UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

Blue Island

TRANSMITTED BY
S Griffin
APR 1 9 1988
U.S. EPA CENTRAL
REGIONAL LAB

DATE: 1 9 APR 1988

SUBJECT: Review of Region 5 data for CLARK OIL - BLUE ISLAND

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory

To: Data User: KARL BREMER
RCRA

Attached are the results for:

CRL Data Set Numbers: RCRA 4684 SAS 3504E
Sample Numbers: 88JG01562-576 12 SAMPLES
Parameter(s): EP TOX METALS, TSS, SULFIDES, OIL & GREASE
Laboratory: CENTEC ANALYTICAL

Results Status

( ) DATA ACCEPTABLE FOR USE*
(X) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

See comments

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

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

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

RECEIVED BY/DATE: .....

Comments:

DATA SET	SITE	DU/ACT
RCRA 4684	CLARK OIL	D307 C27150

SAMPLES	PARAMETER(S)
88 JG01562-S76	EP TOX, OIL & GREASE SULFIDES

SAMPLED	RECEIVED - LOG-IN	DUE	LAB
12/2-4/87	12-18-87	1-5-88	CENTEC

SHIPPED	DATA RECEIVED	CONTRACT
12/2-4/87	2-1-88	

TEAM LEADER	SECTION CHIEF	QC COORD	DATA COORD
SG 4/19/88			Sg 2-1-88

Comments By Reviewer:

(1) According to SW-846, 2nd edition, method 1310 (EP Toxicity), in section 7.17, there is a note that if the EP extract includes two phases, concentration of contaminants is determined by using a simple weighted average by combining results of two phases. But SMO requested the laboratory to submit metals results for each layer separately.

(2) In generic SAS submitted it wasn't indicated that if there is an oily phase, then oil standards should have been used. By looking at the data, there is no indicatior that the laboratory used the oil standards.

(3) In Hg analysis samples were not analyzed using method of standard additions.

DATA MANAGEMENT COORDINATOR

RECEIVED	TRANSMITTED		CLERICAL SUPPORT RECEIVED	COMPLETED
(✓) REVIEWED	( ) UNREVIEWED	Ricky Rippl 4/19/88 TEAM LEADER/DATE		
( ) REVIEWED	( ) UNREVIEWED	SECTION CHIEF/DATE		
( ) REVIEWED	( ) UNREVIEWED	QC COORDINATOR/DATE		

REVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED	TRANSMITTED	DATA MANAGEMENT COORDINATOR
4-19-88	4-19-88	Sylvia Buffin

QC COORDINATOR

CAS
CENTEC ANALYTICAL SERVICES, INC.

P.O. Box 956
2160 INDUSTRIAL DRIVE
SALEM, VIRGINIA 24153
(703) 387-3995

January 29, 1988

Mr. Curtis Ross
U.S. Environmental Protection Agency
Region V, ESD
536 South Clark Street
Tenth Floor, CRL
Chicago, Illinois 60605

RE: Inorganic Analyses
Data Package
SAS 3504E

Dear Mr. Ross:

Enclosed please find the complete data package for the above referenced SAS.

Several of the samples were composed of two (2) layers following the Extraction Procedure (EP). At the request of SMO, we are submitting metals results for each layer on a different Form I.

Upon receipt of the enclosures, should you have any questions with respect to same, please feel free to contact the undersigned at the letterhead address.

Sincerely,

CENTEC ANALYTICAL SERVICES

Lewis Pillis, Laboratory Manager

LP/bd
Enclosures as Stated

cc: USEPA - SMO, w/Encls.
209 Madison Street, Suite 200
Alexandria, Virginia 22314

RECEIVED
FEB 01 1988
U.S. EPA CENTRAL
REGIONAL LAB

DATE RECD

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS

LOG IN DATE 12/18/87
DUE DATE 1/5/88

THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

RCRA 4684

CASE NUMBER 8624 + SAS # 3504-E SITE NAME CLARK OIL BLUE ISLAND LABORATORY S-CUBED (ORGANICS) ENTEC ANALYTICAL (SAS) DATE SHIPPED 12/2,3,4/87

PAGE 1 OF 1

SUPERFUND CU NUMBER D307 EPA RPM (S.M.S.)/(CES) LILY HERSKOVITZ

ACTIVITY NUMBER C27250

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER	INORGANIC TRAFFIC REPORT NUMBER SAS #	WATER OR LIQUIDS: ACID-BASE NEUTRAL CPDY ORGANIC SCAN UG/L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG/L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG/L PES 17144	WATER CHLORINATED PESTICIDES UG/L PES17134	TOTAL METALS IN WATER UG/L MET111	WATER CYNANIDE UG/L MIN74919	NITRATE/NITRITE MG/L MIN7284	AMMONIA MG/L MIN7294	RESIDUE, FILTERABLE TDS MG/L MIN7352	RESIDUE, NON-FILT TSS MG/L MIN7372	SULFIDES AND OIL AND GREASE	EP TOXICITY-METALS	SEDIMENTS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN MG/KG TOX215722	VOLATILE ORGANIC ANALYSIS SCAN MG/KG TOX215622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG/KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG/KG 211322	TOTAL METALS MG/KG MET413	CYANIDE MG/KG MIN44930	NITRATE/NITRITE MG/KG	AMMONIA MG/KG MIN42925	EP TOXICITY-METALS			
88JG01572	EP742	3504-E01	X	X	X	X						X	X	X												
88JG01560	EP734	3504-E02	X	X	X	X						X	X	X												
88JG01561	EP735	~~3504-E~~	X	X																		X				
88JG01562		3504-E03																				X				
88JG01563		3504-E04																								
88JG01569	EP739		X	X																						
88JG01564	EP736	3504-E01	X	X	X	X						X	X	X												
88JG01565	EP737	3504-E02	X	X	X	X						X	X	X												
88JG01566	EP738		X	X																		X				
88JG01567		3504-E03																				X				
88JG01568		3504-E04																								
88JG01570	EP740		X	X																						
88JG01573	EP734	3504-E01	X	X	X	X						X	X	X												
88JG01559	EP733	3504-E02	X	X	X	X						X	X	X												
88JG01574	EP743		X	X																		X				
88JG01575		3504-E03																				X				
88JG01576		3504-E04																								
88JG01571	EP741		X	X																						

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

CAS
CENTEC ANALYTICAL SERVICES, INC.

Date JAN 29 1988

COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

Lab Name CENTEC

Case No. SAS 3504E

SOW No. 785/SAS 3504E

Q.C. Report No. 243

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
3504E-01	69697	3504E-10	69732
3504E-02	69698	3504E-11	69733
3504E-03	69699	3504E-12	69734
3504E-04	69700	3504E-13	69735
3504E-05	69725		
3504E-06	69728		
3504E-08	69726		
3504E-09	69727		

Comments:

ICP interelement and background corrections applied? Yes ✓ No ____.

If yes, corrections applied before ✓ or after ____ generation of raw data.

Footnotes:

NR - Not required by contract at this time

Form I:

Value - If the result is a value greater than or equal to the instrument detecion limit but less than the contract-required detection limit, report the value in brackets (i.e., [10]). Indicate the analytical method used with P (for ICP), A (for Flame AA) or F (for Furnace AA).

U - Indicates element was analyzed for but not detected. Report with the instrument detection limit value (e.g., 10U).

E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.

S - Indicates value determined by Method of Standard Addition.

N - Indicates spike sample recovery is not within control limits.

* - Indicates duplicate analysis is not within control limits.

\+ - Indicates the correlation coefficient for method of standard addition is less than 0.995

M - Indicates duplicate injection results exceeded control limits.

Indicate method used: P for ICP; A for Flame AA and F for Furnace.

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I - A1

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3S04E-01

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3S04E

SOW NO. SAS 3S04E/785 LAB RECEIPT DATE 12/03/87

LAB SAMPLE ID NO. 69697 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water ✓ Soil Sludge

Other EP-EXTRACT Units MG/L

1. Arsenic	S [0.012]	F	7. Selenium	S [0.008]	F
2. Barium	[0.07]	P	8. Silver	0.01U	P
3. Cadmium	0.005U	P	9.		
4. Chromium	[0.04]	P	10.		
5. Lead	0.13U	P	11.		
6. Mercury	0.002U	CV	12.		

Footnotes: *For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: GRAY/CLOUDY

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I-A2

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-01

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504-E

SOW NO. re: SAS 3504-E LAB RECEIPT DATE 12-3-87

LAB SAMPLE ID NO. 69697 QC REPORT NO. 243

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

Elements Identified and Measured Units mg/l

1. Total Suspended Solids	159
2. Oil and Grease	249
3. Sulfide	1.0u

Footnotes: Standard result qualifiers are defined on Cover Page.

Comments: SAMPLE DESCRIPTION Cloudy, grey

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I - B1

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-02

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E/785 LAB RECEIPT DATE 12/03/87

LAB SAMPLE ID NO. 69698 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water ✓ Soil Sludge

Other EP-EXTRACT Units MG/L

1. Arsenic	S [0.16]	F	7. Selenium	S 0.003U	F
2. Barium	[0.24]	P	8. Silver	0.01U	P
3. Cadmium	0.005U	P	9.		
4. Chromium	[0.04]	P	10.		
5. Lead	0.13U	P	11.		
6. Mercury	0.002U	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/CLOUDY

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I-B2

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-02

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC.

CASE NO. SAS 3504-E

SOW NO. re: SAS 3504-E

LAB RECEIPT DATE 12-3-87

LAB SAMPLE ID NO. 69698

QC REPORT NO. 243

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

Elements Identified and Measured

Units mg/l

1. Total Suspended Solids	3200
2. Oil and Grease	7500
3. Sulfide	9.6

Footnotes: Standard result qualifiers are defined on Cover Page.

Comments: SAMPLE DESCRIPTION Cloudy, black.

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I-C1

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-03

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E/785 LAB RECEIPT DATE 12/03/87

LAB SAMPLE ID NO. 69699 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ____ Sludge ✓

Other EP EXTRACT - AQUEOUS LAYER Units MG/L

1. Arsenic	S [0.021]	F	7. Selenium	S N 0.003U	F
2. Barium	[0.82]	P	8. Silver	0.01U	P
3. Cadmium	0.005U N	P	9.		
4. Chromium	[0.10] *	P	10.		
5. Lead	0.13U	P	11.		
6. Mercury	0.002U	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/OILY

Lab Manager [signature]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I-C2

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-03

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E/785 LAB RECEIPT DATE 12/03/87

LAB SAMPLE ID NO. 69699 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ____ Sludge ✓

Other EP EXTRACT - OIL LAYER Units MG/KG

1. Arsenic	S [0.02]	F	7. Selenium	S [0.024] N	F
2. Barium	[0.02]	P	8. Silver	0.05U	P
3. Cadmium	0.02U N	P	9.		
4. Chromium	[1.5] N	P	10.		
5. Lead	0.57U	P	11.		
6. Mercury	0.02 N	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/OILY

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I-C3

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-03

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504-E

SOW NO. re: SAS 3504-E LAB RECEIPT DATE 12-3-87

LAB SAMPLE ID NO. 69699 QC REPORT NO. 243

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ____ Sludge ✓ Other ____

Elements Identified and Measured	Units ____
1. Total Suspended Solids	NR
2. Oil and Grease	NR
3. Sulfide	NR

Footnotes: Standard result qualifiers are defined on Cover Page.

Comments: SAMPLE DESCRIPTION Black, oily

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I - 01

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-04

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E/785 LAB RECEIPT DATE 12/03/87

LAB SAMPLE ID NO. 69700 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil Sludge ✓

Other EP EXTRACT - AQUEOUS LAYER Units MG/L

1. Arsenic	S [0.022]	F	7. Selenium	S 0.003U N	F
2. Barium	[0.99]	P	8. Silver	0.01U	P
3. Cadmium	0.005U N	P	9.		
4. Chromium	2.66 *	P	10.		
5. Lead	0.13U	P	11.		
6. Mercury	0.002U	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/OILY

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I - DQ

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-04

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E/785 LAB RECEIPT DATE 12/03/87

LAB SAMPLE ID NO. 69700 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil Sludge ✓

Other EP EXTRACT - OIL LAYER Units MG/KG

1. Arsenic	S [0.01]	F	7. Selenium	S [0.011] N	F
2. Barium	[0.32]	P	8. Silver	0.05U	P
3. Cadmium	0.02U N	P	9.		
4. Chromium	[0.44] N	P	10.		
5. Lead	0.58U	P	11.		
6. Mercury	0.01U N	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/OILY

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I - 03

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-04

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504-E

SOW NO. re: SAS 3504-E LAB RECEIPT DATE 12-3-87

LAB SAMPLE ID NO. 69700 QC REPORT NO. 243

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ____ Sludge ✓ Other ____

Elements Identified and Measured	Units
1. Total Suspended Solids	NR
2. Oil and Grease	NR
3. Sulfide	NR

Footnotes: Standard result qualifiers are defined on Cover Page.

Comments: SAMPLE DESCRIPTION Black, oily

Lab Manager [signature]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I EI

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-05

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E/785 LAB RECEIPT DATE 12/04/87

LAB SAMPLE ID NO. 69725 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water ✓ Soil Sludge

Other EP EXTRACT Units MG/L

1. Arsenic	S [0.008]	F	7. Selenium	S [0.006]	F
2. Barium	[0.15]	P	8. Silver	[0.01]	P
3. Cadmium	0.005U	P	9.		
4. Chromium	0.01U	P	10.		
5. Lead	0.13U	P	11.		
6. Mercury	0.002U	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/CLOUDY

Lab Manager [signature]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I E2

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504 E-05

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504-E

SOW NO. re: SAS 3504-E LAB RECEIPT DATE 12-14-87

LAB SAMPLE ID NO. 69725 QC REPORT NO. 243

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

Elements Identified and Measured Units mg/l

1. Total Suspended Solids	560
2. Oil and Grease	1600
3. Sulfide	1.2

Footnotes: Standard result qualifiers are defined on Cover Page.

Comments: SAMPLE DESCRIPTION Cloudy, black.

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I F1

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-06

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E/785 LAB RECEIPT DATE 12/04/87

LAB SAMPLE ID NO. 69728 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____

Other EP EXTRACT Units MG/L

1. Arsenic	S [0.14]	F	7. Selenium	S 0.003U	F
2. Barium	[0.16]	P	8. Silver	0.01U	P
3. Cadmium	0.005U	P	9.		
4. Chromium	[0.10]	P	10.		
5. Lead	0.13U	P	11.		
6. Mercury	0.002U	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/CLOUDY

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I F2

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504-06

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504-E

SOW NO. re: SAS 3504-E LAB RECEIPT DATE 12-4-87

LAB SAMPLE ID NO. 69728 QC REPORT NO. 243

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

Elements Identified and Measured Units mg/l

1. Total Suspended Solids	349
2. Oil and Grease	170
3. Sulfide	9.2

Footnotes: Standard result qualifiers are defined on Cover Page.

Comments: SAMPLE DESCRIPTION Cloudy, black.

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I G1

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-08

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E/785 LAB RECEIPT DATE 12/04/87

LAB SAMPLE ID NO. 69726 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil Sludge ✓

Other EP EXTRACT - AQUEOUS LAYER Units NG/L

1. Arsenic	S [0.037]	F	7. Selenium	S N 0.003U	F
2. Barium	[1.41]	P	8. Silver	0.01U	P
3. Cadmium	[0.005] N	P	9.		
4. Chromium	3.07 *	P	10.		
5. Lead	0.13U	P	11.		
6. Mercury	0.002U	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/OILY

Lab Manager [signature]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I G2

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-08

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E/785 LAB RECEIPT DATE 12/04/87

LAB SAMPLE ID NO. 69726 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil Sludge ✓

Other EP EXTRACT - OIL LAYER Units MG/KG

1. Arsenic	S [0.01]	F	7. Selenium	S N [0.05]	F
2. Barium	[0.63]	P	8. Silver	0.05U	P
3. Cadmium	0.02U N	P	9.		
4. Chromium	2.6 N	P	10.		
5. Lead	0.56U	P	11.		
6. Mercury	0.01U N	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/OILY

Lab Manager

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I G3

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-08

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504-E

SOW NO. re: SAS 3504-E LAB RECEIPT DATE 12-4-87

LAB SAMPLE ID NO. 69726 QC REPORT NO. 243

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ____ Sludge ✓ Other ____

Elements Identified and Measured	Units
1. Total Suspended Solids	NR
2. Oil and Grease	NR
3. Sulfide	NR

Footnotes: Standard result qualifiers are defined on Cover Page.

Comments: SAMPLE DESCRIPTION Black, oily

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I H1

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-09

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E/785 LAB RECEIPT DATE 12/04/87

LAB SAMPLE ID NO. 69727 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil Sludge ✓

Other EP EXTRACT - AQUEOUS LAYER Units MG/L

1. Arsenic	S [0.015]	F	7. Selenium	S N 0.003U	F
2. Barium	[1.6]	P	8. Silver	0.01U	P
3. Cadmium	0.005U N	P	9.		
4. Chromium	0.90 *	P	10.		
5. Lead	0.13U	P	11.		
6. Mercury	0.002U	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/OILY

Lab Manager [signature]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I H2

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-09

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E/785 LAB RECEIPT DATE 12/04/87

LAB SAMPLE ID NO. 69727 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil Sludge ✓

Other EP EXTRACT - OIL LAYER Units MG/KG

1. Arsenic	S [0.01]	F	7. Selenium	SN [0.03]	F
2. Barium	[0.14]	P	8. Silver	0.05U	P
3. Cadmium	0.02U N	P	9.		
4. Chromium	[0.47] N	P	10.		
5. Lead	0.59U	P	11.		
6. Mercury	0.01U N	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/OILY

Lab Manager

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I H3

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-09

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504-E

SOW NO. re: SAS 3504-E LAB RECEIPT DATE 12-4-87

LAB SAMPLE ID NO. 69727 QC REPORT NO. 243

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ____ Sludge ✓ Other ____

Elements Identified and Measured	Units ____
1. Total Suspended Solids	NR
2. Oil and Grease	NR
3. Sulfide	NR

Footnotes: Standard result qualifiers are defined on Cover Page.

Comments: SAMPLE DESCRIPTION Black, oily

Lab Manager [signature]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I I1

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-10

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504 E

SOW NO. SAS 3504E/785 LAB RECEIPT DATE 12/05/87

LAB SAMPLE ID NO. 69732 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____

Other EP EXTRACT Units MG/L

1. Arsenic	S [0.13]	F	7. Selenium	S [0.004]	F
2. Barium	[0.28]	P	8. Silver	0.01U	P
3. Cadmium	0.005U	P	9.		
4. Chromium	[0.05]	P	10.		
5. Lead	0.13U	P	11.		
6. Mercury	0.002U	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/CLOUDY

Lab Manager [signature]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I I2

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504 E-10

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504-E

SOW NO. re: SAS 3504-E LAB RECEIPT DATE 12-5-87

LAB SAMPLE ID NO. 69732 QC REPORT NO. 243

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

Elements Identified and Measured Units mg/l

1. Total Suspended Solids	72
2. Oil and Grease	814
3. Sulfide	2.5

Footnotes: Standard result qualifiers are defined on Cover Page.

