02.08-10/01/96-01743

(14)

Contractor's Closeout Report
Time Critical Removal Action Plan
Soil Remediation
Operable Unit 11, Site 80
MCB Camp Lejeune
Jacksonville, North Carolina

Contract No. N62470-93-D-3032
Delivery Order 0100

Volume III of III

Prepared for:

Department of the Navy
Atlantic Division
Naval Facilities Engineering Command
Norfolk, VA

Prepared by

OHM Remediation Services Corp.
A Subsidiary of OHM Corporation

5335 Triangle Parkway, Suite 450
Norcross, GA 30092

October 1996

OHM Project No. 18319

02.08-10/01/96-01743

Appendix H

Analytical Data

Waste Characterization
Field Screening, Off-Site Lab
Field Screening, On-Site
Confirmation Samples, On-Site Lab
Confirmation Samples, Off-Site Lab

Waste Characterization Analytical Data

OHM Remediation Services Corp.
A Subsidiary of OHM Corporation

ANALYTICAL DIVISION

Laboratory Analysis

Report(s) #619927 **VOLUME I OF I**

Client: OHM Remediation Services Corp.
Southern Region (Norcross, GA)

Attn: Jim Dunn

Project: 18319N - Camp Lejeune, North Carolina

Sample(s) Received: March 12, 1996 **Data Due:** March 15, 1996

Order Received: March 12, 1996 **Data Reported:** March 15, 1996

This report is "PROPRIETARY AND CONFIDENTIAL" and delivered to, and intended for the exclusive use of the above named client only. OHM Remediation Services Corp., Analytical Division, assumes no responsibility or liability for the reliance hereon or use hereof by anyone other than the above named client.

Reviewed and Approved by: Joseph A. Hnatow *Date:* April 30, 1996
Joseph A. Hnatow, Laboratory Manager

Narrative for SDG # CLJ100-WC1

Laboratory: OHM Remediation Services Corp.
Analytical Division

Project #: 18319N

Project Location: Camp Lejeune, NC

Samples in this Sample Delivery Group (SDG):

CLJ100-WC1

CLP Forms and/or analytical requirements do not apply to all Level C type deliverable requirements. Every effort was made to conform to the CLP format and all applicable CLP/Level C forms have been included.

Volatile Organics by GC/MS

Zero of 15 surrogate recoveries were outside QC limits.

Zero of 10 matrix spike recoveries and zero of 5 matrix RPD's were outside QC limits.

Zero of 5 method spike recoveries were outside QC limits.

All target compounds were spiked for this analytical batch. Only the required CLP spiking compounds were reported on Form III.

Note that this batch was directly purged on instrument, therefore, there was no extraction and no soil aliquot volume or soil extraction volume.

All method blank criteria were met for this SDG.

Initial calibration criteria were met.

There were three internal standards outside of the criteria, however, all three were in the matrix spike/matrix spike duplicate.

All holding times were met for this SDG.

TCLP Volatiles by GC/MS

Zero of 15 surrogate recoveries were outside QC limits.

Zero of 20 matrix spike recoveries and zero of 10 matrix RPD's were outside QC limits.

Zero of 10 method spike recoveries were outside QC limits.

All method blank criteria were met for this SDG.

Initial and continuing calibration criteria were met.

All internal standard criteria were met for this SDG.

All holding times were met for this SDG.

Semivolatile Organics by GC/MS

One of 30 surrogates were outside QC limits.

Two of 22 matrix spike recoveries and three of 11 matrix RPD's were outside QC limits. Other matrix spike/matrix spike duplicates were diluted below detectable levels. The samples associated with these are CLJ100-WC1.

Matrix spike recoveries and matrix RPD's were outside QC limits due to sample dilutions caused by high levels of nontarget compounds present. QA/QC acceptance was based on blank (method) spike recoveries.

One of 11 blank spike (method spike) recoveries were outside QC limits.

Low levels of Naphthalene and bis(2-Ethylhexyl)phthalate were detected in the method blanks and should therefore, be taken into consideration when assessing the data. All affected data has been flagged with the appropriate qualifier.

All compounds met initial and continuing calibration criteria.

All internal standard area counts and retention times were within QC limits.

GPC cleanup was performed on the solid samples submitted in this SDG.

All holding times were met for this SDG.

TCLP Semivolatiles by GC/MS

Zero of 30 surrogates were outside QC limits.

Zero of 22 matrix spike recoveries and 5 of 11 matrix RPD's were outside QC limits.

Zero of 11 blank spike (method spike) recoveries were outside QC limits.

All method blank criteria were met for this SDG.

All compounds met initial calibration criteria.

All internal standard area counts and retention times were within QC limits.

All holding times were met for this SDG.

Pesticides/PCBs by GC

Elevated Practical Quantitation Limits (PQL) were reported due to high levels of target and/or nontarget compounds present in the samples.

Multiple analytical runs were combined and reported on one CLP FORM I PEST data sheet. The chromatograms were arranged with all of the primary analysis presented first followed by the confirmation analytical runs.

Zero of 6 surrogates were outside QC limits, two of 6 were diluted below detectable levels.

Zero of 21 method spike recoveries were outside QC limits.

Matrix spike data is not available due to the high levels of target analytes present in the unspiked sample and the results were diluted below detectable levels.

Low levels of 4,4-DDD and 4,4-DDT were detected in the method blank due to very high levels of target analyte found in the. All affected data has been flagged with the appropriate qualifier.

All initial and continuing calibration criteria were met.

No GPC cleanup was performed on solid samples submitted in this SDG.

All holding times were met for this SDG.

TCLP Pesticides by GC

Zero of 10 surrogates were outside QC limits.

Two of 16 matrix spike recoveries and zero of 8 matrix RPD's were outside QC limits.

One of 8 method spike recoveries were outside QC limits.

All method blank criteria were met for this SDG.

All initial and continuing calibration criteria were met.

All holding times were met for this SDG.

TCLP Herbicides by GC

Zero of 5 surrogates were outside QC limits.

Zero of 4 matrix spike recoveries and zero of 2 matrix RPD's were outside QC limits.

Zero of 2 method spike recoveries were outside QC limits.

All method blank criteria were met for this SDG.

All initial and continuing calibration criteria were met for this SDG.

All sample holding times were met for this SDG.

Signature: Joseph A. Hnatow Name: Joseph A. Hnatow
Date: 4-30-96 Title: Laboratory Manager

SUMMARY OF ANALYTICAL METHODOLOGY

Parameter	Reference	Method
Conventionals		
Paint Filter Test (Free Liquid)	SW-846	9095
RCRA Characteristics		
Reactive Sulfide	SW-846	7.3.4.2
Flash Point, Seta Flash	SW-846	1020
Reactive Cyanide	SW-846	7.3.3.2
pH, Electrode (soil)	CLP	1.7.1.1
Metals		
Total Metals	SW-846	6010
Mercury by Cold Vapor	SW-846	7471
Selenium by GFAA	SW-846	7740
Thallium by GFAA	SW-846	7841
Organics		
Pesticides and/or PCBs by GC	SW-846	8080
Semi-volatile Compounds by GC/MS	CLP SOW	OLM03.1
Volatile Compounds by GC/MS	CLP SOW	OLM03.1
RCRA TCLP		
Leachate Preparation	SW-846	1311
Herbicides by GC	SW-846	8150 (1)
Pesticides by GC	SW-846	8080
Metals	SW-846	6010
Mercury by Cold Vapor	SW-846	7470
Semi-volatile Compounds by GC/MS	CLP SOW	OLM03.1
Volatile Compounds by GC/MS	CLP SOW	OLM03.1

ORGANICS

Volatile Organic Compounds by GC/MS

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

0007

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Level: (low/med) ____

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLK01	99	105	100		0
02	VSPK01	100	105	104		0
03	CLJ100-WC1	100	98	97		0
04	CLJ100-WC1MS	102	91	99		0
05	CLJ100-WC1MSD	108	96	97		0

	QC LIMITS
SMC1 (TOL) = Toluene-d8	(84-138)
SMC2 (BFB) = Bromofluorobenzene	(59-113)
SMC3 (DCE) = 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring compound diluted out

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix Spike - EPA Sample No.: CLJ100-WC1 Level: (low/med) ____

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	57	0	57	100	59-172
Trichloroethene	57	0	53	93	62-137
Benzene	57	0	57	100	66-142
Toluene	57	0	57	100	59-139
Chlorobenzene	57	0	54	95	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	58	57	98	2	22	59-172
Trichloroethene	58	56	97	4	24	62-137
Benzene	58	62	107	6	21	66-142
Toluene	58	61	105	5	21	59-139
Chlorobenzene	58	58	100	5	21	60-133

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

* Values outside of QC limits

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

COMMENTS: _____

SOIL VOLATILE BLANK SPIKE RECOVERY

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix Spike - EPA Sample No.: VSPK01

COMPOUND	SPIKE ADDED (ug/Kg)	BLANK CONCENTRATION (ug/Kg)	BS CONCENTRATION (ug/Kg)	BS % REC #	QC LIMITS REC.
1,1-Dichloroethene	50	0	54	108	59-172
Trichloroethene	50	0	52	104	62-137
Benzene	50	0	53	106	66-142
Toluene	50	0	52	104	59-139
Chlorobenzene	50	0	51	102	60-133

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

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

4A
VOLATILE METHOD BLANK SUMMARY

0010 EPA SAMPLE NO.

VBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Lab File ID: A6632 Lab Sample ID: N2V5041V

Date Analyzed: 03/15/96 Time Analyzed: 12:40

GC Column: DB624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: ~~SA~~ msa.i

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	CLJ100-WC1	JP5002V	A6634	13:54
02	CLJ100-WC1MSD	JP5002VR	A6639	17:28
03	VSPK01	N2V5041VS	A6633	13:16
04	CLJ100-WC1MS	JP5002VS	A6638	16:28

COMMENTS:

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLT100WC1

Lab File ID: A6625 BFB Injection Date: 3/15/96

Instrument ID: MSA.i BFB Injection Time: 08:01

GC Column: DB624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.3
75	30.0 - 66.0% of mass 95	51.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.39
173	Less than 2.0% of mass 174	0.00 (0.00) 1
174	50.0 - 120.0% of mass 95	92.1
175	4.0 - 9.0 % of mass 174	7.45 (8.09) 1
176	93.0 - 101.0% of mass 174	89.1 (96.7) 1
177	5.0 - 9.0% of mass 176	6.74 (7.57) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD010	VSTD010	A6626	3/15/96	09:03
02	VSTD020	VSTD020	A6627		09:38
03	VSTD050	VSTD050	A6628		10:13
04	VSTD100	VSTD100	A6629		10:49
05	VSTD200	VSTD200	A6630		11:23
06	VBLK01	N2V5041V	A6632		12:40
07	VSPK01	N2V5041VS	A6633		13:16
08	CLT100WC1	JP5202V	A6634		13:54
09	CLT100WCMS	JP5202VS	A6638		16:12
10	CLT100WCMSD	JP5202VR	A6639		17:28
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC1

Lab File ID (Standard): A6628 Date Analyzed: 3/15/96

Instrument ID: MSA.1 Time Analyzed: 10:13

GC Column: DB624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	394758	8.72	1402761	10.04	1088176	14.45
	UPPER LIMIT	789516	9.22	2805522	10.54	2176352	14.95
	LOWER LIMIT	197379	8.22	701380	9.54	544088	13.95
	EPA SAMPLE NO.						
01	VBLK01	324350	8.72	1166296	10.03	925067	14.43
02	VSPK01	311459	8.71	1105377	10.03	860937	14.44
03	CLJ100WC1	262319	8.72	889486	10.03	654239	14.44
04	CLJ100WCIMS	231872	8.70	753363	10.02	552827*	14.42
05	CLJ100WCIMSD	218540	8.77	693308*	10.07	485813*	14.50
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET **0013** EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: JP5002V

Sample wt/vol: 5.04 (g/mL) G Lab File ID: A6634

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: not dec. 17 Date Analyzed: 03/15/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ~~5000~~ 48 (uL) Soil Aliquot Volume: ~~5000~~ 48 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
74-83-9	Bromomethane	6	U
75-01-4	Vinyl Chloride	6	U
75-00-3	Chloroethane	6	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	Methyl-iso-butyl ketone	12	U
591-78-6	2-Hexanone	6	U
127-18-4	Tetrachloroethylene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0014

EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: JP5002V

Sample wt/vol: 5.04 (g/mL) G Lab File ID: A6634

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: not dec. 17 Date Analyzed: 03/15/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ~~5000~~ MB (uL) Soil Aliquot Volume: ~~5000~~ MB (uL)

Number TICs found: 2

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

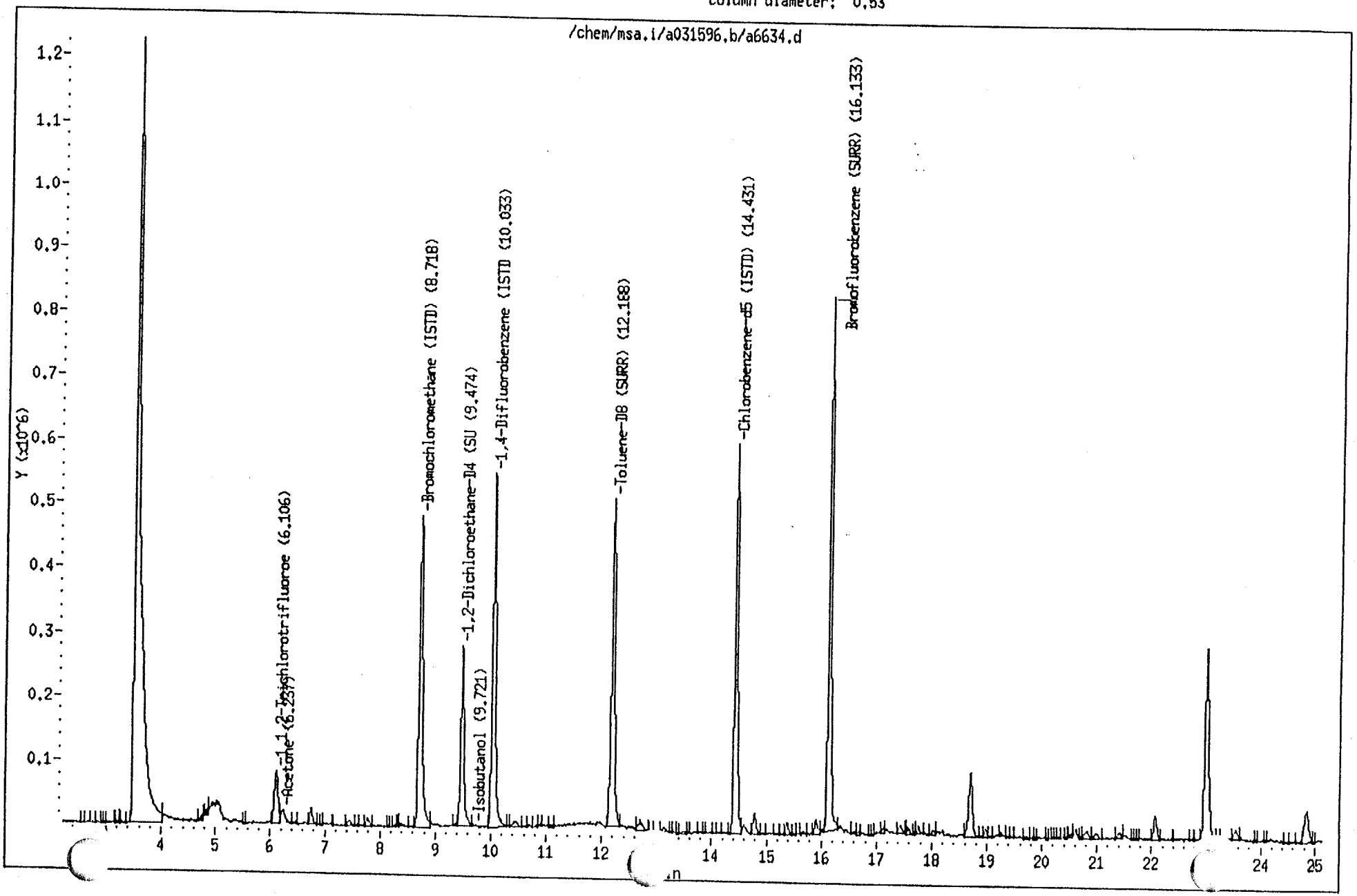
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 28469-92-3	2,6-Dichlorostyrene	23.01	38	JN
2. 45892-47-5	Benzene, 2,4-dichloro-1-(2-c	24.85	7	JN

0015

Data File: /chem/msa.i/a031596.b/a6634.d
Date : 15-MAR-96 13:54
Client ID: 18319n clj100-wc1
Sample Info: 18319n clj100-wc1 (11)
Purge Volume: 1.0
Column phase: J&W DB_624

Instrument: msa.i

Operator: jk
Column diameter: 0.53



Data File: /chem/msa.i/a031596.b/a6634.d
Report Date: 15-Mar-1996 14:25

OHM Analytical Division

VOLATILE REPORT SW-846 Method 8240 + Screen

Data file : /chem/msa.i/a031596.b/a6634.d
Lab Smp Id:
Client Smp ID: 18319n clj100-wc1
Inj Date : 15-MAR-96 13:54
Operator : jk
Inst ID: msa.i
Smp Info : 18319n clj100-wc1 (11)
Misc Info : jp5002v,n2v5041,m2,5000,1,5.04,5.0,960315,
Comment :
Method : /chem/msa.i/a031596.b/031596_heata.m
Meth Date : 15-Mar-1996 14:22 glenn
Quant Type: ISTD
Cal Date : 15-MAR-96 10:13
Cal File: a6628.d
Als bottle: 11
Dil Factor: 1.000
Integrator: HP RTE
Compound Sublist: all.sub
Target Version: 3.10

MK 3/15/96

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	1,1,2-Trichlorotrifluoroethan	101.00	6.106	5.844	(0.700)	84025	6.69	~~6.69~~
	11 Acetone	43.00	6.237	6.329	(0.715)	60545	9.46	~~9.46~~ RCT
*	22 Bromochloromethane (ISTD)	128.00	8.718	8.592	(1.000)	262319	50.0	
	27 Isobutanol	43.00	9.721	9.701	(1.115)	1271	1.32	~~1.32(Q)~~ RPT S
$	28 1,2-Dichloroethane-D4 (SURR)	65.00	9.474	9.395	(1.087)	412527	48.3	48.3
*	31 1,4-Difluorobenzene (ISTD)	114.00	10.033	9.948	(1.000)	889486	50.0	
$	40 Toluene-D8 (SURR)	98.00	12.188	12.140	(0.844)	699475	50.0	50.0
*	49 Chlorobenzene-d5 (ISTD)	117.00	14.439	14.421	(1.000)	654239	50.0	
$	58 Bromofluorobenzene (SURR)	95.00	16.133	16.141	(1.117)	488757	48.8	48.8

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: /chem/msa.i/a031596.b/a6634.d

Date : 15-MAR-96 13:54

lient ID: 18319n clj100-wc1

Instrument: msa.i

Sample Info: 18319n clj100-wc1 (11)

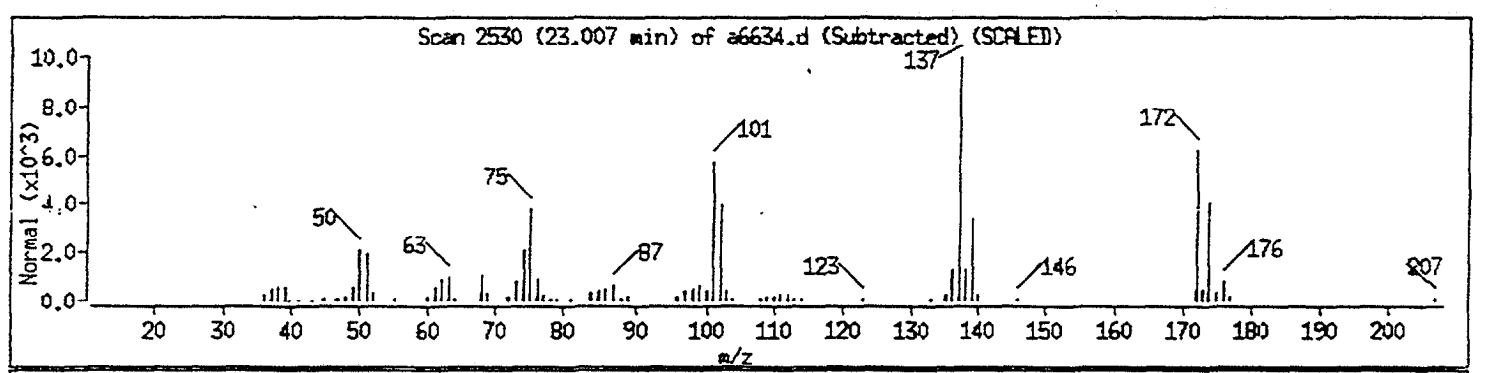
Purge Volume: 1.0

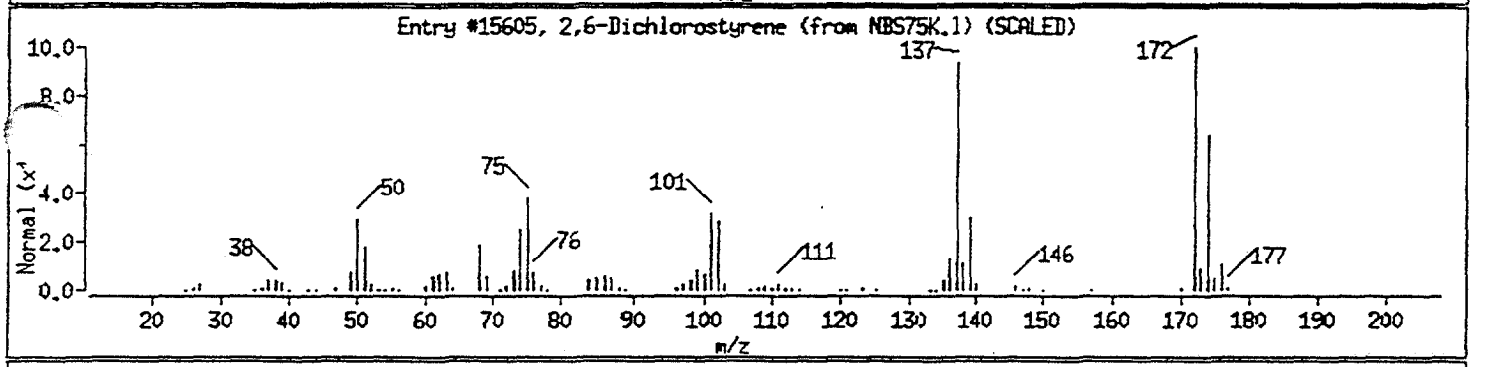
Operator: jk

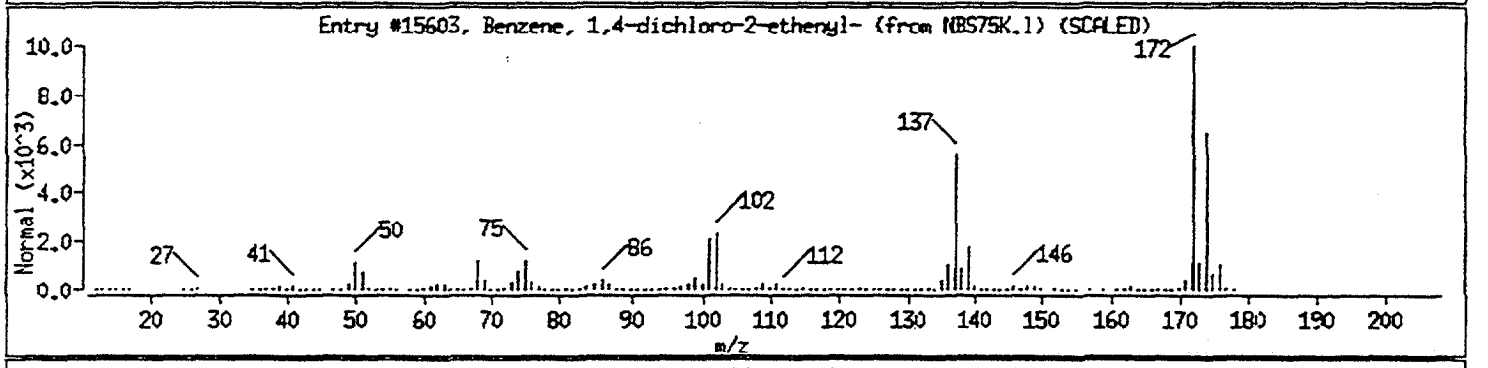
Column phase: J&W DB_624

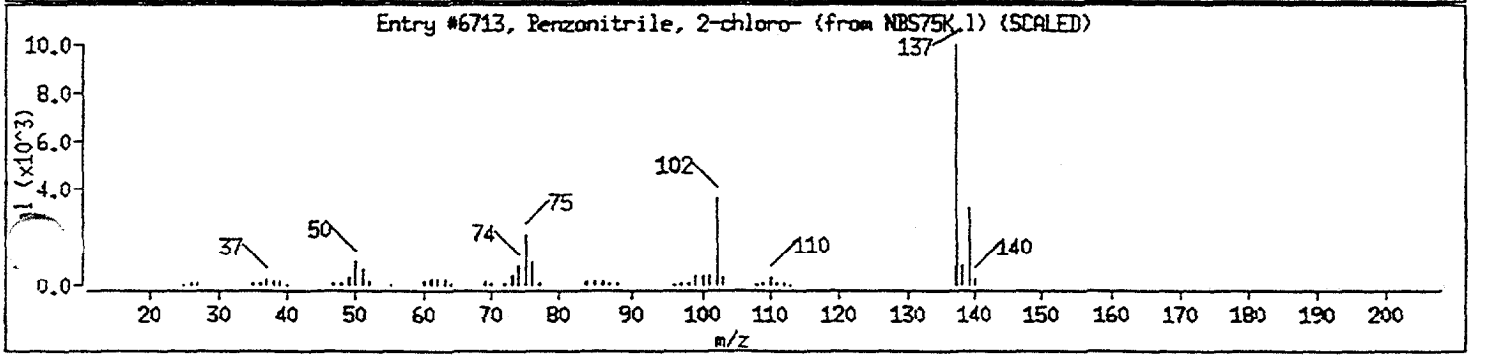
Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2,6-Dichlorostyrene	28469-92-3	NBS75K.l	15605	91	C8H6Cl2	172
Benzene, 1,4-dichloro-2-ethenyl-	1123-84-8	NBS75K.l	15603	59	C8H6Cl2	172
Benzonitrile, 2-chloro-	873-32-5	NBS75K.l	6713	55	C7H4ClN	137









Data File: /chem/msa.i/a031596.b/a6634.d

Date : 15-MAR-96 13:54

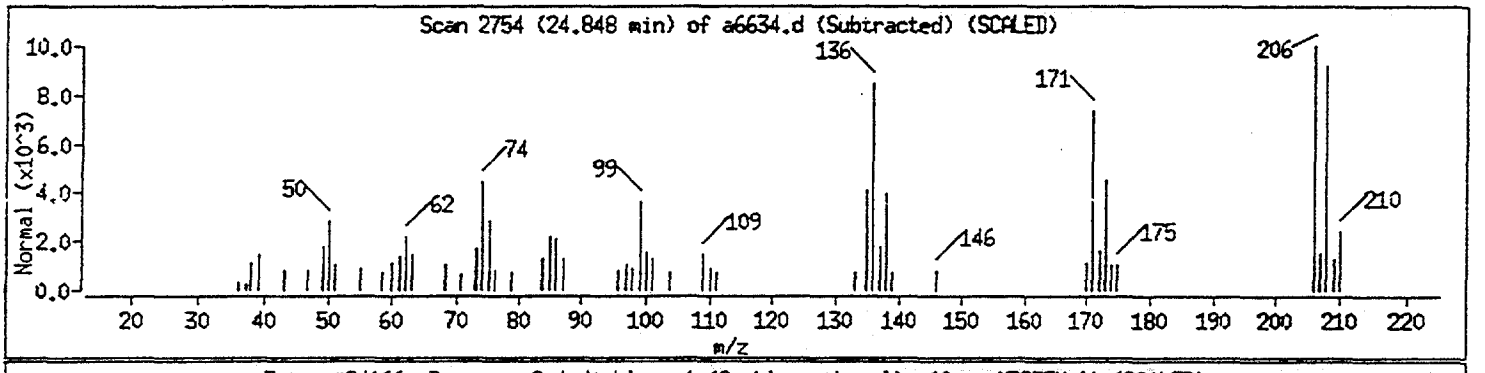
Client ID: 18319n clj100-wc1 Instrument: msa.i

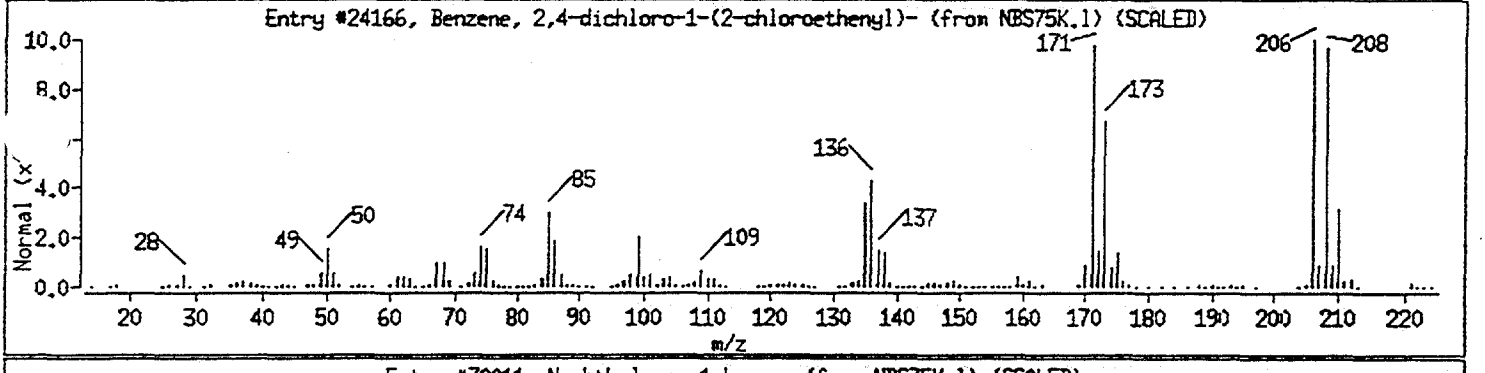
Sample Info: 18319n clj100-wc1 (11)

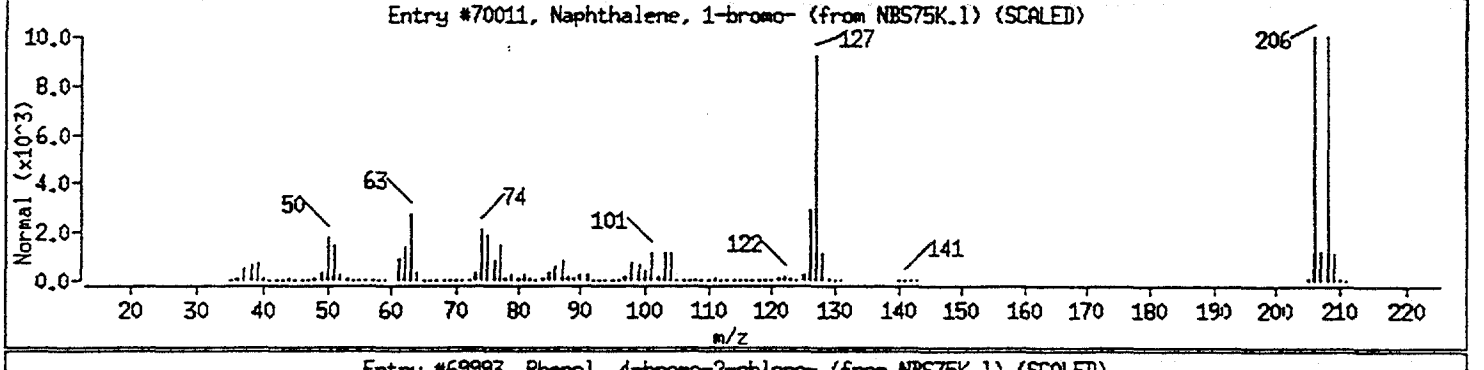
Purge Volume: 1.0 Operator: jk

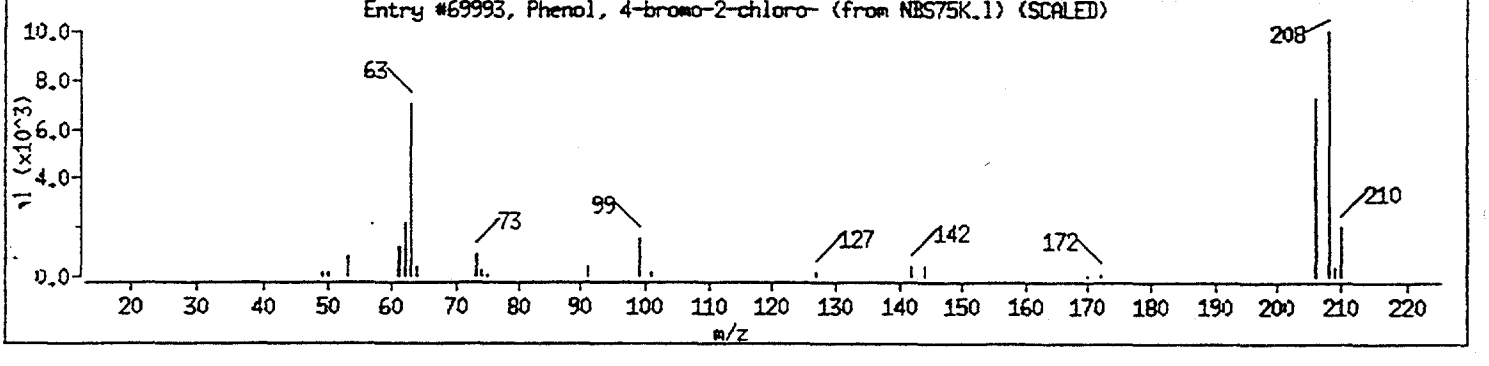
Column phase: J&W DB_624 Column diameter: 0.53

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 2,4-dichloro-1-(2-chloroethenyl	45892-47-5	NBS75K.l	24166	91	C8H5Cl3	206
Naphthalene, 1-bromo-	90-11-9	NBS75K.l	70011	30	C10H7Br	206
Phenol, 4-bromo-2-chloro-	3964-56-5	NBS75K.l	69993	27	C6H4BrClO	206









Report Date : 15-Mar-1996 12:08

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-96 09:03
End Cal Date : 15-MAR-96 11:23
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/msa.i/a031596.b/031596_heata.m
Cal Date : 15-Mar-1996 11:53
Curve Type : Average

Calibration File Names:
Level 1: /chem/msa.i/a031596.b/a6626.d
Level 2: /chem/msa.i/a031596.b/a6627.d
Level 3: /chem/msa.i/a031596.b/a6628.d
Level 4: /chem/msa.i/a031596.b/a6629.d
Level 5: /chem/msa.i/a031596.b/a6630.d

mk

CLP-ok

	Compound	10 Level 1	20 Level 2	50 Level 3	100 Level 4	200 Level 5	RRF	% RSD	
1	Dichlorodifluoromethane	1.47832	1.35352	1.61175	1.45991	1.75892	1.53248	10.203	
2	Methyl chloride	0.60408	0.50718	0.60205	0.52716	0.61718	0.57153	8.829	
3	Vinyl chloride	0.58347	0.58012	0.66409	0.59153	0.73882	0.63161	10.947	
4	Methyl bromide	0.57264	0.51393	0.51684	0.47251	0.54890	0.52496	7.245	
5	Chloroethane	0.23056	0.21963	0.21248	0.19004	0.23552	0.21764	8.216	
6	Trichlorofluoromethane	2.36413	2.28788	1.55097	1.43513	1.58514	1.84465	24.056	
7	Ethyl ether	0.53294	0.52304	0.60421	0.19762	0.21713	0.41499	46.319	<- NONE
8	Acrolein	1.39362	1.17887	1.28736	1.09566	0.41271	1.07365	35.966	<- NONE
9	1,1,2-Trichlorotrifluoroethan	2.19139	1.96367	2.39438	1.81066	0.91097	1.85422	30.852	<- NONE
10	1,1-Dichloroethylene	0.92243	0.84049	0.99028	0.88246	0.34878	0.79689	32.189	<- CCC-20.5%
11	Acetone	1.98351	1.22229	1.21954	1.08543	0.05995	1.11414	61.709	<- NONE
12	Carbon disulfide	2.33078	2.14195	2.65354	2.56227	0.88831	2.11537	33.777	<- NONE
13	Methylene chloride	1.51903	1.12935	1.13840	1.01137	1.28261	1.21615	16.011	
14	Acrylonitrile	0.48081	0.43370	0.47747	0.49512	0.58268	0.49396	11.064	
15	1,2-Trans-dichloroethylene	0.97246	0.91246	1.08131	1.02549	1.25814	1.04997	12.584	
16	Tert-Butyl Methyl Ether	2.50678	2.31288	2.58677	2.58697	3.03918	2.60652	10.225	
17	1,1-Dichloroethane	1.74668	1.59280	1.88040	1.76761	2.10886	1.81927	10.531	
18	Methyl ethyl ketone	0.10055	0.07918	0.08722	0.08266	0.06229	0.08238	16.817	
19	1,2-cis-Dichloroethylene	1.16700	1.05216	1.14891	1.08212	1.17583	1.12520	4.880	
20	2,2-Dichloropropane	1.67820	1.66046	1.86194	1.76448	1.85484	1.76398	5.373	
21	Ethyl acetate	6.42333	5.23313	5.71215	5.39080	5.23393	5.59867	8.943	
23	Chloroform	2.64047	2.47444	2.74901	2.55872	2.69946	2.62442	4.184	
24	1,1,1-Trichloroethane	0.66385	0.61770	0.70947	0.69891	0.62625	0.66324	6.241	
25	1,1-Dichloropropene	0.41160	0.38371	0.42748	0.41645	0.39189	0.40623	4.434	
	Carbon tetrachloride	0.31921	0.34724	0.50098	0.53095	0.56471	0.45262	24.687	
	Isobutanol	0.25592	0.17118	0.18362	0.16681	0.19710	0.19533	18.277	
29	1,2-Dichloroethane	1.68087	1.57884	1.76874	1.63073	1.98188	1.72821	9.151	

FOR 624, remove 200 pt points that 0 out, new Cal sheet attached.

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-96 09:03
End Cal Date : 15-MAR-96 11:23
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/msa.i/a031596.b/031596_heata.m
Cal Date : 15-Mar-1996 11:53
Curve Type : Average

	Compound	10 Level 1	20 Level 2	50 Level 3	100 Level 4	200 Level 5	RRF	% RSD
30	Benzene	0.68196	0.63404	0.69646	0.63959	0.61119	0.65265	5.425
32	Trichloroethylene	0.46780	0.42216	0.47126	0.45433	0.41645	0.44640	5.737
33	1,2-Dichloropropane	0.31709	0.30700	0.32682	0.31795	0.29580	0.31293	3.795
34	Methyl methacrylate	0.32477	0.29241	0.30087	0.29414	0.27713	0.29786	5.830
35	Dibromomethane	0.49670	0.46632	0.49962	0.47447	0.43867	0.47516	5.233
36	Dichlorobromomethane	0.72556	0.69441	0.78217	0.75825	0.71841	0.73576	4.696
7	2-Chloroethylvinyl ether	0.21902	0.20043	0.22477	0.21021	0.21123	0.21313	4.348
8	cis-1,3-Dichloropropylene	0.48598	0.45893	0.50577	0.49710	0.45364	0.48028	4.805
39	Methyl-iso-butyl ketone	0.92966	0.80339	0.88416	0.86153	0.85662	0.86707	5.286
41	Toluene	1.01771	0.97791	1.08151	1.04977	1.01130	1.02764	3.840
42	trans-1,3-Dichloropropylene	0.45321	0.42033	0.47237	0.45540	0.42757	0.44578	4.804
43	1,1,2-Trichloroethane	0.38556	0.36994	0.38343	0.36495	0.33871	0.36852	5.106
44	1,3-Dichloropropane	0.64730	0.63813	0.64412	0.62240	0.58007	0.62640	4.409
45	Tetrachloroethylene	0.56657	0.57966	0.61125	0.57074	0.53668	0.57298	4.678
46	2-Hexanone	0.84792	0.70019	0.75749	0.76471	0.74058	0.76218	7.093
47	Chlorodibromomethane	0.80579	0.76583	0.86412	0.84679	0.80280	0.81707	4.761
48	Ethylene dibromide	0.91758	0.85708	0.91453	0.90949	0.87986	0.89571	2.936
50	Chlorobenzene	0.98965	0.91288	0.98614	0.94187	0.90897	0.94790	4.080
51	1,1,1,2-Tetrachloroethane	0.55932	0.53353	0.61296	0.60420	0.57951	0.57790	5.632
52	Ethylbenzene	0.41798	0.37896	0.41286	0.39737	0.36615	0.39466	5.583
53	m+p-Xylenes	0.48262	0.45860	0.50097	0.47395	0.44636	0.47250	4.479
54	o-Xylene	0.49833	0.44554	0.48347	0.46412	0.43970	0.46623	5.324
55	Styrene	0.79729	0.77419	0.83456	0.80449	0.76146	0.79440	3.569
56	Bromoform	0.78860	0.74175	0.84920	0.82955	0.77778	0.79738	5.349
57	Isopropylbenzene	1.34455	1.26468	1.40692	1.37400	1.32817	1.34367	3.973
59	1,1,2,2-Tetrachloroethane	1.12045	1.01580	1.04947	1.00359	0.94388	1.02664	6.316
60	1,2,3-Trichloropropane	0.84099	0.76490	0.80565	0.77055	0.70639	0.77770	6.457
61	Bromobenzene	0.64571	0.59956	0.65427	0.63423	0.58558	0.62387	4.786
62	n-Propylbenzene	1.61487	1.49187	1.70619	1.65509	1.58648	1.61090	4.987
63	o-Chlorotoluene	1.17229	1.07893	1.25940	1.16255	1.18369	1.17137	5.487
64	1,3,5-Trimethylbenzene	1.17966	1.09707	1.24523	1.21241	1.16207	1.17929	4.741
	p-Chlorotoluene	1.26921	1.24741	1.30983	1.28685	1.22682	1.26802	2.563
	tert-Butylbenzene	1.24325	1.14305	1.32198	1.28112	1.21544	1.24097	5.468
67	1,2,4-Trimethylbenzene	1.18983	1.13389	1.26630	1.23313	1.17984	1.20060	4.241

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 15-MAR-96 09:03
End Cal Date : 15-MAR-96 11:23
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/msa.i/a031596.b/031596_heata.m
Cal Date : 15-Mar-1996 11:53
Curve Type : Average

	10	20	50	100	200	___	
Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
68 sec-Butylbenzene	1.61990	1.50805	1.74904	1.69135	1.61266	1.63620	5.553
69 1,3-Dichlorobenzene	1.02919	0.96870	1.02998	0.98154	0.90105	0.98209	5.402
70 4-Isopropyltoluene	1.32339	1.24139	1.40280	1.31964	1.21006	1.29946	5.838
71 1,4-Dichlorobenzene	1.09141	1.01177	1.11495	1.06094	1.02189	1.06019	4.161
72 n-Butylbenzene	1.31347	1.24577	1.44244	1.38787	1.33727	1.34536	5.541
73 1,2-Dichlorobenzene	1.03155	0.94025	1.03099	1.00575	0.97114	0.99594	3.988
1 1,2-Dibromo-3-chloropropane	0.53675	0.45818	0.50735	0.48956	0.46513	0.49139	6.522
5 1,2,4-Trichlorobenzene	0.98920	0.93496	1.04125	1.00348	0.97010	0.98780	3.989
76 Hexachlorobutadiene	0.75520	0.71762	0.85709	0.82609	0.79707	0.79061	7.014
77 Naphthalene	2.00271	1.77219	1.92853	1.88879	1.84722	1.88789	4.578
78 1,2,3-Trichlorobenzene	0.98945	0.93423	1.01392	0.98086	0.94719	0.97313	3.320
79 Vinyl acetate	2.39178	2.29720	2.30336	2.17913	2.80737	2.39577	10.109
$ 28 1,2-Dichloroethane-D4 (SURR)	1.59675	1.51710	1.62926	1.53896	1.83305	1.62302	7.740
$ 40 Toluene-D8 (SURR)	0.99898	0.99730	1.06946	1.02438	1.00753	1.01953	2.933
$ 58 Bromofluorobenzene (SURR)	0.76665	0.74932	0.76602	0.75105	0.72729	0.75207	2.134

Data File: /chem/msa.i/a031596.b/a6625.d

Date : 15-MAR-96 08:01

Client ID: bfb tune

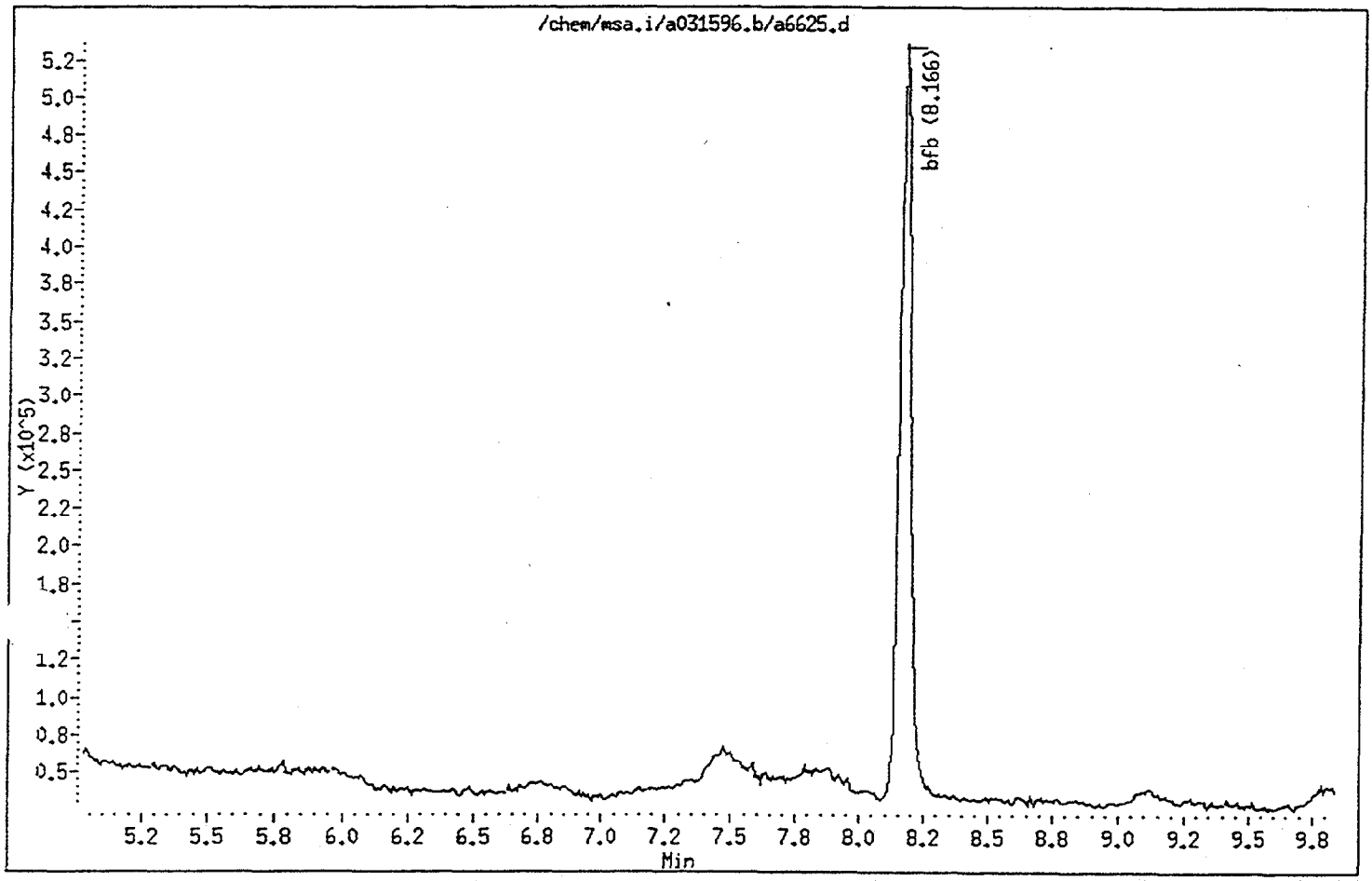
Instrument: msa.i

Sample Info: bfb tune

Operator: jk

Column phase: J&W DB-624

Column diameter: 0.53



Data File: /chem/msa.i/a031596.b/a6625.d

Date : 15-MAR-96 08:01

Client ID: bfb tune

Instrument: msa.i

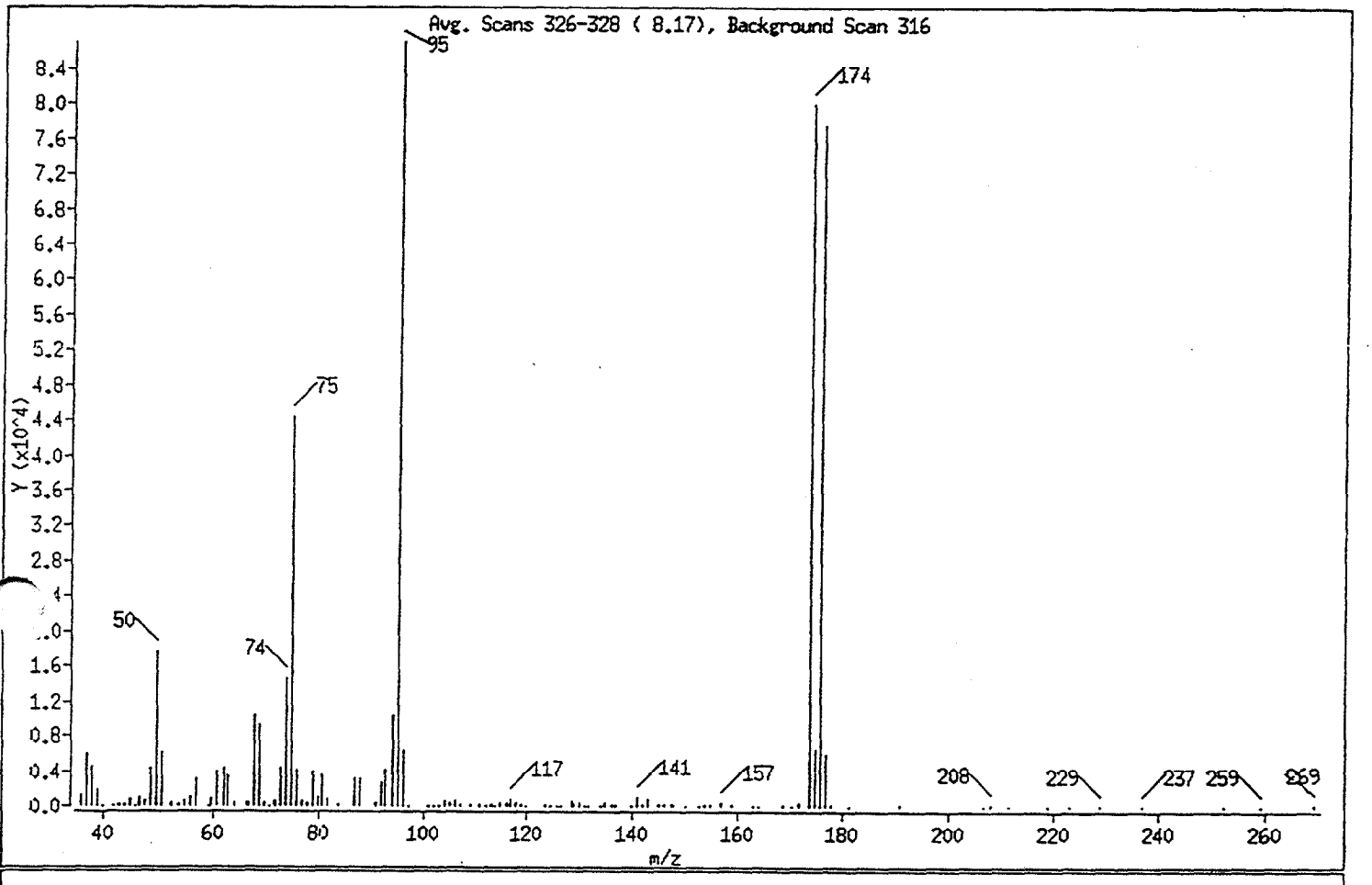
Sample Info: bfb tune

Operator: jk

Column phase: J&W DB-624

Column diameter: 0.53

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.29
75	30.00 - 60.00% of mass 95	51.00
96	5.00 - 9.00% of mass 95	7.39
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	92.08
175	5.00 - 9.00% of mass 174	7.45 (8.09)
176	95.00 - 101.00% of mass 174	89.06 (96.72)
177	5.00 - 9.00% of mass 176	6.74 (7.57)

Data File: /chem/msa.i/a031596.b/a6625.d

Date : 15-MAR-96 08:01

Client ID: bfb tune

Instrument: msa.i

Sample Info: bfb tune

Operator: jk

Column phase: J&W DB-624

Column diameter: 0.53

Data File: a6625.d

Spectrum : Avg. Scans 326-328 (8.17), Background Scan 316

Largest m/z: 95.00

Number of peaks: 122

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1245	70.95	84	110.75	196	150.00	57
37.00	5884	71.95	646	111.95	82	152.80	92
38.00	4448	72.95	4268	113.05	136	154.00	148
39.00	1808	74.00	14604	113.95	82	154.80	251
40.00	30	75.10	44384	114.85	371	156.90	316
42.00	42	76.00	4155	116.05	433	158.80	103
43.00	270	77.00	600	116.85	732	163.05	56
44.00	148	78.00	337	117.95	482	164.05	56
45.05	906	79.00	3942	118.85	239	168.65	124
46.05	75	80.00	1070	119.95	80	168.95	274
47.05	1023	80.90	3586	123.65	160	170.55	62
48.05	663	82.00	793	124.75	67	171.95	352
49.05	4319	84.00	135	125.95	50	173.95	80136
50.05	17656	87.00	3137	126.75	65	174.85	6487
51.05	6244	88.00	3154	128.65	640	175.85	77504
52.65	351	91.10	449	129.05	170	176.95	5869
53.95	132	92.00	2675	129.95	471	177.95	219
55.05	520	92.90	4062	130.95	46	181.25	51
56.05	1114	94.00	10328	131.85	91	190.85	140
57.05	2995	95.00	87032	134.00	61	206.90	99
59.05	87	96.00	6436	134.90	361	208.10	236
59.95	826	97.10	33	136.10	155	211.60	59
60.95	3878	101.00	53	136.90	154	218.90	63
62.05	4388	102.00	75	140.00	68	223.25	63
62.95	3432	103.00	25	140.90	1061	228.85	68
64.05	472	103.95	522	142.00	131	237.05	51
66.55	367	105.05	414	142.90	810	252.80	51
66.95	362	105.95	564	144.90	183	259.60	58
67.95	10207	107.05	245	145.90	164	269.00	164
68.95	9216	108.95	154	147.50	284		
69.95	514	110.65	210	147.80	240		

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

0025 EPA SAMPLE NO.

VBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: N2V5041V

Sample wt/vol: 5.00 (g/mL) G Lab File ID: A6632

Level: (low/med) LOW Date Received: 3/12/96

% Moisture: not dec. N/A Date Analyzed: 03/15/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ~~5000~~ 6 (uL) Soil Aliquot Volume: ~~5000~~ 6 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	5	U
74-83-9	Bromomethane	5	U
75-01-4	Vinyl Chloride	5	U
75-00-3	Chloroethane	5	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	Methyl-iso-butyl ketone	10	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethylene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

0026

VBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: N2V5041V

Sample wt/vol: 5.00 (g/mL) G Lab File ID: A6632

Level: (low/med) LOW Date Received: 3/12/96

% Moisture: not dec. N/A Date Analyzed: 03/15/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 5000 (uL) Soil Aliquot Volume: 5000 (uL)

Number TICs found: 0

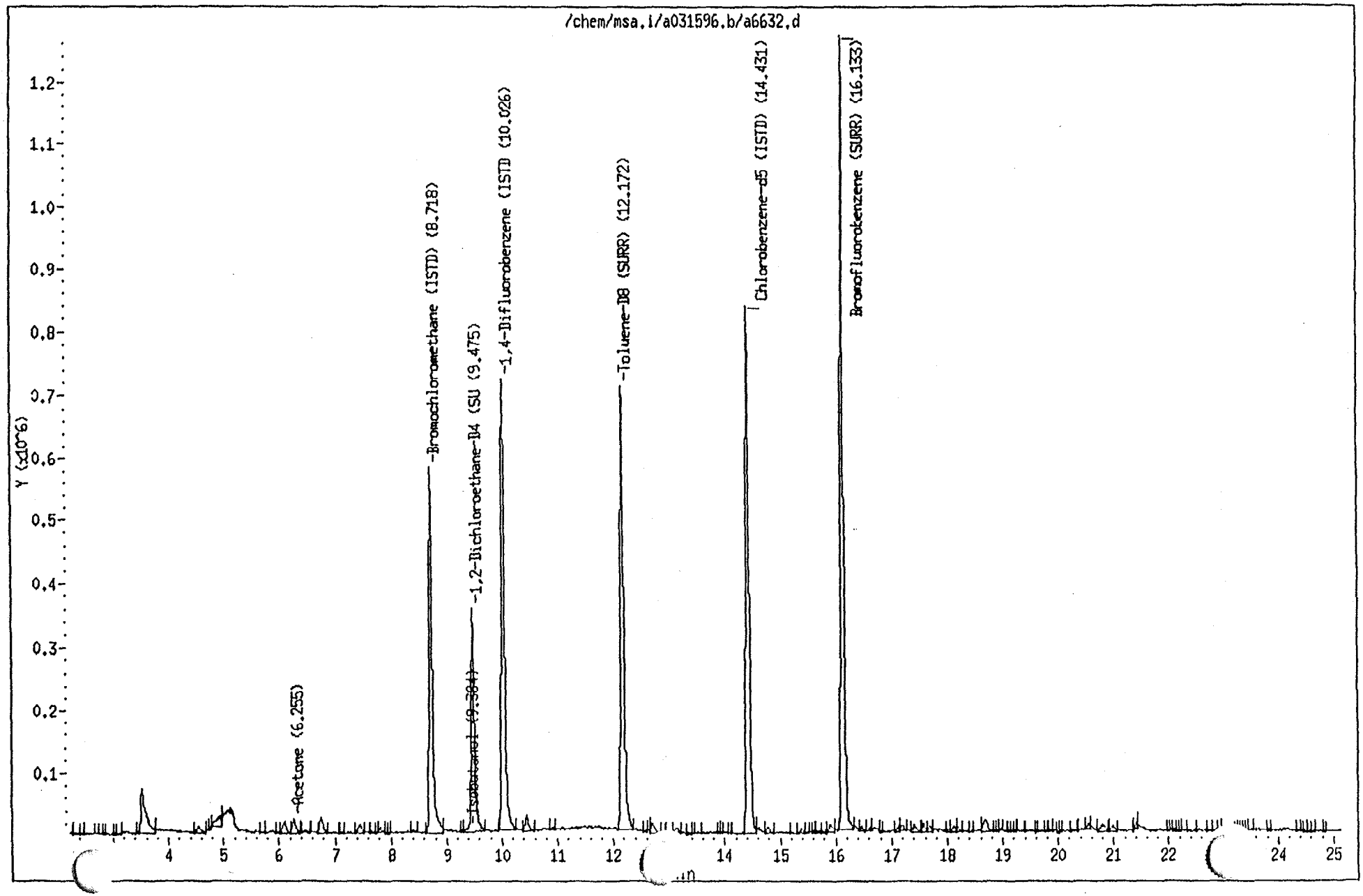
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

0027

Data File: /chem/msa.i/a031596.b/a6632.d
Date : 15-MAR-96 12:40
Client ID: n2v5041 blk
Sample Info: n2v5041 blk (9)
Purge Volume: 1.0
Column phase: J&W DB_624

Instrument: msa.i
Operator: jk
Column diameter: 0.53



Data File: /chem/msa.i/a031596.b/a6632.d
Report Date: 15-Mar-1996 14:23

OHM Analytical Division

VOLATILE REPORT SW-846 Method 8240 & Screen

Data file : /chem/msa.i/a031596.b/a6632.d
Lab Smp Id: Client Smp ID: n2v5041 blk
Inj Date : 15-MAR-96 12:40
Operator : jk Inst ID: msa.i
Smp Info : n2v5041 blk (9)
Misc Info : n2v5041v,n2v5041,m2,5000,1,5.0,5.0,960315,
Comment :
Method : /chem/msa.i/a031596.b/031596_heata.m
Meth Date : 15-Mar-1996 14:22 glenn Quant Type: ISTD
Cal Date : 15-MAR-96 10:13 Cal File: a6628.d
Als bottle: 9
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

MC 3/15/96

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	1 Acetone	43.00	6.255	6.329	(0.717)	61079	7.72	~~7.72~~ RT
*	22 Bromochloromethane (ISTD)	128.00	8.718	8.592	(1.000)	324350	50.0	
	27 Isobutanol	43.00	9.384	9.701	(1.076)	4767	4.00	~~4.00~~ MC
$	28 1,2-Dichloroethane-D4 (SURR)	65.00	9.475	9.395	(1.087)	529673	50.1	50.1
*	31 1,4-Difluorobenzene (ISTD)	114.00	10.026	9.948	(1.000)	1166296	50.0	
$	40 Toluene-D8 (SURR)	98.00	12.172	12.140	(0.843)	982715	49.7	49.7
*	49 Chlorobenzene-d5 (ISTD)	117.00	14.431	14.421	(1.000)	925067	50.0	
$	58 Bromofluorobenzene (SURR)	95.00	16.133	16.141	(1.118)	745673	52.6	52.6

QC Flag Legend

Q - Qualifier signal failed the ratio test.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET 0029

EPA SAMPLE NO.

