitation limits (CROL * Dilution Factor)

SEE GLOSSARY FOR CODE DEFINITIONS

(Red)

CROL**	COMPOUND	SET28-22	SET28-23	SET28-24A	SET28-25	SET28-26	SET28-29	SET28-33A	SET28-35A
	Dilution Factor	1	1	1				1	
	Location								
20	alpha-BHC				Q	Q	Q		Q
20	beta-BHC								
20	delta-BHC								
20	GAMMA-BHC (LINDANE)								
20	HEPTACHLOR								
20	Aldrin								
20	Heptachlor Epoxide								
20	Endosulfan I								
20	Dieldrin								
20	4,4'-DDE								
20	ENDRIN								
20	Endosulfan II								
20	4,4'-DDD								
20	Endosulfan Sulfate								
20	4,4'-DDT								
20	METHOXYCHLOR								
20	Endrin ketone								
20	ALPHA CHLORDANE								
20	BETA CHLORDANE								
	TOXAPHENE	Q	Q	Q				Q	
	Aroclor-1016								
	Aroclor-1221								
	Aroclor-1232								
	Aroclor-1242								
	Aroclor-1248								
	Aroclor-1254								
	Aroclor-1260								

** CROL = Contract Required Quantitation Limit

* Action Level Exists

AR301778

UNIR SUMMARY FORM: PCB CONGENERS

ORIGINAL (Red)

Case Number: SAS 3155I/28-I

Site Name: Fike Chemical

Date of Sampling: 3/1/88 - 3/3/88

WATER SAMPLES (aqueous) (mg/Kg)

To calculate sample quantitation limits (CRQL X Dilution Factor)

SEE GLOSSARY FOR DEFINITIONS

CRQL**	Compound / Sample No.	SET28-22	SET28-23	SET28-24A	SET28-25	SET28-26	SET28-29	SET28-33A	SET28-35A		
	Dilution Factor	1	1	1				1			
	Location										
100	Monochlorobiphenyl				Q	Q	Q		Q		
100	Dichlorobiphenyl										
100	Trichlorobiphenyl										
100	Tetrachlorobiphenyl										
100	Pentachlorobiphenyl										
100	Hexachlorobiphenyl										
100	Heptachlorobiphenyl										
100	Octachlorobiphenyl										
100	Nonachlorobiphenyl										
100	Decachlorobiphenyl										

** CRQL = Contract Required Quantitation Limit

AR301779

MAIN SUMMARY FORM: VOLATILES

ORIGINAL (Red)

R301780

Case Number: SAS 3155I /28-I

Site Name: Fike Chemical

Date of Sampling: 3/1/88 - 3/3/88

SOIL SAMPLES (solid) (mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

CRQL**	COMPOUND	SET2B-01		SET2B-02		SET2B-03		SET2B-04		SET2B-05		SET2B-12		SET2B-15		SET2B-17		SET2B-19		SET2B-21	
	Dilution Factor	20		1		1		1		10		20		1		5		20		200	
	% Moisture																				
	Location																	Duplicate of SET2B-17			
5	Chloromethane		R		UL		UL		UL		UL		UL		UL		UL		UL		R
5	Bromomethane		↓		↓		↓		↓		↓		↓		↓		↓		↓		↓
5	*VINYL CHLORIDE																				
5	Chloroethane																				
2.5	Methylene Chloride	33	B	2	B	2	B	2	B	12	B	22	B	4	B	71	B	110	B	9200	L
5	Acetone	140	B	9	B	15	B	11	B	61	B	54	B		UL		UL	92	B	1700	B
2.5	Carbon Disulfide	10	L	1	L	26	UL	33	UL	6	L		UL			84	L	69	L		R
2.5	*1,1-DICHLOROETHENE		R		UL						UL						UL		UL		
2.5	1,1-Dichloroethane																				
2.5	*TOTAL-1,2-DICHLOROETHENE																				
2.5	Chloroform															110	L	130	L		
2.5	*1,2-DICHLOROETHANE	15	L														UL		UL		
5	*2-BUTANONE	64	B	12	B	12	B	72	B	35	B	48	B	11	B	12	B	88	B	770	B
2.5	*1,1,1-TRICHLOROETHANE		R		UL		UL		UL		UL		UL		UL	8	L	14	L		R
2.5	*CARBON TETRACHLORIDE																UL		UL		
5	Vinyl Acetate																				
2.5	Bromodichloromethane																				
2.5	*1,2-DICHLOROPROPANE																				
2.5	Cis-1,3-Dichloropropene																				
2.5	Trichloroethene									48	L										
2.5	Dibromochloromethane										UL										
2.5	1,1,2-Trichloroethane										UL										
2.5	*BENZENE	35	L	"		2	L	3		6	L										
2.5	Trans-1,3-Dichloropropene		R				UL				UL										
5	2-Chloroethylvinylether		R				UL				UL										

** CRQL = Contract Required Quantitation Limit

* Action Level Total

ORIGINAL
(Red)

AR301781

DATA SUMMARY FORM: VOLATILES

Case Number: SAS 3155I/2B-I
Site Name: Fike Chemical
Date of Sampling: 3/1/88 - 3/3/88

SOIL SAMPLES (solid)
(mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

	Sample No.	SET 2B-24C		SET 2B-27		SET 2B-28		SET 2B-30		SET 2B-31		SET 2B-32		SET 2B-33C		SET 2B-34		SET 2B-35C	
	Dilution Factor	4		1		1		1		1		1		1		1		20	
	% Moisture																		
	Location															Duplicate of SET 2B-33			
CRQL*	COMPOUND																		
5	Chloromethane		UL		UL		UL		UL		UL		UL		UL		UL		UL
5	Bromomethane																		
5	*VINYL CHLORIDE																		
5	Chloroethane																		
2.5	Methylene Chloride	13	B	1	B			1	B	2	B	2	B	1	B	2	B	33	B
5	Acetone	25	B		UL			6	B	8	B	6	B	4	B	7	B	62	B
2.5	Carbon Disulfide		UL						UL		UL		UL		UL				UL
2.5	*1,1-DICHLOROETHENE		UL																
2.5	1,1-Dichloroethane	8	L																
2.5	*TOTAL-1,2-DICHLOROETHENE		UL																
2.5	Chloroform																		
2.5	*1,2-DICHLOROETHANE																		
5	*2-BUTANONE	22	B	20	B	31	B	32	B	24	B	13	B	9	B	13	B	35	B
2.5	*1,1,1-TRICHLOROETHANE		UL		UL		UL	2	L	1	L		UL		UL		UL		UL
2.5	*CARBON TETRACHLORIDE								UL		UL								
5	Vinyl Acetate																		
2.5	Bromodichloromethane																		
2.5	*1,2-DICHLOROPROPANE																		
2.5	Cis-1,3-Dichloropropene																		
2.5	Trichloroethene	5	L																
2.5	Dibromochloromethane		UL																
2.5	1,1,2-Trichloroethane		UL																
2.5	*BENZENE	4	L							1	L							2000	L
2.5	Tra[illegible]3-Dichloropropene		UL								UL								
5	2-Chloroethylvinylether		UL								UL								

* Action Level Exist

* Required Quantitation Limit

DATA SUMMARY FORM: VOLATILES AND BNAs

ORIGINAL (Red)

R301782

Case Number: SAS 3155I/28-I

Site Name: Fike Chemical

Date of Sampling: 3/1/88 - 3/3/88

SOIL SAMPLES (solid)

(mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

	Sample No.	SET28-01		SET28-02		SET28-03		SET28-04		SET28-05		SET28-12		SET28-15		SET28-17		SET28-19		SET28-21	
	Dilution Factor	20		1		1		1		10		20		1		5		20		200	
	% Moisture	6		4		1		1		4		15		5		1		1		15	
	Location																	Duplicate of SET28-19			
CROL*	COMPOUND																				
2.5	Bromoform		R		UL		UL		UL		UL		UL		UL		UL		UL		R
5	4-Methyl-2-pentanone	71	L			2	L	4	L	62	L					13	L	12	L		
5	2-Hexanone	250	L				UL	5	L		UL					52	L	45	L		
2.5	*TETRACHLOROETHENE	100	L					1	L	25	L					540	L	460	L	680	L
2.5	1,1,2,2-Tetrachloroethane		R						UL		UL						UL		UL		R
2.5	*TOLUENE	1100	L			1	L	10	L	600	L	1500	L			650	L	500	L	630	L
2.5	Chlorobenzene	710	L				UL	4	L	350	L		UL				UL		UL	2500	L
2.5	*ETHYLBENZENE	200	L			2	L	2	L	10	L					5	L		UL	480	L
2.5	*STYRENE		R				UL		UL		UL					6	L	11	L		R
2.5	*TOTAL XYLENES	1300	L			14	L	12	L	67	L					32	L	51	L	2000	L
20	Phenol	42	J			23		5	J	58	J	390	L			110		130			
20	bis(2-Chloroethyl)ether																				
20	2-Chlorophenol																				
20	*1,3-DICHLOROBENZENE																				
20	*1,4-DICHLOROBENZENE																				
20	Benzyl Alcohol																				
20	1,2-Dichlorobenzene																				
20	2-Methylphenol																				
20	bis(2-Chloroisopropyl)ether																				
20	4-Methylphenol							18	J	24	J					14	J	15	J	1700	L
20	N-Nitroso-di-n-propylamine																				
20	Hexachloroethane																				
20	Nitrobenzene																				
20	Isophorone																				
20	2-Nitrophenol																				

* CROL = Contract Required Quantitation Limit

* Action Level Exists

DATA SUMMARY FORM: VOLATILES AND BNAs

ORIGINAL (Red)

Case Number: SAS 3155 I / 28-I

Site Name: Folk Chemical

Date of Sampling: 3/1/88 - 3/3/88

SOIL SAMPLES (solid)

(mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

CRQL**	COMPOUND	SET28-24C		SET28-27		SET28-28		SET28-30		SET28-31		SET28-32		SET28-33C		SET28-34		SET28-35C	
	Dilution Factor	4	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1	20	20
	% Moisture																		
	Location															Duplicate of SET28-33			
2.5	Bromoform		UL		UL		UL		UL		UL		UL		UL		UL		UL
5	4-Methyl-2-pentanone	52	L																
5	2-Hexanone	190	L																
2.5	*TETRACHLOROETHENE	110	L																
2.5	1,1,2,2-Tetrachloroethane		UL																
2.5	*TOLUENE	58	L					1	L	1	L							2200	L
2.5	Chlorobenzene	290	L						UL		UL								UL
2.5	*ETHYLBENZENE	6	L																UL
2.5	*STYRENE		UL															320	L
2.5	*TOTAL XYLENES	34	L															660	L
20	Phenol				9					4	J								
20	bis(2-Chloroethyl)ether																		
20	2-Chlorophenol																		
20	*1,3-DICHLOROBENZENE																		
20	*1,4-DICHLOROBENZENE																		
20	Benzyl Alcohol																		
20	1,2-Dichlorobenzene																		
20	2-Methylphenol																		
20	bis(2-Chloroisopropyl)ether																		
20	4-Methylphenol																		
20	N-Nitroso-di-n-propylamine																		
20	Hexachloroethane																		
20	Nitrobenzene																		
20	Isophorone																		
20	2-Nitrophenol																		

** CRQL = Contract Required Quantitation Limit

* Action Level Exists

DATA SUMMARY FORM: A N A S

ORIGINAL
(Red)

Case Number: SAS 3155I / 28-I
Site Name: Fine Chemical
Date of Sampling: 3/1/88 - 3/3/88

SOIL SAMPLES (solid)
(mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

	Sample No.	SET2B-01		SET2B-02		SET2B-03		SET2B-04		SET2B-05		SET2B-12		SET2B-15		SET2B-17		SET2B-17		SET2B-21	
	Dilution Factor	6		4		1		1		4		15		5		1		1		15	
	% Moisture																				
	Location																	Duplicate of SET2B-17			
CRQL*	COMPOUND																				
20	2,4-Dimethylphenol															4	J	4	J		
100	Benzoic Acid																				
20	bis(2-Chloroethoxy)methane																				
20	2,4-Dichlorophenol											48	L					4	J	33	L
20	1,2,4-Trichlorobenzene	52	J							130		97	J			20		18	J	5900	
20	Naphthalene	56	J	8	J							2000				24		27		180	J
20	4-Chloroaniline	83	J					8	J	26	J					12	J	13	J		
20	Hexachlorobutadiene																				
20	4-Chloro-3-methylphenol																				
20	2-Methylnaphthalene	54	J							10	J	200	J			16	J	15	J		
20	Hexachlorocyclopentadiene																				
20	2,4,6-Trichlorophenol																				
100	2,4,5-Trichlorophenol																				
20	2-Chloronaphthalene																				
100	2-Nitroaniline																				
20	Dimethyl phthalate					3	J									80		70			
20	Acenaphthylene																				
100	2,6-Dinitrotoluene																				
100	3-Nitroaniline																				
20	Acenaphthene	32	J									65	J			6	J	5	J		
100	2,4-Dinitrophenol		UJ				UJ		UJ				UJ		UJ		UJ		UJ		UJ
100	4-Nitrophenol																				
20	Dibenzofuran	34	J									73	J			6	J	5	J		
20	2,4-Dinitrotoluene																				
20	Diethylphthalate																				

* CRQL = Contract Required Quantitation Limit

* Action Level Exists

DATA SUMMARY FORM: B N A s

ORIGINAL (Red)

Case Number: SAS 3155I/28-I

Site Name: Fike Chemical

Date of Sampling: 3/1/88 - 3/3/88

SOIL SAMPLES (solid) (mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

CRQL*	COMPOUND	SET28-24G		SET28-27		SET28-28		SET28-30		SET28-31		SET28-32		SET28-33C		SET28-34		SET28-35C	
	Sample No.	SET28-24G		SET28-27		SET28-28		SET28-30		SET28-31		SET28-32		SET28-33C		SET28-34		SET28-35C	
	Dilution Factor	6				1		1		1		1							
	% Moisture																		
	Location															Duplicate of SET28-33			
20	2,4-Dimethylphenol				Q														
100	Benzoic Acid																		
20	bis(2-Chloroethoxy)methane																		
20	2,4-Dichlorophenol																		
20	1,2,4-Trichlorobenzene	250																	
20	Naphthalene													3	J	2	J	3500	
20	4-Chloroaniline	75	J																
20	Hexachlorobutadiene																		
20	4-Chloro-3-methylphenol																		
20	2-Methylnaphthalene													3	J	3	J	280	J
20	Hexachlorocyclopentadiene																		
20	2,4,6-Trichlorophenol																		
100	2,4,5-Trichlorophenol																		
20	2-Chloronaphthalene																		
100	2-Nitroaniline																		
20	Dimethyl phthalate																		
20	Acenaphthylene																	57	J
100	2,6-Dinitrotoluene																		
100	3-Nitroaniline																		
20	Acenaphthene													10	J	5	J	46	J
100	2,4-Dinitrophenol		UJ						UJ		UJ								UJ
100	4-Nitrophenol																		
20	Dibenzofuran													7	J	5	J	120	J
20	2,4-Dinitrotoluene																		
20	Diethy[illegible]alate																		

* CRQL = Contract Required Quantitation Limit

% Moisture Level Exists

AR301785

MAIN SUMMARY FORM: B N A s

ORIGINAL (Red)

AR301786

Case Number: SAS 3155I/28-I

Site Name: Fike Chemical

Date of Sampling: 3/1/88 - 3/3/88

SOIL SAMPLES (solid)

(mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

	Sample No.	SET2B-01		SET2B-02		SET2B-03		SET2B-04		SET2B-05		SET2B-12		SET2B-15		SET2B-17		SET2B-17		SET2B-21	
	Dilution Factor	6		4		1		1		4		15		5		1		1		15	
	% Moisture																				
	Location																	Duplicate of SET2B-17			
CRQL*	COMPOUND																				
20	4-Chlorophenyl-phenylether																				
20	Fluorene	38	J									100	J								
100	4-Nitroaniline																				
100	4,6-Dinitro-2-methylphenol																				
20	N-Nitrosodiphenylamine	330		11	J	3	J			240											
20	4-Bromophenyl-phenylether																				
20	Hexachlorobenzene																				
100	*PENTACHLOROPHENOL																				
20	Phenanthrene	110	J	23	J			3	J	9	J	500		11	J	25		25			
20	Anthracene	61	J	15	J			2	J			52	J			9	J	9	J		
20	Di-n-butylphthalate					5	J							18	J	26		23			
20	Fluoranthene	39	J	20	J					10	J	360		13	J	10	J	11	J		
20	Pyrene	25	J	15	J							230	J			7	J	7	J		
20	Butylbenzylphthalate							4	J							26		25			
20	3,3-Dichlorobenzidine																				
20	Benzo(a)anthracene											110	J								
20	Chrysene											140	J								
20	bis(2-Ethylhexyl)phthalate	1200		630		59		140		1600		110	J	1500		420		370		110	J
20	Di-n-octyl phthalate	99	J	27	J					12	J			42	J	33		28			
20	Benzo(b)fluoranthene						UJ		UJ			110	J		UJ		UJ		UJ		
20	Benzo(k)fluoranthene											89	J								
20	Benzo(a)pyrene											49	J								
20	Indeno(1,2,3-cd)pyrene											74	J								
20	Dibenz(a,h)anthracene																				
20	Benzo(g,h,i)perylene											42	J								

* CRQL = Contract Required Quantitation Limit

* Action Level Exists

UNIH SUMMARY FORM: B N A s

ORIGINAL (Red)

Case Number: SAS 31551 / 28-I
Site Name: Fike Chemical
Date of Sampling: 3/1/88 - 3/3/88

SOIL SAMPLES (solid)

(mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

CRQL**	COMPOUND	SET28-24C	SET28-27	SET28-28	SET28-30	SET28-31	SET28-32	SET28-33C	SET28-34	SET28-35C
	Sample No.	SET28-24C	SET28-27	SET28-28	SET28-30	SET28-31	SET28-32	SET28-33C	SET28-34	SET28-35C
	Dilution Factor	6		1	1	1	1	1	1	20
	% Moisture									
	Location								Duplicate of SET28-33	
20	4-Chlorophenyl-phenylether									
20	Fluorene							12 J	8 J	96 J
100	4-Nitroaniline						W	W	W	
100	4,6-Dinitro-2-methylphenol									
20	N-Nitrosodiphenylamine	130				6 J				
20	4-Bromophenyl-phenylether									
20	Hexachlorobenzene									
100	*PENTACHLOROPHENOL									
20	Phenanthrene				6 J		2 J	22	13 J	180 J
20	Anthracene				3 J			110	120	74 J
20	Di-n-butylphthalate					3 J	2 J			
20	Fluoranthene	14 J			9 J	4 J	13 J	21	11 J	160 J
20	Pyrene				7 J	3 J	12 J	15 J	8 J	130 J
20	Butylbenzylphthalate									
20	3,3-Dichlorobenzidine									
20	Benzo(a)anthracene				3 J		8 J	5 J	3 J	73 J
20	Chrysene				4 J		13 J	8 J	4 J	100 J
20	bis(2-Ethylhexyl)phthalate	840		2 J	110	60	22	52	50	170 J
20	Di-n-octyl phthalate				31	6 J			3 J	220 J
20	Benzo(b)fluoranthene				3 J	2 J	20	4 J		98 J
20	Benzo(k)fluoranthene				2 J		16 J	3 J		78 J
20	Benzo(a)pyrene				3 J		14 J	4 J		100 J
20	Indeno(1,2,3-cd)pyrene						17 J			79 J
20	Dibenz(a,h)anthracene									
20	Benzo(g,h,i)perylene						13 J			61 J

** CRQL = Contract Required Quantitation Limit

* Action Level Exists

AR301787

Case Number: SAS 3155I/28-I

DATA SUMMARY FORM: P E S T I C I D E S

Page 10 of 2

Site Name: Fike Chemical

Date of Sampling: 3/1/88-3/3/88

SOIL SAMPLES (solid)

(mg/Kg)

To calculate sample quantitation limit:
((CROL * Dilution Factor) / ((100 - % Moisture)/100)

SEE GLOSSARY FOR CODE DEFINITIONS

CROL**	Sample No. / Dilution Factor / % Moisture / Location / COMPOUND	SET28-24C		SET28-27		SET28-28		SET28-30		SET28-31		SET28-32		SET28-33C		SET28-34		SET28-35C			
	Dilution Factor	6				1		1		1		1		1		1		20			
	% Moisture																				
	Location															Duplicate of SET28-33		ORIGINAL (Red)			
20	alpha-BHC				Q																
20	beta-BHC																				
20	delta-BHC																				
20	*GAMMA-BHC (LINDANE)																				
20	*HEPTACHLOR																				
20	Aldrin																				
20	Heptachlor Epoxide																				
20	Endosulfan I																				
20	Dieldrin																				
20	4,4'-DDE	19	J																		
20	*ENDRIN																				
20	Endosulfan II																				
20	4,4'-DDD																				
20	Endosulfan Sulfate																				
20	4,4'-DDT																				
20	*METHOXYCHLOR																				
20	Endrin ketone																				
20	*ALPHA-CHLORDANE																				
20	*BETA-CHLORDANE																				
	*TOXAPHENE		Q				Q		Q		Q		Q		Q		Q		Q		Q
	Aroclor-1016																				
	Aroclor-1221																				
	Aroclor-1232																				
	Aroclor-1242																				
	Aroclor-1248																				
	Aroclor-1254																				
	Aroclor-1260																				

** CROL = Contract Required Quantitation Limit

* Action Level Exist

AR301788

DATA SUMMARY FORM: PCB CONGENERS

Case Number: SAS 3155I/28-I
Site Name: Fike Chemical
Date of Sampling: 3/1/88 - 3/3/88

SOIL SAMPLES (solid)
(mg/Kg)

To calculate sample quantitation limits (CRQL x Dilution Factor)

SEE GLOSSARY FOR DEFINITIONS

CRQL*	Sample No. / Dilution Factor / Location / COMPOUND	SET28-01 6	SET28-02 4	SET28-03 1	SET28-04 1	SET28-05 4	SET28-12 15	SET28-15 5	SET28-17 1	SET28-19 1 Duplicate of SET28-17	SET28-21 15
100	Monochlorobiphenyl										
100	Dichlorobiphenyl										
100	Trichlorobiphenyl	130 J	300 J		270		200 J		34 J		
100	Tetrachlorobiphenyl										
100	Pentachlorobiphenyl										
100	Hexachlorobiphenyl										
100	Heptachlorobiphenyl										
100	Octachlorobiphenyl										
100	Nonachlorobiphenyl										
100	Decachlorobiphenyl										

* CRQL = Contract Required Quantitation Limit

R301789

Case Number: SAS 3155I/2B-I

Site Name: Fike Chemical

Date of Sampling: 2/1/86-3/3/88

DATA SUMMARY FORM: P E S T I C I D E S

SOIL SAMPLES (solid)

(mg/Kg)

Page 11 of 2

To calculate sample quantitation limit:
((CROL * Dilution Factor) / ((100 - % Moisture)/100)

SEE GLOSSARY FOR CODE DEFINITIONS

CROL**	COMPOUND	SET2B-01	SET2B-02	SET2B-03	SET2B-04	SET2B-05	SET2B-12	SET2B-15	SET2B-17	SET2B-19	SET2B-21
	Dilution Factor	6	4	1	1	4	15	5	1	1	15
	% Moisture										
	Location									Duplicate of SET2B-17	
20	alpha-BHC										
20	beta-BHC										
20	delta-BHC										
20	*GAMMA-BHC (LINDANE)										
20	*HEPTACHLOR										
20	Aldrin										
20	Heptachlor Epoxide										
20	Endosulfan I										
20	Dieldrin										
20	4,4'-DDE										
20	*ENDRIN										
20	Endosulfan II										
20	4,4'-DDD										
20	Endosulfan Sulfate										
20	4,4'-DDT										
20	*METHOXYCHLOR										
20	Endrin ketone										
20	*ALPHA-CHLORDANE										
20	*BETA-CHLORDANE										
	*TOXAPHENE	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
	Aroclor-1016										
	Aroclor-1221										
	Aroclor-1232										
	Aroclor-1242										
	Aroclor-1248										
	Aroclor-1254										
	Aroclor-1260										

** CROL = Contract Required Quantitation Limit

* Action Level Exist

AR301790

AR301791

DATA SUMMARY FORM: PCB CONGENERS

Case Number: SAS 3155I/28-I

Site Name: Fike Chemical

Date of Sampling: 3/1/88 - 3/3/88

SOIL SAMPLES (solid)

(mg/Kg)

To calculate sample quantitation limits (CRQL x Dilution Factor)

SEE GLOSSARY FOR DEFINITIONS

CRQL*	Compound / Sample No.	SET2B-24C	SET2B-27	SET2B-28	SET2B-30	SET2B-31	SET2B-32	SET2B-33C	SET2B-34	SET2B-35C
	Dilution Factor	6		1	1	1	1	1	1	20
	Location								Duplicate of SET2B-33	
100	Monochlorobiphenyl		Q							
100	Dichlorobiphenyl									
100	Trichlorobiphenyl				7 J					24 J
100	Tetrachlorobiphenyl									
100	Pentachlorobiphenyl									
100	Hexachlorobiphenyl									
100	Heptachlorobiphenyl									
100	Octachlorobiphenyl									
100	Nonachlorobiphenyl									
100	Decachlorobiphenyl									

* CRQL = Contract Required Quantitation Limit

ORIGINAL
(Red)

WESTON

Appendix C

Form Is

As Reported by the Laboratory for all Target Compounds

ORIGINAL
(Red)

Sample Number:
01

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 7ARV1031 (UB4) ; 407041 (PGN)
Sample Matrix: SOIL
Data Release Authorized By: [illegible]

Case No: 31551 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 04-07-88
Conc/Dil Factor: 20 pH: - 6.0
Percent Moisture (Not Decanted): N.R (+)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	100 U	78-87-5	1,2-DICHLOROPROPANE	50 U
74-83-9	BROMOMETHANE	100 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	50 U
75-01-4	VINYL CHLORIDE	100 U	79-01-6	TRICHLOROETHENE	50 U
75-00-3	CHLOROETHANE	100 U	124-48-1	DIBROMOCHLOROMETHANE	50 U
75-09-2	METHYLENE CHLORIDE	33 J	79-00-5	1,1,2-TRICHLOROETHANE	50 U
67-64-1	ACETONE	140	71-43-2	BENZENE	33 J
75-15-0	CARBON DISULFIDE	10 J	10061-01-5	CIS-1,3-DICHLOROPROPENE	50 U
75-35-4	1,1-DICHLOROETHENE	50 U	110-75-8	2-CHLOROETHYLVINYLETHER	100 U
75-34-3	1,1-DICHLOROETHANE	50 U	75-25-2	BROMOFORM	50 U
156-60-5	TRANS-1,2-DICHLOROETHENE	50 U	591-78-6	2-HEXANONE	250
67-66-3	CHLOROFORM	50 U	108-10-1	4-METHYL-2-PENTANONE	71 J
107-06-2	1,2-DICHLOROETHANE	15 J	127-18-4	TETRACHLOROETHENE	100
78-93-3	2-BUTANONE	64 J B	79-34-5	1,1,2,2-TETRACHLOROETHANE	50 U
71-55-6	1,1,1-TRICHLOROETHANE	50 U	108-88-3	TOLUENE	1100
56-23-5	CARBON TETRACHLORIDE	50 U	108-90-7	CHLOROBENZENE	710
108-05-4	VINYL ACETATE	100 U	100-41-4	ETHYLBENZENE	200
75-27-4	BROMODICHLOROMETHANE	50 U	100-42-5	STYRENE	50 U
				TOTAL XYLENES	1300

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(+) No Percent Moisture.

AR301793

ORIGINAL
(Red)

Sample Number
01

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-07-88
Conc/Dil Factor: 6.0
Percent Moisture (decanted): N.R

GPC Clean up: X Yes ___No
Separatory Funnel Extraction ___Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/l or ug/kg (Circle one)
108-95-2	PHENOL	42 J
111-44-4	BIS(2-CHLOROETHYL)ETHER	120 U
95-57-8	2-CHLOROPHENOL	120 U
541-73-1	1-3,DICHLOROBENZENE	120 U
106-46-7	1,4-DICHLOROBENZENE	120 U
100-51-6	BENZYL ALCOHOL	120 U
95-50-1	1,2-DICHLOROBENZENE	120 U
95-48-7	2-METHYLPHENOL	120 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	120 U
106-44-5	4-METHYLPHENOL	120 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	120 U
67-72-1	HEXACHLOROETHANE	120 U
98-95-3	NITROBENZENE	120 U
78-59-1	ISOPHRONE	120 U
88-75-5	2-NITROPHENOL	120 U
105-67-9	2,4-DIMETHYLPHENOL	120 U
65-85-0	BENZOIC ACID	580 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	120 U
120-83-2	2,4-DICHLOROPHENOL	120 U
120-82-1	1,2,4-TRICHLOROBENZENE	52 J
91-20-3	NAPHTHALENE	56 J
106-47-8	4-CHLOROANILINE	83 J
87-68-3	HEXACHLOROBUTADIENE	120 U
59-50-7	4-CHLORO-3-METHYLPHENOL	120 U
91-57-6	2-METHYLNAPHTHALENE	54 J
77-47-4	HEXACHLOROCYCLOPENTADIENE	120 U
88-06-2	2,4,6-TRICHLOROPHENOL	120 U
95-95-4	2,4,5-TRICHLOROPHENOL	580 U
91-58-7	2-CHLORONAPHTHALENE	120 U
88-74-4	2-NITROANILINE	580 U
131-11-3	DIMETHYL PHTHALATE	120 U
208-96-8	ACENAPHTHYLENE	120 U
99-09-2	3-NITROANILINE	580 U

CAS Number		ug/l or ug/kg (circle one)
83-32-9	ACENAPHTHENE	32 J
51-28-5	2,4-DINITROPHENOL	580 U
100-02-7	4-NITROPHENOL	580 U
132-64-9	DIBENZOFURAN	34 J
121-14-2	2,4-DINITROTOLUENE	120 U
606-20-2	2,6-DINITROTOLUENE	120 U
84-66-2	DIETHYLPHTHALATE	120 U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	120 U
86-73-7	FLUORENE	38 J
100-01-6	4-NITROANILINE	580 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	580 U
86-30-6	N-NITROSODIPHENYLAMINE (1)	330
101-55-3	4-BROMOPHENYL-PHENYLETHER	120 U
118-74-1	HEXACHLOROBENZENE	120 U
87-86-5	PENTACHLOROPHENOL	580 U
85-01-8	PHENANTHRENE	110 J
120-12-7	ANTHRACENE	61 J
84-74-2	DI-N-BUTYLPHTHALATE	120 U
206-44-0	FLUORANTHENE	39 J
129-00-0	PYRENE	25 J
85-68-7	BUTYLBENZYLPHTHALATE	120 U
91-94-1	3,3'-DICHLOROBENZIDINE	240 U
56-55-3	BENZO(a)ANTHRACENE	120 U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1200
218-01-9	CHRYSENE	120 U
117-84-0	DI-N-OCTYL PHTHALATE	99 J
205-99-2	BENZO(b)FLUORANTHENE	120 U
207-08-9	BENZO(k)FLUORANTHENE	120 U
50-32-8	BENZO(a)PYRENE	120 U
193-39-5	INDENO(1,2,3-CD)PYRENE	120 U
53-70-3	DIBENZ(a,h)ANTHRACENE	120 U
191-24-2	BENZO(g,h,i)PERYLENE	120 U

(1)-Cannot be seperated from diphenylamine.

ORIGINAL
(Red)

Sample Number
01

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-07-88
Conc/Dil Factor: 6.0
Percent Moisture (decanted): N.A

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	120 U
319-85-7	BETA - BHC	120 U
319-86-8	DELTA - BHC	120 U
58-89-9	GAMMA - BHC (LINDANE)	120 U
76-44-8	HEPTACHLOR	120 U
309-00-2	ALDRIN	120 U
1024-57-3	HEPTACHLOR EPOXIDE	120 U
959-98-8	ENDOSULFAN I	120 U
60-57-1	DIELDRIN	120 U
72-55-9	4,4'- DDE	120 U
72-20-8	ENDRIN	120 U
33213-65-9	ENDOSULFAN II	120 U
72-54-8	4,4'- DDD	120 U
1031-07-8	ENDOSULFAN SULFATE	120 U
50-29-3	4,4'- DDT	120 U
72-43-5	METHOXYCHLOR	120 U
53494-70-5	ENDRIN KETONE	120 U
57-74-9	CHLORDANE	1200 U
8001-35-2	TOXAPHENE	1200 U
12674-11-2	AROCHLOR - 1016	1200 U
11104-28-2	AROCHLOR - 1221	1200 U
11141-16-5	AROCHLOR - 1232	1200 U
53469-21-9	AROCHLOR - 1242	1200 U
12672-29-6	AROCHLOR - 1248	1200 U
11097-69-1	AROCHLOR - 1254	1200 U
11096-82-5	AROCHLOR - 1260	1200 U

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
01

Laboratory Name S-CUBED

SAS 3155I ; SET 28 F

Lab Sample ID No. 407541

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-16-88

Date Analyzed 4-7-88

Conc/Dil Factor 6

	mg/kg
Monochlorobiphenyls	600U
Dichlorobiphenyls	600U ~~J~~ JW
Trichlorobiphenyls	130J
Tetrachlorobiphenyls	600U
Pentachlorobiphenyls	600U
Hexachlorobiphenyls	600U
Heptachlorobiphenyls	600U
Octachlorobiphenyls	600U
Nonachlorobiphenyls	600U
Decachlorobiphenyls	600U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number:
02

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M3IV1041 (WCA) ; 406A081 (CABN)
Sample Matrix: SOIL
Data Release Authorized By: [illegible]

Case No: 3155I / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentrations: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-31-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	2.1 J	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	9	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	0.53 J	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	12 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B. This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301797

ORIGINAL
(Red)

Sample Number
02

Laboratory Name: S-CUBED
Case No: 31551 / SET 29

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-06-88
Conc/Dil Factor: 4.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	79 U	83-32-9	ACENAPHTHENE	79 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	79 U	51-28-5	2,4-DINITROPHENOL	380 U
95-57-8	2-CHLOROPHENOL	79 U	100-02-7	4-NITROPHENOL	380 U
541-73-1	1-3,DICHLOROBENZENE	79 U	132-64-9	DIBENZOFURAN	79 U
106-46-7	1,4-DICHLOROBENZENE	79 U	121-14-2	2,4-DINITROTOLUENE	79 U
100-51-6	BENZYL ALCOHOL	79 U	606-20-2	2,6-DINITROTOLUENE	79 U
95-50-1	1,2-DICHLOROBENZENE	79 U	84-66-2	DIETHYLPHTHALATE	79 U
95-48-7	2-METHYLPHENOL	79 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	79 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	79 U	86-73-7	FLUORENE	79 U
106-44-5	4-METHYLPHENOL	79 U	100-01-6	4-NITROANILINE	380 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	79 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	380 U
67-72-1	HEXACHLOROETHANE	79 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	11 J
98-95-3	NITROBENZENE	79 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	79 U
78-59-1	ISOPHRONE	79 U	118-74-1	HEXACHLOROBENZENE	79 U
88-75-5	2-NITROPHENOL	79 U	87-86-5	PENTACHLOROPHENOL	380 U
105-67-9	2,4-DIMETHYLPHENOL	79 U	85-01-8	PHENANTHRENE	23 J
65-85-0	BENZOIC ACID	380 U	120-12-7	ANTHRACENE	15 J
111-91-1	BIS(2-CHLOROETHOXY)METHANE	79 U	84-74-2	DI-N-BUTYLPHTHALATE	79 U
120-83-2	2,4-DICHLOROPHENOL	79 U	206-44-0	FLUORANTHENE	20 J
120-82-1	1,2,4-TRICHLOROBENZENE	79 U	129-00-0	PYRENE	15 J
91-20-3	NAPHTHALENE	8.4 J	85-68-7	BUTYLBENZYLPHTHALATE	79 U
106-47-8	4-CHLOROANILINE	79 U	91-94-1	3,3'-DICHLOROBENZIDINE	160 U
87-68-3	HEXACHLOROBUTADIENE	79 U	56-55-3	BENZO(a)ANTHRACENE	79 U
59-50-7	4-CHLORO-3-METHYLPHENOL	79 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	630
91-57-6	2-METHYLNAPHTHALENE	79 U	218-01-9	CHRYSENE	79 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	79 U	117-84-0	DI-N-OCTYL PHTHALATE	27 J
88-06-2	2,4,6-TRICHLOROPHENOL	79 U	205-99-2	BENZO(b)FLUORANTHENE	79 U
95-95-4	2,4,5-TRICHLOROPHENOL	380 U	207-08-9	BENZO(k)FLUORANTHENE	79 U
91-58-7	2-CHLORONAPHTHALENE	79 U	50-32-8	BENZO(a)PYRENE	79 U
88-74-4	2-NITROANILINE	380 U	193-39-5	INDENO(1,2,3-CD)PYRENE	79 U
131-11-3	DIMETHYL PHTHALATE	79 U	53-70-3	DIBENZ(a,h)ANTHRACENE	79 U
208-96-8	ACENAPHTHYLENE	79 U	191-24-2	BENZO(g,h,i)PERYLENE	79 U
99-09-2	3-NITROANILINE	380 U			

(1)-Cannot be separated from diphenylamine.