Comments: SAMPLE DESCRIPTION Cloudy, black.

Lab Manager [signature]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I J1

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-11

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E/785 LAB RECEIPT DATE 12/05/87

LAB SAMPLE ID NO. 69733 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____

Other EP EXTRACT Units MG/L

1. Arsenic	S [0.005]	F	7. Selenium	S [0.011]	F
2. Barium	[0.10]	P	8. Silver	0.01U	P
3. Cadmium	0.005U	P	9.		
4. Chromium	[0.16]	P	10.		
5. Lead	0.13U	P	11.		
6. Mercury	0.002U	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: GRAY/CLOUDY

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I J2

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-11

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504-E

SOW NO. re: SAS 3504-E LAB RECEIPT DATE 12-5-87

LAB SAMPLE ID NO. 69733 QC REPORT NO. 243

Concentration: Low ✓ Medium ____

Matrix: Water ✓ Soil ____ Sludge ____ Other ____

Elements Identified and Measured Units mg/l

1. Total Suspended Solids	276
2. Oil and Grease	1040
3. Sulfide	3.2

Footnotes: Standard result qualifiers are defined on Cover Page.

Comments: SAMPLE DESCRIPTION Cloudy, grey

Lab Manager [signature]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I KI

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-12

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E/785 LAB RECEIPT DATE 12/05/87

LAB SAMPLE ID NO. 69734 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil Sludge ✓

Other EP EXTRACT - AQUEOUS LAYER Units MG/L

1. Arsenic	S [0.009]	F	7. Selenium	S N 0.003U	F
2. Barium	[1.5]	P	8. Silver	0.01U	P
3. Cadmium	0.005U N	P	9.		
4. Chromium	[0.20] *	P	10.		
5. Lead	0.13U	P	11.		
6. Mercury	0.002U	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/OILY

Lab Manager [signature]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I K2

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-12

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E 1785 LAB RECEIPT DATE 12/05/87

LAB SAMPLE ID NO. 69734 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ____ Sludge ✓

Other EP EXTRACT - OIL LAYER Units MG/KG

1. Arsenic	S 0.01U	F	7. Selenium	S N [0.04]	F
2. Barium	[0.32]	P	8. Silver	0.05U	P
3. Cadmium	0.02U N	P	9.		
4. Chromium	[1.6] N	P	10.		
5. Lead	0.57U	P	11.		
6. Mercury	[0.01] N	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/OILY

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I K3

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-12

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504-E

SOW NO. re: SAS 3504-E LAB RECEIPT DATE 12-5-87

LAB SAMPLE ID NO. 69734 QC REPORT NO. 243

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ____ Sludge ✓ Other ____

Elements Identified and Measured	Units ____
1. Total Suspended Solids	NR
2. Oil and Grease	NR
3. Sulfide	NR

Footnotes: Standard result qualifiers are defined on Cover Page.

Comments: SAMPLE DESCRIPTION Oily, black.

Lab Manager [signature]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I L1

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-13

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E 1785 LAB RECEIPT DATE 12/05/87

LAB SAMPLE ID NO. 69735 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ____ Sludge ✓

Other EP EXTRACT - AQUEOUS LAYER Units MG/L

1. Arsenic	S [0.011]	F	7. Selenium	S N 0.003U	F
2. Barium	[0.97]	P	8. Silver	0.01U	P
3. Cadmium	0.005U N	P	9.		
4. Chromium	1.05 *	P	10.		
5. Lead	0.13U	P	11.		
6. Mercury	0.002U	CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/OILY

Lab Manager [signature]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I L2

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504E-13

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504E

SOW NO. SAS 3504E 1785 LAB RECEIPT DATE 12/05/87

LAB SAMPLE ID NO. 69735 QC REPORT NO. 243

Elements Identified and Measured

Concentration: Low ✓ Medium

Matrix: Water Soil Sludge ✓

Other EP EXTRACT - OIL LAYER Units MG/KG

1. Arsenic	S 0.01U	F	7. Selenium	S(xs) 0.07U	N F
2. Barium	[0.03]	P	8. Silver	0.05U	P
3. Cadmium	0.02U	N P	9.		
4. Chromium	[0.56]	N P	10.		
5. Lead	0.61U	P	11.		
6. Mercury	[0.01]	N CV	12.		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: SAMPLE DESCRIPTION: BLACK/OILY

Lab Manager [illegible]

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form I L3

U.S. EPA Contract Laboratory Program
Sample Management Office
209 Madison Street, Suite 200
Alexandria, Virginia 22314
703/557-2490 FTS: 8-557-2490

EPA Sample # 3504 E-13

Date JAN 29 1988

INORGANIC ANALYSIS DATA SHEET

LAB NAME CENTEC ANALYTICAL SERVICES, INC. CASE NO. SAS 3504-E

SOW NO. re: SAS 3504-E LAB RECEIPT DATE 12-5-87

LAB SAMPLE ID NO. 69735 QC REPORT NO. 243

Concentration: Low ✓ Medium ____

Matrix: Water ____ Soil ____ Sludge ✓ Other ____

Elements Identified and Measured	Units
1. Total Suspended Solids	NR
2. Oil and Grease	NR
3. Sulfide	NR

Footnotes: Standard result qualifiers are defined on Cover Page.

Comments: SAMPLE DESCRIPTION Oily, black.

Lab Manager J Pelles

ICP - Ja20C (RCRA)
Ja21A (Cd)

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form III-A

Q. C. Report No. 243

BLANKS

LAB NAME CENTEC

DATE JAN 29 1988

CASE NO. SAS 3504E

UNITS UG/L

Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank Matrix: EP 1	Matrix: EP 2
Metals:							
1. Aluminum							
2. Antimony							
JA27C 3. Arsenic	2u	[2.6]	2u			2u	[2.2]
4. Barium	2u	2u	2u	2u	2u	2u	2u
5. Beryllium							
6. Cadmium	5u	5u	5u	5u	5u	5u	5u
7. Calcium							
8. Chromium	10u	10u	10u	10u	10u	10u	10u
9. Cobalt							
10. Copper							
11. Iron							
12. Lead	123u	123u	123u	123u	123u	123u	123u
13. Magnesium							
14. Manganese							
15. Mercury	0.2u	0.2u	0.2u	0.2u		0.2u	0.2u
16. Nickel							
17. Potassium							
JA23B 18. Selenium	3u	3u	3u	3u	3u	[3.0]	[3.2]
19. Silver	6u	6u	6u	6u	6u	6u	6u
20. Sodium							
21. Thallium							
22. Vanadium							
23. Zinc							
Other:							
Cyanide							

Reporting Units: aqueous, ug/L; solid mg/kg

IFB Amend. One

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form III-B

Q. C. Report No. 243

BLANKS

LAB NAME CENTEC

DATE JAN 29 1988

CASE NO. SAS 3504E

UNITS UG/L

Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank Matrix: EP-BLK #3	Matrix: EP 2
Metals:							
1. Aluminum							
2. Antimony							
JA27C 3. Arsenic	[5.6]	[11.0]				[2.1]	
4. Barium		2U				[71]	
5. Beryllium							
6. Cadmium		5U				5U	
7. Calcium							
8. Chromium		10U				10U	
9. Cobalt							
10. Copper							
11. Iron							
12. Lead		123U				123U	
13. Magnesium							
14. Manganese							
15. Mercury						0.2U	
16. Nickel							
17. Potassium							
18. Selenium		3U				3U	
19. Silver		6U				6U	
20. Sodium							
21. Thallium							
22. Vanadium							
23. Zinc							
Other:							
Cyanide							

Reporting Units: aqueous, ug/L; solid mg/kg

IFB Amend. One

JA218 (Pb)

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form III-C

Q. C. Report No. 243

BLANKS

LAB NAME CENTEC

DATE JAN 29 1988

CASE NO. SAS 3504E

UNITS UG/L

Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank Matrix: EP 1	Matrix: EP 2
Metals:							
1. Aluminum							
2. Antimony							
JA28A 3. Arsenic	2u	2u	2u	2u	[2.0]		
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium							
9. Cobalt							
10. Copper							
11. Iron							
12. Lead	1234	1234	1234	1234			
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium							
JA25B 18. Selenium	3u	3u	3u				
19. Silver							
20. Sodium							
21. Thallium							
22. Vanadium							
23. Zinc							
Other:							
Cyanide							

Reporting Units: aqueous, ug/L; solid mg/kg

IFB Amend. One

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form III-D

Q. C. Report No. 243

BLANKS

LAB NAME CENTEC

DATE JAN 29 1988

CASE NO. SAS 3504E

UNITS UG/L

Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank Matrix: EP 1	Matrix: EP 2
Metals:							
1. Aluminum							
2. Antimony							
3. Arsenic							
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium							
9 Cobalt							
10. Copper							
11. Iron							
12. Lead							
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium							
JA26A 18. Selenium	3u	3u	3u				
19. Silver							
20. Sodium							
21. Thallium							
22. Vanadium							
23. Zinc							
Other:							
Cyanide							

Reporting Units: aqueous, ug/L; solid mg/kg

IFB Amend. One

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form III E

Q.C. Report No. 243

BLANKS

LAB NAME CENTEC ANALYTICAL SERVICES, INC.

DATE JAN 29 1988

CASE NO. SAS 3504 E

SOW NO. re: SAS 3504 E

UNITS mg/l ~~ug/l~~

Matrix Aqueous

Compound	Run #	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	5	6	7	8
TSS	1	1u								
O&G	1	5u								
solvent		5u								
Sulfide	1	1.0u	1.0u							

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form V-A

Q. C. Report No. 243

SPIKE SAMPLE RECOVERY

3504E-01/69697 Mercury Spike
NR Cyanide Spike
3504E-01/69697 Furnace Spike

LAB NAME CENTEC

DATE JAN 29 1988

CASE NO. SAS 3504E
EPA Sample No. 3504E-01
Lab Sample ID No. 69697
Units UG/L

Matrix AQUEOUS - EP EXTRACT

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]
Metals:					
1. Aluminum	75-125			2000	
2. Antimony	-			500	
3. Arsenic	-	29.0	[12.0]	20	85
4. Barium	-	2210	[72]	2000	107
5. Beryllium	-			50	
6. Cadmium	-	48	5U	50	96
7. Calcium	-				NR
8. Chromium	-	245	[38]	200	104
9. Cobalt	-			500	
10. Copper	-			250	
11. Iron	-			1000	
12. Lead	-	437	123U	500 ~~20~~	87
13. Magnesium	-				NR
14. Manganese	-			200	
15. Mercury	-	11	2U	~~10~~ 10	110
16. Nickel	-			400	
17. Potassium	-				NR
18. Selenium	-	19.6	[8.2]	10	114
19. Silver	-	51	6U	50	102
20. Sodium	-				NR
21. Thallium	-			50	
22. Vanadium	-			500	
23. Zinc	-			200	
Other:					
Cyanide	-				

[1] %R = [(SSR - SR)/SA] x 100

"N" - out of control

"NR" - Not required

Comments:

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form V - B

Q. C. Report No. 243

SPIKE SAMPLE RECOVERY

3504E-08/69726 Mercury Spike
NR Cyanide Spike
3504E-08/69726 Furnace Spike

LAB NAME CENTEC

DATE JAN 29 1988

CASE NO. SAS 3504E
EPA Sample No. 3504E-08
Lab Sample ID No. 69726
Units ug/L

Matrix SLUDGE - EP EXTRACT (AQ) LAYER

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]	
Metals:						
1. Aluminum	75-125			2000		
2. Antimony	-			500		
3. Arsenic	-	58	[37]	20	105	
4. Barium	-	3390	[1410]	2000	99	
5. Beryllium	-			50		
6. Cadmium	-	47	[5]	50	84	N
7. Calcium	-				NR	
8. Chromium	-	3170	3070	200	50	**
9. Cobalt	-			500		
10. Copper	-			250		
11. Iron	-			1000		
12. Lead	-	441	123u	500	88	
13. Magnesium	-				NR	
14. Manganese	-			200		
15. Mercury	-	9.0	2u	~~10~~ 10	90	
16. Nickel	-			400		
17. Potassium	-				NR	
18. Selenium	-	15.6	3u	10	156	N
19. Silver	-	50	6u	50	100	
20. Sodium	-				NR	
21. Thallium	-			50		
22. Vanadium	-			500		
23. Zinc	-			200		
Other:						
Cyanide	-					

[1] %R = [(SSR - SR)/SA] x 100

"N" - out of control

"NR" - Not required

Comments: Sample Conc > 4XSA

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form V-C

Q. C. Report No. 243

SPIKE SAMPLE RECOVERY

3504E-08/69726 Mercury Spike
NR Cyanide Spike
3504E-08/69726 Furnace Spike

LAB NAME CAS

DATE JAN 29 1988

CASE NO. SAS 3504E
EPA Sample No. 3504E-08
Lab Sample ID No. 69726
Units mg/kg

Matrix SLUDGE - EP - OIL LAYER

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]	
Metals:						
1. Aluminum	75-125					
2. Antimony	-					
3. Arsenic	-	0.01u	[0.01]	0.10	0	N
4. Barium	-	9.5	[0.63]	9.8	91	
5. Beryllium	-					
6. Cadmium	-	0.18	0.02u	0.24	75	N
7. Calcium	-					
8. Chromium	-	3.2	2.6	0.98	61	N
9. Cobalt	-					
10. Copper	-					
11. Iron	-					
12. Lead	-	2.1	0.56u	2.4	88	
13. Magnesium	-					
14. Manganese	-					
15. Mercury	-	0.01u	0.01u	0.05	0	N
16. Nickel	-					
17. Potassium	-					
18. Selenium	-	0.09 (S)	[0.05] S	0.05	80	N
19. Silver	-	0.21	0.05u	0.24	88	
20. Sodium	-					
21. Thallium	-					
22. Vanadium	-					
23. Zinc	-					
Other:						
Cyanide	-					

[1] %R = [(SSR - SR)/SA] x 100

"N" - out of control

"NR" - Not required

Comments:

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form VI-A

Q. C. Report No. 243

DUPLICATES

3504E-01/69697 MERCURY DUP
NR CYANIDE DUP
3504E-01/69697 FURNACE DUP

LAB NAME CAS

DATE JAN 29 1988

CASE NO. SAS 3504E
EPA Sample No. 3504E-01
Lab Sample ID No. 69697
Units UG/L

Matrix EP EXTRACT (AQUEOUS)

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]
Metals:				
1. Aluminum				
2. Antimony				
3. Arsenic		[12]	[8.2]	NC
4. Barium		[72]	[123]	NC
5. Beryllium				
6. Cadmium		5U	5U	NC
7. Calcium				
8. Chromium		[38]	[47]	NC
9. Cobalt				
10. Copper				
11. Iron				
12. Lead		123U	123U	NC
13. Magnesium				
14. Manganese				
15. Mercury		2U	2U	NC
16. Nickel				
17. Potassium				
18. Selenium		[8.2]	[6.7]	NC
19. Silver		6U	6U	NC
20. Sodium				
21. Thallium				
22. Vanadium				
23. Zinc				
Other.				
Cyanide				

Out of Control

[1] To be added at a later date.

[2] RPD = [|S - D|/((S + D)/2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form VI-B

Q. C. Report No. 243

DUPLICATES

3504E-08/69726 MERCURY DUP
NR CYANIDE DUP
3504E-08/69726 FURNACE DUP

LAB NAME CAS

DATE JAN 29 1988

CASE NO. SAS 3504E
EPA Sample No. 3504E-08
Lab Sample ID No. 69726
Units ug/L

Matrix SLUDGE- EP EXTRACT- AQUEOUS LAYER

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]	
Metals:					
1. Aluminum					
2. Antimony					
3. Arsenic		[37]	[15]	NC	
4. Barium		1410	1370	3	
5. Beryllium					
6. Cadmium		[5]	[5]	NC	
7. Calcium					
8. Chromium		3070	218	173	*
9. Cobalt					
10. Copper					
11. Iron					
12. Lead		123U	123U	NC	
13. Magnesium					
14. Manganese					
15. Mercury		2U	2U	NC	
16. Nickel					
17. Potassium					
18. Selenium		3U	3U	NC	
19. Silver		6U	6U	NC	
20. Sodium					
21. Thallium					
22. Vanadium					
23. Zinc					
Other.					
Cyanide					

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S - D|/((S + D)/2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL

CAS
CEL-TEC ANALYTICAL SERVICES, INC.

Form VI-C

Q. C. Report No. 243

DUPLICATES

3504E-08/69726 MERCURY DUP
NR CYANIDE DUP
3504E-08/69726 FURNACE DUP

LAB NAME CAS

DATE JAN 29 1988

CASE NO. SAS 3504E
EPA Sample No. 3504E-08
Lab Sample ID No. 69726
Units MG/KG

Matrix SLUDGE-EP-OIL LAYER

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]
Metals:				
1. Aluminum				
2. Antimony				
3. Arsenic		[0.01]	0.01 U	NC
4. Barium		[0.63]	[0.38]	NC
5. Beryllium				
6. Cadmium		0.02U	0.02U	NC
7. Calcium				
8. Chromium		2.6	2.6	0
9. Cobalt				
10. Copper				
11. Iron				
12. Lead		0.56U	0.58U	NC
13. Magnesium				
14. Manganese				
15. Mercury		0.01U	0.01	NC
16. Nickel				
17. Potassium				
18. Selenium		[0.05]	0.01U	NC
19. Silver		0.05U	0.05U	NC
20. Sodium				
21. Thallium				
22. Vanadium				
23. Zinc				
Other:				
Cyanide				

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S - D|/((S + D)/2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form VI - D

Q.C. Report No. 243

DUPLICATES

LAB NAME Centec Analytical Services

CASE NO. SAS 3504E

DATE JAN 29 1988

UNITS (mg/l) ug/l mg/kg %
(Circle one)

Matrix Aqueous

PARAMETER	EPA ID	LAB ID	CONTROL LIMIT	(S) SAMPLE	(D) DUPLICATE	RPD
TSS	3504E-05	69725		560	561	0
O&G	3504E-01	69697		249	236	5
Sulfide	3504E-05	69725		1.2	1.1	9

* Out of Control

RPD = [(S - D) / ((S + D) / 2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form VII-A

Q.C. Report No. 243

INSTRUMENT DETECTION LIMITS AND

LABORATORY CONTROL SAMPLE

LAB NAME CENTEC CASE NO. SAS 3504E DATE JAN 29 1988

LCS NO. 1

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA ID# P-2	Furnace ID# ZEEMAN		Lab Control Sample (ug/L) mg/kg (circle one) True	Found	%R	
Metals:			5100	5000				
1. Aluminum	200	90			4000			
2. Antimony	60	45			400			
3. Arsenic	10	180	2	3	235	242	103	S
4. Barium	200	2			1000	1020	102	
5. Beryllium	5	2			400			
6. Cadmium	5	5			400	398	100	
7. Calcium	5000	32			20000			
8. Chromium	10	10			400	389	97	
9. Cobalt	50	25			1000			
10. Copper	25	8			1000			
11. Iron	100	15			4000			
12. Lead	5	123	1	3	1000	914	91	
13. Magnesium	5000	75			20000			
14. Manganese	15	3			1000			
15. Mercury	0.2	0.2 (CV)			3.0	2.9	97	
16. Nickel	40	22			1000			
17. Potassium	5000	372			20000			
18. Selenium	5	348	3	2	50.2	57.7	115	S
19. Silver	10	6			400	402	100	
20. Sodium	5000	120			20000			
21. Thallium	10	354	3	2				
22. Vanadium	50	13			1000			
23. Zinc	20	13			1000			
Other:								
Cyanide	10	NR	NR					

NR - Not required

ICP METALS- LCS CAS PREPARED- INSUFFICIENT QC AVAILABLE FROM EMSL-CINN

CAS
CENTEC ANALYTICAL SERVICES, INC.