CLJ100-WC1MS

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: JP5002VS

Sample wt/vol: 5.31 (g/mL) G Lab File ID: A6638

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: not dec. 17 Date Analyzed: 03/15/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ~~5000~~ 48 (uL) Soil Aliquot Volume: ~~5000~~ 48 (uL)

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

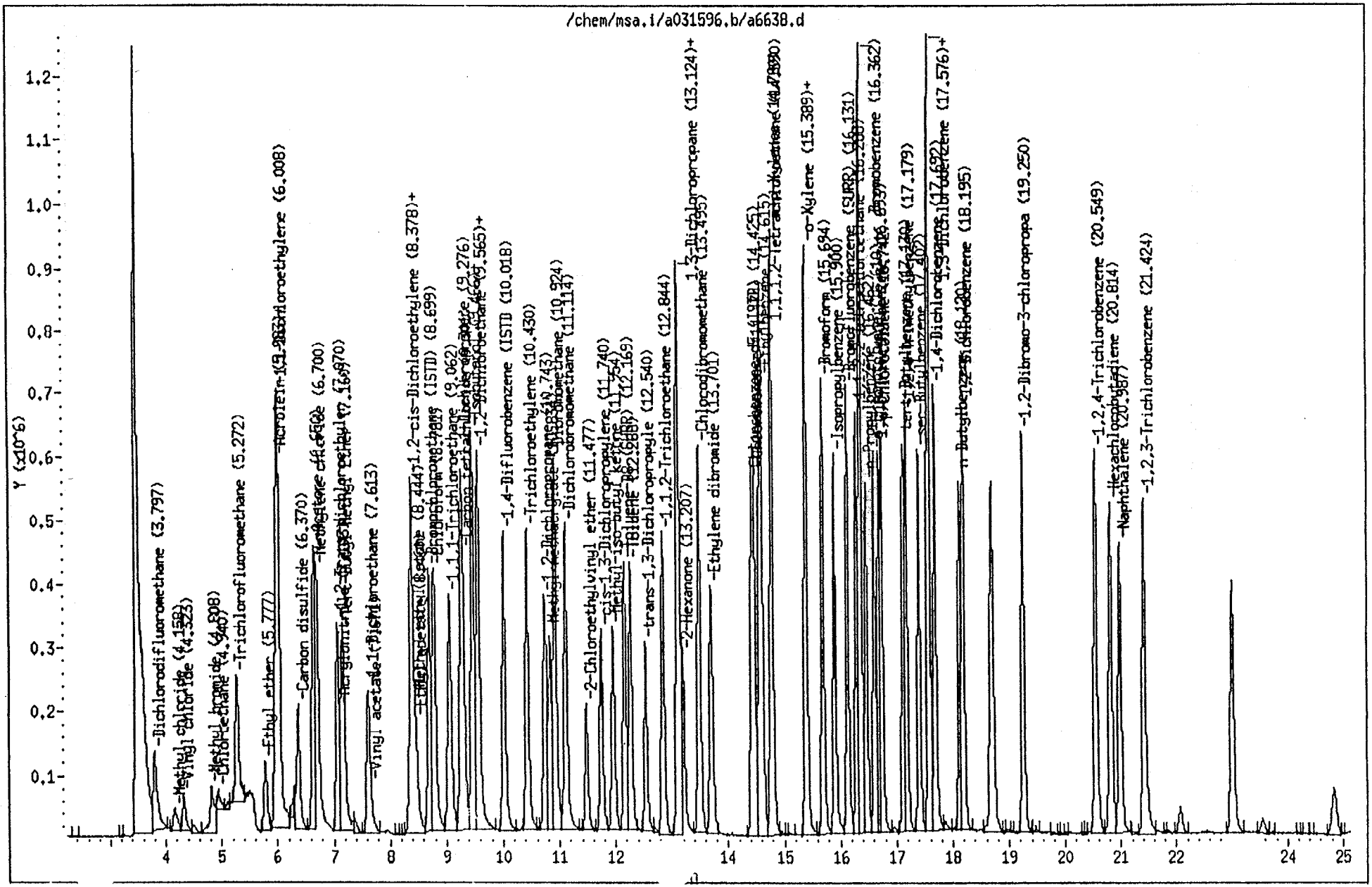
CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	59	
74-83-9	Bromomethane	31	
75-01-4	Vinyl Chloride	54	
75-00-3	Chloroethane	50	
75-09-2	Methylene Chloride	57	
67-64-1	Acetone	87	
75-15-0	Carbon Disulfide	48	
75-35-4	1,1-Dichloroethene	57	
75-34-3	1,1-Dichloroethane	53	
540-59-0	1,2-Dichloroethene (total)	110	
67-66-3	Chloroform	53	
107-06-2	1,2-Dichloroethane	57	
78-93-3	2-Butanone	190	
71-55-6	1,1,1-Trichloroethane	56	
56-23-5	Carbon Tetrachloride	53	
75-27-4	Bromodichloromethane	57	
78-87-5	1,2-Dichloropropane	57	
10061-01-5	cis-1,3-Dichloropropene	46	
79-01-6	Trichloroethene	53	
124-48-1	Dibromochloromethane	58	
79-00-5	1,1,2-Trichloroethane	64	
71-43-2	Benzene	57	
10061-02-6	trans-1,3-Dichloropropene	50	
75-25-2	Bromoform	65	
108-10-1	Methyl-iso-butyl ketone	150	
591-78-6	2-Hexanone	160	
127-18-4	Tetrachloroethylene	51	
79-34-5	1,1,2,2-Tetrachloroethane	84	
108-88-3	Toluene	57	
108-90-7	Chlorobenzene	54	
100-41-4	Ethylbenzene	52	
100-42-5	Styrene	50	
1330-20-7	Xylene (total)	160	

0030

Data File: /chem/msa.i/a031596.b/a6638.d
Date : 15-MAR-96 16:28
Client ID: n2v5041 mtx spk
Sample Info: n2v5041 mtx spk (15)
Purge Volume: 1.0
Column phase: J&W DB_624

Instrument: msa.i

Operator: jk
Column diameter: 0.53



Data File: /chem/msa.i/a031596.b/a6638.d
Report Date: 16-Mar-1996 10:21

OHM Analytical Division

VOLATILE REPORT SW-846 Method 8240

Data file : /chem/msa.i/a031596.b/a6638.d
Lab Smp Id:
Client Smp ID: n2v5041 mtx spk
Inj Date : 15-MAR-96 16:28
Operator : jk
Inst ID: msa.i
Smp Info : n2v5041 mtx spk (15)
Misc Info : jp5002vs,n2v5041,m2,5000,1,5.31,5.0,960315,
Comment :
Method : /chem/msa.i/a031596.b/022296_ambia.m
Meth Date : 16-Mar-1996 09:55 glenn
Quant Type: ISTD
Cal Date : 15-MAR-96 15:03
Cal File: a6636.d
Als bottle: 15
Dil Factor: 1.000
Integrator: HP RTE
Compound Sublist: all.sub
Target Version: 3.10

MC 3/16/96

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	Dichlorodifluoromethane	85.00	3.797	3.854	(0.436)	287921	47.2	47.2
2	Methyl chloride	50.00	4.150	4.207	(0.477)	134174	51.7	51.7
3	Vinyl chloride	62.00	4.323	4.380	(0.497)	141860	47.3	47.3
4	Methyl bromide	94.00	4.816	4.873	(0.554)	71962	26.9	26.9
5	Chloroethane	64.00	4.940	5.005	(0.568)	50994	44.3	44.3
6	Trichlorofluoromethane	101.00	5.272	5.401	(0.606)	313918	23.4	23.4
7	Ethyl ether	59.00	5.777	5.853	(0.664)	148122	55.8	55.8
8	Acrolein	56.00	5.983	6.034	(0.688)	29731	10.8	10.8 (M)
9	1,1,2-Trichlorotrifluoroethan	101.00	5.983	6.125	(0.688)	540615	48.2	48.2
10	1,1-Dichloroethylene	96.00	6.016	6.158	(0.692)	235720	50.5	50.5
11	Acetone	43.00	6.280	6.257	(0.722)	100610	76.9	76.9 (H)
12	Carbon disulfide	76.00	6.370	6.496	(0.732)	509057	41.8	41.8
13	Methylene chloride	84.00	6.700	6.775	(0.770)	264875	50.5	50.5
14	Acrylonitrile	53.00	7.103	7.071	(0.817)	105617	99.7	99.7
15	1,2-Trans-dichloroethylene	96.00	7.062	7.137	(0.812)	243014	47.2	47.2
16	Tert-Butyl Methyl Ether	73.00	7.160	7.154	(0.823)	636374	58.2	58.2
17	1,1-Dichloroethane	63.00	7.613	7.664	(0.875)	444192	47.0	47.0
18	Methyl ethyl ketone	72.00	8.444	8.421	(0.843)	70127	164	164 (Q)
19	1,2-cis-Dichloroethylene	96.00	8.378	8.404	(0.963)	263967	47.7	47.7
20	2,2-Dichloropropane	77.00	8.386	8.429	(0.964)	389860	40.5	40.5
21	Ethyl acetate	43.00	8.460	8.445	(0.973)	426830	36.8	36.8
* 22	Bromochloromethane (ISTD)	128.00	8.699	8.725	(1.000)	231872	50.0	
23	Chloroform	83.00	8.781	8.800	(1.009)	636161	46.6	46.6
24	1,1,1-Trichloroethane	97.00	9.062	9.104	(0.905)	561668	48.9	48.9
25	1,1-Dichloropropene	75.00	9.268	9.311	(0.925)	325084	45.6	45.6
	Carbon tetrachloride	117.00	9.301	9.344	(0.928)	416556	46.3	46.3
	Isobutanol	43.00	9.474	9.377	(1.089)	510549	3120	3120
S 28	1,2-Dichloroethane-D4 (SURR)	65.00	9.466	9.492	(1.088)	388432	49.3	49.3
29	1,2-Dichloroethane	62.00	9.565	9.591	(1.100)	427297	50.5	50.5

Data File: /chem/msa.i/a031596.b/a6638.d
Report Date: 16-Mar-1996 10:21

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	30 Benzene	78.00	9.565	9.600	(0.955)	548051	50.0	50.0
*	31 1,4-Difluorobenzene (ISTD)	114.00	10.018	10.044	(1.000)	753363	50.0	
	32 Trichloroethylene	130.00	10.430	10.464	(1.041)	345201	47.0	47.0
	33 1,2-Dichloropropane	63.00	10.751	10.777	(1.073)	268556	49.8	49.8
	34 Methyl methacrylate	69.00	10.834	10.851	(1.081)	208176	70.6	70.6
	35 Dibromomethane	93.00	10.916	10.951	(1.090)	407363	57.8	57.8
	36 Dichlorobromomethane	83.00	11.114	11.132	(1.109)	600603	50.3	50.3
	37 2-Chloroethylvinyl ether	63.00	11.477	11.502	(1.146)	166964	65.2	65.2
	38 cis-1,3-Dichloropropylene	75.00	11.740	11.766	(1.172)	326918	40.6	40.6
	39 Methyl-iso-butyl ketone	43.00	11.954	11.972	(0.829)	548137	130	130
$	40 Toluene-D8 (SURR)	98.00	12.169	12.203	(0.844)	599325	51.2	51.2
	41 Toluene	91.00	12.268	12.310	(0.850)	611703	49.8	49.8
	42 trans-1,3-Dichloropropylene	75.00	12.540	12.574	(1.252)	298953	43.9	43.9
	43 1,1,2-Trichloroethane	97.00	12.844	12.871	(1.282)	301346	56.1	56.1
	44 1,3-Dichloropropane	76.00	13.116	13.143	(0.909)	407383	60.5	60.5
	45 Tetrachloroethylene	164.00	13.133	13.168	(0.910)	303547	44.6	44.6
	46 2-Hexanone	43.00	13.207	13.226	(0.916)	408557	138	138
	47 Chlorodibromomethane	129.00	13.495	13.522	(1.347)	672318	51.4	51.4
	48 Ethylene dibromide	107.00	13.701	13.737	(0.950)	529232	60.9	60.9
*	49 Chlorobenzene-d5 (ISTD)	117.00	14.425	14.452	(1.000)	532827	50.0	
	Chlorobenzene	112.00	14.474	14.501	(1.003)	510507	47.4	47.4
	51 1,1,1,2-Tetrachloroethane	133.00	14.582	14.601	(1.011)	359910	51.5	51.5
	52 Ethylbenzene	106.00	14.615	14.642	(1.013)	216610	45.9	45.9
	53 m+p-Xylenes	106.00	14.788	14.807	(1.025)	518831	92.9	92.9
	54 o-Xylene	106.00	15.380	15.408	(1.066)	259983	46.5	46.5
	55 Styrene	104.00	15.389	15.416	(1.067)	424943	44.2	44.2
	56 Bromoform	173.00	15.694	15.713	(1.567)	638285	56.9	56.9
	57 Isopropylbenzene	105.00	15.900	15.919	(1.102)	710265	42.1	42.1
$	58 Bromofluorobenzene (SURR)	95.00	16.131	16.142	(1.118)	403678	45.6	45.6
	59 1,1,2,2-Tetrachloroethane	83.00	16.288	16.300	(1.129)	610810	74.0	74.0(Q)
	60 1,2,3-Trichloropropane	75.00	16.362	16.374	(1.134)	483762	79.4	79.4(QM)
	61 Bromobenzene	156.00	16.362	16.383	(1.134)	339690	45.2	45.2
	62 n-Propylbenzene	91.00	16.462	16.482	(1.141)	784499	40.6	40.6
	63 o-Chlorotoluene	91.00	16.610	16.623	(1.151)	593217	42.4	42.4
	64 1,3,5-Trimethylbenzene	105.00	16.693	16.705	(1.157)	597890	40.3	40.3
	65 p-Chlorotoluene	91.00	16.742	16.763	(1.161)	633766	40.9	40.9
	66 tert-Butylbenzene	119.00	17.130	17.143	(1.188)	603692	40.2	40.2
	67 1,2,4-Trimethylbenzene	105.00	17.179	17.201	(1.191)	608751	40.1	40.1
	68 sec-Butylbenzene	105.00	17.410	17.423	(1.207)	749959	37.9	37.9
	69 1,3-Dichlorobenzene	146.00	17.576	17.597	(1.218)	483135	41.1	41.1
	70 4-Isopropyltoluene	119.00	17.584	17.597	(1.219)	621675	37.4	37.4
	71 1,4-Dichlorobenzene	146.00	17.692	17.705	(1.226)	506781	39.8	39.8
	72 n-Butylbenzene	91.00	18.120	18.134	(1.256)	576349	34.0	34.0
	73 1,2-Dichlorobenzene	146.00	18.195	18.208	(1.261)	487581	41.5	41.5
	74 1,2-Dibromo-3-chloropropane	75.00	19.258	19.263	(1.335)	288670	116	116
	1,2,4-Trichlorobenzene	180.00	20.549	20.554	(1.425)	406961	33.6	33.6
	Hexachlorobutadiene	225.00	20.814	20.827	(1.443)	272735	25.3	25.3
	77 Naphthalene	128.00	20.987	20.992	(1.455)	776450	49.4	49.4
	78 1,2,3-Trichlorobenzene	180.00	21.424	21.438	(1.485)	390889	33.7	33.7

Data File: /chem/msa.i/a031596.b/a6638.d
Report Date: 16-Mar-1996 10:21

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
79 Vinyl acetate	43.00	7.671	7.681	(0.882)	94385	10.1	10.1

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0034

CLJ100-WC1MSD

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: JP5002VR

Sample wt/vol: 5.21 (g/mL) G Lab File ID: A6639

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: not dec. 17 Date Analyzed: 03/15/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

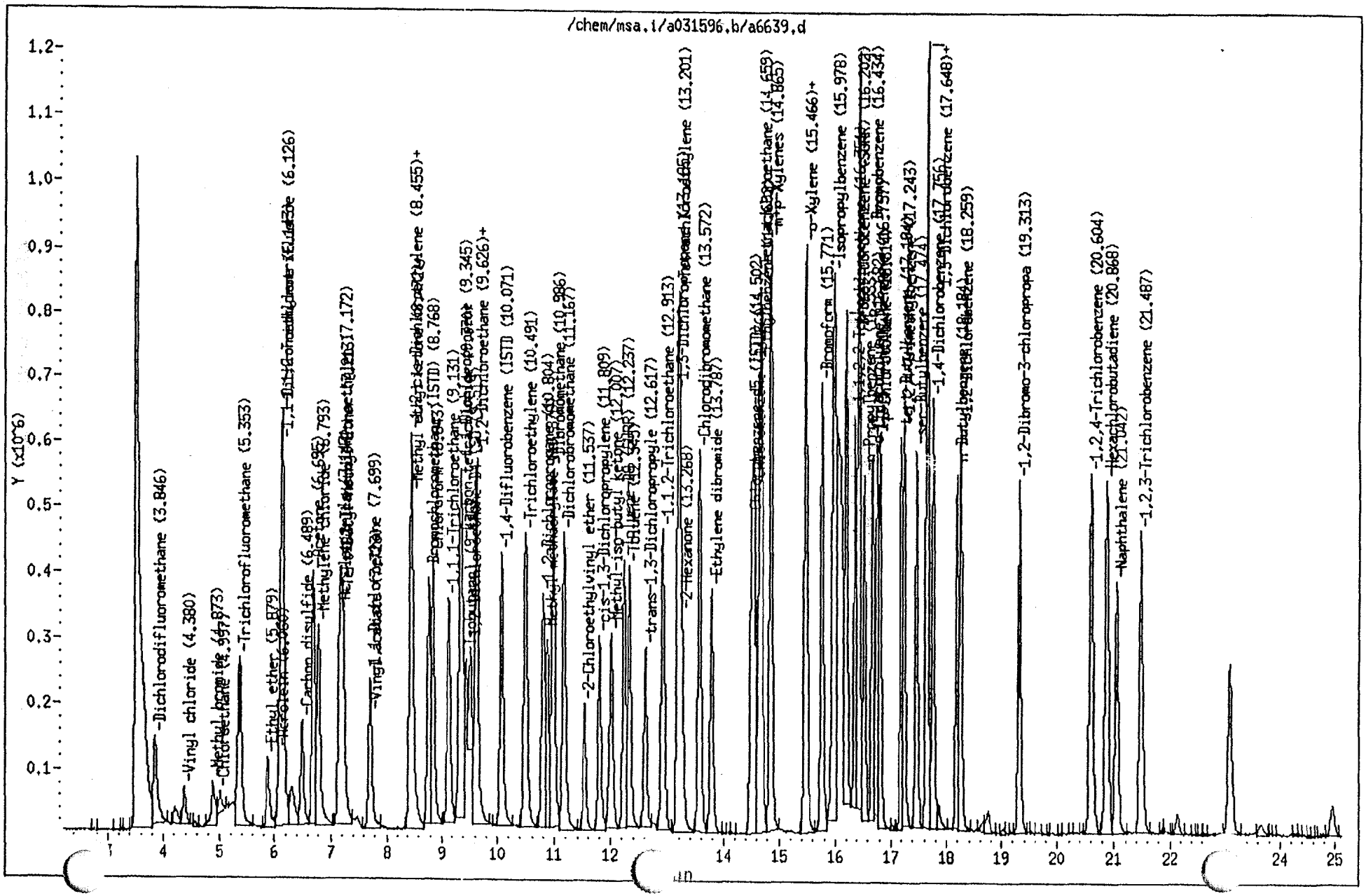
Soil Extract Volume: ~~5000~~ MK (uL) Soil Aliquot Volume: ~~5000~~ MK (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	61	
74-83-9	Bromomethane	32	
75-01-4	Vinyl Chloride	57	
75-00-3	Chloroethane	54	
75-09-2	Methylene Chloride	59	
67-64-1	Acetone	160	
75-15-0	Carbon Disulfide	48	
75-35-4	1,1-Dichloroethene	57	
75-34-3	1,1-Dichloroethane	57	
540-59-0	1,2-Dichloroethene (total)	110	
67-66-3	Chloroform	55	
107-06-2	1,2-Dichloroethane	59	
78-93-3	2-Butanone	170	
71-55-6	1,1,1-Trichloroethane	59	
56-23-5	Carbon Tetrachloride	58	
75-27-4	Bromodichloromethane	62	
78-87-5	1,2-Dichloropropane	63	
10061-01-5	cis-1,3-Dichloropropene	48	
79-01-6	Trichloroethene	56	
124-48-1	Dibromochloromethane	63	
79-00-5	1,1,2-Trichloroethane	70	
71-43-2	Benzene	62	
10061-02-6	trans-1,3-Dichloropropene	53	
75-25-2	Bromoform	69	
108-10-1	Methyl-iso-butyl ketone	160	
591-78-6	2-Hexanone	160	
127-18-4	Tetrachloroethylene	56	
79-34-5	1,1,2,2-Tetrachloroethane	90	
108-88-3	Toluene	61	
108-90-7	Chlorobenzene	58	
100-41-4	Ethylbenzene	57	
100-42-5	Styrene	54	
1330-20-7	Xylene (total)	170	

Data File: /chem/msa.i/a031596.b/a6639.d
Date : 15-MAR-96 17:28
Client ID: n2v5041 mtx spk dup
Sample Info: n2v5041 mtx spk dup (16)
Purge Volume: 1.0
Column phase: J&W DB_624

Instrument: msa.i

Operator: jk
Column diameter: 0.53



Data File: /chem/msa.i/a031596.b/a6639.d
Report Date: 16-Mar-1996 10:23

OHM Analytical Division

VOLATILE REPORT SW-846 Method 8240

Data file : /chem/msa.i/a031596.b/a6639.d
Lab Smp Id:
Client Smp ID: n2v5041 mtx spk dup
Inj Date : 15-MAR-96 17:28
Operator : jk
Inst ID: msa.i
Smp Info : n2v5041 mtx spk dup (16)
Misc Info : jp5002vr,n2v5041,m2,5000,1,5.21,5.0,960315,
Comment :
Method : /chem/msa.i/a031596.b/022296_ambia.m
Meth Date : 16-Mar-1996 09:55 glenn
Quant Type: ISTD
Cal Date : 15-MAR-96 15:03
Cal File: a6636.d
Als bottle: 16
Dil Factor: 1.000
Integrator: HP RTE
Compound Sublist: all.sub
Target Version: 3.10

3/16/96

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	Dichlorodifluoromethane	85.00	3.846	3.854	(0.439)	259994	45.2	45.2
	Methyl chloride	50.00	4.216	4.207	(0.481)	127868	52.3	52.3 (M)
3	Vinyl chloride	62.00	4.388	4.380	(0.500)	138791	49.1	49.1
4	Methyl bromide	94.00	4.873	4.873	(0.556)	70211	27.9	27.9
5	Chloroethane	64.00	5.005	5.005	(0.571)	50763	46.8	46.8
6	Trichlorofluoromethane	101.00	5.353	5.401	(0.610)	511590	40.4	40.4
7	Ethyl ether	59.00	5.871	5.853	(0.670)	139242	55.6	55.6
8	Acrolein	56.00	6.060	6.034	(0.691)	16508	6.37	6.37
9	1,1,2-Trichlorotrifluoroethan	101.00	6.118	6.125	(0.698)	451849	42.8	42.8
10	1,1-Dichloroethylene	96.00	6.143	6.158	(0.701)	217033	49.3	49.3
11	Acetone	43.00	6.324	6.257	(0.721)	175207	142	142 (H)
12	Carbon disulfide	76.00	6.489	6.496	(0.740)	469946	41.0	41.0
13	Methylene chloride	84.00	6.785	6.775	(0.774)	252064	51.0	51.0
14	Acrylonitrile	53.00	7.147	7.071	(0.815)	93812	93.9	93.9
15	1,2-Trans-dichloroethylene	96.00	7.164	7.137	(0.817)	230247	47.4	47.4
16	Tert-Butyl Methyl Ether	73.00	7.213	7.154	(0.823)	617951	59.9	59.9
17	1,1-Dichloroethane	63.00	7.699	7.664	(0.878)	438627	49.2	49.2
18	Methyl ethyl ketone	72.00	8.472	8.421	(0.841)	57877	147	147 (Q)
19	1,2-cis-Dichloroethylene	96.00	8.447	8.404	(0.963)	248659	47.6	47.6
20	2,2-Dichloropropane	77.00	8.455	8.429	(0.964)	388128	42.8	42.8
21	Ethyl acetate	43.00	8.480	8.445	(0.967)	314444	28.8	28.8
* 22	Bromochloromethane (ISTD)	128.00	8.768	8.725	(1.000)	218540	50.0	
23	Chloroform	83.00	8.843	8.800	(1.008)	607709	47.2	47.2
24	1,1,1-Trichloroethane	97.00	9.131	9.104	(0.907)	536697	50.8	50.8
25	1,1-Dichloropropene	75.00	9.337	9.311	(0.927)	301025	45.9	45.9
	Carbon tetrachloride	117.00	9.370	9.344	(0.930)	415377	50.2	50.2
	Isobutanol	43.00	9.436	9.377	(1.076)	279969	1810	1810
S 28	1,2-Dichloroethane-D4 (SURR)	65.00	9.519	9.492	(1.086)	359198	48.4	48.4
29	1,2-Dichloroethane	62.00	9.626	9.591	(1.098)	403528	50.6	50.6

Data File: /chem/msa.i/a031596.b/a6639.d
Report Date: 16-Mar-1996 10:23

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	30 Benzene	78.00	9.626	9.600	(0.956)	541675	53.7	53.7
*	31 1,4-Difluorobenzene (ISTD)	114.00	10.071	10.044	(1.000)	693308	50.0	
	32 Trichloroethylene	130.00	10.491	10.464	(1.042)	328507	48.6	48.6
	33 1,2-Dichloropropane	63.00	10.804	10.777	(1.073)	269115	54.2	54.2
	34 Methyl methacrylate	69.00	10.887	10.851	(1.081)	202095	74.4	74.4
	35 Dibromomethane	93.00	10.986	10.951	(1.091)	390546	60.2	60.2
	36 Dichlorobromomethane	83.00	11.167	11.132	(1.109)	586414	53.3	53.3
	37 2-Chloroethylvinyl ether	63.00	11.546	11.502	(1.146)	165823	70.4	70.4
	38 cis-1,3-Dichloropropylene	75.00	11.809	11.766	(1.173)	307271	41.5	41.5
	39 Methyl-iso-butyl ketone	43.00	12.007	11.972	(0.828)	527723	137	137
$	40 Toluene-D8 (SURR)	98.00	12.237	12.203	(0.844)	573486	53.8	53.8
	41 Toluene	91.00	12.337	12.310	(0.851)	585950	52.3	52.3
	42 trans-1,3-Dichloropropylene	75.00	12.617	12.574	(1.253)	286798	45.8	45.8
	43 1,1,2-Trichloroethane	97.00	12.921	12.871	(1.283)	296458	60.0	60.0
	44 1,3-Dichloropropane	76.00	13.185	13.143	(0.909)	396487	64.6	64.6
	45 Tetrachloroethylene	164.00	13.210	13.168	(0.911)	298972	48.2	48.2
	46 2-Hexanone	43.00	13.268	13.226	(0.915)	368673	136	136
	47 Chlorodibromomethane	129.00	13.572	13.522	(1.348)	655697	54.5	54.5
	48 Ethylene dibromide	107.00	13.787	13.737	(0.951)	510733	64.5	64.5
*	49 Chlorobenzene-d5 (ISTD)	117.00	14.502	14.452	(1.000)	485813	50.0	
	Chlorobenzene	112.00	14.560	14.501	(1.004)	490355	50.0	50.0
	1,1,1,2-Tetrachloroethane	133.00	14.659	14.601	(1.011)	344642	54.1	54.1
	52 Ethylbenzene	106.00	14.692	14.642	(1.013)	209811	48.8	48.8
	53 m+p-Xylenes	106.00	14.865	14.807	(1.025)	504740	99.2	99.2
	54 o-Xylene	106.00	15.466	15.408	(1.066)	252217	49.5	49.5
	55 Styrene	104.00	15.474	15.416	(1.067)	409808	46.8	46.8
	56 Bromoform	173.00	15.771	15.713	(1.566)	612030	59.3	59.3
	57 Isopropylbenzene	105.00	15.969	15.919	(1.101)	686773	44.7	44.7
$	58 Bromofluorobenzene (SURR)	95.00	16.202	16.142	(1.117)	385538	47.8	47.8
	59 1,1,2,2-Tetrachloroethane	83.00	16.359	16.300	(1.128)	582767	77.5	77.5(Q)
	60 1,2,3-Trichloropropane	75.00	16.434	16.374	(1.133)	451917	81.3	81.3(QM)
	61 Bromobenzene	156.00	16.434	16.383	(1.133)	330310	48.2	48.2
	62 n-Propylbenzene	91.00	16.533	16.482	(1.140)	752827	42.8	42.8
	63 o-Chlorotoluene	91.00	16.682	16.623	(1.150)	577904	45.3	45.3
	64 1,3,5-Trimethylbenzene	105.00	16.757	16.705	(1.155)	583856	43.2	43.2
	65 p-Chlorotoluene	91.00	16.814	16.763	(1.159)	587965	41.6	41.6
	66 tert-Butylbenzene	119.00	17.194	17.143	(1.186)	588524	42.9	42.9
	67 1,2,4-Trimethylbenzene	105.00	17.252	17.201	(1.190)	586471	42.4	42.4
	68 sec-Butylbenzene	105.00	17.474	17.423	(1.205)	737269	40.9	40.9
	69 1,3-Dichlorobenzene	146.00	17.648	17.597	(1.217)	447948	41.8	41.8
	70 4-Isopropyltoluene	119.00	17.648	17.597	(1.217)	614341	40.5	40.5
	71 1,4-Dichlorobenzene	146.00	17.756	17.705	(1.224)	482193	41.5	41.5
	72 n-Butylbenzene	91.00	18.184	18.134	(1.254)	576516	37.3	37.3
	73 1,2-Dichlorobenzene	146.00	18.259	18.208	(1.259)	463357	43.2	43.2
	74 1,2-Dibromo-3-chloropropane	75.00	19.313	19.263	(1.332)	244414	108	108
	1,2,4-Trichlorobenzene	180.00	20.604	20.554	(1.421)	372188	33.7	33.7
	Hexachlorobutadiene	225.00	20.877	20.827	(1.440)	280835	28.6	28.6
	77 Naphthalene	128.00	21.042	20.992	(1.451)	646479	45.1	45.1
	78 1,2,3-Trichlorobenzene	180.00	21.487	21.438	(1.482)	352137	33.3	33.3

Data File: /chem/msa.i/a031596.b/a6639.d
Report Date: 16-Mar-1996 10:23

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
79 Vinyl acetate	43.00	7.723	7.681	(0.881)	53327	6.06	6.06

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.
H - Operator selected an alternate compound hit.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET **0039**

EPA SAMPLE NO.

VSPK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: N2V5041VS

Sample wt/vol: 5.00 (g/mL) G Lab File ID: A6633

Level: (low/med) LOW Date Received: 3/12/96

% Moisture: not dec. N/A Date Analyzed: 03/15/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ~~5000~~ 86 (uL) Soil Aliquot Volume: ~~5000~~ 86 (uL)

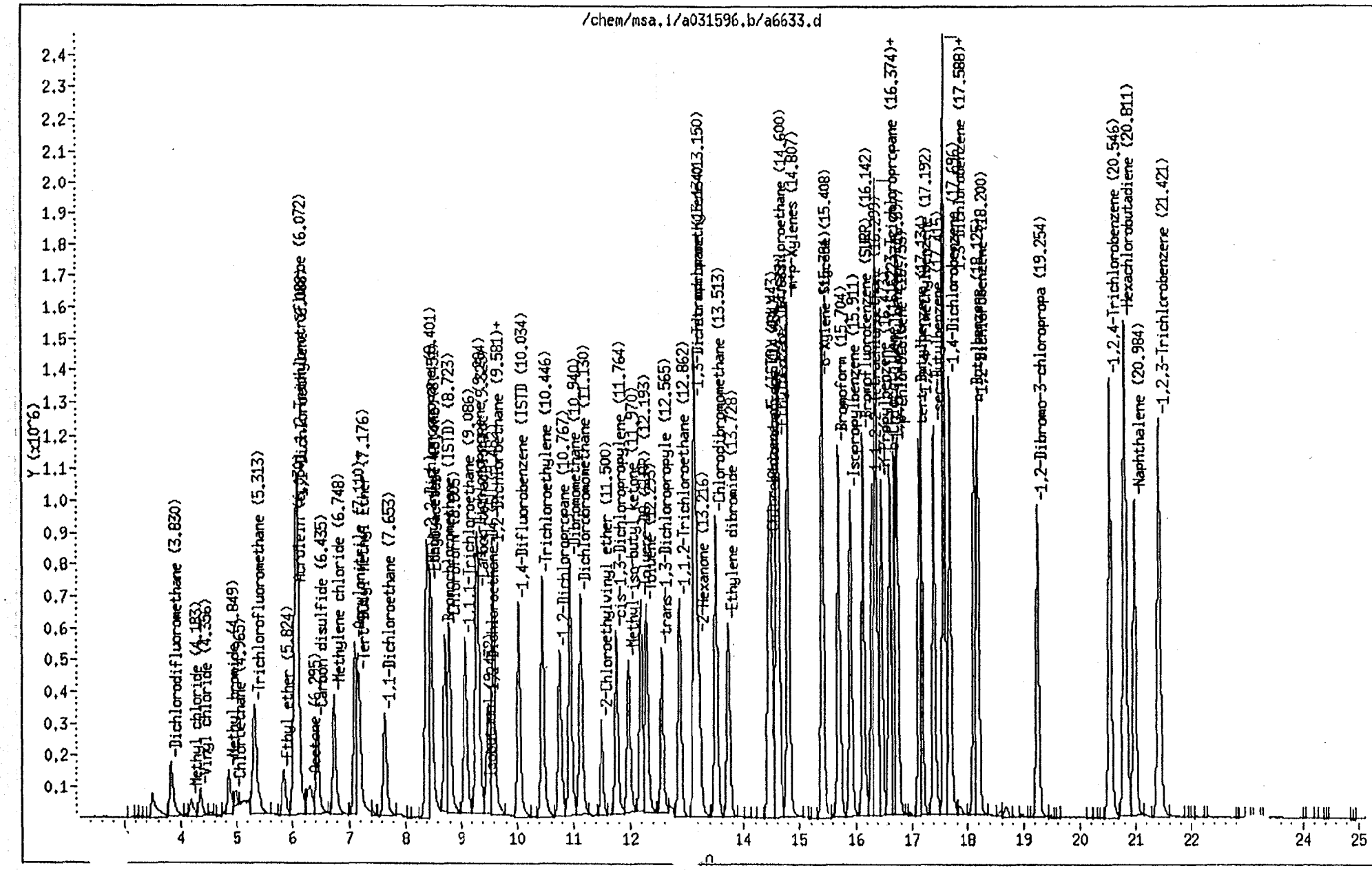
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	45	
74-83-9	Bromomethane	49	
75-01-4	Vinyl Chloride	48	
75-00-3	Chloroethane	49	
75-09-2	Methylene Chloride	49	
67-64-1	Acetone	37	
75-15-0	Carbon Disulfide	50	
75-35-4	1,1-Dichloroethene	54	
75-34-3	1,1-Dichloroethane	54	
540-59-0	1,2-Dichloroethene (total)	100	
67-66-3	Chloroform	53	
107-06-2	1,2-Dichloroethane	53	
78-93-3	2-Butanone	46	
71-55-6	1,1,1-Trichloroethane	53	
56-23-5	Carbon Tetrachloride	62	
75-27-4	Bromodichloromethane	51	
78-87-5	1,2-Dichloropropane	55	
10061-01-5	cis-1,3-Dichloropropene	54	
79-01-6	Trichloroethene	52	
124-48-1	Dibromochloromethane	55	
79-00-5	1,1,2-Trichloroethane	53	
71-43-2	Benzene	53	
10061-02-6	trans-1,3-Dichloropropene	50	
75-25-2	Bromoform	55	
108-10-1	Methyl-iso-butyl ketone	53	
591-78-6	2-Hexanone	53	
127-18-4	Tetrachloroethylene	52	
79-34-5	1,1,2,2-Tetrachloroethane	54	
108-88-3	Toluene	52	
108-90-7	Chlorobenzene	51	
100-41-4	Ethylbenzene	53	
100-42-5	Styrene	53	
1330-20-7	Xylene (total)	160	

0040

Data File: /chem/msa.i/a031596.b/a6633.d
Date : 15-MAR-96 13:16
Client ID: n2v5041 blk spk
Sample Info: n2v5041 blk spk (10)
Purge Volume: 1.0
Column phase: J&W DB_624

Instrument: msa.i

Operator: jk
Column diameter: 0.53



Data File: /chem/msa.i/a031596.b/a6633.d
Report Date: 15-Mar-1996 14:48

OHM Analytical Division

VOLATILE REPORT SW-846 Method 8240

Data file : /chem/msa.i/a031596.b/a6633.d
Lab Smp Id:
Client Smp ID: n2v5041 blk spk
Inj Date : 15-MAR-96 13:16
Operator : jk
Inst ID: msa.i
Smp Info : n2v5041 blk spk (10)
Misc Info : n2v5041vs,n2v5041,m2,5000,1,5.0,5.0,960315,
Comment :
Method : /chem/msa.i/a031596.b/031596_heata.m
Meth Date : 15-Mar-1996 14:22 glenn
Quant Type: ISTD
Cal Date : 15-MAR-96 10:13
Cal File: a6628.d
Als bottle: 10
Dil Factor: 1.000
Integrator: HP RTE
Compound Sublist: all.sub
Target Version: 3.10

MK 3/15/96

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)	
	Dichlorodifluoromethane	85.00	3.830	3.782	(0.439)	405071	40.3	40.3	
	Methyl chloride	50.00	4.183	4.127	(0.480)	167566	44.7	44.7	
3	Vinyl chloride	62.00	4.347	4.292	(0.499)	197340	47.7	47.7	
4	Methyl bromide	94.00	4.849	4.770	(0.556)	156187	48.5	48.5	
5	Chloroethane	64.00	4.965	4.877	(0.570)	64370	48.6	48.6	
6	Trichlorofluoromethane	101.00	5.313	5.210	(0.610)	512876	53.1	53.1	
7	Ethyl ether	59.00	5.824	5.677	(0.668)	192787	51.2	51.2	
8	Acrolein	56.00	6.030	5.869	(0.692)	378169	47.2	47.2	
9	1,1,2-Trichlorotrifluoroethan	101.00	6.063	5.844	(0.696)	740294	49.6	49.6	
10	1,1-Dichloroethylene	96.00	6.088	5.877	(0.699)	331194	53.7	53.7	
11	Acetone	43.00	6.295	6.329	(0.722)	284183	37.4	37.4	
12	Carbon disulfide	76.00	6.435	6.171	(0.738)	821623	49.7	49.7	
13	Methylene chloride	84.00	6.748	6.544	(0.774)	350145	49.4	49.4	
14	Acrylonitrile	53.00	7.101	7.040	(0.815)	155304	52.2	52.2	(Q)
15	1,2-Trans-dichloroethylene	96.00	7.101	6.891	(0.815)	344088	51.1	51.1	
16	Tert-Butyl Methyl Ether	73.00	7.176	7.106	(0.823)	868198	53.9	53.9	
17	1,1-Dichloroethane	63.00	7.653	7.477	(0.878)	635498	54.2	54.2	
18	Methyl ethyl ketone	72.00	8.451	8.485	(0.842)	88663	46.0	46.0	(Q)
19	1,2-cis-Dichloroethylene	96.00	8.401	8.270	(0.964)	362910	50.7	50.7	(QM)
20	2,2-Dichloropropane	77.00	8.410	8.262	(0.965)	594769	51.3	51.3	
21	Ethyl acetate	43.00	8.476	8.460	(0.973)	1865576	52.4	52.4	
* 22	Bromochloromethane (ISTD)	128.00	8.715	8.592	(1.000)	311459	50.0		(Q)
23	Chloroform	83.00	8.805	8.700	(1.010)	903442	52.8	52.8	
24	1,1,1-Trichloroethane	97.00	9.086	8.948	(0.905)	836127	53.3	53.3	
25	1,1-Dichloropropene	75.00	9.284	9.147	(0.925)	515699	54.6	54.6	
	Carbon tetrachloride	117.00	9.325	9.171	(0.929)	683857	61.7	61.7	
	Isobutanol	43.00	9.432	9.701	(1.082)	4502	3.94	3.94	
$ 28	1,2-Dichloroethane-D4 (SURR)	65.00	9.482	9.395	(1.088)	529319	52.2	52.2	
29	1,2-Dichloroethane	62.00	9.581	9.494	(1.099)	584510	53.0	53.0	

Data File: /chem/msa.i/a031596.b/a6633.d
Report Date: 15-Mar-1996 14:48

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	30 Benzene	78.00	9.581	9.461	(0.955)	807740	52.5	52.5
*	31 1,4-Difluorobenzene (ISTD)	114.00	10.034	9.948	(1.000)	1105377	50.0	
	32 Trichloroethylene	130.00	10.446	10.361	(1.041)	537726	51.6	51.6
	33 1,2-Dichloropropane	63.00	10.767	10.708	(1.073)	396237	54.8	54.8
	35 Dibromomethane	93.00	10.940	10.882	(1.090)	578322	52.4	52.4
	36 Dichlorobromomethane	83.00	11.130	11.097	(1.109)	887148	51.3	51.3
	37 2-Chloroethylvinyl ether	63.00	11.500	11.469	(1.146)	249894	50.3	50.3
	38 cis-1,3-Dichloropropylene	75.00	11.764	11.726	(1.172)	598549	53.5	53.5
	39 Methyl-iso-butyl ketone	43.00	11.962	11.999	(0.828)	813639	53.4	53.4
$	40 Toluene-D8 (SURR)	98.00	12.193	12.140	(0.844)	918969	49.9	49.9
	41 Toluene	91.00	12.293	12.239	(0.851)	972945	52.2	52.2
	42 trans-1,3-Dichloropropylene	75.00	12.565	12.537	(1.252)	520428	49.8	49.8
	43 1,1,2-Trichloroethane	97.00	12.862	12.843	(1.282)	445855	52.6	52.6
	44 1,3-Dichloropropane	76.00	13.134	13.108	(0.909)	590359	53.2	53.2
	45 Tetrachloroethylene	164.00	13.150	13.099	(0.910)	549573	52.2	52.2
	46 2-Hexanone	43.00	13.216	13.273	(0.915)	690639	53.0	53.0
	47 Chlorodibromomethane	129.00	13.513	13.505	(1.347)	1047617	54.8	54.8
	48 Ethylene dibromide	107.00	13.728	13.704	(0.950)	833518	52.9	52.9
*	49 Chlorobenzene-d5 (ISTD)	117.00	14.443	14.421	(1.000)	860937	50.0	
	50 Chlorobenzene	112.00	14.493	14.463	(1.003)	865641	51.0	51.0
	1,1,1,2-Tetrachloroethane	133.00	14.600	14.579	(1.011)	575026	54.5	54.5
	52 Ethylbenzene	106.00	14.633	14.604	(1.013)	378703	53.3	53.3
	53 m+p-Xylenes	106.00	14.807	14.778	(1.025)	903200	105	105
	54 o-Xylene	106.00	15.391	15.380	(1.066)	443483	53.3	53.3
	55 Styrene	104.00	15.416	15.397	(1.067)	760900	53.0	53.0
	56 Bromoform	173.00	15.704	15.711	(1.565)	1038732	55.3	55.3
	57 Isopropylbenzene	105.00	15.911	15.901	(1.102)	1322561	54.6	54.6
$	58 Bromofluorobenzene (SURR)	95.00	16.142	16.141	(1.118)	692494	52.5	52.5
	59 1,1,2,2-Tetrachloroethane	83.00	16.299	16.316	(1.129)	974485	53.9	53.9
	60 1,2,3-Trichloropropane	75.00	16.374	16.390	(1.134)	746138	53.8	53.8
	61 Bromobenzene	156.00	16.374	16.374	(1.134)	602793	53.5	53.5
	62 n-Propylbenzene	91.00	16.473	16.474	(1.141)	1524156	51.9	51.9
	63 o-Chlorotoluene	91.00	16.623	16.615	(1.151)	1117392	51.5	51.5
	64 1,3,5-Trimethylbenzene	105.00	16.697	16.698	(1.156)	1159685	54.1	54.1
	65 p-Chlorotoluene	91.00	16.755	16.756	(1.160)	1284986	57.0	57.0
	66 tert-Butylbenzene	119.00	17.134	17.136	(1.186)	1182803	52.0	52.0
	67 1,2,4-Trimethylbenzene	105.00	17.192	17.195	(1.190)	1188484	54.5	54.5
	68 sec-Butylbenzene	105.00	17.415	17.418	(1.206)	1558772	51.8	51.8
	69 1,3-Dichlorobenzene	146.00	17.588	17.601	(1.218)	924162	52.1	52.1
	70 4-Isopropyltoluene	119.00	17.588	17.601	(1.218)	1300917	53.8	53.8
	71 1,4-Dichlorobenzene	146.00	17.696	17.717	(1.225)	1000927	52.1	52.1
	72 n-Butylbenzene	91.00	18.125	18.147	(1.255)	1306275	52.6	52.6
	73 1,2-Dichlorobenzene	146.00	18.200	18.230	(1.260)	956067	53.8	53.8
	74 1,2-Dibromo-3-chloropropane	75.00	19.254	19.296	(1.333)	462756	53.0	53.0
	75 1,2,4-Trichlorobenzene	180.00	20.546	20.616	(1.423)	966343	53.9	53.9
	Hexachlorobutadiene	225.00	20.819	20.881	(1.441)	825649	55.9	55.9
	Naphthalene	128.00	20.984	21.056	(1.453)	1769528	53.3	53.3
	78 1,2,3-Trichlorobenzene	180.00	21.421	21.494	(1.483)	956867	54.8	54.8

ORGANICS

TCLP Volatile Organic Compounds by GC/MS

2L
LEACHATE VOATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLK01	98	98	99		0
02	VSPK01	92	95	110		0
03	CLJ100-WC1	94	97	103		0
04	CLJ100-WC1MS	99	95	101		0
05	CLJ100-WC1MSD	96	97	107		0

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(88-110)
SMC2 (BFB)	= Bromofluorobenzene	(86-115)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring compound diluted out

3L

LEACHATE VOLATILE MATRIX SPIKE RECOVERY

0045

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix Spike - EPA Sample No.: CLJ100-WC1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	2500	0	2100	84	61-145
Trichloroethene	2500	0	2300	92	71-120
Benzene	2500	0	2300	92	76-127
Vinyl chloride	2500	0	2400	96	30-130
1,2-Dichloroethane	2500	0	2600	104	30-130
Chloroform	2500	0	2400	96	30-130
Carbon tetrachloride	2500	0	2800	112	30-130
Tetrachloroethylene	2500	0	2300	92	30-130
1,4-Dichlorobenzene	2500	0	2100	84	30-130
Methyl ethyl ketone	5000	0	4200	84	30-130

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

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3L

LEACHATE VOLATILE MATRIX SPIKE DUPLICATE RECOVERY

0046

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix Spike - EPA Sample No.: CLJ100-WC1

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	2500	2300	92	9	14	61-145
Trichloroethene	2500	2400	96	4	14	71-120
Benzene	2500	2400	96	4	11	76-127
Vinyl chloride	2500	2400	96	0	13	30-130
1,2-Dichloroethane	2500	2800	112	7	20	30-130
Chloroform	2500	2400	96	0	20	30-130
Carbon tetrachloride	2500	3100	124	10	20	30-130
Tetrachloroethylene	2500	2300	92	0	20	30-130
1,4-Dichlorobenzene	2500	2200	88	5	20	30-130
Methyl ethyl ketone	5000	4400	88	5	20	30-130

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

* Values outside of QC limits

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

MENTS: _____

3L

LEACHATE VOLATILE BLANK SPIKE RECOVERY

0047

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix Spike - EPA Sample No.: VSPK01

COMPOUND	SPIKE ADDED (ug/L)	BLANK CONCENTRATION (ug/L)	BS CONCENTRATION (ug/L)	BS % REC #	QC LIMITS REC.
1,1-Dichloroethene	2500	0	2300	92	61-145
Trichloroethene	2500	0	2300	92	71-120
Benzene	2500	0	2400	96	76-127
Vinyl chloride	2500	0	2300	92	30-130
1,2-Dichloroethane	2500	0	2600	104	30-130
Chloroform	2500	0	2500	100	30-130
Carbon tetrachloride	2500	0	2400	96	30-130
Tetrachloroethylene	2500	0	2200	88	30-130
1,4-Dichlorobenzene	2500	0	2100	84	30-130
Methyl ethyl ketone	5000	0	4100	82	30-130

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

* Values outside of QC limits

Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

4A
VOLATILE METHOD BLANK SUMMARY

0048

EPA SAMPLE NO.

VBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Lab File ID: A6587 Lab Sample ID: N7V5040V

Date Analyzed: 03/14/96 Time Analyzed: 09:47

GC Column: DB624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: ~~8A~~ msa.i

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	CLJ100-WC1	JP5002V	A6589	11:02
02	CLJ100-WC1MSD	JP5002VR	A6591	12:12
03	VSPK01	N7V5040VS	A6588	10:28
04	CLJ100-WC1MS	JP5002VS	A6590	11:37

COMMENTS:

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: DHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 1831GN SAS No.: N/A SDG No.: CCJ100WC1

Lab File ID: A6144 BFB Injection Date: 2/22/96

Instrument ID: MSA.1 BFB Injection Time: 07:11

GC Column: DB624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	20.7
75	30.0 - 66.0% of mass 95	48.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	2.58
173	Less than 2.0% of mass 174	0.46 (0.51) 1
174	50.0 - 120.0% of mass 95	89.5
175	4.0 - 9.0 % of mass 174	7.75 (8.67) 1
176	93.0 - 101.0% of mass 174	89.7 (100.3) 1
177	5.0 - 9.0% of mass 176	6.27 (6.99) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	USTD010	USTD010	A6145	2/22/96	07:35
02	USTD020	USTD020	A6146		08:10
03	USTD100	USTD100	A6148		09:20
04	USTD200	USTD200	A6149		09:54
05	USTD050	USTD050	A6150		10:30
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A

VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18314N SAS No.: N/A SDG No.: CLJ100WC1

Lab File ID: A6585 BFB Injection Date: 3/14/96

Instrument ID: MSA,1 BFB Injection Time: 08:44

GC Column: DB624 ID: 0.53 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	8.0 - 40.0% of mass 95	21.3
75	30.0 - 66.0% of mass 95	51.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.08
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	50.0 - 120.0% of mass 95	93.8
175	4.0 - 9.0 % of mass 174	7.72 (8.23)1
176	93.0 - 101.0% of mass 174	91.9 (97.9)1
177	5.0 - 9.0% of mass 176	6.87 (7.48)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050	VSTD050	A6586	3/14/96	09:03
02	VBLK01	N7V5040V	A6587		09:47
03	VSPK01	N7V5040S	A6588		10:28
04	CLJ100WC1	JP5012V	A6589		11:02
05	CLJ100WC1MS	JP5012VS	A6590		11:37
06	CLJ100WC1MSD	JP5012VR	A6591		12:12
07					
08					
09					
10					
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22					

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 183MN SAS No.: N/A SDG No.: CLJ100WC1

Lab File ID (Standard): A6586 Date Analyzed: 3/14/96

Instrument ID: MSD.1 Time Analyzed: 09:03

GC Column: DB624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	508562	8.74	1859379	10.04	1426139	14.44
	UPPER LIMIT	1017124	9.24	3718758	10.54	2852278	14.94
	LOWER LIMIT	254281	8.24	929690	9.54	713070	13.94
	EPA SAMPLE NO.						
01	VBLK01	417373	8.72	1588160	10.03	1239720	14.43
02	VSPK01	402898	8.75	1533443	10.07	1232871	14.48
03	CLJ100WC1	395814	8.74	1447908	10.05	1162853	14.45
04	CLJ100WC1DL	376666	8.74	1390747	10.05	1065145	14.46
05	CLJ100WC1RE	349033	8.74	1280641	10.06	1008797	14.46
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET 0052

EPA SAMPLE NO.
CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) WATER Lab Sample ID: JP5002V

Sample wt/vol: .20 (g/mL) ML Lab File ID: A6589

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: not dec. N/A Date Analyzed: 03/14/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

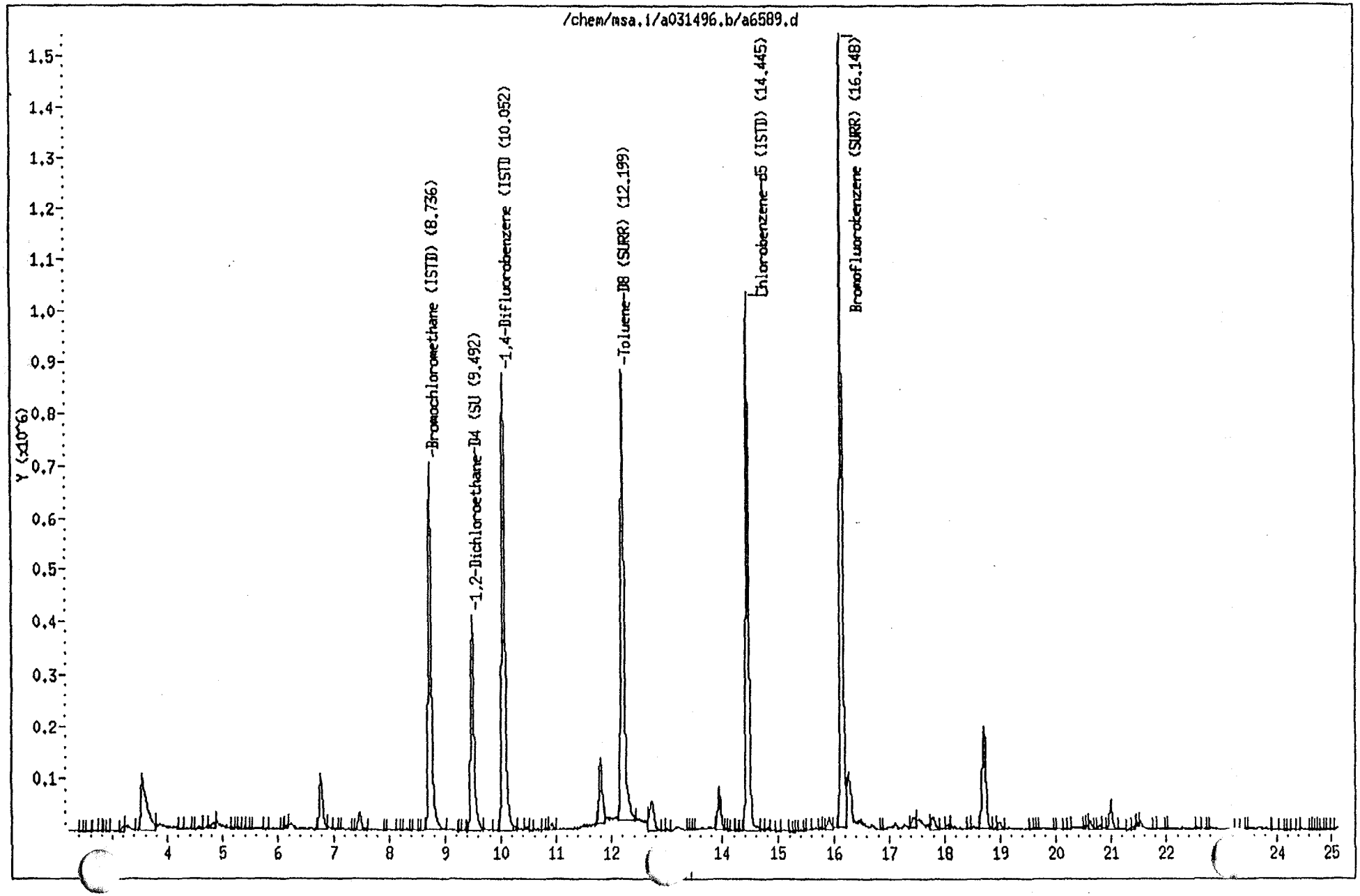
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	130	U
75-35-4	1,1-Dichloroethene	130	U
67-66-3	Chloroform	130	U
107-06-2	1,2-Dichloroethane	130	U
78-93-3	2-Butanone	130	U
56-23-5	Carbon Tetrachloride	130	U
79-01-6	Trichloroethene	130	U
71-43-2	Benzene	130	U
127-18-4	Tetrachloroethylene	130	U
108-90-7	Chlorobenzene	130	U
106-46-7	1,4-Dichlorobenzene	130	U

0053

Data File: /chem/msa.i/a031496.b/a6589.d
Date : 14-MAR-96 11:02
Client ID: 18319n clj100-wc1
Sample Info: 18319n clj100-wc1 (4)
Purge Volume: 1.0
Column phase: J&W DB_624

Instrument: msa.i

Operator: jk
Column diameter: 0.53



Data File: /chem/msa.i/a031496.b/a6589.d
Report Date: 14-Mar-1996 12:33

OHM Analytical Division

VOLATILE REPORT SW-846 Method 8240

Data file : /chem/msa.i/a031496.b/a6589.d
Lab Smp Id: Client Smp ID: 18319n clj100-wc1
Inj Date : 14-MAR-96 11:02
Operator : jk Inst ID: msa.i
Smp Info : 18319n clj100-wc1 (4)
Misc Info : jp5002v,n7v5040,m2,5000,1,0.2,5.0,960314,
Comment :
Method : /chem/msa.i/a031496.b/022296_ambia.m
Meth Date : 14-Mar-1996 12:31 glenn Quant Type: ISTD
Cal Date : 14-MAR-96 09:03 Cal File: a6586.d
Als bottle: 5
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 3.10

MK 3/13/96

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
$ 1,2-Dichloroethane-D4 (SURR)	65.00	9.492	9.491	(1.087)	621222	51.7	51.7
$ 58 Bromofluorobenzene (SURR)	95.00	16.148	16.143	(1.118)	898777	48.6	48.6
$ 40 Toluene-D8 (SURR)	98.00	12.208	12.180	(0.845)	1208443	47.2	47.2
* 22 Bromochloromethane (ISTD)	128.00	8.736	8.740	(1.000)	395814	50.0	
* 31 1,4-Difluorobenzene (ISTD)	114.00	10.052	10.044	(1.000)	1447908	50.0	
* 49 Chlorobenzene-d5 (ISTD)	117.00	14.445	14.441	(1.000)	1162093	50.0	

Report Date : 23-Feb-1996 13:13

OHM Analytical Division

INITIAL CALIBRATION DATA

gdl 2-23-96

Start Cal Date : 22-FEB-96 07:35
End Cal Date : 23-FEB-96 11:54
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/msa.i/a022396.b/022296_ambia.m
Cal Date : 23-Feb-1996 13:12 glenn
Curve Type : Average

8240/60 5pt Ran 2-22-96 CLP ok Vinyl acetate only added to 5pt on 2/23/96 for Proj 17072.

gdl 2-23-96

Calibration File Names:	Vinyl acetate 2/23/96	8240/60 2/22/96
Level 1:	/chem/msa.i/a022396.b/a6171.d	a6145.d
Level 2:	/chem/msa.i/a022396.b/a6172.d	a6146.d
Level 3:	/chem/msa.i/a022396.b/a6173.d	a6150.d
Level 4:	/chem/msa.i/a022396.b/a6174.d	a6148.d
Level 5:	/chem/msa.i/a022396.b/a6175.d	a6149.d