ORIGINAL
(Red)

Sample Number
02

Laboratory Name: S-CUBED
Case No: 31531 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-06-88
Conc/Dil Factor: 4.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	79 U
319-85-7	BETA - BHC	79 U
319-86-8	DELTA - BHC	79 U
58-89-9	GAMMA - BHC (LINDANE)	79 U
76-44-8	HEPTACHLOR	79 U
309-00-2	ALDRIN	79 U
1024-57-3	HEPTACHLOR EPOXIDE	79 U
959-98-8	ENDOSULFAN I	79 U
60-57-1	DIELDRIN	79 U
72-55-9	4,4'- DDE	79 U
72-20-8	ENDRIN	79 U
33213-65-9	ENDOSULFAN II	79 U
72-54-8	4,4'- DDD	79 U
1031-07-8	ENDOSULFAN SULFATE	79 U
50-29-3	4,4'- DDT	79 U
72-43-5	METHOXYCHLOR	79 U
53494-70-5	ENDRIN KETONE	79 U
57-74-9	CHLORDANE	790 U
8001-35-2	TOXAPHENE	790 U
12674-11-2	AROCHLOR - 1016	790 U
11104-28-2	AROCHLOR - 1221	790 U
11141-16-5	AROCHLOR - 1232	790 U
53469-21-9	AROCHLOR - 1242	790 U
12672-29-6	AROCHLOR - 1248	790 U
11097-69-1	AROCHLOR - 1254	790 U
11096-82-5	AROCHLOR - 1260	790 U

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
02

Laboratory Name S-CUBED

SAS 3155I ; SET 28 I

Lab Sample ID No. 406A081

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-16-88

Date Analyzed 4-6-88

Conc/Dil Factor 4

	mg/kg
Monochlorobiphenyls	400 U
Dichlorobiphenyls	400 U
Trichlorobiphenyls	300 J
Tetrachlorobiphenyls	400 U
Pentachlorobiphenyls	400 U
Hexachlorobiphenyls	400 U
Heptachlorobiphenyls	400 U
Octachlorobiphenyls	400 U
Nonachlorobiphenyls	400 U
Decachlorobiphenyls	400 U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number:
03

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M31V1081 CUBA 1405111 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 31551 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 04-01-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	1.5 J	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	15	71-43-2	BENZENE	1.7 J
75-15-0	CARBON DISULFIDE	26	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	2.2 J
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	12 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	1.2 J
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.1 J
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	14

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301801

ORIGINAL
(Red)

Sample Number
03

Laboratory Name: S-CUBED
Case No: 3155I / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-05-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/l or ug/kg (Circle one)
108-95-2	PHENOL	23
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U
95-57-8	2-CHLOROPHENOL	20 U
541-73-1	1-3,DICHLOROBENZENE	20 U
106-46-7	1,4-DICHLOROBENZENE	20 U
100-51-6	BENZYL ALCOHOL	20 U
95-50-1	1,2-DICHLOROBENZENE	20 U
95-48-7	2-METHYLPHENOL	20 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U
106-44-5	4-METHYLPHENOL	20 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U
67-72-1	HEXACHLOROETHANE	20 U
98-95-3	NITROBENZENE	20 U
78-59-1	ISOPHRONE	20 U
88-75-5	2-NITROPHENOL	20 U
105-67-9	2,4-DIMETHYLPHENOL	20 U
65-85-0	BENZOIC ACID	96 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U
120-83-2	2,4-DICHLOROPHENOL	20 U
120-82-1	1,2,4-TRICHLOROBENZENE	20 U
91-20-3	NAPHTHALENE	20 U
106-47-8	4-CHLOROANILINE	20 U
87-68-3	HEXACHLOROBUTADIENE	20 U
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U
91-57-6	2-METHYLNAPHTHALENE	20 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 U
88-06-2	2,4,6-TRICHLOROPHENOL	20 U
95-95-4	2,4,5-TRICHLOROPHENOL	96 U
91-58-7	2-CHLORONAPHTHALENE	20 U
88-74-4	2-NITROANILINE	96 U
131-11-3	DIMETHYL PHTHALATE	3.1 J
208-96-8	ACENAPHTHYLENE	20 U
99-09-2	3-NITROANILINE	96 U

CAS Number		ug/l or ug/kg (circle one)
83-32-9	ACENAPHTHENE	20 U
51-28-5	2,4-DINITROPHENOL	96 U
100-02-7	4-NITROPHENOL	96 U
132-64-9	DIBENZOFURAN	20 U
121-14-2	2,4-DINITROTOLUENE	20 U
606-20-2	2,6-DINITROTOLUENE	20 U
84-66-2	DIETHYLPHTHALATE	20 U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
86-73-7	FLUORENE	20 U
100-01-6	4-NITROANILINE	96 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
86-30-6	N-NITROSODIPHENYLAMINE (1)	2.7 J
101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
118-74-1	HEXACHLOROBENZENE	20 U
87-86-5	PENTACHLOROPHENOL	96 U
85-01-8	PHENANTHRENE	20 U
120-12-7	ANTHRACENE	20 U
84-74-2	DI-N-BUTYLPHTHALATE	5.2 J
206-44-0	FLUORANTHENE	20 U
129-00-0	PYRENE	20 U
85-68-7	BUTYLBENZYLPHTHALATE	20 U
91-94-1	3,3'-DICHLOROBENZIDINE	40 U
56-55-3	BENZO(a)ANTHRACENE	20 U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	59
218-01-9	CHRYSENE	20 U
117-84-0	DI-N-OCTYL PHTHALATE	20 U
205-99-2	BENZO(b)FLUORANTHENE	20 U
207-08-9	BENZO(k)FLUORANTHENE	20 U
50-32-8	BENZO(a)PYRENE	20 U
193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
191-24-2	BENZO(g,h,i)PERYLENE	20 U

(1)-Cannot be separated from diphenylamine.

ORIGINAL
(Red)

Sample Number
03

Laboratory Name: S-CUBED
Case No: 31331 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-05-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

ORIGINAL (Red)

PCB Congener Analysis Data Sheet

Sample Number -03

Laboratory Name S-CUBED

SAS 3155I ; SET 28I

Lab Sample ID No. 905111

Sample Matrix soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 7-16-88

Date Analyzed 4-5-88

Conc/Dil Factor 1

	mg/kg
Monochlorobiphenyls	100U
Dichlorobiphenyls	100U
Trichlorobiphenyls	100U
Tetrachlorobiphenyls	100U
Pentachlorobiphenyls	100U
Hexachlorobiphenyls	100U
Heptachlorobiphenyls	100U
Octachlorobiphenyls	100U
Nonachlorobiphenyls	100U
Decachlorobiphenyls	100U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number:
04

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M31V1091 (Ext); 405041 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: N

Case No: 3155I / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 04-01-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (+)

CAS Number		mg/l or mg/kg (Circle One)	CAS Number		mg/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	1.7 J	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	11	71-43-2	BENZENE	2.9
75-15-0	CARBON DISULFIDE	33	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5.2
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	3.6 J
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	1.2 J
78-93-3	2-BUTANONE	12 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	10
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	3.6
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.2 J
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	12

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(+) No Percent Moisture.

AR301805

ORIGINAL
(Red)

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

Sample Number
04

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-05-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	4.8 J	83-32-9	ACENAPHTHENE	20 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	96 U
95-57-8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	96 U
541-73-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	20 U
106-46-7	1,4-DICHLOROBENZENE	20 U	121-14-2	2,4-DINITROTOLUENE	20 U
100-51-6	BENZYL ALCOHOL	20 U	606-20-2	2,6-DINITROTOLUENE	20 U
95-50-1	1,2-DICHLOROBENZENE	20 U	84-66-2	DIETHYLPHTHALATE	20 U
95-48-7	2-METHYLPHENOL	20 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	20 U
106-44-5	4-METHYLPHENOL	18 J	100-01-6	4-NITROANILINE	96 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
67-72-1	HEXACHLOROETHANE	20 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	20 U
98-95-3	NITROBENZENE	20 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
78-59-1	ISOPHRONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
88-75-5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	96 U
105-67-9	2,4-DIMETHYLPHENOL	20 U	85-01-8	PHENANTHRENE	3.3 J
65-85-0	BENZOIC ACID	96 U	120-12-7	ANTHRACENE	2.1 J
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U	84-74-2	DI-N-BUTYLPHTHALATE	20 U
120-83-2	2,4-DICHLOROPHENOL	20 U	206-44-0	FLUORANTHENE	20 U
120-82-1	1,2,4-TRICHLOROBENZENE	20 U	129-00-0	PYRENE	20 U
91-20-3	NAPHTHALENE	20 U	85-68-7	BUTYLBENZYLPHTHALATE	3.6 J
106-47-8	4-CHLOROANILINE	8 J	91-94-1	3,3'-DICHLOROBENZIDINE	40 U
87-68-3	HEXACHLOROBUTADIENE	20 U	56-55-3	BENZO(a)ANTHRACENE	20 U
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	140
91-57-6	2-METHYLNAPHTHALENE	20 U	218-01-9	CHRYSENE	20 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 U	117-84-0	DI-N-OCTYL PHTHALATE	20 U
88-06-2	2,4,6-TRICHLOROPHENOL	20 U	205-99-2	BENZO(b)FLUORANTHENE	20 U
95-95-4	2,4,5-TRICHLOROPHENOL	96 U	207-08-9	BENZO(k)FLUORANTHENE	20 U
91-58-7	2-CHLORONAPHTHALENE	20 U	50-32-8	BENZO(a)PYRENE	20 U
88-74-4	2-NITROANILINE	96 U	193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
131-11-3	DIMETHYL PHTHALATE	20 U	53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
208-96-8	ACENAPHTHYLENE	20 U	191-24-2	BENZO(g,h,i)PERYLENE	20 U
99-09-2	3-NITROANILINE	96 U			

(1)-Cannot be separated from diphenylamine.

ORIGINAL
(Red)

Sample Number
04

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-05-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.A

GPC Clean up ✓ Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction _____ Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

AR301807

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
04

Laboratory Name S-CUBED

SAS 3155I ; SET 28 T

Lab Sample ID No. 405041

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-16-88

Date Analyzed 4-5-88

Conc/Dil Factor 1

	mg/kg
Monochlorobiphenyls	100U
Dichlorobiphenyls	100U ~~[illegible]~~
Trichlorobiphenyls	270
Tetrachlorobiphenyls	100U
Pentachlorobiphenyls	100U
Hexachlorobiphenyls	100U
Heptachlorobiphenyls	100U
Octachlorobiphenyls	100U
Nonachlorobiphenyls	100U
Decachlorobiphenyls	100U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL (Red)

Sample Number:
05

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 31MV1041 (VOA); 406A031 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: N

Case No: 31551 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-31-88
Conc/Dil Factor: 10 pH: 7.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or mg/kg (Circle One)	CAS Number		ug/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	50 U	78-87-5	1,2-DICHLOROPROPANE	25 U
74-83-9	BROMOMETHANE	50 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	25 U
75-01-4	VINYL CHLORIDE	50 U	79-01-6	TRICHLOROETHENE	48
75-00-3	CHLOROETHANE	50 U	124-48-1	DIBROMOCHLOROMETHANE	25 U
75-09-2	METHYLENE CHLORIDE	12 J	79-00-5	1,1,2-TRICHLOROETHANE	25 U
67-64-1	ACETONE	61	71-43-2	BENZENE	6 J
75-15-0	CARBON DISULFIDE	5.8 J	10061-01-5	CIS-1,3-DICHLOROPROPENE	25 U
75-35-4	1,1-DICHLOROETHENE	25 U	110-75-8	2-CHLOROETHYLVINYLETHER	50 U
75-34-3	1,1-DICHLOROETHANE	25 U	75-25-2	BROMOFORM	25 U
156-60-5	TRANS-1,2-DICHLOROETHENE	25 U	591-78-6	2-HEXANONE	50 U
67-66-3	CHLOROFORM	25 U	108-10-1	4-METHYL-2-PENTANONE	62
107-06-2	1,2-DICHLOROETHANE	25 U	127-18-4	TETRACHLOROETHENE	25
78-93-3	2-BUTANONE	35 J B	79-34-5	1,1,2,2-TETRACHLOROETHANE	25 U
71-55-6	1,1,1-TRICHLOROETHANE	25 U	108-88-3	TOLUENE	600
56-23-5	CARBON TETRACHLORIDE	25 U	108-90-7	CHLOROBENZENE	350
108-05-4	VINYL ACETATE	50 U	100-41-4	ETHYLBENZENE	10 J
75-27-4	BROMODICHLOROMETHANE	25 U	100-42-5	STYRENE	25 U
				TOTAL XYLENES	67

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301809

ORIGINAL (Red)

Sample Number
05

Laboratory Name: S-CUBED
Case No: 31531 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High / Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-06-88
Conc/Dil Factor: 4.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction _____ Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	58 J	83-32-9	ACENAPHTHENE	79 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	79 U	51-28-5	2,4-DINITROPHENOL	380 U
95-57-8	2-CHLOROPHENOL	79 U	100-02-7	4-NITROPHENOL	380 U
541-73-1	1-3,DICHLOROBENZENE	79 U	132-64-9	DIBENZOFURAN	79 U
106-46-7	1,4-DICHLOROBENZENE	79 U	121-14-2	2,4-DINITROTOLUENE	79 U
100-51-6	BENZYL ALCOHOL	79 U	606-20-2	2,6-DINITROTOLUENE	79 U
95-50-1	1,2-DICHLOROBENZENE	79 U	84-66-2	DIETHYLPHTHALATE	79 U
95-48-7	2-METHYLPHENOL	79 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	79 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	79 U	86-73-7	FLUORENE	79 U
106-44-5	4-METHYLPHENOL	24 J	100-01-6	4-NITROANILINE	380 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	79 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	380 U
67-72-1	HEXACHLOROETHANE	79 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	240
98-95-3	NITROBENZENE	79 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	79 U
78-59-1	ISOPHRONE	79 U	118-74-1	HEXACHLOROBENZENE	79 U
88-75-5	2-NITROPHENOL	79 U	87-86-5	PENTACHLOROPHENOL	380 U
105-67-9	2,4-DIMETHYLPHENOL	79 U	85-01-8	PHENANTHRENE	9.3 J
65-85-0	BENZOIC ACID	380 U	120-12-7	ANTHRACENE	79 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	79 U	84-74-2	DI-N-BUTYLPHTHALATE	79 U
120-83-2	2,4-DICHLOROPHENOL	79 U	206-44-0	FLUORANTHENE	9.7 J
120-82-1	1,2,4-TRICHLOROBENZENE	130	129-00-0	PYRENE	79 U
91-20-3	NAPHTHALENE	79 U	85-68-7	BUTYLBENZYLPHTHALATE	79 U
106-47-8	4-CHLOROANILINE	26 J	91-94-1	3,3'-DICHLOROBENZIDINE	160 U
87-68-3	HEXACHLOROBUTADIENE	79 U	56-55-3	BENZO(a)ANTHRACENE	79 U
59-50-7	4-CHLORO-3-METHYLPHENOL	79 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1600
91-57-6	2-METHYLNAPHTHALENE	9.8 J	218-01-9	CHRYSENE	79 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	79 U	117-84-0	DI-N-OCTYL PHTHALATE	12 J
88-06-2	2,4,6-TRICHLOROPHENOL	79 U	205-99-2	BENZO(b)FLUORANTHENE	79 U
95-95-4	2,4,5-TRICHLOROPHENOL	380 U	207-08-9	BENZO(k)FLUORANTHENE	79 U
91-58-7	2-CHLORONAPHTHALENE	79 U	50-32-8	BENZO(a)PYRENE	79 U
88-74-4	2-NITROANILINE	380 U	193-39-5	INDENO(1,2,3-CD)PYRENE	79 U
131-11-3	DIMETHYL PHTHALATE	79 U	53-70-3	DIBENZ(a,h)ANTHRACENE	79 U
208-96-8	ACENAPHTHYLENE	79 U	191-24-2	BENZO(g,h,i)PERYLENE	79 U
99-09-2	3-NITROANILINE	380 U			

(1)-Cannot be seperated from diphenylamine.

AR301810

ORIGINAL (Red)

Sample Number
05

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High / Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-06-88
Conc/Dil Factor: 4.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	79 U
319-85-7	BETA - BHC	79 U
319-86-8	DELTA - BHC	79 U
58-89-9	GAMMA - BHC (LINDANE)	79 U
76-44-8	HEPTACHLOR	79 U
309-00-2	ALDRIN	79 U
1024-57-3	HEPTACHLOR EPOXIDE	79 U
959-98-8	ENDOSULFAN I	79 U
60-57-1	DIELDRIN	79 U
72-55-9	4,4'- DDE	AU ~~8.7 J~~ 790
72-20-8	ENDRIN	79 U
33213-65-9	ENDOSULFAN II	79 U
72-54-8	4,4'- DDD	79 U
1031-07-8	ENDOSULFAN SULFATE	79 U
50-29-3	4,4'- DDT	79 U
72-43-5	METHOXYCHLOR	79 U
53494-70-5	ENDRIN KETONE	79 U
57-74-9	CHLORDANE	790 U
8001-35-2	TOXAPHENE	790 U
12674-11-2	AROCHLOR - 1016	790 U
11104-28-2	AROCHLOR - 1221	790 U
11141-16-5	AROCHLOR - 1232	790 U
53469-21-9	AROCHLOR - 1242	790 U
12672-29-6	AROCHLOR - 1248	790 U
11097-69-1	AROCHLOR - 1254	790 U
11096-82-5	AROCHLOR - 1260	790 U

AR301811

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
05

Laboratory Name S-CUBED

SAS 3155I ; SET 28 I

Lab Sample ID No. 406A031

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-16-88

Date Analyzed 4-6-88

Conc/Dil Factor 4

	mg/kg
Monochlorobiphenyls	400 U
Dichlorobiphenyls	400 U
Trichlorobiphenyls	400 U
Tetrachlorobiphenyls	400 U
Pentachlorobiphenyls	400 U
Hexachlorobiphenyls	400 U
Heptachlorobiphenyls	400 U
Octachlorobiphenyls	400 U
Nonachlorobiphenyls	400 U
Decachlorobiphenyls	400 U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number:
06

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M29V1041 (U87)
Sample Matrix: SOIL
Data Release Authorized By: _____

Case No: 31551 / SET 28
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-03-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-28-88
Conc/Dil Factor: 1.0 pH: 7.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	12	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	7.7
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	5 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

ORIGINAL
(Red)

Sample Number:
07

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M28V105I (VOA)
Sample Matrix: SOIL
Data Release Authorized By: _____

Case No: 31551 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-28-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (Circle one)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	4.9	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	5 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301814

ORIGINAL
(Red)

Sample Number:
08

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M28V1061 (clr)
Sample Matrix: SOIL
Data Release Authorized By: N

Case No: 31331 / SET 28 2
GC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-28-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	7.3	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	5 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

ORIGINAL
(Red)

Sample Number:
09

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: MZ8V1071
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 31551 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-28-88
Conc/Dil Factor: 1.0 pH: 7.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	13	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	15
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	5 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

ORIGINAL
(Red)

Sample Number:
11

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M2SV1081 (1674)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 3155I / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 03-28-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	2.5U ~~[illegible]~~	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	5 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301817

(Red)

Sample Number: 12

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 1APRV031 (407091 (AGN))
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 31551 / SET 28 1
GC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 04-01-88
Conc/Dil Factor: 20 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	100 U	78-87-5	1,2-DICHLOROPROPANE	50 U
74-83-9	BROMOMETHANE	100 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	50 U
75-01-4	VINYL CHLORIDE	100 U	79-01-6	TRICHLOROETHENE	50 U
75-00-3	CHLOROETHANE	100 U	124-48-1	DIBROMOCHLOROMETHANE	50 U
75-09-2	METHYLENE CHLORIDE	22 J	79-00-5	1,1,2-TRICHLOROETHANE	50 U
67-64-1	ACETONE	54 J	71-43-2	BENZENE	50 U
75-15-0	CARBON DISULFIDE	50 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	50 U
75-35-4	1,1-DICHLOROETHENE	50 U	110-75-8	2-CHLOROETHYLVINYLETHER	100 U
75-34-3	1,1-DICHLOROETHANE	50 U	75-25-2	BROMOFORM	50 U
156-60-5	TRANS-1,2-DICHLOROETHENE	50 U	591-78-6	2-HEXANONE	100 U
67-66-3	CHLOROFORM	50 U	108-10-1	4-METHYL-2-PENTANONE	100 U
107-06-2	1,2-DICHLOROETHANE	50 U	127-18-4	TETRACHLOROETHENE	50 U
78-93-3	2-BUTANONE	48 J B	79-34-5	1,1,2,2-TETRACHLOROETHANE	50 U
71-55-6	1,1,1-TRICHLOROETHANE	50 U	108-88-3	TOLUENE	1500
56-23-5	CARBON TETRACHLORIDE	50 U	108-90-7	CHLOROBENZENE	50 U
108-05-4	VINYL ACETATE	100 U	100-41-4	ETHYLBENZENE	50 U
75-27-4	BROMODICHLOROMETHANE	50 U	100-42-5	STYRENE	50 U
				TOTAL XYLENES	50 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaining results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301818

ORIGINAL
(Red)

Sample Number
12

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-07-88
Conc/Dil Factor: 15
Percent Moisture (decanted): N.R

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction ____ Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	390	83-32-9	ACENAPHTHENE	65 J
111-44-4	BIS(2-CHLOROETHYL)ETHER	300 U	51-28-5	2,4-DINITROPHENOL	1400 U
95-57-8	2-CHLOROPHENOL	300 U	100-02-7	4-NITROPHENOL	1400 U
541-73-1	1-3,DICHLOROBENZENE	300 U	132-64-9	DIBENZOFURAN	73 J
106-46-7	1,4-DICHLOROBENZENE	300 U	121-14-2	2,4-DINITROTOLUENE	300 U
100-51-6	BENZYL ALCOHOL	300 U	606-20-2	2,6-DINITROTOLUENE	300 U
95-50-1	1,2-DICHLOROBENZENE	300 U	84-66-2	DIETHYLPHTHALATE	300 U
95-48-7	2-METHYLPHENOL	300 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	300 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	300 U	86-73-7	FLUORENE	100 J
106-44-5	4-METHYLPHENOL	300 U	100-01-6	4-NITROANILINE	1400 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	300 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	1400 U
67-72-1	HEXACHLOROETHANE	300 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	300 U
98-95-3	NITROBENZENE	300 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	300 U
78-59-1	ISOPHRONE	300 U	118-74-1	HEXACHLOROBENZENE	300 U
88-75-5	2-NITROPHENOL	300 U	87-86-5	PENTACHLOROPHENOL	1400 U
105-67-9	2,4-DIMETHYLPHENOL	300 U	85-01-8	PHENANTHRENE	500
65-85-0	BENZOIC ACID	1400 U	120-12-7	ANTHRACENE	52 J
111-91-1	BIS(2-CHLOROETHOXY)METHANE	300 U	84-74-2	DI-N-BUTYLPHTHALATE	300 U
120-83-2	2,4-DICHLOROPHENOL	48 J	206-44-0	FLUORANTHENE	360
120-82-1	1,2,4-TRICHLOROBENZENE	97 J	129-00-0	PYRENE	230 J
91-20-3	NAPHTHALENE	2000	85-68-7	BUTYLBENZYLPHTHALATE	300 U
106-47-8	4-CHLOROANILINE	300 U	91-94-1	3,3'-DICHLOROBENZIDINE	590 U
87-68-3	HEXACHLOROBUTADIENE	300 U	56-55-3	BENZO(a)ANTHRACENE	110 J
59-50-7	4-CHLORO-3-METHYLPHENOL	300 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	110 J
91-57-6	2-METHYLNAPHTHALENE	200 J	218-01-9	CHRYSENE	140 J
77-47-4	HEXACHLOROCYCLOPENTADIENE	300 U	117-84-0	DI-N-OCTYL PHTHALATE	300 U
88-06-2	2,4,6-TRICHLOROPHENOL	300 U	205-99-2	BENZO(b)FLUORANTHENE	110 J
95-95-4	2,4,5-TRICHLOROPHENOL	1400 U	207-08-9	BENZO(k)FLUORANTHENE	89 J
91-58-7	2-CHLORONAPHTHALENE	300 U	50-32-8	BENZO(a)PYRENE	49 J
88-74-4	2-NITROANILINE	1400 U	193-39-5	INDENO(1,2,3-CD)PYRENE	74 J
131-11-3	DIMETHYL PHTHALATE	300 U	53-70-3	DIBENZ(a,h)ANTHRACENE	300 U
208-96-8	ACENAPHTHYLENE	300 U	191-24-2	BENZO(g,h,i)PERYLENE	42 J
99-09-2	3-NITROANILINE	1400 U			

(1)-Cannot be seperated from diphenylamine.

AR301819

ORIGINAL
(Red)

Sample Number
12

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-07-88
Conc/Dil Factor: 15
Percent Moisture (decanted): N.A

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction ____ Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	300 U
319-85-7	BETA - BHC	300 U
319-86-8	DELTA - BHC	300 U
58-89-9	GAMMA - BHC (LINDANE)	300 U
76-44-8	HEPTACHLOR	300 U
309-00-2	ALDRIN	300 U
1024-57-3	HEPTACHLOR EPOXIDE	300 U
959-98-8	ENDOSULFAN I	300 U
60-57-1	DIELDRIN	300 U
72-55-9	4,4'- DDE	300 U
72-20-8	ENDRIN	300 U
33213-65-9	ENDOSULFAN II	300 U
72-54-8	4,4'- DDD	300 U
1031-07-8	ENDOSULFAN SULFATE	300 U
50-29-3	4,4'- DDT	300 U
72-43-5	METHOXYCHLOR	300 U
53494-70-5	ENDRIN KETONE	300 U
57-74-9	CHLORDANE	3000 U
8001-35-2	TOXAPHENE	3000 U
12674-11-2	AROCHLOR - 1016	3000 U
11104-28-2	AROCHLOR - 1221	3000 U
11141-16-5	AROCHLOR - 1232	3000 U
53469-21-9	AROCHLOR - 1242	3000 U
12672-29-6	AROCHLOR - 1248	3000 U
11097-69-1	AROCHLOR - 1254	3000 U
11096-82-5	AROCHLOR - 1260	3000 U

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
12

Laboratory Name S-CUBED

SAS 31551 ; SET 28

Lab Sample ID No. 907091

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-16-88

Date Analyzed 4-7-88

Conc/Dil Factor 15

	mg/kg
Monochlorobiphenyls	1500U
Dichlorobiphenyls	1500U
Trichlorobiphenyls	200J
Tetrachlorobiphenyls	1500U
Pentachlorobiphenyls	1500U
Hexachlorobiphenyls	1500U
Heptachlorobiphenyls	1500U
Octachlorobiphenyls	1500U
Nonachlorobiphenyls	1500U
Decachlorobiphenyls	1500U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number:
13

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 29MV1011 (CSA)
Sample Matrix: SOIL
Data Release Authorized By: _____

Case No: 31551 / SET 29 I
SC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	2.3 J B	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	7.7 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	5
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

ORIGINAL
(Red)

Sample Number:
14

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 28MV1021 (VOC)
Sample Matrix: SOIL
Data Release Authorized By: N

Case No: 31551 / SET 28 I
GC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 03-25-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	3.6 B	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	11 B	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	13 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301823

ORIGINAL
(Red)

Sample Number:
15

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 30MV110 (VOA); 406041 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: [illegible]

Case No: 3155I / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-30-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (+)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	3.8	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	11 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(+) No Percent Moisture.

AR301824

ORIGINAL
(Red)

Sample Number
15

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High / Medium (Circle One)
Date Extracted/Prepared: 03-16-98
Date Analyzed: 04-06-98
Conc/Dil Factor: 5.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/l or ug/kg (Circle one)
108-95-2	PHENOL	99 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	99 U
95-57-8	2-CHLOROPHENOL	99 U
541-73-1	1-3,DICHLOROBENZENE	99 U
106-46-7	1,4-DICHLOROBENZENE	99 U
100-51-6	BENZYL ALCOHOL	99 U
95-50-1	1,2-DICHLOROBENZENE	99 U
95-48-7	2-METHYLPHENOL	99 U
39638-32-9	BIS(2-CHLORDISOPROPYL)ETHER	99 U
106-44-5	4-METHYLPHENOL	99 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	99 U
67-72-1	HEXACHLOROETHANE	99 U
98-95-3	NITROBENZENE	99 U
78-59-1	ISOPHRONE	99 U
88-75-5	2-NITROPHENOL	99 U
105-67-9	2,4-DIMETHYLPHENOL	99 U
65-85-0	BENZOIC ACID	480 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	99 U
120-83-2	2,4-DICHLOROPHENOL	99 U
120-82-1	1,2,4-TRICHLOROBENZENE	99 U
91-20-3	NAPHTHALENE	99 U
106-47-8	4-CHLOROANILINE	99 U
87-68-3	HEXACHLOROBUTADIENE	99 U
59-50-7	4-CHLORO-3-METHYLPHENOL	99 U
91-57-6	2-METHYLNAPHTHALENE	99 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	99 U
88-06-2	2,4,6-TRICHLOROPHENOL	99 U
95-95-4	2,4,5-TRICHLOROPHENOL	480 U
91-58-7	2-CHLORONAPHTHALENE	99 U
88-74-4	2-NITROANILINE	480 U
131-11-3	DIMETHYL PHTHALATE	99 U
208-96-8	ACENAPHTHYLENE	99 U
99-09-2	3-NITROANILINE	480 U

CAS Number		ug/l or ug/kg (circle one)
83-32-9	ACENAPHTHENE	99 U
51-28-5	2,4-DINITROPHENOL	480 U
100-02-7	4-NITROPHENOL	480 U
132-64-9	DIBENZOFURAN	99 U
121-14-2	2,4-DINITROTOLUENE	99 U
606-20-2	2,6-DINITROTOLUENE	99 U
84-66-2	DIETHYLPHTHALATE	99 U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	99 U
86-73-7	FLUORENE	99 U
100-01-6	4-NITROANILINE	480 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	480 U
86-30-6	N-NITROSODIPHENYLAMINE (1)	99 U
101-55-3	4-BROMOPHENYL-PHENYLETHER	99 U
118-74-1	HEXACHLOROBENZENE	99 U
87-86-5	PENTACHLOROPHENOL	480 U
85-01-8	PHENANTHRENE	11 J
120-12-7	ANTHRACENE	99 U
84-74-2	DI-N-BUTYLPHTHALATE	18 J
206-44-0	FLUORANTHENE	13 J
129-00-0	PYRENE	99 U
85-68-7	BUTYLBENZYLPHTHALATE	99 U
91-94-1	3,3'-DICHLOROBENZIDINE	200 U
56-55-3	BENZO(a)ANTHRACENE	99 U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	1500
218-01-9	CHRYSENE	99 U
117-84-0	DI-N-OCTYL PHTHALATE	42 J
205-99-2	BENZO(b)FLUORANTHENE	99 U
207-08-9	BENZO(k)FLUORANTHENE	99 U
50-32-8	BENZO(a)PYRENE	99 U
193-39-5	INDENO(1,2,3-CD)PYRENE	99 U
53-70-3	DIBENZ(a,h)ANTHRACENE	99 U
191-24-2	BENZO(g,h,i)PERYLENE	99 U

(1)-Cannot be seperated from diphenylamine.

AR301825

ORIGINAL
(Red)

Sample Number
15

Laboratory Name: S-CUSED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-06-88
Conc/Dil Factor: 5.0
Percent Moisture (decanted): N.A

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	99 U
319-85-7	BETA - BHC	99 U
319-86-8	DELTA - BHC	99 U
58-89-9	GAMMA - BHC (LINDANE)	99 U
76-44-8	HEPTACHLOR	99 U
309-00-2	ALDRIN	99 U
1024-57-3	HEPTACHLOR EPOXIDE	99 U
959-98-8	ENDOSULFAN I	99 U
60-57-1	DIELDRIN	99 U
72-55-9	4,4'- DDE	99 U
72-20-8	ENDRIN	99 U
33213-65-9	ENDOSULFAN II	99 U
72-54-8	4,4'- DDD	99 U
1031-07-8	ENDOSULFAN SULFATE	99 U
50-29-3	4,4'- DDT	99 U
72-43-5	METHOXYCHLOR	99 U
53494-70-5	ENDRIN KETONE	99 U
57-74-9	CHLORDANE	990 U
8001-35-2	TOXAPHENE	990 U
12674-11-2	AROCHLOR - 1016	990 U
11104-28-2	AROCHLOR - 1221	990 U
11141-16-5	AROCHLOR - 1232	990 U
53469-21-9	AROCHLOR - 1242	990 U
12672-29-6	AROCHLOR - 1248	990 U
11097-69-1	AROCHLOR - 1254	990 U
11096-82-5	AROCHLOR - 1260	990 U

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
15

Laboratory Name S-CUBED (Red) SAS 31551 ; SET 28

Lab Sample ID No. 406041

Sample Matrix Soil Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-16-88

Date Analyzed 4-6-88

Conc/Dil Factor 5

	mg/kg
Monochlorobiphenyls	500 U
Dichlorobiphenyls	500 U ~~J~~ NJ
Trichlorobiphenyls	500 U
Tetrachlorobiphenyls	500 U
Pentachlorobiphenyls	500 U
Hexachlorobiphenyls	500 U
Heptachlorobiphenyls	500 U
Octachlorobiphenyls	500 U
Nonachlorobiphenyls	500 U
Decachlorobiphenyls	500 U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number: 16

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 2BMV1031 (UBA)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 3155I / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-28-88
Conc/Dil Factor: 1.0 pH: 7.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		mg/l or mg/kg (Circle One)	CAS Number		mg/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	4.6	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	11 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301828

ORIGINAL
(Red)

Sample Number: 17

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 1APRV071 (VOA); 405131 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: [illegible]

Case No: 31331 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-03-88

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 04-02-88
Conc/Dil Factor: 5.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	25 U	78-87-5	1,2-DICHLOROPROPANE	13 U
74-83-9	BROMOMETHANE	25 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	13 U
75-01-4	VINYL CHLORIDE	25 U	79-01-6	TRICHLOROETHENE	13 U
75-00-3	CHLOROETHANE	25 U	124-48-1	DIBROMOCHLOROMETHANE	13 U
75-09-2	METHYLENE CHLORIDE	71	79-00-5	1,1,2-TRICHLOROETHANE	13 U
67-64-1	ACETONE	250 ~~11 J~~ Ag	71-43-2	BENZENE	13 U
75-15-0	CARBON DISULFIDE	84	10061-01-5	CIS-1,3-DICHLOROPROPENE	13 U
75-35-4	1,1-DICHLOROETHENE	13 U	110-75-8	2-CHLOROETHYLVINYLETHER	25 U
75-34-3	1,1-DICHLOROETHANE	13 U	75-25-2	BROMOFORM	13 U
156-60-5	TRANS-1,2-DICHLOROETHENE	13 U	591-78-6	2-HEXANONE	52
67-66-3	CHLOROFORM	110	108-10-1	4-METHYL-2-PENTANONE	13 J
107-06-2	1,2-DICHLOROETHANE	13 U	127-18-4	TETRACHLOROETHENE	540
78-93-3	2-BUTANONE	12 J B	79-34-5	1,1,2,2-TETRACHLOROETHANE	13 U
71-55-6	1,1,1-TRICHLOROETHANE	8.3 J	108-88-3	TOLUENE	650
56-23-5	CARBON TETRACHLORIDE	13 U	108-90-7	CHLOROBENZENE	13 U
108-05-4	VINYL ACETATE	25 U	100-41-4	ETHYLBENZENE	4.7 J
75-27-4	BROMODICHLOROMETHANE	13 U	100-42-5	STYRENE	5.6 J
				TOTAL XYLENES	Ag ~~31~~ 32

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides) or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301829

ORIGINAL
(Red)

Sample Number
17

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-05-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction____Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	110	83-32-9	ACENAPHTHENE	5.5 J
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	96 U
95-57-8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	96 U
541-73-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	5.6 J
106-46-7	1,4-DICHLOROBENZENE	20 U	121-14-2	2,4-DINITROTOLUENE	20 U
100-51-6	BENZYL ALCOHOL	20 U	606-20-2	2,6-DINITROTOLUENE	20 U
95-50-1	1,2-DICHLOROBENZENE	20 U	84-66-2	DIETHYLPHTHALATE	20 U
95-48-7	2-METHYLPHENOL	20 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	20 U
106-44-5	4-METHYLPHENOL	14 J	100-01-6	4-NITROANILINE	96 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
67-72-1	HEXACHLOROETHANE	20 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	20 U
98-95-3	NITROBENZENE	20 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
78-59-1	ISOPHRONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
88-75-5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	96 U
105-67-9	2,4-DIMETHYLPHENOL	3.8 J	85-01-8	PHENANTHRENE	25
65-85-0	BENZOIC ACID	96 U	120-12-7	ANTHRACENE	8.7 J
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U	84-74-2	DI-N-BUTYLPHTHALATE	26
120-83-2	2,4-DICHLOROPHENOL	20 U	206-44-0	FLUORANTHENE	10 J
120-82-1	1,2,4-TRICHLOROBENZENE	20	129-00-0	PYRENE	7.1 J
91-20-3	NAPHTHALENE	24	85-68-7	BUTYLBENZYLPHTHALATE	26
106-47-8	4-CHLOROANILINE	12 J	91-94-1	3,3'-DICHLOROBENZIDINE	40 U
87-68-3	HEXACHLOROBUTADIENE	20 U	56-55-3	BENZO(a)ANTHRACENE	20 U
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	420
91-57-6	2-METHYLNAPHTHALENE	16 J	218-01-9	CHRYSENE	20 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 U	117-84-0	DI-N-OCTYL PHTHALATE	33
88-06-2	2,4,6-TRICHLOROPHENOL	20 U	205-99-2	BENZO(b)FLUORANTHENE	20 U
95-95-4	2,4,5-TRICHLOROPHENOL	96 U	207-08-9	BENZO(k)FLUORANTHENE	20 U
91-58-7	2-CHLORONAPHTHALENE	20 U	50-32-8	BENZO(a)PYRENE	20 U
88-74-4	2-NITROANILINE	96 U	193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
131-11-3	DIMETHYL PHTHALATE	80	53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
208-96-8	ACENAPHTHYLENE	20 U	191-24-2	BENZO(g,h,i)PERYLENE	20 U
99-09-2	3-NITROANILINE	96 U			

(1)-Cannot be separated from diphenylamine.