Form VII-B

Q.C. Report No. 243

INSTRUMENT DETECTION LIMITS AND

LABORATORY CONTROL SAMPLE

LAB NAME CENTEC CASE NO. SAS 3504F DATE JAN 29 1988

LCS NO. 2

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA ID# P-2	Furnace ID# ZEEMAN		Lab Control Sample (ug/L) mg/kg (circle one) True	Found	%R	
Metals:			5100	5000				
1. Aluminum	200	90			4000			
2. Antimony	60	45			400			
3. Arsenic	10	180	2	3	235	243	103	S
4. Barium	200	2			1000	1030	103	
5. Beryllium	5	2			400			
6. Cadmium	5	5			400	401	100	
7. Calcium	5000	32			20000			
8. Chromium	10	10			400	399	100	
9. Cobalt	50	25			1000			
10. Copper	25	8			1000			
11. Iron	100	15			4000			
12. Lead	5	123	1	3	1000	911	91	
13. Magnesium	5000	75			20000			
14. Manganese	15	3			1000			
15. Mercury	0.2	0.2 (CV)			3.0	2.6	87	
16. Nickel	40	22			1000			
17. Potassium	5000	372			20000			
18. Selenium	5	348	3	2	50.2	58.4	116	S
19. Silver	10	6			400	407	102	
20. Sodium	5000	120			20000			
21. Thallium	10	354	3	2				
22. Vanadium	50	13			1000			
23. Zinc	20	13			1000			
Other:								
Cyanide	10	NR	NR					

NR - Not required

ICP METALS - LCS CAS PREPARED - INSUFFICIENT QC AVAILABLE FROM EMSL-CINN

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

TRANSMITTED BY
Griffin
APR 07 1988
U.S. EPA CENTRAL REGIONAL LAB

Blue Island

DATE: April 5, 1988

SUBJECT: Review of Region 5 data for CLARK OIL & REFINING

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory

To: Data User: Karl Bremer
RCRA

Attached are the results for:

CRL Data Set Numbers: RCRA 4684 CASE 8624
Sample Numbers: 88J601572 – 571 12 SAMPLES
Parameter(s): ABN, VOA, PCB/PEST.
Laboratory: S3

Results Status

( ) DATA ACCEPTABLE FOR USE*
(X) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

Usable based on synoptic review + findings indicated on the attached review

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

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

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

RECEIVED BY/DATE:

Comments:

Synoptic Review on RCRA Contract Data.

Case # 8624 (DATA SET RCRA 4684)

This review has 12 water Samples EP 733 thru EP 744. for full analyses with appropriate dilutions.

The % recoveries of surrogate spikes in volatile, semivolatile are inside of the QC limits. The pesticide spike dibutylchlorendate are diluted out in EP734 736 and 742 MS.

Recoveries of MS and MSD in VOA and B/N are within specification. There are 2 acid spikes and 1 pesticide spike lie outside QC limits. The RPD of MS/MSD of VOA and BNA are all OK, but the heptachlor spike is not in accord with the specified limits

Blanks contain methylene chloride, acetone, di-n-butyl phthalate, bis (2 ethylhexyl) phthalate and several unknown compounds. It is free from any pesticide.

In VOA initial Calibration 1 outlier in $\bar{RF}$ and 2 outliers in %RSD are noted. Acetone, vinylacetate, bromomethane, 2-butanone, Trans 1, 2-dichloropropene, 2-hexanone and 4-methyl-2-pentanone are the outliers of VOA continu. Calibration.

There is none outliers of $\bar{RF}$ and %RSD in semivolatile initial Calibration, but in Continuous Calibration, n-nitroso-dipropylamine, 2,4-Dinitrophenol, 4-nitrophenol, 4-nitroaniline, 4,6-dinitro-2-methylphenol, benzo(k) fluoranthene, benzyl alcohol, benzoic acid and 3-nitroaniline have their %D in RF lie outside of specifications.

% RSD of Calibration factors for aldrin, endrin 4,4'-DDT and DCB at 3 concentration levels behaves linearly to the extent of ≤ 10% on analysis run 1-2-88, but 4,4'-DDT is >10% (13%) on Analysis 1-5-88.

The retention time of 4,4'-DDT is >12 min OK.

%D of Pesticide Calibration factors are < 20% for Confirmation and < 15% for quantitative OK.

The dilution strategy of the Contractor S-Cubed is comparatively good as resulted in low detection limits and less of analytes being diluted out. Data are acceptable for use with qualifications noted above

KCH. 4-4-88

RCRA 4684

S-CUBED

A Division of Maxwell Laboratories, Inc.

January 11, 1988

RECEIVED

JAN 13 1988

U.S. EPA, CENTRAL REGIONAL LAB
536 S. CLARK STREET
CHICAGO, ILLINOIS 60605

Volume 1 of 2

NARRATIVE CASE 8624
S-CUBED CONTRACT NO. 68-01-7261

This case consists of 12 water samples for full analyses. These samples were very complex, necessitating numerous dilutions as outlined in TAble 1. Samples EP735, EP736, and EP743 had a very high initial pH, causing severe reactions when pH adjustment was attempted. Consequently, sample extraction was carried out with a 250-mL volume. Samples EP734 and EP744 were highly organic and necessitated a 10-mL extraction volume in order to be able to concentrate the extract below 15 mL.

Please note that EP744 was mislabeled on the traffic report as EP734 (a previously received sample). All other documentation was consistent with the sample number of EP744, thus S-CUBED corrected this error on the traffic report.

Volatile analyses were characterized by high levels of acetone, benzene and substituted benzenes. Numerous volatile sulfur containing components were also detected in these samples. QC results were all within specifications.

BNA samples contained numerous substituted benzenes, phenols, and polynuclear aromatic hydrocarbons, as well as high levels of unidentified TICs. Due to the high levels of dilutions, many surrogate compounds were diluted out. Matrix analyses were successful.

Pesticide extracts needed numerous mercury cleanups due to the high level of sulfur in these samples. ~~No~~ Few analytes were found in spite of the complexity of these samples.

JoAnn Wilkinson

JoAnn Wilkinson
Project Manager

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Telephone: (619) 453-0060 *TWX: 910-337-1253* *Telecopier: (619) 755-0474*

WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. 8624 Contract Laboratory S-CUBED Contract No. 68-01-7261

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO.	TOLUENE-D8 (88-110)	BFB (86-115)	1,2 DICHLORO-ETHANE-D4 (76-114)	NITRO-BENZENE-D5 (35-114)	2-FLUORO-BIPHENYL (43-116)	TERPHENYL-D14 (33-141)			PHENOL-D5 (10-94)	2-FLUORO-PHENOL (21-100)	2,4,6 TRIBROMO-PHENOL (10-123)	DIBUTYL-CHLORENDATE ** (24-154)
EP733	104	100	108	DL(A)	DL	DL			DL	DL	DL	153
EP734	102	102	95	69	78	71			56	DL	34	DL *
EP735	100	101	93	DL	DL	79			DL	DL	DL	81
EP736	101	99	102	DL	DL	DL			DL	DL	DL	DL *
EP737	102	96	99	46	54	38			64	79	43	126
EP738	101	99	103	67	43	39			DL	DL	DL	86
EP739	102	103	98	69	69	76			66	68	72	72
EP739MS		NR		88	89	98			80	72	98	NR
EP739MSD				95	83	99			51	92	111	
EP740	101	98	101	69	75	74			65	63	75	96
EP741	102	101	101	95	98	103			98	97	100	117
EP742	99	100	90	DL	DL	DL			DL	DL	DL	DL *
EP742MS	101	99	92		NR					NR		NR
EP742MSD	100	99	91									
EP743	104	103	104	DL	DL	123			DL	DL	DL	112
EP744	106	97	104	DL	DL	DL			DL	DL	DL	116
(1) LABBLANK	101	102	96	66	64	77			68	71	72	86
(2) LABBLANK	102	100	102	65	72	73			67	67	73	100
(3) LABBLANK	102	100	98	89	97	102			84	85	93	71
(4) LABBLANK		NR		99	103	108			93	97	114	92
(5) LABBLANK				98	87	106	jw		91	91	107	NR
EP741 MS		NR			NR					NR		98
EP741 MSD												106

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY (A) DILUTED OUT.

Volatiles: 0 out of 51 ; outside of QC limits
Semi-Volatiles: 0 out of 76 ; outside of QC limits
Pesticides: 3 out of 18 ; outside of QC limits

Comments:
(1) 3DV2021 (VOA); DEC10021 (ABN)
(2) 4DV2021 (VOA); DEC11051 (ABN)
(3) 7DV2021 (VOA); DEC11041 (ABN)
(4) ~~DEC~~ jw DE15B021 (ABN)
(5) ~~DEC14091 (ABN)~~ not used jw

(PEST) Lab Blank (1) 12-3
(2) 12-4
(3) 12-8
(4) 12-10

FORM II

7/85

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 8624 Contractor S-CUBED Contract No. 68-01-7261

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. EP742	1,1-Dichloroethene	4700	0	4800	102	4800	102	0	14	61-145
	Trichloroethene	4300	0	4300	100	4400	102	2	14	71-120
	Chlorobenzene	4900	0	5000	102	5000	102	0	13	75-130
	Toluene	4900	7400	12000	94	12000	94	0	13	76-125
	Benzene	4900	5900	10000	84	11000	104	10	11	76-127
B/N SMO SAMPLE NO. EP739	1,2,4-Trichlorobenzene	100	0	65	65	66	66	2	28	39-98
	Acenaphthene	100	0	82	82	83	83	1	31	46-118
	2,4 Dinitrotoluene	100	0	90	90	88	88	2	38	24-96
	Pyrene	100	0	93	93	92	92	1	31	26-127
	N-Nitroso-Di-n-Propylamine	100	0	80	80	84	84	5	38	41-116
	1,4-Dichlorobenzene	100	0	63	63	64	64	2	28	36-97
ACID SMO SAMPLE NO. EP739	Pentachlorophenol	200	0	160	80	200	100	22	50	9-103
	Phenol	200	0	130	65	140	70	7	42	12-89
	2-Chlorophenol	200	0	130	65	150	75	14	40	27-123
	4-Chloro-3-Methylphenol	200	0	150	75	140	70	7	42	23-97
	4-Nitrophenol	200	0	190	95*	210	105*	10	50	10-80
PEST SMO SAMPLE NO. EP741	Lindane	0.2	0	0.20	100	0.23	114	13	15	56-123
	Heptachlor	0.2	0	0.30	150*	0.19	94	46*	20	40-131
	Aldrin	0.2	0	0.21	104	0.18	92	12	22	40-120
	Dieldrin	0.5	0	0.40	79	0.42	84	6.1	18	52-126
	Endrin	0.5	0	0.41	83	0.47	94	12	21	56-121
	4,4'-DDT	0.5	0	0.45	90	0.50	100	11	27	38-127

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5 ; outside QC limits
B/N 0 out of 6 ; outside QC limits
ACID 0 out of 5 ; outside QC limits
PEST 1 out of 6 ; outside QC limits

RECOVERY: VOAs 0 out of 10 ; outside QC limits
B/N 0 out of 12 ; outside QC limits
ACID 2 out of 10 ; outside QC limits
PEST 1 out of 12 ; outside QC limits

Comments: (VOA) SAMPLE WAS DILUTED 1:83
(ABN) SAMPLE SIZE IS 1.0 L

8/85

FORM III

METHOD BLANK SUMMARY

Case No. 8624 Region 5 Contractor S-CUBED Contract No. 68-01-7261

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (INSL, TIC OR UNKNOWN)	CONC.	UNITS	CRDL
3DV2021	12-3-87	VOA	H_2O	L	VG2	75-09-2	methylene chloride	6	ug/l	5
4DV2021	12-4-87	↓	↓	↓	↓	75-09-2	methylene chloride	3	↓	5
7DV2021	12-7-87	↓	↓	↓	↓	75-09-2	methylene chloride	6	↓	5
7DV2021	12-7-87	VOA	H_2O	L	VG2	67-64-1	acetone	4	↓	10
DEC10021 ①	12-10-87	ABN	↓	↓	VG3	84-74-2	di n butyl phthalate	8	↓	10
↓	↓	↓	↓	↓	↓	NA	UNKNOWN (S36)	33	↓	NR
↓	↓	↓	↓	↓	↓	↓	UNKNOWN (S96)	10	↓	↓
DEC10021	12-10-87	↓	↓	↓	↓	NA	UNKNOWN (S176)	30	↓	NR
DEC11051 ②	12-11-87	↓	↓	↓	↓	84-74-2	di n butyl phthalate	5	↓	10
↓	↓	↓	↓	↓	↓	NA	UNKNOWN (S74)	14	↓	NR
↓	↓	↓	↓	↓	↓	↓	UNKNOWN (S168)	13	↓	↓
↓	↓	↓	↓	↓	↓	↓	UNKNOWN (S1212)	14	↓	↓
↓	↓	↓	↓	↓	↓	↓	UNKNOWN (S1393)	41	↓	↓
DEC11051	12-11-87	↓	↓	↓	↓	NA	UNKNOWN (S1614)	21	↓	NR
DEC11041 ③	↓	↓	↓	↓	↓	117-81-7	bis(2 ethyl hexyl) phthalate	2	↓	10
↓	↓	↓	↓	↓	↓	NA	UNKNOWN (S239)	13	↓	NR
↓	↓	↓	↓	↓	↓	↓	UNKNOWN (S553)	16	↓	↓
↓	↓	↓	↓	↓	↓	↓	UNKNOWN (S601)	29	↓	↓
↓	↓	↓	↓	↓	↓	↓	UNKNOWN (S1151)	10	↓	↓
DEC11041	12-11-87	ABN	H_2O	L	VG3	NA	UNKNOWN (S1265)	20	ug/l	NR

Comments: ① ext 12-3-87
② ext 12-7-87
③ ext 12-8-87

METHOD BLANK SUMMARY

pg 2 of 2

Case No. 8624 Region 5 Contractor S-CUBED Contract No. 68-01-6868 7261

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (HSL, TIC OR UNKNOWN)	CONC.	UNITS	CRDL
D815B021 ①	12-15-87	ABN	H_2O	L	VG3		NOTHING FOUND			
Lab Blank 12-3	01-03-88	PEST	↓	L	HP5890		Nothing found			
↓ 12-4	01-03-88	↓	↓	L	↓		↓			
↓ 12-8	01-03-88	↓	↓	L	↓		↓			
↓ 12-10	01-03-88	↓	↓	L	↓		↓			

Comments: ① Ext 12-10-87

88J901559

: Sample Number:
EP733 :

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: D7V2011 (WOA); DEC/1091 (ADIV)
Sample Matrix: WATER
Data Release Authorized By: [signature]

Case No: 8624
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 12-05-87

VOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-07-87
Date Analyzed: 12-07-87
Conc/Dil Factor: 100 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	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	420 J B	79-00-5	1,1,2-TRICHLOROETHANE	500 U
67-64-1	ACETONE	9300 B	71-43-2	BENZENE	4800
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	500 U
78-93-3	2-BUTANONE	1000 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	500 U
71-55-6	1,1,1-TRICHLOROETHANE	500 U	108-88-3	TOLUENE	4900
56-23-5	CARBON TETRACHLORIDE	500 U	108-90-7	CHLOROBENZENE	500 U
108-05-4	VINYL ACETATE	1000 U	100-41-4	ETHYLBENZENE	620
75-27-4	BROMODICHLOROMETHANE	500 U	100-42-5	STYRENE	500 U
				TOTAL XYLENES	5100

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.

Laboratory Name: S-CUBED
Case No: 8624

Sample Number :
EP733 :

ORGANIC ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-08-87
Date Analyzed: 12-11-87
Conc/Dil Factor: 40
Percent Moisture (Decanted): N.R

GPC Clean up ___Yes X No
Separatory Funnel Extraction ___Yes
Continuous Liquid - Liquid Extraction_____X_____Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (Circle one)
108-95-2	PHENOL	9600	83-32-9	ACENAPHTHENE	400 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	400 U	51-28-5	2,4-DINITROPHENOL	2000 U
95-57-8	2-CHLOROPHENOL	400 U	100-02-7	4-NITROPHENOL	2000 U
541-73-1	1-3,DICHLOROBENZENE	400 U	132-64-9	DIBENZOFURAN	400 U
106-46-7	1,4-DICHLOROBENZENE	400 U	121-14-2	2,4-DINITROTOLUENE	400 U
100-51-6	BENZYL ALCOHOL	400 U	606-20-2	2,6-DINITROTOLUENE	400 U
95-50-1	1,2-DICHLOROBENZENE	400 U	84-66-2	DIETHYLPHTHALATE	400 U
95-48-7	2-METHYLPHENOL	400 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	400 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	400 U	86-73-7	FLUORENE	400 U
106-44-5	4-METHYLPHENOL	2500	100-01-6	4-NITROANILINE	2000 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	400 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	2000 U
67-72-1	HEXACHLOROETHANE	400 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	400 U
98-95-3	NITROBENZENE	400 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	400 U
78-59-1	ISOPHORONE	400 U	118-74-1	HEXACHLOROBENZENE	400 U
88-75-5	2-NITROPHENOL	400 U	87-86-5	PENTACHLOROPHENOL	2000 U
105-67-9	2,4-DIMETHYLPHENOL	400 U	85-01-8	PHENANTHRENE	2000
65-85-0	BENZOIC ACID	2000 U	120-12-7	ANTHRACENE	150 J
111-91-1	BIS(2-CHLOROETHOXY)METHANE	400 U	84-74-2	DI-N-BUTYLPHTHALATE	400 U
120-83-2	2,4-DICHLOROPHENOL	400 U	206-44-0	FLUORANTHENE	400 U
120-82-1	1,2,4-TRICHLOROBENZENE	400 U	129-00-0	PYRENE	750
91-20-3	NAPHTHALENE	4400	85-68-7	BUTYLBENZYLPHTHALATE	400 U
106-47-8	4-CHLOROANILINE	400 U	91-94-1	3,3'-DICHLOROBENZIDINE	800 U
87-68-3	HEXACHLOROBUTADIENE	400 U	56-55-3	BENZO(a)ANTHRACENE	91 J
59-50-7	4-CHLORO-3-METHYLPHENOL	400 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	400 U
91-57-6	2-METHYLNAPHTHALENE	10000	218-01-9	CHRYSENE	280 J
77-47-4	HEXACHLOROCYCLOPENTADIENE	400 U	117-84-0	DI-N-OCTYL PHTHALATE	400 U
88-06-2	2,4,6-TRICHLOROPHENOL	400 U	205-99-2	BENZO(b)FLUORANTHENE	400 U
95-95-4	2,4,5-TRICHLOROPHENOL	2000 U	207-08-9	BENZO(k)FLUORANTHENE	400 U
91-58-7	2-CHLORONAPHTHALENE	400 U	50-32-8	BENZO(a)PYRENE	400 U
88-74-4	2-NITROANILINE	2000 U	193-39-5	INDENO(1,2,3-CD)PYRENE	400 U
131-11-3	DIMETHYL PHTHALATE	400 U	53-70-3	DIBENZ(a,h)ANTHRACENE	400 U
208-96-8	ACENAPHTHYLENE	400 U	191-24-2	BENZO(g,h,i)PERYLENE	400 U
99-09-2	3-NITROANILINE	2000 U			

(1)-Cannot be seperated from diphenylamine.