	Compound	10 Level 1	20 Level 2	50 Level 3	100 Level 4	200 Level 5	___ RRF	% RSD
1	Dichlorodifluoromethane	2.10898	2.15667	2.12786	2.05075	2.33527	2.15600	4.986
2	Methyl chloride	0.73158	0.66942	0.68210	0.66114	0.76003	0.70085	6.121
3	Vinyl chloride	0.80216	0.75387	0.75011	0.78853	0.89224	0.79738	7.212
4	Methyl bromide	0.98862	0.85928	0.73004	0.69213	0.73719	0.80145	15.225
5	Chloroethane	0.45751	0.42888	0.25847	0.26212	0.28568	0.33853	28.549
6	Trichlorofluoromethane	2.74229	2.86380	2.88905	2.73112	1.68422	2.58210	19.630
7	Ethyl ether	0.55441	0.61606	0.53599	0.52246	0.58227	0.56224	6.673
8	Acrolein	0.51161	0.56305	0.55834	0.50523	0.58283	0.54421	6.251
9	1,1,2-Trichlorotrifluoroethan	2.27822	2.49488	2.33630	2.18232	2.38447	2.33524	5.001
10	1,1-Dichloroethylene	1.01114	1.12107	1.03868	1.00506	1.07366	1.04992	4.585
11	Acetone	0.49324	0.33726	0.29669	0.24459	0.31122	0.33660	27.885
12	Carbon disulfide	2.65308	2.88870	2.68406	2.69189	2.98289	2.78012	5.276
13	Methylene chloride	1.35362	1.25250	1.09809	1.04369	1.18687	1.18696	10.361
14	Acrylonitrile	0.22762	0.26192	0.24488	0.22007	0.25418	0.24173	7.286
15	1,2-Trans-dichloroethylene	1.12233	1.24902	1.13928	1.13598	1.23056	1.17543	5.058
16	Tert-Butyl Methyl Ether	2.36850	2.55406	2.56117	2.40017	2.79968	2.53672	6.742
17	1,1-Dichloroethane	1.88858	2.20629	2.08597	1.88063	2.00356	2.01301	6.837
18	Methyl ethyl ketone	0.02956	0.03268	0.03099	0.02832	0.02221	0.02875	13.918
19	1,2-cis-Dichloroethylene	1.19825	1.29963	1.25413	1.19556	1.13226	1.21597	5.233
20	2,2-Dichloropropane	1.83377	2.08349	2.11739	1.86624	1.78589	1.93736	7.849
21	Ethyl acetate	2.22769	2.74099	2.66170	2.42114	2.38776	2.48785	8.442
23	Chloroform	2.73544	3.11778	2.90330	2.74277	2.68633	2.83712	6.234
24	1,1,1-Trichloroethane	0.63182	0.76160	0.71817	0.68429	0.56450	0.67208	11.400
25	1,1-Dichloropropene	0.42102	0.51328	0.46211	0.43421	0.34114	0.43435	14.501
26	Carbon tetrachloride	0.53074	0.67772	0.72599	0.66866	0.60640	0.64190	11.733
27	Isobutanol	0.02994	0.03724	0.03601	0.03324	0.03589	0.03446	8.471
29	1,2-Dichloroethane	1.71008	1.93228	1.88190	1.70575	1.82369	1.81074	5.602

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-96 07:35
End Cal Date : 23-FEB-96 11:54
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/msa.i/a022396.b/022296_ambia.m
Cal Date : 23-Feb-1996 13:12 glenn
Curve Type : Average

	Compound	10 Level 1	20 Level 2	50 Level 3	100 Level 4	200 Level 5	RRF	% RSD	
30	Benzene	0.70816	0.81616	0.73666	0.69252	0.63465	0.71763	9.263	
32	Trichloroethylene	0.44038	0.50846	0.47491	0.44589	0.43017	0.45996	6.913	
33	1,2-Dichloropropane	0.31920	0.37789	0.34198	0.32730	0.31776	0.33683	7.390	
34	Methyl methacrylate	0.20011	0.25206	0.23221	0.22211	0.22763	0.22683	8.255	
35	Dibromomethane	0.43953	0.50569	0.46086	0.43140	0.42619	0.45274	7.161	
36	Dichlorobromomethane	0.73402	0.86802	0.81377	0.78380	0.77347	0.79462	6.289	
7	2-Chloroethylvinyl ether	0.06582	0.04403	0.12226	0.06285	0.12830	0.08465	44.984	<-
	cis-1,3-Dichloropropylene	0.50531	0.56291	0.53244	0.49257	0.49852	0.51835	5.634	
39	Methyl-iso-butyl ketone	0.35213	0.41861	0.41043	0.37720	0.39171	0.39002	6.828	
41	Toluene	1.07190	1.24534	1.15193	1.09247	1.04399	1.12113	7.132	
42	trans-1,3-Dichloropropylene	0.42539	0.50210	0.47672	0.44415	0.45629	0.46093	6.427	
43	1,1,2-Trichloroethane	0.34621	0.39441	0.21638	0.33650	0.33916	0.32653	20.191	
44	1,3-Dichloropropane	0.58581	0.67480	0.52945	0.57088	0.53790	0.57977	9.995	
45	Tetrachloroethylene	0.55344	0.64570	0.55919	0.55555	0.52369	0.56751	8.096	
46	2-Hexanone	0.24003	0.29159	0.26077	0.25861	0.27572	0.26534	7.307	
47	Chlorodibromomethane	0.75181	0.88203	0.82488	0.78396	0.80293	0.80912	6.029	
48	Ethylene dibromide	0.74705	0.86118	0.81072	0.75916	0.75755	0.78713	6.127	
50	Chlorobenzene	0.97346	1.11957	1.02040	0.96505	0.94323	1.00434	7.000	
51	1,1,1,2-Tetrachloroethane	0.59425	0.68040	0.63146	0.59845	0.57658	0.61623	6.651	
52	Ethylbenzene	0.41461	0.48447	0.43880	0.41197	0.39282	0.42854	8.232	
53	m+p-Xylenes	0.48427	0.57505	0.52365	0.49109	0.47510	0.50983	8.000	
54	o-Xylene	0.49984	0.55834	0.51490	0.48409	0.46828	0.50509	6.827	
55	Styrene	0.83289	0.95399	0.87626	0.82182	0.80978	0.85895	6.840	
56	Bromoform	0.61139	0.74525	0.69788	0.66604	0.69144	0.68240	7.172	
57	Isopropylbenzene	1.38001	1.62099	1.50152	1.43523	1.42840	1.47323	6.329	
59	1,1,2,2-Tetrachloroethane	0.71634	0.84589	0.76765	0.71991	0.72868	0.75569	7.198	
60	1,2,3-Trichloropropane	0.52516	0.61822	0.59289	0.52376	0.53607	0.55922	7.778	
61	Bromobenzene	0.65187	0.73059	0.67982	0.63730	0.61753	0.66342	6.615	
62	n-Propylbenzene	1.69379	1.98088	1.84611	1.75916	1.73385	1.80276	6.332	
63	o-Chlorotoluene	1.15301	1.35859	1.29038	1.21502	1.18658	1.24072	6.700	
64	1,3,5-Trimethylbenzene	1.19196	1.41515	1.30845	1.26265	1.22609	1.28086	6.764	
	p-Chlorotoluene	1.33354	1.58578	1.48414	1.40264	1.35662	1.43254	7.204	
	tert-Butylbenzene	1.32059	1.49868	1.41548	1.40337	1.31113	1.38985	5.536	
67	1,2,4-Trimethylbenzene	1.24786	1.45422	1.36299	1.34413	1.27665	1.33717	6.036	

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 22-FEB-96 07:35
End Cal Date : 23-FEB-96 11:54
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/msa.i/a022396.b/022296_ambia.m
Cal Date : 23-Feb-1996 13:12 glenn
Curve Type : Average

	Compound	10 Level 1	20 Level 2	50 Level 3	100 Level 4	200 Level 5	RRF	% RSD
68	sec-Butylbenzene	1.68676	1.99569	1.82586	1.84682	1.75902	1.82283	6.318
69	1,3-Dichlorobenzene	1.03161	1.17558	1.06552	1.02887	0.92552	1.04542	8.581
70	4-Isopropyltoluene	1.38003	1.65264	1.47885	1.45526	1.32321	1.45820	8.577
71	1,4-Dichlorobenzene	1.08178	1.22725	1.15447	1.11358	1.06674	1.12877	5.715
72	n-Butylbenzene	1.40390	1.67510	1.53058	1.53230	1.43129	1.51463	7.043
73	1,2-Dichlorobenzene	0.99638	1.14811	1.06848	1.03990	0.98232	1.04704	6.314
	1,2-Dibromo-3-chloropropane	0.19932	0.23125	0.23063	0.21638	0.22483	0.22048	6.010
	1,2,4-Trichlorobenzene	0.96200	1.10383	1.05764	1.02304	0.97757	1.02481	5.669
76	Hexachlorobutadiene	0.75754	0.86750	0.75951	0.79839	0.77144	0.79088	5.795
77	Naphthalene	1.28600	1.51123	1.56824	1.43383	1.38902	1.43766	7.607
78	1,2,3-Trichlorobenzene	0.93700	1.09117	1.01625	0.99122	0.91745	0.99062	6.957
79	Vinyl acetate	2.11668	2.16834	2.06771	2.15064	1.92731	2.08600	4.636
$ 28	1,2-Dichloroethane-D4 (SURR)	1.58288	1.71310	1.63323	1.53130	1.46661	1.58542	5.954
$ 40	Toluene-D8 (SURR)	1.04036	1.14756	1.07739	1.01219	0.98046	1.05159	6.129
$ 58	Bromofluorobenzene (SURR)	0.79031	0.86844	0.79764	0.75270	0.72856	0.78753	6.763

Data File: /chem/msa.i/a031496.b/a6586.d
Report Date: 14-Mar-1996 09:51

OHM Analytical Division

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msa.i
Lab File ID: a6586.d
Analysis Type: WATER
Lab Sample ID:
Quant Type: ISTD

Injection Date: 14-MAR-96 09:03
Init. Calibration Date(s): 02/22/96 02/23/96
Init. Calibration Times: 07:35 11:54
Method File: /chem/msa.i/a031496.b/022296_ambia.m

8240 - CLP 01C

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D	
	1 Dichlorodifluoromethane	2.156	1.571	0.100	27.1	30.0	
	2 Methyl chloride	0.701	0.560	0.300	20.1	30.0	
	3 Vinyl chloride	0.797	0.682	0.100	14.4	20.0	
	4 Methyl bromide	0.801	0.733	0.100	8.6	30.0	
	5 Chloroethane	0.339	0.309	0.100	8.6	30.0	
	6 Trichlorofluoromethane	2.582	2.852	0.100	10.5	30.0	
	7 Ethyl ether	0.562	0.545	0.100	3.0	30.0	
	8 Acrolein	0.544	0.569	0.100	4.5	30.0	
	9 1,1,2-Trichlorotrifluoroetha	2.335	2.503	0.100	7.2	30.0	
	10 1,1-Dichloroethylene	1.050	1.082	0.100	3.1	20.0	
	11 Acetone	0.337	0.259	0.100	22.9	30.0	
	12 Carbon disulfide	2.780	2.793	0.100	0.5	30.0	
	13 Methylene chloride	1.187	1.174	0.100	1.1	30.0	
	14 Acrylonitrile	0.242	0.201	0.100	16.9	30.0	
	15 1,2-Trans-dichloroethylene	1.175	1.195	0.100	1.7	30.0	
	16 Tert-Butyl Methyl Ether	2.537	2.326	0.100	8.3	30.0	
	17 1,1-Dichloroethane	2.013	1.924	0.300	4.4	30.0	
	18 Methyl ethyl ketone	0.029	0.025	0.010	12.6	30.0	
	19 1,2-cis-Dichloroethylene	1.216	1.246	0.100	2.4	30.0	
	20 2,2-Dichloropropane	1.937	1.966	0.100	1.5	30.0	
	21 Ethyl acetate	2.488	1.998	0.100	19.7	30.0	
	23 Chloroform	2.837	2.775	0.200	2.2	20.0	
	24 1,1,1-Trichloroethane	0.672	0.705	0.100	4.9	30.0	
	25 1,1-Dichloropropene	0.434	0.458	0.100	5.4	30.0	
	26 Carbon tetrachloride	0.642	0.482	0.100	24.9	30.0	
	27 Isobutanol	0.034	0.026	0.010	25.6	30.0	
$	28 1,2-Dichloroethane-D4 (SURR)	1.585	1.519	0.100	4.2	30.0	
	29 1,2-Dichloroethane	1.811	1.626	0.100	10.2	30.0	
	30 Benzene	0.718	0.712	0.500	0.8	30.0	
	32 Trichloroethylene	0.460	0.478	0.300	3.9	30.0	
	33 1,2-Dichloropropane	0.337	0.328	0.100	2.6	20.0	
	34 Methyl methacrylate	0.227	0.169	0.100	25.5	30.0	
	35 Dibromomethane	0.453	0.434	0.100	4.2	30.0	
	36 Dichlorobromomethane	0.795	0.734	0.200	7.6	30.0	
	37 2-Chloroethylvinyl ether	0.085	0.159	0.100	87.7	30.0	<-
	38 cis-1,3-Dichloropropylene	0.518	0.508	0.200	2.1	30.0	
	39 Methyl-iso-butyl ketone	0.390	0.319	0.100	18.2	30.0	
$	40 Toluene-D8 (SURR)	1.052	1.100	0.100	4.6	30.0	
	41 Toluene	1.121	1.137	0.400	1.4	20.0	
	42 trans-1,3-Dichloropropylene	0.461	0.422	0.100	8.4	30.0	

Data File: /chem/msa.i/a031496.b/a6586.d
Report Date: 14-Mar-1996 09:51

OHM Analytical Division

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: msa.i
Lab File ID: a6586.d
Analysis Type: WATER
Lab Sample ID:
Quant Type: ISTD

Injection Date: 14-MAR-96 09:03
Init. Calibration Date(s): 02/22/96 02/23/96
Init. Calibration Times: 07:35 11:54
Method File: /chem/msa.i/a031496.b/022296_ambia.m

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D
	43 1,1,2-Trichloroethane	0.327	0.341	0.100	4.5	30.0
	44 1,3-Dichloropropane	0.580	0.602	0.100	3.9	30.0
	45 Tetrachloroethylene	0.568	0.628	0.200	10.6	30.0
	46 2-Hexanone	0.265	0.217	0.100	18.1	30.0
	47 Chlorodibromomethane	0.809	0.790	0.100	2.4	30.0
	48 Ethylene dibromide	0.787	0.776	0.100	1.4	30.0
	50 Chlorobenzene	1.004	0.996	0.500	0.9	30.0
	51 1,1,1,2-Tetrachloroethane	0.616	0.609	0.100	1.2	30.0
	52 Ethylbenzene	0.429	0.434	0.100	1.2	20.0
	53 m+p-Xylenes	0.510	0.511	0.300	0.3	30.0
	54 o-Xylene	0.505	0.502	0.300	0.7	30.0
	55 Styrene	0.859	0.873	0.300	1.6	30.0
	56 Bromoform	0.682	0.648	0.100	5.0	30.0
	57 Isopropylbenzene	1.473	1.497	0.100	1.6	30.0
$	58 Bromofluorobenzene (SURR)	0.788	0.795	0.200	1.0	30.0
	59 1,1,2,2-Tetrachloroethane	0.756	0.704	0.300	6.8	30.0
	60 1,2,3-Trichloropropane	0.559	0.513	0.100	8.3	30.0
	61 Bromobenzene	0.663	0.698	0.100	5.2	30.0
	62 n-Propylbenzene	1.803	1.741	0.100	3.4	30.0
	63 o-Chlorotoluene	1.241	1.247	0.100	0.5	30.0
	64 1,3,5-Trimethylbenzene	1.281	1.297	0.100	1.3	30.0
	65 p-Chlorotoluene	1.433	1.316	0.100	8.2	30.0
	66 tert-Butylbenzene	1.390	1.317	0.100	5.2	30.0
	67 1,2,4-Trimethylbenzene	1.337	1.327	0.100	0.7	30.0
	68 sec-Butylbenzene	1.823	1.772	0.100	2.8	30.0
	69 1,3-Dichlorobenzene	1.045	1.052	0.100	0.6	30.0
	70 4-Isopropyltoluene	1.458	1.496	0.100	2.6	30.0
	71 1,4-Dichlorobenzene	1.129	1.141	0.100	1.0	30.0
	72 n-Butylbenzene	1.515	1.474	0.100	2.7	30.0
	73 1,2-Dichlorobenzene	1.047	1.051	0.100	0.4	30.0
	74 1,2-Dibromo-3-chloropropane	0.220	0.188	0.100	14.7	30.0
	75 1,2,4-Trichlorobenzene	1.025	1.034	0.100	0.9	30.0
	76 Hexachlorobutadiene	0.791	0.847	0.100	7.0	30.0
	77 Naphthalene	1.438	1.362	0.100	5.3	30.0
	78 1,2,3-Trichlorobenzene	0.991	0.969	0.100	2.2	30.0
	79 Vinyl acetate	2.086	1.678	0.100	19.6	30.0

Data File: /chem/msa.i/a022296.b/a6144.d

Date : 22-FEB-96 07:11

Client ID: bfb tune

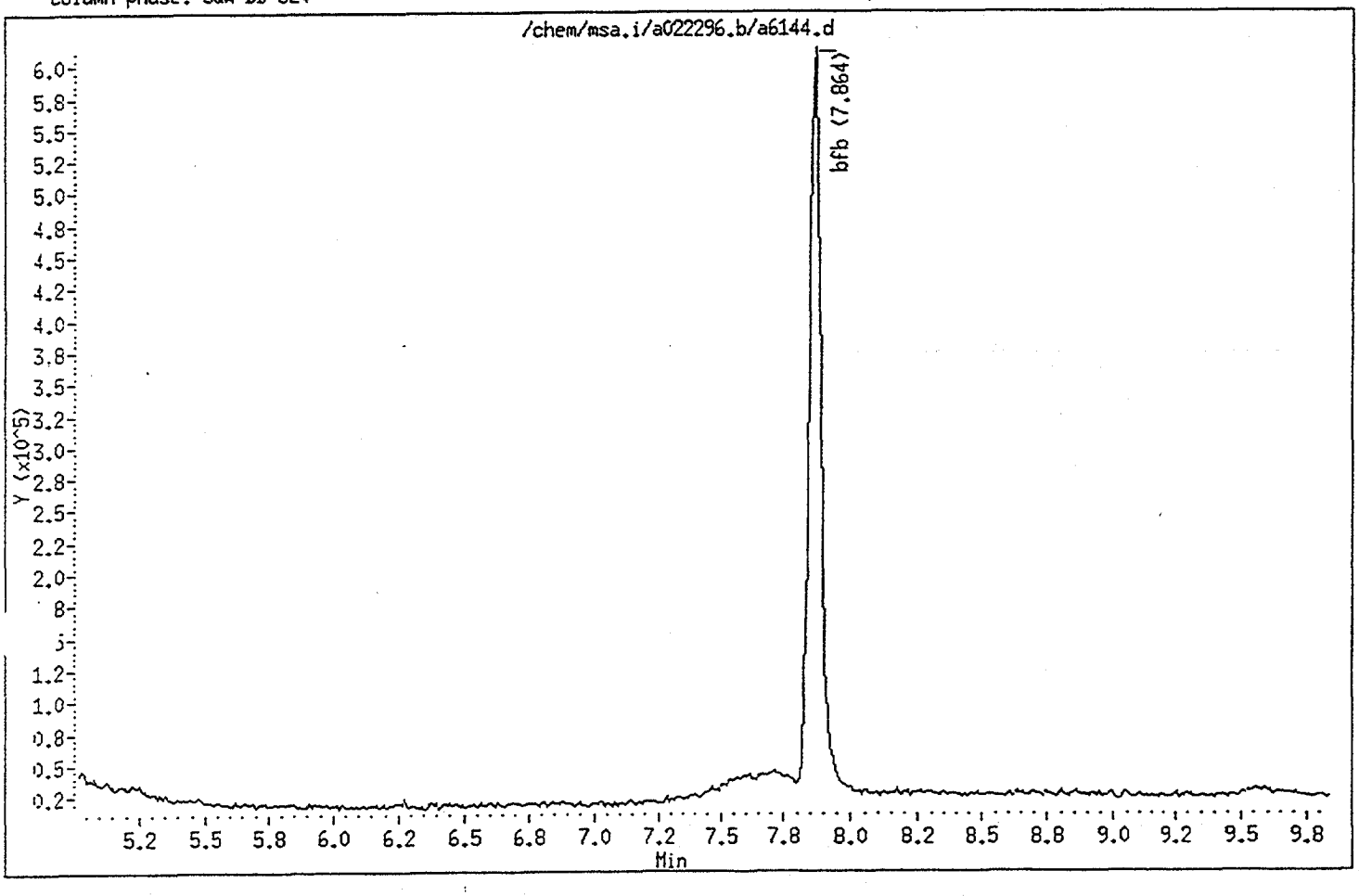
Instrument: msa.i

Sample Info: bfb tune

Operator: jk

Column phase: J&W DB-624

Column diameter: 0.53



Data File: /chem/msa.i/a022296.b/a6144.d

Date : 22-FEB-96 07:11

Client ID: bfb tune

Instrument: msa.i

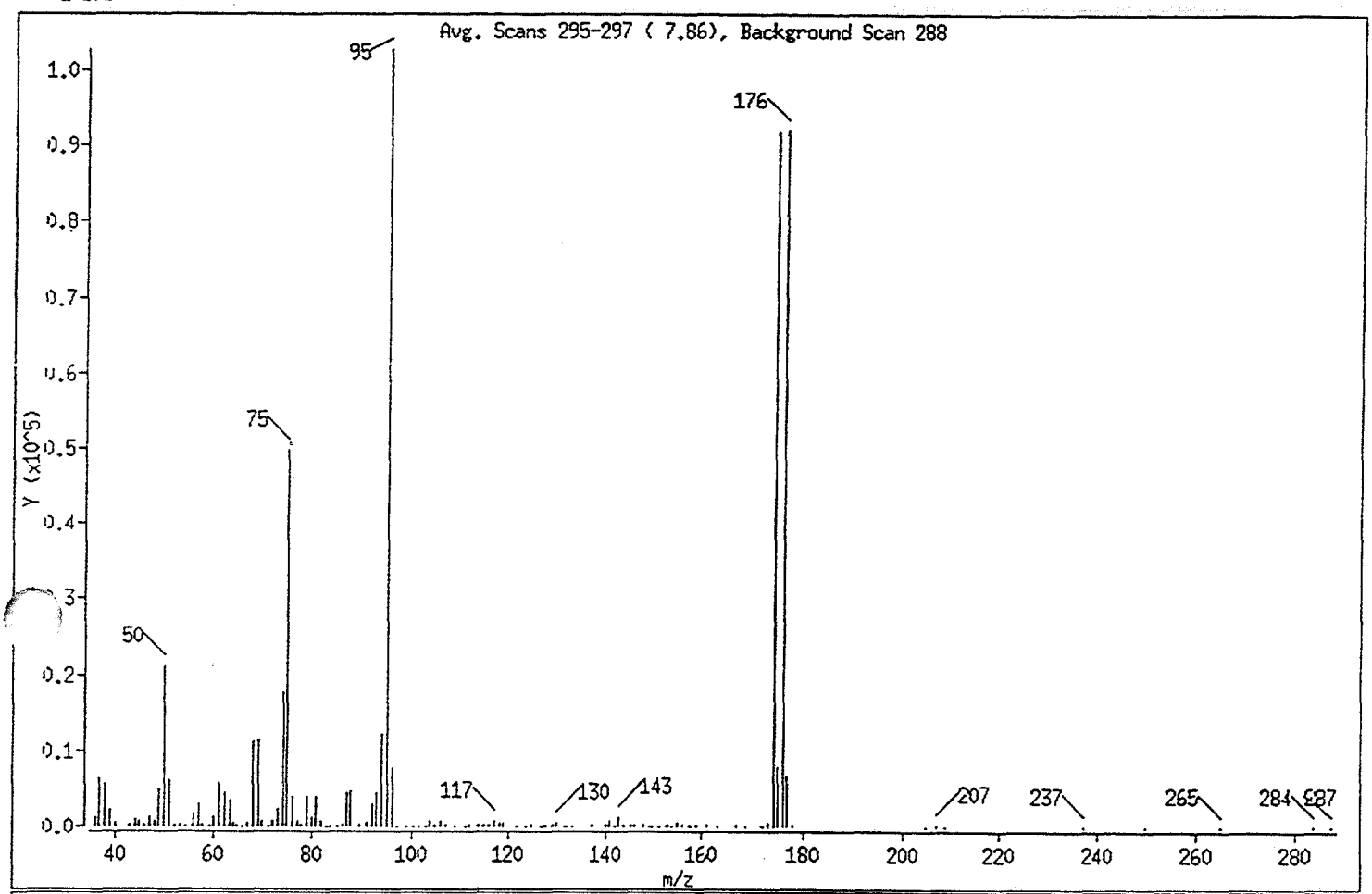
Sample Info: bfb tune

Operator: jk

Column phase: J&W DB-624

Column diameter: 0.53

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.65
75	30.00 - 60.00% of mass 95	48.36
96	5.00 - 9.00% of mass 95	7.58
173	Less than 2.00% of mass 174	0.46 (0.51)
174	50.00 - 100.00% of mass 95	89.45
175	5.00 - 9.00% of mass 174	7.75 (8.67)
176	95.00 - 101.00% of mass 174	89.69 (100.27)
177	5.00 - 9.00% of mass 176	6.27 (6.99)

Data File: /chem/msa.i/a022296.b/a6144.d

Date : 22-FEB-96 07:11

Client ID: bfb tune

Instrument: msa.i

Sample Info: bfb tune

Operator: jk

Column phase: J&W DB-624

Column diameter: 0.53

Data File: a6144.d
Spectrum : Avg. Scans 295-297 (7.86), Background Scan 288
Largest m/z: 95.00
Number of peaks: 124

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1127	71.25	87	105.85	647	151.00	59
37.00	6316	71.95	743	106.95	254	152.60	162
38.00	5544	72.95	2191	108.85	62	153.00	142
39.00	2301	74.00	17664	111.05	113	153.80	116
40.00	489	75.00	49656	111.95	145	154.90	524
43.00	272	76.10	3916	113.65	211	155.90	206
44.00	878	77.10	846	114.85	154	157.20	166
45.05	749	77.90	312	115.95	283	157.80	51
46.15	229	78.90	3839	116.85	848	158.90	307
47.05	1094	80.00	1106	117.95	524	161.00	159
48.15	665	80.90	3787	118.85	498	163.15	57
49.05	4920	81.80	849	121.95	56	166.95	137
50.05	21200	83.10	70	123.65	69	168.55	120
51.05	6121	83.80	68	124.85	201	172.05	75
52.05	324	85.10	98	127.05	76	172.85	471
53.25	128	86.10	221	127.75	257	173.95	91848
54.25	31	86.90	4301	128.95	315	174.95	7960
55.95	1667	87.90	4627	129.75	538	175.85	92104
57.05	2928	89.70	135	131.15	38	176.85	6435
57.85	241	91.00	393	131.95	116	177.95	192
59.05	52	92.00	2837	133.00	56	204.80	60
59.95	1331	93.00	4386	137.00	278	207.00	135
60.95	5468	94.00	12218	140.00	141	208.90	69
62.05	4408	95.00	102688	140.90	790	236.95	57
63.05	3401	96.00	7779	141.80	38	249.90	63
64.05	407	97.30	121	142.80	1257	265.00	121
64.75	153	99.20	56	143.90	131	283.75	60
65.85	101	100.60	109	145.10	253	287.35	52
66.95	600	101.80	52	145.90	290		
67.95	11090	103.25	61	147.90	170		
68.95	11306	103.85	690	148.90	55		
69.95	769	104.95	212	149.70	2		

Data File: /chem/msa.i/a031496.b/a6585.d

Date : 14-MAR-96 08:44

Client ID: bfb tune

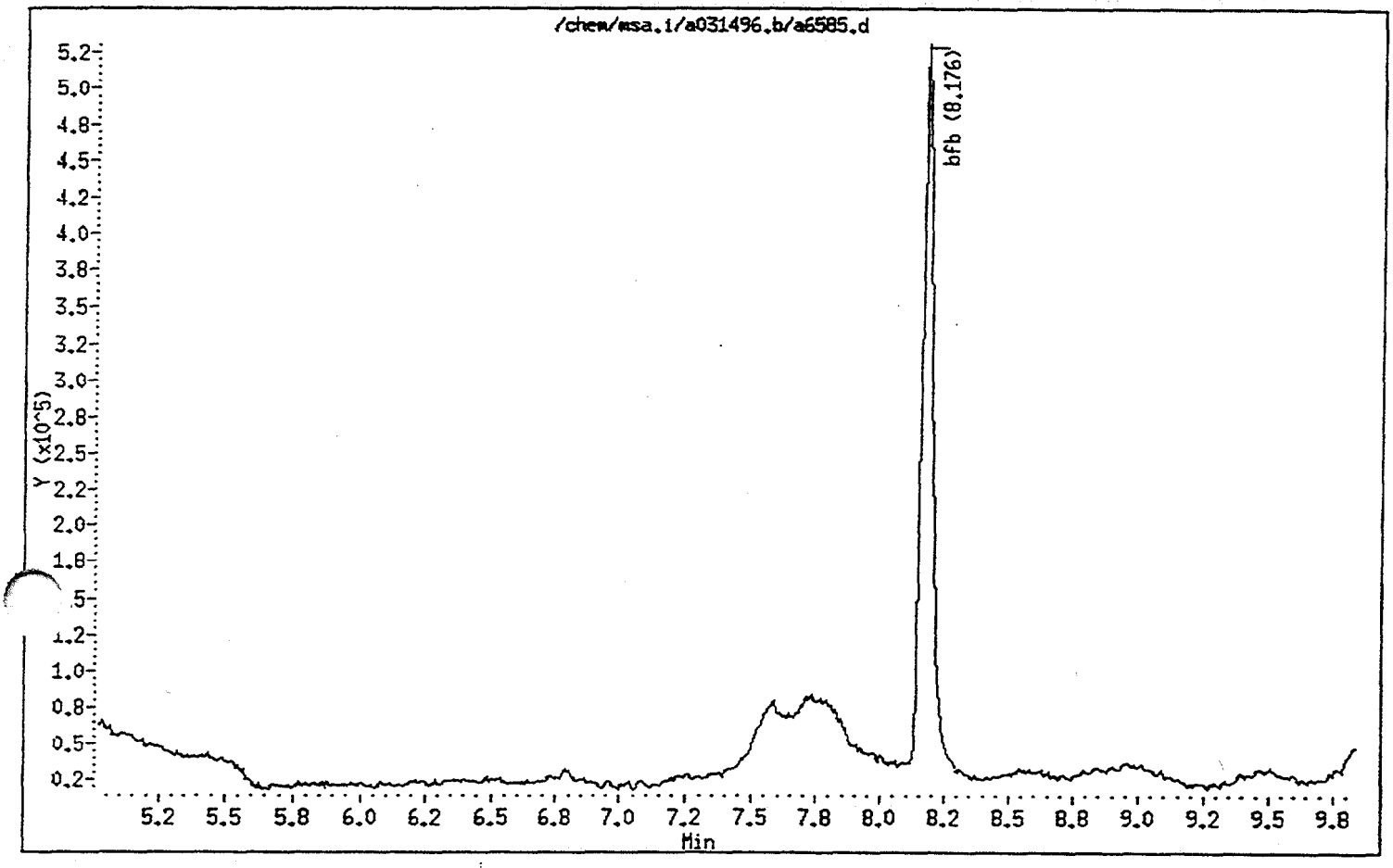
Instrument: msa.i

Sample Info: bfb tune

Operator: jk

Column phase: J&W DB-624

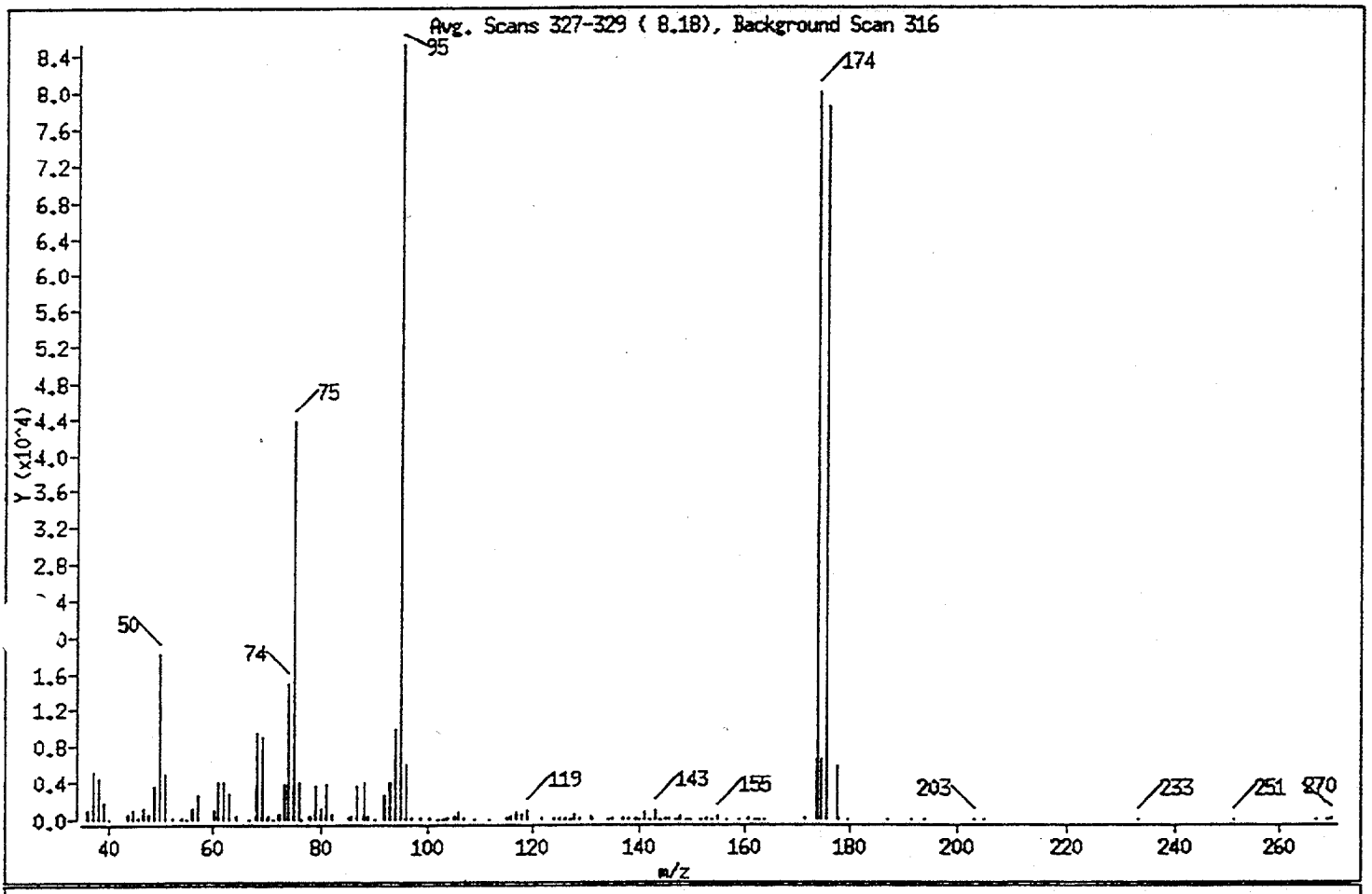
Column diameter: 0.53



Data File: /chem/msa.i/a031496.b/a6585.d
Date : 14-MAR-96 08:44
Client ID: bfb tune
Sample Info: bfb tune

Instrument: msa.i
Operator: jk
Column diameter: 0.53

Column phase: J&W DB-624
1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.31
75	30.00 - 60.00% of mass 95	51.30
96	5.00 - 9.00% of mass 95	7.08
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	93.80
175	5.00 - 9.00% of mass 174	7.72 (8.23)
176	95.00 - 101.00% of mass 174	91.87 (97.94)
177	5.00 - 9.00% of mass 176	6.87 (7.48)

Data File: /chem/msa.i/a031496.b/a6585.d

Date : 14-MAR-96 08:44

Client ID: bfb tune

Instrument: msa.i

Sample Info: bfb tune

Operator: jk

Column phase: J&W DB-624

Column diameter: 0.53

Data File: a6585.d

Spectrum : Avg. Scans 327-329 (8.18), Background Scan 316

Largest m/z: 95.00

Number of peaks: 117

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	962	74.00	15006	115.05	255	151.80	56
37.00	5317	75.00	43760	115.85	348	153.00	198
38.00	4471	76.00	3938	116.85	716	153.80	56
39.00	1731	78.00	497	117.85	631	154.90	358
40.00	8	78.90	3556	118.95	987	156.80	78
44.00	607	80.00	1172	121.55	111	158.90	74
44.95	922	80.90	3812	123.95	172	160.90	159
46.05	113	82.00	614	125.05	123	162.05	68
46.95	1180	85.30	232	125.95	207	162.85	60
47.95	622	85.80	329	126.95	6	163.75	67
49.05	3640	86.90	3671	127.85	582	171.75	273
50.05	18176	88.00	3946	128.85	236	173.95	80008
51.05	5007	89.00	321	130.65	496	174.85	6581
52.25	181	90.20	36	131.05	128	175.85	78360
53.95	230	92.00	2657	134.30	90	177.65	5863
55.15	24	93.00	3974	135.00	256	178.15	244
56.05	1306	94.00	9888	136.90	135	179.85	59
57.05	2603	95.00	85296	138.00	114	187.15	59
60.05	1046	96.00	6035	139.30	113	191.80	56
60.95	4096	97.10	166	140.00	66	194.10	65
62.05	4118	98.80	126	141.00	866	203.10	68
63.05	2834	100.50	157	141.90	66	204.60	66
64.25	374	102.20	65	142.90	1089	233.45	71
66.85	77	103.00	8	143.90	54	251.10	71
67.95	9473	103.95	241	144.90	250	266.90	60
69.05	8994	105.05	426	145.90	137	269.00	1
69.95	362	105.95	768	147.20	96	269.80	122
71.05	58	106.95	152	147.90	406		
72.05	695	108.85	54	149.00	64		
73.05	3855	111.75	93	150.00	77		

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0066

VBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) WATER Lab Sample ID: N7V5040V

Sample wt/vol: .20 (g/mL) ML Lab File ID: A6587

Level: (low/med) LOW Date Received: 3/12/96

% Moisture: not dec. N/A Date Analyzed: 03/14/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

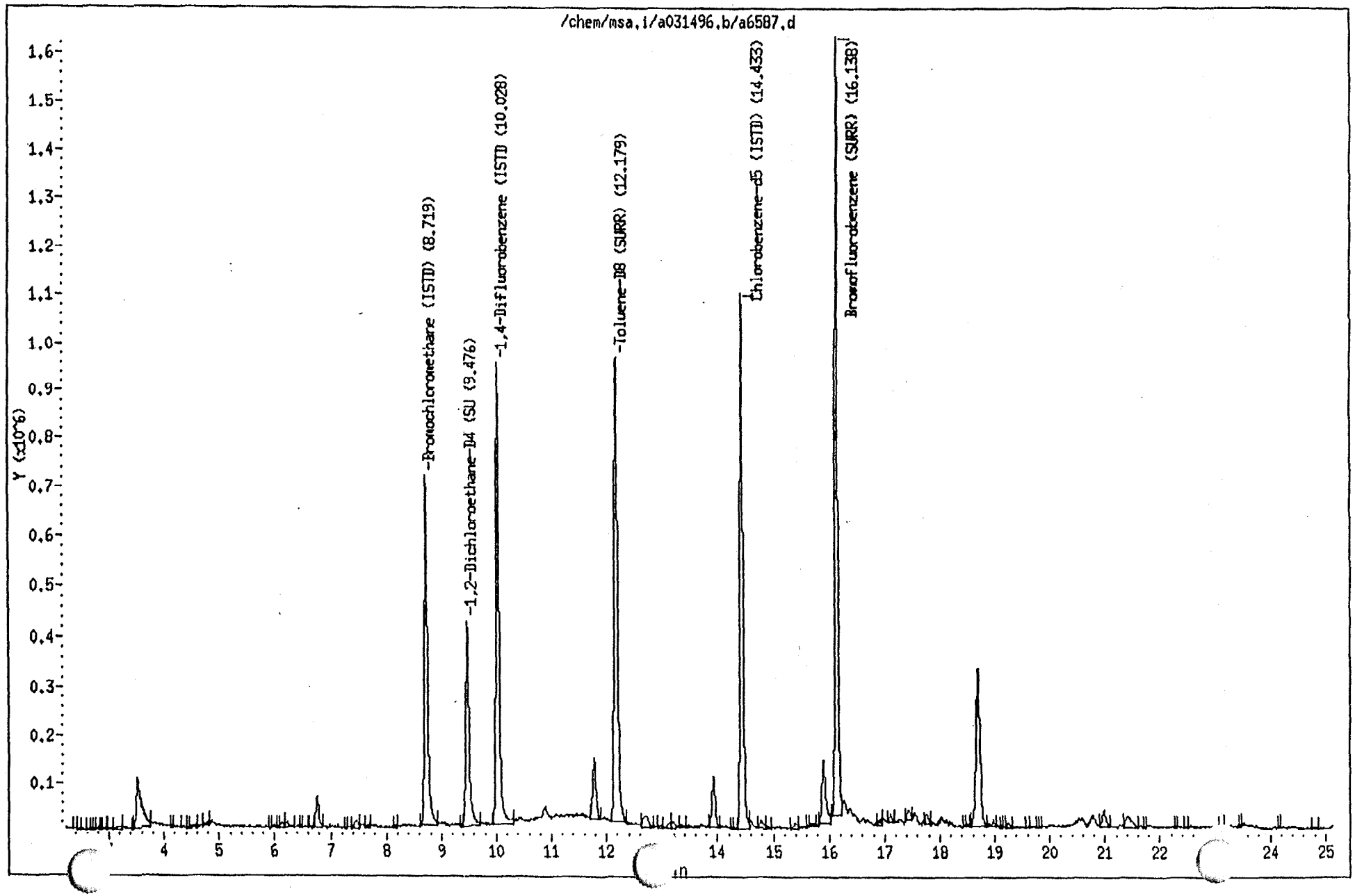
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	130	U
75-35-4	1,1-Dichloroethene	130	U
67-66-3	Chloroform	130	U
107-06-2	1,2-Dichloroethane	130	U
78-93-3	2-Butanone	130	U
56-23-5	Carbon Tetrachloride	130	U
79-01-6	Trichloroethene	130	U
71-43-2	Benzene	130	U
127-18-4	Tetrachloroethylene	130	U
108-90-7	Chlorobenzene	130	U
106-46-7	1,4-Dichlorobenzene	130	U

0067

Data File: /chem/msa.i/a031496.b/a6587.d
Date : 14-MAR-96 09:47
Client ID: n7v5040 blk
Sample Info: n7v5040 blk (2)
Purge Volume: 1.0
Column phase: J&W DB_624

Instrument: msa.i

Operator: jk
Column diameter: 0.53



Data File: /chem/msa.i/a031496.b/a6587.d
Report Date: 14-Mar-1996 12:33

OHM Analytical Division

VOLATILE REPORT SW-846 Method 8240

Data file : /chem/msa.i/a031496.b/a6587.d
Lab Smp Id: Client Smp ID: n7v5040 blk
Inj Date : 14-MAR-96 09:47
Operator : jk Inst ID: msa.i
Smp Info : n7v5040 blk (2)
Misc Info : n7v5040v,n7v5040,m2,5000,1,0.2,5.0,960314,
Comment :
Method : /chem/msa.i/a031496.b/022296_ambia.m
Meth Date : 14-Mar-1996 12:31 glenn Quant Type: ISTD
Cal Date : 14-MAR-96 09:03 Cal File: a6586.d
Als bottle: 3
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 3.10

MK 3/15/96

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	1,2-Dichloroethane-D4 (SURR)	65.00	9.476	9.491	(1.087)	627440	49.5	49.5
$	58 Bromofluorobenzene (SURR)	95.00	16.138	16.143	(1.118)	964853	48.9	48.9
$	40 Toluene-D8 (SURR)	98.00	12.179	12.180	(0.844)	1332558	48.8	48.8
*	22 Bromochloromethane (ISTD)	128.00	8.719	8.740	(1.000)	417373	50.0	
*	31 1,4-Difluorobenzene (ISTD)	114.00	10.028	10.044	(1.000)	1588160	50.0	
*	49 Chlorobenzene-d5 (ISTD)	117.00	14.433	14.441	(1.000)	1239720	50.0	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET 0069

EPA SAMPLE NO.

CLJ100-WC1MS

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) WATER Lab Sample ID: JP5002VS

Sample wt/vol: .20 (g/mL) ML Lab File ID: A6590

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: not dec. N/A Date Analyzed: 03/14/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

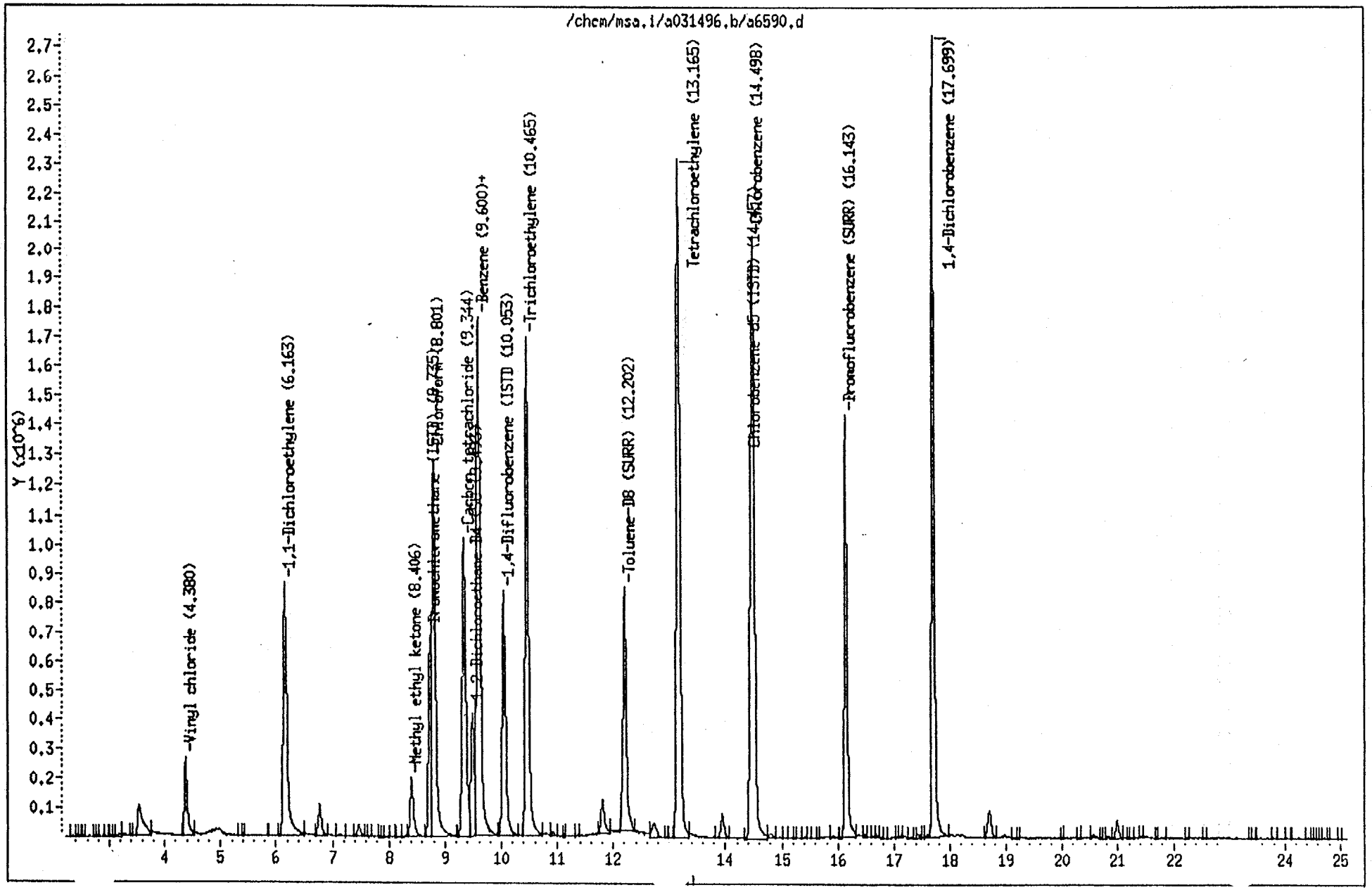
Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	2600	
75-35-4	1,1-Dichloroethene	2100	
67-66-3	Chloroform	2400	
107-06-2	1,2-Dichloroethane	2600	
78-93-3	2-Butanone	4200	
56-23-5	Carbon Tetrachloride	2800	
79-01-6	Trichloroethene	2300	
71-43-2	Benzene	2300	
127-18-4	Tetrachloroethylene	2300	
108-90-7	Chlorobenzene	2400	
106-46-7	1,4-Dichlorobenzene	2100	

0070

Data File: /chem/msa.i/a031496.b/a6590.d
Date : 14-MAR-96 11:37
Client ID: n7v5040 mtx spk
Sample Info: n7v5040 mtx spk (6)
Purge Volume: 1.0
Column phase: J&W DB_624

Instrument: msa.i
Operator: jk
Column diameter: 0.53



Data File: /chem/msa.i/a031496.b/a6590.d
Report Date: 14-Mar-1996 12:44

OHM Analytical Division

VOLATILE REPORT SW-846 Method 8240

Data file : /chem/msa.i/a031496.b/a6590.d
Lab Smp Id:
Client Smp ID: n7v5040 mtx spk
Inj Date : 14-MAR-96 11:37
Operator : jk
Inst ID: msa.i
Smp Info : n7v5040 mtx spk (6)
Misc Info : jp5002vs,n7v5040,m2,5000,1,0.2,5.0,960314,
Comment :
Method : /chem/msa.i/a031496.b/022296_ambia.m
Meth Date : 14-Mar-1996 12:31 glenn
Quant Type: ISTD
Cal Date : 14-MAR-96 09:03
Cal File: a6586.d
Als bottle: 6
Dil Factor: 1.000
Integrator: HP RTE
Compound Sublist: tclp.sub
Target Version: 3.10

3/15/96

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	CONCENTRATIONS FINAL (ug/l)
	Benzene	78.00	9.600	9.607	(0.955)	1831770	92.5	92.5
	Carbon tetrachloride	117.00	9.344	9.334	(0.929)	1506292	112	112
50	Chlorobenzene	112.00	14.498	14.491	(1.003)	1995949	94.1	94.1
23	Chloroform	83.00	8.801	8.814	(1.008)	1987428	95.1	95.1
71	1,4-Dichlorobenzene	146.00	17.699	17.700	(1.224)	2063288	84.9	84.9
29	1,2-Dichloroethane	62.00	9.592	9.590	(1.098)	1272799	104	104
10	1,1-Dichloroethylene	96.00	6.163	6.153	(0.706)	684310	83.9	83.9
18	Methyl ethyl ketone	72.00	8.406	8.426	(0.836)	118307	169	169(Q)
45	Tetrachloroethylene	164.00	13.165	13.147	(0.911)	1216451	91.0	91.0
32	Trichloroethylene	130.00	10.474	10.456	(1.042)	1242081	93.4	93.4
3	Vinyl chloride	62.00	4.380	4.381	(0.501)	540835	105	105
$ 28	1,2-Dichloroethane-D4 (SURR)	65.00	9.493	9.491	(1.087)	575118	50.3	50.3(M)
$ 58	Bromofluorobenzene (SURR)	95.00	16.143	16.143	(1.117)	804042	47.4	47.4(QM)
$ 40	Toluene-D8 (SURR)	98.00	12.202	12.180	(0.844)	1163717	49.6	49.6
* 22	Bromochloromethane (ISTD)	128.00	8.735	8.740	(1.000)	376666	50.0	
* 31	1,4-Difluorobenzene (ISTD)	114.00	10.053	10.044	(1.000)	1390747	50.0	
* 49	Chlorobenzene-d5 (ISTD)	117.00	14.457	14.441	(1.000)	1065145	50.0	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET 0072

EPA SAMPLE NO.