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORIGINAL (Red)

Sample Number
17

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-05-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction ____ Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

PCB Congener Analysis Data Sheet

Sample Number 17

Laboratory Name S-CUBED ORIGINAL (Red) SAS 3155 I ; SET 28 I

Lab Sample ID No. 40513

Sample Matrix soil Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-16-88

Date Analyzed 4-5-88

Conc/Dil Factor 1

	mg/kg
Monochlorobiphenyls	100 U
Dichlorobiphenyls	100 U
Trichlorobiphenyls	34 J
Tetrachlorobiphenyls	100 U
Pentachlorobiphenyls	100 U
Hexachlorobiphenyls	100 U
Heptachlorobiphenyls	100 U
Octachlorobiphenyls	100 U
Nonachlorobiphenyls	100 U
Decachlorobiphenyls	100 U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL (Red)

Sample Number: 18

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 28MV071
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 31551 / SET 28
GC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentrations: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: 8.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	4.2	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	5 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

ORIGINAL
(Red)

Sample Number: 19

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: AP7V1011 (VOA) i405121 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 3155I / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 04-07-88
Conc/Dil Factor: 20 pH: 7.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		mg/l or mg/kg (Circle One)	CAS Number		mg/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	100 U	78-87-5	1,2-DICHLOROPROPANE	50 U
74-83-9	BROMOMETHANE	100 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	50 U
75-01-4	VINYL CHLORIDE	100 U	79-01-6	TRICHLOROETHENE	50 U
75-00-3	CHLOROETHANE	100 U	124-48-1	DIBROMOCHLOROMETHANE	50 U
75-09-2	METHYLENE CHLORIDE	110	79-00-5	1,1,2-TRICHLOROETHANE	50 U
67-64-1	ACETONE	92 J	71-43-2	BENZENE	50 U
75-15-0	CARBON DISULFIDE	69	10061-01-5	CIS-1,3-DICHLOROPROPENE	50 U
75-35-4	1,1-DICHLOROETHENE	50 U	110-75-8	2-CHLOROETHYLVINYLETHER	100 U
75-34-3	1,1-DICHLOROETHANE	50 U	75-25-2	BROMOFORM	50 U
156-60-5	TRANS-1,2-DICHLOROETHENE	50 U	591-78-6	2-HEXANONE	45 J
67-66-3	CHLOROFORM	130	108-10-1	4-METHYL-2-PENTANONE	12 J
107-06-2	1,2-DICHLOROETHANE	50 U	127-18-4	TETRACHLOROETHENE	460
78-93-3	2-BUTANONE	88 J B	79-34-5	1,1,2,2-TETRACHLOROETHANE	50 U
71-55-6	1,1,1-TRICHLOROETHANE	14 J	108-88-3	TOLUENE	500
56-23-5	CARBON TETRACHLORIDE	50 U	108-90-7	CHLOROBENZENE	50 U
108-05-4	VINYL ACETATE	100 U	100-41-4	ETHYLBENZENE	50 U
75-27-4	BROMODICHLOROMETHANE	50 U	100-42-5	STYRENE	11 J
				TOTAL XYLENES	51

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301834

(Red)

Sample Number
19

Laboratory Name: S-CUBED
Case No: 31531 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-05-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction ____ Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	130	83-32-9	ACENAPHTHENE	5.4 J
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	96 U
95-57-8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	96 U
541-73-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	5.2 J
106-46-7	1,4-DICHLOROBENZENE	20 U	121-14-2	2,4-DINITROTOLUENE	20 U
100-51-6	BENZYL ALCOHOL	20 U	606-20-2	2,6-DINITROTOLUENE	20 U
95-50-1	1,2-DICHLOROBENZENE	20 U	84-66-2	DIETHYLPHTHALATE	20 U
95-48-7	2-METHYLPHENOL	20 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	20 U
106-44-5	4-METHYLPHENOL	15 J	100-01-6	4-NITROANILINE	96 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
67-72-1	HEXACHLOROETHANE	20 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	20 U
98-95-3	NITROBENZENE	20 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
78-59-1	ISOPHRONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
88-75-5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	96 U
105-67-9	2,4-DIMETHYLPHENOL	4.3 J	85-01-8	PHENANTHRENE	25
65-85-0	BENZOIC ACID	96 U	120-12-7	ANTHRACENE	9.1 J
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U	84-74-2	DI-N-BUTYLPHTHALATE	23
120-83-2	2,4-DICHLOROPHENOL	3.9 J	206-44-0	FLUORANTHENE	11 J
120-82-1	1,2,4-TRICHLOROBENZENE	18 J	129-00-0	PYRENE	7.2 J
91-20-3	NAPHTHALENE	27	85-68-7	BUTYLBENZYLPHTHALATE	25
106-47-8	4-CHLOROANILINE	13 J	91-94-1	3,3'-DICHLOROBENZIDINE	40 U
87-68-3	HEXACHLOROBUTADIENE	20 U	56-55-3	BENZO(a)ANTHRACENE	20 U
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	370
91-57-6	2-METHYLNAPHTHALENE	15 J	218-01-9	CHRYSENE	20 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 U	117-84-0	DI-N-OCTYL PHTHALATE	28
88-06-2	2,4,6-TRICHLOROPHENOL	20 U	205-99-2	BENZO(b)FLUORANTHENE	20 U
95-95-4	2,4,5-TRICHLOROPHENOL	96 U	207-08-9	BENZO(k)FLUORANTHENE	20 U
91-58-7	2-CHLORONAPHTHALENE	20 U	50-32-8	BENZO(a)PYRENE	20 U
88-74-4	2-NITROANILINE	96 U	193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
131-11-3	DIMETHYL PHTHALATE	70	53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
208-96-8	ACENAPHTHYLENE	20 U	191-24-2	BENZO(g,h,i)PERYLENE	20 U
99-09-2	3-NITROANILINE	96 U			

(1)-Cannot be seperated from diphenylamine.

ORIGINAL
(Red)

Sample Number
19

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-05-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

PCB Congener Analysis Data Sheet

Sample Number: 19

Laboratory Name: S-CUBED

SAS 3155I ; SET 28 I

Lab Sample ID No. 405121

Sample Matrix: soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared: 3-16-88

Date Analyzed: 4-5-88

Conc/Dil Factor: 1

ORIGINAL (Red)

	mg/kg
Monochlorobiphenyls	100 U
Dichlorobiphenyls	100 U
Trichlorobiphenyls	100 U
Tetrachlorobiphenyls	100 U
Pentachlorobiphenyls	100 U
Hexachlorobiphenyls	100 U
Heptachlorobiphenyls	100 U
Octachlorobiphenyls	100 U
Nonachlorobiphenyls	100 U
Decachlorobiphenyls	100 U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number: 20

Laboratory Name: S-CUBED
Lab Sample ID No: 28MV081 (Cum)
Sample Matrix: SOIL
Data Release Authorized By: N

Case No: 3155I / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

ORIGINAL (Red)

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: 7.0
Percent Moisture (Not Decanted): N.R (+)

CAS Number		mg/l or mg/kg (Circle One)	CAS Number		mg/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	4	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	23 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(+) No Percent Moisture.

AR301838

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number: 21

Laboratory Name: S-CUBED
Lab Sample ID No: AR7V1011 (CO7); 407111 (AGN)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 3155I / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

ORIGINAL
(Red)

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 04-07-88
Conc/Dil Factor: 200 pH: 7.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or mg/kg (Circle one)	CAS Number		ug/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	1000 U	78-87-5	1,2-DICHLOROPROPANE	500 U
74-83-9	BROMOMETHANE	1000 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	500 U
75-01-4	VINYL CHLORIDE	1000 U	79-01-6	TRICHLOROETHENE	500 U
75-00-3	CHLOROETHANE	1000 U	124-48-1	DIBROMOCHLOROMETHANE	500 U
75-09-2	METHYLENE CHLORIDE	9200	79-00-5	1,1,2-TRICHLOROETHANE	500 U
67-64-1	ACETONE	1700	71-43-2	BENZENE	500 U
75-15-0	CARBON DISULFIDE	500 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	500 U
75-35-4	1,1-DICHLOROETHENE	500 U	110-75-8	2-CHLOROETHYLVINYLETHER	1000 U
75-34-3	1,1-DICHLOROETHANE	500 U	75-25-2	BROMOFORM	500 U
156-60-5	TRANS-1,2-DICHLOROETHENE	500 U	591-78-6	2-HEXANONE	1000 U
67-66-3	CHLOROFORM	500 U	108-10-1	4-METHYL-2-PENTANONE	1000 U
107-06-2	1,2-DICHLOROETHANE	500 U	127-18-4	TETRACHLOROETHENE	680
78-93-3	2-BUTANONE	770 J B	79-34-5	1,1,2,2-TETRACHLOROETHANE	500 U
71-55-6	1,1,1-TRICHLOROETHANE	500 U	108-88-3	TOLUENE	630
56-23-5	CARBON TETRACHLORIDE	500 U	108-90-7	CHLOROBENZENE	2500
108-05-4	VINYL ACETATE	1000 U	100-41-4	ETHYLBENZENE	480 J
75-27-4	BROMODICHLOROMETHANE	500 U	100-42-5	STYRENE	500 U
				TOTAL XYLENES	2000

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301839

ORIGINAL
(Red)

Sample Number
21

Laboratory Name: S-CUBED
Case No: 31531 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High / Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-07-88
Conc/Dil Factor: 15
Percent Moisture (decanted): N.A

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction____Yes

CAS Number		ug/l or ug/kg (Circle one)
108-95-2	PHENOL	300 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	300 U
95-57-8	2-CHLOROPHENOL	300 U
541-73-1	1-3,DICHLOROBENZENE	300 U
106-46-7	1,4-DICHLOROBENZENE	300 U
100-51-6	BENZYL ALCOHOL	300 U
95-50-1	1,2-DICHLOROBENZENE	300 U
95-48-7	2-METHYLPHENOL	300 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	300 U
106-44-5	4-METHYLPHENOL	1700
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	300 U
67-72-1	HEXACHLOROETHANE	300 U
98-95-3	NITROBENZENE	300 U
78-59-1	ISOPHRONE	300 U
88-75-5	2-NITROPHENOL	300 U
105-67-9	2,4-DIMETHYLPHENOL	300 U
65-85-0	BENZOIC ACID	1400 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	300 U
120-83-2	2,4-DICHLOROPHENOL	33 J
120-82-1	1,2,4-TRICHLOROBENZENE	5900
91-20-3	NAPHTHALENE	180 J
106-47-8	4-CHLOROANILINE	300 U
87-68-3	HEXACHLOROBUTADIENE	300 U
59-50-7	4-CHLORO-3-METHYLPHENOL	300 U
91-57-6	2-METHYLNAPHTHALENE	300 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	300 U
88-06-2	2,4,6-TRICHLOROPHENOL	300 U
95-95-4	2,4,5-TRICHLOROPHENOL	1400 U
91-58-7	2-CHLORONAPHTHALENE	300 U
88-74-4	2-NITROANILINE	1400 U
131-11-3	DIMETHYL PHTHALATE	300 U
208-96-8	ACENAPHTHYLENE	300 U
99-09-2	3-NITROANILINE	1400 U

CAS Number		ug/l or ug/kg (circle one)
83-32-9	ACENAPHTHENE	300 U
51-28-5	2,4-DINITROPHENOL	1400 U
100-02-7	4-NITROPHENOL	1400 U
132-64-9	DIBENZOFURAN	300 U
121-14-2	2,4-DINITROTOLUENE	300 U
606-20-2	2,6-DINITROTOLUENE	300 U
84-66-2	DIETHYLPHTHALATE	300 U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	300 U
86-73-7	FLUORENE	300 U
100-01-6	4-NITROANILINE	1400 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1400 U
86-30-6	N-NITROSODIPHENYLAMINE (1)	300 U
101-55-3	4-BROMOPHENYL-PHENYLETHER	300 U
118-74-1	HEXACHLOROBENZENE	300 U
87-86-5	PENTACHLOROPHENOL	1400 U
85-01-8	PHENANTHRENE	300 U
120-12-7	ANTHRACENE	300 U
84-74-2	DI-N-BUTYLPHTHALATE	300 U
206-44-0	FLUORANTHENE	300 U
129-00-0	PYRENE	300 U
85-68-7	BUTYLBENZYLPHTHALATE	300 U
91-94-1	3,3'-DICHLOROBENZIDINE	570 U
56-55-3	BENZO(a)ANTHRACENE	300 U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	110 J
218-01-9	CHRYSENE	300 U
117-84-0	DI-N-OCTYL PHTHALATE	300 U
205-99-2	BENZO(b)FLUORANTHENE	300 U
207-08-9	BENZO(k)FLUORANTHENE	300 U
50-32-8	BENZO(a)PYRENE	300 U
193-39-5	INDENO(1,2,3-CD)PYRENE	300 U
53-70-3	DIBENZ(a,h)ANTHRACENE	300 U
191-24-2	BENZO(g,h,i)PERYLENE	300 U

(1)-Cannot be seperated from diphenylamine.

AR301840

Sample Number
21

Laboratory Name: S-CUBED
Case No: 31531 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

ORIGINAL (Red)

Pesticide / PCBs

Concentration: High, Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-07-88
Conc/Dil Factor: 15
Percent Moisture (decanted): N.R

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction ____ Yes

CAS Number		ug/L or ug/Kg (Circle One)
319-84-6	ALPHA - BHC	300 U
319-85-7	BETA - BHC	300 U
319-86-8	DELTA - BHC	300 U
58-89-9	GAMMA - BHC (LINDANE)	300 U
76-44-8	HEPTACHLOR	300 U
309-00-2	ALDRIN	300 U
1024-57-3	HEPTACHLOR EPOXIDE	300 U
959-98-8	ENDOSULFAN I	300 U
60-57-1	DIELDRIN	300 U
72-55-9	4,4'- DDE	300 U
72-20-8	ENDRIN	300 U
33213-65-9	ENDOSULFAN II	300 U
72-54-8	4,4'- DDD	300 U
1031-07-8	ENDOSULFAN SULFATE	300 U
50-29-3	4,4'- DDT	300 U
72-43-5	METHOXYCHLOR	300 U
53494-70-5	ENDRIN KETONE	300 U
57-74-9	CHLORDANE	3000 U
8001-35-2	TOXAPHENE	3000 U
12674-11-2	AROCHLOR - 1016	3000 U
11104-28-2	AROCHLOR - 1221	3000 U
11141-16-5	AROCHLOR - 1232	3000 U
53469-21-9	AROCHLOR - 1242	3000 U
12672-29-6	AROCHLOR - 1248	3000 U
11097-69-1	AROCHLOR - 1254	3000 U
11096-82-5	AROCHLOR - 1260	3000 U

PCB Congener Analysis Data Sheet

Sample Number: 21

Laboratory Name: S-CUBED

SAS 3155 I ; SET 28 I

Lab Sample ID No. 407111

Sample Matrix: Soil

Contract No. 68-01-7261

ORIGINAL (Red)

Concentration: High

Date Extracted/Prepared: 3-18-88

Date Analyzed: 4-7-88

Conc/Dil Factor: 15

	mg/kg
Monochlorobiphenyls	1500 U
Dichlorobiphenyls	1500 U ~~35~~ pw
Trichlorobiphenyls	1500 U
Tetrachlorobiphenyls	1500 U
Pentachlorobiphenyls	1500 U
Hexachlorobiphenyls	1500 U
Heptachlorobiphenyls	1500 U
Octachlorobiphenyls	1500 U
Nonachlorobiphenyls	1500 U
Decachlorobiphenyls	1500 U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

Sample Number: 22

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 28MV091 (CUBA) ; 404061 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 3155I / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

ORIGINAL
(Red)

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (+)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	1 J
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	3.8	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	22 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	3.5	108-88-3	TOLUENE	0.95 J
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	16
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(+) No Percent Moisture.

AR301843

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

Sample Number
22

ORGANIC ANALYSIS DATA SHEET
(Page 2)

ORIGINAL (Red)

Semivolatile Compounds

Concentration: High / Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-04-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction _____ Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	20 U	83-32-9	ACENAPHTHENE	20 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	96 U
95-57-8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	96 U
541-73-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	20 U
106-46-7	1,4-DICHLOROBENZENE	20 U	121-14-2	2,4-DINITROTOLUENE	20 U
100-51-6	BENZYL ALCOHOL	20 U	606-20-2	2,6-DINITROTOLUENE	20 U
95-50-1	1,2-DICHLOROBENZENE	20 U	84-66-2	DIETHYLPHTHALATE	20 U
95-48-7	2-METHYLPHENOL	20 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	20 U
106-44-5	4-METHYLPHENOL	20 U	100-01-6	4-NITROANILINE	96 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
67-72-1	HEXACHLOROETHANE	20 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	20 U
98-95-3	NITROBENZENE	20 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
78-59-1	ISOPHRONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
88-75-5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	96 U
105-67-9	2,4-DIMETHYLPHENOL	20 U	85-01-8	PHENANTHRENE	20 U
65-85-0	BENZOIC ACID	96 U	120-12-7	ANTHRACENE	20 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U	84-74-2	DI-N-BUTYLPHTHALATE	20 U
120-83-2	2,4-DICHLOROPHENOL	20 U	206-44-0	FLUORANTHENE	20 U
120-82-1	1,2,4-TRICHLOROBENZENE	20 U	129-00-0	PYRENE	20 U
91-20-3	NAPHTHALENE	20 U	85-68-7	BUTYLBENZYLPHTHALATE	56
106-47-8	4-CHLOROANILINE	20 U	91-94-1	3,3'-DICHLOROBENZIDINE	40 U
87-68-3	HEXACHLOROBUTADIENE	20 U	56-55-3	BENZO(a)ANTHRACENE	20 U
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	20 U
91-57-6	2-METHYLNAPHTHALENE	20 U	218-01-9	CHRYSENE	20 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 U	117-84-0	DI-N-OCTYL PHTHALATE	20 U
88-06-2	2,4,6-TRICHLOROPHENOL	20 U	205-99-2	BENZO(b)FLUORANTHENE	20 U
95-95-4	2,4,5-TRICHLOROPHENOL	96 U	207-08-9	BENZO(k)FLUORANTHENE	20 U
91-58-7	2-CHLORONAPHTHALENE	20 U	50-32-8	BENZO(a)PYRENE	20 U
88-74-4	2-NITROANILINE	96 U	193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
131-11-3	DIMETHYL PHTHALATE	20 U	53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
208-96-8	ACENAPHTHYLENE	20 U	191-24-2	BENZO(g,h,i)PERYLENE	20 U
99-09-2	3-NITROANILINE	96 U			

(1)-Cannot be separated from diphenylamine.

Sample Number
22

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

ORIGINAL
(Red)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-04-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up x Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction_____ Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

PCB Congener Analysis Data Sheet

Sample Number
-22

Laboratory Name S-CUBED

SAS 3155 I ; SET 28

Lab Sample ID No. 404061

Sample Matrix Soil

Contract No. 68-01-7261

ORIGINAL
(Red)

Concentration: High

Date Extracted/Prepared 3-18-88

Date Analyzed 4-4-88

Conc/Dil Factor 1

	mg/kg
Monochlorobiphenyls	100U
Dichlorobiphenyls	100U
Trichlorobiphenyls	100U
Tetrachlorobiphenyls	100U
Pentachlorobiphenyls	100U
Hexachlorobiphenyls	100U
Heptachlorobiphenyls	100U
Octachlorobiphenyls	100U
Nonachlorobiphenyls	100U
Decachlorobiphenyls	100U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number:
23

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 28MV101 (CBR) 1404071 (ADN)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 31551 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: 8.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		mg/l or mg/kg (Circle One)		CAS Number		mg/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U		78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U		10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U		79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U		124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	1.5 J		79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U		71-43-2	BENZENE	0.53 J
75-15-0	CARBON DISULFIDE	2.5 U		10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U		110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U		75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U		591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U		108-10-1	4-METHYL-2-PENTANONE	3.9 J
107-06-2	1,2-DICHLOROETHANE	2.5 U		127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	23 B		79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U		108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U		108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U		100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U		100-42-5	STYRENE	2.5 U
					TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301847

ORIGINAL
(Red)

Sample Number
23

Laboratory Name: S-CUBED
Case No: 31531 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-04-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction ____ Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	6.9 J	83-32-9	ACENAPHTHENE	20 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	96 U
95-57-8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	96 U
541-73-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	20 U
106-46-7	1,4-DICHLOROBENZENE	20 U	121-14-2	2,4-DINITROTOLUENE	20 U
100-51-6	BENZYL ALCOHOL	20 U	606-20-2	2,6-DINITROTOLUENE	20 U
95-50-1	1,2-DICHLOROBENZENE	20 U	84-66-2	DIETHYLPHTHALATE	20 U
95-48-7	2-METHYLPHENOL	20 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	20 U
106-44-5	4-METHYLPHENOL	20 U	100-01-6	4-NITROANILINE	96 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
67-72-1	HEXACHLOROETHANE	20 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	20 U
98-95-3	NITROBENZENE	20 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
78-59-1	ISOPHRONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
88-75-5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	96 U
105-67-9	2,4-DIMETHYLPHENOL	20 U	85-01-8	PHENANTHRENE	20 U
65-85-0	BENZOIC ACID	96 U	120-12-7	ANTHRACENE	20 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U	84-74-2	DI-N-BUTYLPHTHALATE	20 U
120-83-2	2,4-DICHLOROPHENOL	20 U	206-44-0	FLUORANTHENE	20 U
120-82-1	1,2,4-TRICHLOROBENZENE	20 U	129-00-0	PYRENE	20 U
91-20-3	NAPHTHALENE	20 U	85-68-7	BUTYLBENZYLPHTHALATE	27
106-47-8	4-CHLOROANILINE	20 U	91-94-1	3,3'-DICHLOROBENZIDINE	40 U
87-68-3	HEXACHLOROBUTADIENE	20 U	56-55-3	BENZO(a)ANTHRACENE	20 U
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	20 U
91-57-6	2-METHYLNAPHTHALENE	20 U	218-01-9	CHRYSENE	20 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 U	117-84-0	DI-N-OCTYL PHTHALATE	20 U
88-06-2	2,4,6-TRICHLOROPHENOL	20 U	205-99-2	BENZO(b)FLUORANTHENE	20 U
95-95-4	2,4,5-TRICHLOROPHENOL	96 U	207-08-9	BENZO(k)FLUORANTHENE	20 U
91-58-7	2-CHLORONAPHTHALENE	20 U	50-32-8	BENZO(a)PYRENE	20 U
88-74-4	2-NITROANILINE	96 U	193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
131-11-3	DIMETHYL PHTHALATE	20 U	53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
208-96-8	ACENAPHTHYLENE	20 U	191-24-2	BENZO(g,h,i)PERYLENE	20 U
99-09-2	3-NITROANILINE	96 U			

(1)-Cannot be separated from diphenylamine.

ORIGINAL
(Red)

Sample Number
Z3

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-04-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.A

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction ____ Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
23

Laboratory Name S-CUBED

SAS 3155I ; SET 28I

Lab Sample ID No. 404071

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-18-88

Date Analyzed 4-4-88

Conc/Dil Factor 1

	mg/kg
Monochlorobiphenyls	100U
Dichlorobiphenyls	100U
Trichlorobiphenyls	100U
Tetrachlorobiphenyls	100U
Pentachlorobiphenyls	100U
Hexachlorobiphenyls	100U
Heptachlorobiphenyls	100U
Octachlorobiphenyls	100U
Nonachlorobiphenyls	100U
Decachlorobiphenyls	100U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number:
24 A

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 28MV111 (CBA1) 404101 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 3155I / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: 7.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		mg/l or mg/kg (Circle One)	CAS Number		mg/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	1.5 J	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	11	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	8.9
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	0.54 J
78-93-3	2-BUTANONE	24 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	0.9 J
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	3.9
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301851

ORIGINAL
(Red)

Sample Number
24A

Laboratory Name: S-CUBED
Case No: 31531 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-19-88
Date Analyzed: 04-04-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.A

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction ____ Yes

CAS Number		ug/l or ug/kg (Circle one)
108-95-2	PHENOL	20 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U
95-57-8	2-CHLOROPHENOL	20 U
541-73-1	1-3,DICHLOROBENZENE	20 U
106-46-7	1,4-DICHLOROBENZENE	20 U
100-51-6	BENZYL ALCOHOL	20 U
95-50-1	1,2-DICHLOROBENZENE	20 U
95-48-7	2-METHYLPHENOL	20 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U
106-44-5	4-METHYLPHENOL	20 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U
67-72-1	HEXACHLOROETHANE	20 U
98-95-3	NITROBENZENE	20 U
78-59-1	ISOPHRONE	20 U
88-75-5	2-NITROPHENOL	20 U
105-67-9	2,4-DIMETHYLPHENOL	20 U
65-85-0	BENZOIC ACID	96 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U
120-83-2	2,4-DICHLOROPHENOL	20 U
120-82-1	1,2,4-TRICHLOROBENZENE	20 U
91-20-3	NAPHTHALENE	20 U
106-47-8	4-CHLOROANILINE	4.7 J
87-68-3	HEXACHLOROBUTADIENE	20 U
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U
91-57-6	2-METHYLNAPHTHALENE	20 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 U
88-06-2	2,4,6-TRICHLOROPHENOL	20 U
95-95-4	2,4,5-TRICHLOROPHENOL	96 U
91-58-7	2-CHLORONAPHTHALENE	20 U
88-74-4	2-NITROANILINE	96 U
131-11-3	DIMETHYL PHTHALATE	20 U
208-96-8	ACENAPHTHYLENE	20 U
99-09-2	3-NITROANILINE	96 U

CAS Number		ug/l or ug/kg (circle one)
83-32-9	ACENAPHTHENE	20 U
51-28-5	2,4-DINITROPHENOL	96 U
100-02-7	4-NITROPHENOL	96 U
132-64-9	DIBENZOFURAN	20 U
121-14-2	2,4-DINITROTOLUENE	20 U
606-20-2	2,6-DINITROTOLUENE	20 U
84-66-2	DIETHYLPHTHALATE	20 U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
86-73-7	FLUORENE	20 U
100-01-6	4-NITROANILINE	96 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
86-30-6	N-NITROSODIPHENYLAMINE (1)	20 U
101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
118-74-1	HEXACHLOROBENZENE	20 U
87-86-5	PENTACHLOROPHENOL	96 U
85-01-8	PHENANTHRENE	20 U
120-12-7	ANTHRACENE	20 U
84-74-2	DI-N-BUTYLPHTHALATE	20 U
206-44-0	FLUORANTHENE	20 U
129-00-0	PYRENE	20 U
85-68-7	BUTYLBENZYLPHTHALATE	20 U
91-94-1	3,3'-DICHLOROBENZIDINE	40 U
56-55-3	BENZO(a)ANTHRACENE	20 U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	4 J
218-01-9	CHRYSENE	20 U
117-84-0	DI-N-OCTYL PHTHALATE	20 U
205-99-2	BENZO(b)FLUORANTHENE	20 U
207-08-9	BENZO(k)FLUORANTHENE	20 U
50-32-8	BENZO(a)PYRENE	20 U
193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
191-24-2	BENZO(g,h,i)PERYLENE	20 U

(1)-Cannot be seperated from diphenylamine.

ORIGINAL
(Red)

Sample Number
24A

Laboratory Name: S-CUBED
Case No: 31551 / SET 2B

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-04-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.A

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

AR301853

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
24-A1

Laboratory Name S-CUBED

SAS 3155I ; SET 28 I

Lab Sample ID No. 404101

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-18-88

Date Analyzed 4-4-88

Conc/Dil Factor 1

	mg/kg
Monochlorobiphenyls	100 U
Dichlorobiphenyls	100 U
Trichlorobiphenyls	100 U
Tetrachlorobiphenyls	100 U
Pentachlorobiphenyls	100 U
Hexachlorobiphenyls	100 U
Heptachlorobiphenyls	100 U
Octachlorobiphenyls	100 U
Nonachlorobiphenyls	100 U
Decachlorobiphenyls	100 U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

AR301854

ORIGINAL
(Red)

Sample Number:
24 C

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M30V1031 (UCH) ; 407031 (ADN)
Sample Matrix: SOIL
Data Release Authorized By: N

Case No: 3155I / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-30-88
Conc/Dil Factor: 4.0 pH: 7.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		mg/l or mg/kg (Circle One)	CAS Number		mg/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	20 U	78-87-5	1,2-DICHLOROPROPANE	10 U
74-83-9	BROMOMETHANE	20 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	10 U
75-01-4	VINYL CHLORIDE	20 U	79-01-6	TRICHLOROETHENE	5.4 J
75-00-3	CHLOROETHANE	20 U	124-48-1	DIBROMOCHLOROMETHANE	10 U
75-09-2	METHYLENE CHLORIDE	13	79-00-5	1,1,2-TRICHLOROETHANE	10 U
67-64-1	ACETONE	25	71-43-2	BENZENE	4 J
75-15-0	CARBON DISULFIDE	10 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	10 U
75-35-4	1,1-DICHLOROETHENE	10 U	110-75-8	2-CHLOROETHYLVINYLETHER	20 U
75-34-3	1,1-DICHLOROETHANE	7.6 J	75-25-2	BROMOFORM	10 U
156-60-5	TRANS-1,2-DICHLOROETHENE	10 U	591-78-6	2-HEXANONE	190
67-66-3	CHLOROFORM	10 U	108-10-1	4-METHYL-2-PENTANONE	32
107-06-2	1,2-DICHLOROETHANE	10 U	127-18-4	TETRACHLOROETHENE	110
78-93-3	2-BUTANONE	22 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	10 U
71-55-6	1,1,1-TRICHLOROETHANE	10 U	108-88-3	TOLUENE	58
56-23-5	CARBON TETRACHLORIDE	10 U	108-90-7	CHLOROBENZENE	290
108-05-4	VINYL ACETATE	20 U	100-41-4	ETHYLBENZENE	5.7 J
75-27-4	BROMODICHLOROMETHANE	10 U	100-42-5	STYRENE	10 U
				TOTAL XYLENES	34

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301855

ORIGINAL
(Red)

Sample Number
24C

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-07-88
Conc/Dil Factor: 6.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction _____ Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	120 U	83-32-9	ACENAPHTHENE	120 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	120 U	51-28-5	2,4-DINITROPHENOL	580 U
95-57-8	2-CHLOROPHENOL	120 U	100-02-7	4-NITROPHENOL	580 U
541-73-1	1-3,DICHLOROBENZENE	120 U	132-64-9	DIBENZOFURAN	120 U
106-46-7	1,4-DICHLOROBENZENE	120 U	121-14-2	2,4-DINITROTOLUENE	120 U
100-51-6	BENZYL ALCOHOL	120 U	606-20-2	2,6-DINITROTOLUENE	120 U
95-50-1	1,2-DICHLOROBENZENE	120 U	84-66-2	DIETHYLPHTHALATE	120 U
95-48-7	2-METHYLPHENOL	120 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	120 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	120 U	86-73-7	FLUORENE	120 U
106-44-5	4-METHYLPHENOL	120 U	100-01-6	4-NITROANILINE	580 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	120 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	580 U
67-72-1	HEXACHLOROETHANE	120 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	130
98-95-3	NITROBENZENE	120 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	120 U
78-59-1	ISOPHRONE	120 U	118-74-1	HEXACHLOROBENZENE	120 U
88-75-5	2-NITROPHENOL	120 U	87-86-5	PENTACHLOROPHENOL	580 U
105-67-9	2,4-DIMETHYLPHENOL	120 U	85-01-8	PHENANTHRENE	120 U
65-85-0	BENZOIC ACID	580 U	120-12-7	ANTHRACENE	120 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	120 U	84-74-2	DI-N-BUTYLPHTHALATE	120 U
120-83-2	2,4-DICHLOROPHENOL	120 U	206-44-0	FLUORANTHENE	14 J
120-82-1	1,2,4-TRICHLOROBENZENE	250	129-00-0	PYRENE	120 U
91-20-3	NAPHTHALENE	120 U	85-68-7	BUTYLBENZYLPHTHALATE	120 U
106-47-8	4-CHLOROANILINE	75 J	91-94-1	3,3'-DICHLOROBENZIDINE	240 U
87-68-3	HEXACHLOROBUTADIENE	120 U	56-55-3	BENZO(a)ANTHRACENE	120 U
59-50-7	4-CHLORO-3-METHYLPHENOL	120 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	840
91-57-6	2-METHYLNAPHTHALENE	120 U	218-01-9	CHRYSENE	120 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	120 U	117-84-0	DI-N-OCTYL PHTHALATE	120 U
88-06-2	2,4,6-TRICHLOROPHENOL	120 U	205-99-2	BENZO(b)FLUORANTHENE	120 U
95-95-4	2,4,5-TRICHLOROPHENOL	580 U	207-08-9	BENZO(k)FLUORANTHENE	120 U
91-58-7	2-CHLORONAPHTHALENE	120 U	50-32-8	BENZO(a)PYRENE	120 U
88-74-4	2-NITROANILINE	580 U	193-39-5	INDENO(1,2,3-CD)PYRENE	120 U
131-11-3	DIMETHYL PHTHALATE	120 U	53-70-3	DIBENZ(a,h)ANTHRACENE	120 U
208-96-8	ACENAPHTHYLENE	120 U	191-24-2	BENZO(g,h,i)PERYLENE	120 U
99-09-2	3-NITROANILINE	580 U			

(1)-Cannot be separated from diphenylamine.

ORIGINAL
(Red)

Sample Number
24C

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High / Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-07-88
Conc/Dil Factor: 6.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction ____ Yes

CAS Number		ug/L or mg/Kg (Circle one)
319-84-6	ALPHA - BHC	120 U
319-85-7	BETA - BHC	120 U
319-86-8	DELTA - BHC	120 U
58-89-9	GAMMA - BHC (LINDANE)	120 U
76-44-8	HEPTACHLOR	120 U
309-00-2	ALDRIN	120 U
1024-57-3	HEPTACHLOR EPOXIDE	120 U
959-98-8	ENDOSULFAN I	120 U
60-57-1	DIELDRIN	120 U
72-55-9	4,4'- DDE	19 J
72-20-8	ENDRIN	120 U
33213-65-9	ENDOSULFAN II	120 U
72-54-8	4,4'- DDD	120 U
1031-07-8	ENDOSULFAN SULFATE	120 U
50-29-3	4,4'- DDT	120 U
72-43-5	METHOXYCHLOR	120 U
53494-70-5	ENDRIN KETONE	120 U
57-74-9	CHLORDANE	1200 U
8001-35-2	TOXAPHENE	1200 U
12674-11-2	AROCHLOR - 1016	1200 U
11104-28-2	AROCHLOR - 1221	1200 U
11141-16-5	AROCHLOR - 1232	1200 U
53469-21-9	AROCHLOR - 1242	1200 U
12672-29-6	AROCHLOR - 1248	1200 U
11097-69-1	AROCHLOR - 1254	1200 U
11096-82-5	AROCHLOR - 1260	1200 U

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
24-C1

Laboratory Name S-CUBED

SAS 31551 ; SET 28

Lab Sample ID No. 407031

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-18-88

Date Analyzed 4-7-88

Conc/Dil Factor 6

	mg/kg
Monochlorobiphenyls	600U
Dichlorobiphenyls	600U
Trichlorobiphenyls	600U
Tetrachlorobiphenyls	600U
Pentachlorobiphenyls	600U
Hexachlorobiphenyls	600U
Heptachlorobiphenyls	600U
Octachlorobiphenyls	600U
Nonachlorobiphenyls	600U
Decachlorobiphenyls	600U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number: 25

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 28MV121 (CGEH)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 31551 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	1.3 J	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	19 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301859

ORIGINAL
(Red)

Sample Number:
26

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 28MV131
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 31551 / SET 28
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	1.6 J	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	18	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	16
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	23 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	0.99 J
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	4.7

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301860

ORIGINAL (Red)

Sample Number:
27

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 29MV141 (VOA)
Sample Matrix: SOIL
Data Release Authorized By: [illegible]

Case No: 31551 / SET 29 I
GC Report No: N.A
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentrations: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.A (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	1.4 J	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	20 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301861

ORIGINAL
(Red)

Sample Number: 28

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 29MV1071 CUBA1 ; 404091 (A3N)
Sample Matrix: SOIL
Data Release Authorized By: JN

Case No: 31551 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: 7.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	2.5 U	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	31 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301862

ORIGINAL
(Red)

Sample Number
2B

Laboratory Name: S-CUBED
Case No: 31551 / SET 2B

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High / Medium (Circle One)
Date Extracted/Prepared: 03-18-89
Date Analyzed: 04-04-89
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.A

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	20 U	83-32-9	ACENAPHTHENE	20 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	96 U
95-57-8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	96 U
541-73-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	20 U
106-46-7	1,4-DICHLOROBENZENE	20 U	121-14-2	2,4-DINITROTOLUENE	20 U
100-51-6	BENZYL ALCOHOL	20 U	606-20-2	2,6-DINITROTOLUENE	20 U
95-50-1	1,2-DICHLOROBENZENE	20 U	84-66-2	DIETHYLPHTHALATE	20 U
95-48-7	2-METHYLPHENOL	20 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	20 U
106-44-5	4-METHYLPHENOL	20 U	100-01-6	4-NITROANILINE	96 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
67-72-1	HEXACHLOROETHANE	20 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	20 U
98-95-3	NITROBENZENE	20 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
78-59-1	ISOPHRONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
88-75-5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	96 U
105-67-9	2,4-DIMETHYLPHENOL	20 U	85-01-8	PHENANTHRENE	20 U
65-85-0	BENZOIC ACID	96 U	120-12-7	ANTHRACENE	20 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U	84-74-2	DI-N-BUTYLPHTHALATE	20 U
120-83-2	2,4-DICHLOROPHENOL	20 U	206-44-0	FLUORANTHENE	20 U
120-82-1	1,2,4-TRICHLOROBENZENE	20 U	129-00-0	PYRENE	20 U
91-20-3	NAPHTHALENE	20 U	85-68-7	BUTYLBENZYLPHTHALATE	20 U
106-47-8	4-CHLOROANILINE	20 U	91-94-1	3,3'-DICHLOROBENZIDINE	40 U
87-68-3	HEXACHLOROBUTADIENE	20 U	56-55-3	BENZO(a)ANTHRACENE	20 U
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	2.4 J
91-57-6	2-METHYLNAPHTHALENE	20 U	218-01-9	CHRYSENE	20 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 U	117-84-0	DI-N-OCTYL PHTHALATE	20 U
88-06-2	2,4,6-TRICHLOROPHENOL	20 U	205-99-2	BENZO(b)FLUORANTHENE	20 U
95-95-4	2,4,5-TRICHLOROPHENOL	96 U	207-08-9	BENZO(k)FLUORANTHENE	20 U
91-58-7	2-CHLORONAPHTHALENE	20 U	50-32-8	BENZO(a)PYRENE	20 U
88-74-4	2-NITROANILINE	96 U	193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
131-11-3	DIMETHYL PHTHALATE	20 U	53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
208-96-8	ACENAPHTHYLENE	20 U	191-24-2	BENZO(g,h,i)PERYLENE	20 U
99-09-2	3-NITROANILINE	96 U			

(1)-Cannot be seperated from diphenylamine.