Laboratory Name: S-Cubed
Case No.: 8624

Sample Number
EP 733

ORGANICS ANALYSIS DATA
(Page 3)

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 12-08-87
Date Analyzed: 01-06-88
Conc/Dil Factor: 10.00

GPC Cleanup ___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	0.50 u
319-85-7	BETA-BHC	0.50 u
319-86-8	DELTA-BHC	0.50 u
58-89-9	GAMMA-BHC (LINDANE)	0.50 u
76-44-8	HEPTACHLOR	0.50 u
309-00-2	ALDRIN	0.50 u
1024-57-3	HEPTACHLOR EPOXIDE	0.50 u
959-98-8	ENDOSULFAN I	0.50 u
60-57-1	DIELDRIN	1.0 u
72-55-9	4,4'-DDE	1.0 u
72-20-8	ENDRIN	1.0 u
33213-65-9	ENDOSULFAN II	1.0 u
72-54-8	4,4'-DDD	1.0 u
7421-93-4	ENDRIN ALDEHYDE	1.0 u
1031-07-8	ENDOSULFAN SULFATE	1.0 u
50-29-3	4,4'-DDT	1.0 u
72-43-5	METHOXYCHLOR	5.0 u
53494-70-5	ENDRIN KETONE	1.0 u
57-74-9	CHLORDANE	5.0 u
8001-35-2	TOXAPHENE	10 u
12674-11-2	AROCLOR-1016	5.0 u
11104-28-2	AROCLOR-1221	5.0 u
11141-16-5	AROCLOR-1232	5.0 u
53469-21-9	AROCLOR-1242	5.0 u
12672-29-6	AROCLOR-1248	5.0 u
11097-69-1	AROCLOR-1254	10 u
11096-82-5	AROCLOR-1260	10 u

Volume of water extracted (ml): 1000
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN CONFIRMATION

Lab Name S-CUBED

Case No 8624

Sample Number EP733

D7V2011 (VOA)
DEC 11091 (ABN)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	624-92-0	dimethyl disulfide	VOA	310	1.3×10^3 J
2.					
3.	NA	UNKNOWN ethyl methyl benzene	ABN	194	6.6×10^3 J
4.		UNKNOWN C3 sub. benzene		206	4.5×10^3 J
5.		UNKNOWN C3 sub. benzene		248	13×10^3 J
6.		UNKNOWN C3 sub. benzene		288	5.4×10^3 J
7.		UNKNOWN C4 sub benzene		347	5.7×10^3 J
8.		UNKNOWN C4 sub benzene		370	7.8×10^3 J
9.		UNKNOWN C4 sub benzene		379	6.6×10^3 J
10.		UNKNOWN HYDROCARBON		411	8.3×10^3 J
11.		UNKNOWN C4 sub benzene		421	8.9×10^3 J
12.		UNKNOWN dihydro methyl indene		451	7.1×10^3 J
13.		UNKNOWN C4 sub. benzene		455	5.6×10^3 J
14.		UNKNOWN HYDROCARBON		524	6.0×10^3 J
15.		UNKNOWN HYDROCARBON		625	6.5×10^3 J
16.		UNKNOWN		718	8.4×10^3 J
17.		UNKNOWN HYDROCARBON		805	6.9×10^3 J
18.		UNKNOWN HYDROCARBON		887	5.9×10^3 J
19.		UNKNOWN HYDROCARBON		965	5.7×10^3 J
20.		UNKNOWN HYDROCARBON		1178	6.1×10^3 J
21.		UNKNOWN HYDROCARBON		1243	6.1×10^3 J
22.	NA	UNKNOWN HYDROCARBON		1305	6.0×10^3 J
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

88JG01573

: Sample Number:
EP734 :
:..... :

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 3DV2061 (1087); DEC 11111 (APM)
Sample Matrix: WATER
Data Release Authorized By: pw

Case No: 8624
GC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 12-03-87

VOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-03-87
Date Analyzed: 12-03-87
Conc/Dil Factor: 500 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	5000 U	78-87-5	1,2-DICHLOROPROPANE	2500 U
74-83-9	BROMOMETHANE	5000 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2500 U
75-01-4	VINYL CHLORIDE	5000 U	79-01-6	TRICHLOROETHENE	2500 U
75-00-3	CHLOROETHANE	5000 U	124-48-1	DIBROMOCHLOROMETHANE	2500 U
75-09-2	METHYLENE CHLORIDE	2000 J B	79-00-5	1,1,2-TRICHLOROETHANE	2500 U
67-64-1	ACETONE	11000	71-43-2	BENZENE	6300
75-15-0	CARBON DISULFIDE	2500 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2500 U
75-35-4	1,1-DICHLOROETHENE	2500 U	110-75-8	2-CHLOROETHYLVINYLETHER	5000 U
75-34-3	1,1-DICHLOROETHANE	2500 U	75-25-2	BROMOFORM	2500 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2500 U	591-78-6	2-HEXANONE	pw ~~4100 J~~ 5000 U
67-66-3	CHLOROFORM	2500 U	108-10-1	4-METHYL-2-PENTANONE	5000 U
107-06-2	1,2-DICHLOROETHANE	2500 U	127-18-4	TETRACHLOROETHENE	2500 U
78-93-3	2-BUTANONE	5000 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	2500 U
71-55-6	1,1,1-TRICHLOROETHANE	2500 U	108-88-3	TOLUENE	12000
56-23-5	CARBON TETRACHLORIDE	2500 U	108-90-7	CHLOROBENZENE	2500 U
108-05-4	VINYL ACETATE	5000 U	100-41-4	ETHYLBENZENE	1900 J
75-27-4	BROMODICHLOROMETHANE	2500 U	100-42-5	STYRENE	2500 U
				TOTAL XYLENES	14000

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.

Laboratory Name: S-CUBED
Case No: B624

Sample Number
EP734

ORGANIC ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-07-87
Date Analyzed: 12-11-87
Conc/Dil Factor: 200
Percent Moisture (Decanted): N.R

GPC Clean up ___Yes X No
Separatory Funnel Extraction ___Yes
Continuous Liquid - Liquid Extraction_____X____Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	9600	83-32-9	ACENAPHTHENE	2000 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	2000 U	51-28-5	2,4-DINITROPHENOL	10000 U
95-57-8	2-CHLOROPHENOL	2000 U	100-02-7	4-NITROPHENOL	10000 U
541-73-1	1-3,DICHLOROBENZENE	2000 U	132-64-9	DIBENZOFURAN	2000 U
106-46-7	1,4-DICHLOROBENZENE	2000 U	121-14-2	2,4-DINITROTOLUENE	2000 U
100-51-6	BENZYL ALCOHOL	2000 U	606-20-2	2,6-DINITROTOLUENE	2000 U
95-50-1	1,2-DICHLOROBENZENE	2000 U	84-66-2	DIETHYLPHTHALATE	2000 U
95-48-7	2-METHYLPHENOL	2000 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	2000 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	2000 U	86-73-7	FLUORENE	2000 U
106-44-5	4-METHYLPHENOL	2000 U	100-01-6	4-NITROANILINE	10000 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	2000 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	10000 U
67-72-1	HEXACHLOROETHANE	2000 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	2000 U
98-95-3	NITROBENZENE	2000 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	2000 U
78-59-1	ISOPHORONE	2000 U	118-74-1	HEXACHLOROBENZENE	2000 U
88-75-5	2-NITROPHENOL	2000 U	87-86-5	PENTACHLOROPHENOL	10000 U
105-67-9	2,4-DIMETHYLPHENOL	2000 U	85-01-8	PHENANTHRENE	7500
65-85-0	BENZOIC ACID	10000 U	120-12-7	ANTHRACENE	540 J
111-91-1	BIS(2-CHLOROETHOXY)METHANE	2000 U	84-74-2	DI-N-BUTYLPHTHALATE	2000 U
120-83-2	2,4-DICHLOROPHENOL	2000 U	206-44-0	FLUORANTHENE	2000 U
120-82-1	1,2,4-TRICHLOROBENZENE	2000 U	129-00-0	PYRENE	2000 U
91-20-3	NAPHTHALENE	11000	85-68-7	BUTYLBENZYLPHTHALATE	2000 U
106-47-8	4-CHLOROANILINE	2000 U	91-94-1	3,3'-DICHLOROBENZIDINE	4000 U
87-68-3	HEXACHLOROBUTADIENE	2000 U	56-55-3	BENZO(a)ANTHRACENE	2000 U
59-50-7	4-CHLORO-3-METHYLPHENOL	2000 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	2000 U
91-57-6	2-METHYLNAPHTHALENE	34000	218-01-9	CHRYSENE	1100 J
77-47-4	HEXACHLOROCYCLOPENTADIENE	2000 U	117-84-0	DI-N-OCTYL PHTHALATE	2000 U
88-06-2	2,4,6-TRICHLOROPHENOL	2000 U	205-99-2	BENZO(b)FLUORANTHENE	2000 U
95-95-4	2,4,5-TRICHLOROPHENOL	10000 U	207-08-9	BENZO(k)FLUORANTHENE	2000 U
91-58-7	2-CHLORONAPHTHALENE	2000 U	50-32-8	BENZO(a)PYRENE	2000 U
88-74-4	2-NITROANILINE	10000 U	193-39-5	INDENO(1,2,3-CD)PYRENE	2000 U
131-11-3	DIMETHYL PHTHALATE	2000 U	53-70-3	DIBENZ(a,h)ANTHRACENE	2000 U
208-96-8	ACENAPHTHYLENE	2000 U	191-24-2	BENZO(g,h,i)PERYLENE	2000 U
99-09-2	3-NITROANILINE	10000 U			

(1)-Cannot be seperated from diphenylamine.

Laboratory Name: S-Cubed
Case No.: B624

Sample Number
EP 734

ORGANICS ANALYSIS DATA
(Page 3)

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 12-03-87
Date Analyzed: 01-03-88
Conc/Dil Factor: 100.00

GPC Cleanup ___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	5.0 u
319-85-7	BETA-BHC	5.0 u
319-86-8	DELTA-BHC	5.0 u
58-89-9	GAMMA-BHC (LINDANE)	5.0 u
76-44-8	HEPTACHLOR	5.0 u
309-00-2	ALDRIN	5.0 u
1024-57-3	HEPTACHLOR EPOXIDE	5.0 u
959-98-8	ENDOSULFAN I	5.0 u
60-57-1	DIELDRIN	10 u
72-55-9	4,4'-DDE	10 u
72-20-8	ENDRIN	10 u
33213-65-9	ENDOSULFAN II	10 u
72-54-8	4,4'-DDD	10 u
7421-93-4	ENDRIN ALDEHYDE	10 u
1031-07-8	ENDOSULFAN SULFATE	10 u
50-29-3	4,4'-DDT	10 u
72-43-5	METHOXYCHLOR	50 u
53494-70-5	ENDRIN KETONE	10 u
57-74-9	CHLORDANE	50 u
8001-35-2	TOXAPHENE	100 u
12674-11-2	AROCLOR-1016	50 u
11104-28-2	AROCLOR-1221	50 u
11141-16-5	AROCLOR-1232	50 u
53469-21-9	AROCLOR-1242	50 u
12672-29-6	AROCLOR-1248	50 u
11097-69-1	AROCLOR-1254	100 u
11096-82-5	AROCLOR-1260	100 u

Volume of water extracted (ml): 1000
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

Form I 7/85 REV.

** CONFIRMED BY GC DUAL COLUMN CONFIRMATION

Laboratory Name S-CUBED

Case No 8624

Sample Number EP 734

3DV2061 (VOA)
DEC 11111 (ABN)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. NA	UNKNOWN	VOA	723	41×10^3 J
2.				
3. NA	UNKNOWN C3 alk benzene	ABN	245	26×10^3 J
4. NA	UNKNOWN HYDROCARBON		523	28×10^3 J
5. 90-12-0	1 methyl naphthalene		616	19×10^3 J
6. NA	UNKNOWN HYDROCARBON		624	24×10^3 J
7.	UNKNOWN		695	15×10^3 J
8.	UNKNOWN dimethyl naphthalene		705	18×10^3 J
9.	UNKNOWN		718	38×10^3 J
10.	UNKNOWN HYDROCARBON		772	14×10^3 J
11.	UNKNOWN HYDROCARBON		805	34×10^3 J
12.	UNKNOWN HYDROCARBON		887	33×10^3 J
13.	UNKNOWN HYDROCARBON		925	17×10^3 J
14.	UNKNOWN HYDROCARBON		965	36×10^3 J
15.	UNKNOWN HYDROCARBON		969	23×10^3 J
16.	UNKNOWN HYDROCARBON		1039	33×10^3 J
17.	UNKNOWN HYDROCARBON		1045	15×10^3 J
18. NA	UNKNOWN HYDROCARBON		1109	28×10^3 J
19. 10544-50-0	sulfur		1166	15×10^3 J
20. NA	UNKNOWN HYDROCARBON		1177	25×10^3 J
21.	UNKNOWN HYDROCARBON		1241	20×10^3 J
22. NA	UNKNOWN HYDROCARBON		1303	18×10^3 J
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

88JG01561

: Sample Number:
EP735 :

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 3DV20B1 (LIBRA; DEC/1071 CAPN)
Sample Matrix: WATER
Data Release Authorized By: _____

Case No: 8624
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 12-03-87

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-03-87
Date Analyzed: 12-03-87
Conc/Dil Factor: 500 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	5000 U	78-87-5	1,2-DICHLOROPROPANE	2500 U
74-83-9	BROMOMETHANE	5000 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2500 U
75-01-4	VINYL CHLORIDE	5000 U	79-01-6	TRICHLOROETHENE	2500 U
75-00-3	CHLOROETHANE	5000 U	124-48-1	DIBROMOCHLOROMETHANE	2500 U
75-09-2	METHYLENE CHLORIDE	1100 J B	79-00-5	1,1,2-TRICHLOROETHANE	2500 U
67-64-1	ACETONE	74000	71-43-2	BENZENE	2500 U
75-15-0	CARBON DISULFIDE	2500 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2500 U
75-35-4	1,1-DICHLOROETHENE	2500 U	110-75-8	2-CHLOROETHYLVINYLETHER	5000 U
75-34-3	1,1-DICHLOROETHANE	2500 U	75-25-2	BROMOFORM	2500 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2500 U	591-78-6	2-HEXANONE	5000 U
67-66-3	CHLOROFORM	2500 U	108-10-1	4-METHYL-2-PENTANONE	5000 U
107-06-2	1,2-DICHLOROETHANE	2500 U	127-18-4	TETRACHLOROETHENE	2500 U
78-93-3	2-BUTANONE	11000	79-34-5	1,1,2,2-TETRACHLOROETHANE	2500 U
71-55-6	1,1,1-TRICHLOROETHANE	2500 U	108-88-3	TOLUENE	2500 U
56-23-5	CARBON TETRACHLORIDE	2500 U	108-90-7	CHLOROBENZENE	2500 U
108-05-4	VINYL ACETATE	5000 U	100-41-4	ETHYLBENZENE	2500 U
75-27-4	BROMODICHLOROMETHANE	2500 U	100-42-5	STYRENE	2500 U
				TOTAL XYLENES	2500 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.

Laboratory Name: S-CUBED
Case No: 8624

Sample Number
EP735

ORGANIC ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-07-87
Date Analyzed: 12-11-87
Conc/Dil Factor: 80
Percent Moisture (Decanted): N.R

GPC Clean up ___Yes X No
Separatory Funnel Extraction ___Yes
Continuous Liquid - Liquid Extraction_____X_____Yes

CAS Number		ug/l or ug/kg (Circle one)
108-95-2	PHENOL	800 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	800 U
95-57-8	2-CHLOROPHENOL	800 U
541-73-1	1-3,DICHLOROBENZENE	800 U
106-46-7	1,4-DICHLOROBENZENE	800 U
100-51-6	BENZYL ALCOHOL	800 U
95-50-1	1,2-DICHLOROBENZENE	800 U
95-48-7	2-METHYLPHENOL	800 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	800 U
106-44-5	4-METHYLPHENOL	800 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	800 U
67-72-1	HEXACHLOROETHANE	800 U
98-95-3	NITROBENZENE	800 U
78-59-1	ISOPHORONE	800 U
88-75-5	2-NITROPHENOL	800 U
105-67-9	2,4-DIMETHYLPHENOL	800 U
65-85-0	BENZOIC ACID	4000 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	800 U
120-83-2	2,4-DICHLOROPHENOL	800 U
120-82-1	1,2,4-TRICHLOROBENZENE	800 U
91-20-3	NAPHTHALENE	800 U
106-47-8	4-CHLOROANILINE	800 U
87-68-3	HEXACHLOROBUTADIENE	800 U
59-50-7	4-CHLORO-3-METHYLPHENOL	800 U
91-57-6	2-METHYLNAPHTHALENE	800 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	800 U
88-06-2	2,4,6-TRICHLOROPHENOL	800 U
95-95-4	2,4,5-TRICHLOROPHENOL	4000 U
91-58-7	2-CHLORONAPHTHALENE	800 U
88-74-4	2-NITROANILINE	4000 U
131-11-3	DIMETHYL PHTHALATE	800 U
208-96-8	ACENAPHTHYLENE	800 U
99-09-2	3-NITROANILINE	4000 U

CAS Number		ug/l or ug/kg (Circle one)
83-32-9	ACENAPHTHENE	800 U
51-28-5	2,4-DINITROPHENOL	4000 U
100-02-7	4-NITROPHENOL	4000 U
132-64-9	DIBENZOFURAN	800 U
121-14-2	2,4-DINITROTOLUENE	800 U
606-20-2	2,6-DINITROTOLUENE	800 U
84-66-2	DIETHYLPHTHALATE	800 U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	800 U
86-73-7	FLUORENE	800 U
100-01-6	4-NITROANILINE	4000 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	4000 U
86-30-6	N-NITROSODIPHENYLAMINE (1)	800 U
101-55-3	4-BROMOPHENYL-PHENYLETHER	800 U
118-74-1	HEXACHLOROBENZENE	800 U
87-86-5	PENTACHLOROPHENOL	4000 U
85-01-8	PHENANTHRENE	800 U
120-12-7	ANTHRACENE	800 U
84-74-2	DI-N-BUTYLPHTHALATE	800 U
206-44-0	FLUORANTHENE	800 U
129-00-0	PYRENE	800 U
85-68-7	BUTYLBENZYLPHTHALATE	800 U
91-94-1	3,3'-DICHLOROBENZIDINE	1600 U
56-55-3	BENZO(a)ANTHRACENE	800 U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	800 U
218-01-9	CHRYSENE	800 U
117-84-0	DI-N-OCTYL PHTHALATE	800 U
205-99-2	BENZO(b)FLUORANTHENE	800 U
207-08-9	BENZO(k)FLUORANTHENE	800 U
50-32-8	BENZO(a)PYRENE	800 U
193-39-5	INDENO(1,2,3-CD)PYRENE	800 U
53-70-3	DIBENZ(a,h)ANTHRACENE	800 U
191-24-2	BENZO(g,h,i)PERYLENE	800 U

(1)-Cannot be seperated from diphenylamine.