CLJ100-WC1MSD

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) WATER Lab Sample ID: JP5002VR

Sample wt/vol: .20 (g/mL) ML Lab File ID: A6591

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: not dec. N/A Date Analyzed: 03/14/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

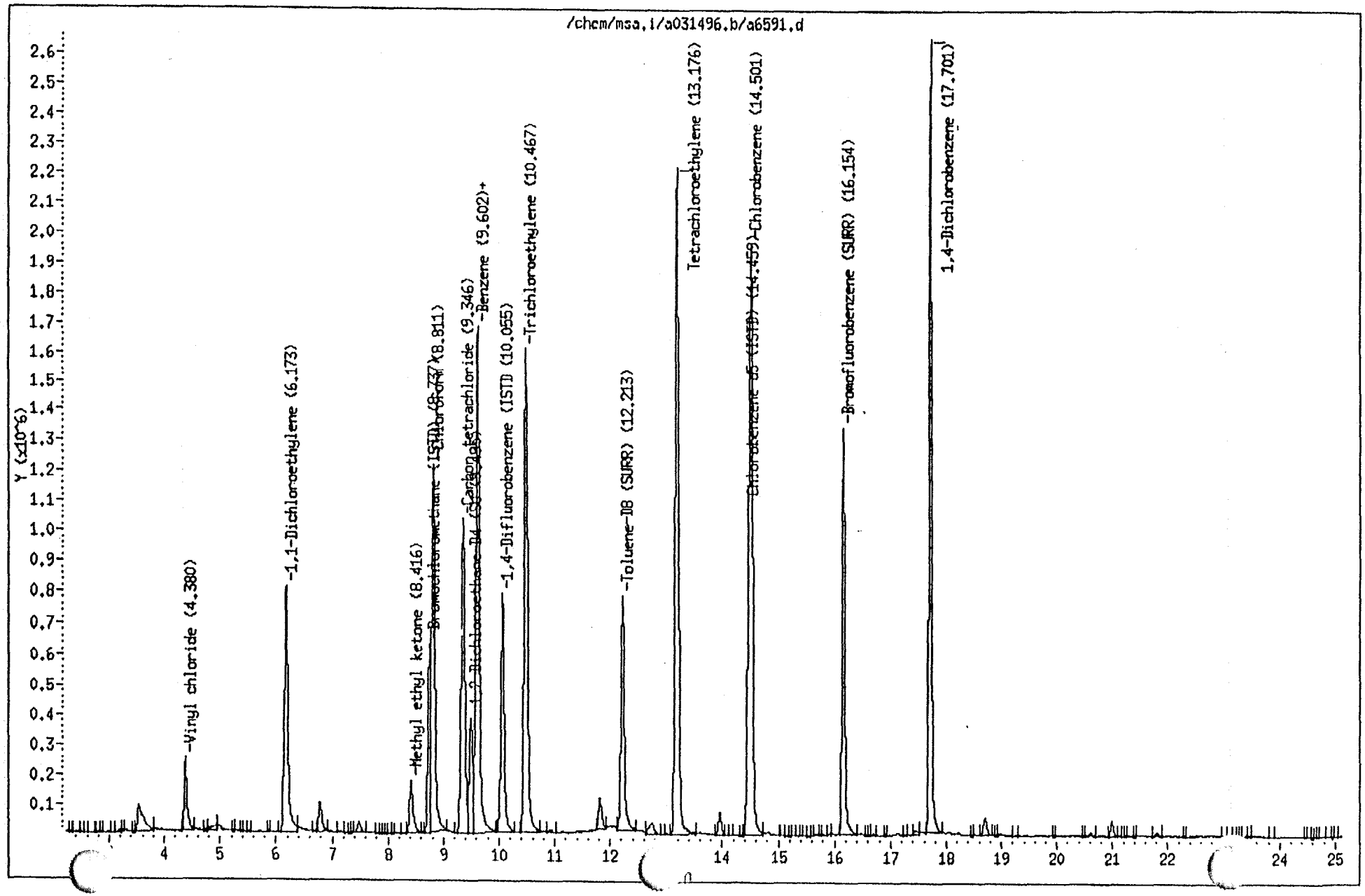
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	2800	
75-35-4	1,1-Dichloroethene	2300	
67-66-3	Chloroform	2400	
107-06-2	1,2-Dichloroethane	2800	
78-93-3	2-Butanone	4400	
56-23-5	Carbon Tetrachloride	3100	
79-01-6	Trichloroethene	2400	
71-43-2	Benzene	2400	
127-18-4	Tetrachloroethylene	2300	
108-90-7	Chlorobenzene	2400	
106-46-7	1,4-Dichlorobenzene	2200	

0073

Data File: /chem/msa.i/a031496.b/a6591.d
Date : 14-MAR-96 12:12
Client ID: n7v5040 mtx spk dup
Sample Info: n7v5040 mtx spk dup (7)
Purge Volume: 1.0
Column phase: J&W DB_624

Instrument: msa.i

Operator: jk
Column diameter: 0.53



Data File: /chem/msa.i/a031496.b/a6591.d
Report Date: 14-Mar-1996 12:45

OHM Analytical Division

VOLATILE REPORT SW-846 Method 8240

Data file : /chem/msa.i/a031496.b/a6591.d
Lab Smp Id:
Client Smp ID: n7v5040 mtx spk dup
Inj Date : 14-MAR-96 12:12
Operator : jk
Inst ID: msa.i
Smp Info : n7v5040 mtx spk dup (7)
Misc Info : jp5002vr,n7v5040,m2,5000,1,0.2,5.0,960314,
Comment :
Method : /chem/msa.i/a031496.b/022296_ambia.m
Meth Date : 14-Mar-1996 12:31 glenn
Quant Type: ISTD
Cal Date : 14-MAR-96 09:03
Cal File: a6586.d
Als bottle: 7
Dil Factor: 1.000
Integrator: HP RTE
Compound Sublist: tclp.sub
Target Version: 3.10

MV 3/15/96

			QUANT SIG					CONCENTRATIONS ON-COLUMN	CONCENTRATIONS FINAL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/l)	(ug/l)
		Benzene	78.00	9.602	9.607	(0.955)	1764420	96.8	96.8
	54	Carbon tetrachloride	117.00	9.346	9.334	(0.929)	1528598	124	124
	50	Chlorobenzene	112.00	14.509	14.491	(1.003)	1915845	95.4	95.4
	23	Chloroform	83.00	8.811	8.814	(1.008)	1888641	97.5	97.5
	71	1,4-Dichlorobenzene	146.00	17.710	17.700	(1.225)	1993627	86.6	86.6
	29	1,2-Dichloroethane	62.00	9.594	9.590	(1.098)	1248804	110	110
	10	1,1-Dichloroethylene	96.00	6.173	6.153	(0.707)	683829	90.5	90.5
	18	Methyl ethyl ketone	72.00	8.416	8.426	(0.837)	111730	174	174 (Q)
	45	Tetrachloroethylene	164.00	13.184	13.147	(0.912)	1172669	92.6	92.6
	32	Trichloroethylene	130.00	10.467	10.456	(1.041)	1175444	96.0	96.0
	3	Vinyl chloride	62.00	4.380	4.381	(0.501)	521607	110	110
$	28	1,2-Dichloroethane-D4 (SURR)	65.00	9.495	9.491	(1.087)	567207	53.5	53.5 (M)
$	58	Bromofluorobenzene (SURR)	95.00	16.154	16.143	(1.117)	781437	48.7	48.7
$	40	Toluene-D8 (SURR)	98.00	12.213	12.180	(0.845)	1070449	48.2	48.2
*	22	Bromochloromethane (ISTD)	128.00	8.737	8.740	(1.000)	349033	50.0	
*	31	1,4-Difluorobenzene (ISTD)	114.00	10.055	10.044	(1.000)	1280641	50.0	
*	49	Chlorobenzene-d5 (ISTD)	117.00	14.459	14.441	(1.000)	1008997	50.0	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0075

VSPK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) WATER Lab Sample ID: N7V5040VS

Sample wt/vol: .20 (g/mL) ML Lab File ID: A6588

Level: (low/med) LOW Date Received: 3/12/96

% Moisture: not dec. N/A Date Analyzed: 03/14/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

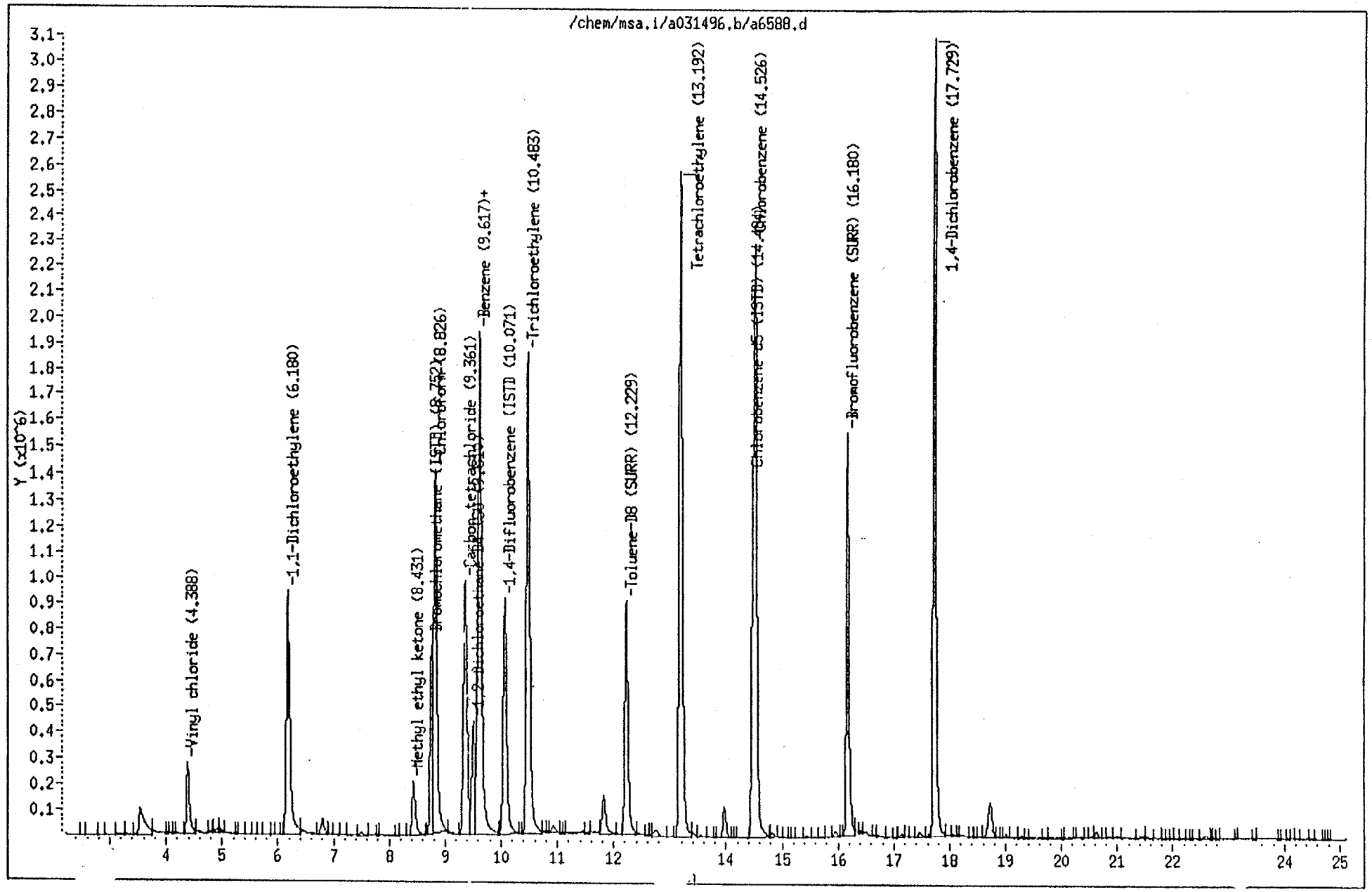
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
75-01-4	Vinyl Chloride	2800	
75-35-4	1,1-Dichloroethene	2300	
67-66-3	Chloroform	2500	
107-06-2	1,2-Dichloroethane	2600	
78-93-3	2-Butanone	4100	
56-23-5	Carbon Tetrachloride	2400	
79-01-6	Trichloroethene	2300	
71-43-2	Benzene	2400	
127-18-4	Tetrachloroethylene	2200	
108-90-7	Chlorobenzene	2300	
106-46-7	1,4-Dichlorobenzene	2100	

0076

Data File: /chem/msa.i/a031496.b/a6588.d
Date : 14-MAR-96 10:28
Client ID: n7v5040 blk spk
Sample Info: n7v5040 blk spk (3)
Purge Volume: 1.0
Column phase: J&W DB_624

Instrument: msa.i

Operator: jk
Column diameter: 0.53



Data File: /chem/msa.i/a031496.b/a6588.d
Report Date: 14-Mar-1996 12:33

OHM Analytical Division

VOLATILE REPORT SW-846 Method 8240

Data file : /chem/msa.i/a031496.b/a6588.d
Lab Smp Id: Client Smp ID: n7v5040 blk spk
Inj Date : 14-MAR-96 10:28
Operator : jk Inst ID: msa.i
Smp Info : n7v5040 blk spk (3)
Misc Info : n7v5040vs,n7v5040,m2,5000,1,0.2,5.0,960314,
Comment :
Method : /chem/msa.i/a031496.b/022296_ambia.m
Meth Date : 14-Mar-1996 12:31 glenn Quant Type: ISTD
Cal Date : 14-MAR-96 09:03 Cal File: a6586.d
Als bottle: 4
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: tclp.sub
Target Version: 3.10

3/15/96

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/l)	FINAL (ug/l)
	Benzene	78.00	9.617	9.607	(0.955)	2056254	94.2	94.2
26	Carbon tetrachloride	117.00	9.361	9.334	(0.930)	1448863	97.9	97.9
50	Chlorobenzene	112.00	14.534	14.491	(1.003)	2249719	91.6	91.6
23	Chloroform	83.00	8.826	8.814	(1.008)	2200498	98.4	98.4
71	1,4-Dichlorobenzene	146.00	17.729	17.700	(1.224)	2344410	83.4	83.4
29	1,2-Dichloroethane	62.00	9.617	9.590	(1.099)	1362449	104	104
10	1,1-Dichloroethylene	96.00	6.180	6.153	(0.706)	794043	91.0	91.0
18	Methyl ethyl ketone	72.00	8.439	8.426	(0.838)	127495	165	165(Q)
45	Tetrachloroethylene	164.00	13.192	13.147	(0.911)	1367836	88.4	88.4
32	Trichloroethylene	130.00	10.483	10.456	(1.041)	1370150	93.5	93.5
3	Vinyl chloride	62.00	4.388	4.381	(0.501)	604758	110	110
$ 28	1,2-Dichloroethane-D4 (SURR)	65.00	9.510	9.491	(1.087)	672439	54.9	54.9
$ 58	Bromofluorobenzene (SURR)	95.00	16.180	16.143	(1.117)	931331	47.5	47.5
$ 40	Toluene-D8 (SURR)	98.00	12.229	12.180	(0.844)	1252035	46.2	46.2
* 22	Bromochloromethane (ISTD)	128.00	8.752	8.740	(1.000)	402898	50.0	
* 31	1,4-Difluorobenzene (ISTD)	114.00	10.071	10.044	(1.000)	1533413	50.0	
* 49	Chlorobenzene-d5 (ISTD)	117.00	14.484	14.441	(1.000)	1232871	50.0	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

ORGANICS

Semivolatile Organic Compounds by GC/MS

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Level: (low/med) ____

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	SBLK01	33	37	65	33	30	42			0
02	SSPK01	72	74	102	59	61	129 *			1
03	CLJ100-WC1MS	61 D	70 D	63 D	62 D	56 D	46 D			0
04	CLJ100-WC1MSD	59 D	80 D	77 D	59 D	46 D	57 D			0
05	CLJ100-WC1	52 D	68 D	68 D	60 D	52 D	39 D			0

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(23-120)	
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)	
S3 (TPH)	= Terphenyl-d14	(18-137)	
S4 (PHL)	= Phenol-d5	(24-113)	
S5 (2FP)	= 2-Fluorophenol	(25-121)	
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7 (2CP)	= 2-Chlorophenol-d4		(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4		(advisory)

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

3C

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix Spike - EPA Sample No.: CLJ100-WC1 Level: (low/med) ____

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #		QC LIMITS REC.
Phenol	6000	0	3900	65		26- 90
2-Chlorophenol	6000	0	3600	60		25-102
1,4-Dichlorobenzene	4000	0	2300	58		28-104
N-Nitroso-di-n-propylami	4000	0	2600	65		41-126
1,2,4-Trichlorobenzene	4000	0	2400	60		38-107
4-Chloro-3-methylphenol	6000	0	3700	62		26-103
Acenaphthene	4000	0	2900	73		31-137
4-Nitrophenol	6000	0	0	0	*	11-114
2,4-Dinitrotoluene	4000	0	2100	53		28- 89
Pentachlorophenol	6000	0	0	0	*	17-109
Pyrene	4000	0	3500	88		35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #		QC LIMITS RPD	QC LIMITS REC.
Phenol	6000	3800	63	3		35	26- 90
2-Chlorophenol	6000	3300	55	9		50	25-102
1,4-Dichlorobenzene	4000	1700	43	30	*	27	28-104
N-Nitroso-di-n-propylami	4000	2900	73	11		38	41-126
1,2,4-Trichlorobenzene	4000	2300	58	4		23	38-107
4-Chloro-3-methylphenol	6000	4400	73	17		33	26-103
Acenaphthene	4000	3400	85	16		19	31-137
4-Nitrophenol	6000	3300	55	55	*		11-114
2,4-Dinitrotoluene	4000	2600	65	21		47	28- 89
Pentachlorophenol	6000	1900	32	32	*		17-109
Pyrene	4000	4000	100	13		36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 3 out of 11 outside limits
Spike Recovery: 2 out of 22 outside limits

COMMENTS: _____

3C

SOIL SEMIVOLATILE BLANK SPIKE RECOVERY

0081

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix Spike - EPA Sample No.: SSPK01

COMPOUND	SPIKE ADDED (ug/Kg)	BLANK CONCENTRATION (ug/Kg)	BS CONCENTRATION (ug/Kg)	BS % REC #		QC LIMITS REC.
Phenol	5000	0	3000	60		26- 90
2-Chlorophenol	5000	0	2900	58		25-102
1,4-Dichlorobenzene	3300	0	2200	67		28-104
N-Nitroso-di-n-propylami	3300	0	2300	70		41-126
1,2,4-Trichlorobenzene	3300	0	2300	70		38-107
4-Chloro-3-methylphenol	5000	0	3800	76		26-103
Acenaphthene	3300	0	2400	73		31-137
4-Nitrophenol	5000	0	4700	94		11-114
2,4-Dinitrotoluene	3300	0	3100	94	*	28- 89
Pentachlorophenol	5000	0	5000	100		17-109
Pyrene	3300	0	2900	88		35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

Spike Recovery: 1 out of 11 outside limits

COMMENTS: _____

4B

SEMIVOLATILE METHOD BLANK SUMMARY 0082

EPA SAMPLE NO.

SBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Lab File ID: E9128 Lab Sample ID: N2C60479C

Instrument ID: ~~SE~~ mse.i Date Extracted: 03/12/96

Matrix: (soil/water) SOIL Date Analyzed: 03/14/96

Level: (low/med) LOW Time Analyzed: 18:13

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	CLJ100-WC1	JP5002C	E9136	03/15/96
02	CLJ100-WC1MSD	JP5002CR	E9139	03/15/96
03	SSPK01	N2C60479CS	E9129	03/14/96
04	CLJ100-WC1MS	JP5002CS	E9138	03/15/96

COMMENTS:

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 183FN SAS No.: N/A SDG No.: CLJ100WC1

Lab File ID: E9115 DFTPP Injection Date: 3/14/96

Instrument ID: MSe.i DFTPP Injection Time: 09:24

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	51.0
68	Less than 2.0% of mass 69	0.00 (0.00)1
69	Mass 69 relative abundance	57.5
70	Less than 2.0% of mass 69	0.06 (0.10)1
127	25.0 - 75.0% of mass 198	50.1
197	Less than 1.0% of mass 198	0.00
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.87
275	10.0 - 30.0% of mass 198	24.4
365	Greater than 0.75% of mass 198	3.27
441	Present, but less than mass 443	13.1
442	40.0 - 110.0% of mass 198	84.7
443	15.0 - 24.0% of mass 442	16.5 (19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD020	SSTD020	E9117	3/14/96	10:27
02	SSTD050	SSTD050	E9118		11:11
03	SSTD080	SSTD080	E9119		11:56
04	SSTD120	SSTD120	E9120		12:40
05	SSTD160	SSTD160	E9121		13:25
06	SBLK01	N2C6047BC	E9128		18:18
07	SSPK01	N2C6047BS	E9129		18:57
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC1

Lab File ID: E9134 DFTPP Injection Date: 3/15/96

Instrument ID: MSE.1 DFTPP Injection Time: 07:23

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	54.0
68	Less than 2.0% of mass 69	0.00 (0.00)1
69	Mass 69 relative abundance	61.1
70	Less than 2.0% of mass 69	0.08 (0.13)1
127	25.0 - 75.0% of mass 198	50.5
197	Less than 1.0% of mass 198	0.00
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.80
275	10.0 - 30.0% of mass 198	24.1
365	Greater than 0.75% of mass 198	3.33
441	Present, but less than mass 443	0.56
442	40.0 - 110.0% of mass 198	87.5
443	15.0 - 24.0% of mass 442	17.4 (19.8)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	E9135	3/15/96	07:41
02	CLJ100-WC1	JPS002C	E9136		08:27
03	CLJ100WC1MS	JPS002CS	E9138		09:57
04	CLJ100WC1MSD	JPS002CR	E9139	↓	10:42
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319 SAS No.: N/A SDG No.: CLJ100WC1

Lab File ID (Standard): E9118 Date Analyzed: 3/14/96

Instrument ID: MSE.1 Time Analyzed: 11:11

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	282475	7.79	1129077	9.68	605717	12.95
	UPPER LIMIT	564950	8.29	2258154	10.18	1211434	13.45
	LOWER LIMIT	141238	7.29	564538	9.18	302858	12.45
	EPA SAMPLE NO.						
01	SBLK01	272515	7.79	1020372	9.68	531477	12.95
02	SSPK01	250858	7.79	1008646	9.68	557743	12.95
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

page 1 of 4

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 1831GN SAS No.: N/A SDG No.: CCJ100WR1

Lab File ID (Standard): E9118 Date Analyzed: 3/14/96

Instrument ID: MSE.1 Time Analyzed: 11:11

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	939473	15.95	903290	21.53	785986	25.75
	UPPER LIMIT	1878946	16.45	1806580	22.03	1571972	26.25
	LOWER LIMIT	469736	15.45	451645	21.03	392993	25.25
	EPA SAMPLE NO.						
01	SBLK01	777772	15.95	735162	21.52	630790	25.74
02	SSPK01	906025	15.95	922154	21.54	832079	25.75
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: OHM Analytical Division Contract: NFESC

Lab Code: N/A Case No.: 1834N SAS No.: N/A SDG No.: CLJ100LC1

Lab File ID (Standard): E9135 Date Analyzed: 3/15/96

Instrument ID: MSD.1 Time Analyzed: 07:41

		IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
	12 HOUR STD	243914	7.80	948073	9.69	503363	12.95
	UPPER LIMIT	487828	8.30	1896146	10.19	1006726	13.45
	LOWER LIMIT	121957	7.30	474036	9.19	251682	12.45
	EPA SAMPLE NO.						
01	CLJ100LC1	267719	7.79	1025868	9.68	558517	12.95
02	CLJ100LC1MS	288555	7.79	1100590	9.68	586736	12.95
03	CLJ100LCMSD	289757	7.79	1120186	9.68	601138	12.95
04							
05							
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18							
19							
20							
21							
22							

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC1

Lab File ID (Standard): E9118 Date Analyzed: 3/15/96

Instrument ID: MSC.1 Time Analyzed: 07:41

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	774122	15.96	743305	21.54	643815	25.76
	UPPER LIMIT	1548244	16.46	1486610	22.04	1287630	26.26
	LOWER LIMIT	387061	15.46	371652	21.04	321908	25.26
	EPA SAMPLE NO.						
01	CLJ100WC1	832688	15.95	782881	21.53	629316	25.75
02	CLJ100WC1MS	874562	15.95	802914	21.53	638554	25.75
03	CLJ100WC1SD	899471	15.95	834092	21.53	633948	25.74
04							
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20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET 0089 EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: JP5002C

Sample wt/vol: 30.2 (g/mL) G Lab File ID: E9136

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: 17 decanted: (Y/N) N Date Extracted: 03/12/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 03/15/96

Injection Volume: 1.00 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	8000	U
111-44-4	bis(2-Chloroethyl)ether	8000	U
95-57-8	2-Chlorophenol	8000	U
541-73-1	1,3-Dichlorobenzene	8000	U
106-46-7	1,4-Dichlorobenzene	8000	U
95-50-1	1,2-Dichlorobenzene	8000	U
95-48-7	2-Methylphenol	8000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	8000	U
106-44-5	4-Methylphenol	8000	U
621-64-7	N-Nitroso-di-n-propylamine	8000	U
67-72-1	Hexachloroethane	8000	U
98-95-3	Nitrobenzene	8000	U
78-59-1	Isophorone	8000	U
88-75-5	2-Nitrophenol	8000	U
105-67-9	2,4-Dimethylphenol	8000	U
111-91-1	bis(2-Chloroethoxy)methane	8000	U
120-83-2	2,4-Dichlorophenol	8000	U
120-82-1	1,2,4-Trichlorobenzene	8000	U
91-20-3	Naphthalene	2700	BJ
106-47-8	4-Chloroaniline	8000	U
87-68-3	Hexachlorobutadiene	8000	U
59-50-7	4-Chloro-3-methylphenol	8000	U
91-57-6	2-Methylnaphthalene	8000	U
77-47-4	Hexachlorocyclopentadiene	8000	U
88-06-2	2,4,6-Trichlorophenol	8000	U
95-95-4	2,4,5-Trichlorophenol	8000	U
91-58-7	2-Chloronaphthalene	8000	U
88-74-4	2-Nitroaniline	8000	U
131-11-3	Dimethylphthalate	8000	U
208-96-8	Acenaphthylene	8000	U
606-20-2	2,6-Dinitrotoluene	8000	U
99-09-2	3-Nitroaniline	8000	U
83-32-9	Acenaphthene	8000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET 0090 EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: JP5002C

Sample wt/vol: 30.2 (g/mL) G Lab File ID: E9136

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: 17 decanted: (Y/N) N Date Extracted: 03/12/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 03/15/96

Injection Volume: 1.00 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	40000	U
100-02-7	4-Nitrophenol	40000	U
132-64-9	Dibenzofuran	8000	U
121-14-2	2,4-Dinitrotoluene	8000	U
84-66-2	Diethylphthalate	8000	U
7005-72-3	4-Chlorophenyl-phenylether	8000	U
86-73-7	Fluorene	8000	U
100-01-6	4-Nitroaniline	8000	U
534-52-1	4,6-Dinitro-2-methylphenol	20000	U
101-55-3	4-Bromophenyl-phenylether	8000	U
86-30-6	N-Nitrosodiphenylamine (1)	8000	U
118-74-1	Hexachlorobenzene	8000	U
87-86-5	Pentachlorophenol	8000	U
85-01-8	Phenanthrene	8000	U
120-12-7	Anthracene	8000	U
86-74-8	Carbazole	8000	U
84-74-2	Di-n-butylphthalate	8000	U
206-44-0	Fluoranthene	8000	U
129-00-0	Pyrene	8000	U
85-68-7	Butylbenzylphthalate	8000	U
91-94-1	3,3'-Dichlorobenzidine	8000	U
56-55-3	Benzo(a)anthracene	8000	U
218-01-9	Chrysene	8000	U
117-81-7	bis(2-Ethylhexyl)phthalate	8000	U
117-84-0	Di-n-octylphthalate	8000	U
205-99-2	Benzo(b)fluoranthene	8000	U
207-08-9	Benzo(k)fluoranthene	8000	U
50-32-8	Benzo(a)pyrene	8000	U
193-39-5	Indeno(1,2,3-cd)pyrene	8000	U
53-70-3	Dibenz(a,h)anthracene	8000	U
191-24-2	Benzo(g,h,i)perylene	8000	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET 0091 EPA SAMPLE NO.

TENTATIVELY IDENTIFIED COMPOUNDS

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: JP5002C

Sample wt/vol: 30.2 (g/mL) G Lab File ID: E9136

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: 17 decanted: (Y/N) N Date Extracted: 03/12/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 03/15/96

Injection Volume: 1.00 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 9 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

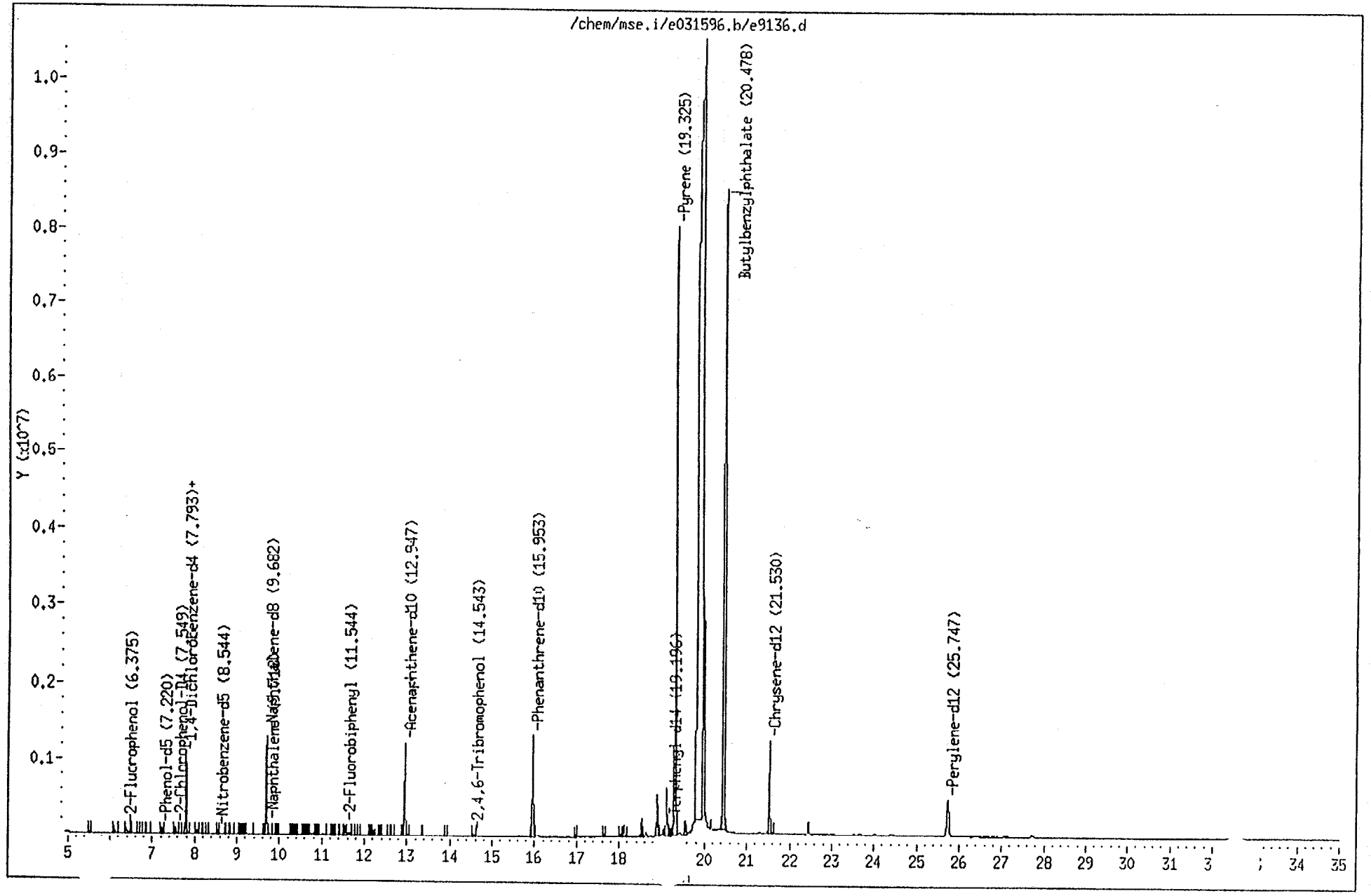
	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		unknown	18.12	3800	J
2.	1022-22-6	DDMU	18.53	5900	JN
3.	72-54-8	Isomer 1,1-Dichloro-2,2-bis(	18.90	15000	JN
4.	3424-82-6	o,p'-DDE	19.11	15000	JN
5.	53-19-0	Mitotane	19.33	240000	JN
6.	72-54-8	Isomer 1,1-Dichloro-2,2-bis(	19.55	5000	JN
7.	72-54-8	Isomer 1,1-Dichloro-2,2-bis(	19.93	1000000	JN
8.		unknown	19.98	73000	J
9.	50-29-3	Chlorophenothane	20.48	340000	JN

Data File: /chem/mse.i/e031596.b/e9136.d
Date : 15-MAR-96 08:27
Client ID:
Sample Info: 18319n clj100-wc1

Column phase: J&W DB-5

Instrument: mse.i

Operator: K. Bigelow
Column diameter: 0.25



Data File: /chem/mse.i/e031596.b/e9136.d
Report Date: 15-Mar-1996 09:06

OHM Analytical Division

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/mse.i/e031596.b/e9136.d
Lab Smp Id:
Inj Date : 15-MAR-96 08:27
Operator : K. Bigelow Inst ID: mse.i
Smp Info : 18319n clj100-wc1
Misc Info : jp5002c,n2c60479,m1,1,20
Comment :
Method : /chem/mse.i/e031596.b/031496eclp.m
Meth Date : 15-Mar-1996 09:06 kathryn Quant Type: ISTD
Cal Date : 15-MAR-96 07:41 Cal File: e9135.d
Als bottle: 3
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

K Bigelow

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/ml)
	2-Fluorophenol	112.00	6.375	6.374	(0.818)	37897	3.88	3.88 (R)
S 4	Phenol-d5	99.00	7.220	7.219	(0.926)	53939	4.51	4.51 (R)
S 7	2-Chlorophenol-D4	132.00	7.549	7.548	(0.969)	41087	4.30	4.30 (R)
* 10	1,4-Dichlorobenzene-d4	152.00	7.793	7.799	(1.000)	267719	40.0	
S 13	1,2-Dichlorobenzene-D4	152.00	8.057 ~~7.795~~	8.056	(1.000)	267719	46.5	~~46.5 (R)~~ 2.21
S 19	Nitrobenzene-d5	82.00	8.544	8.550	(0.882)	31278	2.58	2.58 (R)
* 27	Naphthalene-d8	136.00	9.682	9.688	(1.000)	1025868	40.0	
28	Naphthalene	128.00	9.718	9.724	(1.004)	83224	3.32	3.32
S 37	2-Fluorobiphenyl	172.00	11.544	11.550	(0.892)	60186	3.40	3.40 (R)
* 44	Acenaphthene-d10	164.00	12.947	12.953	(1.000)	558517	40.0	
S 56	2,4,6-Tribromophenol	329.60	14.543	14.542	(1.123)	9439	2.89	2.89 (R)
* 60	Phenanthrene-d10	188.00	15.953	15.959	(1.000)	832688	40.0	
67	Pyrene	202.00	19.325	18.995	(0.898)	99434	3.82	~~3.82 (Q)~~ ND, Rt, MS
S 68	Terphenyl-d14	244.00	19.196	19.195	(0.892)	67529	3.42	3.42 (R)
69	Butylbenzylphthalate	149.00	20.471	20.154	(0.951)	82058	4.86	~~4.86 (Q)~~ ND, Rt, MS
* 73	Chrysene-d12	240.00	21.530	21.536	(1.000)	782881	40.0	
* 79	Perylene-d12	264.00	25.747	25.760	(1.000)	629316	40.0	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: /chem/mse.i/e031596.b/e9136.d

Date : 15-MAR-96 08:27

`lient ID:

Instrument: mse.i

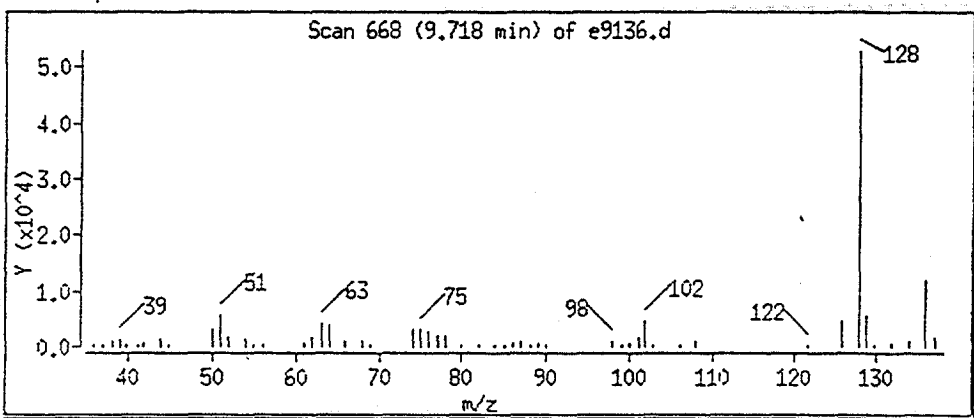
Sample Info: 18319n clj100-wc1

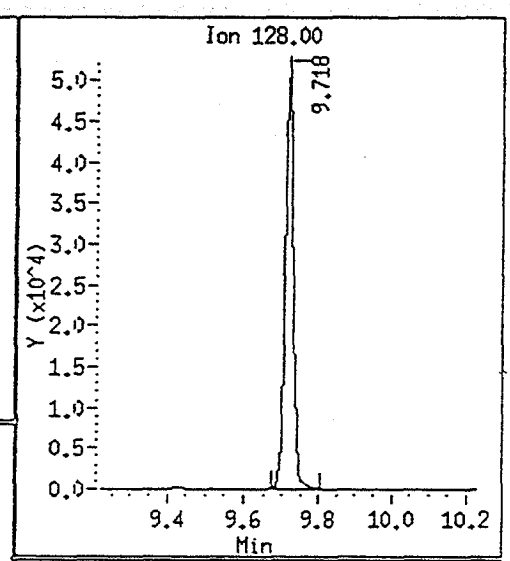
Operator: K. Bigelow

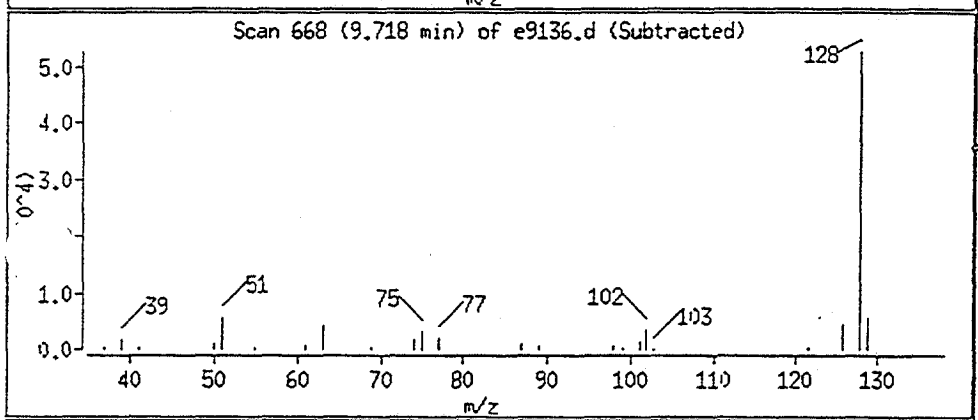
Column phase: J&W DB-5

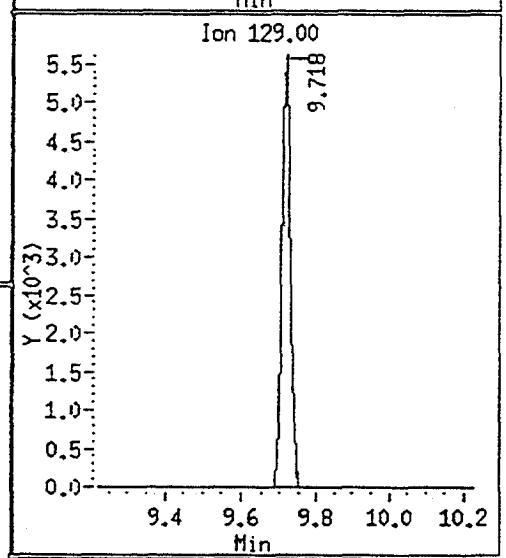
Column diameter: 0.25

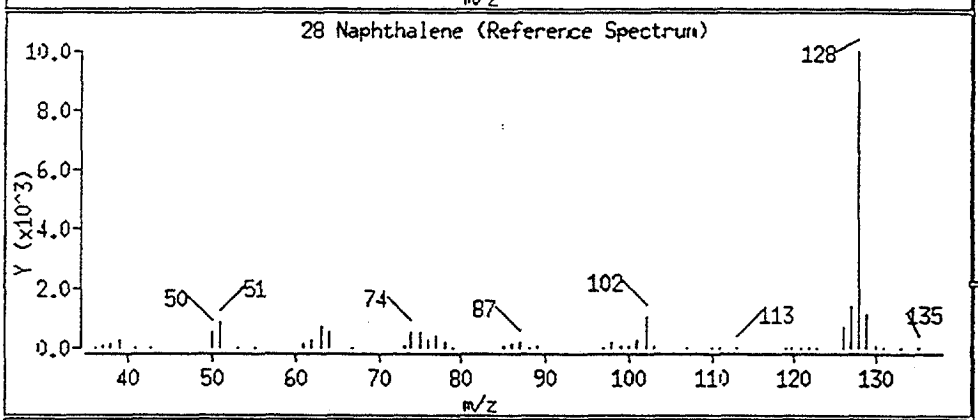
28 Naphthalene

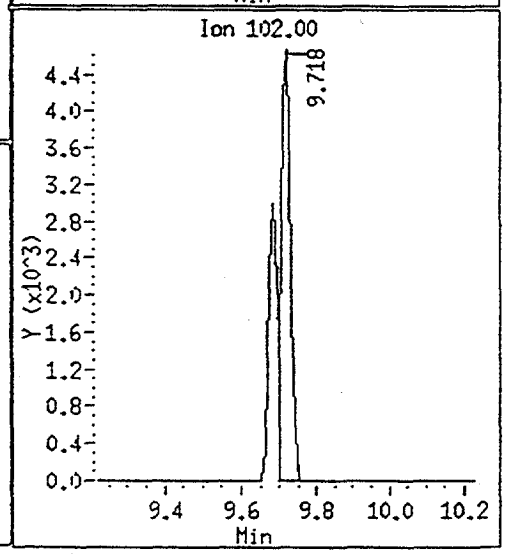


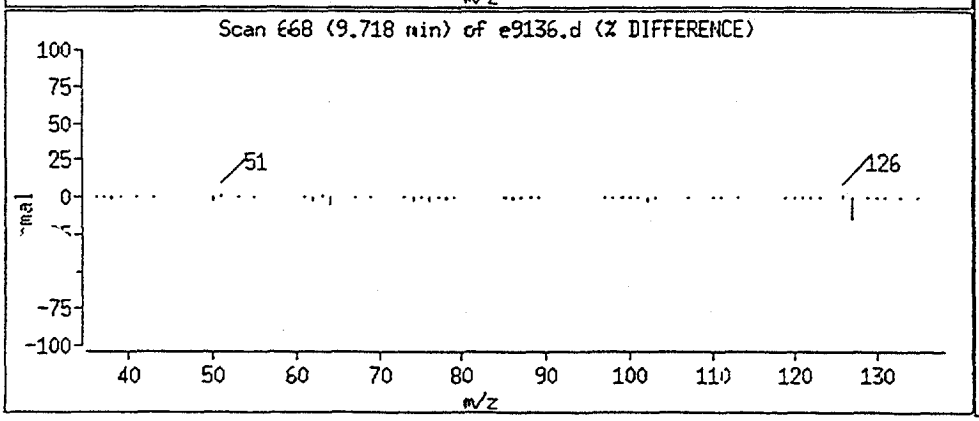












Data File: /chem/mse.i/e031596.b/e9136.d

Date : 15-MAR-96 08:27

Client ID:

Instrument: mse.i

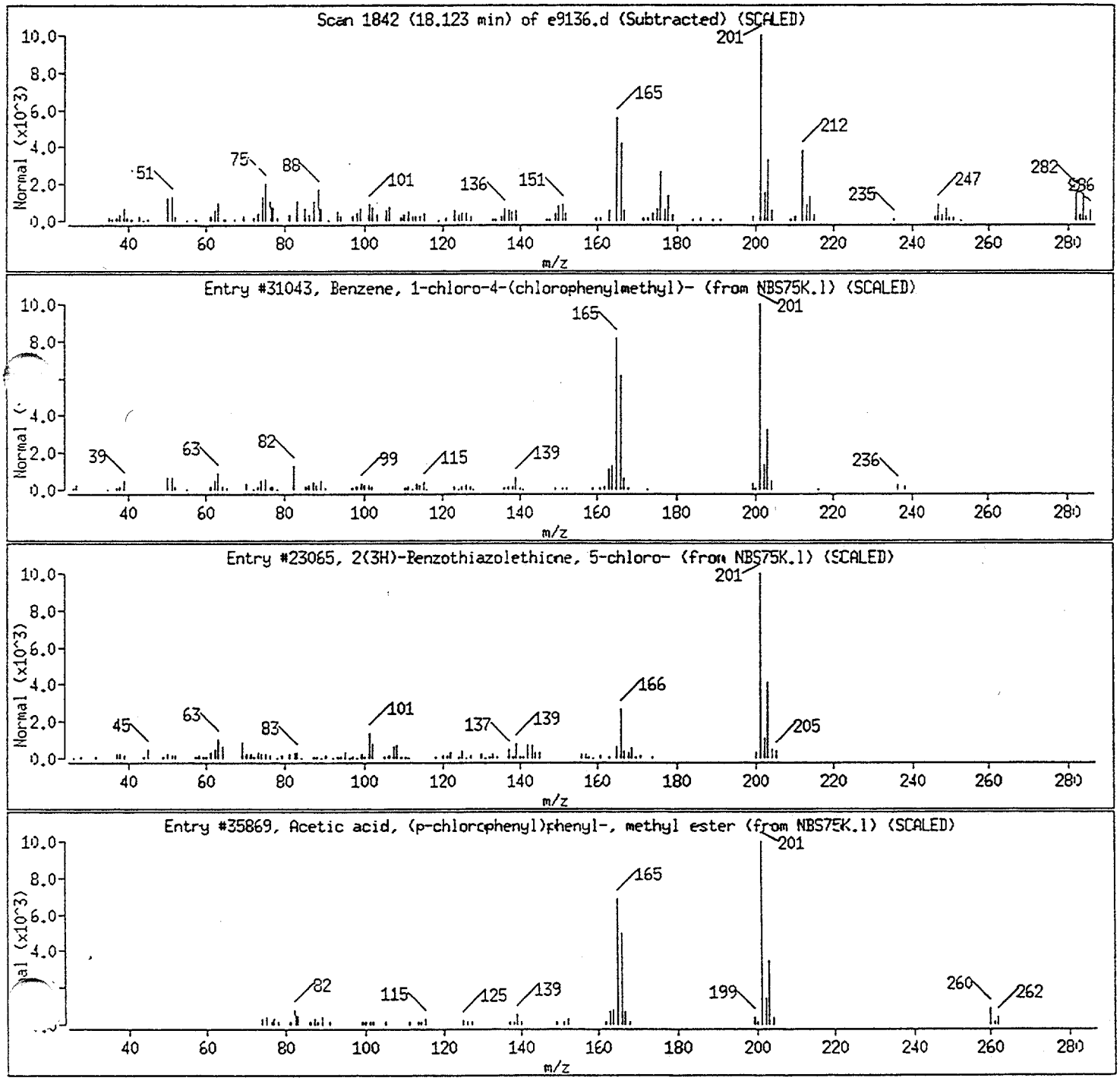
Sample Info: 18319n clj100-wc1

Operator: K. Bigelow

Column phase: J&W DB-5

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzene, 1-chloro-4-(chlorophenylmethyl)	134-83-8	NBS75K.l	31043	53	C13H10C12	236
2(3H)-Benzothiazolethione, 5-chloro-	5331-91-9	NBS75K.l	23065	46	C7H4ClNS2	201
Acetic acid, (p-chlorophenyl)phenyl-, me	5359-46-6	NBS75K.l	35869	43	C15H13ClO2	260



Data File: /chem/mse.i/e031596.b/e9136.d

Date : 15-MAR-96 08:27

Client ID:

Instrument: mse.i

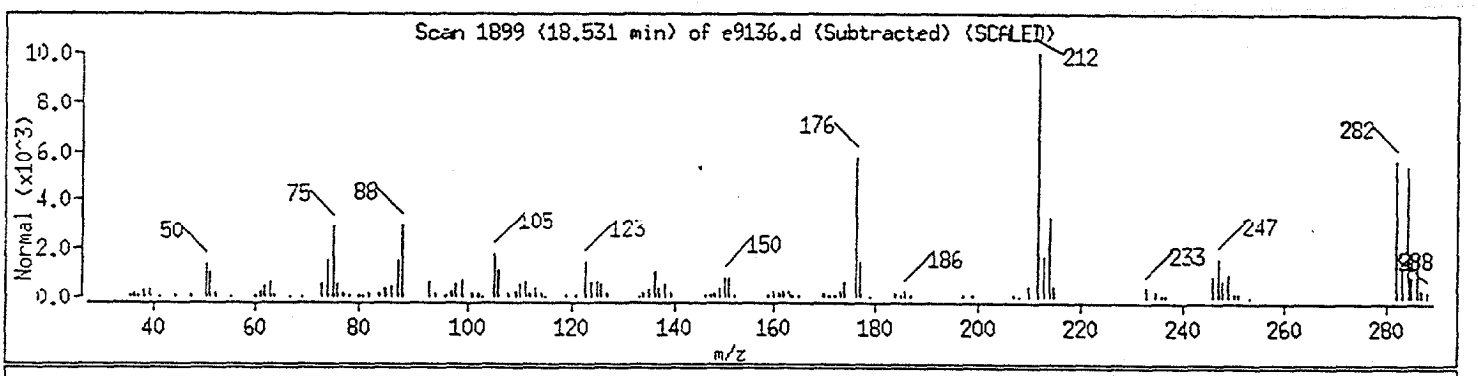
Sample Info: 18319n clj100-wc1

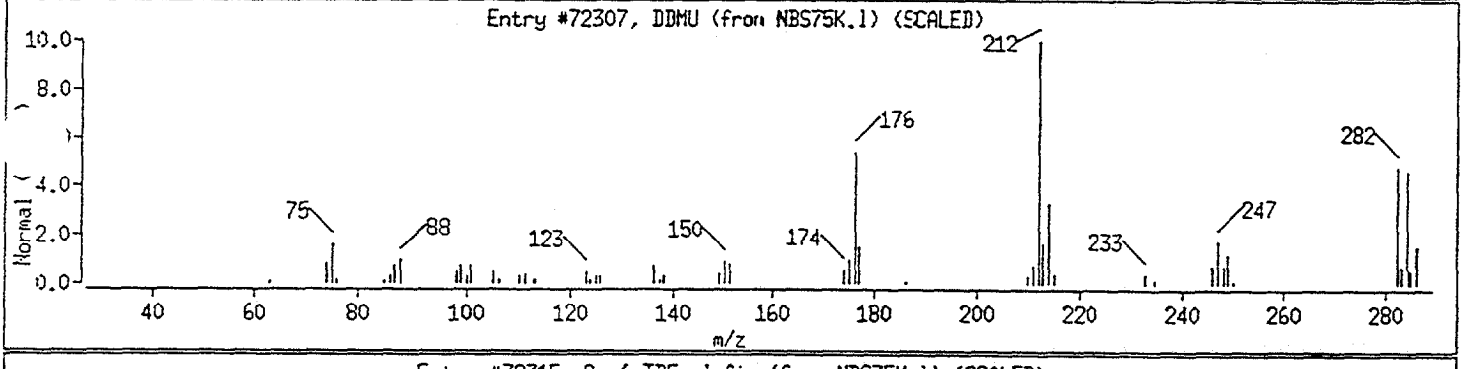
Operator: K. Bigelow

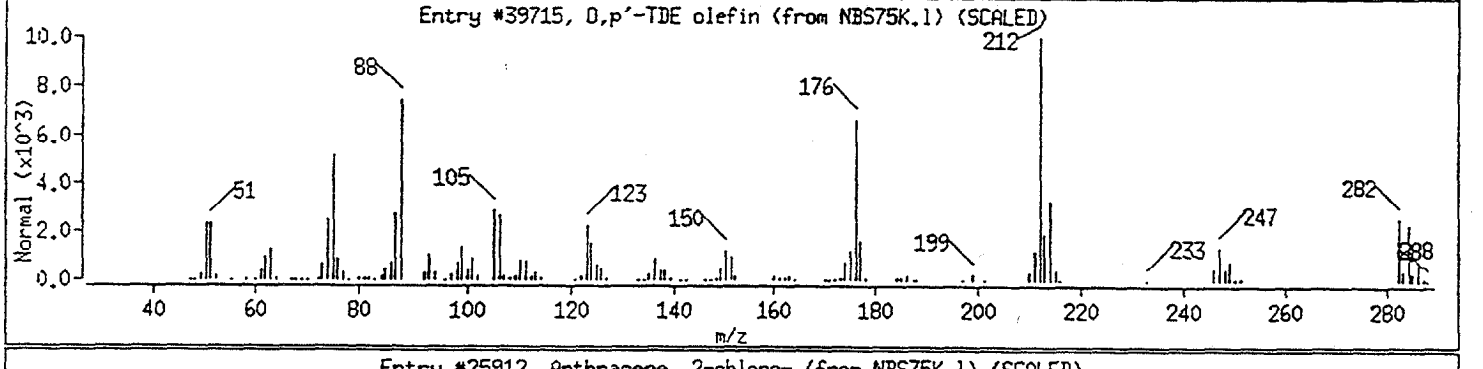
Column phase: J&W DB-5

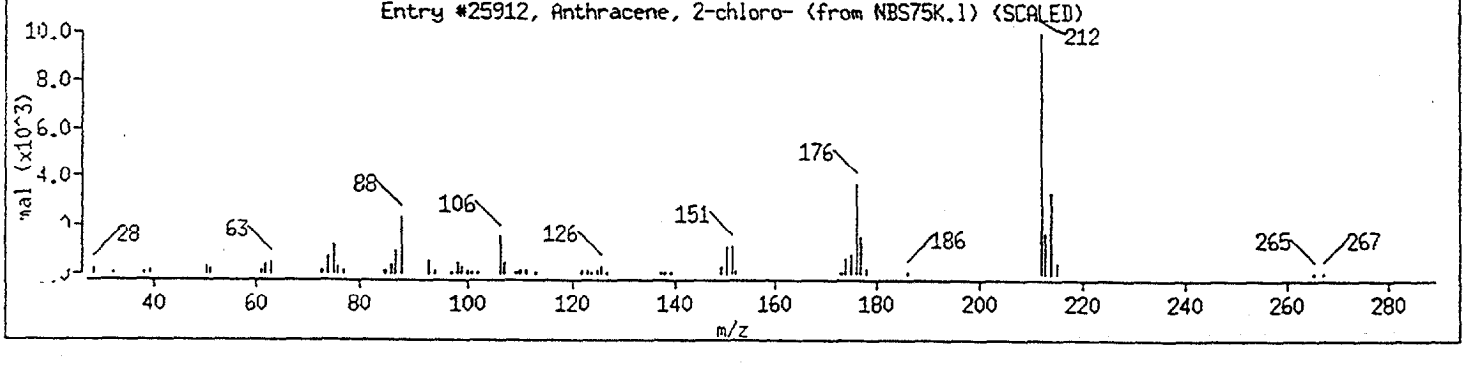
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
DDMU	1022-22-6	NBS75K.l	72307	99	C14H9Cl3	282
O,p'-TDE olefin	14835-94-0	NBS75K.l	39715	97	C14H9Cl3	282
Anthracene, 2-chloro-	17135-78-3	NBS75K.l	25912	83	C14H9Cl	212









Data File: /chem/mse.i/e031596.b/e9136.d

Date : 15-MAR-96 08:27

Client ID:

Instrument: mse.i

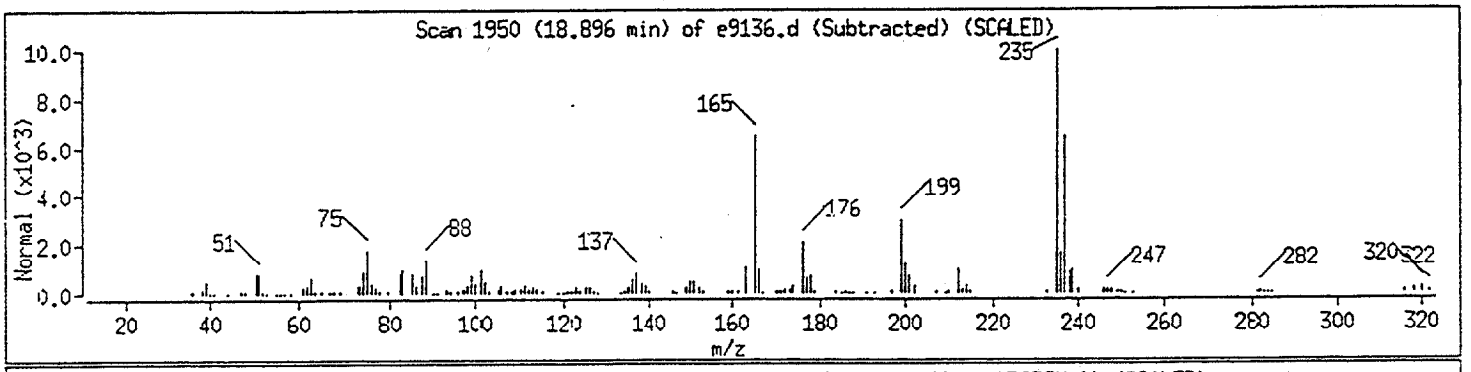
Sample Info: 18319n clj100-wc1

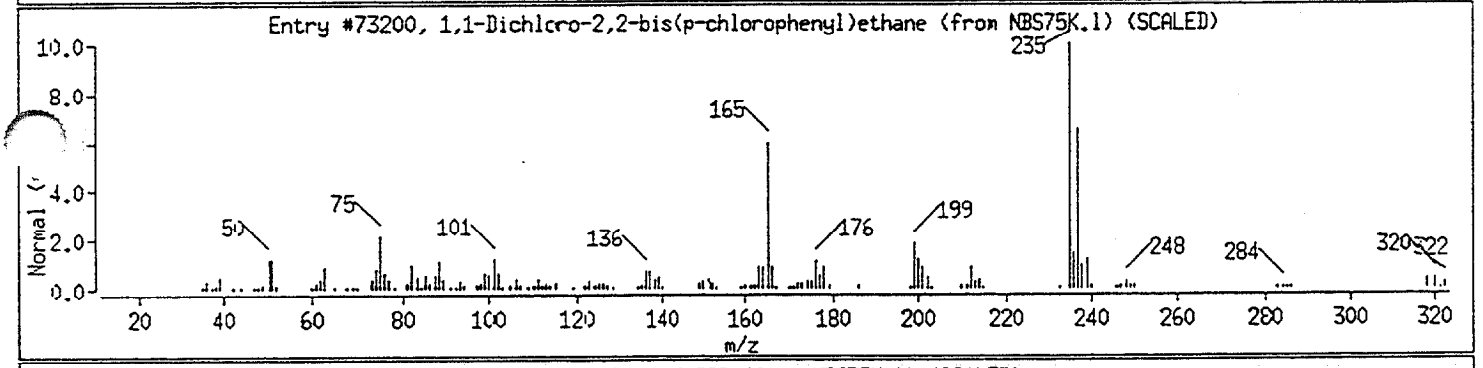
Operator: K. Bigelow

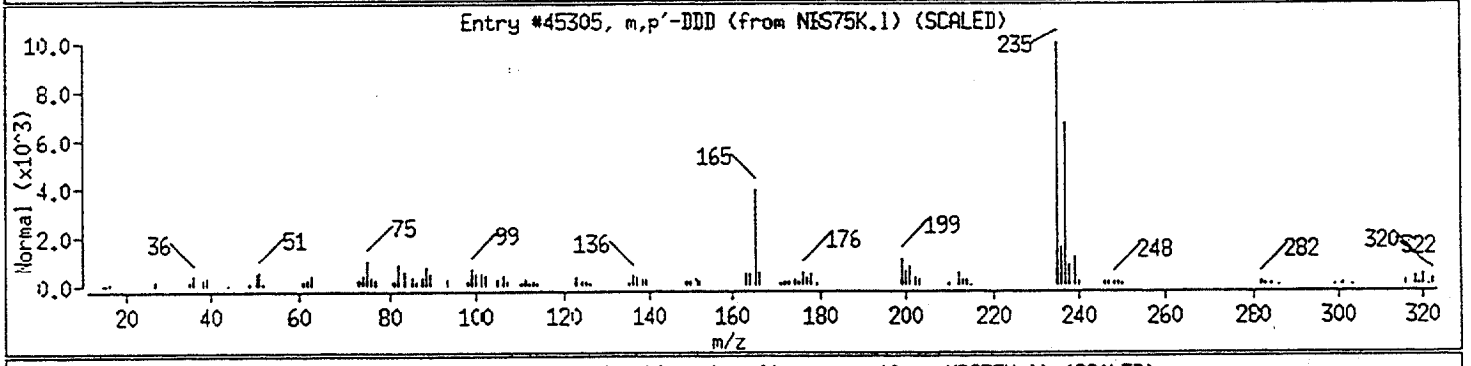
Column phase: J&W DB-5

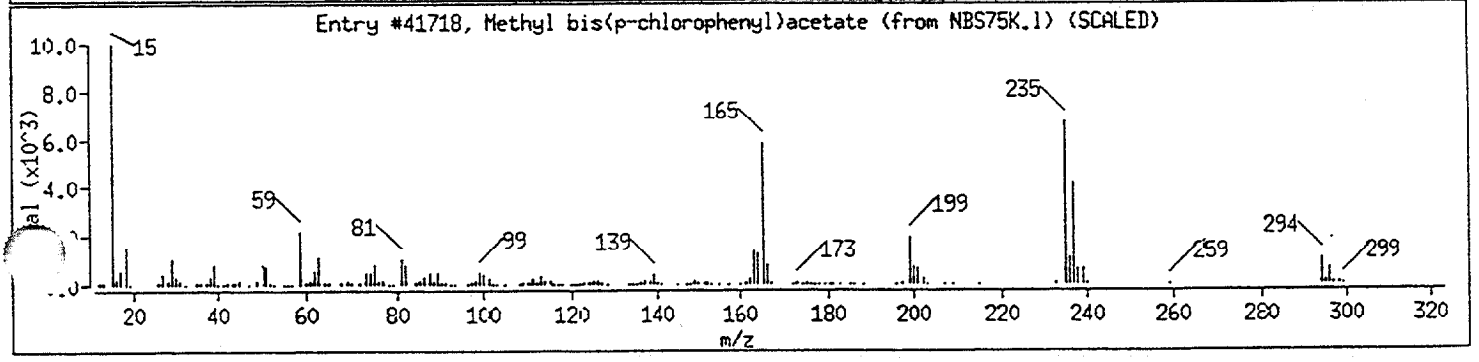
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,1-Dichloro-2,2-bis(p-chlorophenyl)etha	72-54-8	NBS75K.1	73200	99	C14H10Cl4	318
m,p'-DDD	4329-12-8	NBS75K.1	45305	93	C14H10Cl4	318
Methyl bis(p-chlorophenyl)acetate	5359-38-6	NBS75K.1	41718	80	C15H12Cl2O2	294









Data File: /chem/mse.i/e031596.b/e9136.d

Date : 15-MAR-96 08:27

lient ID:

Instrument: mse.i

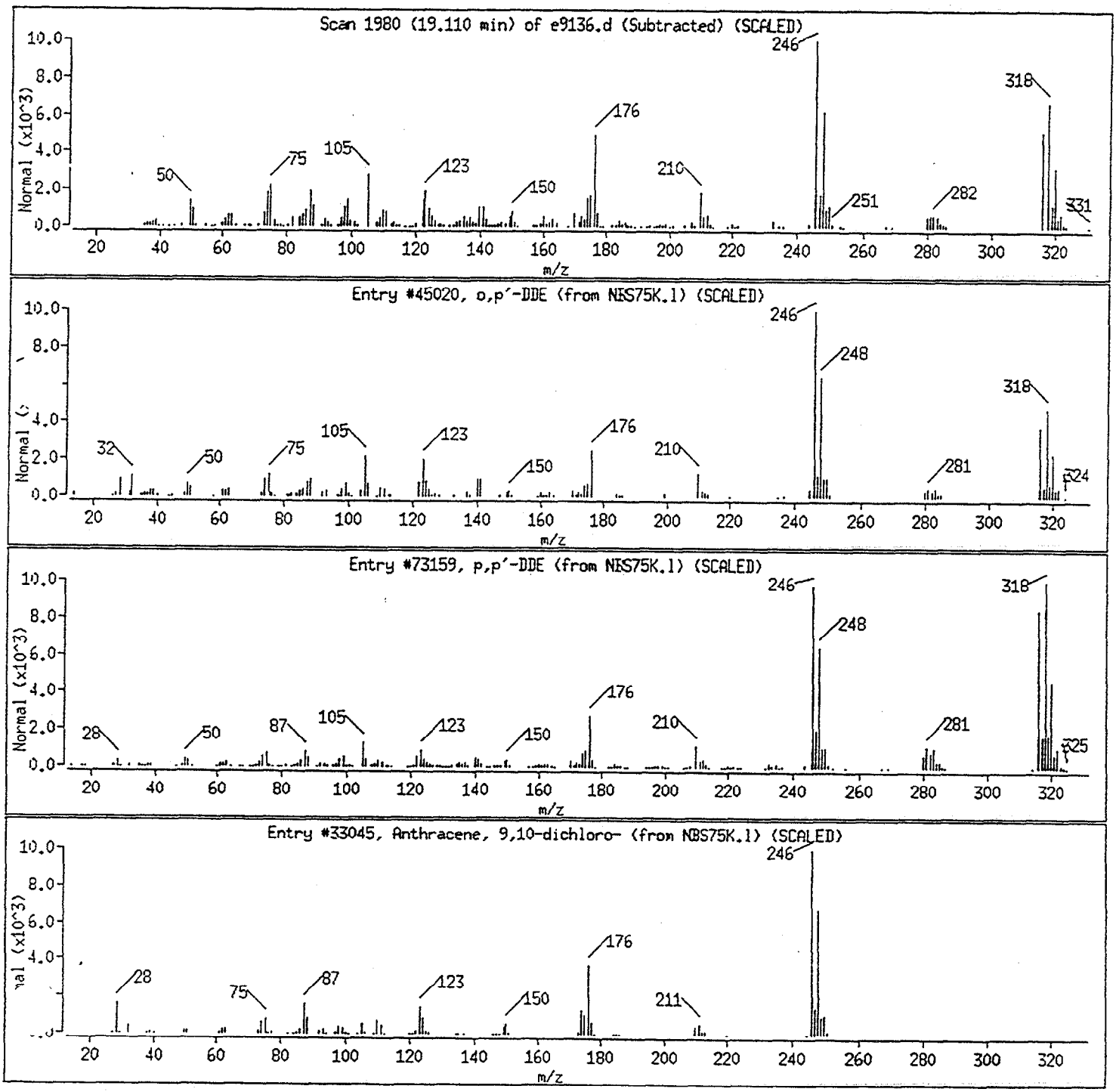
Sample Info: 18319n clj100-wc1

Operator: K. Bigelow

Column phase: J&W DB-5

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
o,p'-DDE	3424-82-6	NBS75K.l	45020	99	C14H8Cl4	316
p,p'-DDE	72-55-9	NBS75K.l	73159	98	C14H8Cl4	316
Anthracene, 9,10-dichloro-	605-48-1	NBS75K.l	33045	97	C14H8Cl2	246



Data File: /chem/mse.i/e031596.b/e9136.d

Date : 15-MAR-96 08:27

Client ID:

Instrument: mse.i

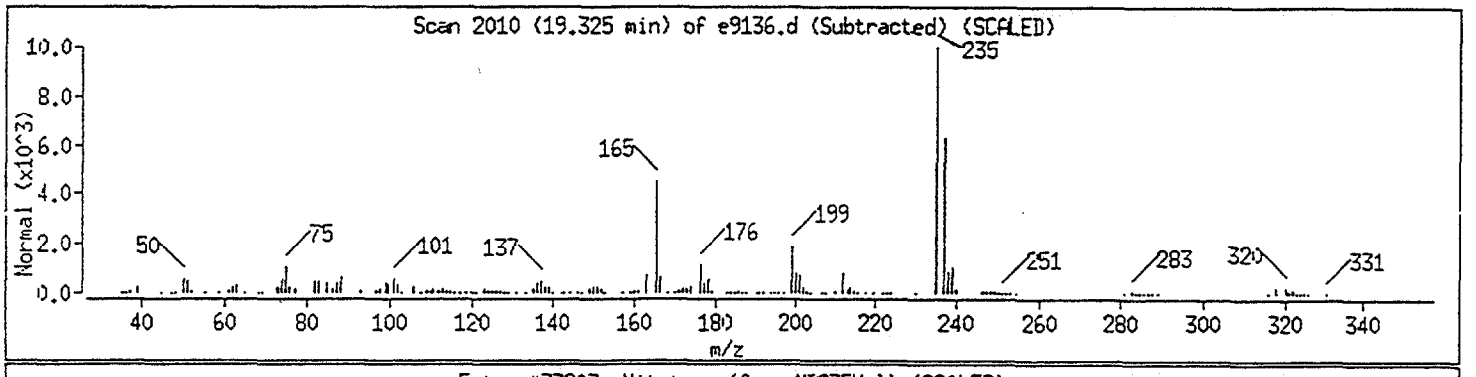
Sample Info: 18319n clj100-wc1

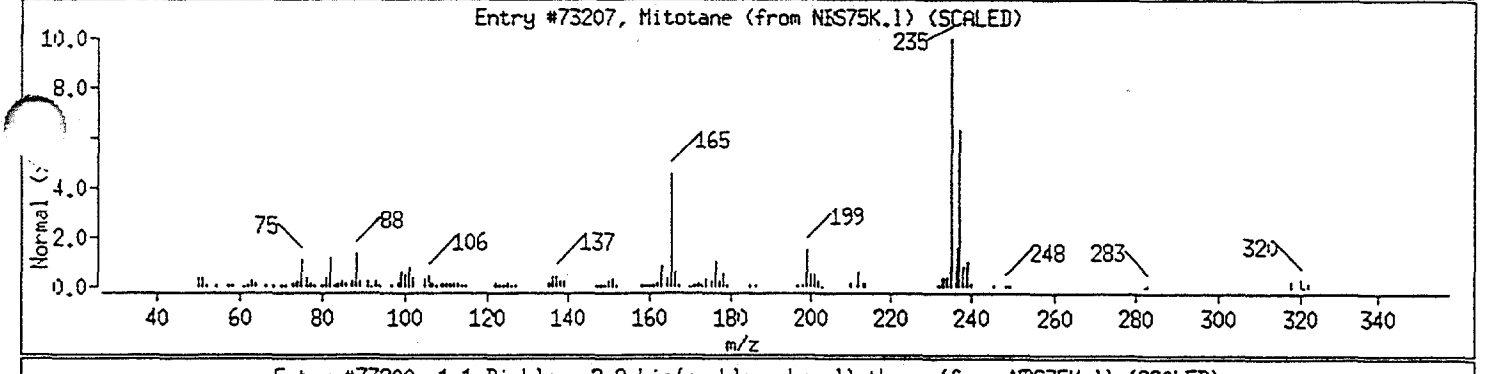
Operator: K. Bigelow

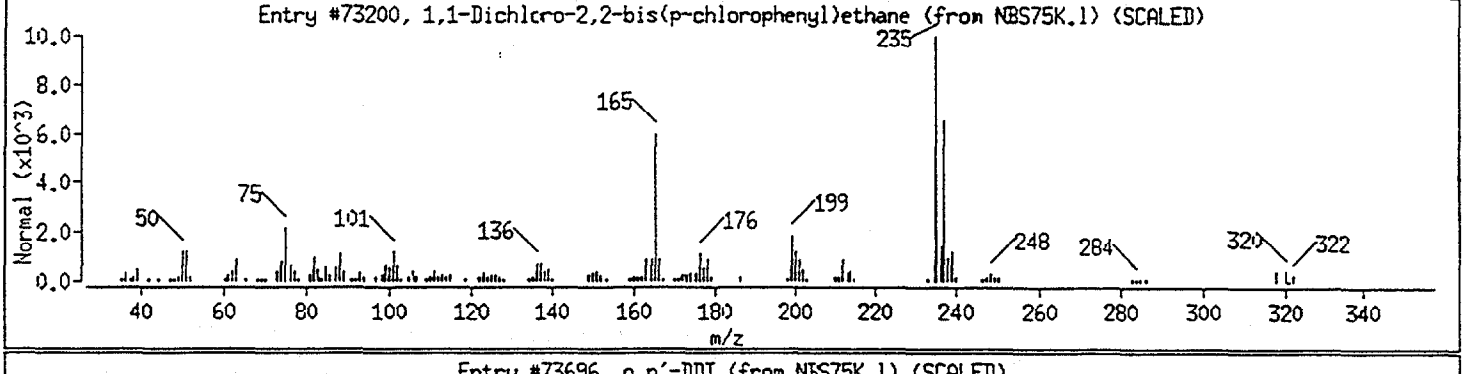
Column phase: J&W DB-5

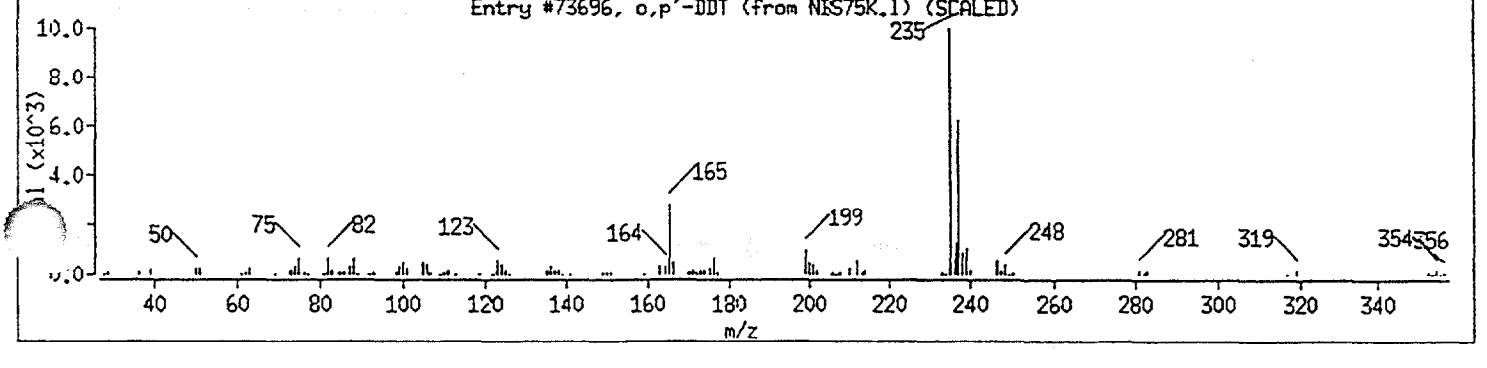
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Mitotane	53-19-0	NBS75K.l	73207	95	C14H10Cl4	318
1,1-Dichloro-2,2-bis(p-chlorophenyl)etha	72-54-8	NBS75K.l	73200	95	C14H10Cl4	318
o,p'-DDT	789-02-6	NBS75K.l	73696	80	C14H9Cl5	352





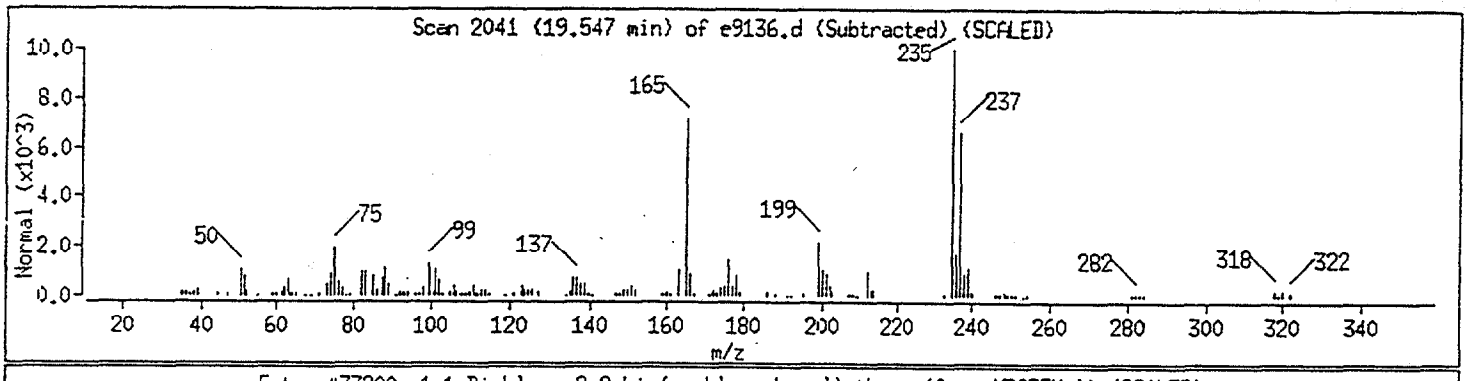


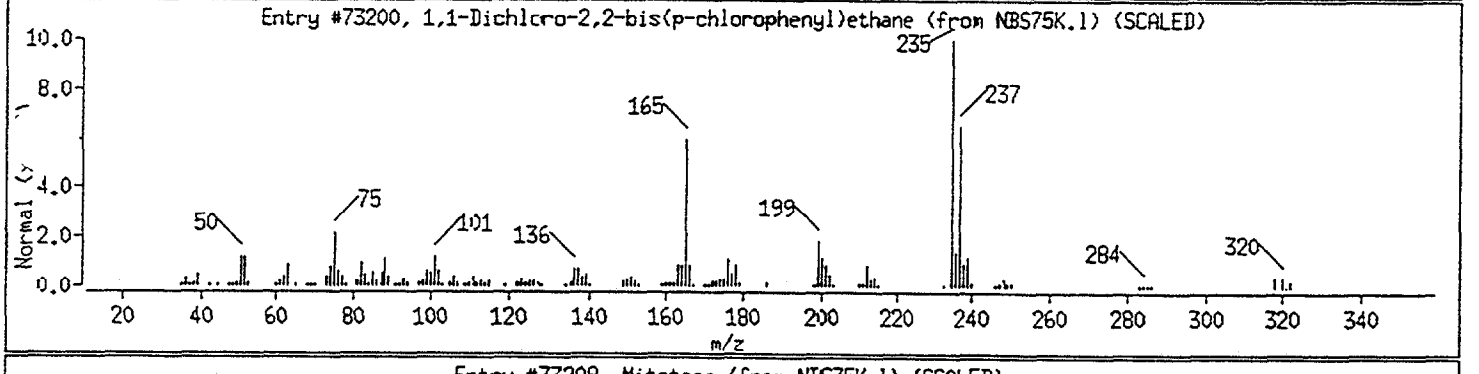


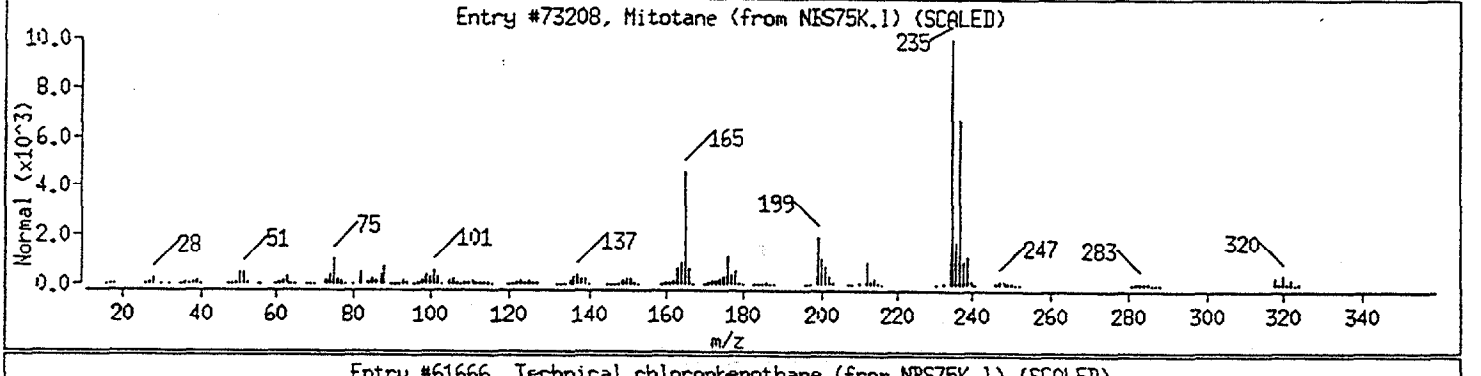
Data File: /chem/mse.i/e031596.b/e9136.d
Date : 15-MAR-96 08:27
Client ID:
Sample Info: 18319n clj100-wc1

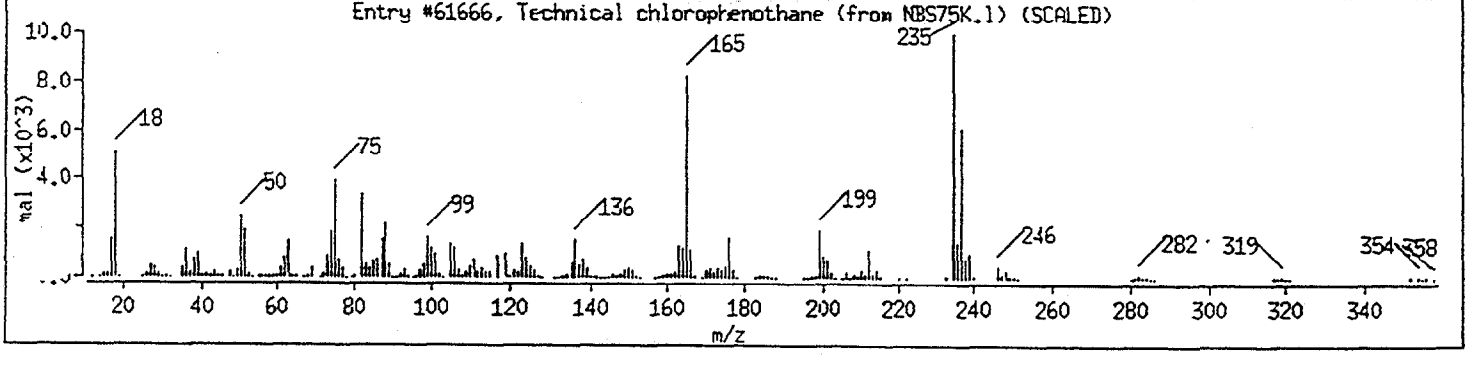
Instrument: mse.i
Operator: K. Bigelow
Column phase: J&W DB-5
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,1-Dichloro-2,2-bis(p-chlorophenyl)etha	72-54-8	NBS75K.1	73200	98	C14H10Cl4	318
Mitotane	53-19-0	NBS75K.1	73208	96	C14H10Cl4	318
Technical chlorophenothane	8017-34-3	NBS75K.1	61666	90	C28H18Cl10	704









Data File: /chem/mse.i/e031596.b/e9136.d

Date : 15-MAR-96 08:27

Client ID:

Instrument: mse.i

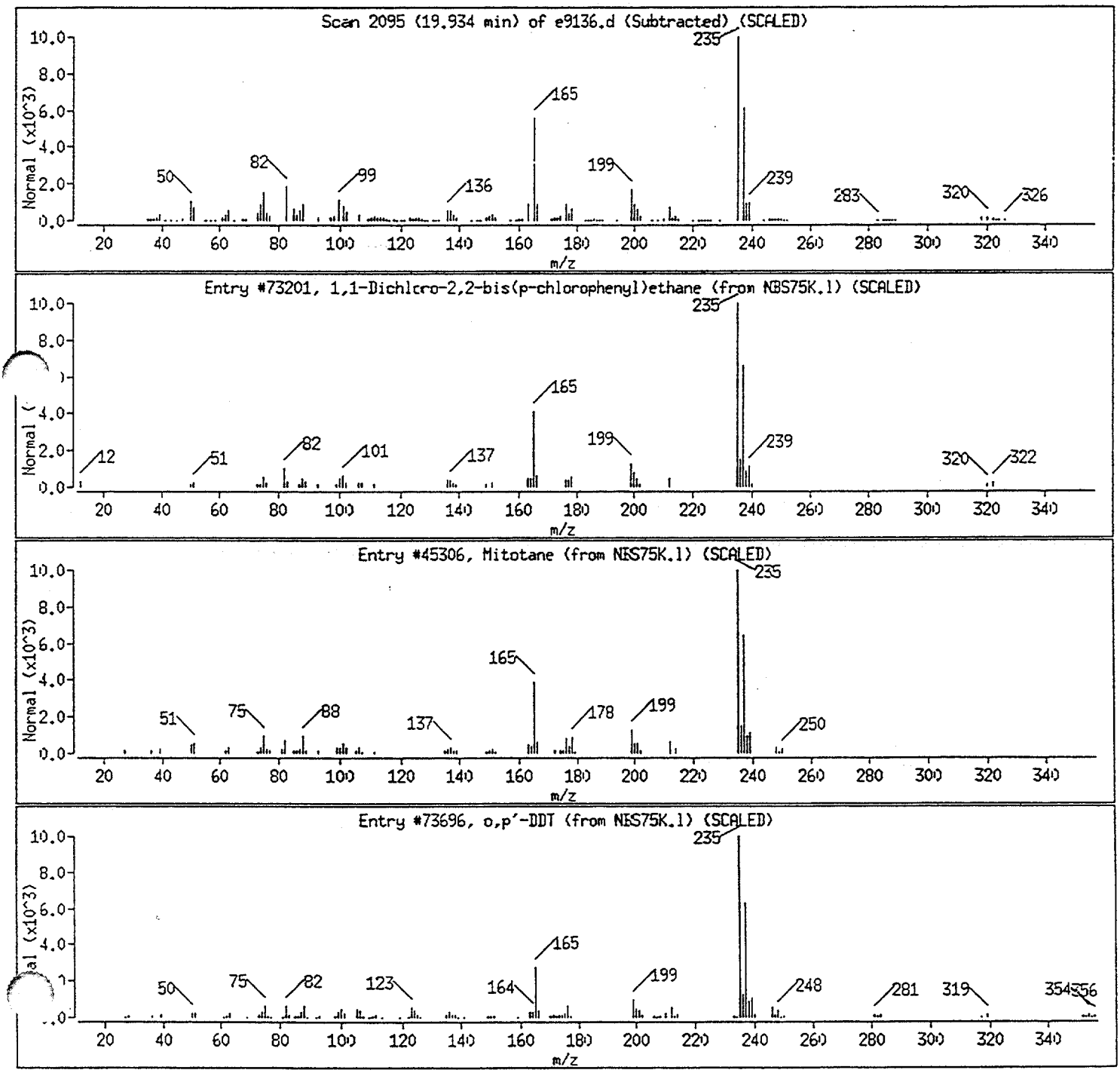
Sample Info: 18319n clj100-wc1

Operator: K. Bigelow

Column phase: J&W DB-5

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,1-Dichloro-2,2-bis(p-chlorophenyl)etha	72-54-8	NBS75K.1	73201	94	C14H10Cl4	318
Mitotane	53-19-0	NBS75K.1	45306	83	C14H10Cl4	318
o,p'-DDT	789-02-6	NBS75K.1	73696	80	C14H9Cl5	352



Data File: /chem/mse.i/e031596.b/e9136.d

Date : 15-MAR-96 03:27

`lient ID:

Instrument: mse.i

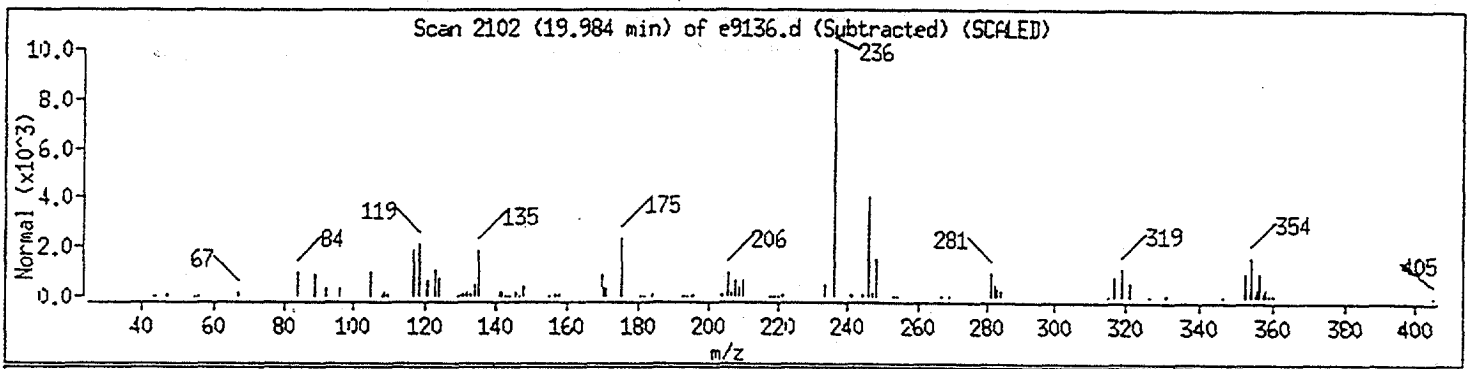
Sample Info: 18319n clj100-wc1

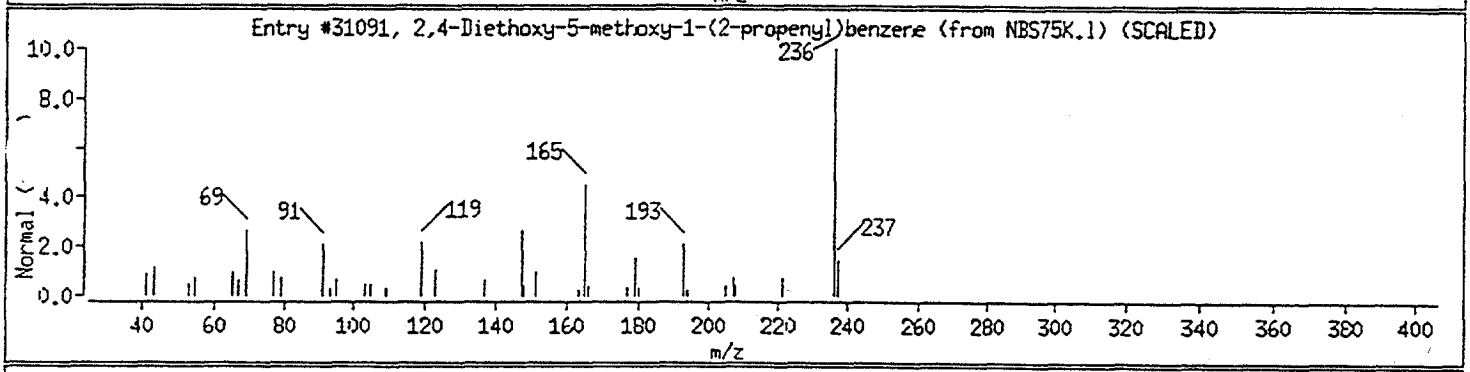
Operator: K. Bigelow

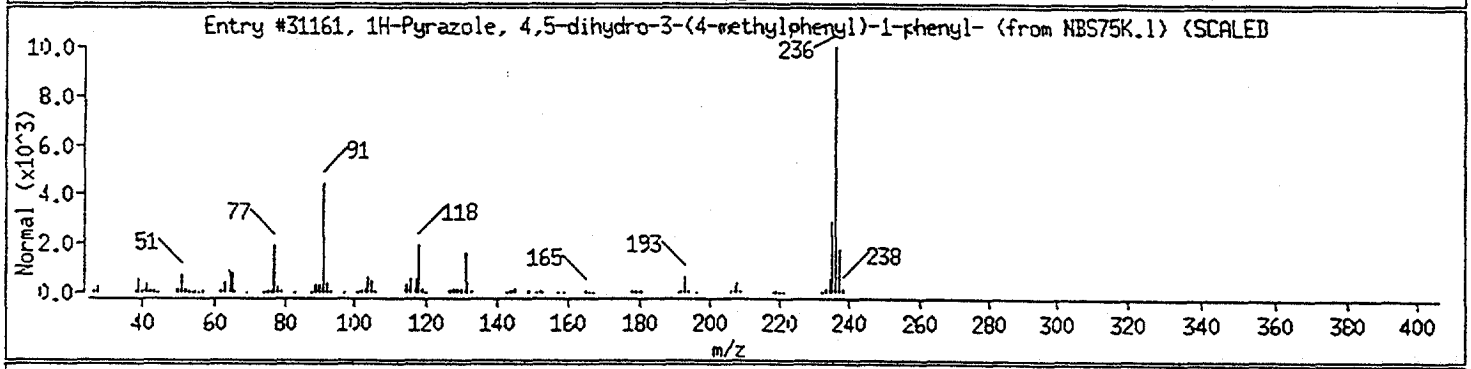
Column phase: J&W DB-5

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2,4-Diethoxy-5-methoxy-1-(2-propenyl)ben	0-00-0	NBS75K.l	31091	12	C14H2003	236
1H-Pyrazole, 4,5-dihydro-3-(4-methylphen	959-07-9	NBS75K.l	31161	10	C16H16N2	236







Data File: /chem/mse.i/e031596.b/e9136.d

Date : 15-MAR-96 08:27

Client ID:

Instrument: mse.i

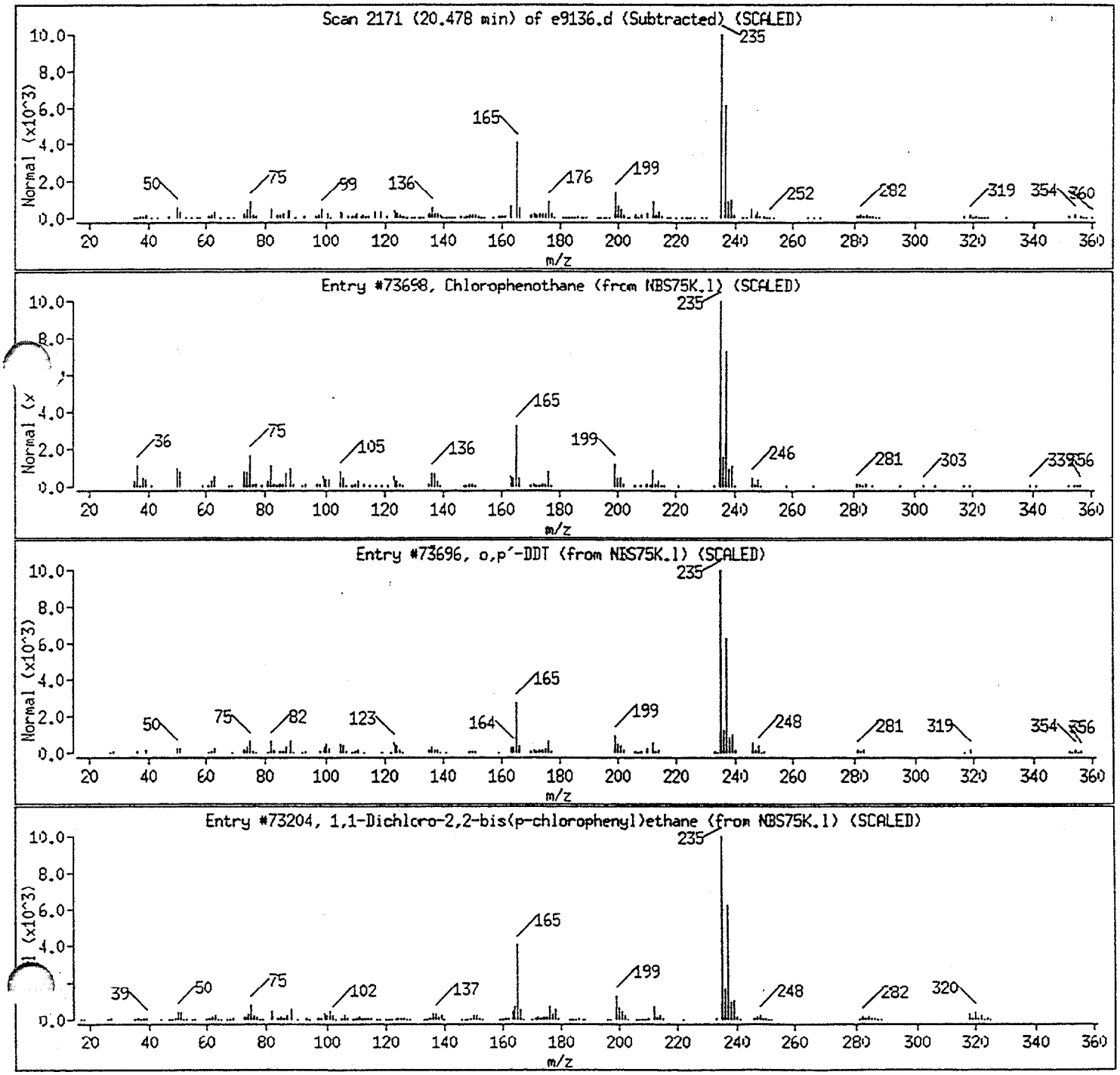
Sample Info: 18319n clj100-wc1

Operator: K. Bigelow

Column phase: J&W DB-5

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Chlorophenothane	50-29-3	NBS75K.l	73698	95	C14H9Cl5	352
o,p'-DDT	789-02-6	NBS75K.l	73696	93	C14H9Cl5	352
1,1-Dichloro-2,2-bis(p-chlorophenyl)etha	72-54-8	NBS75K.l	73204	93	C14H10Cl4	318



OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 14-MAR-96 10:27
End Cal Date : 14-MAR-96 13:25
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/mse.i/e031496.b/031496eclp.m
Cal Date : 14-Mar-1996 14:05
Curve Type : Average

Calibration File Names:
Level 1: /chem/mse.i/e031496.b/e9117.d
Level 2: /chem/mse.i/e031496.b/e9118.d
Level 3: /chem/mse.i/e031496.b/e9119.d
Level 4: /chem/mse.i/e031496.b/e9120.d
Level 5: /chem/mse.i/e031496.b/e9121.d

	Compound	20 Level 1	50 Level 2	80 Level 3	120 Level 4	160 Level 5	RRF	% RSD
	N-Nitrosodimethylamine	0.90542	0.93286	0.95408	0.98653	1.02973	0.96172	5.014
2	Pyridine	1.80646	1.85430	1.83023	1.83043	1.87198	1.83868	1.368
5	Phenol	1.96200	1.80429	1.65448	1.51406	1.41228	1.66942	13.201
6	bis(2-Chloroethyl)ether	3.82441	3.39714	3.09104	2.78641	2.72530	3.16486	14.400
8	2-Chlorophenol	1.49275	1.44771	1.35440	1.24120	1.18907	1.34503	9.662
9	1,3-Dichlorobenzene	1.55793	1.50710	1.44966	1.38598	1.32742	1.44562	6.372
11	1,4-Dichlorobenzene	1.57755	1.51768	1.46146	1.38250	1.36731	1.46130	6.096
12	2-Methylphenol	1.37111	1.31591	1.29088	1.18318	1.12036	1.25629	8.133
14	1,2-Dichlorobenzene	1.47337	1.31557	1.18776	1.12407	1.12308	1.24477	12.044
15	2,2'-oxybis(1-Chloropropene)	2.37122	2.07925	1.86526	1.70007	1.58606	1.92037	16.298
16	4-Methylphenol	1.44637	1.39883	1.32994	1.30982	1.26410	1.34981	5.376
17	N-Nitroso-di-n-propylamine	1.31910	1.24357	1.18697	1.14575	1.07837	1.19475	7.700
18	Hexachloroethane	0.71021	0.68051	0.65798	0.64385	0.61999	0.66251	5.216
20	Nitrobenzene	0.43059	0.41593	0.39338	0.36343	0.34915	0.39050	8.783
21	Isophorone	0.96564	0.88156	0.81853	0.76855	0.74380	0.83562	10.743
22	2,4-Dimethylphenol	0.38179	0.36780	0.34114	0.32007	0.31635	0.34543	8.352
23	2-Nitrophenol	0.19203	0.22135	0.21199	0.18398	0.17368	0.19661	10.027
24	bis(2-Chloroethoxy)methane	0.53892	0.49293	0.44977	0.41025	0.37326	0.45302	14.463
25	2,4-Dichlorophenol	0.26736	0.28147	0.27040	0.25859	0.24967	0.26550	4.539
26	1,2,4-Trichlorobenzene	0.29511	0.29861	0.28396	0.27736	0.26944	0.28489	4.259
28	Naphthalene	1.04882	0.93428	0.82363	0.77041	0.76153	0.86773	14.105
29	4-Chloroaniline	0.53184	0.42790	0.42366	0.40822	0.39905	0.43813	12.247
30	Hexachlorobutadiene	0.18119	0.19630	0.19649	0.21223	0.21879	0.20140	7.292
31	4-Chloro-3-methylphenol	0.31341	0.31707	0.29927	0.28871	0.28095	0.29988	5.172
32	2-Methylnaphthalene	0.64756	0.62915	0.58014	0.53950	0.53399	0.58607	8.764
	1-Methylnapthalene	0.63981	0.60562	0.55860	0.52049	0.50905	0.56671	9.818
34	Hexachlorocyclopentadiene	0.21099	0.26951	0.29407	0.29099	0.29414	0.27194	13.088

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 14-MAR-96 10:27
End Cal Date : 14-MAR-96 13:25
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/mse.i/e031496.b/031496eclp.m
Cal Date : 14-Mar-1996 14:05
Curve Type : Average

	Compound	20 Level 1	50 Level 2	80 Level 3	120 Level 4	160 Level 5	RRF	% RSD	
35	2,4,6-Trichlorophenol	0.34572	0.37347	0.36606	0.35758	0.35388	0.35934	2.995	
36	2,4,5-Trichlorophenol	0.34855	0.39067	0.38078	0.37113	0.37512	0.37325	4.190	
38	2-Chloronaphthalene	1.10500	1.09190	1.02506	0.94621	0.93368	1.02037	7.796	
39	2-Nitroaniline	0.42996	0.43473	0.42591	0.40604	0.39968	0.41926	3.688	
40	Dimethylphthalate	1.46439	1.44341	1.36037	1.27843	1.24898	1.35912	7.060	
41	2,6-Dinitrotoluene	0.30197	0.33393	0.32919	0.32198	0.31354	0.32012	3.979	
?	Acenaphthylene	1.88314	1.79897	1.63751	1.50479	1.45101	1.65508	11.192	
,	3-Nitroaniline	0.29471	0.23991	0.25814	0.28639	0.29869	0.27557	9.240	
45	2,4-Dinitrophenol	0.06725	0.13483	0.15983	0.17112	0.17682	0.14197	31.535	<-
46	Acenaphthene	1.16716	1.11216	1.01740	0.94237	0.88501	1.02482	11.368	<-
47	4-Nitrophenol	0.16900	0.18824	0.19305	0.19403	0.19652	0.18817	5.914	
48	2,4-Dinitrotoluene	0.38325	0.42720	0.43159	0.41170	0.40047	0.41084	4.819	
49	Dibenzofuran	1.57783	1.53984	1.45519	1.35806	1.32588	1.45136	7.570	
50	Diethylphthalate	1.58229	1.51065	1.42359	1.33590	1.32161	1.43481	7.810	
51	4-Chlorophenyl-phenylether	0.59922	0.62073	0.61003	0.59715	0.62071	0.60957	1.853	
52	Fluorene	1.26208	1.20089	1.10519	1.04184	1.05503	1.13301	8.423	
53	4-Nitroaniline	0.30787	0.24183	0.20623	0.18635	0.20729	0.22991	20.848	
54	4,6-Dinitro-2-methylphenol	0.09637	0.14410	0.16777	0.17539	0.17540	0.15180	22.095	
55	N-Nitrosodiphenylamine	0.58943	0.56869	0.53627	0.49559	0.46496	0.53099	9.638	
57	4-Bromophenyl-phenylether	0.19193	0.22256	0.23502	0.24607	0.25936	0.23099	11.132	
58	Hexachlorobenzene	0.24130	0.29937	0.34024	0.36944	0.38828	0.32772	17.947	
59	Pentachlorophenol	0.11618	0.15442	0.17911	0.19870	0.20831	0.17134	21.649	<-
61	Phenanthrene	1.14655	1.10797	1.05265	1.00113	0.99463	1.06058	6.251	
62	Anthracene	1.17091	1.14330	1.07776	1.02364	1.02491	1.08811	6.192	
63	Carbazole	0.91331	0.58842	0.48453	0.53531	0.60944	0.62620	26.778	
64	Di-n-butylphthalate	1.87563	1.71215	1.58982	1.48452	1.43456	1.61934	11.025	
65	Fluoranthene	1.17480	1.18738	1.17487	1.16670	1.18856	1.17846	0.789	
66	Benzidine	0.26292	0.21913	0.23271	0.18529	0.22700	0.22541	12.374	
67	Pyrene	1.24771	1.24876	1.19832	1.17792	1.19847	1.21424	2.647	
69	Butylbenzylphthalate	0.92561	0.84468	0.75575	0.71775	0.70974	0.79070	11.696	
70	bis(2-Ethylhexyl)phthalate	1.28648	1.14713	1.03435	1.02698	1.01122	1.10123	10.601	
?	3,3'-Dichlorobenzidine	0.29320	0.29397	0.33613	0.45892	0.49125	0.37469	25.080	
	Benzo(a)anthracene	1.14536	1.19612	1.16694	1.17021	1.18799	1.17332	1.687	
74	Chrysene	1.11801	1.17684	1.14876	1.16580	1.18689	1.15926	2.334	

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 14-MAR-96 10:27
End Cal Date : 14-MAR-96 13:25
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/mse.i/e031496.b/031496eclp.m
Cal Date : 14-Mar-1996 14:05
Curve Type : Average

		20	50	80	120	160	___	
	Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD
	75 Di-n-octylphthalate	2.34219	2.33401	2.08853	2.06164	1.93670	2.15261	8.305
	76 Benzo(b)fluoranthene	1.05919	1.28693	1.34342	1.37352	1.48213	1.30904	11.970
	77 Benzo(k)fluoranthene	1.17632	1.26770	1.28725	1.33810	1.12821	1.23952	6.890
	78 Benzo(a)pyrene	0.97633	1.09584	1.13996	1.16850	1.18643	1.11342	7.537
	80 Dibenzo(a,h)anthracene	0.80538	0.97238	1.00512	1.02432	0.96120	0.95368	9.086
	81 Indeno(1,2,3-cd)pyrene	0.97423	1.14225	1.15892	1.17258	1.10309	1.11022	7.238
	82 Benzo(g,h,i)perylene	0.73564	0.81496	0.80911	0.78153	0.73618	0.77548	4.935
S	3 2-Fluorophenol	1.47693	1.50810	1.49654	1.45982	1.43839	1.47596	1.895
S	4 Phenol-d5	1.90555	1.76980	1.66929	1.56220	1.46999	1.67536	10.205
S	7 2-Chlorophenol-D4	1.46799	1.43820	1.34396	1.27224	1.21564	1.34761	7.941
S	13 1,2-Dichlorobenzene-D4	0.88924	0.83992	0.78309	0.74998	0.74545	0.80154	7.718
S	19 Nitrobenzene-d5	0.47000	0.45358	0.43599	0.41034	0.39712	0.43341	6.923
S	37 2-Fluorobiphenyl	1.30119	1.24770	1.18566	1.11509	1.08956	1.18784	7.457
S	56 2,4,6-Tribromophenol	0.16663	0.23990	0.27406	0.32098	0.35127	0.27057	26.658
S	68 Terphenyl-d14	0.87524	0.95215	0.95865	1.02868	1.03834	0.97061	6.822

Data File: /chem/mse.i/e031596.b/e9135.d
Report Date: 15-Mar-1996 08:27

OHM Analytical Division

CONTINUING CALIBRATION COMPOUNDS

K Bagley

Instrument ID: mse.i
Lab File ID: e9135.d
Analysis Type:
Lab Sample ID:
Quant Type: ISTD

Injection Date: 15-MAR-96 07:41
Init. Calibration Date(s): 03/14/96 03/14/96
Init. Calibration Times: 10:27 13:25
Method File: /chem/mse.i/e031596.b/031496eclp.m

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D
	1 N-Nitrosodimethylamine	0.962	0.905	0.010	5.9	30.0
	2 Pyridine	1.839	1.690	0.010	8.1	30.0
S	3 2-Fluorophenol	1.476	1.459	0.600	1.1	25.0
S	4 Phenol-d5	1.675	1.786	0.800	6.6	25.0
	5 Phenol	1.669	1.868	0.800	11.9	25.0
	6 bis(2-Chloroethyl)ether	3.165	3.604	0.700	13.9	25.0
S	7 2-Chlorophenol-D4	1.348	1.428	0.800	6.0	25.0
	8 2-Chlorophenol	1.345	1.467	0.800	9.1	25.0
	9 1,3-Dichlorobenzene	1.446	1.506	0.600	4.2	25.0
	11 1,4-Dichlorobenzene	1.461	1.562	0.500	6.9	25.0
	12 2-Methylphenol	1.256	1.305	0.700	3.9	25.0
S	13 1,2-Dichlorobenzene-D4	0.802	0.860	0.400	7.4	25.0
	14 1,2-Dichlorobenzene	1.245	1.340	0.400	7.7	25.0
	15 2,2'-oxybis(1-Chloropropene)	1.920	2.143	0.010	11.6	30.0
	16 4-Methylphenol	1.350	1.417	0.600	4.9	25.0
	17 N-Nitroso-di-n-propylamine	1.195	1.239	0.500	3.7	25.0
	18 Hexachloroethane	0.663	0.661	0.300	0.2	25.0
S	19 Nitrobenzene-d5	0.433	0.472	0.200	9.0	25.0
	20 Nitrobenzene	0.390	0.425	0.200	8.9	25.0
	21 Isophorone	0.836	0.872	0.400	4.3	25.0
	22 2,4-Dimethylphenol	0.345	0.381	0.200	10.3	25.0
	23 2-Nitrophenol	0.197	0.224	0.100	13.9	25.0
	24 bis(2-Chloroethoxy)methane	0.453	0.484	0.300	6.8	25.0
	25 2,4-Dichlorophenol	0.265	0.297	0.200	11.7	25.0
	26 1,2,4-Trichlorobenzene	0.285	0.304	0.200	6.9	25.0
	28 Naphthalene	0.868	0.979	0.700	12.8	25.0
	29 4-Chloroaniline	0.438	0.536	0.010	22.2	30.0
	30 Hexachlorobutadiene	0.201	0.183	0.010	9.2	30.0
	31 4-Chloro-3-methylphenol	0.300	0.319	0.200	6.3	25.0
	32 2-Methylnaphthalene	0.586	0.668	0.400	14.0	25.0
	33 1-Methylnapthalene	0.567	0.597	0.010	5.3	30.0
	34 Hexachlorocyclopentadiene	0.272	0.212	0.010	22.0	30.0
	35 2,4,6-Trichlorophenol	0.359	0.388	0.200	8.0	25.0
	36 2,4,5-Trichlorophenol	0.373	0.393	0.200	5.4	25.0
S	37 2-Fluorobiphenyl	1.188	1.267	0.700	6.6	25.0
	38 2-Chloronaphthalene	1.020	1.111	0.800	8.8	25.0
	39 2-Nitroaniline	0.419	0.460	0.010	9.8	30.0
	40 Dimethylphthalate	1.359	1.517	0.010	11.6	30.0
	41 2,6-Dinitrotoluene	0.320	0.348	0.200	8.7	25.0
	42 Acenaphthylene	1.655	1.838	0.900	11.0	25.0

Data File: /chem/mse.i/e031596.b/e9135.d
Report Date: 15-Mar-1996 08:27

OHM Analytical Division

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mse.i
Lab File ID: e9135.d
Analysis Type:
Lab Sample ID:
Quant Type: ISTD

Injection Date: 15-MAR-96 07:41
Init. Calibration Date(s): 03/14/96 03/14/96
Init. Calibration Times: 10:27 13:25
Method File: /chem/mse.i/e031596.b/031496eclp.m

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D	
	43 3-Nitroaniline	0.276	0.322	0.010	16.7	30.0	
	45 2,4-Dinitrophenol	0.142	0.123	0.010	13.5	30.0	
	46 Acenaphthene	1.025	1.151	0.900	12.3	25.0	
	47 4-Nitrophenol	0.188	0.176	0.010	6.7	30.0	
	48 2,4-Dinitrotoluene	0.411	0.443	0.200	7.9	25.0	
	49 Dibenzofuran	1.451	1.620	0.800	11.6	25.0	
	50 Diethylphthalate	1.435	1.561	0.010	8.8	30.0	
	51 4-Chlorophenyl-phenylether	0.610	0.633	0.400	3.9	25.0	
	52 Fluorene	1.133	1.234	0.900	8.9	25.0	
	53 4-Nitroaniline	0.230	0.313	0.010	36.1	30.0	<- No Criteria KB
	54 4,6-Dinitro-2-methylphenol	0.152	0.136	0.010	10.5	30.0	
	55 N-Nitrosodiphenylamine	0.531	0.583	0.010	9.8	30.0	
$	56 2,4,6-Tribromophenol	0.271	0.234	0.010	13.5	30.0	
	57 4-Bromophenyl-phenylether	0.231	0.251	0.100	8.7	25.0	
	58 Hexachlorobenzene	0.328	0.298	0.100	9.1	25.0	
	59 Pentachlorophenol	0.171	0.137	0.050	20.1	25.0	
	61 Phenanthrene	1.061	1.170	0.700	10.3	25.0	
	62 Anthracene	1.088	1.215	0.700	11.6	25.0	
	63 Carbazole	0.626	0.875	0.010	39.7	30.0	<- No Criteria KB
	64 Di-n-butylphthalate	1.619	1.837	0.010	13.4	30.0	
	65 Fluoranthene	1.178	1.254	0.600	6.4	25.0	
	66 Benzidine	0.225	0.220	0.010	2.3	30.0	
	67 Pyrene	1.214	1.329	0.600	9.4	25.0	
$	68 Terphenyl-d14	0.971	1.007	0.500	3.8	25.0	
	69 Butylbenzylphthalate	0.791	0.862	0.010	9.1	30.0	
	70 bis(2-Ethylhexyl)phthalate	1.101	1.239	0.010	12.6	30.0	
	71 3,3'-Dichlorobenzidine	0.375	0.302	0.010	19.5	30.0	
	72 Benzo(a)anthracene	1.173	1.242	0.800	5.8	25.0	
	74 Chrysene	1.159	1.152	0.700	0.7	25.0	
	75 Di-n-octylphthalate	2.153	2.433	0.010	13.0	30.0	
	76 Benzo(b)fluoranthene	1.309	1.283	0.700	2.0	25.0	
	77 Benzo(k)fluoranthene	1.240	1.379	0.700	11.3	25.0	
	78 Benzo(a)pyrene	1.113	1.149	0.700	3.2	25.0	
	80 Dibenzo(a,h)anthracene	0.954	0.913	0.400	4.3	25.0	
	81 Indeno(1,2,3-cd)pyrene	1.110	1.073	0.500	3.3	25.0	
	82 Benzo(g,h,i)perylene	0.775	0.768	0.500	1.0	25.0	

Data File: /chem/mse.i/e031496.b/e9115a.d

Date : 14-MAR-96 09:24

Client ID:

Instrument: mse.i

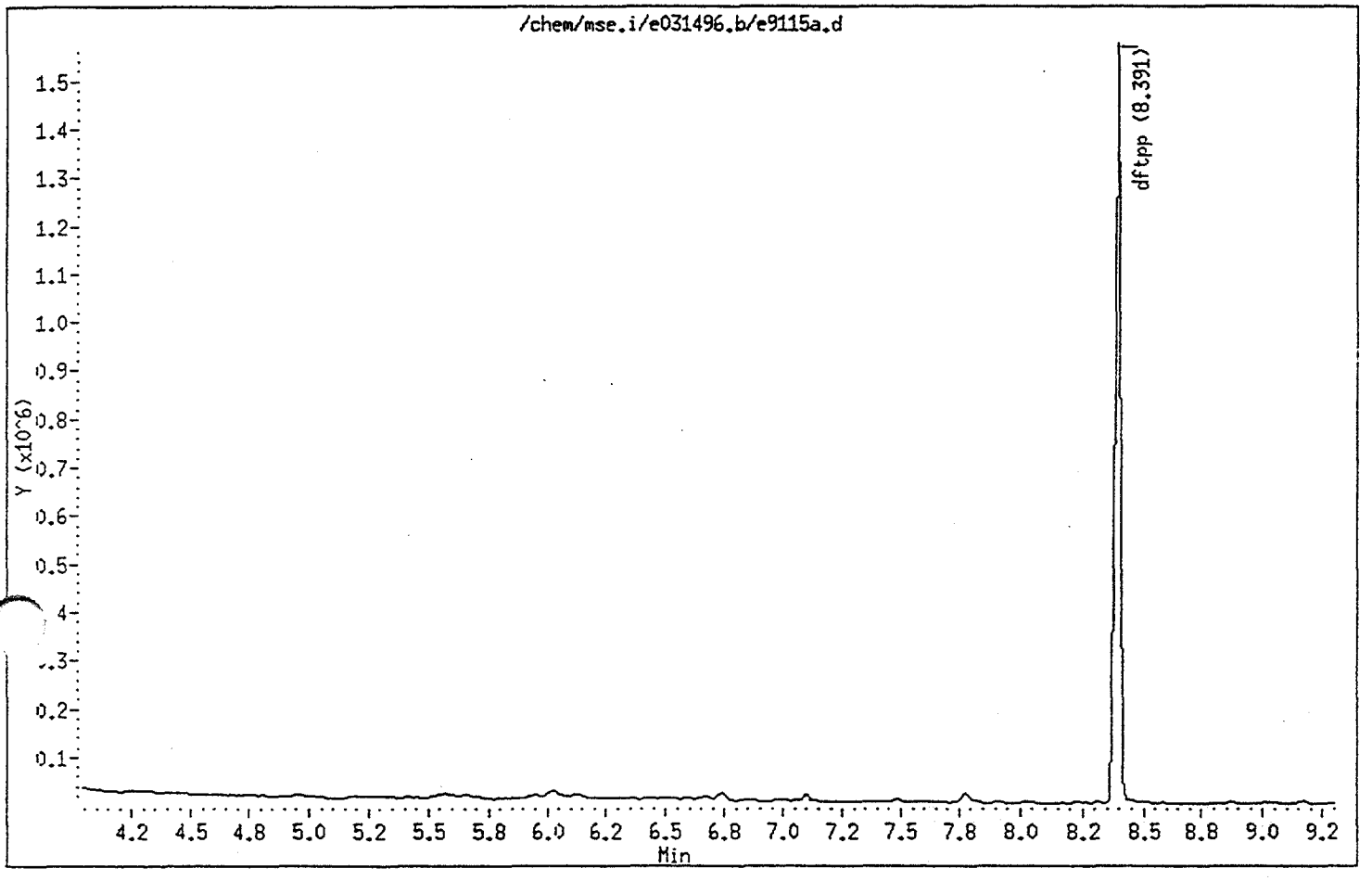
Sample Info: dftpp tune

Volume Injected (uL): 1.0

Operator: K. Bigelow

Column phase:

Column diameter: 2.00



Data File: /chem/mse.i/e031496.b/e9115a.d

Date : 14-MAR-96 09:24

Client ID:

Instrument: mse.i

Sample Info: dftpp tune

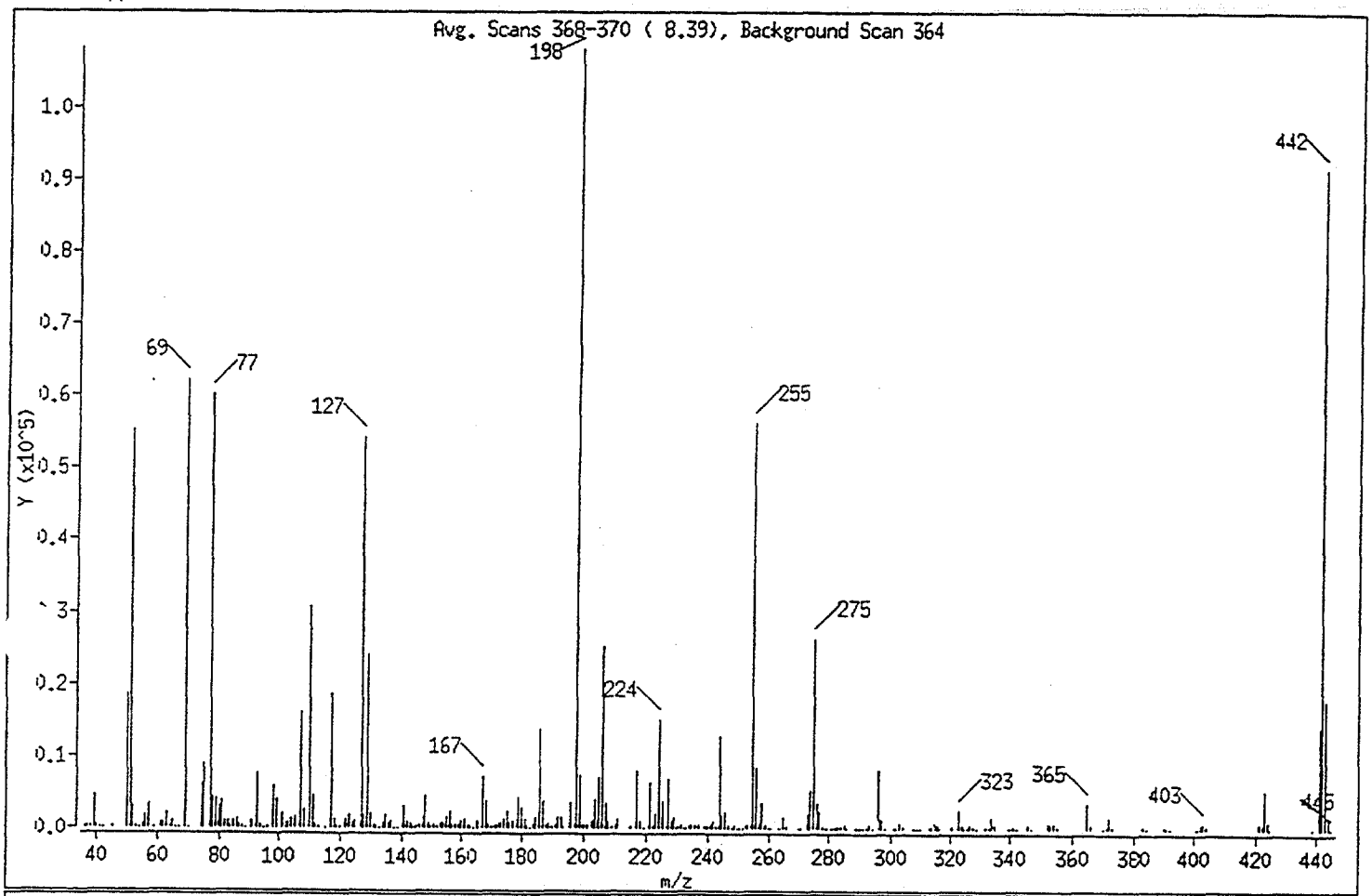
Volume Injected (uL): 1.0

Operator: K. Bigelow

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	51.03
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	57.54
70	Less than 2.00% of mass 69	0.06 (0.10)
127	25.00 - 75.00% of mass 198	50.10
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.87
275	10.00 - 30.00% of mass 198	24.44
365	Greater than 0.75% of mass 198	3.27
441	Present, but less than mass 443	13.06
442	40.00 - 110.00% of mass 198	84.65
443	15.00 - 24.00% of mass 442	16.49 (19.48)

Data File: /chem/mse.i/e031496.b/e9115a.d
Date : 14-MAR-96 09:24
Client ID:
Instrument: mse.i
Sample Info: dftpp tune
Volume Injected (uL): 1.0
Operator: K. Bigelow
Column phase:
Column diameter: 2.00

Data File: e9115a.d
Spectrum : Avg. Scans 368-370 (8.39), Background Scan 364
Largest m/z: 197.90
Number of peaks: 274

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.05	198	128.00	1780	202.95	905	288.85	56
37.05	336	129.00	24064	203.95	4048	290.00	34
38.05	174	130.00	1962	205.05	7110	290.90	36
39.05	4515	131.00	389	206.05	25336	292.00	117
40.05	130	132.00	163	207.05	3493	293.00	532
40.85	60	132.90	12	207.95	920	293.90	67
42.05	50	134.00	682	208.95	368	296.00	8172
44.95	234	134.90	1767	210.05	616	296.90	1179
50.05	18560	135.90	799	210.95	1162	297.90	55
50.95	55160	136.90	1006	214.95	345	300.90	43
51.95	2949	137.90	85	216.95	7914	302.00	118
53.05	150	138.90	111	217.95	1027	303.00	853
53.85	35	140.90	3030	218.95	103	304.00	224
55.05	407	141.90	970	220.95	6488	307.80	79
56.00	1733	142.90	641	221.85	234	308.90	37
57.00	3382	143.95	180	222.95	1997	309.90	53
59.00	118	145.05	199	223.95	15000	313.90	344
61.00	659	145.95	623	224.95	3848	315.00	841
62.00	785	147.05	1563	226.95	6871	316.00	457
63.00	1983	147.95	4538	227.95	1016	316.80	40
64.00	303	148.95	881	228.95	1422	320.95	245
65.00	958	149.95	243	229.95	215	323.05	2445
66.00	112	151.05	396	230.95	612	324.05	458
67.00	51	152.05	225	232.00	60	325.05	34
68.90	62208	152.95	874	232.80	65	325.95	51
70.00	60	154.05	741	233.90	454	326.95	524
74.00	6177	154.95	1638	234.90	517	327.95	258
75.00	8979	155.95	2174	235.90	396	328.95	35
77.00	60000	157.05	512	237.00	461	332.05	181
78.00	4378	157.95	537	238.90	267	332.95	271
79.00	4110	158.95	407	239.90	205	333.95	1548
79.90	3061	159.95	951	241.00	445	334.95	405
80.90	3912	160.95	1345	242.00	967	339.95	36
81.90	1065	161.95	408	243.00	290	340.95	299
82.90	919	162.95	141	244.00	12706	341.95	46

Data File: /chem/mse.i/e031496.b/e9115a.d

Date : 14-MAR-96 09:24

Client ID:

Instrument: mse.i

Sample Info: dftpp tune

Volume Injected (uL): 1.0

Operator: K. Bigelow

Column phase:

Column diameter: 2.00

Data File: e9115a.d
Spectrum : Avg. Scans 368-370 (8.39), Background Scan 364
Largest m/z: 197.90
Number of peaks: 274

m/z	Y	m/z	Y	m/z	Y	m/z	Y
84.00	162	163.95	36	245.00	1824	345.95	636
85.05	941	164.95	1114	245.90	2428	347.05	55
85.95	1215	166.95	7191	246.90	522	352.00	755
86.95	572	167.95	3904	248.00	94	353.00	520
87.95	240	168.85	516	248.90	411	354.00	729
89.05	116	169.95	244	249.90	49	355.00	132
91.05	958	170.95	262	250.80	114	364.90	3537
92.95	7715	171.95	527	251.80	123	365.90	544
93.95	544	172.90	684	252.90	401	370.00	37
94.95	124	174.00	1217	254.90	56248	371.00	189
96.05	218	175.00	2224	255.90	8419	372.00	1498
97.95	6003	176.00	677	257.00	750	372.90	317
98.95	4159	177.00	984	257.90	3622	382.95	329
100.95	2083	178.90	4446	258.90	590	384.05	67
101.95	79	180.00	2702	259.90	58	390.05	170
102.95	833	180.90	1362	260.95	54	391.05	111
103.95	1272	181.90	236	263.95	42	391.95	60
104.95	1453	182.80	74	264.95	1545	400.85	45
106.95	16016	183.90	404	265.95	234	401.95	494
107.95	2518	185.00	1619	269.95	38	402.95	785
109.95	30768	186.00	13712	270.95	124	403.95	266
110.95	4678	186.90	3941	272.95	1972	421.00	687
111.95	620	188.00	410	273.95	5241	422.10	601
112.85	222	188.90	872	274.95	26416	423.00	5252
115.10	100	189.90	180	275.95	3648	424.00	1135
117.00	18624	191.00	525	276.95	2394	424.90	110
118.00	1356	191.90	1637	277.95	366	439.15	39
118.90	182	192.90	1624	278.95	43	441.15	14116
119.90	209	193.90	339	280.95	122	442.05	91520
122.00	1185	196.00	3467	282.05	61	443.05	17832
123.00	1809	197.90	108112	282.95	332	444.05	1689
123.90	870	198.90	7422	283.95	216	445.05	99
125.00	926	199.90	553	284.85	390		
127.00	54168	201.40	564	285.85	59		

Data File: /chem/mse.i/e031596.b/e9134.d

Date : 15-MAR-96 07:23

Client ID:

Instrument: mse.i

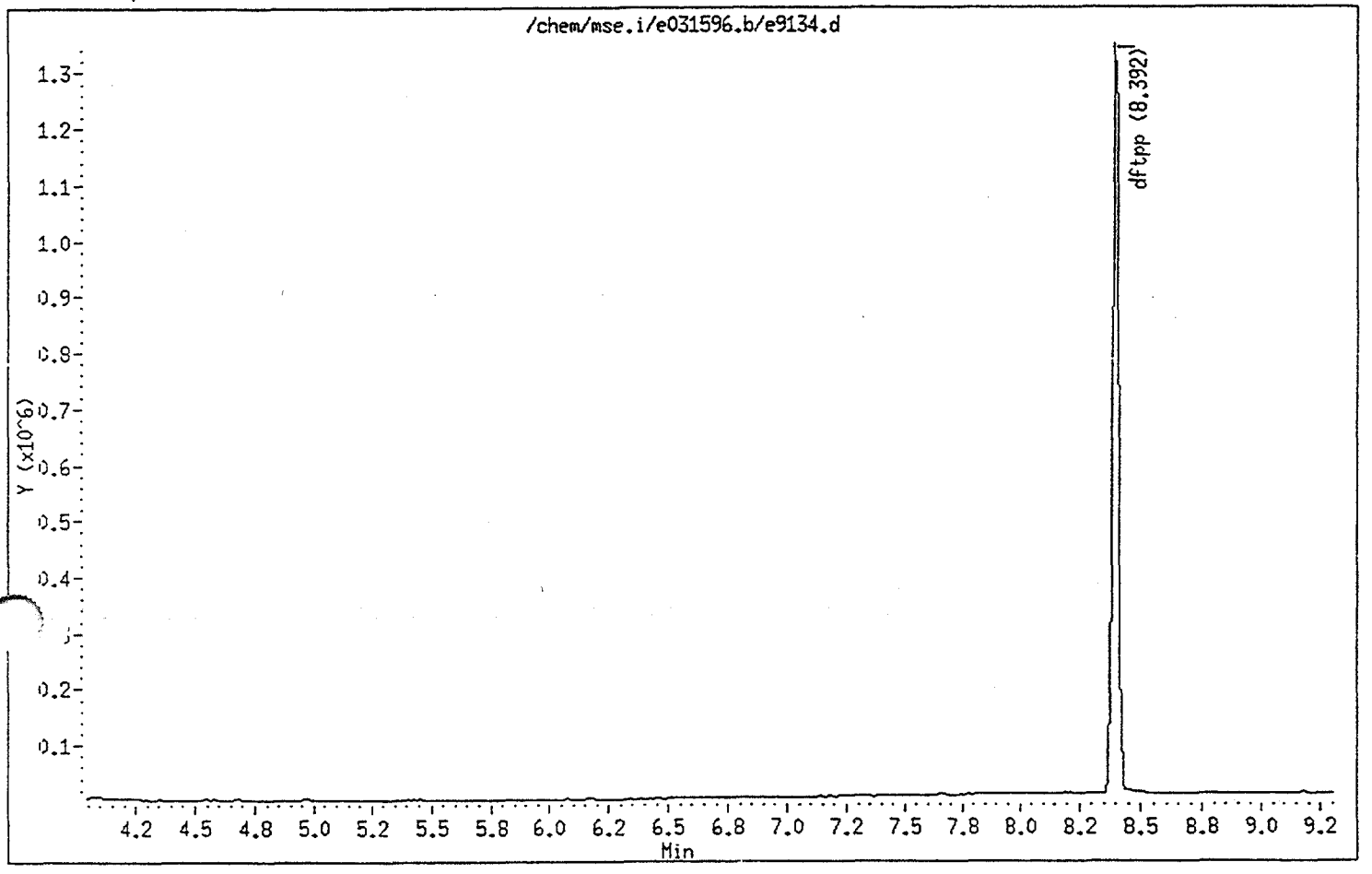
Sample Info: dftpp tune ma2853

Volume Injected (uL): 1.0

Operator: K. Bigelow

Column phase:

Column diameter: 2.00



Data File: /chem/mse.i/e031596.b/e9134.d

Date : 15-MAR-96 07:23

Client ID:

Instrument: mse.i

Sample Info: dftpp tune ma2853

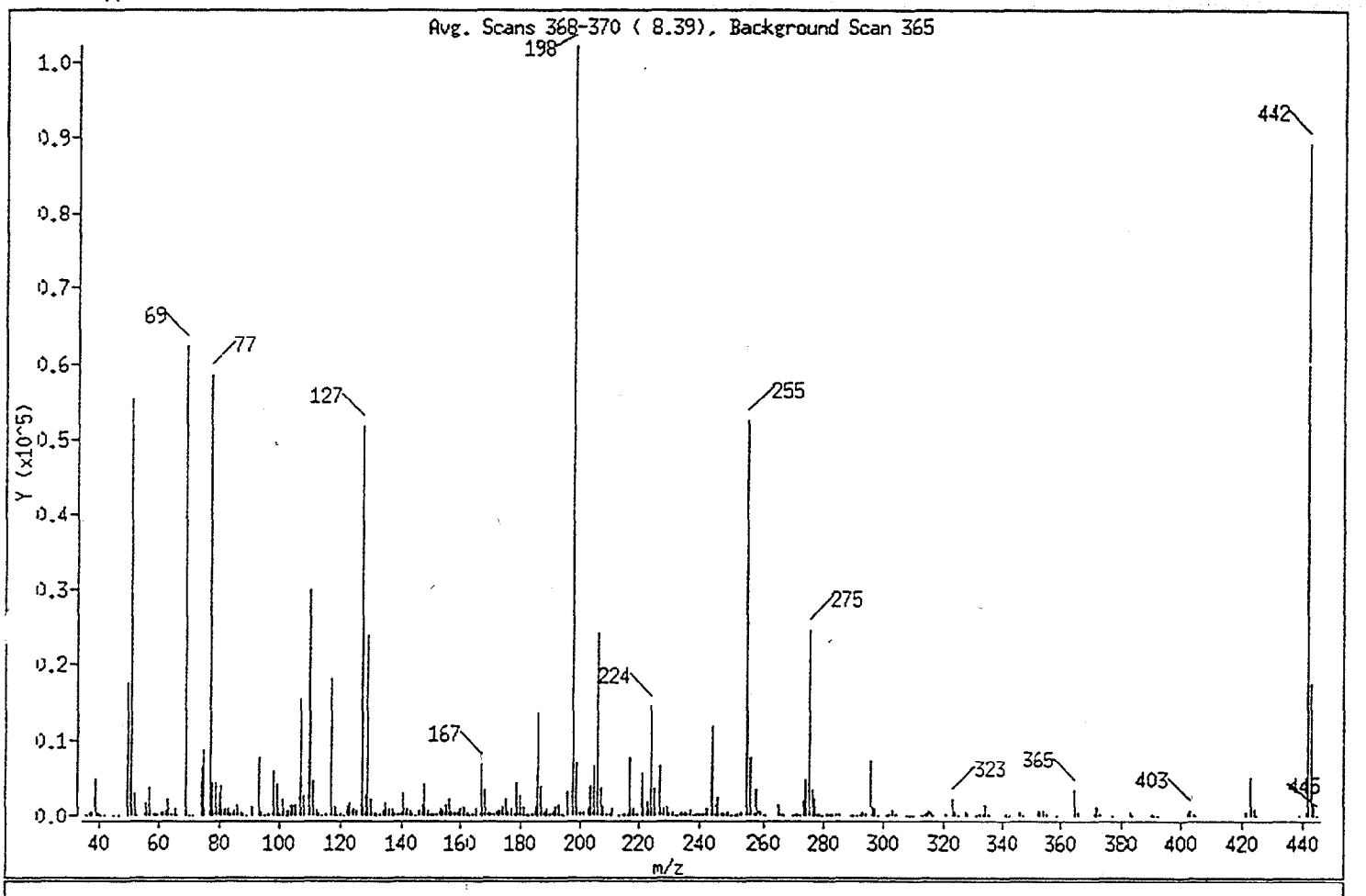
Volume Injected (uL): 1.0

Operator: K. Bigelow

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	54.03
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	61.10
70	Less than 2.00% of mass 69	0.08 (0.13)
127	25.00 - 75.00% of mass 198	50.53
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.80
275	10.00 - 30.00% of mass 198	24.08
365	Greater than 0.75% of mass 198	3.33
441	Present, but less than mass 443	0.56
442	40.00 - 110.00% of mass 198	87.48
443	15.00 - 24.00% of mass 442	17.36 (19.84)

Data File: /chem/mse.i/e031596.b/e9134.d
Date : 15-MAR-96 07:23
Client ID:
Instrument: mse.i
Sample Info: dftpp tune ma2853
Volume Injected (uL): 1.0
Operator: K. Bigelow
Column phase:
Column diameter: 2.00

Data File: e9134.d
Spectrum : Avg. Scans 368-370 (8.39), Background Scan 365
Largest m/z: 197.90
Number of peaks: 282

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.95	45	127.00	51640	199.90	574	283.95	171
37.05	374	128.00	2589	201.40	494	284.95	324
38.15	530	128.90	23864	202.95	894	288.95	95
39.05	4935	129.90	2065	203.95	3805	290.00	85
40.05	210	130.90	422	205.05	6543	291.00	35
41.05	38	132.00	195	206.05	24088	292.00	52
41.95	36	133.00	126	206.95	3637	292.90	448
44.95	106	133.90	789	207.95	1149	294.00	143
46.95	36	135.00	1659	208.95	348	295.90	7287
50.05	17528	135.90	850	210.05	330	297.00	1084
50.95	55208	136.90	999	210.95	1086	298.00	73
51.95	2941	137.80	150	212.95	48	300.90	43
53.05	94	138.90	174	214.95	345	301.90	133
56.00	1613	140.00	144	215.85	100	303.00	795
57.00	3549	140.90	2886	216.95	7707	304.00	190
58.00	216	141.90	936	217.95	997	307.90	89
59.10	147	142.90	677	218.95	121	308.80	35
61.00	583	143.95	182	220.95	5583	310.00	38
62.00	826	144.95	80	222.95	1822	312.80	43
63.00	2081	145.95	657	223.95	14383	314.00	299
64.00	256	146.95	1500	224.95	3577	314.90	823
65.00	1046	147.95	4215	226.95	6474	315.90	371
65.80	106	148.95	730	227.85	906	316.80	69
68.90	62432	149.95	216	228.95	1211	320.95	201
70.00	83	150.95	359	229.85	167	322.95	2250
71.00	34	151.85	195	230.95	500	323.95	403
74.00	6245	152.95	875	232.00	109	324.75	81
75.00	8719	153.95	735	232.90	110	326.95	519
77.00	58392	154.95	1477	233.90	459	327.95	199
78.00	4261	155.95	2256	234.90	461	330.95	80
78.90	4341	156.85	453	235.90	331	331.95	194
80.00	3008	157.85	517	237.00	632	333.05	270
80.90	3978	158.95	440	237.90	100	333.95	1430
81.90	923	159.95	969	238.90	284	334.95	305
82.90	873	160.95	1253	239.90	172	340.85	277

Data File: /chem/mse.i/e031596.b/e9134.d
Date : 15-MAR-96 07:23
Client ID:
Instrument: mse.i
Sample Info: dftpp tune ma2853
Volume Injected (uL): 1.0
Operator: K. Bigelow
Column phase:
Column diameter: 2.00

Data File: e9134.d
Spectrum : Avg. Scans 368-370 (8.39), Background Scan 365
Largest m/z: 197.90
Number of peaks: 282

m/z	Y	m/z	Y	m/z	Y	m/z	Y
83.90	173	161.85	444	240.90	307	341.95	47
84.95	839	162.95	104	242.00	858	345.65	36
85.95	1402	163.85	127	244.00	11722	345.85	569
87.05	564	164.95	981	245.00	1544	346.95	60
88.05	211	166.95	6861	245.90	2351	352.00	752
88.85	67	167.95	3478	246.90	445	353.00	428
90.95	1150	168.95	501	247.90	142	354.00	629
92.95	7833	169.85	216	248.90	389	354.90	160
93.95	444	170.85	228	249.90	106	358.90	36
94.95	89	171.95	557	250.90	101	364.90	3401
96.05	135	173.00	674	251.90	144	365.90	472
97.95	5836	174.00	1240	253.00	395	371.00	220
98.95	4195	175.00	2154	254.90	52416	372.00	1278
99.85	333	176.00	595	255.90	7715	372.90	317
100.95	2128	176.90	967	257.00	290	376.90	34
102.05	111	177.90	320	257.90	3388	382.95	387
102.95	739	178.90	4336	258.90	553	383.95	97
103.95	1537	180.00	2660	259.90	92	389.95	214
104.95	1451	180.90	1273	260.85	103	391.05	108
106.95	15513	182.00	218	264.95	1506	392.05	95
107.95	2552	182.80	55	265.85	212	401.95	465
109.95	30000	183.90	190	266.75	78	402.95	608
110.95	4589	185.00	1192	269.65	33	403.95	268
111.95	610	186.00	13606	269.85	54	404.75	35
112.85	250	187.00	3800	270.85	135	421.00	603
114.05	89	188.00	410	272.05	102	423.00	4986
114.90	134	188.90	955	272.95	1817	424.00	1063
116.90	18128	189.90	172	273.95	4765	424.90	104
118.00	1258	191.00	496	274.95	24600	439.15	49
118.90	115	191.90	1309	275.95	3338	441.05	570
119.90	233	193.00	1336	276.95	2233	442.05	89400
120.90	110	193.90	359	277.95	357	443.05	17736
122.00	1253	195.00	76	278.95	78	443.95	1643
122.90	1694	195.90	3117	280.95	170	445.05	97
123.90	889	197.90	102192	281.95	147		

Data File: /chem/mse.i/e031596.b/e9134.d

Date : 15-MAR-96 07:23

Client ID:

Instrument: mse.i

Sample Info: dftpp tune ma2853

Volume Injected (uL): 1.0

Operator: K. Bigelow

Column phase:

Column diameter: 2.00

Data File: e9134.d
Spectrum : Avg. Scans 368-370 (8.39), Background Scan 365
Largest m/z: 197.90
Number of peaks: 282

m/z	Y	m/z	Y	m/z	Y	m/z	Y
125.00	808	198.90	6946	282.95	226		

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET **0118** EPA SAMPLE NO.

SBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: N2C60479C

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E9128

Level: (low/med) LOW Date Received: 3/12/96

% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/12/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330	U
111-44-4	bis(2-Chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	330	U
541-73-1	1,3-Dichlorobenzene	330	U
106-46-7	1,4-Dichlorobenzene	330	U
95-50-1	1,2-Dichlorobenzene	330	U
95-48-7	2-Methylphenol	330	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330	U
106-44-5	4-Methylphenol	330	U
621-64-7	N-Nitroso-di-n-propylamine	330	U
67-72-1	Hexachloroethane	330	U
98-95-3	Nitrobenzene	330	U
78-59-1	Isophorone	330	U
88-75-5	2-Nitrophenol	330	U
105-67-9	2,4-Dimethylphenol	330	U
111-91-1	bis(2-Chloroethoxy)methane	330	U
120-83-2	2,4-Dichlorophenol	330	U
120-82-1	1,2,4-Trichlorobenzene	330	U
91-20-3	Naphthalene	640	
106-47-8	4-Chloroaniline	330	U
87-68-3	Hexachlorobutadiene	330	U
59-50-7	4-Chloro-3-methylphenol	330	U
91-57-6	2-Methylnaphthalene	330	U
77-47-4	Hexachlorocyclopentadiene	330	U
88-06-2	2,4,6-Trichlorophenol	330	U
95-95-4	2,4,5-Trichlorophenol	330	U
91-58-7	2-Chloronaphthalene	330	U
88-74-4	2-Nitroaniline	330	U
131-11-3	Dimethylphthalate	330	U
208-96-8	Acenaphthylene	330	U
606-20-2	2,6-Dinitrotoluene	330	U
99-09-2	3-Nitroaniline	330	U
83-32-9	Acenaphthene	330	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

0119 EPA SAMPLE NO.

SBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: N2C60479C

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E9128

Level: (low/med) LOW Date Received: 3/12/96

% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/12/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: .

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	330	U
121-14-2	2,4-Dinitrotoluene	330	U
84-66-2	Diethylphthalate	330	U
7005-72-3	4-Chlorophenyl-phenylether	330	U
86-73-7	Fluorene	330	U
100-01-6	4-Nitroaniline	330	U
534-52-1	4,6-Dinitro-2-methylphenol	830	U
101-55-3	4-Bromophenyl-phenylether	330	U
86-30-6	N-Nitrosodiphenylamine (1)	330	U
118-74-1	Hexachlorobenzene	330	U
87-86-5	Pentachlorophenol	330	U
85-01-8	Phenanthrene	330	U
120-12-7	Anthracene	330	U
86-74-8	Carbazole	330	U
84-74-2	Di-n-butylphthalate	330	U
206-44-0	Fluoranthene	330	U
129-00-0	Pyrene	330	U
85-68-7	Butylbenzylphthalate	330	U
91-94-1	3,3'-Dichlorobenzidine	330	U
56-55-3	Benzo(a)anthracene	330	U
218-01-9	Chrysene	330	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	
117-84-0	Di-n-octylphthalate	330	U
205-99-2	Benzo(b)fluoranthene	330	U
207-08-9	Benzo(k)fluoranthene	330	U
50-32-8	Benzo(a)pyrene	330	U
193-39-5	Indeno(1,2,3-cd)pyrene	330	U
53-70-3	Dibenz(a,h)anthracene	330	U
191-24-2	Benzo(g,h,i)perylene	330	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

0120 EPA SAMPLE NO.

SBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: N2C60479C

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E9128

Level: (low/med) LOW Date Received: 3/12/96

% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/12/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

Number TICs found: 5 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-Pentanone, 4-hydroxy-4-met	6.10	1400	JNA
2.		unknown	6.28	200	J
3.		unknown	7.16	230	J
4.	55-21-0	Benzamide	11.02	540	JN
5.		unknown	17.79	180	J

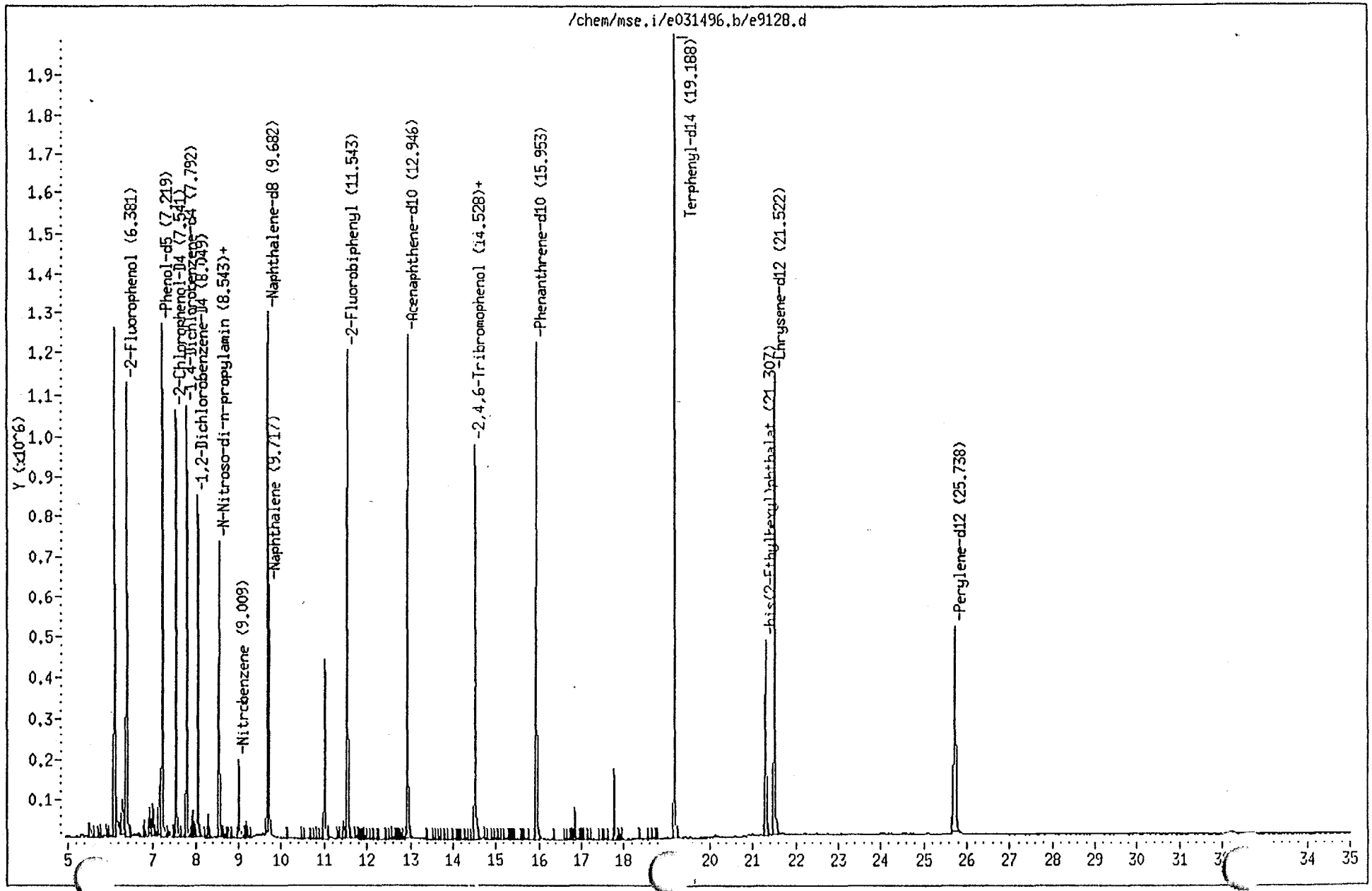
0121

Data File: /chem/mse.i/e031496.b/e9128.d
Date : 14-MAR-96 18:13
Client ID:
Sample Info: Method blank

Instrument: mse.i

Operator: K. Bigelow
Column diameter: 0.25

Column phase: J&W DB-5



Data File: /chem/mse.i/e031496.b/e9128.d
Report Date: 15-Mar-1996 06:18

OHM Analytical Division

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/mse.i/e031496.b/e9128.d
Lab Smp Id:
Inj Date : 14-MAR-96 18:13
Operator : K. Bigelow Inst ID: mse.i
Smp Info : Method blank
Misc Info : n2c60479c,n2c60479,ml,1,1
Comment :
Method : /chem/mse.i/e031496.b/031496eclp.m
Meth Date : 15-Mar-1996 06:17 kathryn Quant Type: ISTD
Cal Date : 14-MAR-96 11:11 Cal File: e9118.d
Als bottle: 14
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

K Bigelow

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/ml)
	2-Fluorophenol	112.00	6.381	6.375	(0.819)	459486	44.7	44.7(R)
S 4	Phenol-d5	99.00	7.219	7.227	(0.926)	601417	49.9	49.9(R)
S 7	2-Chlorophenol-D4	132.00	7.541	7.549	(0.968)	463965	47.4	47.4(R)
* 10	1,4-Dichlorobenzene-d4	152.00	7.792	7.792	(1.000)	272515	40.0	
S 13	1,2-Dichlorobenzene-D4	152.00	8.049	8.057	(1.033)	204782	35.8	35.8(R)
17	N-Nitroso-di-n-propylamine	70.00	8.543	8.286	(1.096)	52907	6.24	~~6.24~~(Q) ND, RT, MS
S 19	Nitrobenzene-d5	82.00	8.543	8.558	(0.882)	383175	33.1	33.1(R)
20	Nitrobenzene	77.00	9.009	8.587	(0.930)	68610	6.47	~~6.47~~(Q) ND, RT, MS
* 27	Naphthalene-d8	136.00	9.682	9.689	(1.000)	1020372	40.0	
28	Naphthalene	128.00	9.717	9.725	(1.004)	454908	19.1	19.1
S 37	2-Fluorobiphenyl	172.00	11.543	11.550	(0.892)	608573	36.7	36.7(R)
* 44	Acenaphthene-d10	164.00	12.946	12.954	(1.000)	531477	40.0	
S 56	2,4,6-Tribromophenol	329.60	14.528	14.543	(1.122)	202803	63.6	63.6(R)
57	4-Bromophenyl-phenylether	248.00	14.528	14.944	(0.911)	9245	2.14	~~2.14~~(Q) ND, RT, MS
* 60	Phenanthrene-d10	188.00	15.945	15.960	(1.000)	777772	40.0	
S 68	Terphenyl-d14	244.00	19.188	19.203	(0.892)	1142514	65.3	65.3(R)
70	bis(2-Ethylhexyl)phthalate	149.00	21.307	21.322	(0.990)	248424	11.8	11.8
* 73	Chrysene-d12	240.00	21.522	21.544	(1.000)	735162	40.0	
* 79	Perylene-d12	264.00	25.738	25.753	(1.000)	630790	40.0	

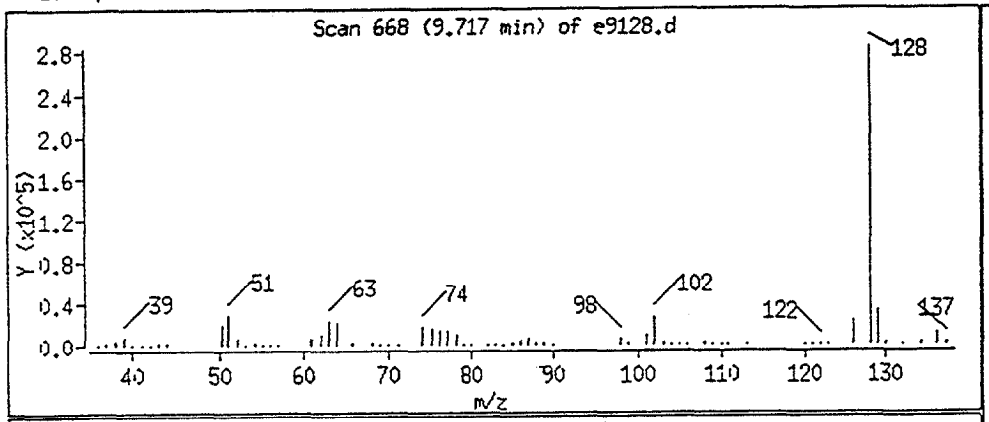
QC Flag Legend

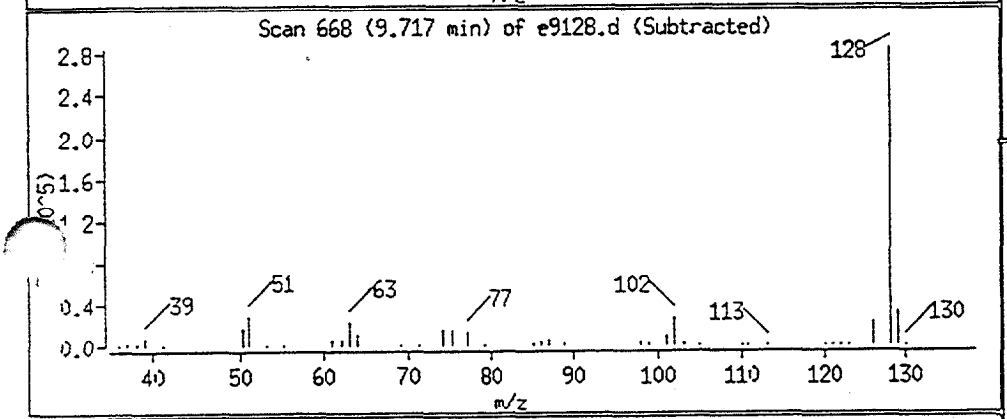
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

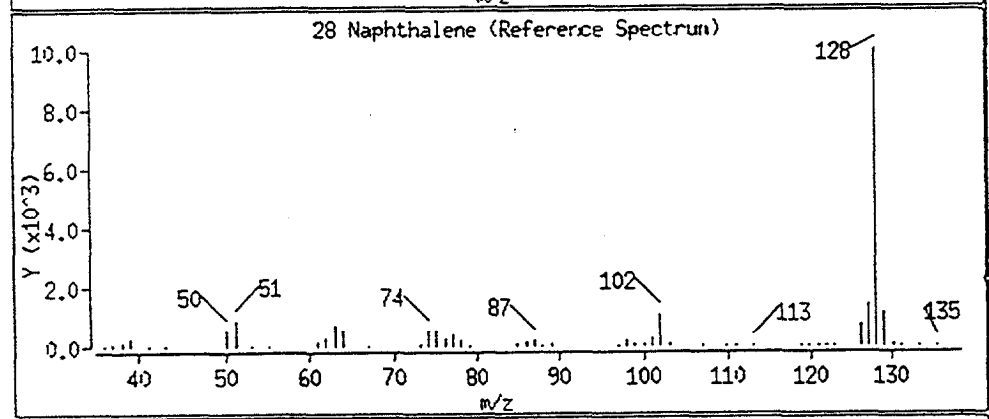
Data File: /chem/mse.i/e031496.b/e9128.d
Date : 14-MAR-96 18:13
Client ID:
Sample Info: Method blank

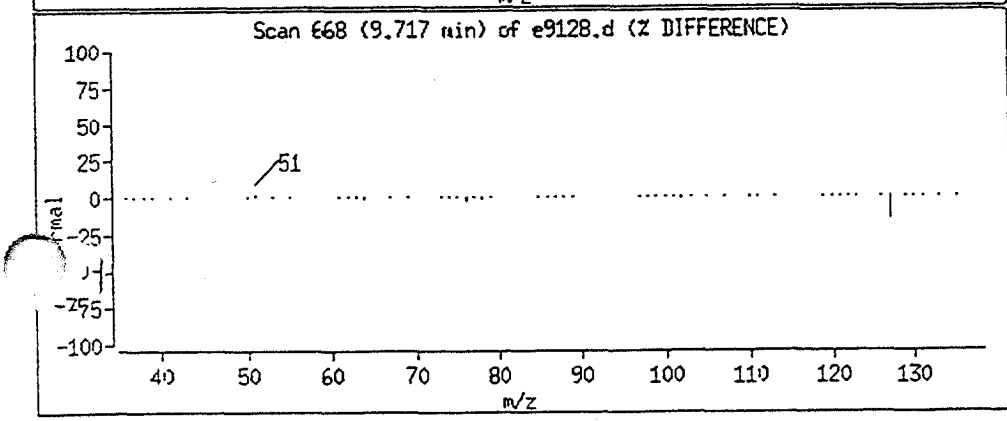
Instrument: mse.i
Operator: K. Bigelow
Column phase: J&W DB-5
Column diameter: 0.25

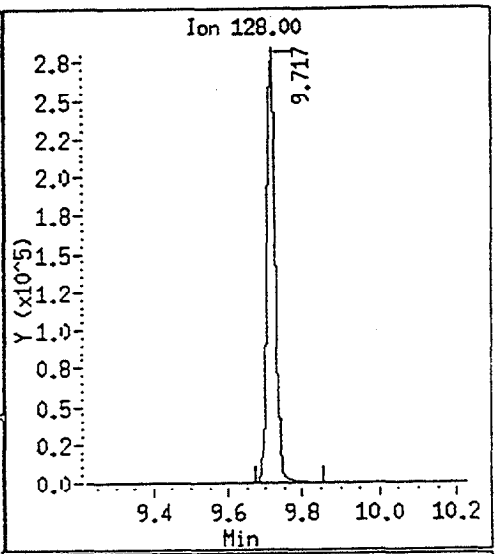
28 Naphthalene

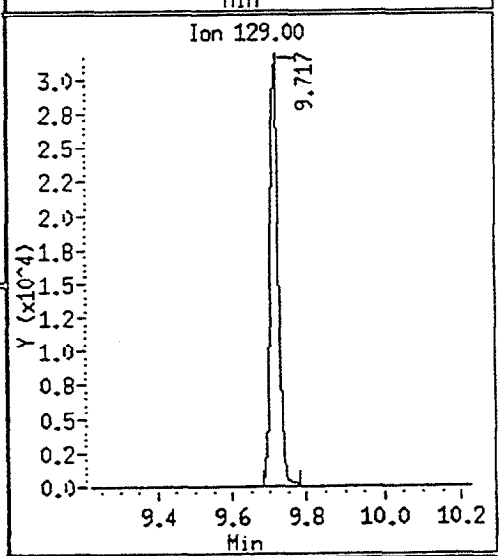


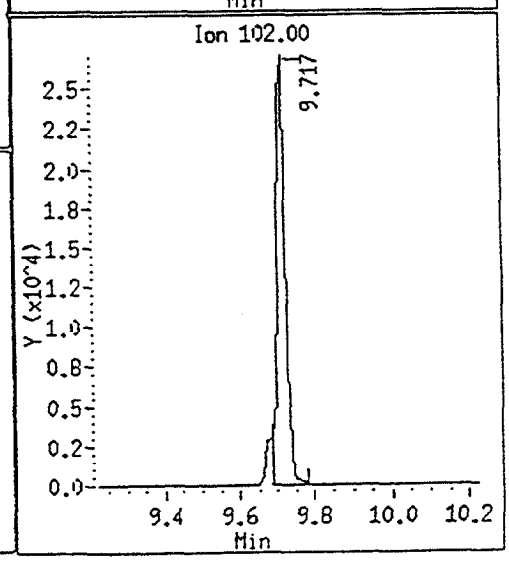












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Date : 14-MAR-96 18:13

Client ID:

Instrument: mse.i

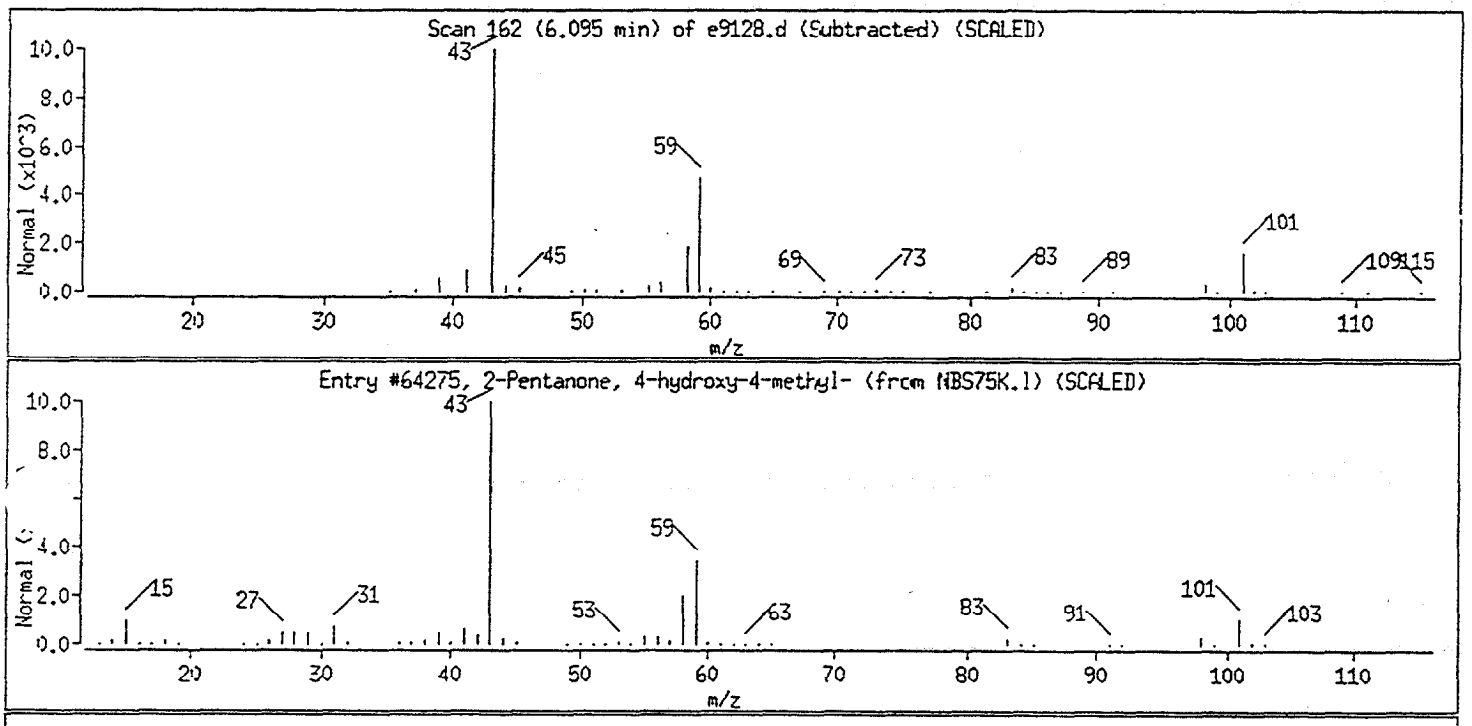
Sample Info: Method blank

Operator: K. Bigelow

Column phase: J&W DB-5

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Pentanone, 4-hydroxy-4-methyl-	123-42-2	NBS75K.l	64275	64	C6H12O2	116



Data File: /chem/mse.i/e031496.b/e9128.d

Date : 14-MAR-96 18:13

Client ID:

Instrument: mse.i

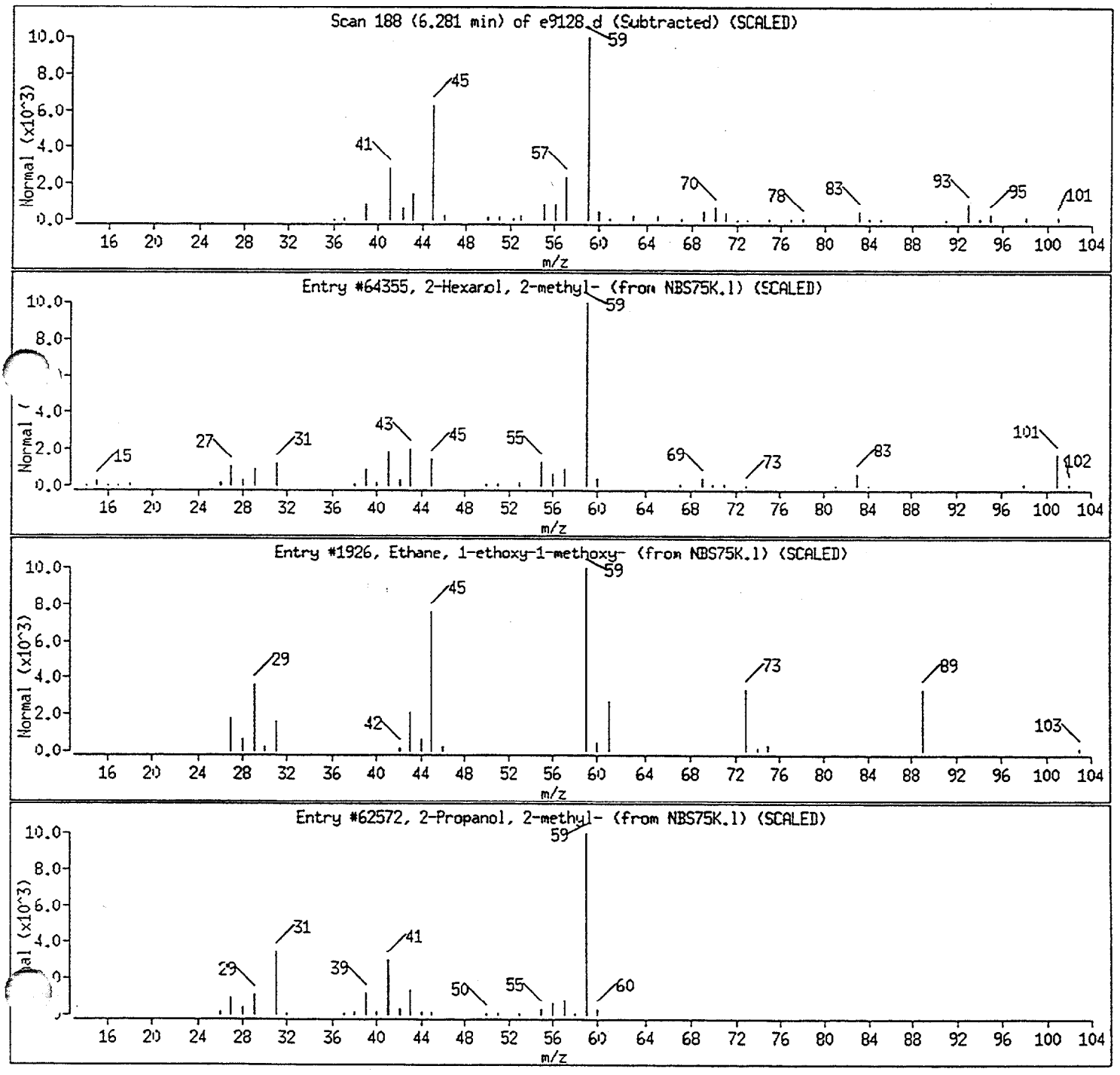
Sample Info: Method blank

Operator: K. Bigelow

Column phase: J&W DB-5

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Hexanol, 2-methyl-	625-23-0	NBS75K.l	64355	40	C7H160	116
Ethane, 1-ethoxy-1-methoxy-	10471-14-4	NBS75K.l	1926	39	C5H1202	104
2-Propanol, 2-methyl-	75-65-0	NBS75K.l	62572	37	C4H100	74



Data File: /chem/mse.i/e031496.b/e9128.d

Date : 14-MAR-96 18:13

Client ID:

Sample Info: Method blank

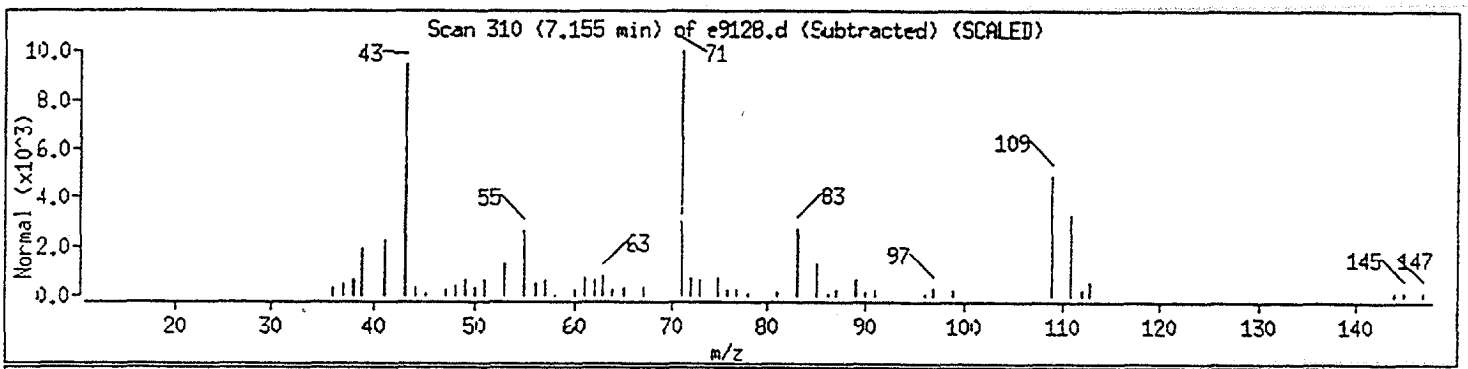
Instrument: mse.i

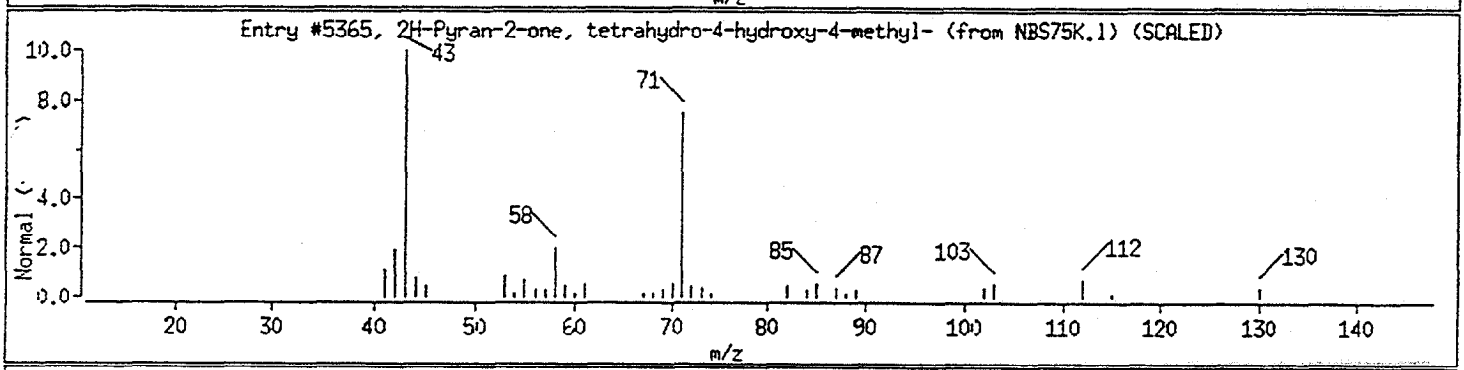
Operator: K. Bigelow

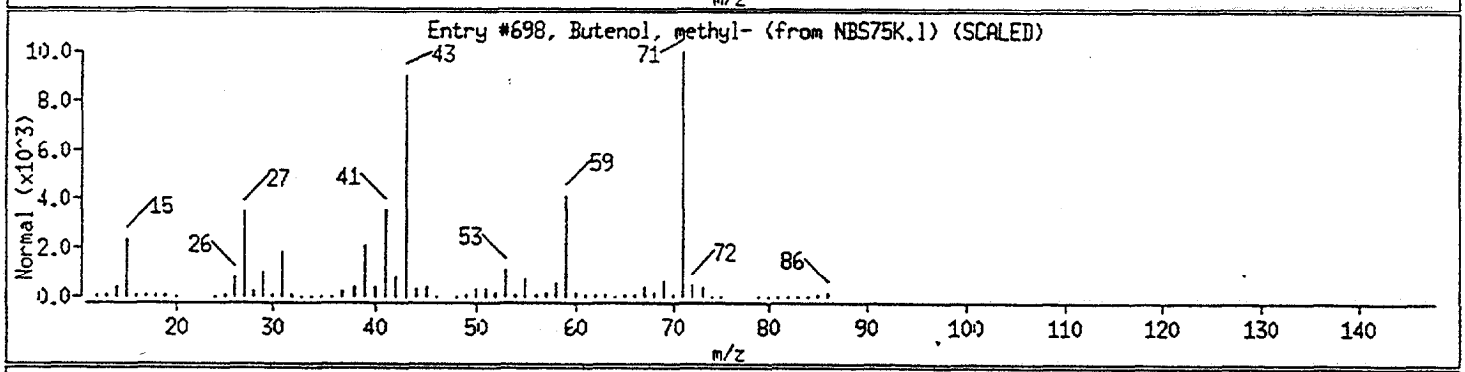
Column phase: J&W DB-5

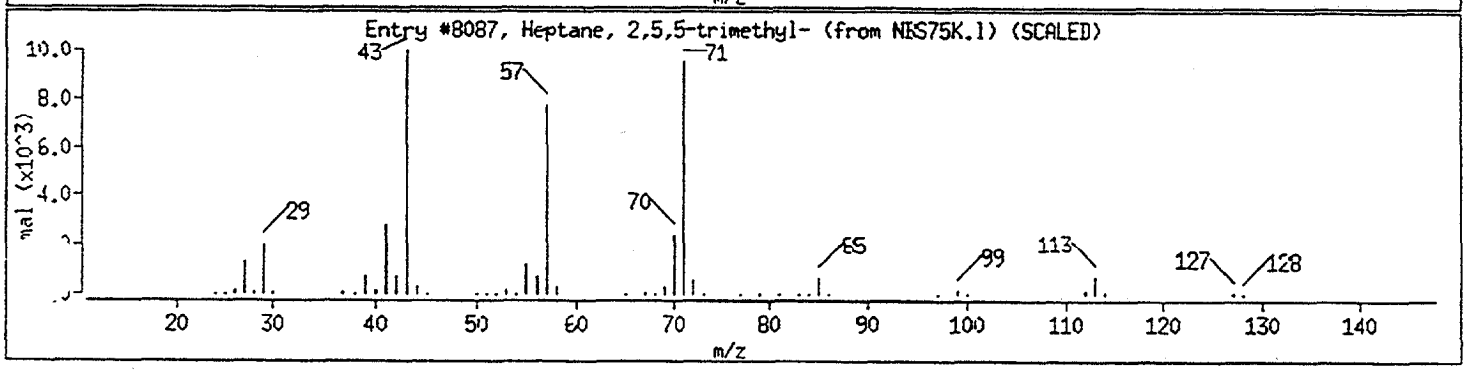
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2H-Pyran-2-one, tetrahydro-4-hydroxy-4-m	503-48-0	NBS75K.1	5365	32	C6H1003	130
Butenol, methyl-	60766-00-9	NBS75K.1	698	27	C5H100	86
Heptane, 2,5,5-trimethyl-	1189-99-7	NBS75K.1	8087	25	C10H22	142









Data File: /chem/mse.i/e031496.b/e9128.d

Date : 14-MAR-96 18:13

Client ID:

Instrument: mse.i

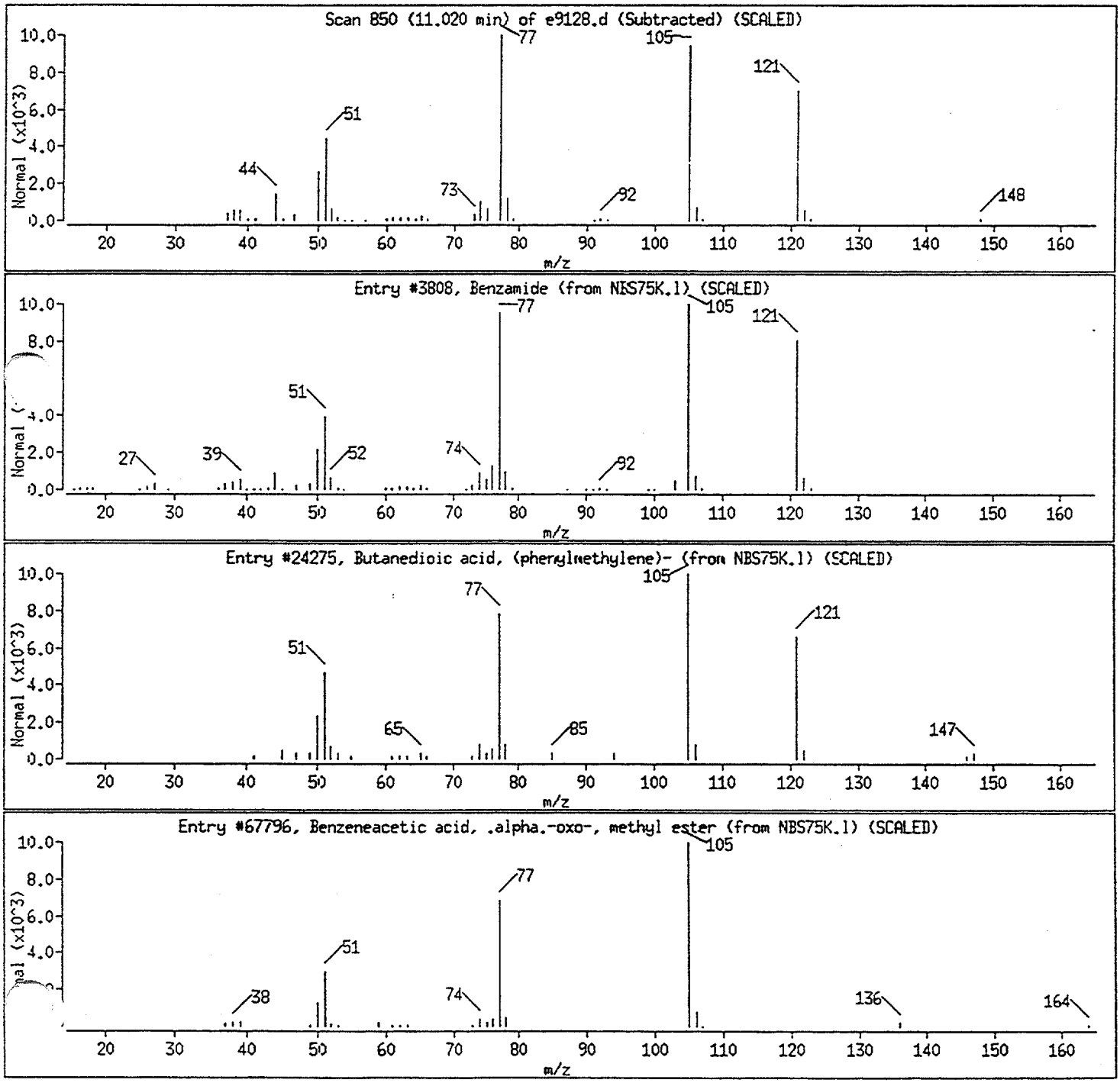
Sample Info: Method blank

Operator: K. Bigelow

Column phase: J&W DB-5

Column diameter: 0.25

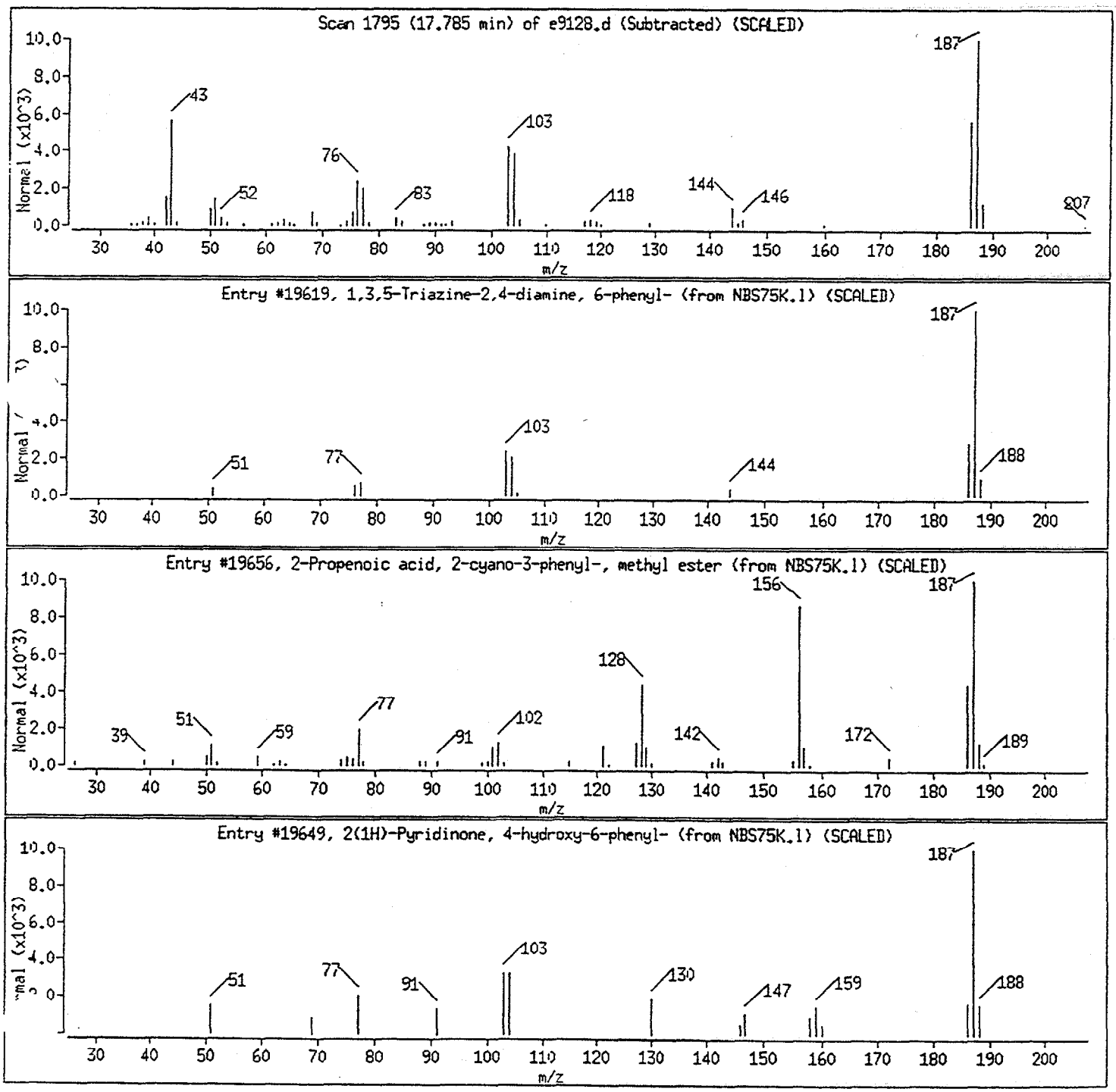
Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzamide	55-21-0	NBS75K.l	3808	91	C7H7NO	121
Butanedioic acid, (phenylmethylene)-	5653-88-3	NBS75K.l	24275	90	C11H1004	206
Benzeneacetic acid, .alpha.-oxo-, methyl	15206-55-0	NBS75K.l	67796	78	C9H803	164



Data File: /chem/mse.i/e031496.b/e9128.d
Date : 14-MAR-96 18:13
Client ID:
Sample Info: Method blank

Instrument: mse.i
Operator: K. Bigelow
Column phase: J&W DB-5
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1,3,5-Triazine-2,4-diamine, 6-phenyl-	91-76-9	NBS75K.1	19619	72	C9H9N5	187
2-Propenoic acid, 2-cyano-3-phenyl-, met	3695-84-9	NBS75K.1	19656	47	C11H9NO2	187
2(1H)-Pyridinone, 4-hydroxy-6-phenyl-	17424-17-8	NBS75K.1	19649	38	C11H9NO2	187



1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET **0130**

EPA SAMPLE NO.

CLJ100-WC1MS

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: JP5002CS

Sample wt/vol: 30.3 (g/mL) G Lab File ID: E9138

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: 17 decanted: (Y/N) N Date Extracted: 03/12/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 03/15/96

Injection Volume: 1.00 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	3900	J
111-44-4	bis(2-Chloroethyl)ether	1600	J
95-57-8	2-Chlorophenol	3600	J
541-73-1	1,3-Dichlorobenzene	2200	J
106-46-7	1,4-Dichlorobenzene	2300	J
95-50-1	1,2-Dichlorobenzene	2500	J
95-48-7	2-Methylphenol	2700	J
108-60-1	2,2'-oxybis(1-Chloropropane)	2800	J
106-44-5	4-Methylphenol	2600	J
621-64-7	N-Nitroso-di-n-propylamine	2600	J
67-72-1	Hexachloroethane	2200	J
98-95-3	Nitrobenzene	2500	J
78-59-1	Isophorone	2800	J
88-75-5	2-Nitrophenol	3100	J
105-67-9	2,4-Dimethylphenol	3800	J
111-91-1	bis(2-Chloroethoxy)methane	2900	J
120-83-2	2,4-Dichlorophenol	3600	J
120-82-1	1,2,4-Trichlorobenzene	2400	J
91-20-3	Naphthalene	3100	BJ
106-47-8	4-Chloroaniline	1600	J
87-68-3	Hexachlorobutadiene	2200	J
59-50-7	4-Chloro-3-methylphenol	3700	J
91-57-6	2-Methylnaphthalene	2800	J
77-47-4	Hexachlorocyclopentadiene	8000	U
88-06-2	2,4,6-Trichlorophenol	3200	J
95-95-4	2,4,5-Trichlorophenol	2200	J
91-58-7	2-Chloronaphthalene	2700	J
88-74-4	2-Nitroaniline	2200	J
131-11-3	Dimethylphthalate	2700	J
208-96-8	Acenaphthylene	2800	J
606-20-2	2,6-Dinitrotoluene	2000	J
99-09-2	3-Nitroaniline	2000	J
83-32-9	Acenaphthene	2900	J

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET 0131 EPA SAMPLE NO.