ORIGINAL
(Red)

Sample Number
28

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High, Medium (Circle One)
Date Extracted/Prepared: 03-19-88
Date Analyzed: 04-04-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up x Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/L or ug/Kg (Circle One)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
- 28

Laboratory Name S-CUBED

SAS 31551 ; SET 28

Lab Sample ID No. 404091

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-18-88

Date Analyzed 4-4-88

Conc/Dil Factor 1

	mg/kg
Monochlorobiphenyls	100U
Dichlorobiphenyls	100U
Trichlorobiphenyls	100U
Tetrachlorobiphenyls	100U
Pentachlorobiphenyls	100U
Hexachlorobiphenyls	100U
Heptachlorobiphenyls	100U
Octachlorobiphenyls	100U
Nonachlorobiphenyls	100U
Decachlorobiphenyls	100U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number:
29

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUSED
Lab Sample ID No: 30MV1081 (VCA)
Sample Matrix: SOIL
Data Release Authorized By: ___

Case No: 31551 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-30-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	3.8	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	25 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.1 J	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301866

ORIGINAL
(Red)

Sample Number:
30

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 29MV1091 (VOA) 1405061 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: M

Case No: 31551 / SET 2B I
GC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	0.93 J	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5.8	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	32 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	1.6 J	108-88-3	TOLUENE	0.65 J
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged. However, the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (eg. 10U) based on necessary concentration/dilution action. (this is not necessarily the instrument detection limit.) The footnotes should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J). If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301867

ORIGINAL
(Red)

Sample Number
30

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High / Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-05-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction _____ Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	20 U	83-32-9	ACENAPHTHENE	20 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	96 U
95-57-8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	96 U
541-73-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	20 U
106-46-7	1,4-DICHLOROBENZENE	20 U	121-14-2	2,4-DINITROTOLUENE	20 U
100-51-6	BENZYL ALCOHOL	20 U	606-20-2	2,6-DINITROTOLUENE	20 U
95-50-1	1,2-DICHLOROBENZENE	20 U	84-66-2	DIETHYLPHTHALATE	20 U
95-48-7	2-METHYLPHENOL	20 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	20 U
106-44-5	4-METHYLPHENOL	20 U	100-01-6	4-NITROANILINE	96 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
67-72-1	HEXACHLOROETHANE	20 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	20 U
98-95-3	NITROBENZENE	20 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
78-59-1	ISOPHRONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
88-75-5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	96 U
105-67-9	2,4-DIMETHYLPHENOL	20 U	85-01-8	PHENANTHRENE	6.4 J
65-85-0	BENZOIC ACID	96 U	120-12-7	ANTHRACENE	3.2 J
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U	84-74-2	DI-N-BUTYLPHTHALATE	20 U
120-83-2	2,4-DICHLOROPHENOL	20 U	206-44-0	FLUORANTHENE	9.4 J
120-82-1	1,2,4-TRICHLOROBENZENE	20 U	129-00-0	PYRENE	6.7 J
91-20-3	NAPHTHALENE	20 U	85-68-7	BUTYLBENZYLPHTHALATE	20 U
106-47-8	4-CHLOROANILINE	20 U	91-94-1	3,3'-DICHLOROBENZIDINE	40 U
87-68-3	HEXACHLOROBUTADIENE	20 U	56-55-3	BENZO(a)ANTHRACENE	2.9 J
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	110
91-57-6	2-METHYLNAPHTHALENE	20 U	218-01-9	CHRYSENE	4.3 J
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 U	117-84-0	DI-N-OCTYL PHTHALATE	31
88-06-2	2,4,6-TRICHLOROPHENOL	20 U	205-99-2	BENZO(b)FLUORANTHENE	3.4 J
95-95-4	2,4,5-TRICHLOROPHENOL	96 U	207-08-9	BENZO(k)FLUORANTHENE	2.3 J
91-58-7	2-CHLORONAPHTHALENE	20 U	50-32-8	BENZO(a)PYRENE	2.9 J
88-74-4	2-NITROANILINE	96 U	193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
131-11-3	DIMETHYL PHTHALATE	20 U	53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
208-96-8	ACENAPHTHYLENE	20 U	191-24-2	BENZO(g,h,i)PERYLENE	20 U
99-09-2	3-NITROANILINE	96 U			

(1)-Cannot be seperated from diphenylamine.

ORIGINAL
(Red)

Sample Number
30

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-03-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

AR301869

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
30

Laboratory Name S-CUBED

SAS 3155 I ; SET 28 I

Lab Sample ID No. 405061

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-18-88

Date Analyzed 4-5-88

Conc/Dil Factor 1

	mg/kg
Monochlorobiphenyls	100U
Dichlorobiphenyls	100U ~~5J~~
Trichlorobiphenyls	7J
Tetrachlorobiphenyls	100U
Pentachlorobiphenyls	100U
Hexachlorobiphenyls	100U
Heptachlorobiphenyls	100U
Octachlorobiphenyls	100U
Nonachlorobiphenyls	100U
Decachlorobiphenyls	100U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number:
31

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M31V1051 (CVA) ; 405081 (ADN)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 31551 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 05-15-88
Date Analyzed: 04-01-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		mg/l or mg/kg (Circle One)	CAS Number		mg/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	2 J	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	8	71-43-2	BENZENE	0.53 J
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	24 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	0.68 J	108-88-3	TOLUENE	0.7 J
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301871

ORIGINAL
(Red)

Sample Number
31

Laboratory Name: S-CUBED
Case No: 31551 / SET 29

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-05-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.A

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	3.6 J	83-32-9	ACENAPHTHENE	20 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	96 U
95-57-8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	96 U
541-73-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	20 U
106-46-7	1,4-DICHLOROBENZENE	20 U	121-14-2	2,4-DINITROTOLUENE	20 U
100-51-6	BENZYL ALCOHOL	20 U	606-20-2	2,6-DINITROTOLUENE	20 U
95-50-1	1,2-DICHLOROBENZENE	20 U	84-66-2	DIETHYLPHTHALATE	20 U
95-48-7	2-METHYLPHENOL	20 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	20 U
106-44-5	4-METHYLPHENOL	20 U	100-01-6	4-NITROANILINE	96 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
67-72-1	HEXACHLOROETHANE	20 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	5.7 J
98-95-3	NITROBENZENE	20 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
78-59-1	ISOPHRONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
88-75-5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	96 U
105-67-9	2,4-DIMETHYLPHENOL	20 U	85-01-8	PHENANTHRENE	20 U
65-85-0	BENZOIC ACID	96 U	120-12-7	ANTHRACENE	20 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U	84-74-2	DI-N-BUTYLPHTHALATE	2.6 J
120-83-2	2,4-DICHLOROPHENOL	20 U	206-44-0	FLUORANTHENE	4 J
120-82-1	1,2,4-TRICHLOROBENZENE	20 U	129-00-0	PYRENE	3.3 J
91-20-3	NAPHTHALENE	20 U	85-68-7	BUTYLBENZYLPHTHALATE	20 U
106-47-8	4-CHLOROANILINE	20 U	91-94-1	3,3'-DICHLOROBENZIDINE	40 U
87-68-3	HEXACHLOROBUTADIENE	20 U	56-55-3	BENZO(a)ANTHRACENE	20 U
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	60
91-57-6	2-METHYLNAPHTHALENE	20 U	218-01-9	CHRYSENE	2.5 J
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 U	117-84-0	DI-N-OCTYL PHTHALATE	5.9 J
88-06-2	2,4,6-TRICHLOROPHENOL	20 U	205-99-2	BENZO(b)FLUORANTHENE	2.3 J
95-95-4	2,4,5-TRICHLOROPHENOL	96 U	207-08-9	BENZO(k)FLUORANTHENE	20 U
91-58-7	2-CHLORONAPHTHALENE	20 U	50-32-8	BENZO(a)PYRENE	2.5 J
88-74-4	2-NITROANILINE	96 U	193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
131-11-3	DIMETHYL PHTHALATE	20 U	53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
208-96-8	ACENAPHTHYLENE	20 U	191-24-2	BENZO(g,h,i)PERYLENE	20 U
99-09-2	3-NITROANILINE	96 U			

(1)-Cannot be seperated from diphenylamine.

ORIGINAL
(Red)

Sample Number
31

Laboratory Name: S-CUBED
Case No: 31531 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-05-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
31

Laboratory Name S-CUBED

SAS 3155I ; SET 28

Lab Sample ID No. 905081

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-18-88

Date Analyzed 4-5-88

Conc/Dil Factor 1

	mg/kg
Monochlorobiphenyls	100U
Dichlorobiphenyls	100U ~~SJ~~ pw
Trichlorobiphenyls	100U ~~LJ~~ pw
Tetrachlorobiphenyls	100U
Pentachlorobiphenyls	100U
Hexachlorobiphenyls	100U
Heptachlorobiphenyls	100U
Octachlorobiphenyls	100U
Nonachlorobiphenyls	100U
Decachlorobiphenyls	100U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number:
32

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M31V1071 (VOA) ; 408021 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: [illegible]

Case No: 3155I / SET 28 I
GC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 04-01-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	1.5 J	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5.8	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	13 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301875

ORIGINAL
(Red)

Sample Number
32

Laboratory Name: S-CUBED
Case No: 31531 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-08-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.A

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	20 U	83-32-9	ACENAPHTHENE	20 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	96 U
95-57-8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	96 U
541-73-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	20 U
106-46-7	1,4-DICHLOROBENZENE	20 U	121-14-2	2,4-DINITROTOLUENE	20 U
100-51-6	BENZYL ALCOHOL	20 U	606-20-2	2,6-DINITROTOLUENE	20 U
95-50-1	1,2-DICHLOROBENZENE	20 U	84-66-2	DIETHYLPHTHALATE	20 U
95-48-7	2-METHYLPHENOL	20 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	20 U
106-44-5	4-METHYLPHENOL	20 U	100-01-6	4-NITROANILINE	96 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
67-72-1	HEXACHLOROETHANE	20 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	20 U
98-95-3	NITROBENZENE	20 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
78-59-1	ISOPHRONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
88-75-5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	96 U
105-67-9	2,4-DIMETHYLPHENOL	20 U	85-01-8	PHENANTHRENE	2.4 J
65-85-0	BENZOIC ACID	96 U	120-12-7	ANTHRACENE	20 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U	84-74-2	DI-N-BUTYLPHTHALATE	2 J
120-83-2	2,4-DICHLOROPHENOL	20 U	206-44-0	FLUORANTHENE	13 J
120-82-1	1,2,4-TRICHLOROBENZENE	20 U	129-00-0	PYRENE	12 J
91-20-3	NAPHTHALENE	20 U	85-68-7	BUTYLBENZYLPHTHALATE	20 U
106-47-8	4-CHLOROANILINE	20 U	91-94-1	3,3'-DICHLOROBENZIDINE	40 U
87-68-3	HEXACHLOROBUTADIENE	20 U	56-55-3	BENZO(a)ANTHRACENE	8.3 J
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	22
91-57-6	2-METHYLNAPHTHALENE	20 U	218-01-9	CHRYSENE	13 J
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 U	117-84-0	DI-N-OCTYL PHTHALATE	20 U
88-06-2	2,4,6-TRICHLOROPHENOL	20 U	205-99-2	BENZO(b)FLUORANTHENE	20
95-95-4	2,4,5-TRICHLOROPHENOL	96 U	207-08-9	BENZO(k)FLUORANTHENE	16 J
91-58-7	2-CHLORONAPHTHALENE	20 U	50-32-8	BENZO(a)PYRENE	14 J
88-74-4	2-NITROANILINE	96 U	193-39-5	INDENO(1,2,3-CD)PYRENE	17 J
131-11-3	DIMETHYL PHTHALATE	20 U	53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
208-96-8	ACENAPHTHYLENE	20 U	191-24-2	BENZO(g,h,i)PERYLENE	13 J
99-09-2	3-NITROANILINE	96 U			

(1)-Cannot be separated from diphenylamine.

AR301876

ORIGINAL
(Red)

Sample Number
32

Laboratory Name: S-CUBED
Case No: 31531 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High / Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-08-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes ___No
Separatory Funnel Extraction ___Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
-32

Laboratory Name S-CUBED

SAS 3155 I ; SET 28 I

Lab Sample ID No. 408021

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-18-88

Date Analyzed 4-8-88

Conc/Dil Factor 1

	mg/kg
Monochlorobiphenyls	100 U
Dichlorobiphenyls	100 U
Trichlorobiphenyls	100 U
Tetrachlorobiphenyls	100 U
Pentachlorobiphenyls	100 U
Hexachlorobiphenyls	100 U
Heptachlorobiphenyls	100 U
Octachlorobiphenyls	100 U
Nonachlorobiphenyls	100 U
Decachlorobiphenyls	100 U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number:
33 A

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M29V1011 (CCA); 405071 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 31551 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: 7.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		mg/l or mg/kg (Circle One)	CAS Number		mg/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	2.5U ~~[illegible]~~	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	15 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301879

ORIGINAL
(Red)

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

Sample Number
33A

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High, Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-05-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction ____ Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	20 U	83-32-9	ACENAPHTHENE	20 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	96 U
95-57-8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	96 U
541-73-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	20 U
106-46-7	1,4-DICHLOROBENZENE	20 U	121-14-2	2,4-DINITROTOLUENE	20 U
100-51-6	BENZYL ALCOHOL	20 U	606-20-2	2,6-DINITROTOLUENE	20 U
95-50-1	1,2-DICHLOROBENZENE	20 U	84-66-2	DIETHYLPHTHALATE	20 U
95-48-7	2-METHYLPHENOL	20 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	20 U
106-44-5	4-METHYLPHENOL	20 U	100-01-6	4-NITROANILINE	96 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
67-72-1	HEXACHLOROETHANE	20 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	20 U
98-95-3	NITROBENZENE	20 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
78-59-1	ISOPHRONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
88-75-5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	96 U
105-67-9	2,4-DIMETHYLPHENOL	20 U	85-01-8	PHENANTHRENE	20 U
65-85-0	BENZOIC ACID	96 U	120-12-7	ANTHRACENE	20 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U	84-74-2	DI-N-BUTYLPHTHALATE	20 U
120-83-2	2,4-DICHLOROPHENOL	20 U	206-44-0	FLUORANTHENE	20 U
120-82-1	1,2,4-TRICHLOROBENZENE	20 U	129-00-0	PYRENE	20 U
91-20-3	NAPHTHALENE	16 J	85-68-7	BUTYLBENZYLPHTHALATE	20 U
106-47-8	4-CHLOROANILINE	20 U	91-94-1	3,3'-DICHLOROBENZIDINE	40 U
87-68-3	HEXACHLOROBUTADIENE	20 U	56-55-3	BENZO(a)ANTHRACENE	20 U
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	20 U
91-57-6	2-METHYLNAPHTHALENE	20 U	218-01-9	CHRYSENE	20 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 U	117-84-0	DI-N-OCTYL PHTHALATE	20 U
88-06-2	2,4,6-TRICHLOROPHENOL	20 U	205-99-2	BENZO(b)FLUORANTHENE	20 U
95-95-4	2,4,5-TRICHLOROPHENOL	96 U	207-08-9	BENZO(k)FLUORANTHENE	20 U
91-58-7	2-CHLORONAPHTHALENE	20 U	50-32-8	BENZO(a)PYRENE	20 U
88-74-4	2-NITROANILINE	96 U	193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
131-11-3	DIMETHYL PHTHALATE	20 U	53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
208-96-8	ACENAPHTHYLENE	20 U	191-24-2	BENZO(g,h,i)PERYLENE	20 U
99-09-2	3-NITROANILINE	96 U			

(1)-Cannot be seperated from diphenylamine.

AR301880

ORIGINAL
(Red)

Sample Number
33A

Laboratory Name: S-CUBED
Case No: 31531 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-18-89
Date Analyzed: 04-05-89
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction ____ Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

AR301881

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
33-A1

Laboratory Name S-CUBED

SAS 3155 I ; SET 28 I

Lab Sample ID No. 905071

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-18-88

Date Analyzed 4-5-88

Conc/Dil Factor 1

	mg/kg
Monochlorobiphenyls	100 U
Dichlorobiphenyls	100 U ~~J~~ W
Trichlorobiphenyls	100 U
Tetrachlorobiphenyls	100 U
Pentachlorobiphenyls	100 U
Hexachlorobiphenyls	100 U
Heptachlorobiphenyls	100 U
Octachlorobiphenyls	100 U
Nonachlorobiphenyls	100 U
Decachlorobiphenyls	100 U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number:
33 C

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M30V1121 (CBH) ; 408031 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 31551 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-31-88
Conc/Dil Factor: 1.0 pH: 7.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or mg/kg (Circle One)	CAS Number		ug/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	1.2 J	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	3.9 J	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	9 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301883

ORIGINAL
(Red)

Sample Number
33C

Laboratory Name: S-CUBED
Case No: 31331 / SET 23

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-08-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction ____ Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	20 U	83-32-9	ACENAPHTHENE	10 J
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	96 U
95-57-8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	96 U
541-73-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	6.6 J
106-46-7	1,4-DICHLOROBENZENE	20 U	121-14-2	2,4-DINITROTOLUENE	20 U
100-51-6	BENZYL ALCOHOL	20 U	606-20-2	2,6-DINITROTOLUENE	20 U
95-50-1	1,2-DICHLOROBENZENE	20 U	84-66-2	DIETHYLPHTHALATE	20 U
95-48-7	2-METHYLPHENOL	20 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	12 J
106-44-5	4-METHYLPHENOL	20 U	100-01-6	4-NITROANILINE	96 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
67-72-1	HEXACHLOROETHANE	20 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	20 U
98-95-3	NITROBENZENE	20 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
78-59-1	ISOPHRONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
88-75-5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	96 U
105-67-9	2,4-DIMETHYLPHENOL	20 U	85-01-8	PHENANTHRENE	22
65-85-0	BENZOIC ACID	96 U	120-12-7	ANTHRACENE	110
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U	84-74-2	DI-N-BUTYLPHTHALATE	20 U
120-83-2	2,4-DICHLOROPHENOL	20 U	206-44-0	FLUORANTHENE	21
120-82-1	1,2,4-TRICHLOROBENZENE	20 U	129-00-0	PYRENE	15 J
91-20-3	NAPHTHALENE	2.7 J	85-68-7	BUTYLBENZYLPHTHALATE	20 U
106-47-8	4-CHLOROANILINE	20 U	91-94-1	3,3'-DICHLOROBENZIDINE	40 U
87-68-3	HEXACHLOROBUTADIENE	20 U	56-55-3	BENZO(a)ANTHRACENE	5 J
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	52
91-57-6	2-METHYLNAPHTHALENE	3.2 J	218-01-9	CHRYSENE	8.1 J
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 U	117-84-0	DI-N-OCTYL PHTHALATE	5.4 J
88-06-2	2,4,6-TRICHLOROPHENOL	20 U	205-99-2	BENZO(b)FLUORANTHENE	3.9 J
95-95-4	2,4,5-TRICHLOROPHENOL	96 U	207-08-9	BENZO(k)FLUORANTHENE	3 J
91-58-7	2-CHLORONAPHTHALENE	20 U	50-32-8	BENZO(a)PYRENE	3.6 J
88-74-4	2-NITROANILINE	96 U	193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
131-11-3	DIMETHYL PHTHALATE	20 U	53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
208-96-8	ACENAPHTHYLENE	20 U	191-24-2	BENZO(g,h,i)PERYLENE	20 U
99-09-2	3-NITROANILINE	96 U			

(1)-Cannot be separated from diphenylamine.

ORIGINAL
(Red)

Sample Number
33C

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High, Medium (Circle One)
Date Extracted/Prepared: 03-18-98
Date Analyzed: 04-08-98
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.A

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
-33-C1

Laboratory Name S-CUBED

SAS 3155I ; SET 28

Lab Sample ID No. 408031

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 3-18-88

Date Analyzed 4-8-88

Conc/Dil Factor 1

	mg/kg
Monochlorobiphenyls	100U
Dichlorobiphenyls	100U
Trichlorobiphenyls	100U
Tetrachlorobiphenyls	100U
Pentachlorobiphenyls	100U
Hexachlorobiphenyls	100U
Heptachlorobiphenyls	100U
Octachlorobiphenyls	100U
Nonachlorobiphenyls	100U
Decachlorobiphenyls	100U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Sample Number:
34

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M31V1061 (CBA) ; 408041 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 3155I / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 04-01-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or mg/kg (Circle One)	CAS Number		ug/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	1.9 J	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	6.8	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	13 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301887

ORIGINAL
(Red)

Sample Number
34

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: (High) Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-08-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.R

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/l or (ug/kg) (Circle One)	CAS Number		ug/l or (ug/kg) (circle one)
108-95-2	PHENOL	20 U	83-32-9	ACENAPHTHENE	5.1 J
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	96 U
95-57-8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	96 U
541-73-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	4.7 J
106-46-7	1,4-DICHLOROBENZENE	20 U	121-14-2	2,4-DINITROTOLUENE	20 U
100-51-6	BENZYL ALCOHOL	20 U	606-20-2	2,6-DINITROTOLUENE	20 U
95-50-1	1,2-DICHLOROBENZENE	20 U	84-66-2	DIETHYLPHTHALATE	20 U
95-48-7	2-METHYLPHENOL	20 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	8.5 J
106-44-5	4-METHYLPHENOL	20 U	100-01-6	4-NITROANILINE	96 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
67-72-1	HEXACHLOROETHANE	20 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	20 U
98-95-3	NITROBENZENE	20 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
78-59-1	ISOPHRONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
88-75-5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	96 U
105-67-9	2,4-DIMETHYLPHENOL	20 U	85-01-8	PHENANTHRENE	13 J
65-85-0	BENZOIC ACID	96 U	120-12-7	ANTHRACENE	120
111-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U	84-74-2	DI-N-BUTYLPHTHALATE	20 U
120-83-2	2,4-DICHLOROPHENOL	20 U	206-44-0	FLUORANTHENE	11 J
120-82-1	1,2,4-TRICHLOROBENZENE	20 U	129-00-0	PYRENE	7.9 J
91-20-3	NAPHTHALENE	2.4 J	85-68-7	BUTYLBENZYLPHTHALATE	20 U
106-47-8	4-CHLOROANILINE	20 U	91-94-1	3,3'-DICHLOROBENZIDINE	40 U
87-68-3	HEXACHLOROBUTADIENE	20 U	56-55-3	BENZO(a)ANTHRACENE	2.6 J
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	50
91-57-6	2-METHYLNAPHTHALENE	3.3 J	218-01-9	CHRYSENE	4.5 J
77-47-4	HEXACHLOROCYCLOPENTADIENE	20 U	117-84-0	DI-N-OCTYL PHTHALATE	3 J
88-06-2	2,4,6-TRICHLOROPHENOL	20 U	205-99-2	BENZO(b)FLUORANTHENE	20 U
95-95-4	2,4,5-TRICHLOROPHENOL	96 U	207-08-9	BENZO(k)FLUORANTHENE	20 U
91-58-7	2-CHLORONAPHTHALENE	20 U	50-32-8	BENZO(a)PYRENE	20 U
88-74-4	2-NITROANILINE	96 U	193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
131-11-3	DIMETHYL PHTHALATE	20 U	53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
208-96-8	ACENAPHTHYLENE	20 U	191-24-2	BENZO(g,h,i)PERYLENE	20 U
99-09-2	3-NITROANILINE	96 U			

(1)-Cannot be separated from diphenylamine.

AR301888

ORIGINAL
(Red)

Sample Number
34

Laboratory Name: S-CUBED
Case No: 3155I / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High - Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-08-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.A

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction ____ Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

ORIGINAL (Red)

PCB Congener Analysis Data Sheet

Sample Number -34

Laboratory Name S-CUBED

SAS 3155 I ; SET 28

Lab Sample ID No. 408041

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared 7-18-88

Date Analyzed 4-8-88

Conc/Dil Factor 1

	mg/kg
Monochlorobiphenyls	100U
Dichlorobiphenyls	100U
Trichlorobiphenyls	100U
Tetrachlorobiphenyls	100U
Pentachlorobiphenyls	100U
Hexachlorobiphenyls	100U
Heptachlorobiphenyls	100U
Octachlorobiphenyls	100U
Nonachlorobiphenyls	100U
Decachlorobiphenyls	100U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL (Red)

Sample Number: 35 A

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M29V1021 CUBA
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 31551 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: 7.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		mg/l or mg/kg (Circle One)	CAS Number		mg/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	2.5U ~~0.71 J Ag~~	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	44
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	13 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	18
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	4.3
				TOTAL XYLENES	8.1

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301891

ORIGINAL
(Red)

Sample Number:
33 C

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 1APRV081 CCCH ; 407101 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: N

Case No: 31551 / SET 28 7
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 04-02-88
Conc/Dil Factor: 20 pH: 7.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (Circle one)
74-87-3	CHLOROMETHANE	100 U	78-87-5	1,2-DICHLOROPROPANE	50 U
74-83-9	BROMOMETHANE	100 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	50 U
75-01-4	VINYL CHLORIDE	100 U	79-01-6	TRICHLOROETHENE	50 U
75-00-3	CHLOROETHANE	100 U	124-48-1	DIBROMOCHLOROMETHANE	50 U
75-09-2	METHYLENE CHLORIDE	33 J	79-00-5	1,1,2-TRICHLOROETHANE	50 U
67-64-1	ACETONE	62 J	71-43-2	BENZENE	2000
75-15-0	CARBON DISULFIDE	50 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	50 U
75-35-4	1,1-DICHLOROETHENE	50 U	110-75-8	2-CHLOROETHYLVINYLETHER	100 U
75-34-3	1,1-DICHLOROETHANE	50 U	75-25-2	BROMOFORM	50 U
156-60-5	TRANS-1,2-DICHLOROETHENE	50 U	591-78-6	2-HEXANONE	100 U
67-66-3	CHLOROFORM	50 U	108-10-1	4-METHYL-2-PENTANONE	100 U
107-06-2	1,2-DICHLOROETHANE	50 U	127-18-4	TETRACHLOROETHENE	50 U
78-93-3	2-BUTANONE	35 J B	79-34-5	1,1,2,2-TETRACHLOROETHANE	50 U
71-55-6	1,1,1-TRICHLOROETHANE	50 U	108-88-3	TOLUENE	2200
56-23-5	CARBON TETRACHLORIDE	50 U	108-90-7	CHLOROBENZENE	50 U
108-05-4	VINYL ACETATE	100 U	100-41-4	ETHYLBENZENE	25 J
75-27-4	BROMODICHLOROMETHANE	50 U	100-42-5	STYRENE	320
				TOTAL XYLENES	Ay ~~370~~ 660

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged. However, the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (eg. 10U) based on necessary concentration/dilution action. (this is not necessarily the instrument detection limit.) The footnotes should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) . If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301892

ORIGINAL
(Red)

Sample Number
35C

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

Concentration: High / Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-07-88
Conc/Dil Factor: 20
Percent Moisture (decanted): N.R

GPC Clean up X Yes ___No
Separatory Funnel Extraction ___Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/l or ug/kg (Circle one)
108-95-2	PHENOL	400 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	400 U
95-57-8	2-CHLOROPHENOL	400 U
541-73-1	1-3,DICHLOROBENZENE	400 U
106-46-7	1,4-DICHLOROBENZENE	400 U
100-51-6	BENZYL ALCOHOL	400 U
95-50-1	1,2-DICHLOROBENZENE	400 U
95-48-7	2-METHYLPHENOL	400 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	400 U
106-44-5	4-METHYLPHENOL	400 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	400 U
67-72-1	HEXACHLOROETHANE	400 U
98-95-3	NITROBENZENE	400 U
78-59-1	ISOPHRONE	400 U
88-75-5	2-NITROPHENOL	400 U
105-67-9	2,4-DIMETHYLPHENOL	400 U
65-85-0	BENZOIC ACID	1900 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	400 U
120-83-2	2,4-DICHLOROPHENOL	400 U
120-82-1	1,2,4-TRICHLOROBENZENE	400 U
91-20-3	NAPHTHALENE	3500
106-47-8	4-CHLOROANILINE	400 U
87-68-3	HEXACHLOROBUTADIENE	400 U
59-50-7	4-CHLORO-3-METHYLPHENOL	400 U
91-57-6	2-METHYLNAPHTHALENE	290 J
77-47-4	HEXACHLOROCYCLOPENTADIENE	400 U
88-06-2	2,4,6-TRICHLOROPHENOL	400 U
95-95-4	2,4,5-TRICHLOROPHENOL	1900 U
91-58-7	2-CHLORONAPHTHALENE	400 U
88-74-4	2-NITROANILINE	1900 U
131-11-3	DIMETHYL PHTHALATE	400 U
208-96-8	ACENAPHTHYLENE	57 J
99-09-2	3-NITROANILINE	1900 U

CAS Number		ug/l or ug/kg (circle one)
83-32-9	ACENAPHTHENE	46 J
51-28-5	2,4-DINITROPHENOL	1900 U
100-02-7	4-NITROPHENOL	1900 U
132-64-9	DIBENZOFURAN	120 J
121-14-2	2,4-DINITROTOLUENE	400 U
606-20-2	2,6-DINITROTOLUENE	400 U
84-66-2	DIETHYLPHTHALATE	400 U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	400 U
86-73-7	FLUORENE	96 J
100-01-6	4-NITROANILINE	1900 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1900 U
86-30-6	N-NITROSODIPHENYLAMINE (1)	400 U
101-55-3	4-BROMOPHENYL-PHENYLETHER	400 U
118-74-1	HEXACHLOROBENZENE	400 U
87-86-5	PENTACHLOROPHENOL	1900 U
85-01-8	PHENANTHRENE	180 J
120-12-7	ANTHRACENE	74 J
84-74-2	DI-N-BUTYLPHTHALATE	400 U
206-44-0	FLUORANTHENE	160 J
129-00-0	PYRENE	130 J
85-68-7	BUTYLBENZYLPHTHALATE	400 U
91-94-1	3,3'-DICHLOROBENZIDINE	790 U
56-55-3	BENZO(a)ANTHRACENE	73 J
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	170 J
218-01-9	CHRYSENE	100 J
117-84-0	DI-N-OCTYL PHTHALATE	220 J
205-99-2	BENZO(b)FLUORANTHENE	98 J
207-08-9	BENZO(k)FLUORANTHENE	78 J
50-32-8	BENZO(a)PYRENE	100 J
193-39-5	INDENO(1,2,3-CD)PYRENE	79 J
53-70-3	DIBENZ(a,h)ANTHRACENE	400 U
191-24-2	BENZO(g,h,i)PERYLENE	61 J

(1)-Cannot be separated from diphenylamine.

AR301893

ORIGINAL
(Red)

Sample Number
35C

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High - Medium (Circle One)
Date Extracted/Prepared: 03-18-88
Date Analyzed: 04-07-88
Conc/Dil Factor: 20
Percent Moisture (decanted): N.A

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/L or ug/Kg (Circle one)
319-84-6	ALPHA - BHC	400 U
319-85-7	BETA - BHC	400 U
319-86-8	DELTA - BHC	400 U
58-89-9	GAMMA - BHC (LINDANE)	400 U
76-44-8	HEPTACHLOR	400 U
309-00-2	ALDRIN	400 U
1024-57-3	HEPTACHLOR EPOXIDE	400 U
959-98-8	ENDOSULFAN I	400 U
60-57-1	DIELDRIN	400 U
72-55-9	4,4'- DDE	400 U
72-20-8	ENDRIN	400 U
33213-65-9	ENDOSULFAN II	400 U
72-54-8	4,4'- DDD	400 U
1031-07-8	ENDOSULFAN SULFATE	400 U
50-29-3	4,4'- DDT	400 U
72-43-5	METHOXYCHLOR	400 U
53494-70-5	ENDRIN KETONE	400 U
57-74-9	CHLORDANE	4000 U
8001-35-2	TOXAPHENE	4000 U
12674-11-2	AROCHLOR - 1016	4000 U
11104-28-2	AROCHLOR - 1221	4000 U
11141-16-5	AROCHLOR - 1232	4000 U
53469-21-9	AROCHLOR - 1242	4000 U
12672-29-6	AROCHLOR - 1248	4000 U
11097-69-1	AROCHLOR - 1254	4000 U
11096-82-5	AROCHLOR - 1260	4000 U

PCB Congener Analysis Data Sheet

Sample Number: 35-C1

Laboratory Name: S-CUBED

SAS 3155I ; SET 28 I

Lab Sample ID No.: 457101

Sample Matrix: soil

Contract No.: 68-01-7261

Concentration: High

Date Extracted/Prepared: 3-18-88

Date Analyzed: 4-7-88

Conc/Dil Factor: 20

	mg/kg
Monochlorobiphenyls	2000 U
Dichlorobiphenyls	2000 U
Trichlorobiphenyls	24 J
Tetrachlorobiphenyls	2000 U
Pentachlorobiphenyls	2000 U
Hexachlorobiphenyls	2000 U
Heptachlorobiphenyls	2000 U
Octachlorobiphenyls	2000 U
Nonachlorobiphenyls	2000 U
Decachlorobiphenyls	2000 U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit report the value.

U — Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

WESTON

Appendix D

Reviewed and Corrected
Tentatively Identified Compound Lists

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 01

7ARV1031 (VOA)
407041 (BNA)

Organics Analysis Data Sheet (Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/kg)
1.	110-82-7	Cyclohexane	VOA	242	50 J
2.	NA	UNKNOWN HYDROCARBON		323	230 J
3.		UNKNOWN		440	100 J
4.		UNKNOWN HYDROCARBON		465	130 J
5.		UNKNOWN HYDROCARBON		495	210 J
6.	108-90-7	Benzene, chloro -	BNA	43	320 J
7.	NA	Dimethylbenzene unknown isomer		97	720 J
8.	54518-04-6	Methanol dimethoxy -		445	320 J
9.	95-16-9	Benzothiazole		641	480 J
10.	NA	UNKNOWN		790	280 J
11.		UNKNOWN		899	620 J
12.		UNKNOWN		1041	300 J
13.		UNKNOWN $C_{10}H_{12}NO_2Cl$		1092	6900 J
14.	95-06-7	CDEC		1119	2100 J
15.	2877-26-1	Octadecane, 1-isothiocyanato -		1220	720 J
16.	NA	UNKNOWN		1244	280 J
17.		UNKNOWN		1270	640 J
18.		UNKNOWN		1326	860 J
19.		UNKNOWN		1464	670 J
20.		UNKNOWN		1479	980 J
21.		UNKNOWN		1567	180 J
22.	123-79-5	Hexanedioic acid, dioctyl ester		1630	340 J
23.	NA	UNKNOWN		1769	1900 J
24.	~~NA~~	~~UNKNOWN~~		~~2108~~	~~140~~
25.	~~NA~~	~~UNKNOWN~~ Gamma-Sitosterol	BNA	2145	370
26.	87-47-6				
27.	62-53-3	Aniline	BNA	332	440
28.					
29.					
30.					

Q — Quantitation based on RF data from standard - not an estimate.

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 02

M31V1041 (VO
406A081 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.		NO TIC'S FOUND.	VOA		
2.	NA	2-(1,1-dimethylethyl) methylphenol, unk. isome.	BNA	804	260 J
3.	NA	UNKNOWN	↑	1082	990 J
4.	95-06-7	CDEC		1118	500 J
5.	1427-70-1	2-Hexadecene 3,7,11,15- tetramethyl -		1233	140 J
6.	NA	UNKNOWN		1321	420 J
7.	57-10-3	Hexadecanoic acid		1341	1500 J
8.	10544-50-0	Sulfur		1375	430 J
9.	NA	UNKNOWN		1467	770
10.		UNKNOWN		1480	500
11.		UNKNOWN		1490	190
12.		UNKNOWN		1716	130 J
13.		UNKNOWN phthalate		1830	89 J
14.		UNKNOWN		1883	170
15.		UNKNOWN		2023	150
16.	4651-51-8	~~Ag UNKNOWN~~ Ergost-5-en-3-ol, (3.beta)		2097	1200
17.	83-48-7	~~Ag UNKNOWN~~ Stigmasterol		2117	1100
18.	83-47-6	Gamma.-Sitosterol		2158	2300
19.	NA	UNKNOWN		2181	280
20.		UNKNOWN		2202	180
21.		UNKNOWN	BNA	2249	260
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 03

M31V1081 (VOA)
405111 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/l or ug/kg)
1.	109-99-9	Furan, tetrahydro -	VOA	180	5.7 J
2.	NA	UNKNOWN HYDROCARBON	BNA	627	12 J
3.	95-16-9	Benzothiazole		643	10 J
4.	NA	UNKNOWN HYDROCARBON		740	14 J
5.		UNKNOWN		793	8 J
6.		UNKNOWN PNA		815	18 J
7.		UNKNOWN HYDROCARBON		844	8 J
8.	NA	UNKNOWN $C_{10}H_{12}NO_2Cl$		1080	30 J
9.	95-06-7	~~UNKNOWN~~ CDEC		1117	46 J
10.	NA	UNKNOWN		1323	30 J
11.		UNKNOWN		1480	20 J
12.		UNKNOWN		1493	16 J
13.		UNKNOWN		1509	10 J
14.		UNKNOWN		1570	12 J
15.		UNKNOWN		1626	14 J
16.		UNKNOWN Hexandioic acid este		1633	56 J
17.		UNKNOWN HYDROCARBON		1696	10 J
18.		UNKNOWN HYDROCARBON		1755	10 J
19.		UNKNOWN HYDROCARBON	ARN	2034	18 J
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 04

M31V1091 (VOA)
405041 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.	109-99-9	Furan, tetrahydro -	VOA	180	3.3 J
2.	NA	UNKNOWN		275	2.6 J
3.		UNKNOWN		464	3.1 J
4.		UNKNOWN		563	4.1 J
5.	NA	UNKNOWN	BNA	503	16 J
6.		UNKNOWN		759	34 J
7.		UNKNOWN		794	16 J
8.		UNKNOWN		899	38 J
9.		UNKNOWN		925	38 J
10.		UNKNOWN		998	28 J
11.		~~UNKNOWN~~		~~1006~~	~~12 J~~
12.		UNKNOWN		1044	100 J
13.		UNKNOWN		1067	46 J
14.		UNKNOWN $C_{10}H_{12}NO_2U$		1082	74 J
15.		~~UNKNOWN~~ $C_2H_5NO_3$		1088	22 J
16.	17233-71-5	Hexathiepane		1126	30 J
17.	NA	UNKNOWN		1279	20 J
18.		UNKNOWN		1327	44 J
19.	10544-50-0	Sulfur, mol. (S8)		1366	74 J
20.	10544-50-0	Sulfur, mol. (S8)		1388	590 J
21.	2877-26-1	Octadecane, 1-isothiocyanato -		1481	34 J
22.	NA	UNKNOWN		1572	18 J
23.		UNKNOWN hexanedioic acid ester		1634	42 J
24.		UNKNOWN	BNA	1771	82 J
25.	62-53-3	Aniline	BNA	311	19 Q
26.					
27.					
28.					
29.					
30.					

Q - quantitation based on RF from standard - not an estimate.