Laboratory Name: S-Cubed
Case No.: 8624

Sample Number
EP 735

ORGANICS ANALYSIS DATA
(Page 3)

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 12-03-87
Date Analyzed: 01-03-88
Conc/Dil Factor: ~~2.50~~ 40 pw

GPC Cleanup ___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	2.0 u
319-85-7	BETA-BHC	2.2 **
319-86-8	DELTA-BHC	2.0 u
58-89-9	GAMMA-BHC (LINDANE)	7.5 **
76-44-8	HEPTACHLOR	2.0 u
309-00-2	ALDRIN	2.0 u
1024-57-3	HEPTACHLOR EPOXIDE	2.0 u
959-98-8	ENDOSULFAN I	2.0 u
60-57-1	DIELDRIN	4.0 u
72-55-9	4,4'-DDE	4.0 u
72-20-8	ENDRIN	4.0 u
33213-65-9	ENDOSULFAN II	4.0 u
72-54-8	4,4'-DDD	4.0 u
7421-93-4	ENDRIN ALDEHYDE	4.0 u
1031-07-8	ENDOSULFAN SULFATE	4.0 u
50-29-3	4,4'-DDT	4.0 u
72-43-5	METHOXYCHLOR	20 u
53494-70-5	ENDRIN KETONE	4.0 u
57-74-9	CHLORDANE	20 u
8001-35-2	TOXAPHENE	40 u
12674-11-2	AROCLOR-1016	20 u
11104-28-2	AROCLOR-1221	20 u
11141-16-5	AROCLOR-1232	20 u
53469-21-9	AROCLOR-1242	20 u
12672-29-6	AROCLOR-1248	20 u
11097-69-1	AROCLOR-1254	40 u
11096-82-5	AROCLOR-1260	40 u

Volume of water extracted (ml): 250
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN CONFIRMATION

Lab Name S-FIRED

Case No 8624

Sample Number EP 735

3DV2081 (VOA)
DEC 11071 (ABN)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 75-18-3	thiobis methane	VOA	157	110×10^3 J
2. NA	UNKNOWN		224	3.7×10^3 J
3. 624-92-0	dimethyl disulfide		309	18×10^3 J
4. 1551-21-9	2 (methylthio) propane		318	21×10^3 J
5. 10359-64-5	2 (methylthio) butane		395	3.8×10^3 J
6.				
7. NA	UNKNOWN	ABN	333	6.4×10^3 J
8.	UNKNOWN		374	3.8×10^3 J
9.	UNKNOWN		411	92×10^3 J
10.	UNKNOWN		414	29×10^3 J
11.	UNKNOWN		421	40×10^3 J
12.	UNKNOWN		431	5.1×10^3 J
13.	UNKNOWN		439	9.6×10^3 J
14.	UNKNOWN		469	13×10^3 J
15.	UNKNOWN		480	44×10^3 J
16.	UNKNOWN		506	31×10^3 J
17.	UNKNOWN		514	19×10^3 J
18.	UNKNOWN		518	17×10^3 J
19.	UNKNOWN		571	9.1×10^3 J
20.	UNKNOWN		629	7.1×10^3 J
21.	UNKNOWN		645	7.1×10^3 J
22.	UNKNOWN		719	3.9×10^3 J
23.	UNKNOWN		723	4.1×10^3 J
24.	UNKNOWN		736	3.9×10^3 J
25.	UNKNOWN		781	4.6×10^3 J
26. NA			786	4.8×10^3 J
27.				
28.				
29.				
30.				

88JG01564

Sample Number: EP736

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 4DV2051 (VOA); DEC11101 (APPV)
Sample Matrix: WATER
Data Release Authorized By: JW

Case No: 8624
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 12-04-87

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-04-87
Date Analyzed: 12-04-87
Conc/Dil Factor: 100 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	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	1200 B	79-00-5	1,1,2-TRICHLOROETHANE	500 U
67-64-1	ACETONE	11000 B	71-43-2	BENZENE	4600
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	JW ~~730 J~~ 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	500 U
78-93-3	2-BUTANONE	1000 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	500 U
71-55-6	1,1,1-TRICHLOROETHANE	500 U	108-88-3	TOLUENE	5600
56-23-5	CARBON TETRACHLORIDE	500 U	108-90-7	CHLOROBENZENE	230 J
108-05-4	VINYL ACETATE	1000 U	100-41-4	ETHYLBENZENE	760
75-27-4	BROMODICHLOROMETHANE	500 U	100-42-5	STYRENE	500 U
				TOTAL XYLENES	5700

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.

Laboratory Name: S-CUBED
Case No: 8624

Sample Number
EP736

ORGANIC ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-07-87
Date Analyzed: 12-11-87
Conc/Dil Factor: 40
Percent Moisture (Decanted): N.R

GPC Clean up ___Yes X___No
Separatory Funnel Extraction ___Yes
Continuous Liquid - Liquid Extraction_____X_____Yes

CAS Number		ug/l or ug/kg (Circle one)
108-95-2	PHENOL	10000
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	3700
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	400 U
67-72-1	HEXACHLOROETHANE	400 U
98-95-3	NITROBENZENE	400 U
78-59-1	ISOPHORONE	400 U
88-75-5	2-NITROPHENOL	400 U
105-67-9	2,4-DIMETHYLPHENOL	400 U
65-85-0	BENZOIC ACID	2000 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	4500
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	10000
77-47-4	HEXACHLOROCYCLOPENTADIENE	400 U
88-06-2	2,4,6-TRICHLOROPHENOL	400 U
95-95-4	2,4,5-TRICHLOROPHENOL	2000 U
91-58-7	2-CHLORONAPHTHALENE	400 U
88-74-4	2-NITROANILINE	2000 U
131-11-3	DIMETHYL PHTHALATE	400 U
208-96-8	ACENAPHTHYLENE	400 U
99-09-2	3-NITROANILINE	2000 U

CAS Number		ug/l or ug/kg (Circle one)
83-32-9	ACENAPHTHENE	400 U
51-28-5	2,4-DINITROPHENOL	2000 U
100-02-7	4-NITROPHENOL	2000 U
132-64-9	DIBENZOFURAN	400 U
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	400 U
100-01-6	4-NITROANILINE	2000 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	2000 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	2000 U
85-01-8	PHENANTHRENE	1400
120-12-7	ANTHRACENE	400 U
84-74-2	DI-N-BUTYLPHTHALATE	400 U
206-44-0	FLUORANTHENE	400 U
129-00-0	PYRENE	400 U
85-68-7	BUTYLBENZYLPHTHALATE	400 U
91-94-1	3,3'-DICHLOROBENZIDINE	800 U
56-55-3	BENZO(a)ANTHRACENE	400 U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	400 U
218-01-9	CHRYSENE	200 J
117-84-0	DI-N-OCTYL PHTHALATE	400 U
205-99-2	BENZO(b)FLUORANTHENE	400 U
207-08-9	BENZO(k)FLUORANTHENE	400 U
50-32-8	BENZO(a)PYRENE	400 U
193-39-5	INDENO(1,2,3-CD)PYRENE	400 U
53-70-3	DIBENZ(a,h)ANTHRACENE	400 U
191-24-2	BENZO(g,h,i)PERYLENE	400 U

(1)-Cannot be seperated from diphenylamine.

Laboratory Name: S-Cubed
Case No.: 8624

Sample Number
EP 736

ORGANICS ANALYSIS DATA
(Page 3)

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 12-04-87
Date Analyzed: 01-04-88
Conc/Dil Factor: 10.00

GPC Cleanup ___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	0.50 u
319-85-7	BETA-BHC	0.50 u
319-86-8	DELTA-BHC	0.50 u
58-89-9	GAMMA-BHC (LINDANE)	0.50 u
76-44-8	HEPTACHLOR	0.50 u
309-00-2	ALDRIN	0.50 u
1024-57-3	HEPTACHLOR EPOXIDE	0.50 u
959-98-8	ENDOSULFAN I	0.50 u
60-57-1	DIELDRIN	1.0 u
72-55-9	4,4'-DDE	1.0 u
72-20-8	ENDRIN	1.0 u
33213-65-9	ENDOSULFAN II	1.0 u
72-54-8	4,4'-DDD	1.0 u
7421-93-4	ENDRIN ALDEHYDE	1.0 u
1031-07-8	ENDOSULFAN SULFATE	1.0 u
50-29-3	4,4'-DDT	1.0 u
72-43-5	METHOXYCHLOR	5.0 u
53494-70-5	ENDRIN KETONE	1.0 u
57-74-9	CHLORDANE	5.0 u
8001-35-2	TOXAPHENE	10 u
12674-11-2	AROCLOR-1016	5.0 u
11104-28-2	AROCLOR-1221	5.0 u
11141-16-5	AROCLOR-1232	5.0 u
53469-21-9	AROCLOR-1242	5.0 u
12672-29-6	AROCLOR-1248	5.0 u
11097-69-1	AROCLOR-1254	10 u
11096-82-5	AROCLOR-1260	10 u

Volume of water extracted (ml): 1000
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN CONFIRMATION

Laboratory Name S-CUBED

Case No 8624

Sample Number EP736

4DV2051 (VOA)
DEC 11 01 (ABN)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 624-92-0	Dimethyl disulfide	VOA	311	670 J
2. 1551-21-9	2 (methylthio) propane	↓	319	980 J
3. NA	UNKNOWN		723	4000 J
4.				
5. NA	UNKNOWN C3 sub benzene	ABN	249	4.5×10^3 J
6.	UNKNOWN HYDROCARBON		412	3.4×10^3 J
7.	UNKNOWN C4 sub benzene		422	3.4×10^3 J
8.	UNKNOWN dihydro methyl indene		452	2.8×10^3 J
9. NA	UNKNOWN HYDROCARBON		525	5.8×10^3 J
10. 90-12-0	1 methyl naphthalene		617	3.0×10^3 J
11. NA	UNKNOWN HYDROCARBON		626	6.3×10^3 J
12.	UNKNOWN		697	3.8×10^3 J
13.	UNKNOWN dimethyl naphthalene		707	3.5×10^3 J
14.	UNKNOWN		719	8.3×10^3 J
15.	UNKNOWN HYDROCARBON		773	2.9×10^3 J
16.	UNKNOWN HYDROCARBON		806	6.8×10^3 J
17.	UNKNOWN HYDROCARBON		887	5.7×10^3 J
18.	UNKNOWN HYDROCARBON		966	5.7×10^3 J
19.	UNKNOWN HYDROCARBON		1039	5.1×10^3 J
20.	UNKNOWN HYDROCARBON		1110	4.9×10^3 J
21.	UNKNOWN HYDROCARBON		1178	5.2×10^3 J
22.	UNKNOWN HYDROCARBON		1243	4.5×10^3 J
23.	UNKNOWN HYDROCARBON		1304	4.6×10^3 J
24. NA	UNKNOWN HYDROCARBON	↓	1364	3.4×10^3 J
25.				
26.				
27.				
28.				
29.				
30.				

88JG01565

Sample Number: EP737

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 4DV2061 (LOW); DEC 11 137 (MEDN)
Sample Matrix: WATER
Data Release Authorized By: _____

Case No: 8624
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 12-04-87

VOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-04-87
Date Analyzed: 12-04-87
Conc/Dil Factor: 100 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	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	1100 B	79-00-5	1,1,2-TRICHLOROETHANE	500 U
67-64-1	ACETONE	18000 B	71-43-2	BENZENE	7600
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	~~1300~~ 1000 u pw
67-66-3	CHLOROFORM	500 U	108-10-1	4-METHYL-2-PENTANONE	~~420 J~~ 1000 u pw
107-06-2	1,2-DICHLOROETHANE	500 U	127-18-4	TETRACHLOROETHENE	500 U
78-93-3	2-BUTANONE	1000 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	500 U
71-55-6	1,1,1-TRICHLOROETHANE	500 U	108-88-3	TOLUENE	7800
56-23-5	CARBON TETRACHLORIDE	500 U	108-90-7	CHLOROBENZENE	200 J
108-05-4	VINYL ACETATE	1000 U	100-41-4	ETHYLBENZENE	800
75-27-4	BROMODICHLOROMETHANE	500 U	100-42-5	STYRENE	500 U
				TOTAL XYLENES	5900

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.

Laboratory Name: S-CUBED
Case No: 8624

Sample Number
EF737

ORGANIC ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-07-87
Date Analyzed: 12-11-87
Conc/Dil Factor: 2.0
Percent Moisture (Decanted): N.R

GPC Clean up ___Yes X No
Separatory Funnel Extraction ___Yes
Continuous Liquid - Liquid Extraction_____X_____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	38
111-44-4	BIS(2-CHLOROETHYL)ETHER	20 U	51-28-5	2,4-DINITROPHENOL	100 U
95-57-8	2-CHLOROPHENOL	20 U	100-02-7	4-NITROPHENOL	100 U
541-73-1	1-3,DICHLOROBENZENE	20 U	132-64-9	DIBENZOFURAN	37
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-CHLORDISOPROPYL)ETHER	20 U	86-73-7	FLUORENE	20 U
106-44-5	4-METHYLPHENOL	20 U	100-01-6	4-NITROANILINE	100 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	20 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	100 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	ISOPHORONE	20 U	118-74-1	HEXACHLOROBENZENE	20 U
88-75-5	2-NITROPHENOL	20 U	87-86-5	PENTACHLOROPHENOL	100 U
105-67-9	2,4-DIMETHYLPHENOL	20 U	85-01-8	PHENANTHRENE	210
65-85-0	BENZOIC ACID	100 U	120-12-7	ANTHRACENE	16 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	600	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 J
59-50-7	4-CHLORO-3-METHYLPHENOL	20 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	20 U
91-57-6	2-METHYLNAPHTHALENE	1300	218-01-9	CHRYSENE	24
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	100 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	100 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	100 U			

(1)-Cannot be seperated from diphenylamine.

Laboratory Name: S-Cubed
Case No.: 8624

Sample Number
EP 737

ORGANICS ANALYSIS DATA
(Page 3)

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 12-04-87
Date Analyzed: 01-03-88
Conc/Dil Factor: 100.00

GPC Cleanup ___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	5.0 u
319-85-7	BETA-BHC	5.0 u
319-86-8	DELTA-BHC	5.0 u
58-89-9	GAMMA-BHC (LINDANE)	5.0 u
76-44-8	HEPTACHLOR	5.0 u
309-00-2	ALDRIN	5.0 u
1024-57-3	HEPTACHLOR EPOXIDE	5.0 u
959-98-8	ENDOSULFAN I	5.0 u
60-57-1	DIELDRIN	10 u
72-55-9	4,4'-DDE	10 u
72-20-8	ENDRIN	10 u
33213-65-9	ENDOSULFAN II	10 u
72-54-8	4,4'-DDD	10 u
7421-93-4	ENDRIN ALDEHYDE	10 u
1031-07-8	ENDOSULFAN SULFATE	10 u
50-29-3	4,4'-DDT	10 u
72-43-5	METHOXYCHLOR	50 u
53494-70-5	ENDRIN KETONE	10 u
57-74-9	CHLORDANE	50 u
8001-35-2	TOXAPHENE	100 u
12674-11-2	AROCLOR-1016	50 u
11104-28-2	AROCLOR-1221	50 u
11141-16-5	AROCLOR-1232	50 u
53469-21-9	AROCLOR-1242	50 u
12672-29-6	AROCLOR-1248	50 u
11097-69-1	AROCLOR-1254	100 u
11096-82-5	AROCLOR-1260	100 u

Volume of water extracted (ml): 1000
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN CONFIRMATION

Laboratory Name S-CUBED

Case No 8624

Sample Number EP 737

4DV2061 (VOA)
DEC 11137 (ABN)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. NA	UNKNOWN	VOA	236	860 J
2. 624-92-0	dimethyl disulfide	↓	310	600 J
3.				
4. NA	UNKNOWN xylene	ABN	52	160 J
5.	UNKNOWN C_3 sub. benzene		198	170 J
6.	UNKNOWN C_3 sub. benzene		251	210 J
7.	UNKNOWN		293	300 J
8.	UNKNOWN		376	280 J
9.	UNKNOWN		413	330 J
10. NA	UNKNOWN HYDROCARBON		526	170 J
11. 90-12-0	1 methyl naphthalene		622	220 J
12. NA	UNKNOWN dimethyl naphthalene		711	330 J
13.	UNKNOWN dimethyl naphthalene		727	430 J
14.	UNKNOWN HYDROCARBON		807	390 J
15.	UNKNOWN trimethyl naphthalene		819	260 J
16.	UNKNOWN trimethyl naphthalene		845	230 J
17.	UNKNOWN HYDROCARBON		888	320 J
18.	UNKNOWN		954	290 J
19.	UNKNOWN HYDROCARBON		966	190 J
20.	UNKNOWN HYDROCARBON		1040	300 J
21. NA	UNKNOWN HYDROCARBON		1111	290 J
22 10544-50-0	sulfur		1172	480 J
23 NA	UNKNOWN	↓	1284	340 J
24.				
25.				
26.				
27.				
28.				
29.				
30.				