CLJ100-WC1MS

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: JP5002CS

Sample wt/vol: 30.3 (g/mL) G Lab File ID: E9138

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: 17 decanted: (Y/N) N Date Extracted: 03/12/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 03/15/96

Injection Volume: 1.00 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	40000	U
100-02-7	4-Nitrophenol	40000	U
132-64-9	Dibenzofuran	2700	J
121-14-2	2,4-Dinitrotoluene	2100	J
84-66-2	Diethylphthalate	2800	J
7005-72-3	4-Chlorophenyl-phenylether	2600	J
86-73-7	Fluorene	2900	J
100-01-6	4-Nitroaniline	2400	J
534-52-1	4,6-Dinitro-2-methylphenol	20000	U
101-55-3	4-Bromophenyl-phenylether	2400	J
86-30-6	N-Nitrosodiphenylamine (1)	2900	J
118-74-1	Hexachlorobenzene	2200	J
87-86-5	Pentachlorophenol	8000	U
85-01-8	Phenanthrene	3000	J
120-12-7	Anthracene	2800	J
86-74-8	Carbazole	3500	J
84-74-2	Di-n-butylphthalate	2800	J
206-44-0	Fluoranthene	3500	J
129-00-0	Pyrene	3500	J
85-68-7	Butylbenzylphthalate	2900	J
91-94-1	3,3'-Dichlorobenzidine	8000	U
56-55-3	Benzo(a)anthracene	2800	J
218-01-9	Chrysene	3100	J
117-81-7	bis(2-Ethylhexyl)phthalate	3100	BJ
117-84-0	Di-n-octylphthalate	2700	J
205-99-2	Benzo(b)fluoranthene	2900	J
207-08-9	Benzo(k)fluoranthene	2700	J
50-32-8	Benzo(a)pyrene	2500	J
193-39-5	Indeno(1,2,3-cd)pyrene	1900	J
53-70-3	Dibenz(a,h)anthracene	1900	J
191-24-2	Benzo(g,h,i)perylene	1100	J

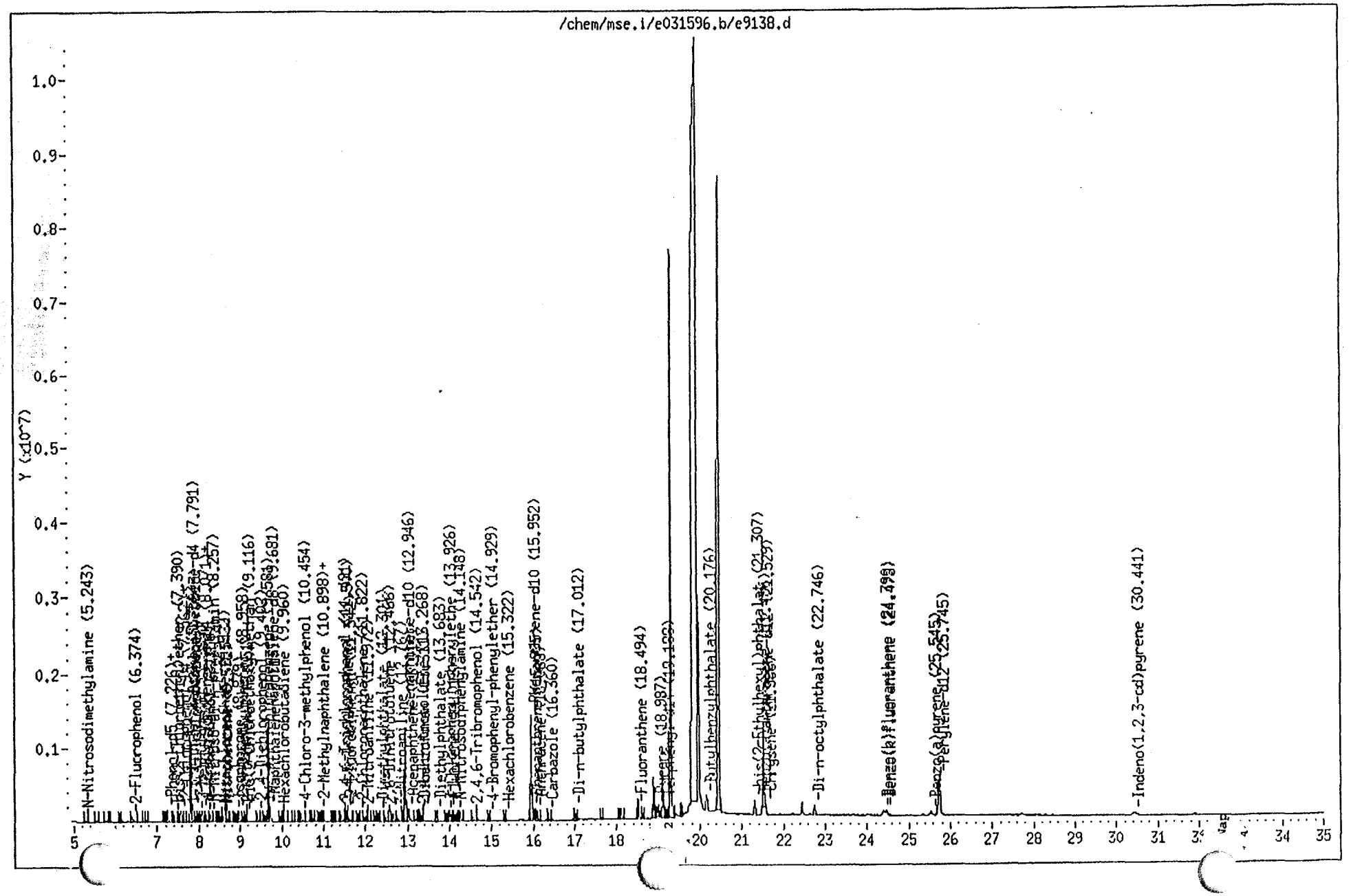
(1) - Cannot be separated from Diphenylamine

Data File: /chem/mse.i/e031596.b/e9138.d
Date : 15-MAR-96 09:57
Client ID:
Sample Info: 18319n clj100-wc1 MS

Column phase: J&W DB-5

Instrument: mse.i

Operator: K. Bigelow
Column diameter: 0.25



Data File: /chem/mse.i/e031596.b/e9138.d
Report Date: 15-Mar-1996 10:42

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
	31 4-Chloro-3-methylphenol	107.00	10.454	10.462	(1.080)	41179	4.69	4.69
	32 2-Methylnaphthalene	142.00	10.898	10.905	(1.126)	63576	3.46	3.46
	35 2,4,6-Trichlorophenol	196.00	11.421	11.414	(0.882)	22859	4.01	4.01
	36 2,4,5-Trichlorophenol	196.00	11.500	11.492	(0.888)	15762	2.73	2.73
$	37 2-Fluorobiphenyl	172.00	11.542	11.550	(0.892)	65181	3.51	3.51(R)
	38 2-Chloronaphthalene	162.00	11.822	11.829	(0.913)	55464	3.40	3.40
	39 2-Nitroaniline	65.00	11.979	11.986	(0.925)	18553	2.75	2.75
	40 Dimethylphthalate	163.00	12.301	12.309	(0.950)	74596	3.35	3.35
	41 2,6-Dinitrotoluene	165.00	12.473	12.480	(0.964)	12971	2.54	2.54
	42 Acenaphthylene	152.00	12.659	12.666	(0.978)	94061	3.49	3.49(M)
	43 3-Nitroaniline	138.00	12.767	12.781	(0.986)	11793	2.50	2.50
*	44 Acenaphthene-d10	164.00	12.946	12.953	(1.000)	586736	40.0	
	46 Acenaphthene	153.00	13.010	13.017	(1.005)	60708	3.60	3.60
	48 2,4-Dinitrotoluene	165.00	13.268	13.275	(1.025)	17323	2.66	2.66
	49 Dibenzofuran	168.00	13.311	13.325	(1.028)	80876	3.40	3.40
	50 Diethylphthalate	149.00	13.683	13.697	(1.057)	80626	3.52	3.52
	51 4-Chlorophenyl-phenylether	204.00	13.926	13.934	(1.076)	29930	3.22	3.22
	52 Fluorene	166.00	14.012	14.027	(1.082)	65406	3.61	3.61
	53 4-Nitroaniline	138.00	13.998	14.012	(1.081)	14075	3.06	3.06
	55 N-Nitrosodiphenylamine	169.00	14.148	14.163	(0.887)	45664	3.58	3.58
$	2,4,6-Tribromophenol	329.60	14.549	14.542	(1.124)	11802	3.44	3.44(R)
	4-Bromophenyl-phenylether	248.00	14.929	14.936	(0.936)	16475	3.00	3.00
	58 Hexachlorobenzene	283.60	15.322	15.329	(0.961)	18300	2.81	2.81
*	60 Phenanthrene-d10	188.00	15.952	15.959	(1.000)	874562	40.0	
	61 Phenanthrene	178.00	15.995	16.010	(1.003)	97581	3.81	3.81
	62 Anthracene	178.00	16.088	16.103	(1.009)	93546	3.52	3.52
	63 Carbazole	167.00	16.360	16.367	(1.026)	84558	4.42	4.42
	64 Di-n-butylphthalate	149.00	17.012	17.019	(1.066)	142134	3.54	3.54
	65 Fluoranthene	202.00	18.494	18.508	(1.159)	121348	4.43	4.43
	67 Pyrene	202.00	18.987	18.995	(0.882)	117169	4.39	4.39
S	68 Terphenyl-d14	244.00	19.195	19.195	(0.892)	64139	3.17	3.17(R)
	69 Butylbenzylphthalate	149.00	20.176	20.154	(0.937)	63599	3.67	3.67
	70 bis(2-Ethylhexyl)phthalate	149.00	21.307	21.314	(0.990)	96748	3.89	3.89
	72 Benzo(a)anthracene	228.00	21.486	21.493	(0.998)	87637	3.52	3.52
*	73 Chrysene-d12	240.00	21.529	21.536	(1.000)	802914	40.0	
	74 Chrysene	228.00	21.586	21.593	(1.003)	90301	3.91	3.91
	75 Di-n-octylphthalate	149.00	22.746	22.760	(0.883)	130431	3.36	3.36
	76 Benzo(b)fluoranthene	252.00	24.399	24.428	(0.948)	73966	3.61	3.61
	77 Benzo(k)fluoranthene	252.00	24.478	24.507	(0.951)	73286	3.33	3.33
	78 Benzo(a)pyrene	252.00	25.545	25.566	(0.992)	57356	3.13	3.13
*	79 Perylene-d12	264.00	25.745	25.760	(1.000)	638554	40.0	
	80 Dibenzo(a,h)anthracene	278.00	30.427	30.499	(1.182)	33924	2.33	2.33(M)
	81 Indeno(1,2,3-cd)pyrene	276.00	30.441	30.506	(1.182)	41421	2.42	2.42
	82 Benzo(g,h,i)perylene	276.00	31.880	31.952	(1.238)	17416	1.42	1.42(QM)

'lag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

0135 EPA SAMPLE NO.

CLJ100-WC1MSD

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: JP5002CR

Sample wt/vol: 30.2 (g/mL) G Lab File ID: E9139

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: 17 decanted: (Y/N) N Date Extracted: 03/12/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 03/15/96

Injection Volume: 1.00 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	3800	J
111-44-4	bis(2-Chloroethyl)ether	1700	J
95-57-8	2-Chlorophenol	3300	J
541-73-1	1,3-Dichlorobenzene	1600	J
106-46-7	1,4-Dichlorobenzene	1700	J
95-50-1	1,2-Dichlorobenzene	2100	J
95-48-7	2-Methylphenol	2700	J
108-60-1	2,2'-oxybis(1-Chloropropane)	2600	J
106-44-5	4-Methylphenol	2800	J
621-64-7	N-Nitroso-di-n-propylamine	2900	J
67-72-1	Hexachloroethane	1900	J
98-95-3	Nitrobenzene	2500	J
78-59-1	Isophorone	3300	J
88-75-5	2-Nitrophenol	3200	J
105-67-9	2,4-Dimethylphenol	4100	J
111-91-1	bis(2-Chloroethoxy)methane	2900	J
120-83-2	2,4-Dichlorophenol	3800	J
120-82-1	1,2,4-Trichlorobenzene	2300	J
91-20-3	Naphthalene	3200	BJ
106-47-8	4-Chloroaniline	2200	J
87-68-3	Hexachlorobutadiene	2100	J
59-50-7	4-Chloro-3-methylphenol	4400	J
91-57-6	2-Methylnaphthalene	3100	J
77-47-4	Hexachlorocyclopentadiene	8000	U
88-06-2	2,4,6-Trichlorophenol	3900	J
95-95-4	2,4,5-Trichlorophenol	2800	J
91-58-7	2-Chloronaphthalene	3100	J
88-74-4	2-Nitroaniline	2800	J
131-11-3	Dimethylphthalate	3400	J
208-96-8	Acenaphthylene	3300	J
606-20-2	2,6-Dinitrotoluene	2600	J
99-09-2	3-Nitroaniline	2800	J
83-32-9	Acenaphthene	3400	J

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

0136 EPA SAMPLE NO.

CLJ100-WC1MSD

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: JP5002CR

Sample wt/vol: 30.2 (g/mL) G Lab File ID: E9139

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: 17 decanted: (Y/N) N Date Extracted: 03/12/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 03/15/96

Injection Volume: 1.00 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	40000	U
100-02-7	4-Nitrophenol	3300	J
132-64-9	Dibenzofuran	3300	J
121-14-2	2,4-Dinitrotoluene	2600	J
84-66-2	Diethylphthalate	3400	J
7005-72-3	4-Chlorophenyl-phenylether	3200	J
86-73-7	Fluorene	3500	J
100-01-6	4-Nitroaniline	3200	J
534-52-1	4,6-Dinitro-2-methylphenol	20000	U
101-55-3	4-Bromophenyl-phenylether	2900	J
86-30-6	N-Nitrosodiphenylamine (1)	3500	J
118-74-1	Hexachlorobenzene	2500	J
87-86-5	Pentachlorophenol	1900	J
85-01-8	Phenanthrene	3500	J
120-12-7	Anthracene	3400	J
86-74-8	Carbazole	4200	J
84-74-2	Di-n-butylphthalate	3600	J
206-44-0	Fluoranthene	4100	J
129-00-0	Pyrene	4000	J
85-68-7	Butylbenzylphthalate	3500	J
91-94-1	3,3'-Dichlorobenzidine	8000	U
56-55-3	Benzo(a)anthracene	3400	J
218-01-9	Chrysene	3600	J
117-81-7	bis(2-Ethylhexyl)phthalate	3800	BJ
117-84-0	Di-n-octylphthalate	3500	J
205-99-2	Benzo(b)fluoranthene	3600	J
207-08-9	Benzo(k)fluoranthene	3400	J
50-32-8	Benzo(a)pyrene	2900	J
193-39-5	Indeno(1,2,3-cd)pyrene	2200	J
53-70-3	Dibenz(a,h)anthracene	2300	J
191-24-2	Benzo(g,h,i)perylene	1600	J

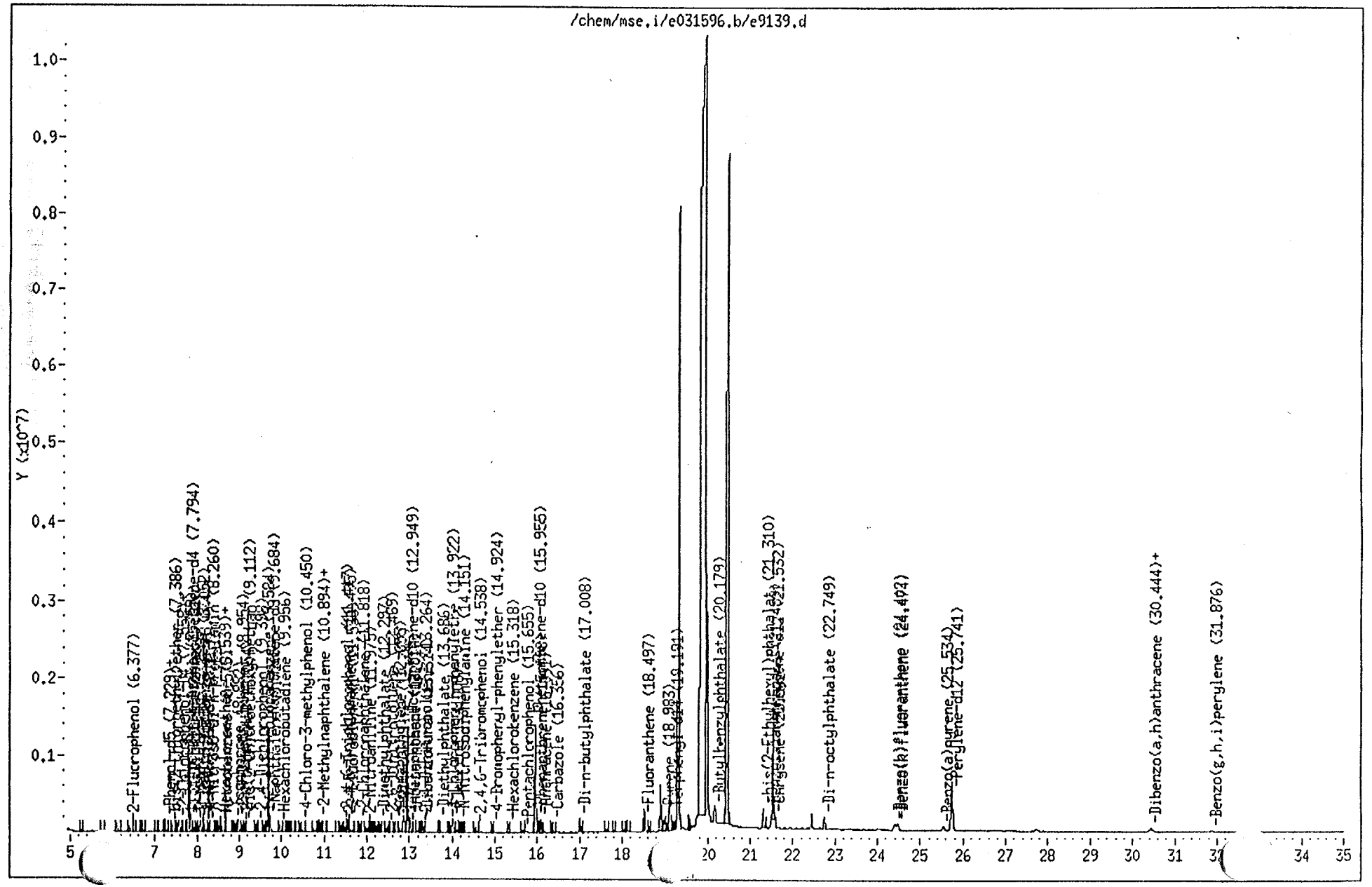
(1) - Cannot be separated from Diphenylamine

Data File: /chem/mse.i/e031596.b/e9139.d
Date : 15-MAR-96 10:42
Client ID:
Sample Info: 18319n clj100-wc1 MSD

Column phase: J&W DB-5

Instrument: mse.i

Operator: K. Bigelow
Column diameter: 0.25



Data File: /chem/mse.i/e031596.b/e9139.d
Report Date: 15-Mar-1996 11:27

OHM Analytical Division

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/mse.i/e031596.b/e9139.d
Lab Smp Id:
Inj Date : 15-MAR-96 10:42
Operator : K. Bigelow Inst ID: mse.i
Smp Info : 18319n clj100-wc1 MSD
Misc Info : jp5002cr,n2c60479,m1,1,20
Comment :
Method : /chem/mse.i/e031596.b/031496eclp.m
Meth Date : 15-Mar-1996 10:36 kathryn Quant Type: ISTD
Cal Date : 15-MAR-96 07:41 Cal File: e9135.d
Als bottle: 6
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

KBigelow

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
	N-Nitrosodimethylamine	42.00	5.246	5.243	(0.673)	12369	1.89	1.89 (QM)
	2-Fluorophenol	112.00	6.377	6.374	(0.818)	36239	3.43	3.43 (R)
$ 4	Phenol-d5	99.00	7.215	7.219	(0.926)	57779	4.46	4.46 (R)
5	Phenol	94.00	7.229	7.240	(0.927)	63781	4.71	4.71
6	bis(2-Chloroethyl)ether	93.00	7.386	7.391	(0.948)	56618	2.17	2.17 (Q)
$ 7	2-Chlorophenol-D4	132.00	7.544	7.548	(0.968)	41980	4.06	4.06 (R)
8	2-Chlorophenol	128.00	7.565	7.569	(0.971)	43538	4.10	4.10
9	1,3-Dichlorobenzene	146.00	7.759	7.763	(0.995)	22487	2.06	2.06
* 10	1,4-Dichlorobenzene-d4	152.00	7.794	7.799	(1.000)	289757	40.0	
11	1,4-Dichlorobenzene	146.00	7.816	7.820	(1.003)	24587	2.17	2.17
12	2-Methylphenol	108.00	7.988	7.992	(1.025)	31526	3.33	3.33
$ 13	1,2-Dichlorobenzene-D4	152.00	8.052	8.056	(1.033)	15383	2.47	2.47 (R)
14	1,2-Dichlorobenzene	146.00	8.074	8.078	(1.036)	25145	2.59	2.59
15	2,2'-oxybis(1-Chloropropene)	45.00	8.081	8.085	(1.037)	50307	3.24	3.24
16	4-Methylphenol	108.00	8.159	8.164	(1.047)	36004	3.51	3.51
17	N-Nitroso-di-n-propylamine	70.00	8.260	8.271	(1.060)	32794	3.65	3.65
18	Hexachloroethane	117.00	8.525	8.529	(1.094)	11387	2.38	2.38
$ 19	Nitrobenzene-d5	82.00	8.546	8.550	(0.882)	39284	2.97	2.97 (R)
20	Nitrobenzene	77.00	8.575	8.579	(0.885)	36958	3.10	3.10
21	Isophorone	82.00	8.882	8.894	(0.917)	99910	4.09	4.09
22	2,4-Dimethylphenol	107.00	8.954	8.965	(0.925)	54738	5.13	5.13
23	2-Nitrophenol	139.00	9.054	9.058	(0.935)	25097	4.00	4.00
24	bis(2-Chloroethoxy)methane	93.00	9.112	9.123	(0.941)	48984	3.61	3.61
25	2,4-Dichlorophenol	162.00	9.398	9.402	(0.970)	39951	4.81	4.81
26	1,2,4-Trichlorobenzene	180.00	9.584	9.588	(0.990)	24771	2.90	2.90
* 27	Naphthalene-d8	136.00	9.684	9.688	(1.000)	1120186	40.0	
	Naphthalene	128.00	9.720	9.724	(1.004)	108497	3.96	3.96
29	4-Chloroaniline	127.00	9.727	9.731	(1.004)	42048	2.80	2.80
30	Hexachlorobutadiene	225.00	9.956	9.960	(1.028)	13588	2.65	2.65

			QUANT SIG					CONCENTRATIONS	
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ug/ml)	FINAL (ug/ml)
	31	4-Chloro-3-methylphenol	107.00	10.457	10.462	(1.080)	49325	5.52	5.52
	32	2-Methylnaphthalene	142.00	10.894	10.905	(1.125)	73150	3.91	3.91
	35	2,4,6-Trichlorophenol	196.00	11.417	11.414	(0.882)	28309	4.85	4.85
	36	2,4,5-Trichlorophenol	196.00	11.495	11.492	(0.888)	20487	3.46	3.46
$	37	2-Fluorobiphenyl	172.00	11.538	11.550	(0.891)	75760	3.98	3.98 (R)
	38	2-Chloronaphthalene	162.00	11.818	11.829	(0.913)	64666	3.87	3.87
	39	2-Nitroaniline	65.00	11.975	11.986	(0.925)	24104	3.48	3.48
	40	Dimethylphthalate	163.00	12.297	12.309	(0.950)	95518	4.19	4.19
	41	2,6-Dinitrotoluene	165.00	12.469	12.480	(0.963)	17260	3.30	3.30
	42	Acenaphthylene	152.00	12.655	12.666	(0.977)	112864	4.09	4.09
	43	3-Nitroaniline	138.00	12.762	12.781	(0.986)	16792	3.47	3.47
*	44	Acenaphthene-d10	164.00	12.949	12.953	(1.000)	601138	40.0	
	46	Acenaphthene	153.00	13.013	13.017	(1.005)	74203	4.29	4.29
	47	4-Nitrophenol	109.00	12.977	12.981	(1.002)	10923	4.14	4.14 (QM)
	48	2,4-Dinitrotoluene	165.00	13.264	13.275	(1.024)	21937	3.29	3.29
	49	Dibenzofuran	168.00	13.314	13.325	(1.028)	99032	4.07	4.07
	50	Diethylphthalate	149.00	13.686	13.697	(1.057)	100480	4.28	4.28
	51	4-Chlorophenyl-phenylether	204.00	13.922	13.934	(1.075)	37474	3.94	3.94
	52	Fluorene	166.00	14.015	14.027	(1.082)	80743	4.35	4.35
	53	4-Nitroaniline	138.00	13.994	14.012	(1.081)	19114	4.06	4.06
	55	N-Nitrosodiphenylamine	169.00	14.151	14.163	(0.887)	56709	4.33	4.33
		2,4,6-Tribromophenol	329.60	14.538	14.542	(1.123)	15053	4.28	4.28 (R)
	57	4-Bromophenyl-phenylether	248.00	14.932	14.936	(0.936)	20465	3.62	3.62
	58	Hexachlorobenzene	283.60	15.318	15.329	(0.960)	21272	3.18	3.18
	59	Pentachlorophenol	265.60	15.662	15.644	(0.982)	7478	2.43	2.43
*	60	Phenanthrene-d10	188.00	15.948	15.959	(1.000)	899471	40.0	
	61	Phenanthrene	178.00	15.998	16.010	(1.003)	115139	4.38	4.38
	62	Anthracene	178.00	16.091	16.103	(1.009)	115699	4.24	4.24
	63	Carbazole	167.00	16.356	16.367	(1.026)	103249	5.25	5.25
	64	Di-n-butylphthalate	149.00	17.015	17.019	(1.067)	183531	4.44	4.44
	65	Fluoranthene	202.00	18.497	18.508	(1.160)	144348	5.12	5.12
	67	Pyrene	202.00	18.983	18.995	(0.882)	139979	5.05	5.05
$	68	Terphenyl-d14	244.00	19.191	19.195	(0.891)	80617	3.84	3.84 (R)
	69	Butylbenzylphthalate	149.00	20.179	20.154	(0.937)	78708	4.38	4.38
	70	bis(2-Ethylhexyl)phthalate	149.00	21.310	21.314	(0.990)	123877	4.79	4.79
	72	Benzo(a)anthracene	228.00	21.489	21.493	(0.998)	108519	4.19	4.19
*	73	Chrysene-d12	240.00	21.532	21.536	(1.000)	834092	40.0	
	74	Chrysene	228.00	21.582	21.593	(1.002)	109373	4.55	4.55
	75	Di-n-octylphthalate	149.00	22.749	22.760	(0.884)	167223	4.34	4.34
	76	Benzo(b)fluoranthene	252.00	24.402	24.428	(0.948)	90661	4.46	4.46
	77	Benzo(k)fluoranthene	252.00	24.474	24.507	(0.951)	92927	4.25	4.25
	78	Benzo(a)pyrene	252.00	25.534	25.566	(0.992)	65858	3.62	3.62
*	79	Perylene-d12	264.00	25.741	25.760	(1.000)	633948	40.0	
	80	Dibenzo(a,h)anthracene	278.00	30.444	30.499	(1.183)	41435	2.86	2.86
	81	Indeno(1,2,3-cd)pyrene	276.00	30.444	30.506	(1.183)	47515	2.79	2.79
	82	Benzo(g,h,i)perylene	276.00	31.876	31.952	(1.238)	24499	2.01	2.01 (Q)

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET **0140** EPA SAMPLE NO.

SSPK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: N2C60479CS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E9129

Level: (low/med) LOW Date Received: 3/12/96

% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/12/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	3000	
111-44-4	bis(2-Chloroethyl)ether	2000	
95-57-8	2-Chlorophenol	2900	
541-73-1	1,3-Dichlorobenzene	2200	
106-46-7	1,4-Dichlorobenzene	2200	
95-50-1	1,2-Dichlorobenzene	2000	
95-48-7	2-Methylphenol	2300	
108-60-1	2,2'-oxybis(1-Chloropropane)	2100	
106-44-5	4-Methylphenol	2400	
621-64-7	N-Nitroso-di-n-propylamine	2300	
67-72-1	Hexachloroethane	2100	
98-95-3	Nitrobenzene	2300	
78-59-1	Isophorone	2400	
88-75-5	2-Nitrophenol	3000	
105-67-9	2,4-Dimethylphenol	2600	
111-91-1	bis(2-Chloroethoxy)methane	2300	
120-83-2	2,4-Dichlorophenol	3500	
120-82-1	1,2,4-Trichlorobenzene	2300	
91-20-3	Naphthalene	2300	B
106-47-8	4-Chloroaniline	540	
87-68-3	Hexachlorobutadiene	2200	
59-50-7	4-Chloro-3-methylphenol	3800	
91-57-6	2-Methylnaphthalene	2500	
77-47-4	Hexachlorocyclopentadiene	550	
88-06-2	2,4,6-Trichlorophenol	3900	
95-95-4	2,4,5-Trichlorophenol	2800	
91-58-7	2-Chloronaphthalene	2500	
88-74-4	2-Nitroaniline	2700	
131-11-3	Dimethylphthalate	2700	
208-96-8	Acenaphthylene	2500	
606-20-2	2,6-Dinitrotoluene	3000	
99-09-2	3-Nitroaniline	2700	
83-32-9	Acenaphthene	2400	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

0141 EPA SAMPLE NO.

SSPK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) SOIL Lab Sample ID: N2C60479CS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: E9129

Level: (low/med) LOW Date Received: 3/12/96

% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/12/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	5000	
100-02-7	4-Nitrophenol	4700	
132-64-9	Dibenzofuran	2600	
121-14-2	2,4-Dinitrotoluene	3100	
84-66-2	Diethylphthalate	2800	
7005-72-3	4-Chlorophenyl-phenylether	2900	
86-73-7	Fluorene	2600	
100-01-6	4-Nitroaniline	3900	
534-52-1	4,6-Dinitro-2-methylphenol	5200	
101-55-3	4-Bromophenyl-phenylether	3600	
86-30-6	N-Nitrosodiphenylamine (1)	2700	
118-74-1	Hexachlorobenzene	3300	
87-86-5	Pentachlorophenol	5000	
85-01-8	Phenanthrene	2800	
120-12-7	Anthracene	2800	
86-74-8	Carbazole	5000	
84-74-2	Di-n-butylphthalate	2800	
206-44-0	Fluoranthene	3100	
129-00-0	Pyrene	2900	
85-68-7	Butylbenzylphthalate	2500	
91-94-1	3,3'-Dichlorobenzidine	2900	
56-55-3	Benzo(a)anthracene	3100	
218-01-9	Chrysene	2900	
117-81-7	bis(2-Ethylhexyl)phthalate	2700	B
117-84-0	Di-n-octylphthalate	2500	
205-99-2	Benzo(b)fluoranthene	3200	
207-08-9	Benzo(k)fluoranthene	3300	
50-32-8	Benzo(a)pyrene	2900	
193-39-5	Indeno(1,2,3-cd)pyrene	3000	
53-70-3	Dibenz(a,h)anthracene	3200	
191-24-2	Benzo(g,h,i)perylene	1500	

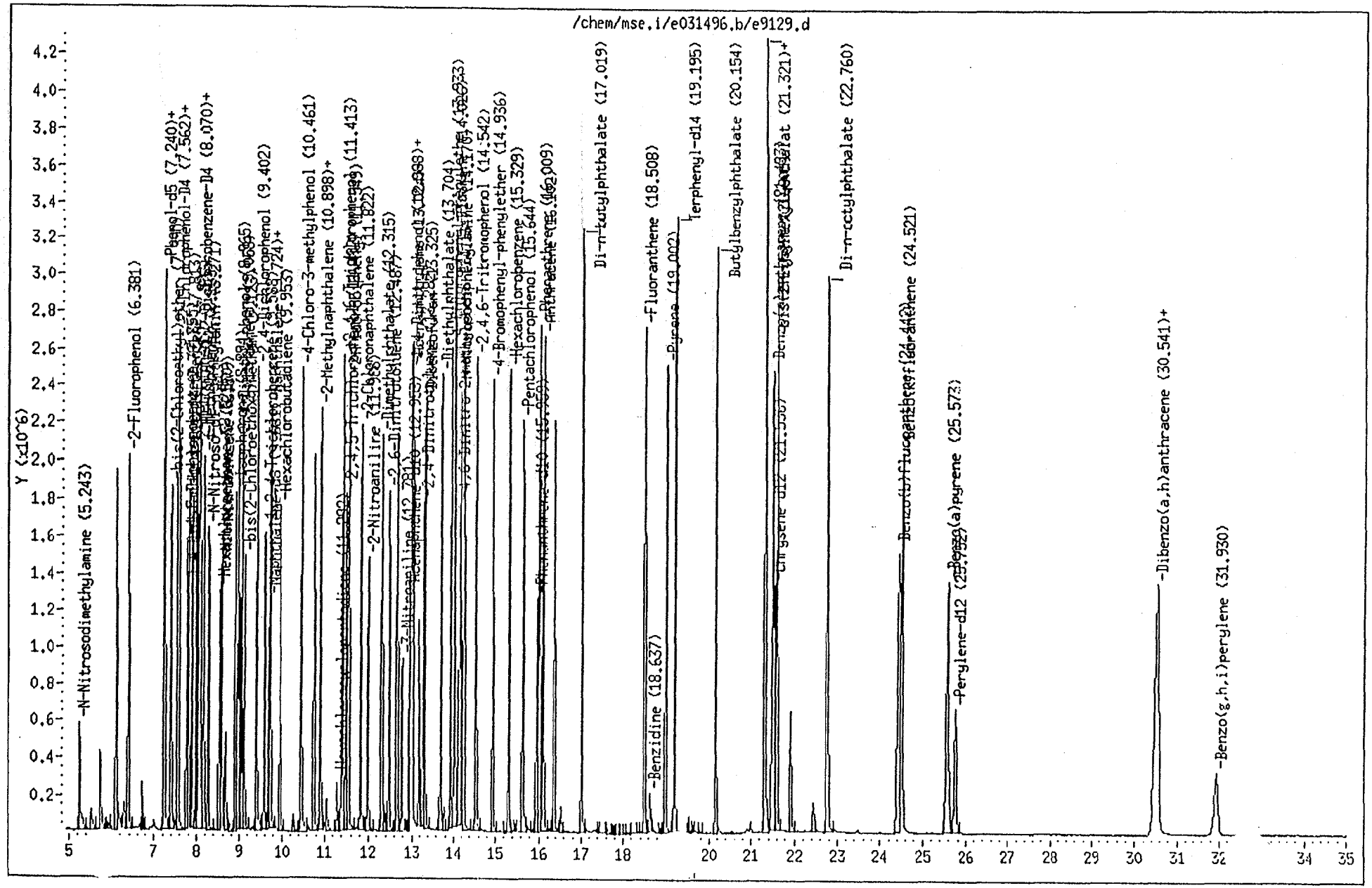
(1) - Cannot be separated from Diphenylamine

Data File: /chem/mse.i/e031496.b/e9129.d
Date : 14-MAR-96 18:57
Client ID:
Sample Info: Method spike

Column phase: J&W DB-5

Instrument: mse.i

Operator: K. Bigelow
Column diameter: 0.25



Data File: /chem/mse.i/e031496.b/e9129.d
Report Date: 15-Mar-1996 08:48

OHM Analytical Division

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/mse.i/e031496.b/e9129.d
Lab Smp Id:
Inj Date : 14-MAR-96 18:57
Operator : K. Bigelow Inst ID: mse.i
Smp Info : Method spike
Misc Info : n2c60479cs,n2c60479,m1,1,1
Comment :
Method : /chem/mse.i/e031496.b/031496eclp.m
Meth Date : 15-Mar-1996 06:17 kathryn Quant Type: ISTD
Cal Date : 14-MAR-96 11:11 Cal File: e9118.d
Als bottle: 15
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
	1	N-Nitrosodimethylamine	42.00	5.243	5.251	(0.673)	401084	68.6	68.6
		2-Fluorophenol	112.00	6.381	6.375	(0.819)	859220	90.8	90.8(R)
$	4	Phenol-d5	99.00	7.226	7.227	(0.927)	981735	88.4	88.4(R)
	5	Phenol	94.00	7.247	7.248	(0.930)	1007272	89.0	89.0
	6	bis(2-Chloroethyl)ether	93.00	7.390	7.391	(0.949)	1268356	59.5	59.5
$	7	2-Chlorophenol-D4	132.00	7.548	7.549	(0.969)	796429	88.3	88.3(R)
	8	2-Chlorophenol	128.00	7.569	7.570	(0.972)	788453	86.8	86.8
	9	1,3-Dichlorobenzene	146.00	7.755	7.756	(0.995)	614233	65.0	65.0
*	10	1,4-Dichlorobenzene-d4	152.00	7.791	7.792	(1.000)	250858	40.0	
	11	1,4-Dichlorobenzene	146.00	7.813	7.814	(1.003)	624560	65.6	65.6
	12	2-Methylphenol	108.00	7.992	7.993	(1.026)	567679	68.8	68.8
$	13	1,2-Dichlorobenzene-D4	152.00	8.056	8.057	(1.034)	338184	64.2	64.2(R)
	14	1,2-Dichlorobenzene	146.00	8.070	8.078	(1.036)	498726	60.4	60.4
	15	2,2'-oxybis(1-Chloropropene)	45.00	8.085	8.093	(1.038)	817354	62.7	62.7
	16	4-Methylphenol	108.00	8.163	8.172	(1.048)	632111	72.0	72.0
	17	N-Nitroso-di-n-propylamine	70.00	8.271	8.286	(1.062)	546700	70.1	70.1
	18	Hexachloroethane	117.00	8.521	8.522	(1.094)	263023	61.6	61.6
$	19	Nitrobenzene-d5	82.00	8.550	8.558	(0.883)	820989	71.8	71.8(R)
	20	Nitrobenzene	77.00	8.579	8.587	(0.886)	738284	70.4	70.4
	21	Isophorone	82.00	8.894	8.909	(0.919)	1632389	73.4	73.4
	22	2,4-Dimethylphenol	107.00	8.965	8.973	(0.926)	722599	77.9	77.9
	23	2-Nitrophenol	139.00	9.058	9.059	(0.936)	509645	91.3	91.3
	24	bis(2-Chloroethoxy)methane	93.00	9.123	9.131	(0.942)	846605	68.1	68.1
	25	2,4-Dichlorophenol	162.00	9.402	9.410	(0.971)	751057	106	106
	26	1,2,4-Trichlorobenzene	180.00	9.588	9.589	(0.990)	521185	69.2	69.2
	27	Naphthalene-d8	136.00	9.681	9.689	(1.000)	1008646	40.0	
		Naphthalene	128.00	9.724	9.725	(1.004)	1644919	69.8	69.8
		4-Chloroaniline	127.00	9.731	9.732	(1.005)	175171	16.2	16.2(Q)
	30	Hexachlorobutadiene	225.00	9.953	9.961	(1.028)	322655	65.2	65.2

Data File: /chem/mse.i/e031496.b/e9129.d
Report Date: 15-Mar-1996 08:48

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
31	4-Chloro-3-methylphenol	107.00	10.461	10.462	(1.081)	912385	114	114
32	2-Methylnaphthalene	142.00	10.898	10.906	(1.126)	1169319	73.7	73.7
34	Hexachlorocyclopentadiene	237.00	11.299	11.300	(0.872)	62365	16.6	16.6
35	2,4,6-Trichlorophenol	196.00	11.413	11.414	(0.881)	614608	118	118
36	2,4,5-Trichlorophenol	196.00	11.492	11.500	(0.887)	461117	84.6	84.6
$ 37	2-Fluorobiphenyl	172.00	11.549	11.550	(0.892)	1288608	74.1	74.1 (R)
38	2-Chloronaphthalene	162.00	11.822	11.830	(0.913)	1139069	74.8	74.8
39	2-Nitroaniline	65.00	11.986	11.994	(0.925)	493230	81.4	81.4
40	Dimethylphthalate	163.00	12.315	12.324	(0.951)	1643756	81.7	81.7
41	2,6-Dinitrotoluene	165.00	12.487	12.495	(0.964)	413784	88.9	88.9
42	Acenaphthylene	152.00	12.659	12.667	(0.977)	1885105	75.2	75.2 (M)
43	3-Nitroaniline	138.00	12.781	12.796	(0.987)	273770	81.8	81.8
* 44	Acenaphthene-d10	164.00	12.953	12.954	(1.000)	557743	40.0	
45	2,4-Dinitrophenol	184.00	12.988	12.996	(1.003)	280321	149	149 (Q)
46	Acenaphthene	153.00	13.024	13.032	(1.006)	1134229	73.1	73.1
47	4-Nitrophenol	109.00	12.996	13.004	(1.003)	369878	141	141
48	2,4-Dinitrotoluene	165.00	13.282	13.297	(1.025)	547856	92.0	92.0
49	Dibenzofuran	168.00	13.325	13.333	(1.029)	1684309	78.4	78.4
50	Diethylphthalate	149.00	13.704	13.712	(1.058)	1754145	83.3	83.3
51	4-Chlorophenyl-phenylether	204.00	13.933	13.941	(1.076)	743559	85.9	85.9
	Fluorene	166.00	14.026	14.034	(1.083)	1312151	78.4	78.4
	4-Nitroaniline	138.00	14.034	14.034	(1.083)	392338	116	116
54	4,6-Dinitro-2-methylphenol	198.00	14.134	14.142	(0.886)	508951	156	156 (Q)
55	N-Nitrosodiphenylamine	169.00	14.170	14.178	(0.888)	1023584	79.5	79.5
$ 56	2,4,6-Tribromophenol	329.60	14.542	14.543	(1.123)	646260	193	193 (AR)
57	4-Bromophenyl-phenylether	248.00	14.936	14.944	(0.936)	541288	107	107
58	Hexachlorobenzene	283.60	15.329	15.330	(0.961)	675273	99.6	99.6
59	Pentachlorophenol	265.60	15.644	15.645	(0.981)	524047	150	150
* 60	Phenanthrene-d10	188.00	15.952	15.960	(1.000)	906025	40.0	
61	Phenanthrene	178.00	16.009	16.017	(1.004)	2115042	84.3	84.3
62	Anthracene	178.00	16.102	16.118	(1.009)	2169392	83.8	83.8
63	Carbazole	167.00	16.374	16.368	(1.026)	2001555	150	150 (M)
64	Di-n-butylphthalate	149.00	17.019	17.027	(1.067)	3212315	82.8	82.8
65	Fluoranthene	202.00	18.508	18.516	(1.160)	2477966	92.1	92.1
66	Benzidine	184.00	18.637	18.645	(0.865)	139930	27.7	27.7
67	Pyrene	202.00	19.002	19.010	(0.882)	2469779	85.8	85.8
$ 68	Terphenyl-d14	244.00	19.195	19.203	(0.891)	2233790	102	102 (R)
69	Butylbenzylphthalate	149.00	20.154	20.162	(0.936)	1484817	76.2	76.2
70	bis(2-Ethylhexyl)phthalate	149.00	21.314	21.322	(0.990)	2101896	79.5	79.5
71	3,3'-Dichlorobenzidine	252.00	21.335	21.358	(0.991)	580304	85.6	85.6
72	Benzo(a)anthracene	228.00	21.493	21.501	(0.998)	2530534	91.8	91.8
* 73	Chrysene-d12	240.00	21.536	21.544	(1.000)	922154	40.0	
74	Chrysene	228.00	21.600	21.616	(1.003)	2374100	87.5	87.5
75	Di-n-octylphthalate	149.00	22.760	22.775	(0.884)	3635699	74.9	74.9
76	Benzo(b)fluoranthene	252.00	24.442	24.465	(0.949)	2583787	96.5	96.5
	Benzo(k)fluoranthene	252.00	24.521	24.543	(0.952)	2596279	98.4	98.4
	Benzo(a)pyrene	252.00	25.573	25.603	(0.993)	2008127	88.1	88.1
* 79	Perylene-d12	264.00	25.752	25.753	(1.000)	832079	40.0	
80	Dibenzo(a,h)anthracene	278.00	30.541	30.571	(1.186)	1934462	95.6	95.6

Data File: /chem/mse.i/e031496.b/e9129.d
Report Date: 15-Mar-1996 08:48

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
81 Indeno(1,2,3-cd)pyrene	276.00	30.556	30.600	(1.187)	2150485	90.5	90.5
82 Benzo(g,h,i)perylene	276.00	31.930	32.010	(1.240)	769466	45.4	45.4

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

2L

LEACHATE SEMIVOLATILE SURROGATE RECOVERY

0147

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
01	SSPK01	87	83	93	68	73	87			0
02	CLJ100-WC1MS	75	75	90	67	67	81			0
03	CLJ100-WC1MSD	93	90	107	79	81	103			0
04	CLJ100-WC1	88	87	103	67	75	97			0
05	SBLK01	87	87	93	70	76	91			0

		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(35-114)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(33-141)	
S4 (PHL)	= Phenol-d5	(10-110)	
S5 (2FP)	= 2-Fluorophenol	(21-110)	
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)	
S7 (2CP)	= 2-Chlorophenol-d4		(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4		(advisory)

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

3L

LEACHATE SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix Spike - EPA Sample No.: CLJ100-WC1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
2-Methylphenol	250	0	200	80	30-130
4-Methylphenol	520	0	400	77	30-130
Hexachloroethane	260	0	110	42	30-130
Nitrobenzene	250	0	210	84	30-130
Hexachlorobutadiene	250	0	120	48	30-130
2,4,6-Trichlorophenol	270	0	210	78	30-130
2,4,5-Trichlorophenol	250	0	200	80	30-130
2,4-Dinitrotoluene	270	0	170	63	24- 96
Hexachlorobenzene	260	0	190	73	30-130
Pentachlorophenol	260	0	170	65	9-103
Pyridine	250	0	120	48	30-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2-Methylphenol	250	240	96	18	20	30-130
4-Methylphenol	520	480	92	18	20	30-130
Hexachloroethane	260	170	65	43 *	20	30-130
Nitrobenzene	250	260	104	21 *	20	30-130
Hexachlorobutadiene	250	160	64	29 *	20	30-130
2,4,6-Trichlorophenol	270	250	93	17	20	30-130
2,4,5-Trichlorophenol	250	230	92	14	20	30-130
2,4-Dinitrotoluene	270	210	78	21	38	24- 96
Hexachlorobenzene	260	240	92	23 *	20	30-130
Pentachlorophenol	260	210	81	21	50	9-103
Pyridine	250	150	60	22 *	20	30-130

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 5 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

IMENTS: _____

3L

LEACHATE SEMIVOLATILE BLANK SPIKE RECOVERY

0149

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix Spike - EPA Sample No.: SSPK01

COMPOUND	SPIKE ADDED (ug/L)	BLANK CONCENTRATION (ug/L)	BS CONCENTRATION (ug/L)	BS % REC #	QC LIMITS REC.
2-Methylphenol	250	0	210	84	30-130
4-Methylphenol	520	0	420	81	30-130
Hexachloroethane	260	0	140	54	30-130
Nitrobenzene	250	0	230	92	30-130
Hexachlorobutadiene	250	0	130	52	30-130
2,4,6-Trichlorophenol	270	0	210	78	30-130
2,4,5-Trichlorophenol	250	0	200	80	30-130
2,4-Dinitrotoluene	270	0	180	67	24- 96
Hexachlorobenzene	260	0	190	73	30-130
Pentachlorophenol	260	0	150	58	9-103
Pyridine	250	0	130	52	30-130

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

Spike Recovery: 0 out of 11 outside limits

COMMENTS: _____

4B

SEMIVOLATILE METHOD BLANK SUMMARY 0150

EPA SAMPLE NO.

SBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Lab File ID: E9127 Lab Sample ID: N7C60481C

Instrument ID: GC/MSC.I Date Extracted: 03/13/96

Matrix: (soil/water) WATER Date Analyzed: 03/14/96

Level: (low/med) LOW Time Analyzed: 17:31

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	CLJ100-WC1	JP5002C	E9126	03/14/96
02	CLJ100-WC1MSD	JP5002CR	E9125	03/14/96
03	SSPK01	N7C60481CS	E9123	03/14/96
04	CLJ100-WC1MS	JP5002CS	E9124	03/14/96

COMMENTS:

5B

SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: OHM Analytical Division Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CCJ100-WC1

Lab File ID: E9115 DFTPP Injection Date: 3/14/96

Instrument ID: MSe.i DFTPP Injection Time: 0924

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 80.0% of mass 198	51.0
68	Less than 2.0% of mass 69	0.00 (0.00)1
69	Mass 69 relative abundance	57.5
70	Less than 2.0% of mass 69	0.06 (0.10)1
127	25.0 - 75.0% of mass 198	50.1
197	Less than 1.0% of mass 198	0.00
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.87
275	10.0 - 30.0% of mass 198	24.4
365	Greater than 0.75% of mass 198	3.27
441	Present, but less than mass 443	13.1
442	40.0 - 110.0% of mass 198	84.7
443	15.0 - 24.0% of mass 442	16.5 (19.5)2

1-Value is % mass 69 2-Value is % mass 442

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD020	SSTD020	E9117	3/14/96	10:27
02	SSTD050	SSTD050	E9118		11:11
03	SSTD080	SSTD080	E9119		11:56
04	SSTD120	SSTD120	E9120		12:40
05	SSTD160	SSTD160	E9121		13:25
06	SSPK01	N7C604 8ICS	E9123		14:49
07	CCJ100-WC1MS	JPS002CS	E9124		15:29
08	CCJ100-WC1MSD	JPS002CR	E9125		16:10
09	CCJ100-WC1	JPS002C	E9126		16:51
10	SBLK01	N7C604 8IC	E9127		17:31
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

page 1 of 1

8B

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: OHM Analytical Division Contract: NFESC

Lab Code: N/A Case No.: 1838N SAS No.: N/A SDG No.: CLT00-WC1

Lab File ID (Standard): E9118 Date Analyzed: 3/14/96

Instrument ID: MSe01 Time Analyzed: 11:11

	IS1(DCB) AREA #	RT #	IS2(NPT) AREA #	RT #	IS3(ANT) AREA #	RT #
12 HOUR STD	282475	7.79	1129077	9.68	605717	12.95
UPPER LIMIT	564950	8.29	2258154	10.18	1211434	13.45
LOWER LIMIT	141238	7.29	564538	9.18	302858	12.45
EPA SAMPLE NO.						
01 SSPK01	292598	7.79	1068403	9.68	569493	12.95
02 CLT100-WCMS	310322	7.79	1145330	9.68	610196	12.94
03 CLT100-WCMSD	299624	7.79	1128422	9.68	598534	12.95
04 CLT100-WC1	294227	7.79	1103796	9.68	586147	12.95
05 SBLK01	278241	7.79	1039084	9.68	557266	12.95
06						
07						
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18						
19						
20						
21						
22						

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

8C

SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: GAM Analytical Division Contract: NFESC

Lab Code: N/A Case No.: 18349 SAS No.: N/A SDG No.: CWJ00-WC1

Lab File ID (Standard): E9118 Date Analyzed: 3/14/96

Instrument ID: MSE.i Time Analyzed: 11:11

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	939473	15.95	903290	21.53	788986	25.25
	UPPER LIMIT	1878946	16.45	1806580	22.03	1577972	25.75
	LOWER LIMIT	469736	15.45	451645	21.03	394493	24.75
	EPA SAMPLE NO.						
01	SSBK01	859228	15.95	805033	21.52	697438	25.74
02	CWJ00-WC1MS	912814	15.95	858916	21.52	732308	25.74
03	CWJ00-WC1MSD	898144	15.95	846915	21.52	767586	25.74
04	CWJ00-WC1	861669	15.95	826408	21.52	729411	25.75
05	SBLK01	817968	15.95	768628	21.52	660166	25.74
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag internal standard area values with an asterisk.
* Values outside of QC limits.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

0154 EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix: (soil/water) WATER Lab Sample ID: JP5002C

Sample wt/vol: 400 (g/mL) ML Lab File ID: E9126

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/13/96

Concentrated Extract Volume: 4000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

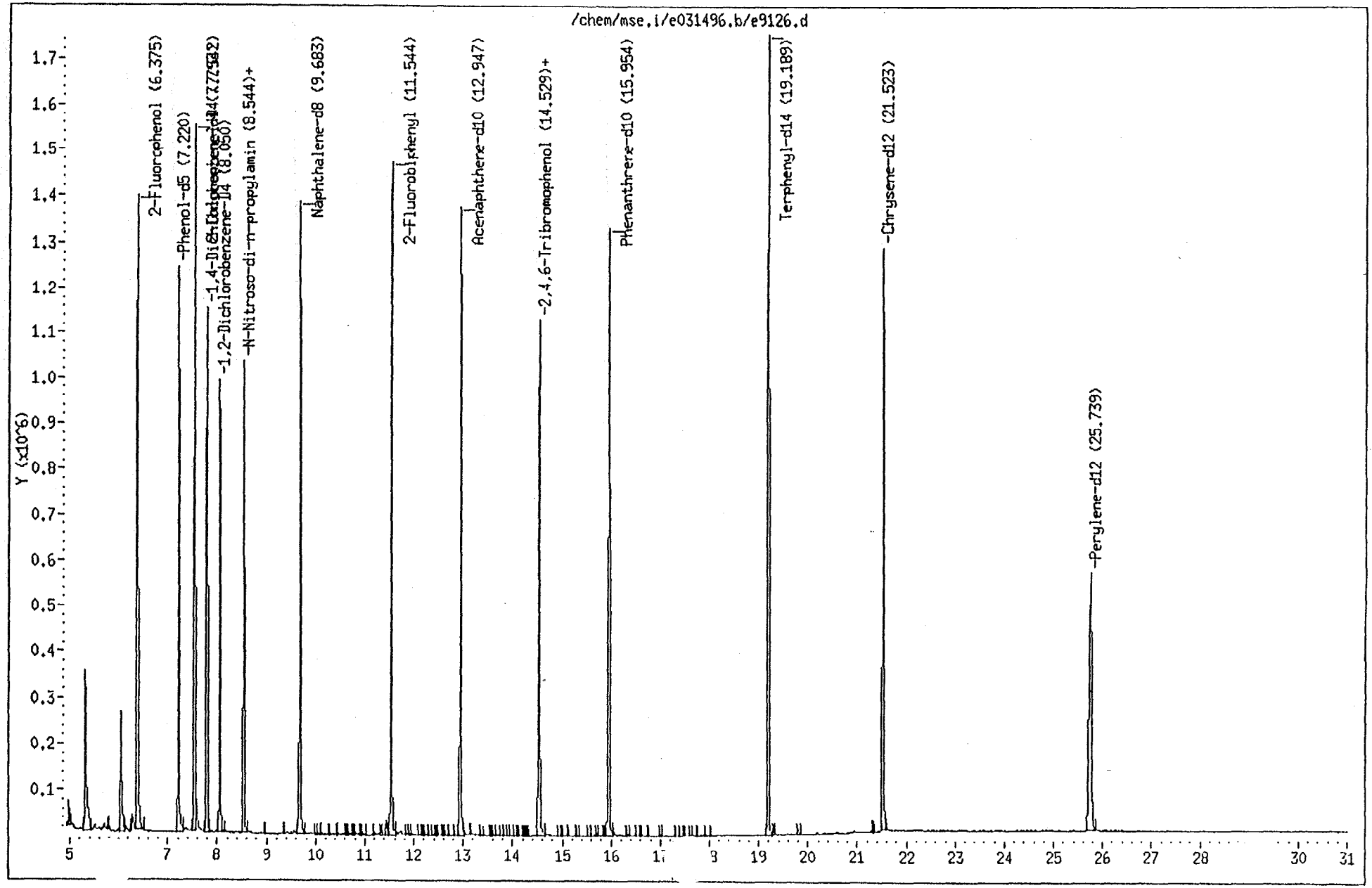
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	100	U
118-74-1	Hexachlorobenzene	100	U
67-72-1	Hexachloroethane	100	U
87-68-3	Hexachlorobutadiene	100	U
95-48-7	2-Methylphenol	100	U
106-44-5	4-Methylphenol	100	U
98-95-3	Nitrobenzene	100	U
87-86-5	Pentachlorophenol	100	U
110-86-1	Pyridine	100	U
95-95-4	2,4,5-Trichlorophenol	100	U
88-06-2	2,4,6-Trichlorophenol	100	U

Data File: /chem/mse.i/e031496.b/e9126.d
Date : 14-MAR-96 16:51
Client ID:
Sample Info: 18319n clj100-wc1

Column phase: J&W DB-5

Instrument: mse.i

Operator: K. Bigelow
Column diameter: 0.25



Data File: /chem/mse.i/e031496.b/e9126.d
Report Date: 15-Mar-1996 06:18

OHM Analytical Division

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/mse.i/e031496.b/e9126.d
Lab Smp Id:
Inj Date : 14-MAR-96 16:51
Operator : K. Bigelow Inst ID: mse.i
Smp Info : 18319n clj100-wc1
Misc Info : jp5002c,n7c60481,m1,1,1
Comment :
Method : /chem/mse.i/e031496.b/031496eclp.m
Meth Date : 15-Mar-1996 06:17 kathryn Quant Type: ISTD
Cal Date : 14-MAR-96 11:11 Cal File: e9118.d
Als bottle: 12
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
		2-Fluorophenol	112.00	6.375	6.375	(0.818)	621880	56.0	56.0(R)
$	4	Phenol-d5	99.00	7.220	7.227	(0.926)	652839	50.1	50.1(R)
$	7	2-Chlorophenol-D4	132.00	7.542	7.549	(0.968)	667082	63.0	63.0(R)
*	10	1,4-Dichlorobenzene-d4	152.00	7.793	7.792	(1.000)	294227	40.0	
$	13	1,2-Dichlorobenzene-D4	152.00	8.050	8.057	(1.033)	238125	38.5	38.5(R)
	17	N-Nitroso-di-n-propylamine	70.00	8.544	8.286	(1.096)	76287	8.34	8.34(Q)
$	19	Nitrobenzene-d5	82.00	8.544	8.558	(0.882)	549072	43.9	43.9(R)
*	27	Naphthalene-d8	136.00	9.683	9.689	(1.000)	1103796	40.0	
$	37	2-Fluorobiphenyl	172.00	11.544	11.550	(0.892)	790997	43.3	43.3(R)
*	44	Acenaphthene-d10	164.00	12.947	12.954	(1.000)	586147	40.0	
$	56	2,4,6-Tribromophenol	329.60	14.529	14.543	(1.122)	256052	72.8	72.8(R)
	57	4-Bromophenyl-phenylether	248.00	14.529	14.944	(0.911)	10452	2.18	2.18(Q)
*	60	Phenanthrene-d10	188.00	15.954	15.960	(1.000)	861669	40.0	
$	68	Terphenyl-d14	244.00	19.189	19.203	(0.892)	1016001	51.6	51.6(R)
*	73	Chrysene-d12	240.00	21.523	21.544	(1.000)	826408	40.0	
*	79	Perylene-d12	264.00	25.747	25.753	(1.000)	729411	40.0	

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 14-MAR-96 10:27
End Cal Date : 14-MAR-96 13:25
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/mse.i/e031496.b/031496eclp.m
Cal Date : 14-Mar-1996 14:05
Curve Type : Average

Calibration File Names:
Level 1: /chem/mse.i/e031496.b/e9117.d
Level 2: /chem/mse.i/e031496.b/e9118.d
Level 3: /chem/mse.i/e031496.b/e9119.d
Level 4: /chem/mse.i/e031496.b/e9120.d
Level 5: /chem/mse.i/e031496.b/e9121.d

	Compound	20 Level 1	50 Level 2	80 Level 3	120 Level 4	150 Level 5	RRF	% RSD
1	N-Nitrosodimethylamine	0.90542	0.93286	0.95408	0.98553	1.02973	0.96172	5.014
2	Pyridine	1.80646	1.85430	1.83023	1.83043	1.87198	1.83868	1.368
5	Phenol	1.96200	1.80429	1.65448	1.51406	1.41223	1.66942	13.201
6	bis(2-Chloroethyl)ether	3.82441	3.39714	3.09104	2.78541	2.72530	3.16486	14.400
8	2-Chlorophenol	1.49275	1.44771	1.35440	1.24120	1.18907	1.34503	9.662
9	1,3-Dichlorobenzene	1.55793	1.50710	1.44966	1.38598	1.32742	1.44562	6.372
11	1,4-Dichlorobenzene	1.57755	1.51758	1.46146	1.38250	1.36731	1.46130	6.096
12	2-Methylphenol	1.37111	1.31591	1.29088	1.18318	1.12036	1.25629	8.133
14	1,2-Dichlorobenzene	1.47337	1.31557	1.18776	1.12407	1.12308	1.24477	12.044
15	2,2'-oxybis(1-Chloropropene)	2.37122	2.07925	1.86526	1.70007	1.58606	1.92037	16.298
16	4-Methylphenol	1.44637	1.39883	1.32994	1.30982	1.26410	1.34981	5.376
17	N-Nitroso-di-n-propylamine	1.31910	1.24357	1.18697	1.14575	1.07837	1.19475	7.700
18	Hexachloroethane	0.71021	0.68051	0.65798	0.64385	0.61999	0.66251	5.216
20	Nitrobenzene	0.43059	0.41593	0.39338	0.36343	0.34915	0.39050	8.783
21	Isophorone	0.96564	0.88156	0.81853	0.76855	0.74380	0.83562	10.743
22	2,4-Dimethylphenol	0.38179	0.36780	0.34114	0.32007	0.31635	0.34543	8.352
23	2-Nitrophenol	0.19203	0.22135	0.21199	0.18398	0.17368	0.19661	10.027
24	bis(2-Chloroethoxy)methane	0.53892	0.49293	0.44977	0.41025	0.37326	0.45302	14.463
25	2,4-Dichlorophenol	0.26736	0.28147	0.27040	0.25859	0.24967	0.26550	4.539
26	1,2,4-Trichlorobenzene	0.29511	0.29861	0.28396	0.27736	0.26944	0.28489	4.259
28	Naphthalene	1.04882	0.93428	0.82363	0.77041	0.76153	0.86773	14.105
29	4-Chloroaniline	0.53184	0.42790	0.42366	0.40322	0.39905	0.43813	12.247
30	Hexachlorobutadiene	0.18119	0.19630	0.19349	0.21223	0.21879	0.20140	7.292
31	4-Chloro-3-methylphenol	0.31341	0.31707	0.29927	0.28871	0.28095	0.29988	5.172
?	2-Methylnaphthalene	0.64756	0.62915	0.58014	0.53550	0.53399	0.58607	8.764
	1-Methylnapthalene	0.63981	0.60562	0.55860	0.52049	0.50905	0.56671	9.818
34	Hexachlorocyclopentadiene	0.21099	0.26951	0.29407	0.29099	0.29414	0.27194	13.088

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 14-MAR-96 10:27
End Cal Date : 14-MAR-96 13:25
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/mse.i/e031496.b/031496eclp.m
Cal Date : 14-Mar-1996 14:05
Curve Type : Average