Laboratory Name S-CUBED

Case No 31551 / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 05

31MV1641 (VOA)
406A031 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration mg/L or mg/kg
1.	110-82-7	Cyclohexane	VOA	242	83 J
2.	NA	UNKNOWN HYDROCARBON		374	47 J
3.		UNKNOWN		440	29 J
4.		UNKNOWN HYDROCARBON		465	43 J
5.		UNKNOWN substituted benzene		496	33 J
6.	103-65-1	Benzene, propyl -		573	25 J
7.	NA	Ethylmethylbenzene unknown isomer		635	54 J
8.	NA	Ethylmethylbenzene unknown isomer		660	33 J
9.	108-90-7	Benzene, chloro -	BNA	45	240 J
10.	NA	Ethylmethylbenzene unk. isomer		284	370 J
11.	54518-04-6	Methanol, dibutoxy -		446	270 J
12.	2528-90-3	Butane, 1,1'-methylenebis(oxy) bis		684	190 J
13.	2077-46-5	Benzene 1,2,4 - trichloro - 3-methyl -		737	210 J
14.	NA	UNKNOWN		793	640 J
15.		UNKNOWN		901	400 J
16.		UNKNOWN		990	270 J
17.		UNKNOWN		1074	1000 J
18.		UNKNOWN $C_n H_{12} NO_2 Cl$		1087	3800 J
19.		UNKNOWN		1222	380 J
20.	109-46-6	Thiourea, N,N'-diethyl -		1234	300 J
21.	NA	UNKNOWN		1271	430
22.		UNKNOWN		1326	830
23.		UNKNOWN		1468	500
24.		UNKNOWN HYDROCARBON		1570	190 J
25.		UNKNOWN HYDROCARBON		1634	270
26.		UNKNOWN HYDROCARBON		1695	270
27.		UNKNOWN HYDROCARBON		1755	160 J
28.		UNKNOWN	ASN	1771	440
29.					
30.					

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 06

M28V1GH CFG

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/kg)
1. 109-99-9	Furan, tetrahydro —	VOA	180	37J
2.	NO ANALYSIS REQUIRED	BNA		
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 07

M28V1051 CVGA

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/kg)
1. 109-99-9	Furan, tetrahydro —	VOA	180	29 J
2.				
3.	NO BNA ANALYSIS REQUIRED			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26				
27.				
28.				
29.				
30.				

Laboratory Name S-CUBED

Case No 3155 I / SDT 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 08

M28V1061 (VCA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1. 109-99-9	Furan, tetrahydro -	VCA	180	3.6J
2.				
3.				
4.	NO BNA ANALYSIS REQUIRED			
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26				
27.				
28.				
29.				
30.				

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

Sample Number 09

ORIGINAL (Red)

M28V1071 CVOA,

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/L)
1. 109-99-9	Furan, tetrahydro —	VOA	180	29 J
2.				
3.				
4.	NO BNA ANALYSIS REQUIRED			
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

Sample Number 11

M28V1087 CLP

Organics Analysis Data Sheet
(Page 4) (Red)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.	NO TIC'S FOUND.	VOA		
2.				
3.	NO BNA ANALYSIS REQUIRED			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26				
27.				
28.				
29.				
30.				

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 12

1APRV031 (VOA
407091 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/kg)
1.		NO TIC'S FOUND.	VOA		
2.	NA	3- or 4- chlorophenol	BNA	621	1100J
3.	NA	UNKNOWN		792	1600J
4.	NA	Benzaldehyde trichloro - unk. isomer		852	840J
5.		Trichlorobenzaldehyde unk. isomer		893	650J
6.		UNKNOWN		1020	330J
7.		Trichlorotrichloromethylbenzene unk. isomer		1062	3800J
8.		Unknown $C_{10}H_{12}NO_2Cl$		1078	570J
9.		UNKNOWN		1091	630J
10.		UNKNOWN		1183	450J
11.		UNKNOWN		1197	270J
12.		UNKNOWN		1244	540J
13.		UNKNOWN		1260	600J
14.		UNKNOWN		1269	1300
15.		UNKNOWN		1473	330
16.		UNKNOWN		1679	630
17.		UNKNOWN		1842	510
18.		UNKNOWN		1854	960
19.		UNKNOWN		1875	240
20.		UNKNOWN		1947	240
21.		UNKNOWN	BNA	1977	210
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

Sample Number 13.

28MV1011 CV

Organics Analysis Data Sheet
(Page 4) (Red)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.	NO TIC'S FOUND.	VCA		
2.				
3.	NO BNA ANALYSIS REQUIRED			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26				
27.				
28.				
29.				
30.				

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

Sample Number 14.

28MV1021 CLEA

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/L)
1.	NO TIC'S FOUND.	VOA		
2.				
3.	NO BNA ANALYSIS			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26				
27.				
28.				
29.				
30.				

AR301909

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

Sample Number 15

30MV 1101 (VE
40604H (BNA)

Organics Analysis Data Sheet
(Page 4)

ORIGINAL (Reg)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.	DO TIC'S FOUND.	VOA		
2. NA	UNKNOWN	BNA	1124	100J
3. 104-40-5	Phenol, 4-nonyl-	↑	1132	50J
4. NA	UNKNOWN HYDROCARBON		1213	40J
5.	UNKNOWN		1369	40J
6.	UNKNOWN phthalate		1542	60J
7.	UNKNOWN hexanedioic acid ester		1632	100J
8. 78-42-2	Phosphoric acid, tris(2-ethylhexyl) ester		1681	70J
9. NA	UNKNOWN phthalate		1695	50J
10.	UNKNOWN		1716	160J
11.	UNKNOWN		1791	190J
12.	UNKNOWN phthalate		1802	70J
13.	UNKNOWN phthalate		1830	170J
14.	UNKNOWN		1858	80
15.	UNKNOWN		1864	120J
16.	UNKNOWN phthalate		1928	80J
17.	UNKNOWN phthalate		1937	190J
18.	UNKNOWN phthalate		1942	90J
19.	UNKNOWN		1953	140
20.	UNKNOWN	↓	1963	120
21.	UNKNOWN	BNA	2002	50
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 16.

28MV 1031 (Ver

Organics Analysis Data Sheet (Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/kg)
1.	NO TIC'S FOUND.	VOA		
2.				
3.				
4.	NO BNA ANALYSIS			
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 17

1APRV071 CVOA
405131 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/kg)
1.	103-65-1	Benzene, propyl -	VOA	575	14 J
2.	NA	Ethylmethylbenzene, unknown isomer	↓	639	22 J
3.		UNKNOWN	BNA	304	300 J
4.		UNKNOWN	↑	628	160 J
5.		UNKNOWN		797	290 J
6.		UNKNOWN		905	290 J
7.		UNKNOWN		986	250 J
8.		UNKNOWN		994	150 J
9.		UNKNOWN		1007	370 J
10.	↓	UNKNOWN $C_{10}H_{12}NO_2Cl$		1088	590 J
11.	28994-41-4	Phenol, 2-(phenylmethyl-)		1108	290 J
12.	NA	UNKNOWN HYDROCARBON		1124	120 J
13.		UNKNOWN		1148	220
14.		Phenylmethylphenol, unk. isomer		1165	200 J
15.	↓	UNKNOWN		1204	480 J
16.	538-74-9	Benzene 1,1'-thiobis(methylene) bis -		1224	1200 J
17.	92-12-6	Phenylbutazone		1341	150 J
18.	NA	UNKNOWN		1635	280 J
19.		UNKNOWN		1722	340 J
20.		UNKNOWN		1797	270 J
21.		UNKNOWN	↓	1844	130 J
22.	↓	UNKNOWN	BNA	1869	120 J
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

AR301912

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 18

28MV071 CUST

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/L)
1.	NO TIC'S FOUND -	VOA		
2.				
3.	NO BNA ANALYSIS			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26				
27.				
28.				
29.				
30.				

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 19

AP7V1011 (VE) -405.121 (BNA)

Organics Analysis Data Sheet (Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.		NO TIC'S FOUND.	VCA		
2.	100-52-7	Benzaldehyde	BNA	277	126J
3.	NA	UNKNOWN	↑	303	360J
4.		UNKNOWN		627	160J
5.		UNKNOWN		797	330J
6.		UNKNOWN		903	260J
7.		UNKNOWN		985	240J
8.		UNKNOWN		993	140J
9.		UNKNOWN		1005	330J
10.		UNKNOWN $C_{10}H_{12}NO_2Cl$		1086	450J
11.		Phenylmethylglycinol, unk. isomer		1106	260J
12.		UNKNOWN		1146	170J
13.		Phenylmethylglycinol, unk. isomer		1163	220
14.	↓	UNKNOWN		1203	380J
15.	538-74-9	Benzene, 1,1'-thiobis(methylene) bis -		1223	1300J
16.	92-12-6	Phenyltoloxamine		1340	180J
17.	NA	UNKNOWN		1352	130J
18.		UNKNOWN		1634	270J
19.		UNKNOWN		1721	310J
20.		UNKNOWN	↓	1796	240J
21.	↓	UNKNOWN	BNA	1842	150J
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

AR301914

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 20

28MV087 (Ve

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.	UNKNOWN	VOA	556	5.6 J
2.				
3.	NO BNA ANALYSIS			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 21

AR7V1011 (V)
407111 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.	108-86-1	Benzene, bromo -	VOA	472	4200 J
2.	23436-19-3	2-propanol, 1-(2-methylpropoxy -)	↓	684	940 J
3.	68-90-7	Benzene, cyclo -	BNA	43	1600
4.	NA	Unknown dimethylbenzene	↑	78	450 J
5.	↓	Unknown dimethylbenzene		97	1800 J
6.	↓	Unknown dimethylbenzene		146	330 J
7.	108-86-1	Benzene, bromo -		216	2300 J
8.	103-71-9	Benzene, isocyanato -		272	510 J
9.	4829-04-2	1,3 - Dithiolane		299	810 J
10.	505-29-3	1,4 - Dithiane		429	180 J
11.	NA	3- or 4-methylphenol		620	300 J
12.	95-16-9	Benzothiazole		640	360 J
13.	NA	UNKNOWN		790	605 J
14.	101-42-8	Urea, N,N-dimethyl-N'-phenyl -		1059	120
15.	NA	Unknown $C_{10}H_{12}NO_2Cl$		1077	120 J
16.	2664-63-3	Phenol, 4,4'-thiobis -		1132	240 J
17.	538-74-9	Benzene, 1,1'-thiobis (methylene) bis -		1213	270 J
18.	NA	UNKNOWN		1268	210 J
19.	↓	UNKNOWN		1477	8800
20.	102-07-8	Urea, N,N'-diphenyl -		1514	1200
21.	NA	UNKNOWN	↓	1585	180 J
22.	↓	UNKNOWN	ABN	1620	420 J
23.	62-53-3	Aniline	ABN	308	720 Q
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Q - Quantitated using RF from standard - not an estimate.

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 22

28MV091 (VOA
404061 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/kg)
1.	NO TIC'S FOUND	VOA		
2.	NO TIC'S FOUND	BNA		
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26				
27.				
28.				
29.				
30.				

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 23

28MV101 (VOA 404.071 (BNA)

Organics Analysis Data Sheet (Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/kg)
1.	NO TIC'S FOUND.	VOA		
2.	NO TIC FOUND.	BNA		
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23				
24.				
25.				
26				
27.				
28.				
29.				
30.				

AR301918

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 24A

28MVIII (VOA)
404101 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/kg)
1.	109-99-9	Furan, tetrahydro —	VOA	177	5.0 J
2.	NA	UNKNOWN	BNA	572	24 J
3.		UNKNOWN		795	22 J
4.		UNKNOWN		1082	8 J
5.	*	2-Benzothiazole sulfenamide N-cyclohexyl -		1325	16 J
6.	NA	UNKNOWN Hexanedioic acid ester	BNA	1635	74 J
7.	62-53-3	Aniline	BNA	312	43 Q
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

* not available

Q - quantitated using RF from standard - not an estimate

AR301919

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 24C

M30V1031 CLIENT 407031 (BNA)

Organics Analysis Data Sheet (Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.	110-82-7	Cyclohexane	VOA	241	50 J
2.	NA	UNKNOWN	↕	338	10 J
3.	NA	UNKNOWN Subst. benzene	VOA	631	83 J
4.	108-90-7	Benzene chloro -	BNA	43	130 J
5.	NA	Tetramethyl disulfide $C_6H_{14}S_2$	↑	455	130 J
6.	↓	UNKNOWN	|	568	130 J
7.	95-16-9	Benzothiazole	|	640	96 J
8.	NA	UNKNOWN	|	792	700 J
9.	|	UNKNOWN	|	883	96 J
10.	|	UNKNOWN $C_{10}H_{12}NO_2Cl$	|	1079	470 J
11.	|	UNKNOWN	|	1090	130 J
12.	|	UNKNOWN	|	1122	170 J
13.	|	UNKNOWN	|	1219	120
14.	|	UNKNOWN	|	1244	130 J
15.	|	UNKNOWN	|	1268	350 J
16.	↓	UNKNOWN	|	1286	420
17.	120-78-5	Benzothiazole 22'-dithiobis -	|	1325	960 J
18.	NA	UNKNOWN	|	1477	170 J
19.	|	UNKNOWN HYDROCARBON	|	1631	160 J
20.	|	UNKNOWN	|	1651	250
21.	|	UNKNOWN HYDROCARBON	|	1693	110
22.	|	UNKNOWN	↓	1769	1100
23.	↓	UNKNOWN	BNA	1886	96
24.	62-53-3	Aniline	BNA	308	110
25.	NA	UNKNOWN	VOA	321	67 J
26.	|	UNKNOWN		439	300
27.	↓	UNKNOWN HYDROCARBON		463	480
28.					
29.					
30.					

Q - quantitated based on RF from std. Not an estim

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 25

28MV121 CLGA

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/L)
1.	NO TIC'S FOUND.	VOA		
2.				
3.	NO GNA ANALYSIS			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26				
27.				
28.				
29.				
30.				

AR301921

Laboratory Name S-CUBED

Case No. 3155 I / SDT 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 26

28MV131 CU

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1. NA	UNKNOWN	VOA	669	13 J
2.				
3.	NO BNA ANALYSIS			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26				
27.				
28.				
29.				
30.				

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 27

28MV14 (VOA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/kg)
1.	NO TIC'S FOUND.	VOA		
2.				
3.	NO BNA ANALYSIS			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26				
27.				
28.				
29.				
30.				

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 28

29 MV1071 (UG)
404091 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.	NA	UNKNOWN	VOA	604	1.9 J
2.	NA	UNKNOWN hexanedioic acid ester	BNA	1635	70 J
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

ORIGINAL (Red)

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

Sample Number 29

30MV1081 CLGA

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/kg)
1.	NO TIC'S FOUND.	VOA		
2.				
3.	NO BNA ANALYSIS			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26				
27.				
28.				
29.				
30.				

AR301925

ORIGINAL
(Red)

Laboratory Name S-CUBED

Case No 3155 I / SDT 28 (Part 1/2)

Sample Number
30

29MV1091 CU
405061 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.		NO TIC'S FOUND.	VOA		
2.	102-71-9	Benzene isocyanato-	BNA	275	56J
3.	95-16-9	Benzothiazole	↑	643	16J
4.	NA	UNKNOWN		1358	24J
5.	10544-50-0	Sulfur		1374	22J
6.	NA	UNKNOWN		1461	18J
7.	NA	UNKNOWN		1575	120J
8.		UNKNOWN hexanedioic acid este		1633	32J
9.		UNKNOWN		1717	22J
10.		UNKNOWN		1792	12J
11.		UNKNOWN phthalate		1861	44J
12.		UNKNOWN phthalate		1890	18J
13.		UNKNOWN phthalate		1916	14J
14.		UNKNOWN phthalate		1923	20J
15.		UNKNOWN phthalate		1930	24J
16.		UNKNOWN phthalate		1939	20J
17.		UNKNOWN phthalate		1955	22J
18.		UNKNOWN		2023	24J
19.		~~UNKNOWN~~		~~2039~~	~~12J~~
20.		UNKNOWN	↓	2086	32J
21.		UNKNOWN	BNA	2105	24J
22.	62-53-3	Aniline	BNA	335	25Q
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Q - quantitated based on RF from standard. Not an estimate.

AR301926

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

(Red)

Sample Number
31

M31V1051 CU
405081 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.		NO NC'S FOUND.	VOA		
2.	03-71-9	Benzene, isocyanate —	BNA	275	10J
3.	NA	UNKNOWN	↑	1574	34J
4.	NA	Unknown hexanedioic acid ester		1634	74J
5.	↑	UNKNOWN		1792	12J
6.		UNKNOWN gasoalate		1831	18J
7.		UNKNOWN gasoalate		1938	10J
8.		UNKNOWN gasoalate	↓	1954	14J
9.	↓	UNKNOWN	BNA	1969	10J
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 32

M31V1071 CU 408021 (BN)

Organics Analysis Data Sheet (Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/L)
1.		NO TIC'S FOUND.	VOA		
2.	NA	UNKNOWN $C_{10}H_{12}NO_2Cl$	BNA	1076	18J
3.		UNKNOWN		1565	22J
4.		UNKNOWN		1626	9J
5.	192-97-2	Benzo (e) pyrene		1879	12J
6.	NA	UNKNOWN phthalate		1916	12J
7.		UNKNOWN phthalate		1923	24J
8.		UNKNOWN phthalate		1932	20J
9.		UNKNOWN phthalate		1935	14J
10.		UNKNOWN phthalate	BNA	1947	16J
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

ORIGINAL
(Red)

Laboratory Name S-CUBED
Case No 3155 I / SET 28 (Part 1/2)

Sample Number
33A

M29V1011 (VOA)
405071 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/kg)
1. NA	UNKNOWN	VOA	600	1.9 J
2. NA	Unknown 1,1-dimethylethyl phenol	BNA	1298	10 J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23				
24.				
25.				
26				
27.				
28.				
29.				
30.				

AR301929

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 33C

H30V1121 (VOA
408031 (BNA

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.	NO TIC'S FOUND.	VOA		
2. *	Phosphoric acid, tributyl ester	BNA	1074	40J
3. 2788-23-0	9H-Carbazole, 9-Nitrosyl-	↑	1221	30J
4. NA	UNKNOWN		1567	12J
5. ↓	UNKNOWN [illegible]	↓	1772	16J
6. ↓	UNKNOWN [illegible]	BNA	1882	12J
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

* not available

AR301930

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 34

M31V1061 (VOA)
408041 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.	NO TIC'S FOUND.	VOA		
2. *	Phosphoric acid, tributyl ester	BNA	1075	22 J
3. 2788-23-0	aH-carbazole, a-nitroso-	↑	1222	40 J
4. NA	UNKNOWN phthalate	BNA	1773	10 J
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

* not available

AR301931

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 35A

M29V1021 C1

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1. NA	UNKNOWN	VOA	382	3.9 J
2. ~~NA~~	~~UNKNOWN~~ Sulf+Sam.	↓	~~527~~	
3. NA	UNKNOWN	↓	598	2.4 J
4.				
5.	NO BNA ANALYSIS			
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

Laboratory Name S-CUBED

Case No 3155 I / SET 28 (Part 1/2)

ORIGINAL (Red)

Sample Number 35C

1APRV087 (V
407101 (BNA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or ug/L)
1.	~~NA~~	~~UNKNOWN (Alk)~~	~~VOA~~	~~548~~	~~1,770~~
2.	↓	UNKNOWN	↓	617	77J
3.	NA	Unknown Dimethylbenzene	BNA	97	620
4.	100-42-5	Benzene, ethenyl-	↑	142	560
5.	271-89-6	Benzofuran		334	360J
6.	623-32-5	Benzene, 1-propynyl-		407	1000J
7.	NA	UNKNOWN HYDROCARBON		500	280J
8.		UNKNOWN HYDROCARBON		1211	200J
9.		UNKNOWN		1295	2300J
10.	↓	UNKNOWN		1567	280J
11.	2312-35-8	Propargite		1629	3200J
12.	NA	UNKNOWN phthalate		1912	4700J
13.		UNKNOWN phthalate		1919	4300
14.		UNKNOWN phthalate		1928	6900
15.		UNKNOWN phthalate		1936	5600
16.		UNKNOWN phthalate		1942	5000
17.		UNKNOWN phthalate		1951	4600
18.		UNKNOWN phthalate		1954	5000
19.		UNKNOWN		1965	3900
20.		UNKNOWN		1977	3500
21.		UNKNOWN	↓	2033	240
22.	↓	UNKNOWN	BNA	2204	200
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

ORIGINAL
(Red)

WESTON

Appendix E

DPO Report for Contractual Compliance

ORIGINAL (Red)

ORGANIC DATA VALIDATION SUMMARY

Date Review Completed 6-1-88
Case No. _____ SAS No. 31551 N 28/R2
Site Name Fike Chemical
Sample Nos. Set 28-01 - SET28-09
SET28-11 — SET28-35C

Contract Lab S. Cuhed
Contract No. 68-01-7261
Lab DPO Emile Boulos
Reviewer Ivan B. DeLowech
from Region III Phone 301-266-9387
FTS _____

MATRIX	CONCENTRATION low	med	high	MATRIX RELATED COMMENTS
soil/solid			19	
aqueous			18	
other				

VOLATILES	OK	FYI	ACTION	COMMENTS
GC/MS tuning--BFB	X			
Initial Calibration		X		See Note 1
Continuing Calibration		X		See Notes 1 and 2
Surrogate Recovery		X		See Note 3
Matrix Spikes	X			
Reagent Blanks		X		See Note 4
Holding times			X	See Note 5

SEMI-VOLATILES	OK	FYI	ACTION	COMMENTS
GC/MS tuning--DFTPP	X			
Initial Calibration	X			
Continuing Calibration		X		See Note 6
Surrogate Recovery	X			
Matrix Spikes	X			
Reagent Blanks	X			
Holding times	X			

PESTICIDES	OK	FYI	ACTION	COMMENTS
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	COMMENTS
Compound Identification				
Data Completeness		X		See Note 7

REVIEWER'S COMMENTS: See Note 8

*DOCUMENTATION ATTACHED (see following pages)

AR301935

ORIGINAL
(Red)

WESTON

SAS3155I, Set 28, Report I

Organics Data Validation Summary

Note 1 - The RF for 2-butanone in both the initial and continuing calibrations were less than 0.05 (<0.05). All quantitation limits have been flagged "R" for this compound.

Note 2 - Several volatile compounds had %D values greater than 25% in the continuing calibrations. These can be found as annotated values on volatile analyses Form VII's. No qualifying action was taken on this basis as all samples were flagged based on holding times (See Note 5 and Appendix F).

Note 3 - Samples Set 28-01,-21 and -35C had surrogate percent recoveries that did not meet the advisory limits. (See Table I and the Surrogate Percent Recovery Summary in Appendix F.)

Note 4 - The trip and method blanks contained the following compounds at the listed maximum concentrations:

Compound	Concentration (mg/Kg)
methylene chloride	4
acetone	14
2-butanone	32

Any sample with a concentration of these common contaminants that was less than ten times (<10x) the above levels was flagged "B" on the data summary form. The dilution factors were taken into account when qualifying the compounds in the samples.

- The laboratory used methanol as matrix for soil blanks because they did not have clean soil matrix available. (See Appendix F.)

Note 5 - The sample holding times for the volatile analysis of all samples were exceeded by fourteen (14) to twenty-three (23) days. Because of this, all positive results have been flagged "L" and all quantitation limits have been flagged "UL", except where qualifiers "B" and "R" were necessary. (See Table III in Appendix F).

Note 6 - Three semi-volatile compounds had %D greater than 25%. These compounds and affected samples are listed in Table IV of Appendix F.

Note 7 - Samples Set 28-10 and Set 28-36 were sampled and submitted as low level samples, therefore, the samples were not analyzed by the laboratory because they were not appropriate to SAS 3155I. (See Support Documentation in Appendix F).

Note 8 - Samples Set 28-24, -33 and -35 required phase separation before analysis. They were composed of two (2) phases: water miscible liquid and solids. (See Appendix F).

WESTON

ORIGINAL
(Red)

Appendix F

Support Documentation

WESTON

ORIGINAL (Red)

TABLE I

Volatile Surrogate Recoveries and Associated Qualifiers

Sample	L	H	<10	Detection Limit Qualifiers	Positive* Result Qualifiers
Set 28-01	1		1	R	L
Set 28-21	1	1	1	R	L
Set 28-35C	1			UJ**	J**

L = Number of low recoveries
H = Number of high recoveries
<10 = Number of recoveries less than ten (10) percent
* = The "B" qualifiers for blank contamination will override these qualifiers for specific compounds where applicable.
** = The "UL" and "L" qualifiers for exceeded holding times override these qualifiers where applicable.

ORIGINAL (Red)

WESTON

TABLE II

Reproductibility of Field Duplicate Samples

Compound	Duplicate Samples Set 28-17	Set 28-19	RPD
Carbon Disulfide	84L	69L	20
Chloroform	110L	130L	17
1,1,1-Trichloroethane	8L	14L	54
4-Methyl-2-pentanone	13L	12L	8
2-Hexanone	52L	45L	14
Tetrachloroethane	540L	460L	16
Toluene	650L	500L	26
Ethybenzene	5L	--	--
Styrene	6L	11L	59
Total Xylenes	32L	51L	46
Phenol	110	130	17
4-Methylphenol	14J	15J	7
2,4-Dimethylphenol	4J	4J	0
2,4-Dichlorophenol	--	4J	--
1,2,4-Trichlorobenzene	20	18J	11
Naphthalene	24	27	12
4-Chloroaniline	12J	13J	8
2-Methylnaphthalene	16J	15J	6
Dimethylphthalate	80	70	13
Acenaphthene	6J	5J	18
Dibenzofuran	6J	5J	18
Phenanthrene	25	25	0
Anthracene	9J	9J	0
Di-n-butylphthalate	26	23	12
Fluoranthene	10J	11J	10
Pyrene	7J	7J	0
Butylbenzylphthalate	26	25	4
Bis(2-ethylhexyl) phthalate	420	370	13
Di-n-octylphthalate	33	28	16
Trichlorobiphenyl	34J	--	--

WESTON

ORIGINAL (Red)

TABLE II (Cont).

Compound	Set 28-33*	Set 28-34	RPD
Naphthalene	4J	2J	67
2-Methylnaphthalene	3J	3J	0
Acenaphthene	9J	5J	57
Dibenzofuran	6J	5J	18
Fluorene	11J	8J	32
Phenanthrene	20	13J	42
Anthracene	101	120	17
Fluoranthene	19	11J	53
Isophorone	14J	8J	54
Benzo(a)anthracene	5J	3J	50
Chrysene	7J	4J	55
bis-(2-ethylhexyl) phthalate	48	50	4
Di-n-octylphthalate	--	3J	--
Benzo(b)fluoranthene	4J	--	--
Benzo(k)fluoranthene	3J	--	--
Benzo(a)pyrene	4J	--	--

* Weighted phase quantitations were combined for samples Set 28-33A and Set 28-33C for values.

RPD = Relative percent difference

WESTON

ORIGINAL (Red)

TABLE III

Total Holding Times for Volatile Analysis

Sample	Total Holding Time (days)
Set 28-01	33
Set 28-02	27
Set 28-03	28
Set 28-04	28
Set 28-05	27
Set 28-06	24
Set 28-07	24
Set 28-08	24
Set 28-09	24
Set 28-11	24
Set 28-12	27
Set 28-13	24
Set 28-14	24
Set 28-15	26
Set 28-16	24
Set 28-17	29
Set 28-18	25
Set 28-19	33
Set 28-20	25
Set 28-21	33
Set 28-22	25
Set 28-23	25
Set 28-24A	25
Set 28-24C	26
Set 28-25	25
Set 28-26	25
Set 28-27	25
Set 28-28	30
Set 28-29	26
Set 28-30	25
Set 28-31	27
Set 28-32	27
Set 28-33A	25
Set 28-33C	27
Set 28-34	28
Set 28-35A	25
Set 28-35C	29

WESTON

ORIGINAL (Red)

TABLE IV

Compounds and Associated Samples Affected by Calibration Uncertainty

Sample	Compound: 4-nitroaniline	2,4-dinitrophenol	benzo(b)fluorenthene
Set 28-01		C	
Set 28-03		C	C
Set 28-04		C	C
Set 28-12		C	
Set 28-15		C	C
Set 28-17		C	C
Set 28-19		C	C
Set 28-21		C	
Set 28-24C		C	
Set 28-30		C	C
Set 28-31		C	C
Set 28-32	C		
Set 28-33A		C	C
Set 28-33C	C		
Set 28-34	C		
Set 28-35C		C	

C = %D >25% in the continuing calibration. Quantitation limits and positive results were flagged "UJ" and "J" respectively.

INITIAL CALIBRATION DATA
Volatile HSL Compounds

31551 Set 28 I

ORIGINAL (Red)

Case No. ~~31257-23~~ Instrument ID : VG1

Contractor : S-CUBED
Contract No: 68-01-7261

Calibration Date: 25-MAR-88

Minimum $\overline{RF}$ for SPCC is 0.300 (0.25 for Bromoform)

Maximum %RSD for CCC is 30%

Laboratory ID

Compound	RF20	RF50	RF100	RF150	RF200	$\overline{RF}$	%RSD	CCC * SPCC**
Chloromethane	2.479	4.445	4.086	3.133	3.428	3.514	22.12	**
Bromomethane	1.075	0.974	1.020	0.863	0.975	0.981	7.95	
Vinyl Chloride	1.267	1.924	1.656	1.146	1.275	1.454	22.38	*
Chloroethane	0.609	0.650	0.467	0.573	0.671	0.594	13.53	
Methylene Chloride	1.247	1.323	1.320	1.428	1.719	1.407	13.19	
Acetone	0.391	0.429	0.331	0.290	0.251	0.338	21.41	
Carbon Disulfide	4.819	4.522	4.575	5.836	7.215	5.393	21.28	
1,1-Dichloroethene	1.158	1.148	1.258	1.754	1.958	1.455	25.79	*
1,1-Dichloroethane	5.207	5.768	5.042	6.509	7.839	6.073	18.80	*
trans-1,2-Dichloroethene	1.784	1.977	2.009	2.788	3.866	2.485	34.70	
Chloroform	5.063	6.133	5.566	7.379	8.734	6.575	22.56	*
1,2-Dichloroethane	5.805	7.095	5.757	6.847	7.868	6.674	13.46	
2-Butanone	0.039	0.049	0.039	0.029	0.023	0.036	28.10	
1,1,1-Trichloroethane	0.253	0.225	0.264	0.286	0.328	0.271	14.23	
Carbon Tetrachloride	0.221	0.177	0.209	0.226	0.252	0.217	12.59	
Vinyl Acetate	0.376	0.395	0.408	0.340	0.312	0.366	10.83	
Bromodichloromethane	0.344	0.386	0.439	0.437	0.438	0.409	10.43	
1,2-Dichloropropane	0.366	0.414	0.427	0.412	0.393	0.402	5.89	*
CIS-1,3-DICHLOROPROPENE	0.516	0.564	0.604	0.578	0.581	0.569	5.75	
Trichloroethene	0.263	0.251	0.271	0.265	0.282	0.266	4.26	
Dibromochloromethane	0.284	0.331	0.386	0.341	0.305	0.329	11.75	
1,1,2-Trichloroethane	0.285	0.365	0.381	0.321	0.262	0.323	15.71	
Benzene	1.147	1.336	1.346	0.983	0.782	1.119	21.50	
TRANS-1,3-DICHLOROPROPENE	0.537	0.631	0.651	0.502	0.424	0.549	17.06	
2-Chloroethylvinylether	0.232	0.274	0.265	0.258	0.253	0.256	6.15	
Bromoform	0.350	0.316	0.282	0.252	0.251	0.290	14.72	*
2-Hexanone	0.310	0.356	0.303	0.271	0.231	0.294	15.83	
4-Methyl-2-Pentanone	0.373	0.403	0.361	0.311	0.278	0.345	14.52	
Tetrachloroethene	0.267	0.241	0.270	0.269	0.264	0.262	4.60	
1,1,2,2-Tetrachloroethane	0.548	0.713	0.700	0.629	0.509	0.620	14.57	*
Toluene	0.719	0.754	0.781	0.838	0.879	0.794	8.10	*
Chlorobenzene	1.025	0.983	0.965	0.956	0.962	0.978	2.87	*
Ethylbenzene	0.463	0.474	0.485	0.543	0.589	0.511	10.47	*
Styrene	0.925	1.010	1.021	1.085	1.132	1.035	7.61	
Total Xylenes	1.294	1.227	1.244	1.322	1.203	1.258	33.20	

RF Response Factor (subscript is the amount of ug/L)
$\overline{RF}$ Average Response Factor
%RSD Percent Relative Standard Deviation

CCC Calibration Check Compounds(*
SPCC System Performance Check Compounds(**)

Form VI

COPY

INITIAL CALIBRATION DATA
Volatile HSL Compounds

ORIGINAL (Red)

Case No. : 3455I Set28 I

Instrument ID. : VG1

Contractor : S-CUBED
Contract No: 68-01-7261

Calibration Date: 5-APR-88

Minimum $\overline{RF}$ for SPCC is 0.300

Maximum %RSD for CCC is 30%

Laboratory ID

Compound	RF20	RF50	RF100	RF150	RF200	$\overline{RF}$	CCC * SPCC** %RSD
Chloromethane	3.365	3.220	3.450	3.170	3.451	3.331	3.91 **
Bromomethane	0.514	0.502	0.529	0.579	0.517	0.528	5.68
Vinyl Chloride	1.285	1.153	1.270	1.446	1.101	1.251	10.69 *
Chloroethane	0.830	0.780	0.838	0.865	0.830	0.829	3.71
Methylene Chloride	1.613	1.607	1.698	1.764	1.935	1.763	8.72
Acetone	0.280	0.404	0.296	0.262	0.259	0.300	19.95
Carbon Disulfide	5.741	5.894	7.245	7.815	8.183	6.976	15.91
1,1-Dichloroethene	1.967	2.000	2.205	2.352	2.569	2.219	11.31 *
1,1-Dichloroethane	6.063	6.124	6.514	6.843	7.455	6.600	8.68 **
trans-1,2-Dichloroethene	2.416	2.472	2.778	3.001	3.386	2.811	14.21
Chloroform	5.038	5.639	5.934	6.072	6.784	5.893	10.80 *
1,2-Dichloroethane	5.381	5.528	5.355	5.266	5.906	5.487	4.60
2-Butanone	0.028	0.025	0.031	0.025	0.025	0.027	10.01
1,1,1-Trichloroethane	0.357	0.339	0.358	0.378	0.372	0.361	4.20
Carbon Tetrachloride	0.262	0.251	0.264	0.277	0.276	0.266	4.06
Vinyl Acetate	0.172	0.218	0.210	0.208	0.197	0.201	8.89
Bromodichloromethane	0.408	0.424	0.430	0.440	0.437	0.428	2.97
1,2-Dichloropropane	0.460	0.437	0.437	0.450	0.442	0.445	2.21 *
CIS-1,3-DICHLOROPROPENE	0.523	0.553	0.581	0.585	0.587	0.566	4.88
Trichloroethene	0.323	0.284	0.300	0.322	0.321	0.310	5.61
Dibromochloromethane	0.311	0.326	0.341	0.331	0.317	0.325	3.62
1,1,2-Trichloroethane	0.332	0.340	0.337	0.303	0.272	0.317	9.17
Benzene	1.278	1.330	1.272	1.089	0.916	1.177	14.62
TRANS-1,3-DICHLOROPROPENE	0.521	0.564	0.544	0.481	0.466	0.515	8.02
2-Chloroethylvinylether	0.248	0.254	0.230	0.225	0.239	0.239	5.05
Bromoform	0.299	0.300	0.299	0.300	0.301	0.300	0.28 **
2-Hexanone	0.340	0.264	0.273	0.265	0.240	0.276	13.61
4-Methyl-2-Pentanone	0.356	0.303	0.310	0.305	0.281	0.311	8.84
Tetrachloroethene	0.296	0.305	0.326	0.329	0.304	0.312	4.68
1,1,2,2-Tetrachloroethane	0.600	0.563	0.597	0.578	0.520	0.572	5.69 **
Toluene	0.907	0.913	0.927	0.944	0.920	0.922	1.55 *
Chlorobenzene	1.132	1.046	1.054	1.047	0.986	1.053	4.94 **
Ethylbenzene	0.494	0.535	0.549	0.574	0.593	0.549	6.93 *
Styrene	0.952	1.038	1.049	1.059	1.115	1.043	5.63
Total Xylenes	1.280	1.427	1.446	1.462	1.508	1.424	12.12

RF Response Factor (subscript is the amount of ug/L)
$\overline{RF}$ Average Response Factor
%RSD Percent Relative Standard Deviation

CCC Calibration Check Compounds(*
SPCC System Performance Check Compounds(**)

Form VI

COPY

AR301945

CONTINUING CALIBRATION CHECK
Volatile HSL Compounds

ORIGINAL (Red)

Case No ~~Ag 31257-22~~ 3155I Set 28 I
Contractor : S-CUBED
Contract No : 68-01-7261
Instrument ID: VG1

Calibration Date : 28-MAR-88
Time : 10:58
Laboratory ID : M28V1011
Initial Calibration Date: 25-MAR-88

Minimum $\overline{RF}$ for SPCC is 0.300 (0.25 for Bromoform)

Maximum %D for CCC is 25%

Compound	$\overline{RF}$	RF50	%D	CCC	SPCC
Chloromethane	3.514	2.752	22.0		**
Bromomethane	0.981	0.910	7.0		
Vinyl Chloride	1.454	1.321	9.0	*	
Chloroethane	0.594	0.559	6.0		
Methylene Chloride	1.407	1.327	6.0		
Acetone	0.338	0.294	13.0		
Carbon Disulfide	5.393	5.107	5.0		
1,1-Dichloroethene	1.455	1.380	5.0	*	
1,1-Dichloroethane	6.073	5.169	15.0		**
trans-1,2-Dichloroethene	2.485	2.059	17.0		
Chloroform	6.575	5.088	23.0	*	
1,2-Dichloroethane	6.674	5.336	20.0		
2-Butanone	0.036	0.033	8.0		
1,1,1-Trichloroethane	0.271	0.252	7.0		
Carbon Tetrachloride	0.217	0.197	9.0		
Vinyl Acetate	0.366	0.299	18.0		
Bromodichloromethane	0.409	0.325	21.0		
1,2-Dichloropropane	0.402	0.383	5.0	*	
CIS-1,3-DICHLOROPROPENE	0.569	0.514	10.0		
Trichloroethene	0.266	0.289	-9.0		
Dibromochloromethane	0.329	0.277	16.0		
1,1,2-Trichloroethane	0.323	0.299	7.0		
Benzene	1.119	1.275	-14.0		
TRANS-1,3-DICHLOROPROPENE	0.549	0.577	-5.0		
2-Chloroethylvinylether	0.256	0.213	17.0		
Bromoform	0.290	0.297	-2.0		**
2-Hexanone	0.294	0.218	26.0		
4-Methyl-2-Pentanone	0.345	0.265	23.0		
Tetrachloroethene	0.262	0.306	-17.0		
1,1,2,2-Tetrachloroethane	0.620	0.501	19.0		**
Toluene	0.794	0.783	1.0	*	
Chlorobenzene	0.978	0.983	-1.0		**
Ethylbenzene	0.511	0.511	0.0	*	
Styrene	1.035	1.006	3.0		
Total Xylenes	1.258	1.274	-3.0		