88JG01566

Sample Number: EP738

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 4DV2071 (UPA); DEC14071 (ADN)
Sample Matrix: WATER
Data Release Authorized By: ADN

Case No: 8624
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 12-04-87

VOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-04-87
Date Analyzed: 12-04-87
Conc/Dil Factor: 500 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	5000 U	78-87-5	1,2-DICHLOROPROPANE	2500 U
74-83-9	BROMOMETHANE	5000 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2500 U
75-01-4	VINYL CHLORIDE	5000 U	79-01-6	TRICHLOROETHENE	2500 U
75-00-3	CHLOROETHANE	5000 U	124-48-1	DIBROMOCHLOROMETHANE	2500 U
75-09-2	METHYLENE CHLORIDE	6500 B	79-00-5	1,1,2-TRICHLOROETHANE	2500 U
67-64-1	ACETONE	110000 B	71-43-2	BENZENE	2500 U
75-15-0	CARBON DISULFIDE	2500 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2500 U
75-35-4	1,1-DICHLOROETHENE	2500 U	110-75-8	2-CHLOROETHYLVINYLETHER	5000 U
75-34-3	1,1-DICHLOROETHANE	2500 U	75-25-2	BROMOFORM	2500 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2500 U	591-78-6	2-HEXANONE	5000 U
67-66-3	CHLOROFORM	2500 U	108-10-1	4-METHYL-2-PENTANONE	5000 U
107-06-2	1,2-DICHLOROETHANE	2500 U	127-18-4	TETRACHLOROETHENE	2500 U
78-93-3	2-BUTANONE	15000	79-34-5	1,1,2,2-TETRACHLOROETHANE	2500 U
71-55-6	1,1,1-TRICHLOROETHANE	2500 U	108-88-3	TOLUENE	2500 U
56-23-5	CARBON TETRACHLORIDE	2500 U	108-90-7	CHLOROBENZENE	2500 U
108-05-4	VINYL ACETATE	5000 U	100-41-4	ETHYLBENZENE	2500 U
75-27-4	BROMODICHLOROMETHANE	2500 U	100-42-5	STYRENE	2500 U
				TOTAL XYLENES	2500 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.

Laboratory Name: S-CUBED
Case No: 8624

Sample Number
EP738

ORGANIC ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-07-87
Date Analyzed: 12-14-87
Conc/Dil Factor: 40
Percent Moisture (Decanted): N.R

GPC Clean up ___Yes X No
Separatory Funnel Extraction ___Yes
Continuous Liquid - Liquid Extraction_____X_____Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (circle one)
108-95-2	PHENOL	400 U	83-32-9	ACENAPHTHENE	400 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	400 U	51-28-5	2,4-DINITROPHENOL	2000 U
95-57-8	2-CHLOROPHENOL	400 U	100-02-7	4-NITROPHENOL	2000 U
541-73-1	1-3,DICHLOROBENZENE	400 U	132-64-9	DIBENZOFURAN	400 U
106-46-7	1,4-DICHLOROBENZENE	400 U	121-14-2	2,4-DINITROTOLUENE	400 U
100-51-6	BENZYL ALCOHOL	400 U	606-20-2	2,6-DINITROTOLUENE	400 U
95-50-1	1,2-DICHLOROBENZENE	400 U	84-66-2	DIETHYLPHTHALATE	400 U
95-48-7	2-METHYLPHENOL	400 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	400 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	400 U	86-73-7	FLUORENE	400 U
106-44-5	4-METHYLPHENOL	400 U	100-01-6	4-NITROANILINE	2000 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	400 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	2000 U
67-72-1	HEXACHLOROETHANE	400 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	400 U
98-95-3	NITROBENZENE	400 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	400 U
78-59-1	ISOPHORONE	400 U	118-74-1	HEXACHLOROBENZENE	400 U
88-75-5	2-NITROPHENOL	400 U	87-86-5	PENTACHLOROPHENOL	2000 U
105-67-9	2,4-DIMETHYLPHENOL	400 U	85-01-8	PHENANTHRENE	400 U
65-85-0	BENZOIC ACID	2000 U	120-12-7	ANTHRACENE	400 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	400 U	84-74-2	DI-N-BUTYLPHTHALATE	400 U
120-83-2	2,4-DICHLOROPHENOL	400 U	206-44-0	FLUORANTHENE	400 U
120-82-1	1,2,4-TRICHLOROBENZENE	400 U	129-00-0	PYRENE	400 U
91-20-3	NAPHTHALENE	400 U	85-68-7	BUTYLBENZYLPHTHALATE	400 U
106-47-8	4-CHLOROANILINE	400 U	91-94-1	3,3'-DICHLOROBENZIDINE	800 U
87-68-3	HEXACHLOROBUTADIENE	400 U	56-55-3	BENZO(a)ANTHRACENE	400 U
59-50-7	4-CHLORO-3-METHYLPHENOL	400 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	400 U
91-57-6	2-METHYLNAPHTHALENE	400 U	218-01-9	CHRYSENE	400 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	400 U	117-84-0	DI-N-OCTYL PHTHALATE	400 U
88-06-2	2,4,6-TRICHLOROPHENOL	400 U	205-99-2	BENZO(b)FLUORANTHENE	400 U
95-95-4	2,4,5-TRICHLOROPHENOL	2000 U	207-08-9	BENZO(k)FLUORANTHENE	400 U
91-58-7	2-CHLORONAPHTHALENE	400 U	50-32-8	BENZO(a)PYRENE	400 U
88-74-4	2-NITROANILINE	2000 U	193-39-5	INDENO(1,2,3-CD)PYRENE	400 U
131-11-3	DIMETHYL PHTHALATE	400 U	53-70-3	DIBENZ(a,h)ANTHRACENE	400 U
208-96-8	ACENAPHTHYLENE	400 U	191-24-2	BENZO(g,h,i)PERYLENE	400 U
99-09-2	3-NITROANILINE	2000 U			

(1)-Cannot be seperated from diphenylamine.

Laboratory Name: G-Cubed
Case No.: 8624

Sample Number
EP 738

ORGANICS ANALYSIS DATA
(Page 3)

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 12-04-87
Date Analyzed: 01-04-88
Conc/Dil Factor: ~~2.50~~ 40 gw

GPC Cleanup ___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	2.0 u
319-85-7	BETA-BHC	2.0 u
319-86-8	DELTA-BHC	2.0 u
58-89-9	GAMMA-BHC (LINDANE)	2.0 u
76-44-8	HEPTACHLOR	2.0 u
309-00-2	ALDRIN	2.0 u
1024-57-3	HEPTACHLOR EPOXIDE	2.0 u
959-98-8	ENDOSULFAN I	2.0 u
60-57-1	DIELDRIN	4.0 u
72-55-9	4,4'-DDE	4.0 u
72-20-8	ENDRIN	4.0 u
33213-65-9	ENDOSULFAN II	4.0 u
72-54-8	4,4'-DDD	4.0 u
7421-93-4	ENDRIN ALDEHYDE	4.0 u
1031-07-8	ENDOSULFAN SULFATE	4.0 u
50-29-3	4,4'-DDT	4.0 u
72-43-5	METHOXYCHLOR	20 u
53494-70-5	ENDRIN KETONE	4.0 u
57-74-9	CHLORDANE	20 u
8001-35-2	TOXAPHENE	40 u
12674-11-2	AROCLOR-1016	20 u
11104-28-2	AROCLOR-1221	20 u
11141-16-5	AROCLOR-1232	20 u
53469-21-9	AROCLOR-1242	20 u
12672-29-6	AROCLOR-1248	20 u
11097-69-1	AROCLOR-1254	40 u
11096-82-5	AROCLOR-1260	40 u

Volume of water extracted (ml): 250
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN CONFIRMATION

Laboratory Name S-CUBED

Case No 8624

Sample Number EP738

4DV2071 (VOA)
DEC14071 (ABN)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	75-18-3	thiobis methane	VOA	158	300×10^3 J
2.	NA	UNKNOWN		225	15×10^3 J
3.	624-89-5	methyl thio ethane		250	25×10^3 J
4.	624-92-0	dimethyl disulfide		310	13×10^3 J
5.	1551-21-9	2 methyl thio propane		318	14×10^3 J
6.			ABN	46	3.2×10^3 J
7.	NA	UNKNOWN		328	4.5×10^3 J
8.		UNKNOWN		369	1.9×10^3 J
9.		UNKNOWN		403	23×10^3 J
10.		UNKNOWN		407	5.9×10^3 J
11.		UNKNOWN		415	11×10^3 J
12.		UNKNOWN		425	2.7×10^3 J
13.		UNKNOWN		437	1.9×10^3 J
14.		UNKNOWN		459	5.3×10^3 J
15.		UNKNOWN		474	5.4×10^3 J
16.		UNKNOWN		501	11×10^3 J
17.		UNKNOWN		509	5.8×10^3 J
18.		UNKNOWN		527	9.6×10^3 J
19.		UNKNOWN		607	6.4×10^3 J
20.		UNKNOWN		625	2.9×10^3 J
21.		UNKNOWN		641	3.2×10^3 J
22.		UNKNOWN		668	4.1×10^3 J
23.		UNKNOWN		685	3.3×10^3 J
24.		UNKNOWN		720	3.4×10^3 J
25.		UNKNOWN		732	3.0×10^3 J
26.	NA				
27.					
28.					
29.					
30.					

88JG01569

: Sample Number:
EP739 :

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 3DV2031 (VOA); DEC 10031 (APOW)
Sample Matrix: WATER
Data Release Authorized By: _____

Case No: 8624
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 12-03-87

VOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-03-87
Date Analyzed: 12-03-87
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	10 U	78-87-5	1,2-DICHLOROPROPANE	5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	5 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	5 U
75-00-3	CHLOROETHANE	10 U	124-48-1	DIBROMOCHLOROMETHANE	5 U
75-09-2	METHYLENE CHLORIDE	6 B	79-00-5	1,1,2-TRICHLOROETHANE	5 U
67-64-1	ACETONE	10 U	71-43-2	BENZENE	5 U
75-15-0	CARBON DISULFIDE	5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	5 U
75-35-4	1,1-DICHLOROETHENE	5 U	110-75-8	2-CHLOROETHYLVINYLETHER	10 U
75-34-3	1,1-DICHLOROETHANE	5 U	75-25-2	BROMOFORM	5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	5 U	591-78-6	2-HEXANONE	10 U
67-66-3	CHLOROFORM	5 U	108-10-1	4-METHYL-2-PENTANONE	10 U
107-06-2	1,2-DICHLOROETHANE	5 U	127-18-4	TETRACHLOROETHENE	5 U
78-93-3	2-BUTANONE	10 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	5 U
71-55-6	1,1,1-TRICHLOROETHANE	5 U	108-88-3	TOLUENE	5 U
56-23-5	CARBON TETRACHLORIDE	5 U	108-90-7	CHLOROBENZENE	5 U
108-05-4	VINYL ACETATE	10 U	100-41-4	ETHYLBENZENE	5 U
75-27-4	BROMODICHLOROMETHANE	5 U	100-42-5	STYRENE	5 U
				TOTAL XYLENES	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.

Laboratory Name: S-CUBED
Case No: 8624

Sample Number :
EP739 :

ORGANIC ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-03-87
Date Analyzed: 12-10-87
Conc/Dil Factor: 1.0
Percent Moisture (Decanted): N.R

GPC Clean up ___Yes X No
Separatory Funnel Extraction ___Yes
Continuous Liquid - Liquid Extraction_____X_____Yes

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

(1)-Cannot be seperated from diphenylamine.

Laboratory Name: S-Cubed
Case No.: 8624

Sample Number
EP 739

ORGANICS ANALYSIS DATA
(Page 3)

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 12-03-87
Date Analyzed: 01-03-88
Conc/Dil Factor: 1.00

GPC Cleanup ___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	0.050 u
319-85-7	BETA-BHC	0.050 u
319-86-8	DELTA-BHC	0.050 u
58-89-9	GAMMA-BHC (LINDANE)	0.050 u
76-44-8	HEPTACHLOR	0.050 u
309-00-2	ALDRIN	0.050 u
1024-57-3	HEPTACHLOR EPOXIDE	0.050 u
959-98-8	ENDOSULFAN I	0.050 u
60-57-1	DIELDRIN	0.10 u
72-55-9	4,4'-DDE	0.10 u
72-20-8	ENDRIN	0.10 u
33213-65-9	ENDOSULFAN II	0.10 u
72-54-8	4,4'-DDD	0.10 u
7421-93-4	ENDRIN ALDEHYDE	0.10 u
1031-07-8	ENDOSULFAN SULFATE	0.10 u
50-29-3	4,4'-DDT	0.10 u
72-43-5	METHOXYCHLOR	0.50 u
53494-70-5	ENDRIN KETONE	0.10 u
57-74-9	CHLORDANE	0.50 u
8001-35-2	TOXAPHENE	1.0 u
12674-11-2	AROCLOR-1016	0.50 u
11104-28-2	AROCLOR-1221	0.50 u
11141-16-5	AROCLOR-1232	0.50 u
53469-21-9	AROCLOR-1242	0.50 u
12672-29-6	AROCLOR-1248	0.50 u
11097-69-1	AROCLOR-1254	1.0 u
11096-82-5	AROCLOR-1260	1.0 u

Volume of water extracted (ml): 1000
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

Form I 7/85 REV.

** CONFIRMED BY GC DUAL COLUMN CONFIRMATION

Laboratory Name S-CUBED

Case No 8624

Sample Number EP739

3DV2031 (VOA)
DEC 10031 (ADN)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	UNKNOWN	VOA	135	13 J
2.				
3. NA	UNKNOWN	ADN	36	49 J B
4.	UNKNOWN		99	49 J B
5.	UNKNOWN		182	89 J B
6.	UNKNOWN C3 sub. benzene		248	17 J
7.	UNKNOWN		1213	8 J
8. NA	UNKNOWN		1601	9 J
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

88JG01571

Sample Number:
EP741

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 7DV2031 (VOA); DEC11031 (ABN)
Sample Matrix: WATER
Data Release Authorized By: pw

Case No: 8624
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 12-05-87

VOLATILE COMPOUNDS
Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-07-87
Date Analyzed: 12-07-87
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	10 U	78-87-5	1,2-DICHLOROPROPANE	5 U
74-83-9	BROMOMETHANE	10 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	5 U
75-01-4	VINYL CHLORIDE	10 U	79-01-6	TRICHLOROETHENE	5 U
75-00-3	CHLOROETHANE	10 U	124-48-1	DIBROMOCHLOROMETHANE	5 U
75-09-2	METHYLENE CHLORIDE	4 J B	79-00-5	1,1,2-TRICHLOROETHANE	5 U
67-64-1	ACETONE	40 B	71-43-2	BENZENE	5 U
75-15-0	CARBON DISULFIDE	5 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	5 U
75-35-4	1,1-DICHLOROETHENE	5 U	110-75-8	2-CHLOROETHYLVINYLETHER	10 U
75-34-3	1,1-DICHLOROETHANE	5 U	75-25-2	BROMOFORM	5 U
156-60-5	TRANS-1,2-DICHLOROETHENE	5 U	591-78-6	2-HEXANONE	10 U
67-66-3	CHLOROFORM	5 U	108-10-1	4-METHYL-2-PENTANONE	10 U
107-06-2	1,2-DICHLOROETHANE	5 U	127-18-4	TETRACHLOROETHENE	5 U
78-93-3	2-BUTANONE	10 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	5 U
71-55-6	1,1,1-TRICHLOROETHANE	5 U	108-88-3	TOLUENE	2 J
56-23-5	CARBON TETRACHLORIDE	5 U	108-90-7	CHLOROBENZENE	5 U
108-05-4	VINYL ACETATE	10 U	100-41-4	ETHYLBENZENE	5 U
75-27-4	BROMODICHLOROMETHANE	5 U	100-42-5	STYRENE	5 U
				TOTAL XYLENES	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.

Laboratory Name: S-CUBED
Case No: 8624

Sample Number
EP741

ORGANIC ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12-08-87
Date Analyzed: 12-11-87
Conc/Dil Factor: 1.0
Percent Moisture (Decanted): N.R

GPC Clean up ___Yes K No
Separatory Funnel Extraction ___Yes
Continuous Liquid - Liquid Extraction_____X_____Yes

CAS Number		(ug/l) or ug/kg (Circle one)
108-95-2	PHENOL	10 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	10 U
95-57-8	2-CHLOROPHENOL	10 U
541-73-1	1-3,DICHLOROBENZENE	10 U
106-46-7	1,4-DICHLOROBENZENE	10 U
100-51-6	BENZYL ALCOHOL	10 U
95-50-1	1,2-DICHLOROBENZENE	10 U
95-48-7	2-METHYLPHENOL	10 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	10 U
106-44-5	4-METHYLPHENOL	10 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	10 U
67-72-1	HEXACHLOROETHANE	10 U
98-95-3	NITROBENZENE	10 U
78-59-1	ISOPHORONE	10 U
88-75-5	2-NITROPHENOL	10 U
105-67-9	2,4-DIMETHYLPHENOL	10 U
65-85-0	BENZOIC ACID	50 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	10 U
120-83-2	2,4-DICHLOROPHENOL	10 U
120-82-1	1,2,4-TRICHLOROBENZENE	10 U
91-20-3	NAPHTHALENE	4 J
106-47-8	4-CHLOROANILINE	10 U
87-68-3	HEXACHLOROBUTADIENE	10 U
59-50-7	4-CHLORO-3-METHYLPHENOL	10 U
91-57-6	2-METHYLNAPHTHALENE	11
77-47-4	HEXACHLOROCYCLOPENTADIENE	10 U
88-06-2	2,4,6-TRICHLOROPHENOL	10 U
95-95-4	2,4,5-TRICHLOROPHENOL	50 U
91-58-7	2-CHLORONAPHTHALENE	10 U
88-74-4	2-NITROANILINE	50 U
131-11-3	DIMETHYL PHTHALATE	10 U
208-96-8	ACENAPHTHYLENE	10 U
99-09-2	3-NITROANILINE	50 U

CAS Number		(ug/l) or ug/kg (Circle one)
83-32-9	ACENAPHTHENE	10 U
51-28-5	2,4-DINITROPHENOL	50 U
100-02-7	4-NITROPHENOL	50 U
132-64-9	DIBENZOFURAN	10 U
121-14-2	2,4-DINITROTOLUENE	10 U
606-20-2	2,6-DINITROTOLUENE	10 U
84-66-2	DIETHYLPHTHALATE	10 U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	10 U
86-73-7	FLUORENE	10 U
100-01-6	4-NITROANILINE	50 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	50 U
86-30-6	N-NITROSODIPHENYLAMINE (1)	10 U
101-55-3	4-BROMOPHENYL-PHENYLETHER	10 U
118-74-1	HEXACHLOROBENZENE	10 U
87-86-5	PENTACHLOROPHENOL	50 U
85-01-8	PHENANTHRENE	3 J
120-12-7	ANTHRACENE	10 U
84-74-2	DI-N-BUTYLPHTHALATE	10 U
206-44-0	FLUORANTHENE	10 U
129-00-0	PYRENE	10 U
85-68-7	BUTYLBENZYLPHTHALATE	10 U
91-94-1	3,3'-DICHLOROBENZIDINE	20 U
56-55-3	BENZO(a)ANTHRACENE	10 U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	2 J B
218-01-9	CHRYSENE	10 U
117-84-0	DI-N-OCTYL PHTHALATE	10 U
205-99-2	BENZO(b)FLUORANTHENE	10 U
207-08-9	BENZO(k)FLUORANTHENE	10 U
50-32-8	BENZO(a)PYRENE	10 U
193-39-5	INDENO(1,2,3-CD)PYRENE	10 U
53-70-3	DIBENZ(a,h)ANTHRACENE	10 U
191-24-2	BENZO(g,h,i)PERYLENE	10 U

(1)-Cannot be seperated from diphenylamine.

Laboratory Name: S-Cubed
Case No.: 8624

Sample Number
EP 741

ORGANICS ANALYSIS DATA
(Page 3)

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 12-08-87
Date Analyzed: 01-06-88
Conc/Dil Factor: 1.00

GPC Cleanup ___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	0.050 u
319-85-7	BETA-BHC	0.050 u
319-86-8	DELTA-BHC	0.050 u
58-89-9	GAMMA-BHC (LINDANE)	0.050 u
76-44-8	HEPTACHLOR	0.050 u
309-00-2	ALDRIN	0.050 u
1024-57-3	HEPTACHLOR EPOXIDE	0.050 u
959-98-8	ENDOSULFAN I	0.050 u
60-57-1	DIELDRIN	0.10 u
72-55-9	4,4'-DDE	0.10 u
72-20-8	ENDRIN	0.10 u
33213-65-9	ENDOSULFAN II	0.10 u
72-54-8	4,4'-DDD	0.10 u
7421-93-4	ENDRIN ALDEHYDE	0.10 u
1031-07-8	ENDOSULFAN SULFATE	0.10 u
50-29-3	4,4'-DDT	0.10 u
72-43-5	METHOXYCHLOR	0.50 u
53494-70-5	ENDRIN KETONE	0.10 u
57-74-9	CHLORDANE	0.50 u
8001-35-2	TOXAPHENE	1.0 u
12674-11-2	AROCLOR-1016	0.50 u
11104-28-2	AROCLOR-1221	0.50 u
11141-16-5	AROCLOR-1232	0.50 u
53469-21-9	AROCLOR-1242	0.50 u
12672-29-6	AROCLOR-1248	0.50 u
11097-69-1	AROCLOR-1254	1.0 u
11096-82-5	AROCLOR-1260	1.0 u

Volume of water extracted (ml): 1000
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN CONFIRMATION

Laboratory Name S-CUBED

Case No 8624

Sample Number EP741

7DV2031 (VOA)
DEC H031 (ABN)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. NA	UNKNOWN	VOA	135	10 J
2.				
3. NA	UNKNOWN HYDROCARBON	ABN	522	11 J
4.	UNKNOWN HYDROCARBON		623	15 J
5.	UNKNOWN		716	17 J
6.	UNKNOWN HYDROCARBON		803	15 J
7.	UNKNOWN HYDROCARBON		885	11 J
8.	UNKNOWN HYDROCARBON		963	11 J
9.	UNKNOWN HYDROCARBON		1037	9 J
10.	UNKNOWN HYDROCARBON		1108	10 J
11.	UNKNOWN $C_{16}H_{14}$ PNA		1178	13 J
12.	UNKNOWN HYDROCARBON		1241	12 J
13.	UNKNOWN HYDROCARBON		1303	13 J
14. NA	UNKNOWN HYDROCARBON		1362	9 J
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

88JG01560

: Sample Number:
EF742 :

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 3DV2071(CUBA); DEC11021(CABN)
Sample Matrix: WATER
Data Release Authorized By: _____

Case No: 8624
GC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 12-03-87

VOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-03-87
Date Analyzed: 12-03-87
Conc/Dil Factor: 83 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	830 U	78-87-5	1,2-DICHLOROPROPANE	420 U
74-83-9	BROMOMETHANE	830 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	420 U
75-01-4	VINYL CHLORIDE	830 U	79-01-6	TRICHLOROETHENE	420 U
75-00-3	CHLOROETHANE	830 U	124-48-1	DIBROMOCHLOROMETHANE	420 U
75-09-2	METHYLENE CHLORIDE	200 J B	79-00-5	1,1,2-TRICHLOROETHANE	420 U
67-64-1	ACETONE	14000	71-43-2	BENZENE	5900
75-15-0	CARBON DISULFIDE	420 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	420 U
75-35-4	1,1-DICHLOROETHENE	420 U	110-75-8	2-CHLOROETHYLVINYLETHER	830 U
75-34-3	1,1-DICHLOROETHANE	420 U	75-25-2	BROMOFORM	420 U
156-60-5	TRANS-1,2-DICHLOROETHENE	420 U	591-78-6	2-HEXANONE	~~110 J~~ 830 U
67-66-3	CHLOROFORM	420 U	108-10-1	4-METHYL-2-PENTANONE	830 U
107-06-2	1,2-DICHLOROETHANE	420 U	127-18-4	TETRACHLOROETHENE	420 U
78-93-3	2-BUTANONE	830 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	420 U
71-55-6	1,1,1-TRICHLOROETHANE	420 U	108-88-3	TOLUENE	7400
56-23-5	CARBON TETRACHLORIDE	420 U	108-90-7	CHLOROBENZENE	420 U
108-05-4	VINYL ACETATE	830 U	100-41-4	ETHYLBENZENE	910
75-27-4	BROMODICHLOROMETHANE	420 U	100-42-5	STYRENE	420 U
				TOTAL XYLENES	7700

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.

Laboratory Name: S-CUBED
Case No: 8624

Sample Number
EP742

ORGANIC ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 12-03-87
Date Analyzed: 12-11-87
Conc/Dil Factor: 4.0
Percent Moisture (Decanted): N.R

GPC Clean up ___Yes X No
Separatory Funnel Extraction ___Yes
Continuous Liquid - Liquid Extraction_____X_____Yes

CAS Number		(ug/l) or ug/kg (Circle one)
108-95-2	PHENOL	1700
111-44-4	BIS(2-CHLOROETHYL)ETHER	40 U
95-57-8	2-CHLOROPHENOL	40 U
541-73-1	1-3,DICHLOROBENZENE	40 U
106-46-7	1,4-DICHLOROBENZENE	40 U
100-51-6	BENZYL ALCOHOL	40 U
95-50-1	1,2-DICHLOROBENZENE	40 U
95-48-7	2-METHYLPHENOL	970
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	40 U
106-44-5	4-METHYLPHENOL	1600
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	40 U
67-72-1	HEXACHLOROETHANE	40 U
98-95-3	NITROBENZENE	40 U
78-59-1	ISOPHORONE	40 U
88-75-5	2-NITROPHENOL	40 U
105-67-9	2,4-DIMETHYLPHENOL	660
65-85-0	BENZOIC ACID	200 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	40 U
120-83-2	2,4-DICHLOROPHENOL	40 U
120-82-1	1,2,4-TRICHLOROBENZENE	40 U
91-20-3	NAPHTHALENE	780
106-47-8	4-CHLOROANILINE	40 U
87-68-3	HEXACHLOROBUTADIENE	40 U
59-50-7	4-CHLORO-3-METHYLPHENOL	40 U
91-57-6	2-METHYLNAPHTHALENE	1300
77-47-4	HEXACHLOROCYCLOPENTADIENE	40 U
88-06-2	2,4,6-TRICHLOROPHENOL	40 U
95-95-4	2,4,5-TRICHLOROPHENOL	200 U
91-58-7	2-CHLORONAPHTHALENE	40 U
88-74-4	2-NITROANILINE	200 U
131-11-3	DIMETHYL PHTHALATE	40 U
208-96-8	ACENAPHTHYLENE	40 U
99-09-2	3-NITROANILINE	200 U

CAS Number		(ug/l) or ug/kg (circle one)
83-32-9	ACENAPHTHENE	40 U
51-28-5	2,4-DINITROPHENOL	200 U
100-02-7	4-NITROPHENOL	200 U
132-64-9	DIBENZOFURAN	40 U
121-14-2	2,4-DINITROTOLUENE	40 U
606-20-2	2,6-DINITROTOLUENE	40 U
84-66-2	DIETHYLPHTHALATE	40 U
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	40 U
86-73-7	FLUORENE	40 U
100-01-6	4-NITROANILINE	200 U
534-52-1	4,6-DINITRO-2-METHYLPHENOL	200 U
86-30-6	N-NITROSODIPHENYLAMINE (1)	40 U
101-55-3	4-BROMOPHENYL-PHENYLETHER	40 U
118-74-1	HEXACHLOROBENZENE	40 U
87-86-5	PENTACHLOROPHENOL	200 U
85-01-8	PHENANTHRENE	180
120-12-7	ANTHRACENE	14 J
84-74-2	DI-N-BUTYLPHTHALATE	40 U
206-44-0	FLUORANTHENE	40 U
129-00-0	PYRENE	55
85-68-7	BUTYLBENZYLPHTHALATE	40 U
91-94-1	3,3'-DICHLOROBENZIDINE	80 U
56-55-3	BENZO(a)ANTHRACENE	40 U
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	40 U
218-01-9	CHRYSENE	24 J
117-84-0	DI-N-OCTYL PHTHALATE	40 U
205-99-2	BENZO(b)FLUORANTHENE	40 U
207-08-9	BENZO(k)FLUORANTHENE	40 U
50-32-8	BENZO(a)PYRENE	40 U
193-39-5	INDENO(1,2,3-CD)PYRENE	40 U
53-70-3	DIBENZ(a,h)ANTHRACENE	40 U
191-24-2	BENZO(g,h,i)PERYLENE	40 U

(1)-Cannot be seperated from diphenylamine.

Laboratory Name: S-Cubed
Case No.: 8624

Sample Number
EP 742

ORGANICS ANALYSIS DATA
(Page 3)

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 12-03-87
Date Analyzed: 01-03-88
Conc/Dil Factor: 50.00

GPC Cleanup ___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	2.5 u
319-85-7	BETA-BHC	2.5 u
319-86-8	DELTA-BHC	2.5 u
58-89-9	GAMMA-BHC (LINDANE)	2.5 u
76-44-8	HEPTACHLOR	2.5 u
309-00-2	ALDRIN	2.5 u
1024-57-3	HEPTACHLOR EPOXIDE	2.5 u
959-98-8	ENDOSULFAN I	2.5 u
60-57-1	DIELDRIN	5.0 u
72-55-9	4,4'-DDE	5.0 u
72-20-8	ENDRIN	5.0 u
33213-65-9	ENDOSULFAN II	5.0 u
72-54-8	4,4'-DDD	5.0 u
7421-93-4	ENDRIN ALDEHYDE	5.0 u
1031-07-8	ENDOSULFAN SULFATE	5.0 u
50-29-3	4,4'-DDT	5.0 u
72-43-5	METHOXYCHLOR	25 u
53494-70-5	ENDRIN KETONE	5.0 u
57-74-9	CHLORDANE	25 u
8001-35-2	TOXAPHENE	50 u
12674-11-2	AROCLOR-1016	25 u
11104-28-2	AROCLOR-1221	25 u
11141-16-5	AROCLOR-1232	25 u
53469-21-9	AROCLOR-1242	25 u
12672-29-6	AROCLOR-1248	25 u
11097-69-1	AROCLOR-1254	50 u
11096-82-5	AROCLOR-1260	50 u

Volume of water extracted (ml): 1000
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN CONFIRMATION

Laboratory Name S-CUBED

Case No 8624

Sample Number: EP742

3DV2071 (VOA)
DEC11021 (ABN)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 1551-21-9	2(methyl thio) propane	VOA	318	410 J
2.				
3. NA	UNKNOWN xylene	ABN	48	480 J
4.	UNKNOWN C3 sub. benzene		195	390 J
5.	UNKNOWN C3 sub. benzene		249	690 J
6.	UNKNOWN HYDROCARBON		411	430 J
7. NA	UNKNOWN HYDROCARBON		524	700 J
8. 90-12-0	1 methyl naphthalene		617	460 J
9. NA	UNKNOWN HYDROCARBON		625	760 J
10.	UNKNOWN		696	430 J
11.	UNKNOWN dimethyl naphthalene		706	460 J
12.	UNKNOWN		718	990 J
13.	UNKNOWN HYDROCARBON		805	820 J
14.	UNKNOWN HYDROCARBON		887	710 J
15.	UNKNOWN HYDROCARBON		965	680 J
16.	UNKNOWN HYDROCARBON		1039	610 J
17.	UNKNOWN HYDROCARBON		1110	580 J
18.	UNKNOWN HYDROCARBON		1177	570 J
19.	UNKNOWN $C_{16}H_{18}$ PNA		1181	430 J
20.	UNKNOWN HYDROCARBON		1242	530 J
21.	UNKNOWN HYDROCARBON		1304	510 J
22. NA	UNKNOWN HYDROCARBON		1363	420 J
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

88J601574

Sample Number: EP743

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: 7DV2041 (WA); DE15B031 (ADW)
Sample Matrix: WATER
Data Release Authorized By: _____

Case No: 8624
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 12-05-87

VOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-07-87
Date Analyzed: 12-07-87
Conc/Dil Factor: 500 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	5000 U	78-87-5	1,2-DICHLOROPROPANE	2500 U
74-83-9	BROMOMETHANE	5000 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2500 U
75-01-4	VINYL CHLORIDE	5000 U	79-01-6	TRICHLOROETHENE	2500 U
75-00-3	CHLOROETHANE	5000 U	124-48-1	DIBROMOCHLOROMETHANE	2500 U
75-09-2	METHYLENE CHLORIDE	2500 B	79-00-5	1,1,2-TRICHLOROETHANE	2500 U
67-64-1	ACETONE	100000 B	71-43-2	BENZENE	2500 U
75-15-0	CARBON DISULFIDE	2500 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2500 U
75-35-4	1,1-DICHLOROETHENE	2500 U	110-75-8	2-CHLOROETHYLVINYLETHER	5000 U
75-34-3	1,1-DICHLOROETHANE	2500 U	75-25-2	BROMOFORM	2500 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2500 U	591-78-6	2-HEXANONE	5000 U
67-66-3	CHLOROFORM	2500 U	108-10-1	4-METHYL-2-PENTANONE	5000 U
107-06-2	1,2-DICHLOROETHANE	2500 U	127-18-4	TETRACHLOROETHENE	2500 U
78-93-3	2-BUTANONE	5000 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	2500 U
71-55-6	1,1,1-TRICHLOROETHANE	2500 U	108-88-3	TOLUENE	2500 U
56-23-5	CARBON TETRACHLORIDE	2500 U	108-90-7	CHLOROBENZENE	2500 U
108-05-4	VINYL ACETATE	5000 U	100-41-4	ETHYLBENZENE	2500 U
75-27-4	BROMODICHLOROMETHANE	2500 U	100-42-5	STYRENE	2500 U
				TOTAL XYLENES	2500 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.

Laboratory Name: S-CUBED
Case No: 8624

Sample Number
EP743

ORGANIC ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-08-87
Date Analyzed: 12-15-87
Conc/Dil Factor: 80
Percent Moisture (Decanted): N.R

GPC Clean up ___Yes X No
Separatory Funnel Extraction ___Yes
Continuous Liquid - Liquid Extraction_____X_____Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (Circle one)
108-95-2	PHENOL	800 U	83-32-9	ACENAPHTHENE	800 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	800 U	51-28-5	2,4-DINITROPHENOL	4000 U
95-57-8	2-CHLOROPHENOL	800 U	100-02-7	4-NITROPHENOL	4000 U
541-73-1	1-3,DICHLOROBENZENE	800 U	132-64-9	DIBENZOFURAN	800 U
106-46-7	1,4-DICHLOROBENZENE	800 U	121-14-2	2,4-DINITROTOLUENE	800 U
100-51-6	BENZYL ALCOHOL	800 U	606-20-2	2,6-DINITROTOLUENE	800 U
95-50-1	1,2-DICHLOROBENZENE	800 U	84-66-2	DIETHYLPHTHALATE	800 U
95-48-7	2-METHYLPHENOL	800 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	800 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	800 U	86-73-7	FLUORENE	800 U
106-44-5	4-METHYLPHENOL	800 U	100-01-6	4-NITROANILINE	4000 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	800 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	4000 U
67-72-1	HEXACHLOROETHANE	800 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	800 U
98-95-3	NITROBENZENE	800 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	800 U
78-59-1	ISOPHORONE	800 U	118-74-1	HEXACHLOROBENZENE	800 U
88-75-5	2-NITROPHENOL	800 U	87-86-5	PENTACHLOROPHENOL	4000 U
105-67-9	2,4-DIMETHYLPHENOL	800 U	85-01-8	PHENANTHRENE	800 U
65-85-0	BENZOIC ACID	4000 U	120-12-7	ANTHRACENE	800 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	800 U	84-74-2	DI-N-BUTYLPHTHALATE	800 U
120-83-2	2,4-DICHLOROPHENOL	800 U	206-44-0	FLUORANTHENE	800 U
120-82-1	1,2,4-TRICHLOROBENZENE	800 U	129-00-0	PYRENE	800 U
91-20-3	NAPHTHALENE	800 U	85-68-7	BUTYLBENZYLPHTHALATE	800 U
106-47-8	4-CHLOROANILINE	800 U	91-94-1	3,3'-DICHLOROBENZIDINE	1600 U
87-68-3	HEXACHLOROBUTADIENE	800 U	56-55-3	BENZO(a)ANTHRACENE	800 U
59-50-7	4-CHLORO-3-METHYLPHENOL	800 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	800 U
91-57-6	2-METHYLNAPHTHALENE	800 U	218-01-9	CHRYSENE	800 U
77-47-4	HEXACHLOROCYCLOPENTADIENE	800 U	117-84-0	DI-N-OCTYL PHTHALATE	800 U
88-06-2	2,4,6-TRICHLOROPHENOL	800 U	205-99-2	BENZO(b)FLUORANTHENE	800 U
95-95-4	2,4,5-TRICHLOROPHENOL	4000 U	207-08-9	BENZO(k)FLUORANTHENE	800 U
91-58-7	2-CHLORONAPHTHALENE	800 U	50-32-8	BENZO(a)PYRENE	800 U
88-74-4	2-NITROANILINE	4000 U	193-39-5	INDENO(1,2,3-CD)PYRENE	800 U
131-11-3	DIMETHYL PHTHALATE	800 U	53-70-3	DIBENZ(a,h)ANTHRACENE	800 U
208-96-8	ACENAPHTHYLENE	800 U	191-24-2	BENZO(g,h,i)PERYLENE	800 U
99-09-2	3-NITROANILINE	4000 U			

(1)-Cannot be seperated from diphenylamine.