RF50 Response Factor from daily standard file at 50 ug/l
$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference
CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)

Form VII

COPY

CONTINUING CALIBRATION CHECK
Volatile HSL Compounds

ORIGINAL (Red)

Case No: ~~AR31299-23~~ 3155I set 28I
Contractor: S-CUBED
Contract No: 68-01-7261
Instrument ID: VC1

Calibration Date: 28-MAR-88
Time: 19:53
Laboratory ID: 28MV011
Initial Calibration Date: 25-MAR-88

Minimum $\overline{RF}$ for SPCC is 0.300 (0.25 for Bromoform)
Maximum %D for CCC is 25%

Compound	$\overline{RF}$	RF50	%D	CCC	SPCC
Chloromethane	3.514	2.167	38.0		**
Bromomethane	0.981	1.101	-12.0		
Vinyl Chloride	1.454	1.281	12.0	*	
Chloroethane	0.594	0.658	-11.0		
Methylene Chloride	1.407	1.704	-21.0		
Acetone	0.338	0.280	17.0		
Carbon Disulfide	5.393	5.496	-2.0		
1,1-Dichloroethene	1.455	1.514	-4.0	*	
1,1-Dichloroethane	6.073	6.007	1.0		**
trans-1,2-Dichloroethene	2.485	2.201	11.0		
Chloroform	6.575	5.436	17.0	*	
1,2-Dichloroethane	6.674	5.756	14.0		
2-Butanone	0.036	0.024	33.0		
1,1,1-Trichloroethane	0.271	0.277	-2.0		
Carbon Tetrachloride	0.217	0.224	-3.0		
Vinyl Acetate	0.366	0.315	14.0		
Bromodichloromethane	0.409	0.337	18.0		
1,2-Dichloropropane	0.402	0.409	-2.0	*	
CIS-1,3-DICHLOROPROPENE	0.569	0.515	9.0		
Trichloroethene	0.266	0.282	-6.0		
Dibromochloromethane	0.329	0.292	11.0		
1,1,2-Trichloroethane	0.323	0.299	7.0		
Benzene	1.119	1.301	-16.0		
TRANS-1,3-DICHLOROPROPENE	0.549	0.578	-5.0		
2-Chloroethylvinylether	0.256	0.224	13.0		
Bromoform	0.290	0.252	13.0		**
2-Hexanone	0.294	0.217	26.0		
4-Methyl-2-Pentanone	0.345	0.254	26.0		
Tetrachloroethene	0.262	0.305	-16.0		
1,1,2,2-Tetrachloroethane	0.620	0.486	22.0		**
Toluene	0.794	0.803	-1.0	*	
Chlorobenzene	0.978	0.981	0.0		**
Ethylbenzene	0.511	0.526	-3.0	*	
Styrene	1.035	1.043	-1.0		
Total Xylenes	1.258	1.255	0.0		

RF50 Response Factor from daily standard file at 50 ug/l
$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference
CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)

COPY

CONTINUING CALIBRATION CHECK
Volatile HSL Compounds

ORIGINAL (Red)

Case No ~~AN31257-23~~ 3155 I set 28 I
Contractor : S-CUBED
Contract No : 68-01-7261
Instrument ID: VG1

Calibration Date : 29-MAR-88
Time : 08:41
Laboratory ID : 29MV1011
Initial Calibration Date: 25-MAR-88

Minimum $\overline{RF}$ for SPCC is 0.300 (0.25 for Bromoform)
Maximum %D for CCC is 25%

Compound	$\overline{RF}$	RF50	%D	CCC	SPCC
Chloromethane	3.514	2.167	38.0		**
Bromomethane	0.981	1.101	-12.0		
Vinyl Chloride	1.454	1.281	12.0	*	
Chloroethane	0.594	0.658	-11.0		
Methylene Chloride	1.407	1.704	-21.0		
Acetone	0.338	0.280	17.0		
Carbon Disulfide	5.393	5.496	-2.0		
1,1-Dichloroethene	1.455	1.514	-4.0	*	
1,1-Dichloroethane	6.073	6.007	1.0		**
trans-1,2-Dichloroethene	2.485	2.201	11.0		
Chloroform	6.575	5.436	17.0	*	
1,2-Dichloroethane	6.674	5.756	14.0		
2-Butanone	0.036	0.024	33.0		
1,1,1-Trichloroethane	0.271	0.277	-2.0		
Carbon Tetrachloride	0.217	0.224	-3.0		
Vinyl Acetate	0.366	0.315	14.0		
Bromodichloromethane	0.409	0.337	18.0		
1,2-Dichloropropane	0.402	0.409	-2.0	*	
CIS-1,3-DICHLOROPROPENE	0.569	0.515	9.0		
Trichloroethene	0.266	0.282	-6.0		
Dibromochloromethane	0.329	0.292	11.0		
1,1,2-Trichloroethane	0.323	0.299	7.0		
Benzene	1.119	1.301	-16.0		
TRANS-1,3-DICHLOROPROPENE	0.549	0.578	-5.0		
2-Chloroethylvinylether	0.256	0.224	13.0		
Bromoform	0.290	0.252	13.0		**
2-Hexanone	0.294	0.217	26.0		
4-Methyl-2-Pentanone	0.345	0.254	26.0		
Tetrachloroethene	0.262	0.305	-16.0		
1,1,2,2-Tetrachloroethane	0.620	0.486	22.0		**
Toluene	0.794	0.803	-1.0	*	
Chlorobenzene	0.978	0.981	0.0		**
Ethylbenzene	0.511	0.526	-3.0	*	
Styrene	1.035	1.043	-1.0		
Total Xylenes	1.258	1.255	0.0		

RF50 Response Factor from daily standard file at 50 ug/l
$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference
CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)

Form VII

COPY

CONTINUING CALIBRATION CHECK
Volatile HSL Compounds

ORIGINAL (Red)

Case No : 3155I set28 I
Contractor : S-CUBED
Contract No : 68-01-7261
Instrument ID: VG1

Calibration Date : 30-MAR-88
Time : 09:02
Laboratory ID : 30MV1011
Initial Calibration Date: 25-MAR-88

Minimum $\overline{RF}$ for SPCC is 0.300

Maximum %D for CCC is 25%

Compound	$\overline{RF}$	RF50	%D	CCC	SPCC
Chloromethane	3.514	2.970	15.0		**
Bromomethane	0.981	1.360	-39.0		
Vinyl Chloride	1.454	1.360	6.0	*	
Chloroethane	0.594	0.767	-29.0		
Methylene Chloride	1.407	1.258	11.0		
Acetone	0.338	0.281	17.0		
Carbon Disulfide	5.393	5.904	-9.0		
1,1-Dichloroethene	1.455	1.569	-8.0	*	
1,1-Dichloroethane	6.073	6.328	-4.0		**
trans-1,2-Dichloroethene	2.485	2.346	6.0		
Chloroform	6.575	5.759	12.0	*	
1,2-Dichloroethane	6.674	6.163	8.0		
2-Butanone	0.036	0.030	17.0		
1,1,1-Trichloroethane	0.271	0.274	-1.0		
Carbon Tetrachloride	0.217	0.213	2.0		
Vinyl Acetate	0.366	0.261	29.0		
Bromodichloromethane	0.409	0.365	11.0		
1,2-Dichloropropane	0.402	0.420	-4.0	*	
CIS-1,3-DICHLOROPROPENE	0.569	0.561	1.0		
Trichloroethene	0.266	0.278	-5.0		
Dibromochloromethane	0.329	0.302	8.0		
1,1,2-Trichloroethane	0.323	0.315	2.0		
Benzene	1.119	1.330	-19.0		
TRANS-1,3-DICHLOROPROPENE	0.549	0.629	-15.0		
2-Chloroethylvinylether	0.256	0.244	5.0		
Bromoform	0.290	0.330	-14.0		**
2-Hexanone	0.294	0.211	28.0		
4-Methyl-2-Pentanone	0.345	0.266	23.0		
Tetrachloroethene	0.262	0.275	-5.0		
1,1,2,2-Tetrachloroethane	0.620	0.501	19.0		**
Toluene	0.794	0.814	-3.0	*	
Chlorobenzene	0.978	0.982	0.0		**
Ethylbenzene	0.511	0.512	0.0	*	
Styrene	1.035	1.067	-3.0		
Total Xylenes	1.258	1.244	2.0		

RF50 Response Factor from daily standard file at 50 ug/l
$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference
CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)

Form VII

AR301949

COPY

CONTINUING CALIBRATION CHECK
Volatile HSL Compounds

ORIGINAL (Red)

Case No : 31551 Set 28 I
Contractor : S-CUBED
Contract No : 68-01-7261
Instrument ID: VQ1

Calibration Date : 30-MAR-88
Time : 19:00
Laboratory ID : M30V1011
Initial Calibration Date: 25-MAR-88

Minimum $\overline{RF}$ for SPCC is 0.300 (0.25 for Bromoform)

Maximum %D for CCC is 25%

Compound	$\overline{RF}$	RF50	%D	CCC	SPCC
Chloromethane	3.514	2.264	36.0		**
Bromomethane	0.981	0.515	48.0		
Vinyl Chloride	1.454	1.270	13.0	*	
Chloroethane	0.594	0.746	-26.0		
Methylene Chloride	1.407	1.654	-18.0		
Acetone	0.338	0.385	-14.0		
Carbon Disulfide	5.393	6.685	-24.0		
1,1-Dichloroethene	1.455	1.804	-24.0	*	
1,1-Dichloroethane	6.073	6.185	-2.0		**
trans-1,2-Dichloroethene	2.485	2.678	-8.0		
Chloroform	6.575	6.053	8.0	*	
1,2-Dichloroethane	6.674	5.730	14.0		
~~2-Butanone~~	~~0.036~~	~~0.035~~	3.0		
1,1,1-Trichloroethane	0.271	0.344	-27.0		
Carbon Tetrachloride	0.217	0.263	-21.0		
Vinyl Acetate	0.366	0.275	25.0		
Bromodichloromethane	0.409	0.409	0.0		
1,2-Dichloropropane	0.402	0.427	-6.0	*	
CIS-1,3-DICHLOROPROPENE	0.569	0.573	-1.0		
Trichloroethene	0.266	0.297	-12.0		
Dibromochloromethane	0.329	0.311	5.0		
1,1,2-Trichloroethane	0.323	0.319	1.0		
Benzene	1.119	1.338	-20.0		
TRANS-1,3-DICHLOROPROPENE	0.549	0.578	-5.0		
2-Chloroethylvinylether	0.256	0.236	8.0		
Bromoform	0.290	0.252	13.0		**
2-Hexanone	0.294	0.205	30.0		
4-Methyl-2-Pentanone	0.345	0.258	25.0		
Tetrachloroethene	0.262	0.285	-9.0		
1,1,2,2-Tetrachloroethane	0.620	0.495	20.0		**
Toluene	0.794	0.848	-7.0	*	
Chlorobenzene	0.978	1.001	-2.0		**
Ethylbenzene	0.511	0.530	-4.0	*	
Styrene	1.035	1.056	-2.0		
Total Xylenes	1.258	1.216	7.0		

RF50 Response Factor from daily standard file at 50 ug/l
$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference
CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)

AR301950
COPY

ORIGINAL (Red)

CONTINUING CALIBRATION CHECK
Volatile HSL Compounds

Case No : 31551 Set 28I
Contractor : S-CUBED
Contract No : 68-01-7261
Instrument ID: VG1

Calibration Date : 31-MAR-88
Time : 10:34
Laboratory ID : 31MV1011
Initial Calibration Date: 25-MAR-88

Minimum $\overline{RF}$ for SPCC is 0.300 (0.25 for Bromoform)

Maximum %D for CCC is 25%

Compound	$\overline{RF}$	RF50	%D	CCC	SPCC
Chloromethane	3.514	2.264	36.0		**
Bromomethane	0.981	0.515	48.0		
Vinyl Chloride	1.454	1.270	13.0	*	
Chloroethane	0.594	0.746	-26.0		
Methylene Chloride	1.407	1.654	-18.0		
Acetone	0.338	0.385	-14.0		
Carbon Disulfide	5.393	6.685	-24.0		
1,1-Dichloroethene	1.455	1.804	-24.0	*	
1,1-Dichloroethane	6.073	6.185	-2.0		**
trans-1,2-Dichloroethene	2.485	2.678	-8.0		
Chloroform	6.575	6.053	8.0	*	
1,2-Dichloroethane	6.674	5.730	14.0		
2-Butanone	0.036	0.035	3.0		
1,1,1-Trichloroethane	0.271	0.344	-27.0		
Carbon Tetrachloride	0.217	0.263	-21.0		
Vinyl Acetate	0.366	0.275	25.0		
Bromodichloromethane	0.409	0.409	0.0		
1,2-Dichloropropane	0.402	0.427	-6.0	*	
CIS-1,3-DICHLOROPROPENE	0.569	0.573	-1.0		
Trichloroethene	0.266	0.297	-12.0		
Dibromochloromethane	0.329	0.311	5.0		
1,1,2-Trichloroethane	0.323	0.319	1.0		
Benzene	1.119	1.338	-20.0		
TRANS-1,3-DICHLOROPROPENE	0.549	0.578	-5.0		
2-Chloroethylvinylether	0.256	0.236	8.0		
Bromoform	0.290	0.252	13.0		**
2-Hexanone	0.294	0.205	30.0		
4-Methyl-2-Pentanone	0.345	0.258	25.0		
Tetrachloroethene	0.262	0.285	-9.0		
1,1,2,2-Tetrachloroethane	0.620	0.495	20.0		**
Toluene	0.794	0.848	-7.0	*	
Chlorobenzene	0.978	1.001	-2.0		**
Ethylbenzene	0.511	0.530	-4.0	*	
Styrene	1.035	1.056	-2.0		
Total Xylenes	1.258	1.216	7.0		

RF50 Response Factor from daily standard file at 50 ug/l
$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference
CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)

Form VII

COPY AR301951

ORIGINAL (Red)

CONTINUING CALIBRATION CHECK
Volatile HSL Compounds

Case No : 31551 Set 28I
Contractor : S-CUBED
Contract No : 68-01-7261
Instrument ID: VQ1

Calibration Date : 31-MAR-88
Time : 20:47
Laboratory ID : M31V1011
Initial Calibration Date: 25-MAR-88

Minimum $\overline{RF}$ for SPCC is 0.300 (0.25 for Bromoform)
Maximum %D for CCC is 25%

Compound	$\overline{RF}$	RF50	%D	CCC	SPCC
Chloromethane	3.514	2.371	33.0		**
Bromomethane	0.981	0.477	51.0		
Vinyl Chloride	1.454	1.350	7.0	*	
Chloroethane	0.594	0.769	-29.0		
Methylene Chloride	1.407	1.455	-3.0		
Acetone	0.338	0.396	-17.0		
Carbon Disulfide	5.393	6.068	-13.0		
1,1-Dichloroethene	1.455	1.687	-16.0	*	
1,1-Dichloroethane	6.073	6.320	-4.0		**
trans-1,2-Dichloroethene	2.485	2.412	3.0		
Chloroform	6.375	5.370	18.0	*	
1,2-Dichloroethane	6.674	5.541	17.0		
2-Butanone	0.036	0.032	11.0		
1,1,1-Trichloroethane	0.271	0.328	-21.0		
Carbon Tetrachloride	0.217	0.245	-13.0		
Vinyl Acetate	0.366	0.259	29.0		
Bromodichloromethane	0.409	0.392	4.0		
1,2-Dichloropropane	0.402	0.440	-9.0	*	
CIS-1,3-DICHLOROPROPENE	0.569	0.573	-1.0		
Trichloroethene	0.266	0.305	-15.0		
Dibromochloromethane	0.329	0.305	7.0		
1,1,2-Trichloroethane	0.323	0.325	-1.0		
Benzene	1.119	1.375	-23.0		
TRANS-1,3-DICHLOROPROPENE	0.549	0.595	-8.0		
2-Chloroethylvinylether	0.256	0.249	3.0		
Bromoform	0.290	0.258	11.0		**
2-Hexanone	0.294	0.225	23.0		
4-Methyl-2-Pentanone	0.345	0.261	24.0		
Tetrachloroethene	0.262	0.311	-19.0		
1,1,2,2-Tetrachloroethane	0.620	0.498	20.0		**
Toluene	0.794	0.887	-12.0	*	
Chlorobenzene	0.978	1.054	-8.0		**
Ethylbenzene	0.511	0.562	-10.0	*	
Styrene	1.035	1.116	-8.0		
Total Xylenes	1.258	1.316	-9.0		

RF50 Response Factor from daily standard file at 50 ug/l
$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference
CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)

COPY

ORIGINAL (Red)

CONTINUING CALIBRATION CHECK
Volatile HSL Compounds

Case No : 31551 Lt28 I
Contractor : S-CUBED
Contract No : 68-01-7261
Instrument ID: VG1

Calibration Date : 1-APR-88
Time : 08:58
Laboratory ID : 1AV1011
Initial Calibration Date: 25-MAR-88

Minimum $\overline{RF}$ for SPCC is 0.300

Maximum %D for CCC is 25%

Compound	$\overline{RF}$	RF50	%D	CCC	SPCC
Chloromethane	3.514	2.262	36.0		**
Bromomethane	0.981	0.773	21.0		
Vinyl Chloride	1.454	1.385	5.0	*	
Chloroethane	0.594	0.742	-25.0		
Methylene Chloride	1.407	1.292	8.0		
Acetone	0.338	0.335	1.0		
Carbon Disulfide	5.393	5.985	-11.0		
1,1-Dichloroethene	1.455	1.761	-21.0	*	
1,1-Dichloroethane	6.073	6.024	1.0		**
trans-1,2-Dichloroethene	2.485	2.422	3.0		
Chloroform	6.575	5.254	20.0	*	
1,2-Dichloroethane	6.674	5.449	18.0		
2-Butanone	0.036	0.031	14.0		
1,1,1-Trichloroethane	0.271	0.327	-21.0		
Carbon Tetrachloride	0.217	0.252	-16.0		
Vinyl Acetate	0.366	0.253	31.0		
Bromodichloromethane	0.409	0.385	6.0		
1,2-Dichloropropane	0.402	0.438	-9.0	*	
CIS-1,3-DICHLOROPROPENE	0.569	0.568	0.0		
Trichloroethene	0.266	0.308	-16.0		
Dibromochloromethane	0.329	0.302	8.0		
1,1,2-Trichloroethane	0.323	0.323	0.0		
Benzene	1.119	1.378	-23.0		
TRANS-1,3-DICHLOROPROPENE	0.549	0.594	-8.0		
2-Chloroethylvinylether	0.256	0.246	4.0		
Bromoform	0.290	0.308	-6.0		**
2-Hexanone	0.294	0.228	22.0		
4-Methyl-2-Pentanone	0.345	0.260	25.0		
Tetrachloroethene	0.262	0.315	-20.0		
1,1,2,2-Tetrachloroethane	0.620	0.493	20.0		**
Toluene	0.794	0.894	-13.0	*	
Chlorobenzene	0.978	1.056	-8.0		**
Ethylbenzene	0.511	0.573	-12.0	*	
Styrene	1.035	1.110	-7.0		
Total Xylenes	1.258	1.200	9.0		

RF50 Response Factor from daily standard file at 50 ug/l
$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference
CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)

CONTINUING CALIBRATION CHECK
Volatile HSL Compounds

ORIGINAL (Red)

Case No : 31551 Set 28 I
Contractor : S-CUBED
Contract No : 68-01-7261
Instrument ID: VG1

Calibration Date : 1-APR-88
Time : 20:10
Laboratory ID : 1APV1011
Initial Calibration Date: 25-MAR-88

Minimum $\overline{RF}$ for SPCC is 0.300 (0.25 for Bromoform)

Maximum %D for CCC is 25%

Compound	$\overline{RF}$	RF50	%D	CCC	SPCC
Chloromethane	3.514	2.734	22.0		**
Bromomethane	0.981	0.487	50.0		
Vingl Chloride	1.454	1.140	22.0	*	
Chloroethane	0.594	0.692	-16.0		
Methylene Chloride	1.407	1.357	4.0		
Acetone	0.338	0.352	-4.0		
Carbon Disulfide	5.393	5.498	-2.0		
1,1-Dichloroethene	1.455	1.653	-14.0	*	
1,1-Dichloroethane	6.073	5.680	6.0		**
trans-1,2-Dichloroethene	2.485	2.268	9.0		
Chloroform	6.575	5.459	17.0	*	
1,2-Dichloroethane	6.674	5.069	24.0		
2-Butanone	0.036	0.039	-8.0		
1,1,1-Trichloroethane	0.271	0.314	-16.0		
Carbon Tetrachloride	0.217	0.240	-11.0		
Vinyl Acetate	0.366	0.271	26.0		
Bromodichloromethane	0.409	0.370	10.0		
1,2-Dichloropropane	0.402	0.423	-5.0	*	
CIS-1,3-DICHLOROPROPENE	0.569	0.542	5.0		
Trichloroethene	0.266	0.302	-14.0		
Dibromochloromethane	0.329	0.317	4.0		
1,1,2-Trichloroethane	0.323	0.331	-2.0		
Benzene	1.119	1.335	-19.0		
TRANS-1,3-DICHLOROPROPENE	0.549	0.576	-5.0		
2-Chloroethylvinylether	0.256	0.258	-1.0		
Bromoform	0.290	0.251	13.0		**
2-Hexanone	0.294	0.263	11.0		
4-Methyl-2-Pentanone	0.345	0.300	13.0		
Tetrachloroethene	0.262	0.327	-25.0		
1,1,2,2-Tetrachloroethane	0.620	0.550	11.0		**
Toluene	0.794	0.876	-10.0	*	
Chlorobenzene	0.978	1.079	-10.0		**
Ethylbenzene	0.511	0.546	-7.0	*	
Styrene	1.035	1.084	-5.0		
Total Xylenes	1.258	1.536	-44.0		

RF50 Response Factor from daily standard file at 50 ug/l
$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference
CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)

COPY AR301954

CONTINUING CALIBRATION CHECK
Volatile HSL Compounds

ORIGINAL (Red)

3155 Sect 28 I

Case No ~~AG 9290~~
Contractor : S-CUBED
Contract No : 68-01-7261
Instrument ID: VG1

Calibration Date : 7-APR-88
Time : 9:01:31
Laboratory ID : 7AV1011
Initial Calibration Date: 5-APR-88

Minimum $\overline{RF}$ for SPCC is 0.300 (0.25 for Bromoform)

Maximum %D for CCC is 25%

Compound	$\overline{RF}$	RF50	%D	CCC	SPCC
Chloromethane	3.331	3.280	2.0		**
Bromomethane	0.528	0.515	2.0		
Vinyl Chloride	1.251	1.049	16.0	*	
Chloroethane	0.829	0.793	4.0		
Methylene Chloride	1.763	1.807	-2.0		
Acetone	0.300	0.349	-16.0		
Carbon Disulfide	6.976	6.272	10.0		
1,1-Dichloroethene	2.219	2.006	10.0	*	
1,1-Dichloroethane	6.600	6.346	4.0		**
trans-1,2-Dichloroethene	2.811	2.693	4.0		
Chloroform	5.893	6.259	-6.0	*	
1,2-Dichloroethane	5.487	6.119	-12.0		
2-Butanone	0.027	0.034	-26.0		
1,1,1-Trichloroethane	0.361	0.355	2.0		
Carbon Tetrachloride	0.266	0.272	-2.0		
Vinyl Acetate	0.201	0.225	-12.0		
Bromodichloromethane	0.428	0.461	-8.0		
1,2-Dichloropropane	0.445	0.460	-3.0	*	
CIS-1,3-DICHLOROPROPENE	0.566	0.620	-10.0		
Trichloroethene	0.310	0.302	3.0		
Dibromochloromethane	0.325	0.349	-7.0		
1,1,2-Trichloroethane	0.317	0.378	-19.0		
Benzene	1.177	1.423	-21.0		
TRANS-1,3-DICHLOROPROPENE	0.515	0.664	-29.0		
2-Chloroethylvinylether	0.239	0.276	-15.0		
Bromoform	0.300	0.263	12.0		**
2-Hexanone	0.276	0.291	-5.0		
4-Methyl-2-Pentanone	0.311	0.326	-5.0		
Tetrachloroethene	0.312	0.313	0.0		
1,1,2,2-Tetrachloroethane	0.572	0.628	-10.0		**
Toluene	0.922	0.983	-7.0	*	
Chlorobenzene	1.053	1.123	-7.0		**
Ethylbenzene	0.549	0.575	-5.0	*	
Styrene	1.043	1.138	-9.0		
Total Xylenes	1.424	1.556	-18.0		

RF50 Response Factor from daily standard file at 50 ug/l
$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference
CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)

Form VII

COPY

CONTINUING CALIBRATION CHECK
Volatile HSL Compounds

ORIGINAL (Red)

Case No : 3153I Set 28 I
Contractor : S-CUBED
Contract No : 68-01-7261
Instrument ID: VQ1

Calibration Date : 7-APR-88
Time : 20:45
Laboratory ID : 7ARV1011
Initial Calibration Date: 5-APR-88

Minimum $\overline{RF}$ for SPCC is 0.300 (0.25 for Bromoform)
Maximum %D for CCC is 25%

Compound	$\overline{RF}$	RF50	%D	CCC	SPCC
Chloromethane	3.331	2.618	21.0		**
Bromomethane	0.528	0.703	-33.0		
Vinyl Chloride	1.251	1.431	-14.0	*	
Chloroethane	0.829	0.852	-3.0		
Methylene Chloride	1.763	1.873	-6.0		
Acetone	0.300	0.393	-31.0		
Carbon Disulfide	6.976	6.754	3.0		
1,1-Dichloroethene	2.219	1.985	11.0	*	
1,1-Dichloroethane	6.600	6.186	6.0		**
trans-1,2-Dichloroethene	2.811	2.615	7.0		
Chloroform	5.893	5.902	0.0	*	
1,2-Dichloroethane	5.487	5.364	2.0		
2-Butanone	0.027	0.032	-19.0		
1,1,1-Trichloroethane	0.361	0.333	8.0		
Carbon Tetrachloride	0.266	0.257	3.0		
Vinyl Acetate	0.201	0.172	14.0		
Bromodichloromethane	0.428	0.406	5.0		
1,2-Dichloropropane	0.445	0.423	5.0	*	
CIS-1,3-DICHLOROPROPENE	0.566	0.560	1.0		
Trichloroethene	0.310	0.289	7.0		
Dibromochloromethane	0.325	0.307	6.0		
1,1,2-Trichloroethane	0.317	0.316	0.0		
Benzene	1.177	1.366	-16.0		
TRANS-1,3-DICHLOROPROPENE	0.515	0.576	-12.0		
2-Chloroethylvinylether	0.239	0.222	7.0		
Bromoform	0.300	0.255	15.0		**
2-Hexanone	0.276	0.216	22.0		
4-Methyl-2-Pentanone	0.311	0.238	23.0		
Tetrachloroethene	0.312	0.308	1.0		
1,1,2,2-Tetrachloroethane	0.572	0.503	12.0		**
Toluene	0.922	0.920	0.0	*	
Chlorobenzene	1.053	1.074	-2.0		**
Ethylbenzene	0.549	0.570	-4.0	*	
Styrene	1.043	1.093	-5.0		
Total Xylenes	1.424	1.561	-19.0		

RF50 Response Factor from daily standard file at 50 ug/l
$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference
CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)

COPY
AR301956

ORIGINAL (Red)

SURROGATE PERCENT RECOVERY SUMMARY (page 1/3)

Case No. 3156I / SET 28 (I) Contract Laboratory S-CUBED Contract No. 68-01-7261

High ✓ Medium ____

	VOLATILE			SEMI-VOLATILE					
SMO Traffic No.	Toluene-D8 ** (50-160)	BFB ** (50-160)	1,2 Dichloro-Ethane-D4 ** (50-160)	Nitro-Benzene-D5 ** (20-140)	2-Fluoro-Biphenyl ** (20-140)	Terphenyl-D14 ** (20-150)	Phenol-D6 ** (20-140)	2-Fluoro-Phenol ** (20-140)	2,4,6 Tribromo Phenol ** (10-140)
01	0*	94	91	38	44	46	39	34	24
02	94	94	86	35	43	33	38	34	91
03	86	91	90	43	45	52	42	37	36
04	95	93	91	39	42	47	38	33	44
05	88	89	76	33	41	33	36	33	75
06	84	94	88						
07	86	90	99						
08	90	99	89			NA			
09	82	91	83						
10		NR							
11	88	98	87						
12	91	98	85	30	42	37	37	31	DL
13	87	92	85			NA			
14	91	104	91						
15	92	99	83	42	50	55	44	39	103
16	90	99	92	NA	NA	NA	NA	NA	NA
17	90	85	76	40	42	45	41	37	30
18	91	98	97	NA	NA	NA	NA	NA	NA
19	104	104	83	53	57	64	36	50	43
20	92	101	97	NA	NA	NA	NA	NA	NA
21	155	300*	0*	45	51	55	46	40	DL
22	86	100	90	45	59	59	50	43	45
23	89	97	96	44	57	57	48	42	46
24A	94	94	88	48	61	60	50	44	52
24C	85	77	85	36	42	45	38	33	DL

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles (A) out of ___ outside of QC limits

Semi-Volatiles ___ out of ___ outside of QC limits

Comments: (A) SEE RESULT ON PAGE 3.

COPY

AR301957

AR301957

Page 20 of 35

AR301958

COPY

SURROGATE PERCENT RECOVERY SUMMARY (page 2/3)

Case No. 3155I / SET 28 (I) Contract Laboratory S-CUBED Contract No. 68-01-7261

High ✓ Medium _____

	SMO TRAFFIC NO.	TOLUENE-D8 (50-160)	BFB (50-160)	1,2 DICHLORO-ETHANE-D4 (50-160)	NITRO-BENZENE-D5 (20-140)	2-FLUORO-BIPHENYL (20-140)	TERPHENYL-D14 (20-150)	PHENOL-D6 (20-140)	2-FLUORO-PHENOL (20-140)	2,4,6 TRIBROMO PHENOL (10-140)
		VOLATILE			SEMI-VOLATILE					
	25	91	95	89						
	26	95	96	98			NA			
	27	103	111	101						
	28	92	99	66	41	54	52	45	37	43
	29	91	101	82	NA	NA	NA	NA	NA	NA
	30	92	98	63	50	56	58	51	47	54
	31	92	98	91	50	54	57	50	45	43
	32	89	98	91	45	50	51	33	23	44
	33A	81	97	77	48	51	55	43	38	26
	33C	84	91	85	44	50	55	43	38	81
	34	94	100	93	39	45	49	37	33	74
	35A	85	92	83	NA	NA	NA	NA	NA	NA
	35C	53	60	41*	35	46	47	36	30	DL
(1)	METHOD BLANK	96	107	95	48	55	43	42	38	40
(2)	METHOD BLANK	95	106	100	39	50	59	38	37	48
(3)	CONTROL MATRIX	78	78	83	44	44	55	48	45	36
(4)	CONTROL MATRIX	84	86	92	43	43	55	50	45	38
VOA LAB BLANK	M28V1021	103	106	89						
	28MV021	103	101	80						
	29MV1021	99	104	79						
	30MV1061	105	111	106			NA			
	M30V1021	98	108	88						
	31MV1021	101	108	89						
	M31V1021	100	102	94						
	1AV1021	103	107	97						

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: (A) out of ___ ; outside of QC limits

Semi-Volatiles: ___ out of ___ ; outside of QC limits

Comments: (A) SEE PAGE 3

(1) M29V1031 (VOA); 323101 (BNA 3-16).

(2) 1AV1031 (VOA); 413031 (BNA 3-17)

ORIGINAL (Red)

SURROGATE PERCENT RECOVERY SUMMARY (page 3/3)

Case No. 3155I / SET 28 (I) Contract Laboratory S-CUBED Contract No. 68-01-7261

High ✓ Medium _____

	SMO TRAFFIC NO.	TOLUENE-D8 (50-160) **	BFB (50-160) **	1,2 DICHLORO-ETHANE-D4 (50-160) **	NITRO-BENZENE-D5 (20-140) **	2-FLUORO-DIPHENYL (20-140) **	TERPHENYL-D14 (20-150) **	PHENOL-D5 (20-140) **	2-FLUORO-PHENOL (20-140) **	2,4,6 TRIBROMO-PHENOL (10-140) **
VOA LAB BLANK	1APRV021	101	108	99						
	7APV1021	94	94	83			NA			
	7ARV1021	108	110	94						

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 4 out of 156 ; outside of QC limits

Semi-Volatiles: 3-0 Ap out of ~~168~~ Ap 156 ; outside of QC limits

Comments: _____

COPY

AR301959

Copy

ORIGINAL (Red)

CONTINUING CALIBRATION CHECK
Semivolatile HSL Compounds
(Page 1)

Case No : 8969/3155I/SET23I
Contractor : S-CUBED
Contract No : 68-01-7261
Instrument ID: VG4

Calibration Date : 4-5-88
Time : 13:14
Laboratory ID : 405011
Initial Calibration Date: 1-APR-88

Minimum $\overline{RF}$ for SPCC is 0.050

Maximum %D for CCC is 25%

Compound		$\overline{RF}$	RF50	%D	CCC	SPCC
Phenol		2.166	2.126	1.8	*	
Aniline		2.415	2.368	1.9		
bis(-2-Chloroethyl)Ether		1.722	1.713	0.5		
2-Chlorophenol		1.523	1.525	-0.1		
1,3-Dichlorobenzene		1.508	1.538	-2.0		
1,4-Dichlorobenzene		1.548	1.562	-0.9	*	
Benzyl Alcohol		1.106	1.074	2.9		
1,2-Dichlorobenzene		1.522	1.550	-1.8		
2-Methylphenol		1.562	1.561	0.1		
bis(2-Chloroisopropyl)Ether		2.224	2.071	6.9		
4-Methylphenol		1.690	1.623	4.0		
N-Nitroso-Di-Propylamine		1.513	1.444	4.6		**
Hexachloroethane		0.624	0.623	0.2		
Nitrobenzene		0.566	0.612	-8.1		
Isophorone		0.902	0.888	1.6		
2-Nitrophenol		0.216	0.214	0.9	*	
2,4-Dimethylphenol		0.322	0.337	-4.7		
Benzoic Acid	+	0.199	0.163	18.1		
bis(2-Chloroethoxy)Methane		0.491	0.511	-4.1		
2,4-Dichlorophenol		0.306	0.317	-3.6	*	
1,2,4-Trichlorobenzene		0.314	0.310	1.3		
Naphthalene		1.054	1.107	-5.0		
4-Chloroaniline		0.459	0.473	-3.1		
Hexachlorobutadiene		0.142	0.145	-2.1	*	
4-Chloro-3-Methylphenol		0.348	0.363	-4.3	*	
2-Methylnaphthalene		0.594	0.613	-3.2		
Hexachlorocyclopentadiene		0.211	0.201	4.7		**
2,4,6-Trichlorophenol		0.369	0.357	3.3	*	
2,4,5-Trichlorophenol	+	0.372	0.381	-2.4		
2-Chloronaphthalene		1.156	1.222	-5.7		
2-Nitroaniline	+	0.499	0.501	-0.4		
Dimethyl Phthalate		1.283	1.362	-6.2		
Acenaphthylene		1.850	1.911	-3.3		
3-Nitroaniline	+	0.327	0.385	-17.0		
Acenapthene		1.223	1.272	-4.0	*	
2,4-Dinitrophenol	+	0.138	0.103	25.4		**
4-Nitrophenol	+	0.150	0.161	-7.3		**
Dibenzofuran		1.578	1.593	-1.0		
2,6-Dinitrotoluene		0.185	0.199	-7.6		

RF50 Response Factor from daily standard file at concentration indicated
$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference
CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)

ORIGINAL (Red)

CONTINUING CALIBRATION CHECK
Semivolatile HSL Compounds
(Page 2)

Case No : 8969/31551/SET27I
Contractor : S-CUBED
Contract No : 68-01-7261
Instrument ID: VG4

Calibration Date : 4-5-88
Time : 13:14
Laboratory ID : 405011
Initial Calibration Date: 1-APR-88

Minimum $\overline{RF}$ for SPCC is 0.050

Maximum %D for CCC is 25%

Compound		$\overline{RF}$	RF50	%D	CCC	SPCC
2,4-Dinitrotoluene		0.433	0.433	0.0		
Diethylphthalate		1.338	1.355	-1.3		
4-Chlorophenyl-phenylether		0.580	0.586	-1.0		
Fluorene		1.322	1.418	-7.3		
4-Nitroaniline	+	0.310	0.353	-13.0		
4,6-Dinitro-2-Methylphenol	+	0.130	0.111	14.6		
N-Nitrosodiphenylamine	(1)	0.497	0.543	-9.3	*	
4-Bromophenyl-phenylether		0.207	0.203	1.9		
Hexachlorobenzene		0.223	0.224	-0.4		
Pentachlorophenol	+	0.139	0.119	14.4	*	
Phenanthrene		1.117	1.167	-4.5		
Anthracene		1.034	1.116	-7.9		
Di-n-Butylphthalate		1.287	1.408	-9.4		
Fluoranthene		1.127	1.167	-3.5	*	
Pyrene		1.423	1.321	7.2		
Butylbenzylphthalate		0.708	0.695	1.8		
3,3'-Dichlorobenzidine		0.385	0.416	-8.1		
Benzo(a)anthracene		1.331	1.227	7.8		
bis(2-ethylhexyl)phthalate		1.048	1.087	-3.7		
Chrysene		1.150	1.245	-8.3		
Di-N-Octyl Phthalate		1.411	1.348	4.5	*	
Benzo(b)fluoranthene		1.170	0.857	26.8		
Benzo(k)fluoranthene		1.207	1.409	-16.0		
Benzo(a)pyrene		1.011	1.067	-5.5	*	
Indeno(1,2,3-cd)pyrene		0.536	0.442	17.5		
Dibenz(a,h)anthracene		0.552	0.573	-3.8		
Benzo(g,h,i)perylene		0.650	0.682	-4.9		