Laboratory Name: S-Cubed
Case No.: 8624

Sample Number
EP 743

ORGANICS ANALYSIS DATA
(Page 3)

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 12-08-87
Date Analyzed: 01-03-88
Conc/Dil Factor: ~~0.25~~ 4 gw

GPC Cleanup ___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	0.20 u
319-85-7	BETA-BHC	0.20 u
319-86-8	DELTA-BHC	0.20 u
58-89-9	GAMMA-BHC (LINDANE)	0.20 u
76-44-8	HEPTACHLOR	0.20 u
309-00-2	ALDRIN	0.20 u
1024-57-3	HEPTACHLOR EPOXIDE	0.20 u
959-98-8	ENDOSULFAN I	0.20 u
60-57-1	DIELDRIN	0.40 u
72-55-9	4,4'-DDE	0.40 u
72-20-8	ENDRIN	0.40 u
33213-65-9	ENDOSULFAN II	0.40 u
72-54-8	4,4'-DDD	0.40 u
7421-93-4	ENDRIN ALDEHYDE	0.40 u
1031-07-8	ENDOSULFAN SULFATE	0.40 u
50-29-3	4,4'-DDT	0.40 u
72-43-5	METHOXYCHLOR	2.0 u
53494-70-5	ENDRIN KETONE	0.40 u
57-74-9	CHLORDANE	2.0 u
8001-35-2	TOXAPHENE	4.0 u
12674-11-2	AROCLOR-1016	2.0 u
11104-28-2	AROCLOR-1221	2.0 u
11141-16-5	AROCLOR-1232	2.0 u
53469-21-9	AROCLOR-1242	2.0 u
12672-29-6	AROCLOR-1248	2.0 u
11097-69-1	AROCLOR-1254	4.0 u
11096-82-5	AROCLOR-1260	4.0 u

Volume of water extracted (ml): 250
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN CONFIRMATION

Laboratory Name S-CUBED

Case No 8624

Sample Number EP 743

7DV2041 (VOA)
DE15B031 (ABN)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 75-18-3	thiobis methane	VOA	158	190×10^3 J
2. NA	UNKNOWN		226	18×10^3 J
3. 1551-21-9	propane, 2-methyl thio		319	6.0×10^3 J
4.				
5. NA	UNKNOWN	ABN	338	1.4×10^3 J
6.	UNKNOWN		379	0.79×10^3 J
7.	UNKNOWN		413	8.8×10^3 J
8.	UNKNOWN		417	2.2×10^3 J
9.	UNKNOWN		425	3.2×10^3 J
10.	UNKNOWN		436	1.5×10^3 J
11.	UNKNOWN		448	0.79×10^3 J
12.	UNKNOWN		470	1.8×10^3 J
13.	UNKNOWN		485	1.4×10^3 J
14.	UNKNOWN		512	4.2×10^3 J
15.	UNKNOWN		520	2.0×10^3 J
16.	UNKNOWN		538	3.0×10^3 J
17.	UNKNOWN		541	2.2×10^3 J
18.	UNKNOWN		562	2.3×10^3 J
19.	UNKNOWN		575	1.6×10^3 J
20.	UNKNOWN		610	0.91×10^3 J
21.	UNKNOWN		617	1.3×10^3 J
22.	UNKNOWN		678	0.87×10^3 J
23.	UNKNOWN		695	0.72×10^3 J
24. NA	UNKNOWN		730	1.0×10^3 J
25.				
26.				
27.				
28.				
29.				
30.				

88JG01573

Sample Number: EP744

ORGANICS ANALYSIS DATA SHEET
(Page 1)

Laboratory Name: S-CUBED
Lab Sample ID No: D7V2031 (WA); DEC14087 (MW)
Sample Matrix: WATER
Data Release Authorized By: ___

Case No: 8624
QC Report No: N.R
Contract No: 68-01-7261
Date Sample Received: 12-05-87

VOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-07-87
Date Analyzed: 12-07-87
Conc/Dil Factor: 500 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	5000 U	78-87-5	1,2-DICHLOROPROPANE	2500 U
74-83-9	BROMOMETHANE	5000 U	10061-02-6	TRANS-1,3-DICHLOROPROPENE	2500 U
75-01-4	VINYL CHLORIDE	5000 U	79-01-6	TRICHLOROETHENE	2500 U
75-00-3	CHLOROETHANE	5000 U	124-48-1	DIBROMOCHLOROMETHANE	2500 U
75-09-2	METHYLENE CHLORIDE	2000 J B	79-00-5	1,1,2-TRICHLOROETHANE	2500 U
67-64-1	ACETONE	55000 B	71-43-2	BENZENE	11000
75-15-0	CARBON DISULFIDE	2500 U	10061-01-5	CIS-1,3-DICHLOROPROPENE	2500 U
75-35-4	1,1-DICHLOROETHENE	2500 U	110-75-8	2-CHLOROETHYLVINYLETHER	5000 U
75-34-3	1,1-DICHLOROETHANE	2500 U	75-25-2	BROMOFORM	2500 U
156-60-5	TRANS-1,2-DICHLOROETHENE	2500 U	591-78-6	2-HEXANONE	5000 U
67-66-3	CHLOROFORM	2500 U	108-10-1	4-METHYL-2-PENTANONE	5000 U
107-06-2	1,2-DICHLOROETHANE	2500 U	127-18-4	TETRACHLOROETHENE	2500 U
78-93-3	2-BUTANONE	5000 U	79-34-5	1,1,2,2-TETRACHLOROETHANE	2500 U
71-55-6	1,1,1-TRICHLOROETHANE	2500 U	108-88-3	TOLUENE	12000
56-23-5	CARBON TETRACHLORIDE	2500 U	108-90-7	CHLOROBENZENE	2500 U
108-05-4	VINYL ACETATE	5000 U	100-41-4	ETHYLBENZENE	1700 J
75-27-4	BROMODICHLOROMETHANE	2500 U	100-42-5	STYRENE	2500 U
				TOTAL XYLENES	7000

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.

Laboratory Name: S-CUBED
Case No: 8624

Sample Number
EP744

ORGANIC ANALYSIS DATA SHEET
(Page 2)

SEMIVOLATILE COMPOUNDS

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 12-10-87
Date Analyzed: 12-14-87
Conc/Dil Factor: 400
Percent Moisture (Decanted): N.R

GPC Clean up ___Yes X No
Separatory Funnel Extraction ___Yes
Continuous Liquid - Liquid Extraction_____X_____Yes

CAS Number		ug/l or ug/kg (Circle one)	CAS Number		ug/l or ug/kg (Circle one)
108-95-2	PHENOL	9900	83-32-9	ACENAPHTHENE	4000 U
111-44-4	BIS(2-CHLOROETHYL)ETHER	4000 U	51-28-5	2,4-DINITROPHENOL	20000 U
95-57-8	2-CHLOROPHENOL	4000 U	100-02-7	4-NITROPHENOL	20000 U
541-73-1	1-3,DICHLOROBENZENE	4000 U	132-64-9	DIBENZOFURAN	4000 U
106-46-7	1,4-DICHLOROBENZENE	4000 U	121-14-2	2,4-DINITROTOLUENE	4000 U
100-51-6	BENZYL ALCOHOL	4000 U	606-20-2	2,6-DINITROTOLUENE	4000 U
95-50-1	1,2-DICHLOROBENZENE	4000 U	84-66-2	DIETHYLPHTHALATE	4000 U
95-48-7	2-METHYLPHENOL	4000 U	7005-72-3	4-CHLOROPHENYL-PHENYLETHER	4000 U
39638-32-9	BIS(2-CHLOROISOPROPYL)ETHER	4000 U	86-73-7	FLUORENE	7400
106-44-5	4-METHYLPHENOL	4000 U	100-01-6	4-NITROANILINE	20000 U
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	4000 U	534-52-1	4,6-DINITRO-2-METHYLPHENOL	20000 U
67-72-1	HEXACHLOROETHANE	4000 U	86-30-6	N-NITROSODIPHENYLAMINE (1)	4000 U
98-95-3	NITROBENZENE	4000 U	101-55-3	4-BROMOPHENYL-PHENYLETHER	4000 U
78-59-1	ISOPHORONE	4000 U	118-74-1	HEXACHLOROBENZENE	4000 U
88-75-5	2-NITROPHENOL	4000 U	87-86-5	PENTACHLOROPHENOL	20000 U
105-67-9	2,4-DIMETHYLPHENOL	4000 U	85-01-8	PHENANTHRENE	19000
65-85-0	BENZOIC ACID	20000 U	120-12-7	ANTHRACENE	4000 U
111-91-1	BIS(2-CHLOROETHOXY)METHANE	4000 U	84-74-2	DI-N-BUTYLPHTHALATE	4000 U
120-83-2	2,4-DICHLOROPHENOL	4000 U	206-44-0	FLUORANTHENE	4000 U
120-82-1	1,2,4-TRICHLOROBENZENE	4000 U	129-00-0	PYRENE	4000 U
91-20-3	NAPHTHALENE	24000	85-68-7	BUTYLBENZYLPHTHALATE	4000 U
106-47-8	4-CHLOROANILINE	4000 U	91-94-1	3,3'-DICHLOROBENZIDINE	8000 U
87-68-3	HEXACHLOROBUTADIENE	4000 U	56-55-3	BENZO(a)ANTHRACENE	4000 U
59-50-7	4-CHLORO-3-METHYLPHENOL	4000 U	117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	4000 U
91-57-6	2-METHYLNAPHTHALENE	86000	218-01-9	CHRYSENE	910 J
77-47-4	HEXACHLOROCYCLOPENTADIENE	4000 U	117-84-0	DI-N-OCTYL PHTHALATE	4000 U
88-06-2	2,4,6-TRICHLOROPHENOL	4000 U	205-99-2	BENZO(b)FLUORANTHENE	4000 U
95-95-4	2,4,5-TRICHLOROPHENOL	20000 U	207-08-9	BENZO(k)FLUORANTHENE	4000 U
91-58-7	2-CHLORONAPHTHALENE	4000 U	50-32-8	BENZO(a)PYRENE	4000 U
88-74-4	2-NITROANILINE	20000 U	193-39-5	INDENO(1,2,3-CD)PYRENE	4000 U
131-11-3	DIMETHYL PHTHALATE	4000 U	53-70-3	DIBENZ(a,h)ANTHRACENE	4000 U
208-96-8	ACENAPHTHYLENE	4000 U	191-24-2	BENZO(g,h,i)PERYLENE	4000 U
99-09-2	3-NITROANILINE	20000 U			

(1)-Cannot be seperated from diphenylamine.

Laboratory Name: S-Cubed
Case No.: 8624

Sample Number
EP 744

ORGANICS ANALYSIS DATA
(Page 3)

Pesticide/PCBs

Concentration: LOW
Date Extracted/Prepared: 12-10-87
Date Analyzed: 01-03-88
Conc/Dil Factor: ~~0.10~~ 100gw

GPC Cleanup ___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	50 u
319-85-7	BETA-BHC	50 u
319-86-8	DELTA-BHC	50 u
58-89-9	GAMMA-BHC (LINDANE)	50 u
76-44-8	HEPTACHLOR	50 u
309-00-2	ALDRIN	50 u
1024-57-3	HEPTACHLOR EPOXIDE	50 u
959-98-8	ENDOSULFAN I	50 u
60-57-1	DIELDRIN	100 u
72-55-9	4,4'-DDE	100 u
72-20-8	ENDRIN	100 u
33213-65-9	ENDOSULFAN II	100 u
72-54-8	4,4'-DDD	100 u
7421-93-4	ENDRIN ALDEHYDE	100 u
1031-07-8	ENDOSULFAN SULFATE	100 u
50-29-3	4,4'-DDT	100 u
72-43-5	METHOXYCHLOR	500 u
53494-70-5	ENDRIN KETONE	100 u
57-74-9	CHLORDANE	500 u
8001-35-2	TOXAPHENE	1000 u
12674-11-2	AROCLOR-1016	500 u
11104-28-2	AROCLOR-1221	500 u
11141-16-5	AROCLOR-1232	500 u
53469-21-9	AROCLOR-1242	500 u
12672-29-6	AROCLOR-1248	500 u
11097-69-1	AROCLOR-1254	1000 u
11096-82-5	AROCLOR-1260	1000 u

Volume of water extracted (ml): 10
Weight of sample extracted (g): N.A.
Volume of total extract (ml): 10.00
Volume of extract injected (ul): 1.00

** CONFIRMED BY GC DUAL COLUMN CONFIRMATION

Laboratory Name S-Mach

Case No 8624

Sample Number EP744

D7V2031 (VOA)
DEC 14081 (ABN)

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	UNKNOWN	VOA	237	2.3×10^3 J
2.				
3. NA	UNKNOWN C_3 sub benzene	ABN	186	53×10^3 J
4.	UNKNOWN C_3 sub benzene		240	88×10^3 J
5.	UNKNOWN C_4 sub benzene		364	43×10^3 J
6.	UNKNOWN HYDROCARBON		406	40×10^3 J
7. NA	UNKNOWN HYDROCARBON		520	74×10^3 J
8. 90-12-0	1methyl naphthalene		612	51×10^3 J
9. NA	UNKNOWN HYDROCARBON		622	63×10^3 J
10.	UNKNOWN		693	41×10^3 J
11.	UNKNOWN dimethyl naphthalene		702	45×10^3 J
12.	UNKNOWN		715	94×10^3 J
13.	UNKNOWN HYDROCARBON		769	35×10^3 J
14.	UNKNOWN HYDROCARBON		802	78×10^3 J
15.	UNKNOWN trimethyl naphthalene		838	34×10^3 J
16.	UNKNOWN HYDROCARBON		884	65×10^3 J
17.	UNKNOWN		922	33×10^3 J
18.	UNKNOWN HYDROCARBON		962	63×10^3 J
19.	UNKNOWN HYDROCARBON		1035	65×10^3 J
20.	UNKNOWN HYDROCARBON		1105	59×10^3 J
21.	UNKNOWN HYDROCARBON		1172	54×10^3 J
22. NA	UNKNOWN HYDROCARBON		1236	34×10^3 J
23				
24.				
25.				
26.				
27.				
28.				
29.				
30				

CWM #0631

New Application X
Renewal
Additional Site

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
SPECIAL WASTE DISPOSAL APPLICATION

FOR AGENCY USE Log #

THIS APPLICATION FOR WASTE:
Treatment
Disposal
Storage

CARD TYPE DATE 6/24/81 L P S W C AUTHORIZATION NUMBER TRANS CODE DATE ENTERED (Agency Use) / /

WASTE HAULER

16 HAULER REGISTRATION NUMBER 0077 NAME General Drainage
ADDRESS 15th & Cline Ave. COMMUNITY Gary
COUNTY Lake STATE IN. ZIP 46406 AREA CODE 219 TELEPHONE 949 4275

WASTE GENERATOR

GENERATOR CODE 031 024 0003 G NAME Clark Oil & Refining Corp.
ADDRESS 13100 S. Kedzie Ave. COMMUNITY Blue Island
COUNTY Cook STATE IL ZIP 60472 AREA CODE 312 TELEPHONE 385 5000
GENERATOR CONTACT NAME Stafford G. Jacques
DUNS NUMBER SIC CODE 2992 USEPA GEN. CODE ILD005109822

20 PROCESS NAME Gasoline Storage

WASTE CHARACTERISTICS

GENERIC WASTE NAME Gasoline Tank Bottoms-Leaded
40 IUPAC WASTE NAME
TOTAL ANNUAL WASTE VOLUME 20 VOLUME UNITS 1 WASTE PHASE 1
TRANSPORT FREQUENCY 8 WASTE CLASS (Agency Use)

1 = CUBIC YARDS
2 = GALLONS

1 = SOLID
2 = SEMI-SOLID
3 = LIQUID
4 = GAS

1 = ONE TIME
2 = DAILY
3 = WEEKLY
4 = BI-WEEKLY
5 = MONTHLY
6 = BI-MONTHLY
7 = QUARTERLY
8 = SEMI-ANNUALLY

(Code either "1" for Low, "2" for Medium, or "3" for High as appropriate for columns 21 through 26):

50 INHALATION TOXICITY 1 DERMAL TOXICITY 1 INGESTIVE TOXICITY 2 INFECTIOUS REACTIVITY EXPLOSIVE
FLASH POINT 212 °F ALPHA RADIATION (pCi/L) COMPOSITION 2

1 = ORGANIC
2 = INORGANIC

PERCENT ACIDITY . PERCENT ALKALINITY . pH 8.6 PERCENT TOTAL SOLIDS 92.81 Ash Content 84.63%

60

KEY	COMPONENT NAME	PERCENT	KEY	COMPONENT NAME	PERCENT
1	INORGANIC SALTS	50.2	2	IRON	34.4
3	OIL & GREASE	8.2	4	WATER	7.2
5		.	6		.

USEPA HAZARDOUS WASTE NO. K052 , , (If Hazardous)

IL 532-0474
ADM 1067 (Rev. 1/81)

CARD TYPE DATE 8/24/81 L P S W C AUTHORIZATION NUMBER ____ TRANS CODE ____ DATE ENTERED (Agency Use) __ / __ / __

WASTE CHARACTERISTICS

METAL KEY	TOTAL (PPM)	EP TOXICITY (PPM)	METAL KEY	TOTAL (PPM)	EP TOXICITY (PPM)
CN^-	1.0	.	Cu	192.0	.
Ag	0.5	0.5	Hg	0.1	0.1
As	0.5	0.5	Ni	5.2	.
Ba	10.0	10.0	Pb	120.0	0.5
Cd	1.2	0.1	Se	0.5	0.1
Cr	64.0	0.5	Zn	64.0	.
PHENOL	21.0		$S^=$	5.0	DISSOLVED
ENDRIN		.	2 - 4 D		.
LINDANE		.	2,4,5 - TP		.
METHOXYCHLOR		.	TOXAPHENE		.

LABORATORY NAME Gulf Coast Labs, Inc. #19600

CERTIFICATION NUMBER ____ REVIEWED BY: ____ / ____

1 SITE CODE 0 3 1 6 0 0 3 0 SITE NAME Chicago/CID

DISPOSAL METHOD 0 1 NEUTRALIZATION METHOD ____

SIGNATURE ____ (SITE OWNER) SIGNATURE William B. Karpas (SITE OPERATOR)

STATUS ____ START DATE __ / __ / __ EXPIRATION DATE __ / __ / __

2 SITE CODE ____ SITE NAME ____

DISPOSAL METHOD ____ NEUTRALIZATION METHOD ____

SIGNATURE ____ (SITE OWNER) SIGNATURE ____ (SITE OPERATOR)

STATUS ____ START DATE __ / __ / __ EXPIRATION DATE __ / __ / __

3 SITE CODE ____ SITE NAME ____

DISPOSAL METHOD ____ NEUTRALIZATION METHOD ____

SIGNATURE ____ (SITE OWNER) SIGNATURE ____ (SITE OPERATOR)

STATUS ____ START DATE __ / __ / __ EXPIRATION DATE __ / __ / __

4 SITE CODE ____ SITE NAME ____

DISPOSAL METHOD ____ NEUTRALIZATION METHOD ____

SIGNATURE ____ (SITE OWNER) SIGNATURE ____ (SITE OPERATOR)

STATUS ____ START DATE __ / __ / __ EXPIRATION DATE __ / __ / __

DISCLAIMER: The analytical data present in this Application represent the results of an analysis of a single waste sample, for only those components and characteristics for which entries are made, and using only those analytical methods or procedures specified for use by the Illinois Environmental Protection Agency. No representation is made by the laboratory or the site operator, nor that other waste components or characteristics are not present in the sample and, or that other waste samples or other analytical methods or procedures will not yield different analytical results.

ADM-1067 (Rev. 1/81) Physical Appearance: brown, varying size grain (flake), solid (non-dusty)