RF50 Response Factor from daily standard file at concentration indicated (50 total nanograms)

$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference

\+ Due to low response, analyze at 80 total nanograms

CCC Calibration Check Compounds(*)

SPCC System Performance Check Compounds(**)

(1) Cannot be separated from diphenylamine

Form VII

CONTINUING CALIBRATION CHECK
Semivolatile HSL Compounds
(Page 1)

ORIGINAL (Red)

Case No : 3155I/SET29I
Contractor : S-CUBED
Contract No : 68-01-7261
Instrument ID: VG4

Calibration Date : 4-7-88
Time : 6:31
Laboratory ID : 407011
Initial Calibration Date: 1-APR-88

Minimum $\overline{RF}$ for SPCC is 0.050

Maximum %D for CCC is 25%

Compound		$\overline{RF}$	RF50	%D	CCC	SPCC
Phenol		2.166	2.282	-5.4	*	
Aniline		2.415	2.424	-0.4		
bis(-2-Chloroethyl)Ether		1.722	1.773	-3.0		
2-Chlorophenol		1.523	1.545	-1.4		
1,3-Dichlorobenzene		1.508	1.525	-1.1		
1,4-Dichlorobenzene		1.548	1.560	-0.8	*	
Benzyl Alcohol		1.106	1.082	2.2		
1,2-Dichlorobenzene		1.522	1.529	-0.5		
2-Methylphenol		1.562	1.557	0.3		
bis(2-Chloroisopropyl)Ether		2.224	2.191	1.5		
4-Methylphenol		1.690	1.620	4.1		
N-Nitroso-Di-Propylamine		1.513	1.464	3.2		**
Hexachloroethane		0.624	0.636	-1.9		
Nitrobenzene		0.566	0.625	-10.0		
Isophorone		0.902	0.890	1.3		
2-Nitrophenol		0.216	0.216	0.0	*	
2,4-Dimethylphenol		0.322	0.346	-7.5		
Benzoic Acid	+	0.199	0.207	-4.0		
bis(2-Chloroethoxy)Methane		0.491	0.523	-6.5		
2,4-Dichlorophenol		0.306	0.314	-2.6	*	
1,2,4-Trichlorobenzene		0.314	0.308	1.9		
Naphthalene		1.054	1.071	-1.6		
4-Chloroaniline		0.459	0.468	-2.0		
Hexachlorobutadiene		0.142	0.137	3.5	*	
4-Chloro-3-Methylphenol		0.348	0.368	-5.7	*	
2-Methylnaphthalene		0.594	0.618	-4.0		
Hexachlorocyclopentadiene		0.211	0.182	13.7		**
2,4,6-Trichlorophenol		0.369	0.368	0.3	*	
2,4,5-Trichlorophenol	+	0.372	0.371	0.3		
2-Chloronaphthalene		1.156	1.192	-3.1		
2-Nitroaniline	+	0.499	0.510	-2.2		
Dimethyl Phthalate		1.283	1.284	-0.1		
Acenaphthylene		1.850	1.893	-2.3		
3-Nitroaniline	+	0.327	0.368	-12.0		
Acenapthene		1.223	1.251	-2.3	*	
2,4-Dinitrophenol	+	0.138	0.091	34.1		**
4-Nitrophenol	+	0.150	0.161	-7.3		**
Dibenzofuran		1.578	1.575	0.2		
2,6-Dinitrotoluene		0.185	0.189	-2.2		

RF50 Response Factor from daily standard file at concentration indicated
$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference
CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)

ORIGINAL

CONTINUING CALIBRATION CHECK
Semivolatile HSL Compounds
(Page 2)

Case No : 3155I/SET23 I
Contractor : S-CUBED
Contract No : 68-01-7261
Instrument ID: VG4

Calibration Date : 4-8-88
Time : 6:40
Laboratory ID : 408011
Initial Calibration Date: 1-APR-88

Minimum $\overline{RF}$ for SPCC is 0.050

Maximum %D for CCC is 25%

Compound		$\overline{RF}$	RF50	%D	CCC	SPCC
2,4-Dinitrotoluene		0.433	0.442	-2.1		
Diethylphthalate		1.338	1.355	-1.3		
4-Chlorophenyl-phenylether		0.580	0.566	2.4		
Fluorene		1.322	1.395	-5.5		
4-Nitroaniline	+	0.310	0.423	-36.0		
4,6-Dinitro-2-Methylphenol	+	0.130	0.117	10.0		
N-Nitrosodiphenylamine	(1)	0.497	0.563	-13.0	*	
4-Bromophenyl-phenylether		0.207	0.189	8.7		
Hexachlorobenzene		0.223	0.203	9.0		
Pentachlorophenol	+	0.139	0.140	-0.7	*	
Phenanthrene		1.117	1.188	-6.4		
Anthracene		1.034	1.131	-9.4		
Di-n-Butylphthalate		1.287	1.480	-15.0		
Fluoranthene		1.127	1.204	-6.8	*	
Pyrene		1.423	1.312	7.8		
Butylbenzylphthalate		0.708	0.765	-8.1		
3,3'-Dichlorobenzidine		0.385	0.469	-21.0		
Benzo(a)anthracene		1.331	1.333	-0.2		
bis(2-ethylhexyl)phthalate		1.048	1.237	-18.0		
Chrysene		1.150	1.233	-7.2		
Di-N-Octyl Phthalate		1.411	1.497	-6.1	*	
Benzo(b)fluoranthene		1.170	1.037	11.4		
Benzo(k)fluoranthene		1.207	1.357	-12.0		
Benzo(a)pyrene		1.011	1.133	-12.0	*	
Indeno(1,2,3-cd)pyrene		0.536	0.488	9.0		
Dibenz(a,h)anthracene		0.552	0.571	-3.4		
Benzo(g,h,i)perylene		0.650	0.669	-2.9		

RF50 Response Factor from daily standard file at concentration indicated (50 total nanograms)

$\overline{RF}$ Average Response Factor from initial calibration Form VI

%D Percent Difference

\+ Due to low response, analyze at 80 total nanograms

CCC Calibration Check Compounds(*)

SPCC System Performance Check Compounds(**)

(1) Cannot be separated from diphenylamine

ORIGINAL (Red)

Sample Number:
14

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 28MV1021 (1102)
Sample Matrix: SOIL
Data Release Authorized By: N

Case No: 31551 / SET 28 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 03-05-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: 6.0
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	3.6 B	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	11 B	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	13 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

ORIGINAL
(Red)

Sample Number:
METHOD BLANK :

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: M29V1031 (CCM); 323101 (AGN)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 31551 / SET 23 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: ~~[illegible]~~ NA

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-15-88
Date Analyzed: 03-29-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R (+)

CAS Number		mg/l or mg/kg (Circle One)	CAS Number		mg/l or mg/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	2.5 U	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	5 U	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	32	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(+) No Percent Moisture.

ORIGINAL
(Red)

Sample Number:
METHOD BLANK :

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 1AV1031 CC64; 413031 (ABN)
Sample Matrix: SOIL
Data Release Authorized By: [signature]

Case No: 31551 / SET 29 I
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: ~~[illegible]~~ NA

VOLATILE COMPOUNDS
Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 03-16-88
Date Analyzed: 04-01-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	0.93 J	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	14	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	11	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

AR301966

ORIGINAL (Red)

METHOD BLANK SUMMARY p.1 of 2

Case No. 3155I 6/28 (I) Region 2 Contractor S-CUBED Contract No. 68-01-7261

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (INCL. TIC OR UNKNOWN)	CONC.	UNITS	CADL
M29V1031	3-29-88	VOA	Soil (A)	High	VG1	78-93-3	2-Butanone	32	mg/kg	5
M29V1031	3-29-88		Soil (A)			NA	UNKNOWN (S: 582)	2.6		NA
1AV1031	4-1-88		Soil (B)			75-09-2	Methylene chloride	0.93		2.5
↓	↓		↓	↓		67-64-1	Acetone	14	↓	5
1AV1031	4-1-88		Soil (B)	High		78-93-3	2-Butanone	11	mg/kg	5
(C) M28V1021	3-28-88		H_2O	Low		75-09-2	Methylene chloride	0.013	mg/l	0.005
(C) 28MV021	3-28-88					75-09-2	Methylene chloride	0.011		0.005
28MV021	3-28-88					67-64-1	Acetone	0.013	↓	0.01
(C) 29MV1021	3-29-88					75-09-2	Methylene chloride	0.004	mg/l	0.005
(C) 30MV1061	3-30-88					—	Nothing found —			
(C) M30V1021	3-30-88					75-09-2	Methylene chloride	0.006	mg/l	0.005
↓	↓					67-64-1	Acetone	0.018		0.01
M30V1021	3-30-88					78-93-3	2-Butanone	0.026		0.01
(C) 31MV1021	3-31-88					75-09-2	Methylene chloride	0.002		0.005
↓						67-64-1	Acetone	0.018		0.01
31MV1021						78-93-3	2-Butanone	0.031		0.01
(C) M31V1021						75-09-2	Methylene chloride	0.003		0.005
↓						67-64-1	Acetone	0.018		0.01
M31V1021	3-31-88	↓	↓	↓	↓	78-93-3	2-Butanone	0.029	↓	0.01
(C) 1AV1021	4-1-88	VOA	H_2O	Low	VG1	75-09-2	Methylene chloride	0.001	mg/l	0.005

Comments: (A) Method blank, extracted 3-15-88; no clean soil matrix available, methanol utilized instead
(B) Method blank, extracted 3-16-88. No clean soil matrix available so methanol was used instead.
(C) VOA instrument blank, 5ml H_2O utilized.

COPY

AR301967

ORIGINAL (Red)

METHOD BLANK SUMMARY 1.2 of 2

Case No. 3155T&t-28 T Region 2 Contractor S-CUBED Contract No. 68-01-7261

	FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (VPL, TIC OR UNKNOWN)	CONC.	UNITS	CRDL
(A)	1AV1021	4-1-88	VOA	H_2O	low	V61	67-64-1	Acetone	0.020	mg/l	0.01
	1AV1021						78-93-3	2-Butanone	0.029		0.01
(A)	1APRV021						75-09-2	Methylene Chloride	0.004		0.005
							67-64-1	Acetone	0.012		0.01
	1APRV021	4-1-88					78-93-3	2-Butanone	0.020		0.01
(A)	7APV1021	4-7-88					75-09-2	Methylene chloride	0.003		0.005
	7APV1021						67-64-1	Acetone	0.012		0.01
(A)	7ARV1021						75-09-2	Methylene chloride	0.004		0.005
							67-64-1	Acetone	0.010		0.01
	7ARV1021	4-7-88	VOA	H_2O	Low	V61	78-93-3	2-Butanone	0.024	mg/l	0.01
(B)	323101	3-23-88	ABN/Pest	Soil	High	V64	—	Nothing found	—	—	
(C)	413031	4-13-88	ABN/Pest	Soil	High	V64	—	Nothing found	—	—	

Comments: (A) VOA instrument blank, 5ml H_2O utilized
(B) Extracted 3-16-88; 1g Na_2SO_4 utilized
(C) Extracted 3-18-88; 1g Na_2SO_4 utilized

AR301968

COPY

ORIGINAL (Red)

HIGH CONCENTRATION PHASE SEPARATION SUMMARY

Laboratory Name: S-CUBED Set No.: 3155I SET #28

Contract No.: 68-01-7261 Separation Date:

SMO Sample No.	Phase Code	Subsample Code	Weight (gm)	% Total Weight	pH	Comments
-01	C				6	
-30	C				6	
-03	C				6	
-12	C				6	
-16	A				7	
-20	A				7	
-04	C				6	
-21	C				7	
-26	A				6	
-02	C				6	
-27	C				6	
-05	C				7	
-23	A				8	
-22	A				6	
-15	C				6	
-09	A				7	
-18	A				8	
-28	C				7	
-32	C				6	
-33	C	C1	425g	92%	7	
-33	A	A1	37g	8%	7	
-14	A				6	
-11	A				6	
-13	A				6	

Phase Code:

A – Water Miscible Liquid
B – Water Immiscible Liquid
C – Solid

Subsample Code:

1 – First Subsample of a Phase
2 – Second Subsample of a Phase
3 – Third or greater, etc.

FORM HC-VIII

ORIGINAL (Red)

COPY

HIGH CONCENTRATION PHASE SEPARATION SUMMARY

Laboratory Name: S-CUBED Set No.: 3155I SET # 28

Contract No.: 68-01-7261 Separation Date:

SMO Sample No.	Phase Code	Subsample Code	Weight (gm)	% Total Weight	pH	Comments
-46	C				7	
-41	C				6	
-49	C				7	
-39	A				7	
-40	C				7	
-19	A				7	
-48	C				7	
-07	A				6	
-47	C				7	
-17	C				6	
-06	A				7	
-08	A				6	
-42	C				6	
-50	C				7	
-29	A				6	
-25	A				6	
-34	C				6	
-43	C				7	
-45	C				6	
-44	C				7	
-31	C				6	
-24	A	A1	53g	15%	7	
-24	C	C1	307g	85%	7	
-35	A	A1	45g	11%	7	
-35	C	C1	354g	89%	6	
-38	A				7	IMMISIBLE LIQ <10%
-37	A				7	
~~36~~	~~A~~					

Phase Code:

A – Water Miscible Liquid
B – Water Immiscible Liquid
C – Solid

Subsample Code:

1 – First Subsample of a Phase
2 – Second Subsample of a Phase
3 – Third or greater, etc..

AR301970

ORIGINAL (Red)

S-CUBED

A Division of Maxwell Laboratories, Inc.

April 20, 1988 Volume 1 of 4

NARRATIVE SAS 31551, SET 28, REPORT 1
S-CUBED CONTRACT NO. 68-01-7261

This report presents data from the analysis of 34 high concentration samples, two of which were for volatile components only. S-CUBED also received two waters (Samples 10 and 36) which were not analyzed since these were sampled as low level samples and thus were not appropriate to this SAS. Table 1 presents a summary of how the analyses were carried out. Samples for which BNA/pesticide extracts screened to be low level are being reanalyzed with low level techniques thus this data is not included in this report. Report II is being prepared and will present high concentration data from the second ground of samples received. Report III will present the data from the low level analyses.

As indicated in Table 1 numerous dilutions were necessary. These dilutions affected surrogate recoveries in some volatile and semivolatile analyses. Samples contained variable amounts of both target compounds and TICs. Aroclor analysis as such was not carried out as this SAS required PCB congener information. Small amounts of trichlorobiphenyl were found in several samples. Numerous false positives for PCB congeners were rejected, many due to the presence of numerous other chlorinated compounds in the samples.

Please note that aniline was found in some samples. If it was detected as a level of greater than 10 percent of the internal standard area it was reported as a TIC with an actual quantitation based on the daily calibration response factor.

APR 1988
RECEIVED

JoAnn Wilkinson
JoAnn Wilkinson
Project Manager

COPY

AR301971

P.O. Box 1620, La Jolla, California 92038-1620 3398 Carmel Mountain Road, San Diego, California 92121-1095
Tel: (619) 453-0060 TWX: 910-337-1263 Telecopier (619) 755-0474

Fike Chem Page 34 of 35 (W)

In Reference to Case No(s): SAS 3155I Set 28

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

Date of Call: 3/7/88 ; 3/8/88

Laboratory Name: S-Cubed

Lab Contact: JoAnn Wilkinson

~~Region:~~ SMO

~~Regional Contact:~~ Mike Whittington

MAR 1988 RECEIVED

Call Initiated By: X Laboratory ___ Region

In reference to data for the following sample number(s):
-10, -36

Summary of Questions/Issues Discussed:
These were marked as low level waters. This SAS addresses high concentration samples only. CASE # and Traffic reports necessary to process these samples as low level

Summary of Resolution:
Region instructed NO analysis.
Samples will be returned since the probability of dioxin contamination exists.

VOA trip blanks will be analyzed as per SAS SOW

SAS traffic report will note this change.

J E Wilkinson
Signature

3/8/88
Date

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

COPY

AR301972

AR301972

ORIGINAL

TABLE 1. Analysis Summary

Sample	Comments	VOA Dilution	BNA Dilution
01		1:20	1:6
02			
03			
04			
05		1:10	1:4
06	Low		
07	Low		
08	Low		
09	Low		
11	VOA only		
12		1:20	1:15
13	Low		
14	VOA only		
15			1:5
16	Low		
17		1:5	
18	Low		
19		1:20	
20	Low		
21		1:200	1:15
22			
23			
24-C_1			
24-A_1			
25	Low		
26	Low		
27	Low		
28			
29	Low		
30			
31			
32			
33-C_1			
33-A_1			
34			
35-C_1		1:20	1:20
35-A_1	Low		

COPY

ORIGINAL
(Red)

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

Tony

DATE : July 19, 1988

SUBJECT: Organic Data Validation for the Fike Site

FROM : Diana Baldi DB
Chemist (3ES23)

TO : Tony D'Appalone
Regional Project Manager (3HW24)

THRU : Pat Krantz
Chief, QA Section (3ES23)

Attached is the last sample for organic data review for the Fike Site (SAS 3I55I, Set 28) completed by the Region III Environmental Services Assistance Team (ESAT) contractor under the direction of Region III ESD. The dioxin and furan data are the only remaining portions for the "fast track" set to be reviewed. The report for the dioxin and furan data will be markedly delayed due to the poor quality of the lab's initial work.

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

Attachment

cc: Paul Alessio, NUS
Dick Evans, EDASCO
Stepany Del Re, REM III DPO (3HW24) w/o attachments
TID File: 03880506

ORIGINAL
(Red)

WESTON
MANAGERS DESIGNERS/CONSULTANTS
2568A RIVA ROAD
SUITE 300
ANNAPOLIS, MD 21401
PHONE: 301-266-9887

DATE: July 8, 1988

SUBJECT: Organic Data Validation for Case 3155I Set 28, Report IV
Site: Fike Chemical

FROM: David E. Gallis DG
Senior Organic Data Reviewer

TO: Diana J. Baldi
ESAT DPO

THRU: Gail DeRuzzo GD
ESAT Team Manager

OVERVIEW

Case 3155I Set 28, report IV consisted of a single soil sample for high concentration organics analysis. This sample was analyzed as a Contract Laboratory Program (CLP) Special Analytical Service (SAS).

SUMMARY

All compounds, with the exceptions of endosulfan I and endosulfan II, were successfully analyzed.

MAJOR PROBLEMS

- The average response factors (RF) for endosulfan I and endosulfan II were less than 0.05 in the initial and continuing calibrations. The quantitation limits for these compounds have been qualified "R" (unreliable) in the data summary of Appendix B. (See Table I and Forms VI and VII of Appendix F).

MINOR PROBLEMS

- Several compounds in the initial and continuing calibrations had response factors (RF) that exceeded precision criteria. Table I of Appendix F lists these compounds which affect the sample. Quantitation limits for these compounds have been qualified "UJ" in the data summary of Appendix B.

- The holding time for the volatile analysis of sample Set 28-36 was exceeded by sixty-three (63) days. Because of this, all volatile analysis quantitation limits have been flagged "UL" for a probable low bias. (See data summary of Appendix B).

ORIGINAL (Red)

WESTON

NOTES

- Below is a list of the maximum concentrations of common contaminants found in the method blank. All positive results less than ten times (10x) the amount found in the method blank have been qualified "B" on the data summary.

Compound	Concentration
acetone	14 mg/Kg
2-butanone	27 mg/Kg

- All reported concentrations in the data summary of Appendix B are based on wet weight and reported in units of mg/Kg.

- All tentatively identified compounds (TICs) have been reviewed and verified during data validation.

All data for Case 3155I Set 28 report IV has been reviewed for consistency with the SAS request and validated in accordance with The Functional Guidelines for Evaluating Organics Analyses with Modifications for Use Within Region III. The text of this report addresses only those problems affecting usability.

ATTACHMENTS

1) Appendix A - Glossary of Data Qualifiers
2) Appendix B - Data Summary. These include:
   (a) All positive results for target compounds with qualifier codes where applicable:
   (b) All unusable detection limits (qualified "R").
3) Appendix C - Results as reported by the Labortory for All Target Compounds
4) Appendix D - Reviewed Tentatively Identified Compounds
5) Appendix E - DPO Report for Contractual Compliance
6) Appendix F - Support Documentation
   Table I - Compounds and Associated Samples with Calibration Uncertainty

ORIGINAL
(Red)

Appendix A

Glossary of Data Qualifiers

ORIGINAL
(Red)

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.

ORIGINAL
(Red)

Appendix B

Data Summary

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

AR301980

Case Number: SAS 3155I Set 28. Report III

Site Name: Fike Chemical

Date of Sampling: 3/1/88-3/3/88

SOIL SAMPLES (solid)
(mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

	Sample No.	Set 28-36	
	Dilution Factor	1.0	
	% Moisture		
	Location		
CROL	COMPOUND		
5	Chloromethane		UL
5	Bromomethane		
5	*VINYL CHLORIDE		
5	Chloroethane		
2.5	Methylene Chloride		
5	Acetone	22	B
2.5	Carbon Disulfide		UL
2.5	*1,1-DICHLOROETHENE		
2.5	1,1-Dichloroethane		
2.5	*TOTAL-1,2-DICHLOROETHENE		
2.5	Chloroform		
2.5	*1,2-DICHLOROETHANE		
5	*2-BUTANONE	18	B
2.5	*1,1,1-TRICHLOROETHANE		UL
2.5	*CARBON TETRACHLORIDE		
5	Vinyl Acetate		
2.5	Bromodichloromethane		
2.5	*1,2-DICHLOROPROPANE		
2.5	Cis-1,3-Dichloropropene		
2.5	Trichloroethene		
2.5	Dibromochloromethane		
2.5	1,1,2-Trichloroethane		
2.5	*BENZENE		
2.5	Trans-1,3-Dichloropropene		

ORIGINAL (Red)

AR301981

DATA SUMMARY FORM: VOLATILES AND BNAs

Case Number: SAS 3155I Set 28 Report IV

Site Name: Fike Chemical

Date of Sampling: 3/1/88 - 3/3/88

SOIL SAMPLES (solid)

(mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

	Sample No.	Set 28-36	
	Dilution Factor	1.0	
	% Moisture		
	Location		
CRQL*	COMPOUND		
2.5	Bromoform		UL
5	4-Methyl-2-pentanone		
5	2-Hexanone		
2.5	*TETRACHLOROETHENE		
2.5	1,1,2,2-Tetrachloroethane		
2.5	*TOLUENE		
2.5	Chlorobenzene		
2.5	*ETHYLBENZENE		
2.5	*STYRENE		
2.5	*TOTAL XYLENES		
20	Phenol	40	
20	bis(2-Chloroethyl)ether		
20	2-Chlorophenol		
20	*1,3-DICHLOROBENZENE		
20	*1,4-DICHLOROBENZENE		
20	Benzyl Alcohol		
20	1,2-Dichlorobenzene		
20	2-Methylphenol		
20	bis(2-Chloroisopropyl)ether		
20	4-Methylphenol	2.3	J
20	N-Nitroso-di-n-propylamine		
20	Hexachloroethane		
20	Nitro[illegible]zene		
20	Isop[illegible]e		
20	2-Nitrophenol		

ORIGINAL

* CROL * Contract Required Quantitation Limit * Action Level Exists

AR301982

DATA SUMMARY FORM: B N A s

Case Number: SAS 3155I Set 28 Report IV

Site Name: Fike Chemical

Date of Sampling: 3/1/88 - 3/3/88

SOIL SAMPLES (solid)

(mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

	Sample No.	Set 28-36									
	Dilution Factor	1.0									
	% Moisture										
	Location										
CROL*	COMPOUND										
20	2,4-Dimethylphenol										
100	Benzoic Acid										
20	bis(2-Chloroethoxy)methane										
20	2,4-Dichlorophenol										
20	1,2,4-Trichlorobenzene										
20	Naphthalene										
20	4-Chloroaniline										
20	Hexachlorobutadiene										
20	4-Chloro-3-methylphenol										
20	2-Methylnaphthalene										
20	Hexachlorocyclopentadiene										
20	2,4,6-Trichlorophenol										
100	2,4,5-Trichlorophenol										
20	2-Chloronaphthalene										
100	2-Nitroaniline										
20	Dimethyl phthalate										
20	Acenaphthylene										
100	2,6-Dinitrotoluene										
100	3-Nitroaniline										
20	Acenaphthene										
100	2,4-Dinitrophenol										
100	4-Nitrophenol										
20	Dibenzofuran										
20	2,4-Dinitrotoluene										
20	Diethylphthalate										

ORIGINAL (Red)

UNIN SUMMARY FORM: B N A s

Case Number: SAS 3155I S-L 28 Report IV
Site Name: Fike Chemical
Date of Sampling: 3/1/88 - 3/3/88

SOIL SAMPLES (solid)
(mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

CRQL*	COMPOUND	S-L 28-36	
	Dilution Factor	1.0	
	% Moisture		
	Location		
20	4-Chlorophenyl-phenylether		UJ
20	Fluorene		
100	4-Nitroaniline		
100	4,6-Dinitro-2-methylphenol		
20	N-Nitrosodiphenylamine		
20	4-Bromophenyl-phenylether		
20	Hexachlorobenzene		
100	PENTACHLOROPHENOL	8.8	J
20	Phenanthrene	2.7	J
20	Anthracene		
20	Di-n-butylphthalate	4.2	J
20	Fluoranthene		
20	Pyrene		
20	Butylbenzylphthalate		
20	3,3-Dichlorobenzidine		UJ
20	Benzo(a)anthracene		
20	Chrysene		
20	bis(2-Ethylhexyl)phthalate	120	
20	Di-n-octyl phthalate	3.3	J
20	Benzo(b)fluoranthene		
20	Benzo(k)fluoranthene		
20	Benzo(a)pyrene		
20	Indeno(1,2,3-cd)pyrene		
20	Dibenz(a,h)anthracene		
20	Benzo(g,h,i)perylene		

* CRQL = Contract Required Quantitation Limit

N A = No Level Exists

R301983

ORIGINAL (Red)

Aroclor-1260

DATA SUMMARY FORM: PESTICIDES

Case Number: SAS 3155I Set 28 Report IV

Site Name: Fike Chemical

Date of Sampling: 3/1/88-3/3/88

SOIL SAMPLES (solid)

(mg/Kg)

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

SEE GLOSSARY FOR CODE DEFINITIONS

	Sample No.	Set 28-36											
	Dilution Factor	1.0											
	% Moisture												
	Location												
CRQL**	COMPOUND												
20	alpha-BHC												
20	beta-BHC												
20	delta-BHC												
20	*GAMMA-BHC (LINDANE)												
20	*HEPTACHLOR												
20	Aldrin												
20	Heptachlor Epoxide												
20	Endosulfan I		R										
20	Dieldrin												
20	4,4'-DDE												
20	*ENDRIN												
20	Endosulfan II		R										
20	4,4'-DDD												
20	Endosulfan Sulfate												
20	4,4'-DDT												
20	*METHOXYCHLOR												
20	Endrin ketone												
20	*ALPHA-CHLORDANE												
20	*BETA-CHLORDANE												
	*TOXAPHENE		Q										
	Aroclor-1016												
	Aroclor-1221												
	Aroclor-1232												
	Aroclor-1242												
	Aroclor-1248												
	Aroclor-1254												

AR301984

ORIGINAL (Red)

UNIFIED SUMMARY FORM: PCB CONGENERS

Case Number: SAS 3155E Set 28 Report IV

Site Name: Fike Chemical

Date of Sampling: 3/1/88 - 3/3/88

SOIL SAMPLES (solid)

(mg/Kg)

To calculate sample quantitation limits (CRQL x Dilution Factor)

SEE GLOSSARY FOR DEFINITIONS

CRQL*	COMPOUND	Sample No. / Dilution Factor / Location: Set 28-36 / 1.0
100	Monochlorobiphenyl	
100	Dichlorobiphenyl	
100	Trichlorobiphenyl	
100	Tetrachlorobiphenyl	
100	Pentachlorobiphenyl	
100	Hexachlorobiphenyl	
100	Heptachlorobiphenyl	
100	Octachlorobiphenyl	
100	Nonachlorobiphenyl	
100	Decachlorobiphenyl	

* CRQL = Contract Required Quantitation Limit

ORIGINAL (Red)

AR301985

ORIGINAL
(Red)

Appendix C

Results as Reported by the Laboratory for All Target Compounds

ORIGINAL

Sample Number:

ORGANICS ANALYSIS DATA SHEET

(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: S2833(VOA); M19041(BNA)
Sample Matrix: SOIL
Data Release Authorized By:

Case No: 31551 / SET 26
QC Report No: N.A
Contract No: 68-01-7261
Date Sample Received: 03-11-88

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 05-16-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: 7.0
Percent Moisture (Not Decanted): N.A (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	2.5 U	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	22 B	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-35-4	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-34-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	18 B	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaining results are encouraged.However,the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit,report the value.

U Indicates compound was analyzed for but not detected.Report the minimum detection limit for the sample with the U (eg.10U) based on necessary concentration/dilution action.(this is not necessarily the instrument detection limit.)The footnotes should read:U-Compound was analyzed for but not detected.The number is the minimum attainable detection limit for the sample.

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 indicates the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J) .If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated,report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS.Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

E Matrix spiked compound.

(*) No Percent Moisture.

AR301987

ORIGINAL
(Red)

Sample Number

tory Name: S-CUSED

o: 31551 / SET 29

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

tration: (High) Medium (Circle One) GPC Clean up ✓ Yes __ No
xtracted/Prepared: 05-16-88 Separatory Funnel Extraction __ Yes
nalyzed: 05-19-88 Continuous Liquid - Liquid Extraction _____ Yes
il Factor: 1.0
t Moisture (decanted): N.A

		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (Circle one)
-2	PHENOL	40	83-32-9	ACENAPHTHENE	20 U
-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	96 U
8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	96 U
-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	20 U
-7	1,4-DICHLOROBENZENE	20 U	121-14-2	2,4-DINITROTOLUENE	20 U
-6	BENZYL ALCOHOL	20 U	606-20-2	2,6-DINITROTOLUENE	20 U
1	1,2-DICHLOROBENZENE	20 U	84-66-2	DIETHYLPHTHALATE	20 U
7	2-METHYLPHENOL	20 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	20 U
-5	4-METHYLPHENOL	2.3 J	100-01-6	4-NITROANILINE	96 U
-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
1	HEXACHLOROETHANE	20 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	20 U
5	NITROBENZENE	20 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
1	ISOPHORONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	8.8 J
-9	2,4-DIMETHYLPHENOL	20 U	85-01-8	PHENANTHRENE	2.7 J
9	BENZOIC ACID	96 U	120-12-7	ANTHRACENE	20 U
-1	BIS(2-CHLOROETHOXY)METHANE	20 U	84-74-2	DI-N-BUTYLPHTHALATE	4.2 J
-2	2,4-DICHLOROPHENOL	20 U	206-44-0	FLUORANTHENE	20 U
-1	1,2,4-TRICHLOROBENZENE	20 U	129-00-0	PYRENE	20 U
1	NAPHTHALENE	20 U	85-68-7	BUTYLBENZYLPHTHALATE	20 U
-3	4-CHLOROANILINE	20 U	91-94-1	3,3'-DICHLOROBENZIDINE	40 U
5	HEXACHLOROBUTADIENE	20 U	56-55-3	BENZO(a)ANTHRACENE	20 U
7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	12
6	2-METHYLNAPHTHALENE	20 U	218-01-9	CHRYSENE	20 U
4	HEXACHLOROCYCLOPENTADIENE	20 U	117-84-0	DI-N-OCTYL PHTHALATE	3.3 J
2	2,4,6-TRICHLOROPHENOL	20 U	205-99-2	BENZO(b)FLUORANTHENE	20 U
6	2,4,5-TRICHLOROPHENOL	96 U	207-08-9	BENZO(k)FLUORANTHENE	20 U
7	2-CHLORONAPHTHALENE	20 U	50-32-8	BENZO(a)PYRENE	20 U
4	2-NITROANILINE	96 U	193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
-5	DIMETHYL PHTHALATE	20 U	53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
-3	ACENAPHTHYLENE	20 U	191-24-2	BENZO(g,h,i)PERYLENE	20 U
1	3-NITROANILINE	96 U			

(1)-Cannot be separated from diphenylamine.

AR301988

ORIGINAL
(Red)

Laboratory Name: S-CUBED
Case No: 31551 / SET 28
Sample Number: 3a

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High, Medium (Circle One)
Date Extracted/Prepared: 05-16-88
Date Analyzed: 05-17-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.A

GPC Clean up X Yes __ No
Separatory Funnel Extraction __ Yes
Continuous Liquid - Liquid Extraction ____ Yes

CAS Number		mg/L or mg/Kg (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

AR301989

ORIGINAL
(Red)

PCB Congener Analysis Data Sheet

Sample Number
28 - 36

Laboratory Name S-CUBED

SAS 3155I ; SET 28

Lab Sample ID No. M19041

Sample Matrix Soil

Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared

Date Analyzed 5-19-88

Conc/Dil Factor 1.0

	ug/kg
Monochlorobiphenyls	100 u
Dichlorobiphenyls	100 u
Trichlorobiphenyls	100 u
Tetrachlorobiphenyls	100 u
Pentachlorobiphenyls	100 u
Hexachlorobiphenyls	100 u
Heptachlorobiphenyls	100 u
Octachlorobiphenyls	100 u
Nonachlorobiphenyls	100 u
Decachlorobiphenyls	100 u

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

ORIGINAL
(Red)

Appendix D

Reviewed Tentatively Identified Compounds

Laboratory Name S-CUBED

Case No 3155 I / SET 2 2

ORIGINAL (Red)

Sample Number
36

M19041 (BNA
SE934 (VOA)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.	100-52-7	benzaldehyde	BNA	1[illegible]2	12 J
2.	NA	UNKNOWN	1	1604	24 J
3.	NA	UNKNOWN	BNA	1647	[illegible] J
4.		No TIC'S FOUND.	VOA		
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26					
27.					
28.					
29.					
30.					

ORIGINAL
(Red)

Appendix E

DPO Report for Contractual Compliance

ORIGINAL
(Red)

ORGANIC DATA VALIDATION SUMMARY

Date Review Completed 6/27/88
Case No. _____ SAS No. 3155I-Set-28-IV
Site Name Fike Chemical
Sample Nos. Set 28-36

Contract Lab S-Cubed
Contract No. 68-01-7261
Lab DPO Emila Boulos
Reviewer D.E. Gallis
from Region VII Phone (301) 266-9887
(ESAT) FTS _____

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

VOLATILES	OK	FYI	ACTION	COMMENTS
GC/MS tuning--BFB	X			
Initial Calibration		X		See Note 1
Continuing Calibration		X		See Note 1
Surrogate Recovery	X			
Matrix Spikes	X			
Reagent Blanks		X		See Note 2
Holding times		X		See Note 3

EXTRACTABLES	OK	FYI	ACTION	COMMENTS
GC/MS tuning--DFTPP	X			
Initial Calibration			X	See Note 4
Continuing Calibration			X	See Notes 1 and 4 (action)
Surrogate Recovery	X			
Matrix Spikes	X			
Reagent Blanks	X			
Holding times	X			

OVERALL CASE	OK	FYI	ACTION	COMMENTS
Compound Identification	X			
Data Completeness	X			

REVIEWER'S COMMENTS:

*DOCUMENTATION ATTACHED (see following pages)

ORIGINAL (Red)

WESTON

ORGANIC DATA VALIDATION SUMMARY

Note 1 - Several compounds in the initial and continuing calibrations had RF that exceeded precision criteria. Table I of Appendix F lists these compounds affecting the sample analysis.

Note 2 - Below is a list of the maximum concentrations of common contaminants found in the method blank.

Compound	Concentration
acetone	14 mg/Kg
2-butanone	27 mg/Kg

Note 3 - The holding time for the volatile analysis of sample Set 28-36 was exceeded by sixty-three (63) days. However, as stated in the case narrative of this and other cases in SAS 3155I Set 28, there was considerable confusion for all parties about the this sample's analysis. (See phone logs of Appendix F).

Note 4 - The average RF values for endosulfan I and endosulfan II were less than 0.05 in the initial and continuing calibration standards. The quantitation limits for these compounds were qualified "R" (unreliable) in the data summary. (See Table I and Forms VI and VII of Appendix F).

ORIGINAL
(Red)

Appendix F

Support Documentation

WESTON

Table I

Compounds Exceeding Calibration Precision Criteria for the Sample Set 28-36 Analyses

Volatile Organics*	Note
chloroethane	I
methylene chloride	I
acetone	I/C
2-butanone	I
dibromochloromethane	C
2-chloroethylvinylether	C
bromoform	C
2-hexanone	C
4-methyl-2-pentanone	C
1,1,2,2-tetrachloroethane	C
Extractable Organics	
4-chlorophenyl-phenylether	C
3,3'-dichlorobenzidine	C
Endosulfan I	R
Endosulfan II	R

C = %D exceeded 25% in a continuing calibration. Quantitation limits qualified "UJ" for estimated.

I = %RSD exceeded 30% in an initial calibration. Quantitation limits qualified "UJ" for estimated.

R = Average response factor ($\overline{RF}$) less than 0.05 in the initial and continuing calibrations. Quantitation limits qualified "R".

* = The qualitative qualifier "B" for blank contamination and the qualifier "UL" for probable low bias each supercede the qualifiers issued in this table. (See narrative for specific details).

ORIGINAL (Red) Page 2 of 18

Initial Calibration Data
HSL Compounds

e No: 3155I /SET29 Instrument ID: HP B2

ractor: S-CUBED Calibration Date: ~~05/19/88~~ 5-18-88

ract No: 6801-7261

Minimum $\overline{RF}$ for SPCC is 0.300 Maximum % RSD for CCC is 30%

Compound	RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC	
romethane	2.49053	1.79367	1.73351	1.56116	1.52976	1.82173	21.419		**	
omethane	2.12389	1.49311	1.34449	1.12025	1.13293	1.44294	28.493			
l Chloride	1.28424	.90115	.87668	.77670	.75456	.91867	23.270	*		
roethane	1.36336	.91729	.82961	.64649	.65482	.88231	33.178			
ylene Chloride	3.29220	1.99968	1.88256	1.65652	1.62539	2.09127	32.958			
one	.90761	.82166	.41491	.39155	.43612	.59437	41.906			
on Disulfide	4.54562	2.82385	3.20255	3.02185	2.90014	3.29880	21.569			
Dichloroethene	2.23004	1.34457	1.47125	1.34524	1.29169	1.53656	25.593	*		
Dichloroethane	4.15562	2.65232	2.66081	2.45295	2.59186	2.90271	24.299		**	
s-1,2-Dichloroethene	2.34009	1.52131	1.59473	1.44122	1.40379	1.66023	23.319			
roform	5.26354	3.47762	3.37658	3.18031	3.27234	3.71408	23.513	*		
Dichloroethane-d4	1.68724	1.76291	1.74414	1.64720	2.02335	1.77297	8.308			(Conc=50.0,50.0,50.0,50.0,50.0)
Dichloroethane	3.15690	2.22616	2.05316	1.87783	2.04353	2.27152	22.454			
tanone	.30015	.19882	.13429	.14725	.18205	.19251	34.037			
l-Trichloroethane	4.32879	2.59802	2.75953	2.48423	2.38165	2.91044	27.666			
on Tetrachloride	4.54562	2.64235	2.80972	2.47835	2.42254	2.97971	29.813			
l Acetate	.39810	.30657	.27280	.27986	.31882	.31523	15.866			
odichloromethane	5.00726	3.45457	3.25533	3.05960	3.18564	3.59248	22.372			
Dichloropropane	.71524	.48753	.47834	.47631	.51251	.53399	19.166	*		
s-1,3-Dichloropropene	.83364	.53627	.55778	.53712	.59821	.61260	20.583			(Conc=11.6,29.0,58.0,87.0,116.0)
hloroethene	.89791	.55862	.56873	.56915	.56609	.63210	23.517			
omochloromethane	1.03777	.69487	.71865	.76750	.85296	.81435	17.041			
2-Trichloroethane	.64286	.45100	.45804	.47650	.54469	.51462	15.682			
ene	1.53597	.99916	1.00459	.99997	1.04199	1.11633	21.074			
l,3-Dichloropropene	.97896	.66363	.64064	.62817	.63032	.70834	21.449			(Conc=28.0,70.0,140.0,210.0,280.0
loroethylvinylether	.32351	.22356	.22883	.24399	.28296	.26057	16.186			
sform	.75164	.54690	.53976	.59929	.69511	.62654	14.923		**	
tanone	.51824	.33402	.31659	.36141	.47928	.40191	22.616			
thyl-2-Pentanone	.06886	.04471	.04922	.06017	.07358	.05931	20.833			
ichloroethene	.85691	.51147	.55957	.58411	.56664	.61574	22.327			
l,2-Tetrachloroethane	1.32962	.89835	.89285	.95967	1.16738	1.04958	18.315		**	
ene	1.13840	.72069	.72789	.72993	.73396	.81017	22.655	*		

- Response Factor (Subscript is amount in ug/L)

- Average Response Factor

- Percent Relative Standard Deviation

- Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

AR301998

Initial Calibration Data
NSL Compounds

Case 3155I/SET29 Instrument ID: HP #2

ORIGINAL (Red)

Contractor: S-CUBED Calibration Date: ~~05/19/88~~ 5-19-88 KW

Contract No: 6801-7261

Minimum $\overline{RF}$ for SPCC is 0.300 Maximum % RSD for CCC is 30%

Laboratory ID:	>CB301	>DLS01	>CB303	>CB304	>CB305					
Compound	RF 20.00	RF 50.00	RF 100.00	RF 150.00	RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC	
Toluene d-8	1.12125	1.12427	1.07722	1.05973	1.18386	1.11326	4.339			(Conc=50.0,50.0,50.0,50.0,50.0)
Chlorobenzene	1.71370	1.12088	1.04025	.99185	1.07212	1.18776	25.067		**	
Ethylbenzene	.76528	.46861	.47226	.48340	.50602	.53912	23.607	*		
Styrene	1.26227	.88856	.84931	.86835	.92799	.95930	17.916			
o-XYLENE	.87410	.59299	.55635	.56320	.58629	.63459	21.236			
m-/p-Xylenes	.81954	.58047	.53883	.55349	.56634	.61173	19.156			(Conc=40.0,100.0,200.0,300.0,400.
Bromofluorobenzene	.85500	.90165	.81433	.84913	.99696	.88341	8.000			(Conc=50.0,50.0,50.0,50.0,50.0)

F - Response Factor (Subscript is amount in ug/L)

$\overline{F}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

CC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

INITIAL CALIBRATION DATA
Semivolatile HSL Compounds
(Page 1)

ORIGINAL (Red)

1/3 Page 4 of 18

No. : 3155I SET28
ractor : SCUBED
ract No: 68-01-7261

Instrument ID : VG3
Calibration Date: 5-9-88

mum $\overline{RF}$ for SPCC is 0.050

Maximum %RSD for CCC is 30%

ratory ID

ound	RF20	RF50	RF080	RF120	RF160	$\overline{RF}$	CCC * SPCC** %RSD
ol	2.544	2.688	2.757	2.751	2.754	2.699	3.38 *
ine	2.761	2.988	2.971	2.902	3.051	2.935	3.77
-2-Chloroethyl)Ether	1.956	2.045	2.064	2.010	2.077	2.030	2.40
lorophenol	1.673	1.770	1.753	1.704	1.744	1.729	2.28
Dichlorobenzene	1.666	1.674	1.644	1.595	1.577	1.631	2.65
Dichlorobenzene	1.747	1.744	1.702	1.621	1.620	1.687	3.74 *
yl Alcohol	1.123	1.293	1.308	1.282	1.350	1.271	6.83
Dichlorobenzene	1.686	1.727	1.699	1.615	1.608	1.667	3.17
thylphenol	1.903	1.963	1.987	1.886	1.982	1.944	2.40
2-Chloroisopropyl)Ether	2.414	2.401	2.892	2.796	2.850	2.671	9.08
thylphenol	2.037	2.117	2.138	2.073	2.170	2.107	2.50
troso-Di-Propylamine	1.490	1.484	1.564	1.485	1.520	1.509	2.27 **
chloroethane	0.710	0.735	0.730	0.704	0.719	0.720	1.81
obenzene	0.586	0.598	0.592	0.581	0.597	0.591	1.23
horone	0.920	0.953	0.978	0.955	1.003	0.962	3.22
trophenol	0.208	0.224	0.233	0.239	0.230	0.227	5.21 *
Dimethylphenol	0.363	0.379	0.378	0.377	0.381	0.376	1.92
oic Acid	+	0.300	0.319	0.320	0.352	0.323	6.68
2-Chloroethoxy)Methane	0.662	0.671	0.680	0.662	0.659	0.667	1.30
Dichlorophenol	0.332	0.344	0.349	0.340	0.341	0.341	1.82 *
4-Trichlorobenzene	0.388	0.399	0.397	0.388	0.388	0.392	1.41
thalene	1.262	1.247	1.254	1.123	1.105	1.198	6.45
loroaniline	0.486	0.512	0.529	0.524	0.536	0.517	3.79
chlorobutadiene	0.184	0.189	0.189	0.187	0.189	0.188	1.17 *
loro-3-Methylphenol	0.470	0.493	0.503	0.485	0.493	0.489	2.52 *
thylnaphthalene	0.702	0.694	0.711	0.671	0.665	0.689	2.88
chlorocyclopentadiene	0.178	0.203	0.210	0.218	0.220	0.206	8.23 **
6-Trichlorophenol	0.428	0.445	0.457	0.467	0.503	0.460	6.11 *
5-Trichlorophenol	+	0.485	0.467	0.475	0.471	0.475	1.63
loronaphthalene	1.232	1.243	1.226	1.224	1.218	1.229	0.77
troaniline	+	0.439	0.439	0.447	0.481	0.452	4.43
thyl Phthalate	1.587	1.523	1.543	1.558	1.606	1.563	2.13
aphthylene	2.079	2.058	1.964	1.864	1.896	1.972	4.83
troaniline	+	0.356	0.371	0.381	0.406	0.379	5.55
apthene	1.443	1.426	1.389	1.351	1.424	1.407	2.61 *
Dinitrophenol	+	0.200	0.221	0.227	0.226	0.219	5.77 **
trophenol	+	0.159	0.170	0.164	0.180	0.168	5.37 **
nzofuran	1.905	1.921	1.907	1.806	1.818	1.871	2.92
Dinitrotoluene	0.200	0.192	0.192	0.180	0.193	0.191	3.76

Response Factor (subscript is the amount of nanograms)
Average Response Factor
Percent Relative Standard Deviation
Calibration Check Compounds(*)

SPCC System Performance Check Compounds(**)
\+ not detectable at 20ng

AR302000

ORIGINAL (Red)

2/3

page 5 of 18

INITIAL CALIBRATION DATA
Semivolatile HSL Compounds
(Page 2)

Case No.: 31551 SET 21 — Instrument ID: VG3
Contractor: SCUBED — Calibration Date: 5-9-88
Contract No: 68-01-7261

Minimum $\overline{RF}$ for SPCC is 0.050 — Maximum %RSD for CCC is 30%

Laboratory ID

Compound	RF20	RF50	RF080	RF120	RF160	$\overline{RF}$	CCC * SPCC** %RSD	
2,4-Dinitrotoluene	0.516	0.533	0.527	0.544	0.560	0.536	3.14	
Diethylphthalate	1.640	1.575	1.795	1.679	1.735	1.685	5.03	
4-Chlorophenyl-phenylether	0.692	0.672	0.502	0.499	0.532	0.579	16.36	
Fluorene	1.665	1.560	1.561	1.529	1.652	1.593	3.83	
4-Nitroaniline	+	0.268	0.361	0.350	0.340	0.330	12.75	
2-CHLOROBIPHENYL	1.205	1.224	1.225	1.193	1.253	1.220	1.87	
4,6-Dinitro-2-Methylphenol	0.155	0.135	0.144	0.143	0.145	0.142	3.23	
N-Nitrosodiphenylamine	0.705	0.662	0.755	0.671	0.623	0.683	7.26	
4-Bromophenyl-phenylether	+	0.178	0.194	0.198	0.204	0.190	6.53	
Hexachlorobenzene (1)	0.238	0.236	0.250	0.251	0.262	0.247	4.29	*
Pentachlorophenol	0.128	0.140	0.156	0.158	0.163	0.154	6.45	
Phenanthrene	1.330	1.371	1.465	1.463	1.383	1.402	4.25	
Anthracene	+	1.217	1.273	1.201	1.146	1.199	4.23	*
Di-n-Butylphthalate	1.726	1.671	1.719	1.519	1.393	1.606	9.04	
Fluoranthene	1.083	1.106	1.180	1.151	1.153	1.135	3.46	
A-BHC	0.154	0.154	0.162	0.161	0.166	0.159	3.31	
B-BHC	0.129	0.126	0.134	0.170	0.185	0.149	18.06	*
G-BHC	0.132	0.134	0.146	0.133	0.122	0.133	6.40	
D-BHC	0.100	0.109	0.122	0.119	0.125	0.115	8.97	
HEPTACHLOR	0.157	0.166	0.188	0.205	0.209	0.185	12.47	
ALDRIN	0.208	0.196	0.202	0.198	0.202	0.201	2.29	
HEPTACHLOR EPOXIDE	0.119	0.119	0.128	0.128	0.132	0.125	4.70	
2,3-DICHLOROBIPHENYL	0.368	0.383	0.411	0.409	0.414	0.397	5.14	
2,4,5-TRICHLOROBIPHENYL	0.303	0.297	0.318	0.320	0.339	0.315	5.20	
2,2',4,6-TETRACHLOROBIPHENY	0.184	0.187	0.191	0.198	0.201	0.192	3.74	
Pyrene	1.426	1.415	1.376	1.376	1.364	1.391	1.96	
Butylbenzylphthalate	0.976	0.983	0.926	0.923	0.865	0.935	5.11	
3,3'-Dichlorobenzidine	0.337	0.386	0.397	0.402	0.492	0.403	13.93	
Benzo(a)anthracene	1.391	1.448	1.391	1.427	1.425	1.416	1.76	
Bis(2-ethylhexyl)phthalate	1.448	1.498	1.414	1.382	1.204	1.389	8.07	
Chrysene	1.253	1.286	1.232	1.202	1.094	1.213	6.05	
ENDOSULFAN I	0.027	0.028	0.028	0.028	0.028	0.028	1.61	
4,4'-DDE	0.310	0.311	0.299	0.294	0.291	0.301	3.04	
DIELDRIN	0.348	0.340	0.327	0.322	0.322	0.332	3.52	
ENDRIN	0.089	0.094	0.094	0.090	0.092	0.092	2.48	
ENDOSULFAN II	0.031	0.032	0.032	0.032	0.031	0.032	1.73	
4,4'-DDD	0.487	0.493	0.488	0.470	0.467	0.481	2.43	
ENDRIN ALDEHYDE	0.055	0.051	0.049	0.046	0.048	0.050	6.87	
4,4'-DDT	0.372	0.387	0.375	0.360	0.350	0.369	3.86	
ENDOSULFAN SULFATE	0.092	0.094	0.095	0.090	0.091	0.092	2.24	
ENDRIN KETONE	0.180	0.188	0.179	1.193	0.188	0.184	2.34	
METHOXYCHLOR	0.609	0.667	0.667	0.676	0.696	0.663	4.89	
ALPHA-CHLORDANE	0.122	0.127	0.136	0.133	0.140	0.132	5.44	
GAMMA-CHLORDANE	0.126	0.107	0.110	0.110	0.117	0.114	6.71	
PENTACHLOROBIPHENYL	0.174	0.179	0.174	0.167	0.173	0.173	2.47	
HEXACHLOROBIPHENYL	0.161	0.163	0.161	0.156	0.157	0.160	1.86	
HEPTACHLOROBIPHENYL	0.131	0.136	0.136	1.193	1.252	[illegible]	[illegible]	

AR302001

AR302001

l-Octyl Phthalate	2.058	2.045	1.798	1.535	1.235	1.734	20.27 *
o(b)fluoranthene	1.370	1.348	1.785	1.657	1.517	1.535	12.18
o(k)fluoranthene	1.294	1.313	0.942	1.040	0.996	1.117	15.56
o(a)pyrene	1.264	1.278	1.332	1.227	1.189	1.258	4.29 *
no(1,2,3-cd)pyrene	1.273	1.326	1.433	1.600	1.600	1.446	10.48
nz(a,h)anthracene	1.259	1.305	1.362	1.241	1.207	1.275	4.72
o(g,h,i)perylene	1.300	1.364	1.410	1.349	1.301	1.345	3.44
CHLOROBIPHENYL	0.116	0.118	0.116	0.105	0.099	0.111	7.54
CHLOROBIPHENYL	0.091	0.096	0.097	0.085	0.080	0.090	8.08

Response Factor (subscript is the amount of nanograms)
Average Response Factor
Percent Relative Standard Deviation
Calibration Check Compounds(*)

SPCC System Performance Check Compounds(**)

+ not detectable at 20ng, for benzidine not detectable at <80ng

(1) Cannot be separated from diphenylamine

ORIGINAL (Red)

Form VI

Continuing Calibration Check
HSL Compounds

ORIGINAL
(Red)

Ca 3155I/SET28 Calibration Date: 05/24/88

Contractor: S-CUBED Time: 08:19

Contract No: 6801-7261 Laboratory ID: >DC524

Instrument ID: HP #2 Initial Calibration Date: ~~05/20/88~~ 05-18-88

Minimum $\overline{RF}$ for SPCC is 0.300 Maximum % Diff for CCC is %

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
Chloromethane	1.82173	1.46264	19.71		**	
Bromomethane	1.44294	1.53528	6.40			
Vinyl Chloride	.91867	.97046	5.64	*		
Chloroethane	.88231	.95124	7.81			
Methylene Chloride	2.09127	1.79152	14.33			
Acetone	.59437	.43075	27.53			
Carbon Disulfide	3.29880	3.52954	6.99			
1,1-Dichloroethene	1.53656	1.57352	2.41	*		
1,1-Dichloroethane	2.90271	2.87672	.90		**	
Trans-1,2-Dichloroethene	1.66023	1.73084	4.25			
Chloroform	3.71408	3.74591	.86	*		
1,2-Dichloroethane-d4	1.77297	1.59517	10.03			
1,2-Dichloroethane	2.27152	2.00746	11.62			
2-Butanone	.19251	.18168	5.62			
1,1,1-Trichloroethane	2.91044	2.85583	1.88			
Carbon Tetrachloride	2.97971	2.84303	4.59			
Vinyl Acetate	.31523	.26497	15.94			
Bromodichloromethane	3.59248	3.62950	1.03			
1,2-Dichloropropane	.53399	.45067	15.60	*		
Trans-1,3-Dichloropropene	.61260	.55472	9.45			(Conc=29.00)
Trichloroethene	.63210	.53715	15.02			
Dibromochloromethane	.81435	.59926	26.41			
1,1,2-Trichloroethane	.51462	.41158	20.02			
Benzene	1.11633	.99374	10.98			
cis-1,3-Dichloropropene	.70834	.64332	9.18			(Conc=70.00)
2-Chloroethylvinylether	.26057	.18731	28.12			
Bromoform	.62654	.45342	27.63		**	
2-Hexanone	.40191	.28228	29.77			
4-Methyl-2-Pentanone	.05931	.02759	53.48			
Tetrachloroethene	.61574	.50307	18.30			
1,1,2,2-Tetrachloroethane	1.04958	.75002	28.54		**	
Toluene	.81017	.72022	11.10	*		

RF - Response Factor from daily standard file at 50.00 ug/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

ORIGINAL
(Red)

page 8 of 18

Continuing Calibration Check
HSL Compounds

No: 3155I/SET28 Calibration Date: 05/24/88

actor: S-CUBED Time: 08:19

act No: 6801-7261 Laboratory ID: >DC524

ument ID: HP #2 Initial Calibration Date: ~~05/20/88~~ 05-17-88

Minimum $\overline{RF}$ for SPCC is 0.300 Maximum % Diff for CCC is %

Compound	$\overline{RF}$	RF	%Diff	CCC	SPCC	
ne d-8	1.11326	1.00422	9.80			
obenzene	1.18776	1.05041	11.56		**	
benzene	.53912	.47428	12.03	*		
ne	.95930	.86865	9.45			
ENE	.63459	.57278	9.74			
Xylenes	.61173	.54806	10.41			(Conc=100.00)
fluorobenzene	.88341	.85590	3.11			

- Response Factor from daily standard file at 50.00 ug/L

- Average Response Factor from Initial Calibration Form VI

- % Difference from original average or curve

- Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

AR302004

CONTINUING CALIBRATION CHECK
Semivolatile HSL Compounds
(Page 1)

ORIGINAL (Red) page 9 of 18

:ase No : 31551 SET28 Calibration Date : ~~5-18-88~~ 5-19-88
:ont ctor : SCUBED Time : 11:12
:on ct No : 68-01-7261 Laboratory ID : M19011
:nstrument ID: VG3 Initial Calibration Date: 5-9-88

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum %D for CCC is 25%

Compound		$\overline{RF}$	RF50	%D	CCC	SPCC
henol		2.699	2.885	-6.9	*	
niline		2.935	3.031	-3.3		
is(-2-Chloroethyl)Ether		2.030	2.193	-8.0		
-Chlorophenol		1.729	1.802	-4.2		
,3-Dichlorobenzene		1.631	1.679	-2.9		
,4-Dichlorobenzene		1.687	1.738	-3.0	*	
enzyl Alcohol		1.271	1.391	-9.4		
,2-Dichlorobenzene		1.667	1.701	-2.0		
-Methylphenol		1.944	2.099	-8.0		
is(2-Chloroisopropyl)Ether		2.671	2.444	8.5		
-Methylphenol		2.107	2.309	-9.6		
-Nitroso-Di-Propylamine		1.509	1.698	-12.0		**
exachloroethane		0.720	0.762	-5.8		
itrobenzene		0.591	0.536	9.3		
sophorone		0.962	1.035	-7.6		
-Nitrophenol		0.227	0.204	10.1	*	
,4-Dimethylphenol		0.376	0.368	2.1		
enz c Acid	+	0.323	0.312	3.4		
is Chloroethoxy)Methane		0.667	0.711	-6.6		
,4-Dichlorophenol		0.341	0.334	2.1	*	
,2,4-Trichlorobenzene		0.392	0.390	0.5		
aphthalene		1.198	1.262	-5.3		
-Chloroaniline		0.517	0.530	-2.5		
exachlorobutadiene		0.188	0.195	-3.7	*	
-Chloro-3-Methylphenol		0.489	0.516	-5.5	*	
-Methylnaphthalene		0.689	0.687	0.3		
exachlorocyclopentadiene		0.206	0.185	10.2		**
,4,6-Trichlorophenol		0.460	0.456	0.9	*	
,4,5-Trichlorophenol	+	0.475	0.487	-2.5		
-Chloronaphthalene		1.229	1.252	-1.9		
-Nitroaniline	+	0.452	0.487	-7.7		
imethyl Phthalate		1.563	1.574	-0.7		
cenaphthylene		1.972	2.038	-3.3		
-Nitroaniline	+	0.379	0.384	-1.3		
cenapthene		1.407	1.408	-0.1	*	
,4-Dinitrophenol	+	0.219	0.170	22.4		**
-Nitrophenol	+	0.168	0.170	-1.2		**
ibenzofuran		1.871	1.930	-3.2		
,6-Dinitrotoluene		0.191	0.218	-14.0		

F50 Response Factor from daily standard
le at concentration indicated
= verage Response Factor from initial calibration Form VI

%D Percent Difference
CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)

AR302005

Semivolatile HSL Compounds
(Page 2)

page 10 of 18

Case No : 3155I
Contractor : SCUBED
Contract No : 68-01-7261
Instrument ID: V03

ORIGINAL (Red)

Calibration Date : ~~5-19-88~~ 5-19-8
Time : 11:12
Laboratory ID : M19011
Initial Calibration Date: 5-9-88

Minimum $\overline{RF}$ for SPCC is 0.050 Maximum %D for CCC is 25%

Compound	$\overline{RF}$	RF50	%D	CCC	SPCC
2,4-Dinitrotoluene	0.536	0.538	-0.4		
Diethylphthalate	1.685	1.570	6.8		
4-Chlorophenyl-phenylether	0.579	0.741	-28.0		
Fluorene	1.593	1.625	-2.0		
4-Nitroaniline +	0.330	0.318	3.6		
2-CHLOROBIPHENYL	1.220	1.344	-10.0		
4,6-Dinitro-2-Methylphenol	0.142	0.118	16.9		
N-Nitrosodiphenylamine	0.683	0.575	15.8		
4-Bromophenyl-phenylether	0.190	0.176	7.4		
Hexachlorobenzene (1)	0.247	0.194	21.5	*	
Pentachlorophenol	0.154	0.125	18.8		
Phenanthrene	1.402	1.242	11.4		
Anthracene +	1.199	1.190	0.8	*	
Di-n-Butylphthalate	1.606	1.410	12.2		
Fluoranthene	1.139	0.963	15.2		
A-BHC	0.159	0.151	5.0		
B-BHC	0.149	0.119	20.1	*	
G-BHC	0.133	0.133	0.0		
D-BHC	0.115	0.117	-1.7		
HEPTACHLOR	0.185	0.170	8.1		
ALDRIN	0.201	0.174	13.4		
HEPTACHLOR EPOXIDE	0.125	0.094	24.8		
2,3-DICHLOROBIPHENYL	0.397	0.407	-2.5		
2,4,5-TRICHLOROBIPHENYL	0.315	0.284	9.8		
2,2',4,6-TETRACHLOROBIPHENY	0.192	0.165	14.1		
Pyrene	1.391	1.366	1.8		
Butylbenzylphthalate	0.935	0.976	-4.4		
3,3'-Dichlorobenzidine	0.403	0.529	-31.0		
Benzo(a)anthracene	1.416	1.366	3.5		
bis(2-ethylhexyl)phthalate	1.389	1.470	-5.8		
Chrysene	1.213	1.268	-4.5		
ENDOSULFAN I	0.028	0.027	3.6		
4,4'-DDE	0.301	0.299	0.7		
DIELDRIN	0.332	0.330	0.6		
ENDRIN	0.092	0.087	5.4		
ENDOSULFAN II	0.032	0.031	3.1		
4,4'-DDD	0.481	0.484	-0.6		
ENDRIN ALDEHYDE	0.050	0.058	-16.0		
4,4'-DDT	0.369	0.362	1.9		
ENDOSULFAN SULFATE	0.092	0.093	-1.1		
ENDRIN KETONE	0.184	0.191	-3.8		
METHOXYCHLOR	0.643	0.000	0.0		
ALPHA-CHLORDANE	0.132	0.125	5.3		
GAMMA-CHLORDANE	0.114	0.104	8.8		
PENTACHLOROBIPHENYL	0.173	0.178	-2.9		
HEXACHLOROBIPHENYL	0.160	0.158	1.2		
HEPTACHLOROBIPHENYL	0.133	0.128	3.8		
Di-N-Octyl Phthalate	1.734	1.963	-13.0	*	
Benzo(b)fluoranthene	1.535	1.550	-1.0		
Benzo(k)fluoranthene	1.117	1.270	-13.0		
Benzo(a)pyrene	1.258	1.320	-4.9	*	
Indeno(1,2,3-cd)pyrene	1.446	1.358	6.1		
Dibenz(a,h)anthracene	1.275	1.265	0.8		
Benzo(g,h,i)perylene	1.345	1.380	-2.6		
OCTACHLOROBIPHENYL	0.111	0.113	-1.8		
DECACHLOROBIPHENYL	0.090	0.086	4.4		

RF50 Response Factor from daily standard file at concentration indicated (50 total nanograms)
$\overline{RF}$ Average Response Factor from initial calibration Form VI
%D Percent Difference
\+ Due to low response, analyze at 80 total nanograms

CCC Calibration Check Compounds(*)
SPCC System Performance Check Compounds(**)
(1) Cannot be separated from diphenylamine

AR302006

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Sample Number:
METHOD BLANK 1

Laboratory Name: S-CUBED
Lab Sample ID No: BM028 (VOA); M19021 (BNA)
Sample Matrix: SOIL
Data Release Authorized By: N

Case No: 31551 / SET 28
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: N/A

ORIGINAL (Red)

VOLATILE COMPOUNDS

Concentration: Medium or High (Circle One)
Date Extracted/Prepared: 05-16-88
Date Analyzed: 05-24-88
Conc/Dil Factor: 1.0 pH: N.R
Percent Moisture (Not Decanted): N.R (*)

CAS Number		ug/l or ug/kg (Circle One)	CAS Number		ug/l or ug/kg (Circle One)
74-87-3	CHLOROMETHANE	5 U	78-87-5	1,2-DICHLOROPROPANE	2.5 U
74-83-9	BROMOMETHANE	5 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2.5 U
75-01-4	VINYL CHLORIDE	5 U	79-01-6	TRICHLOROETHENE	2.5 U
75-00-3	CHLOROETHANE	5 U	124-48-1	DIBROMOCHLOROMETHANE	2.5 U
75-09-2	METHYLENE CHLORIDE	2.5 U	79-00-5	1,1,2-TRICHLOROETHANE	2.5 U
67-64-1	ACETONE	14	71-43-2	BENZENE	2.5 U
75-15-0	CARBON DISULFIDE	2.5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2.5 U
75-[illegible]	1,1-DICHLOROETHENE	2.5 U	110-75-8	2-CHLOROETHYLVINYLETHER	5 U
75-[illegible]-3	1,1-DICHLOROETHANE	2.5 U	75-25-2	BROMOFORM	2.5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2.5 U	591-78-6	2-HEXANONE	5 U
67-66-3	CHLOROFORM	2.5 U	108-10-1	4-METHYL-2-PENTANONE	5 U
107-06-2	1,2-DICHLOROETHANE	2.5 U	127-18-4	TETRACHLOROETHENE	2.5 U
78-93-3	2-BUTANONE	27	79-34-5	1,1,2,2-TETRACHLOROETHANE	2.5 U
71-55-6	1,1,1-TRICHLOROETHANE	2.5 U	108-88-3	TOLUENE	2.5 U
56-23-5	CARBON TETRACHLORIDE	2.5 U	108-90-7	CHLOROBENZENE	2.5 U
108-05-4	VINYL ACETATE	5 U	100-41-4	ETHYLBENZENE	2.5 U
75-27-4	BROMODICHLOROMETHANE	2.5 U	100-42-5	STYRENE	2.5 U
				TOTAL XYLENES	2.5 U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifier are used. Additional flags or footnotes explaning results are encouraged. However, the definition of each flag must be explicit.

Value: If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (eg. 10U) based on necessary concentration/dilution action. (this is not necessarily the instrument detection limit.) The footnotes should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

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 indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (eg 10J). If limit of detection is 10 ug/L and a concentration of 3ug/L is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides > or = 10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when analyte is found in the blank as well as sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

S Matrix spiked compound.

(*) No Percent Moisture.

ORIGINAL
(Red)

page 12 of 18

boratory Name: S-CUBED
se No: 31551 / SET 28

Sample Number
METHOD BLANK
M19021

ORGANIC ANALYSIS DATA SHEET
(Page 2)

Semivolatile Compounds

ncentration: High Medium (Circle One)
te Extracted/Prepared: 05-16-88
te Analyzed: 05-19-88
nc/Dil Factor: 1.0
rcent Moisture (decanted): N.R

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

S aber		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
8-95-2	PHENOL	20 U	83-32-9	ACENAPHTHENE	20 U
1-44-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	96 U
-57-8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	96 U
1-73-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	20 U
6-46-7	1,4-DICHLOROBENZENE	20 U	121-14-2	2,4-DINITROTOLUENE	20 U
0-51-6	BENZYL ALCOHOL	20 U	606-20-2	2,6-DINITROTOLUENE	20 U
-50-1	1,2-DICHLOROBENZENE	20 U	84-66-2	DIETHYLPHTHALATE	20 U
-48-7	2-METHYLPHENOL	20 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	20 U
638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	20 U
6-44-5	4-METHYLPHENOL	20 U	100-01-6	4-NITROANILINE	96 U
1-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	96 U
-72-1	HEXACHLOROETHANE	20 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	20 U
-95-3	NITROBENZENE	20 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	20 U
-59-1	ISOPHRONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
-75-5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	96 U
5-67-9	2,4-DIMETHYLPHENOL	20 U	85-01-8	PHENANTHRENE	20 U
-85-0	BENZOIC ACID	96 U	120-12-7	ANTHRACENE	20 U
1-91-1	BIS(2-CHLOROETHOXY)METHANE	20 U	84-74-2	DI-N-BUTYLPHTHALATE	20 U
0-83-2	2,4-DICHLOROPHENOL	20 U	206-44-0	FLUORANTHENE	20 U
0-82-1	1,2,4-TRICHLOROBENZENE	20 U	129-00-0	PYRENE	20 U
-20-3	NAPHTHALENE	20 U	85-68-7	BUTYLBENZYLPHTHALATE	20 U
6-47-8	4-CHLOROANILINE	20 U	91-94-1	3,3'-DICHLOROBENZIDINE	40 U
-68-3	HEXACHLOROBUTADIENE	20 U	56-55-3	BENZO(a)ANTHRACENE	20 U
-50-7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	20 U
-57-6	2-METHYLNAPHTHALENE	20 U	218-01-9	CHRYSENE	20 U
-47-4	HEXACHLOROCYCLOPENTADIENE	20 U	117-84-0	DI-N-OCTYL PHTHALATE	20 U
-06-2	2,4,6-TRICHLOROPHENOL	20 U	205-99-2	BENZO(b)FLUORANTHENE	20 U
-95-4	2,4,5-TRICHLOROPHENOL	96 U	207-08-9	BENZO(k)FLUORANTHENE	20 U
-58-7	2-CHLORONAPHTHALENE	20 U	50-32-8	BENZO(a)PYRENE	20 U
-74-4	2-NITROANILINE	96 U	193-39-5	INDENO(1,2,3-CD)PYRENE	20 U
1-11-3	DIMETHYL PHTHALATE	20 U	53-70-3	DIBENZ(a,h)ANTHRACENE	20 U
8-96-8	ACENAPHTHYLENE	20 U	191-24-2	BENZO(g,h,i)PERYLENE	20 U
-09-2	3-NITROANILINE	96 U			

(1)-Cannot be seperated from diphenylamine.

AR302008

ORIGINAL
(Red)

Sample Number
METHOD BLANK
M19021

Laboratory Name: S-CUBED
Case No: 31551 / SET 28

ORGANIC ANALYSIS DATA SHEET
(Page 3)

Pesticide / PCBs

Concentration: High Medium (Circle One)
Date Extracted/Prepared: 05-16-88
Date Analyzed: 05-19-88
Conc/Dil Factor: 1.0
Percent Moisture (decanted): N.A

GPC Clean up X Yes __No
Separatory Funnel Extraction __Yes
Continuous Liquid - Liquid Extraction_____Yes

CAS Number		ug/L or ug/Kg. (Circle one)
319-84-6	ALPHA - BHC	20 U
319-85-7	BETA - BHC	20 U
319-86-8	DELTA - BHC	20 U
58-89-9	GAMMA - BHC (LINDANE)	20 U
76-44-8	HEPTACHLOR	20 U
309-00-2	ALDRIN	20 U
1024-57-3	HEPTACHLOR EPOXIDE	20 U
959-98-8	ENDOSULFAN I	20 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	20 U
53494-70-5	ENDRIN KETONE	20 U
57-74-9	CHLORDANE	200 U
8001-35-2	TOXAPHENE	200 U
12674-11-2	AROCHLOR - 1016	200 U
11104-28-2	AROCHLOR - 1221	200 U
11141-16-5	AROCHLOR - 1232	200 U
53469-21-9	AROCHLOR - 1242	200 U
12672-29-6	AROCHLOR - 1248	200 U
11097-69-1	AROCHLOR - 1254	200 U
11096-82-5	AROCHLOR - 1260	200 U

ORIGINAL
(Red)

Page 14 of 18

PCB Congener Analysis Data Sheet

Sample Number
Method blank

Laboratory Name S-CUBED SAS 31551 ; SET 28

Lab Sample ID No. M19021

Sample Matrix Soil Contract No. 68-01-7261

Concentration: High

Date Extracted/Prepared

Date Analyzed 5-19-88

Conc/Dil Factor 1

	mg/kg
Monochlorobiphenyls	100U
Dichlorobiphenyls	100U
Trichlorobiphenyls	100U
Tetrachlorobiphenyls	100U
Pentachlorobiphenyls	100U
Hexachlorobiphenyls	100U
Heptachlorobiphenyls	100U
Octachlorobiphenyls	100U
Nonachlorobiphenyls	100U
Decachlorobiphenyls	100U

Data Reporting Qualifiers

For reporting results to EPA the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit report the value.

U Indicates compound was analyzed for but not detected. Reporting the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U. Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds are detected at less than method detection limit.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take appropriate action.

Laboratory Name S-CUBED

Case No 3155 I / SET 28

page 15 of 18

Sample Number METHOD BLANK

M19021 (BNA)

BM028 (VOA)

ORIGINAL (Red)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (mg/L or mg/kg)
1.	NO TIC'S FOUND	BNA		
2.	NO TIC'S FOUND	VOA		
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

ORIGINAL
(Red)

page 16 of 18

S-CUBED

A Division of Maxwell Laboratories, Inc.

May 25, 1988

Volume 1 of 1

NARRATIVE SAS 3155I Set 28 Report IV
S-CUBED CONTRACT NO. 68-01-7261

This report consists of data from the analysis of sample 36. This was not analyzed with the rest of the samples because of duplicate sample numbers. The first sample #36 was received as a low water. S-CUBED was instructed not to analyze this sample. Subsequently, a further shipment was received with another sample labeled #36. Upon regional review of previously submitted data packages it was determined that analysis was required for this second sample. This was carried out as soon as this notification was received. No problems were encountered with the analyses.

JoAnn Wilkinson
JoAnn Wilkinson
Project Manager

[MAY 1988]
RECEIVED

P.O. Box 1620, La Jolla, California 92038-1620
3398 Carmel Mountain Road, San Diego, California 92121-1095
Telephone: (619) 453-0060 TWX: 910-337-1253 Telecopier: (619) 755-0474

ORIGINAL
(Red)

page 17 of 18

S-CUBED

A Division of Maxwell Laboratories, Inc.

April 20, 1988

Volume 1 of 4

NARRATIVE SAS 31551, SET 28, REPORT 1
S-CUBED CONTRACT NO. 68-01-7261

This report presents data from the analysis of 34 high concentration samples, two of which were for volatile components only. S-CUBED also received two waters (Samples 10 and 36) which were not analyzed since these were sampled as low level samples and thus were not appropriate to this SAS. Table 1 presents a summary of how the analyses were carried out. Samples for which BNA/pesticide extracts screened to be low level are being reanalyzed with low level techniques thus this data is not included in this report. Report II is being prepared and will present high concentration data from the second ground of samples received. Report III will present the data from the low level analyses.

As indicated in Table 1 numerous dilutions were necessary. These dilutions affected surrogate recoveries in some volatile and semivolatile analyses. Samples contained variable amounts of both target compounds and TICs. Aroclor analysis as such was not carried out as this SAS required PCB congener information. Small amounts of trichlorobiphenyl were found in several samples. Numerous false positives for PCB congeners were rejected, many due to the presence of numerous other chlorinated compounds in the samples.

Please note that aniline was found in some samples. If it was detected as a level of greater than 10 percent of the internal standard area it was reported as a TIC with an actual quantitation based on the daily calibration response factor.

APR 1988
RECEIVED

JoAnn Wilkinson
JoAnn Wilkinson
Project Manager

COPY

AR302013

P.O. Box 1620, La Jolla, California 92038-1620 3398 Carmel Mountain Road, San Diego, California 92121-1095
Tel: (619) 453-0060 TWX: 910-337-1253 Telecopier: (619) 755-0474

ORIGINAL
(Red)

page 18 of 18

In Reference to Case No(s):
SAS 3155I
Set 28

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

Date of Call: 3/7/88 ; 3/8/88

Laboratory Name: S-Cubed

Lab Contact: JoAnn Wilkinson

~~Region:~~ SMO

~~Regional Contact:~~ Mike Whittington

MAR 1988 RECEIVED

Call Initiated By: X Laboratory ___ Region

In reference to data for the following sample number(s):
-10, -36

Summary of Questions/Issues Discussed:
These were marked as low level waters. This SAS addresses high concentration samples only. CASE # and Traffic reports necessary to process these samples as low level

Summary of Resolution:
Region instructed NO analysis.
Samples will be returned since the probability of dioxin contamination exists.

VOA trip blanks will be analyzed as per SAS SOW

SAS traffic report will note this change.

J G Wilkinson
Signature

3/8/88
Date

AR302014