	Compound	20 Level 1	50 Level 2	80 Level 3	120 Level 4	160 Level 5	RRF	% RSD	
35	2,4,6-Trichlorophenol	0.34572	0.37347	0.36606	0.35758	0.35388	0.35934	2.995	
36	2,4,5-Trichlorophenol	0.34855	0.39067	0.38078	0.37113	0.37512	0.37325	4.190	
38	2-Chloronaphthalene	1.10500	1.09190	1.02506	0.94621	0.93368	1.02037	7.796	
39	2-Nitroaniline	0.42996	0.43473	0.42591	0.40504	0.39968	0.41926	3.688	
40	Dimethylphthalate	1.46439	1.44341	1.36037	1.27843	1.24898	1.35912	7.060	
41	2,6-Dinitrotoluene	0.30197	0.33393	0.32919	0.32198	0.31354	0.32012	3.979	
42	Acenaphthylene	1.88314	1.79897	1.63751	1.50479	1.45101	1.65508	11.192	
43	3-Nitroaniline	0.29471	0.23991	0.25814	0.28539	0.29869	0.27557	9.240	
45	2,4-Dinitrophenol	0.06725	0.13483	0.15983	0.17112	0.17682	0.14197	31.535	<-
46	Acenaphthene	1.16716	1.11216	1.01740	0.94237	0.88501	1.02482	11.368	<-
47	4-Nitrophenol	0.16900	0.18824	0.19305	0.19403	0.19652	0.18817	5.914	
48	2,4-Dinitrotoluene	0.38325	0.42720	0.43159	0.41170	0.40047	0.41084	4.819	
49	Dibenzofuran	1.57783	1.53984	1.45519	1.35306	1.32588	1.45136	7.570	
50	Diethylphthalate	1.58229	1.51065	1.42359	1.33590	1.32161	1.43481	7.810	
51	4-Chlorophenyl-phenylether	0.59922	0.62073	0.61003	0.59715	0.62071	0.60957	1.853	
52	Fluorene	1.26208	1.20089	1.10519	1.04184	1.05503	1.13301	8.423	
53	4-Nitroaniline	0.30787	0.24183	0.20523	0.18635	0.20729	0.22991	20.848	
54	4,6-Dinitro-2-methylphenol	0.09637	0.14410	0.16777	0.17539	0.17540	0.15180	22.095	
55	N-Nitrosodiphenylamine	0.58943	0.56869	0.53627	0.49559	0.46496	0.53099	9.638	
57	4-Bromophenyl-phenylether	0.19193	0.22256	0.23502	0.24607	0.25936	0.23099	11.132	
58	Hexachlorobenzene	0.24130	0.29937	0.34024	0.36944	0.38828	0.32772	17.947	
59	Pentachlorophenol	0.11618	0.15442	0.17911	0.19870	0.20831	0.17134	21.649	<-
61	Phenanthrene	1.14655	1.10797	1.05265	1.00113	0.99463	1.06058	5.251	
62	Anthracene	1.17091	1.14330	1.07776	1.02364	1.02491	1.08811	6.192	
63	Carbazole	0.91331	0.58842	0.48453	0.53531	0.60944	0.62620	26.778	
64	Di-n-butylphthalate	1.87563	1.71215	1.58982	1.48452	1.43456	1.61934	11.025	
65	Fluoranthene	1.17480	1.18738	1.17487	1.16570	1.18856	1.17846	0.789	
66	Benzidine	0.26292	0.21913	0.23271	0.18529	0.22700	0.22541	12.374	
67	Pyrene	1.24771	1.24876	1.19332	1.17792	1.19847	1.21424	2.647	
69	Butylbenzylphthalate	0.92561	0.84468	0.75575	0.71775	0.70974	0.79070	11.696	
70	bis(2-Ethylhexyl)phthalate	1.28648	1.14713	1.03435	1.02598	1.01122	1.10123	10.601	
71	3,3'-Dichlorobenzidine	0.29320	0.29397	0.33613	0.45392	0.49125	0.37469	25.080	
	Benzo(a)anthracene	1.14536	1.19612	1.16694	1.17021	1.18799	1.17332	1.687	
74	Chrysene	1.11801	1.17684	1.14876	1.16580	1.18689	1.15926	2.334	

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 14-MAR-96 10:27
End Cal Date : 14-MAR-96 13:25
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem/mse.i/e031496.b/031496eclp.m
Cal Date : 14-Mar-1996 14:05
Curve Type : Average

	Compound	20 Level 1	50 Level 2	80 Level 3	120 Level 4	160 Level 5	___ RRF	% RSD
	75 Di-n-octylphthalate	2.34219	2.33401	2.08853	2.06164	1.93570	2.15261	8.305
	76 Benzo(b)fluoranthene	1.05919	1.28693	1.34342	1.37352	1.48213	1.30904	11.970
	77 Benzo(k)fluoranthene	1.17632	1.26770	1.28725	1.33810	1.12821	1.23952	6.890
	78 Benzo(a)pyrene	0.97633	1.09584	1.13996	1.16850	1.18643	1.11342	7.537
	80 Dibenzo(a,h)anthracene	0.80538	0.97238	1.00512	1.02432	0.96120	0.95368	9.086
	81 Indeno(1,2,3-cd)pyrene	0.97423	1.14225	1.15892	1.17258	1.10309	1.11022	7.238
	82 Benzo(g,h,i)perylene	0.73564	0.81496	0.80911	0.78153	0.73519	0.77548	4.935
I>	3 2-Fluorophenol	1.47693	1.50810	1.49654	1.45982	1.43839	1.47596	1.895
IS	4 Phenol-d5	1.90555	1.76980	1.56929	1.55220	1.46999	1.67535	10.205
IS	7 2-Chlorophenol-D4	1.46799	1.43820	1.34396	1.27224	1.21564	1.34761	7.941
IS	13 1,2-Dichlorobenzene-D4	0.88924	0.83992	0.78309	0.74998	0.74545	0.80154	7.718
IS	19 Nitrobenzene-d5	0.47000	0.45358	0.43599	0.41034	0.39712	0.43341	6.923
IS	37 2-Fluorobiphenyl	1.30119	1.24770	1.18566	1.11509	1.08956	1.18784	7.457
IS	56 2,4,6-Tribromophenol	0.16663	0.23990	0.27406	0.32098	0.35127	0.27057	26.658
IS	68 Terphenyl-d14	0.87524	0.95215	0.95865	1.02868	1.03834	0.97061	6.822

Data File: /chem/mse.i/e031496.b/e9115a.d

Date : 14-MAR-96 09:24

Client ID:

Instrument: mse.i

Sample Info: dftpp tune

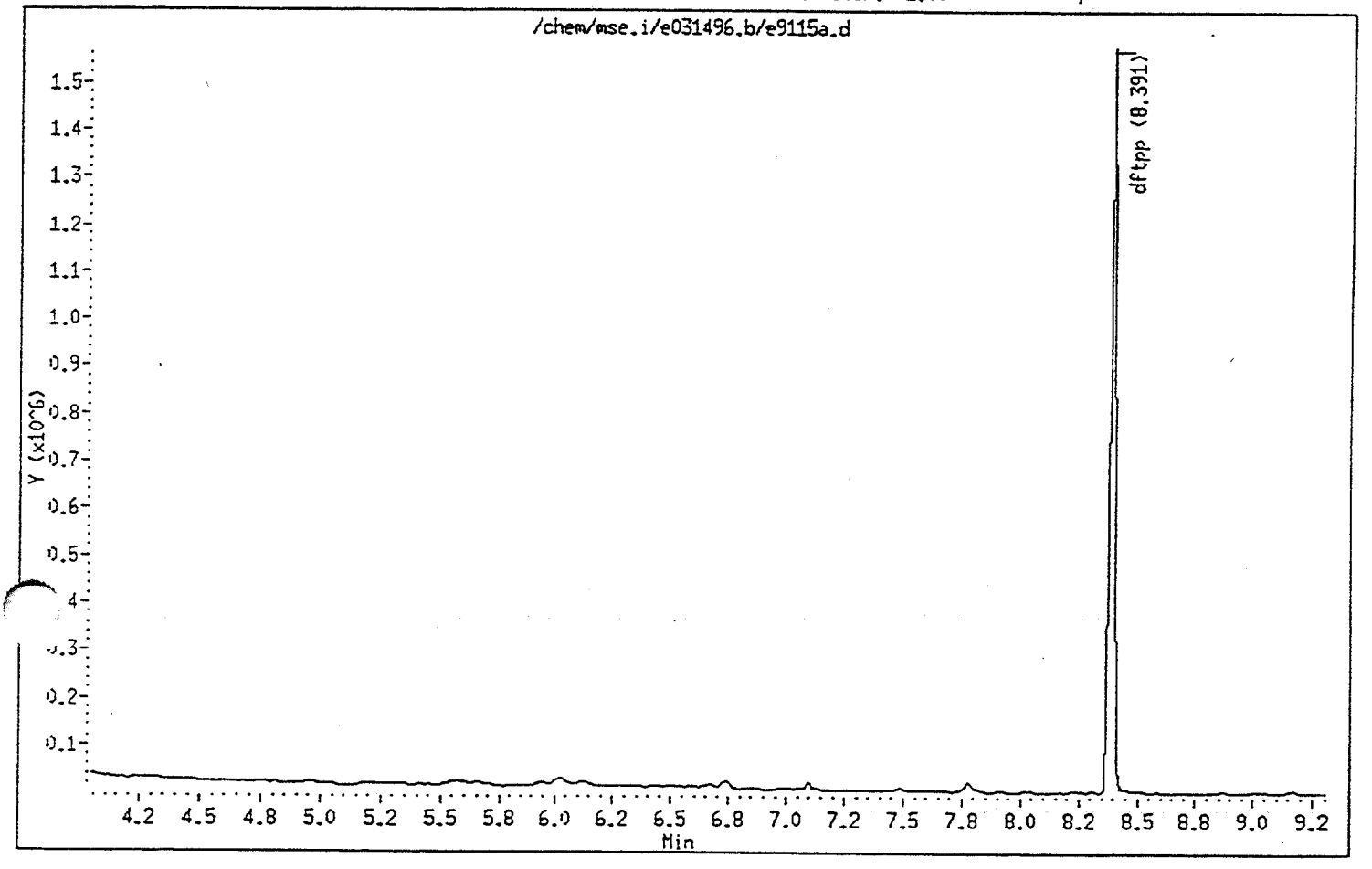
Volume Injected (uL): 1.0

Operator: K. Bigelow

Column phase:

Column diameter: 2.00

dlp KBigelow



Data File: /chem/mse.i/e031496.b/e9115a.d

Date : 14-MAR-96 09:24

Client ID:

Instrument: mse.i

Sample Info: dftpp tune

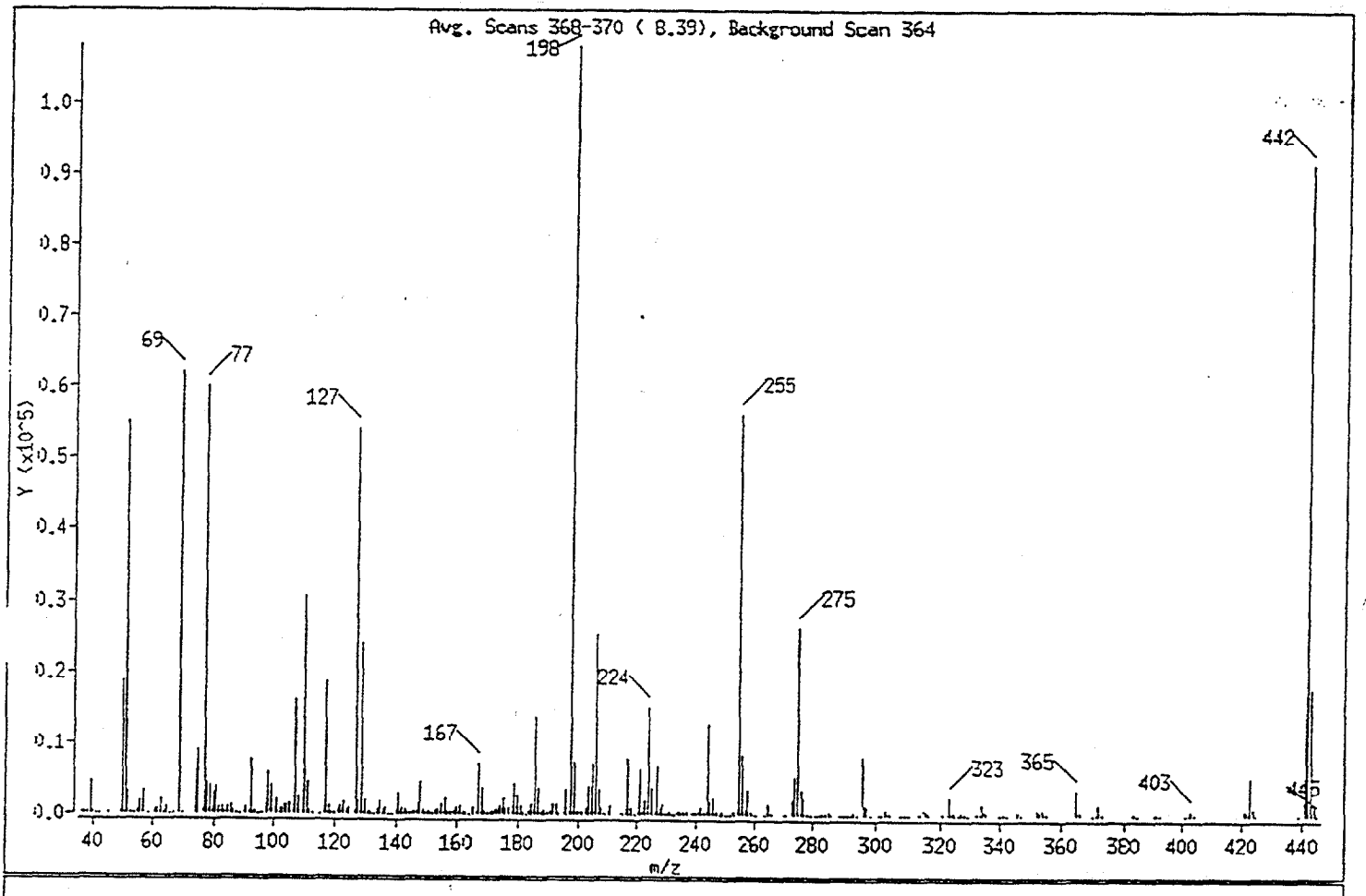
Volume Injected (uL): 1.0

Operator: K. Bigelow

Column phase:

Column diameter: 2.00

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 80.00% of mass 198	51.03
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	57.54
70	Less than 2.00% of mass 69	0.06 (0.10)
127	25.00 - 75.00% of mass 198	50.10
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.87
275	10.00 - 30.00% of mass 198	24.44
365	Greater than 0.75% of mass 198	3.27
441	Present, but less than mass 443	13.06
442	40.00 - 110.00% of mass 198	84.65
443	15.00 - 24.00% of mass 442	16.49 (19.48)

Data File: /chem/mse.i/e031496.b/e9115a.d
Date : 14-MAR-96 09:24
Client ID:
Instrument: mse.i
Sample Info: dftpp tune
Volume Injected (uL): 1.0
Operator: K. Bigelow
Column phase:
Column diameter: 2.00

Data File: e9115a.d
Spectrum : Avg. Scans 368-370 (8.39), Background Scan 364
Largest m/z: 197.90
Number of peaks: 274

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.05	198	128.00	1780	202.95	905	288.85	56
37.05	336	129.00	24064	203.95	4048	290.00	34
38.05	174	130.00	1962	205.05	7110	290.90	36
39.05	4515	131.00	389	206.05	25336	292.00	117
40.05	130	132.00	163	207.05	3493	293.00	532
40.85	60	132.90	12	207.95	920	293.90	67
42.05	50	134.00	682	208.95	368	296.00	8172
44.95	234	134.90	1767	210.05	616	296.90	1179
50.05	18560	135.90	799	210.95	1162	297.90	55
50.95	55160	136.90	1006	214.95	345	300.90	43
51.95	2949	137.90	85	216.95	7914	302.00	118
53.05	150	138.90	111	217.95	1027	303.00	853
53.85	35	140.90	3030	218.95	103	304.00	224
55.05	407	141.90	970	220.95	6488	307.80	79
56.00	1733	142.90	641	221.85	234	308.90	37
57.00	3382	143.95	180	222.95	1997	309.90	53
59.00	118	145.05	199	223.95	15000	313.90	344
61.00	659	145.95	623	224.95	3848	315.00	841
62.00	785	147.05	1563	226.95	6871	316.00	457
63.00	1983	147.95	4538	227.95	1016	316.80	40
64.00	303	148.95	881	228.95	1422	320.95	245
65.00	958	149.95	243	229.95	215	323.05	2445
66.00	112	151.05	396	230.95	612	324.05	458
67.00	51	152.05	225	232.00	60	325.05	34
68.90	62208	152.95	874	232.80	65	325.95	51
70.00	60	154.05	741	233.90	454	326.95	524
74.00	6177	154.95	1638	234.90	517	327.95	258
75.00	8979	155.95	2174	235.90	396	328.95	35
77.00	60000	157.05	512	237.00	461	332.05	181
78.00	4378	157.95	537	238.90	267	332.95	271
79.00	4110	158.95	407	239.90	205	333.95	1548
79.90	3061	159.95	951	241.00	445	334.95	405
80.90	3912	160.95	1345	242.00	967	339.95	36
81.90	1065	161.95	408	243.00	290	340.95	299
82.90	919	162.95	141	244.00	12706	341.95	46

Data File: /chem/mse.i/e031496.b/e9115a.d

Date : 14-MAR-96 09:24

Client ID:

Instrument: mse.i

Sample Info: dftpp tune

Volume Injected (uL): 1.0

Operator: K. Bigelow

Column phase:

Column diameter: 2.00

Data File: e9115a.d

Spectrum : Avg. Scans 368-370 (8.39), Background Scan 364

Largest m/z: 197.90

Number of peaks: 274

m/z	Y	m/z	Y	m/z	Y	m/z	Y
84.00	162	163.95	36	245.00	1824	345.95	636
85.05	941	164.95	1114	245.90	2428	347.05	55
85.95	1215	166.95	7191	246.90	522	352.00	755
86.95	572	167.95	3904	248.00	94	353.00	520
87.95	240	168.85	516	248.90	411	354.00	729
89.05	116	169.95	244	249.90	49	355.00	132
91.05	958	170.95	262	250.80	114	364.90	3537
92.95	7715	171.95	527	251.80	123	365.90	544
93.95	544	172.90	684	252.90	401	370.00	37
94.95	124	174.00	1217	254.90	56248	371.00	189
96.05	218	175.00	2224	255.90	8419	372.00	1498
97.95	6003	176.00	677	257.00	750	372.90	317
98.95	4159	177.00	984	257.90	3622	382.95	329
100.95	2083	178.90	4446	258.90	590	384.05	67
101.95	79	180.00	2702	259.90	58	390.05	170
102.95	833	180.90	1362	260.95	54	391.05	111
103.95	1272	181.90	236	263.95	42	391.95	60
104.95	1453	182.80	74	264.95	1545	400.85	45
106.95	16016	183.90	404	265.95	234	401.95	494
107.95	2518	185.00	1619	269.95	38	402.95	785
109.95	30768	186.00	13712	270.95	124	403.95	266
110.95	4678	186.90	3941	272.95	1972	421.00	687
111.95	620	188.00	410	273.95	5241	422.10	601
112.85	222	188.90	872	274.95	26416	423.00	5252
115.10	100	189.90	180	275.95	3648	424.00	1135
117.00	18624	191.00	525	276.95	2394	424.90	110
118.00	1356	191.90	1637	277.95	366	439.15	39
118.90	182	192.90	1624	278.95	43	441.15	14116
119.90	209	193.90	339	280.95	122	442.05	91520
122.00	1185	196.00	3467	282.05	61	443.05	17832
123.00	1809	197.90	108112	282.95	332	444.05	1689
123.90	870	198.90	7422	283.95	216	445.05	99
125.00	926	199.90	553	284.85	390		
127.00	54168	201.40	564	285.85	59		

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0164

SBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix: (soil/water) WATER Lab Sample ID: N7C60481C

Sample wt/vol: 400 (g/mL) ML Lab File ID: E9127

Level: (low/med) LOW Date Received: 3/12/96

% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/13/96

Concentrated Extract Volume: 4000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

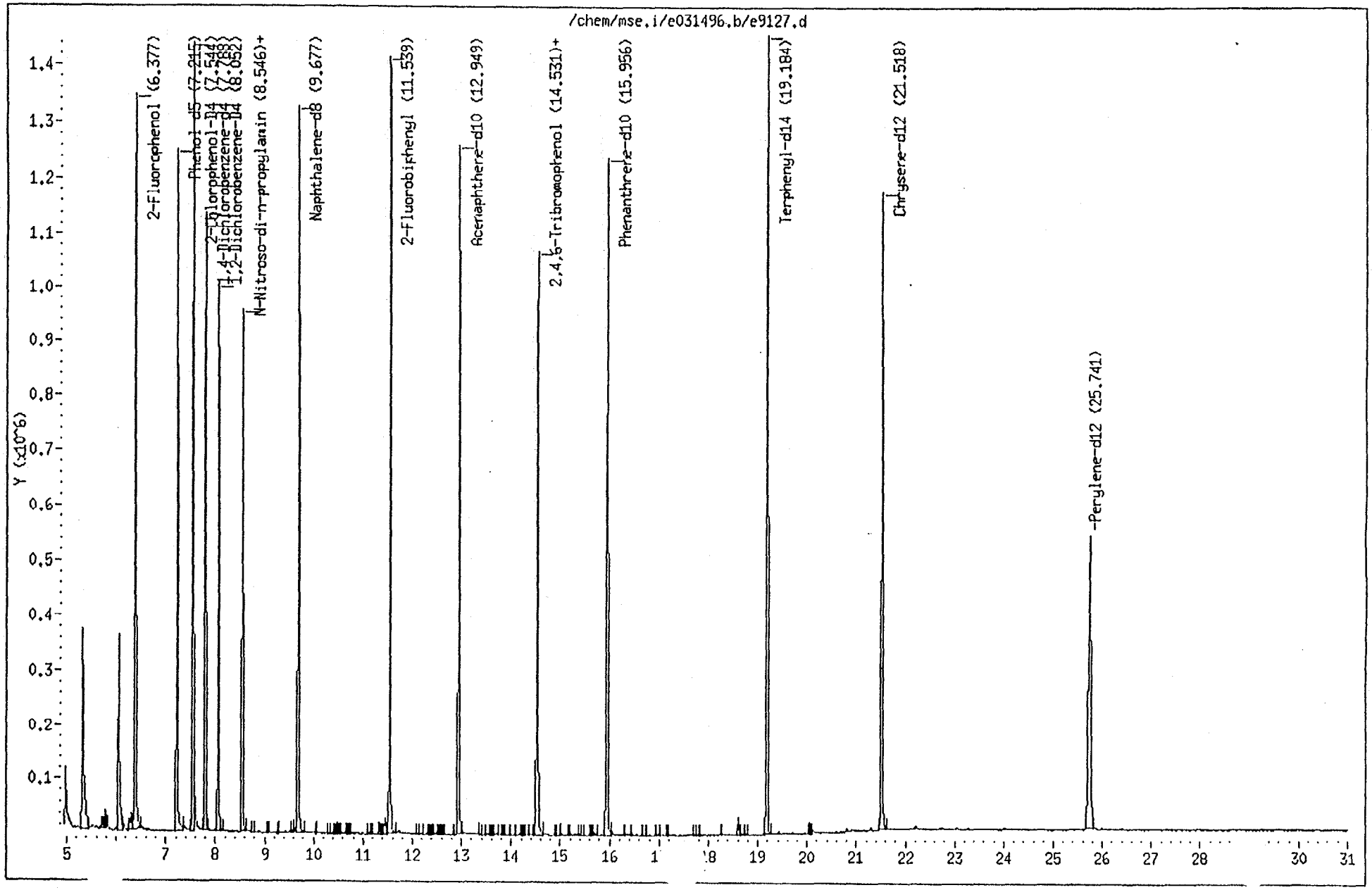
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	100	U
118-74-1	Hexachlorobenzene	100	U
67-72-1	Hexachloroethane	100	U
87-68-3	Hexachlorobutadiene	100	U
95-48-7	2-Methylphenol	100	U
106-44-5	4-Methylphenol	100	U
98-95-3	Nitrobenzene	100	U
87-86-5	Pentachlorophenol	100	U
110-86-1	Pyridine	100	U
95-95-4	2,4,5-Trichlorophenol	100	U
88-06-2	2,4,6-Trichlorophenol	100	U

0165 Data File: /chem/mse.i/e031496.b/e9127.d
Date : 14-MAR-96 17:31
Client ID:
Sample Info: Method blank

Instrument: mse.i

Operator: K. Bigelow
Column diameter: 0.25

Column phase: J&W DB-5



Data File: /chem/mse.i/e031496.b/e9127.d
Report Date: 15-Mar-1996 06:18

OHM Analytical Division

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/mse.i/e031496.b/e9127.d
Lab Smp Id:
Inj Date : 14-MAR-96 17:31
Operator : K. Bigelow Inst ID: mse.i
Smp Info : Method blank
Misc Info : n7c60481c,n7c60481,ml,1,1
Comment :
Method : /chem/mse.i/e031496.b/031496eclp.m
Meth Date : 15-Mar-1996 06:17 kathryn Quant Type: ISTD
Cal Date : 14-MAR-96 11:11 Cal File: e9118.d
Als bottle: 13
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

K Bigelow

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/ml)	
	2-Fluorophenol	112.00	6.377	6.375	(0.819)	601045	57.3	57.3(R)	
> 4	Phenol-d5	99.00	7.215	7.227	(0.926)	649044	52.7	52.7(R)	
S 7	2-Chlorophenol-D4	132.00	7.544	7.549	(0.969)	631648	63.1	63.1(R)	
* 10	1,4-Dichlorobenzene-d4	152.00	7.788	7.792	(1.000)	278294	40.0		
S 13	1,2-Dichlorobenzene-D4	152.00	8.052	8.057	(1.034)	239166	40.9	40.9(R)	
17	N-Nitroso-di-n-propylamine	70.00	8.546	8.286	(1.097)	71428	8.26	~~8.25~~(Q)	ND, Rt, MS
S 19	Nitrobenzene-d5	82.00	8.546	8.558	(0.883)	515481	43.7	43.7(R)	
* 27	Naphthalene-d8	136.00	9.677	9.689	(1.000)	1039084	40.0		
S 37	2-Fluorobiphenyl	172.00	11.546	11.550	(0.892)	753432	43.3	43.3(R)	
* 44	Acenaphthene-d10	164.00	12.949	12.954	(1.000)	557266	40.0		
S 56	2,4,6-Tribromophenol	329.60	14.531	14.543	(1.122)	228752	68.4	68.4(R)	
57	4-Bromophenyl-phenylether	248.00	14.531	14.944	(0.911)	9922	2.18	~~2.18~~(Q)	ND, Rt, MS
* 60	Phenanthrene-d10	188.00	15.948	15.960	(1.000)	817968	40.0		
S 68	Terphenyl-d14	244.00	19.184	19.203	(0.892)	847144	46.3	46.3(R)	
* 73	Chrysene-d12	240.00	21.518	21.544	(1.000)	768628	40.0		
* 79	Perylene-d12	264.00	25.741	25.753	(1.000)	660166	40.0		

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET 0167 EPA SAMPLE NO.

CLJ100-WC1MS

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix: (soil/water) WATER Lab Sample ID: JP5002CS

Sample wt/vol: 200 (g/mL) ML Lab File ID: E9124

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/13/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

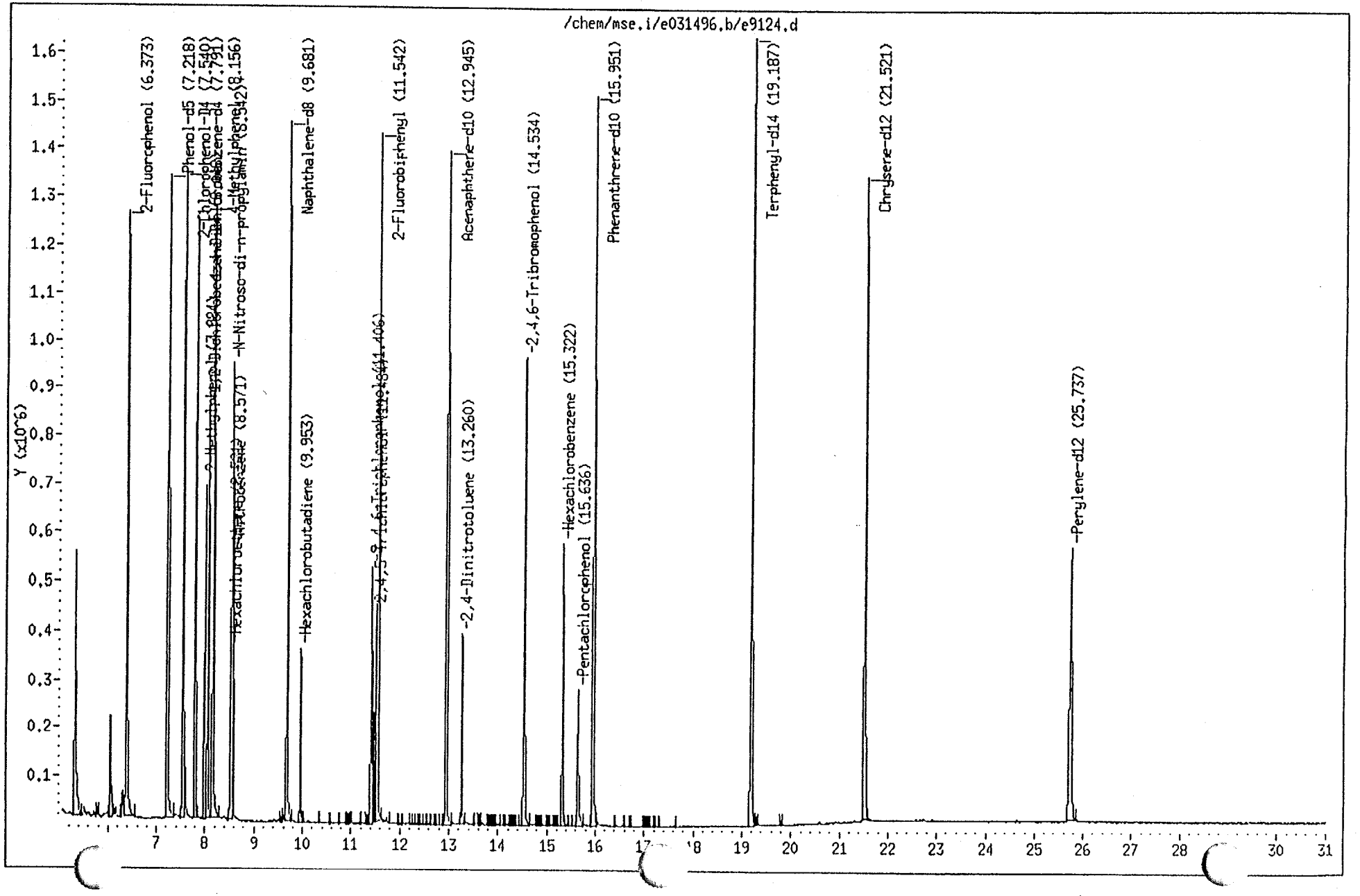
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	170	
118-74-1	Hexachlorobenzene	190	
67-72-1	Hexachloroethane	110	
87-68-3	Hexachlorobutadiene	120	
95-48-7	2-Methylphenol	200	
106-44-5	4-Methylphenol	400	
98-95-3	Nitrobenzene	210	
87-86-5	Pentachlorophenol	170	
110-86-1	Pyridine	120	
95-95-4	2,4,5-Trichlorophenol	200	
88-06-2	2,4,6-Trichlorophenol	210	

Data File: /chem/mse.i/e031496.b/e9124.d
Date : 14-MAR-96 15:29
Client ID:
Sample Info: 18319n clj100-wc1 MS

Column phase: J&W DB-5

Instrument: mse.i

Operator: K. Bigelow
Column diameter: 0.25



Data File: /chem/mse.i/e031496.b/e9124.d
Report Date: 14-Mar-1996 16:13

OHM Analytical Division

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/mse.i/e031496.b/e9124.d
Lab Smp Id:
Inj Date : 14-MAR-96 15:29
Operator : K. Bigelow Inst ID: mse.i
Smp Info : 18319n clj100-wc1 MS
Misc Info : jp5002cs,n7c60481,m1,1,1
Comment :
Method : /chem/mse.i/e031496.b/031496eclp.m
Meth Date : 14-Mar-1996 14:05 Quant Type: ISTD
Cal Date : 14-MAR-96 11:11 Cal File: e9118.d
Als bottle: 10
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

K Bigelow

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/ml)
		Pyridine	79.00	5.321	5.287	(0.683)	169702	11.8	11.8
$	3	2-Fluorophenol	112.00	6.373	6.375	(0.818)	590638	50.5	50.5(R)
$	4	Phenol-d5	99.00	7.218	7.227	(0.926)	685740	49.9	49.9(R)
$	7	2-Chlorophenol-D4	132.00	7.547	7.549	(0.969)	603562	54.1	54.1(R)
*	10	1,4-Dichlorobenzene-d4	152.00	7.791	7.792	(1.000)	310322	40.0	
	12	2-Methylphenol	108.00	7.984	7.993	(1.025)	199810	19.6	19.6
$	13	1,2-Dichlorobenzene-D4	152.00	8.048	8.057	(1.033)	210021	32.2	32.2(R)
	16	4-Methylphenol	108.00	8.156	8.172	(1.047)	432199	39.8	39.8
	17	N-Nitroso-di-n-propylamine	70.00	8.542	8.286	(1.096)	66899	6.93	~~6.93~~(Q)
	18	Hexachloroethane	117.00	8.521	8.522	(1.094)	59923	11.4	11.4
$	19	Nitrobenzene-d5	82.00	8.542	8.558	(0.882)	488088	37.6	37.6(R)
	20	Nitrobenzene	77.00	8.571	8.587	(0.885)	250340	21.0	21.0
*	27	Naphthalene-d8	136.00	9.681	9.689	(1.000)	1144530	40.0	
	30	Hexachlorobutadiene	225.00	9.953	9.961	(1.028)	66296	11.8	11.8
	35	2,4,6-Trichlorophenol	196.00	11.406	11.414	(0.881)	119119	20.9	20.9
	36	2,4,5-Trichlorophenol	196.00	11.484	11.500	(0.887)	120868	20.3	20.3
$	37	2-Fluorobiphenyl	172.00	11.542	11.550	(0.892)	716267	37.6	37.6(R)
*	44	Acenaphthene-d10	164.00	12.945	12.954	(1.000)	610196	40.0	
	48	2,4-Dinitrotoluene	165.00	13.267	13.297	(1.025)	112292	17.2	17.2
$	56	2,4,6-Tribromophenol	329.60	14.534	14.543	(1.123)	220952	60.4	60.4(R)
	58	Hexachlorobenzene	283.60	15.322	15.330	(0.961)	132942	19.4	19.4
	59	Pentachlorophenol	265.60	15.636	15.645	(0.980)	61154	17.4	17.4
*	60	Phenanthrene-d10	188.00	15.951	15.960	(1.000)	912814	40.0	
$	68	Terphenyl-d14	244.00	19.187	19.203	(0.892)	918105	44.9	44.9(R)
*	73	Chrysene-d12	240.00	21.521	21.544	(1.000)	858916	40.0	
		Perylene-d12	264.00	25.737	25.753	(1.000)	732308	40.0	

ND, Rt, MS

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET 0170

EPA SAMPLE NO.

CLJ100-WC1MSD

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix: (soil/water) WATER Lab Sample ID: JP5002CR

Sample wt/vol: 200 (g/mL) ML Lab File ID: E9125

Level: (low/med) LOW Date Received: 03/12/96

% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/13/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	210	
118-74-1	Hexachlorobenzene	240	
67-72-1	Hexachloroethane	170	
87-68-3	Hexachlorobutadiene	160	
95-48-7	2-Methylphenol	240	
106-44-5	4-Methylphenol	480	
98-95-3	Nitrobenzene	260	
87-86-5	Pentachlorophenol	210	
110-86-1	Pyridine	150	
95-95-4	2,4,5-Trichlorophenol	230	
88-06-2	2,4,6-Trichlorophenol	250	

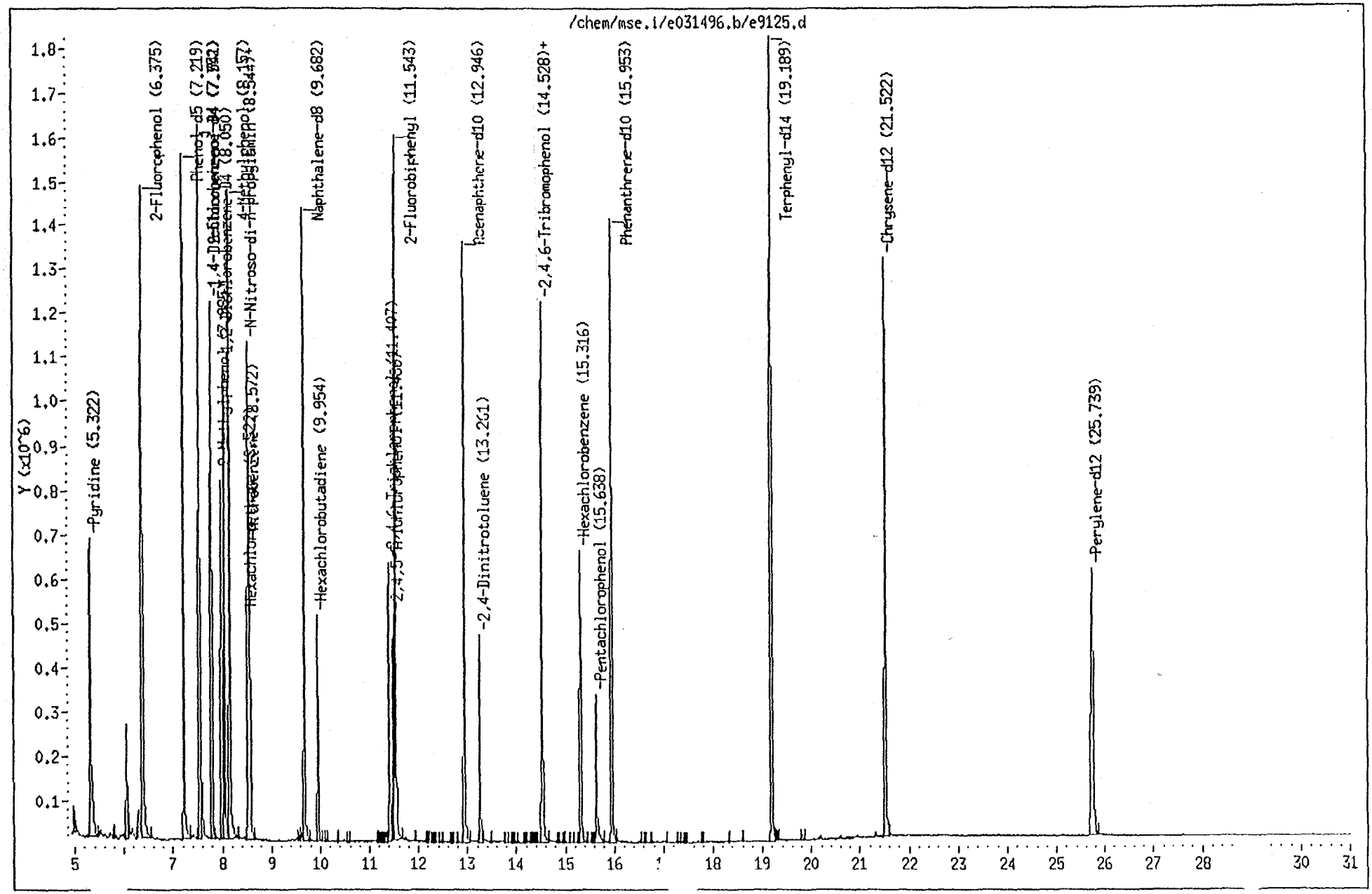
0171

Data File: /chem/mse.i/e031496.b/e9125.d
Date : 14-MAR-96 16:10
Client ID:
Sample Info: 18319n clj100-wc1 MSB

Instrument: mse.i

Operator: K. Bigelow
Column diameter: 0.25

Column phase: J&W DB-5



Data File: /chem/mse.i/e031496.b/e9125.d
Report Date: 14-Mar-1996 16:45

OHM Analytical Division

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/mse.i/e031496.b/e9125.d
Lab Smp Id:
Inj Date : 14-MAR-96 16:10
Operator : K. Bigelow Inst ID: mse.i
Smp Info : 18319n clj100-wc1 MSD
Misc Info : jp5002cr,n7c60481,m1,1,1
Comment :
Method : /chem/mse.i/e031496.b/031496eclp.m
Meth Date : 14-Mar-1996 14:05 Quant Type: ISTD
Cal Date : 14-MAR-96 11:11 Cal File: e9118.d
Als bottle: 11
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

K Bigelow

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/ml)	
		Pyridine	79.00	5.322	5.287	(0.683)	214561	15.4	15.4	
S	3	2-Fluorophenol	112.00	6.382	6.375	(0.819)	683029	60.5	60.5(R)	
S	4	Phenol-d5	99.00	7.219	7.227	(0.926)	781712	59.0	59.0(R)	
S	7	2-Chlorophenol-D4	132.00	7.541	7.549	(0.968)	689709	64.1	64.1(R)	
*	10	1,4-Dichlorobenzene-d4	152.00	7.792	7.792	(1.000)	299424	40.0		
	12	2-Methylphenol	108.00	7.985	7.993	(1.025)	233400	23.7	23.7	
S	13	1,2-Dichlorobenzene-D4	152.00	8.050	8.057	(1.033)	255681	40.7	40.7(R)	
	16	4-Methylphenol	108.00	8.157	8.172	(1.047)	498729	47.6	47.6	
	17	N-Nitroso-di-n-propylamine	70.00	8.544	8.286	(1.096)	81741	8.78	~~8.78~~(Q)	ND, Rt, MS
	18	Hexachloroethane	117.00	8.522	8.522	(1.094)	85028	16.7	16.7	
S	19	Nitrobenzene-d5	82.00	8.544	8.558	(0.882)	596388	46.6	46.6(R)	
	20	Nitrobenzene	77.00	8.572	8.587	(0.885)	301855	25.7	25.7	
*	27	Naphthalene-d8	136.00	9.682	9.689	(1.000)	1128472	40.0		
	30	Hexachlorobutadiene	225.00	9.954	9.961	(1.028)	90603	16.4	16.4	
	35	2,4,6-Trichlorophenol	196.00	11.407	11.414	(0.881)	138688	24.8	24.8	
	36	2,4,5-Trichlorophenol	196.00	11.486	11.500	(0.887)	134961	23.1	23.1	
S	37	2-Fluorobiphenyl	172.00	11.543	11.550	(0.892)	839328	45.0	45.0(R)	
*	44	Acenaphthene-d10	164.00	12.946	12.954	(1.000)	598534	40.0		
	48	2,4-Dinitrotoluene	165.00	13.261	13.297	(1.024)	134738	21.1	21.1	
S	56	2,4,6-Tribromophenol	329.60	14.535	14.543	(1.123)	278263	77.5	77.5(R)	
	57	4-Bromophenyl-phenylether	248.00	14.528	14.944	(0.911)	11625	2.33	~~2.33~~(Q)	ND, Rt, MS
	58	Hexachlorobenzene	283.60	15.323	15.330	(0.961)	159317	23.7	23.7	
	59	Pentachlorophenol	265.60	15.638	15.645	(0.981)	72913	21.0	21.0	
*	60	Phenanthrene-d10	188.00	15.946	15.960	(1.000)	898144	40.0		
S	68	Terphenyl-d14	244.00	19.189	19.203	(0.892)	1077113	53.5	53.5(R)	
		Chrysene-d12	240.00	21.522	21.544	(1.000)	846415	40.0		
*		Perylene-d12	264.00	25.739	25.753	(1.000)	767506	40.0		

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET 0173

EPA SAMPLE NO.

SSPK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix: (soil/water) WATER Lab Sample ID: N7C60481CS

Sample wt/vol: 400 (g/mL) ML Lab File ID: E9123

Level: (low/med) LOW Date Received: 3/12/96

% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/13/96

Concentrated Extract Volume: 4000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.00 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
121-14-2	2,4-Dinitrotoluene	180	
118-74-1	Hexachlorobenzene	190	
67-72-1	Hexachloroethane	140	
87-68-3	Hexachlorobutadiene	130	
95-48-7	2-Methylphenol	210	
106-44-5	4-Methylphenol	420	
98-95-3	Nitrobenzene	230	
87-86-5	Pentachlorophenol	150	
110-86-1	Pyridine	130	
95-95-4	2,4,5-Trichlorophenol	200	
88-06-2	2,4,6-Trichlorophenol	210	

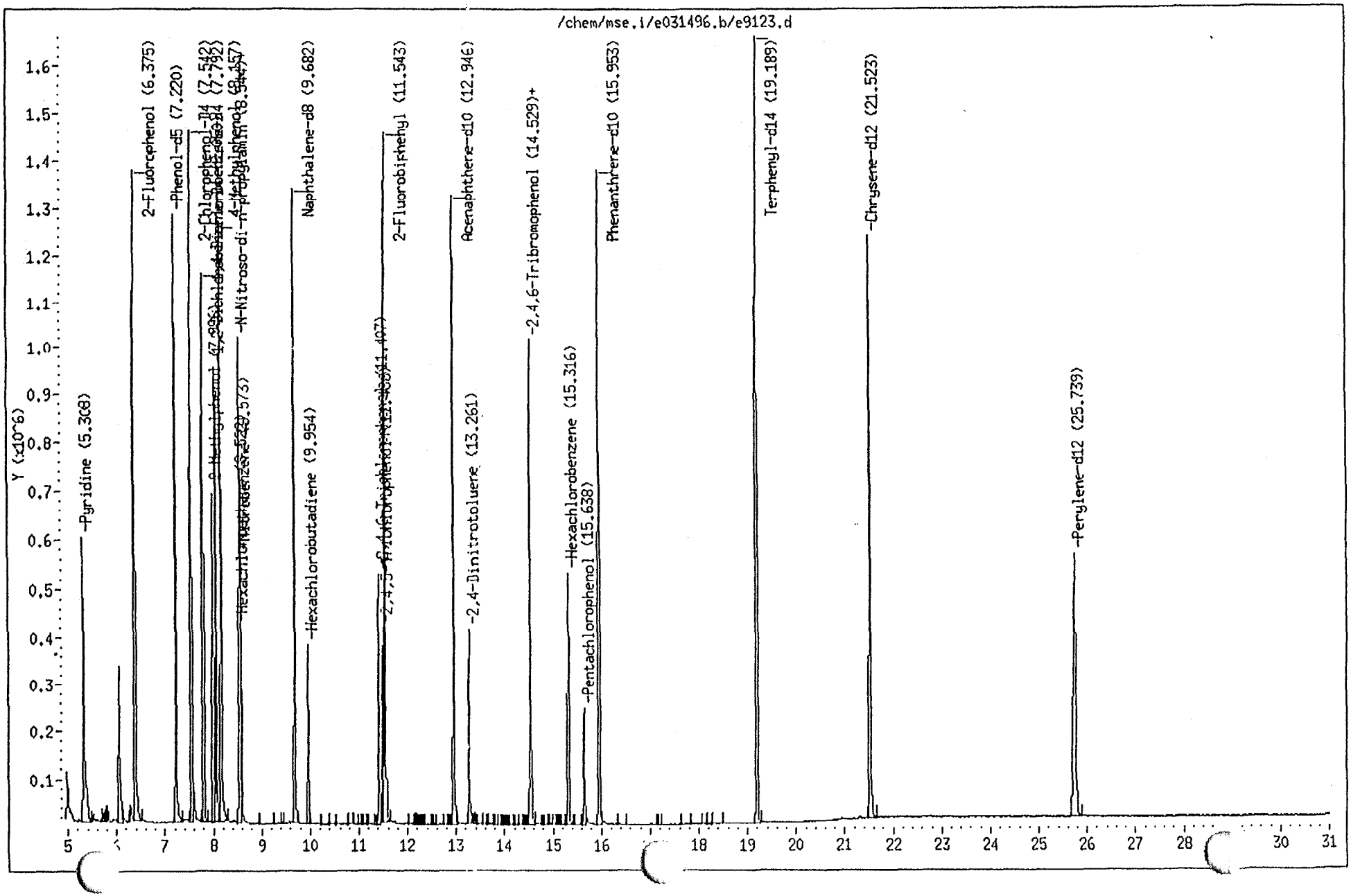
0174

Data File: /chem/mse.i/e031496.b/e9123.d
Date : 14-MAR-96 14:49
Client ID:
Sample Info: Method spike

Instrument: mse.i

Operator: K. Bigelow
Column diameter: 0.25

Column phase: J&W DB-5



Data File: /chem/mse.i/e031496.b/e9123.d
Report Date: 14-Mar-1996 16:13

OHM Analytical Division

BASE NEUTRAL QUANT AND RATIO REPORT

Data file : /chem/mse.i/e031496.b/e9123.d
Lab Smp Id:
Inj Date : 14-MAR-96 14:49
Operator : K. Bigelow Inst ID: mse.i
Smp Info : Method spike
Misc Info : n7c60481cs,n7c60481,m1,1,1
Comment :
Method : /chem/mse.i/e031496.b/031496eclp.m
Meth Date : 14-Mar-1996 14:05 Quant Type: ISTD
Cal Date : 14-MAR-96 11:11 Cal File: e9118.d
Als bottle: 9
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

K Bigelow

		Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	
		Pyridine	79.00	5.308	5.287	(0.681)	174160	12.8	12.8	
S	3	2-Fluorophenol	112.00	6.375	6.375	(0.818)	601454	54.5	54.5(R)	
S	4	Phenol-d5	99.00	7.220	7.227	(0.926)	656997	50.7	50.7(R)	
S	7	2-Chlorophenol-D4	132.00	7.542	7.549	(0.968)	642385	61.1	61.1(R)	
*	10	1,4-Dichlorobenzene-d4	152.00	7.792	7.792	(1.000)	292598	40.0		
	12	2-Methylphenol	108.00	7.986	7.993	(1.025)	200809	20.9	20.9	
S	13	1,2-Dichlorobenzene-D4	152.00	8.050	8.057	(1.033)	227944	37.1	37.1(R)	
	16	4-Methylphenol	108.00	8.157	8.172	(1.047)	424324	41.5	41.5	
	17	N-Nitroso-di-n-propylamine	70.00	8.544	8.286	(1.096)	72716	7.99	~~7.99(Q)~~	ND, RT, MS
	18	Hexachloroethane	117.00	8.522	8.522	(1.094)	67367	13.5	13.5	
S	19	Nitrobenzene-d5	82.00	8.544	8.558	(0.882)	529365	43.7	43.7(R)	
	20	Nitrobenzene	77.00	8.573	8.587	(0.885)	257235	23.2	23.2	
*	27	Naphthalene-d8	136.00	9.682	9.689	(1.000)	1068403	40.0		
	30	Hexachlorobutadiene	225.00	9.954	9.961	(1.028)	68075	13.0	13.0	
	35	2,4,6-Trichlorophenol	196.00	11.407	11.414	(0.881)	111915	21.0	21.0	
	36	2,4,5-Trichlorophenol	196.00	11.486	11.500	(0.887)	109055	19.6	19.6	
S	37	2-Fluorobiphenyl	172.00	11.543	11.550	(0.892)	740920	41.7	41.7(R)	
*	44	Acenaphthene-d10	164.00	12.946	12.954	(1.000)	569493	40.0		
	48	2,4-Dinitrotoluene	165.00	13.261	13.297	(1.024)	107699	17.7	17.7	
S	56	2,4,6-Tribromophenol	329.60	14.536	14.543	(1.123)	221919	65.0	65.0(R)	
	57	4-Bromophenyl-phenylether	248.00	14.529	14.944	(0.911)	9870	2.06	~~2.06(Q)~~	ND, RT, MS
	58	Hexachlorobenzene	283.60	15.323	15.330	(0.961)	122290	19.0	19.0	
	59	Pentachlorophenol	265.60	15.638	15.645	(0.980)	50940	15.4	15.4	
*	60	Phenanthrene-d10	188.00	15.953	15.960	(1.000)	859228	40.0		
S	68	Terphenyl-d14	244.00	19.189	19.203	(0.892)	891478	46.5	46.5(R)	
		Chrysene-d12	240.00	21.523	21.544	(1.000)	805033	40.0		
*		Perylene-d12	264.00	25.739	25.753	(1.000)	697438	40.0		

ORGANICS

Pesticides and/or PCBs by GC

2F
SOIL PESTICIDE SURROGATE RECOVERY

0177

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

GC Column(1): DB608 ID: 0.53 (mm) GC Column(2): DB5 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK01	106		106				0
02	PSPK01	106		101				0
03	CLJ100-WC1	0 D		0 D				0

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(30-150)
DCB = Decachlorobiphenyl	(30-150)

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

3F
SOIL PESTICIDE BLANK SPIKE RECOVERY

0178

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix Spike - EPA Sample No.: PSPK01

COMPOUND	SPIKE ADDED (ug/Kg)	BLANK CONCENTRATION (ug/Kg)	BS CONCENTRATION (ug/Kg)	BS % REC #	QC LIMITS REC.
Alpha-BHC	170	0	170	100	30-130
Beta-BHC	170	0	170	100	30-130
Delta-BHC	170	0	160	94	30-130
Heptachlor	170	0	180	106	35-130
Aldrin	170	0	180	106	34-132
Heptachlor epoxide	170	0	180	106	30-130
Endosulfan I	170	0	180	106	30-130
Dieldrin	170	0	190	112	31-134
4,4'-DDE	170	0	190	112	30-130
Endrin	170	0	200	118	42-139
Endosulfan II	170	0	170	100	30-130
4,4'-DDD	170	5.2	200	115	30-130
Endosulfan sulfate	170	0	170	100	30-130
4,4'-DDT	170	1.8	200	117	23-134
Methoxychlor	170	0	200	118	30-130
Endrin ketone	170	0	180	106	30-130
Endrin aldehyde	170	0	140	82	30-130
alpha-Chlordane	170	0	160	94	30-130
gamma-Chlordane	170	0	170	100	30-130
Gamma-BHC (Lindane)	170	0	180	106	46-127
Chlordane	330	0	340	103	30-130

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

* Values outside of QC limits

Spike Recovery: 0 out of 21 outside limits

COMMENTS: _____

4B
SEMIVOLATILE METHOD BLANK SUMMARY 0179

EPA SAMPLE NO.

PBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Lab File ID: ZF3458 Lab Sample ID: N2P60480P

Instrument ID: ~~CZ~~ ZF/ZR Date Extracted: 03/12/96

Matrix: (soil/water) SOIL Date Analyzed: 03/14/96

Level: (low/med) _____ Time Analyzed: 12:35

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	CLJ100-WC1	JP5002P	ZF3460	03/14/96
02	PSPK01	N2P60480PS	ZF3459	03/14/96

COMMENTS:

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET **0180**

EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix: (soil/water) SOIL Lab Sample ID: JP5002P

Sample wt/vol: 30.3 (g/mL) G Lab File ID: ZF3460

% Moisture: 17 decanted: (Y/N) N Date Received: 03/12/96

Extraction: (SepF/Cont/Sonc) 3540 Date Extracted: 03/12/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.0 (uL) Dilution Factor: ###### 10,000

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	20000	U
319-85-7	beta-BHC	20000	U
319-86-8	delta-BHC	20000	U
76-44-8	Heptachlor	20000	U
309-00-2	Aldrin	20000	U
1024-57-3	Heptachlor epoxide	20000	U
959-98-8	Endosulfan I	20000	U
60-57-1	Dieldrin	10000	J
72-55-9	4,4'-DDE	20000	U
72-20-8	Endrin	20000	U
33213-65-9	Endosulfan II	20000	U
72-54-8	4,4'-DDD	3600000	B
1031-07-8	Endosulfan sulfate	20000	U
50-29-3	4,4'-DDT	830000	B
72-43-5	Methoxychlor	20000	U
53494-70-5	Endrin ketone	20000	U
7421-93-4	Endrin aldehyde	20000	U
8001-35-2	Toxaphene	400000	U
12674-11-2	Aroclor-1016	200000	U
11104-28-2	Aroclor-1221	200000	U
11141-16-5	Aroclor-1232	200000	U
53469-21-9	Aroclor-1242	200000	U
12672-29-6	Aroclor-1248	200000	U
11097-69-1	Aroclor-1254	200000	U
11096-82-5	Aroclor-1260	200000	U
58-89-9	Gamma-BHC (Lindane)	20000	U
57-74-9	Chlordane	200000	U

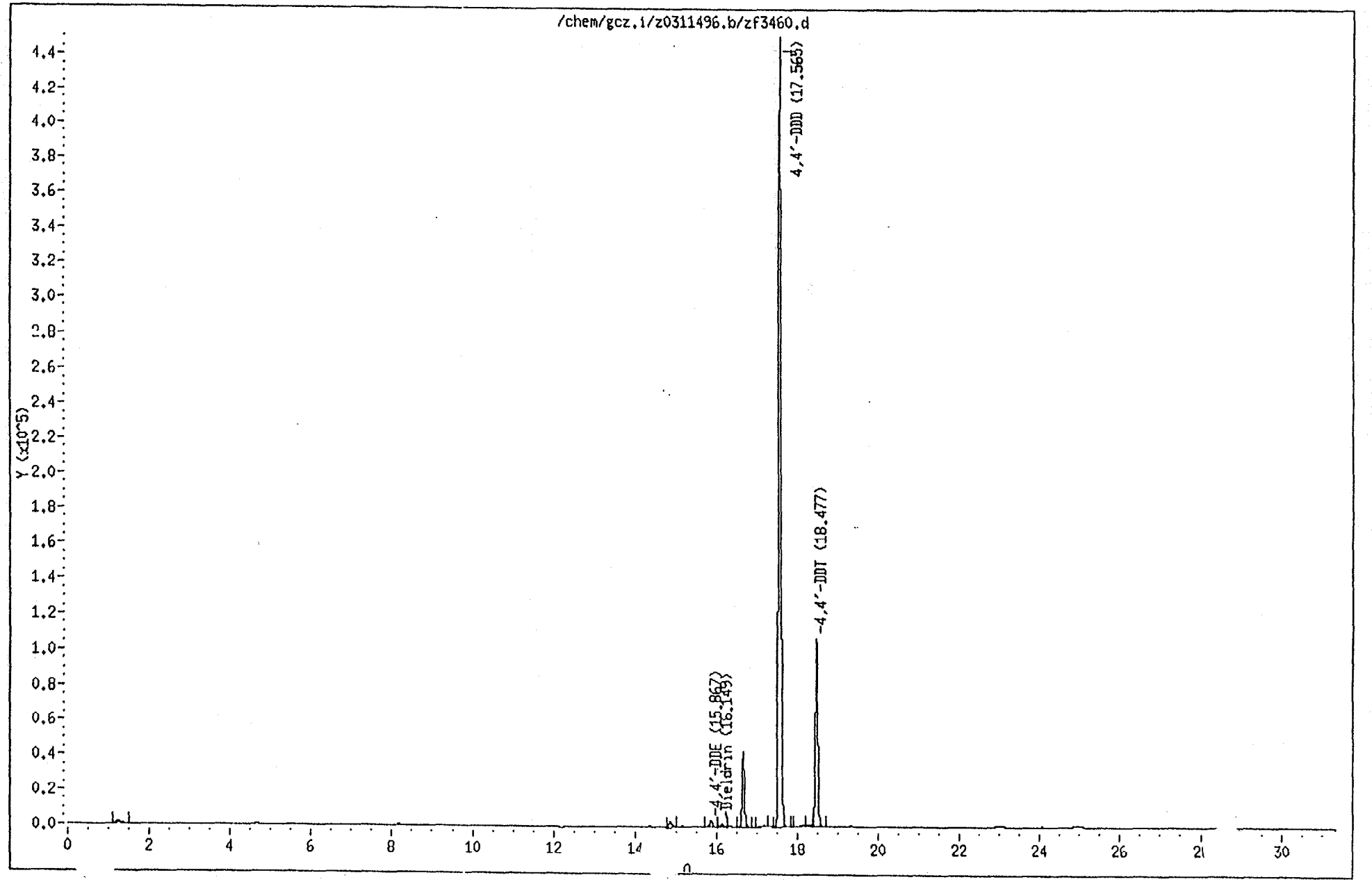
0181

Data File: /chem/gcz.i/z0311496.b/zf3460.d
Date : 14-MAR-96 13:45
Client ID:
Sample Info: jp5002p,n2p60480

Column phase: DB-608

Instrument: gcz.i

Operator: art
Column diameter: 0.53



0182

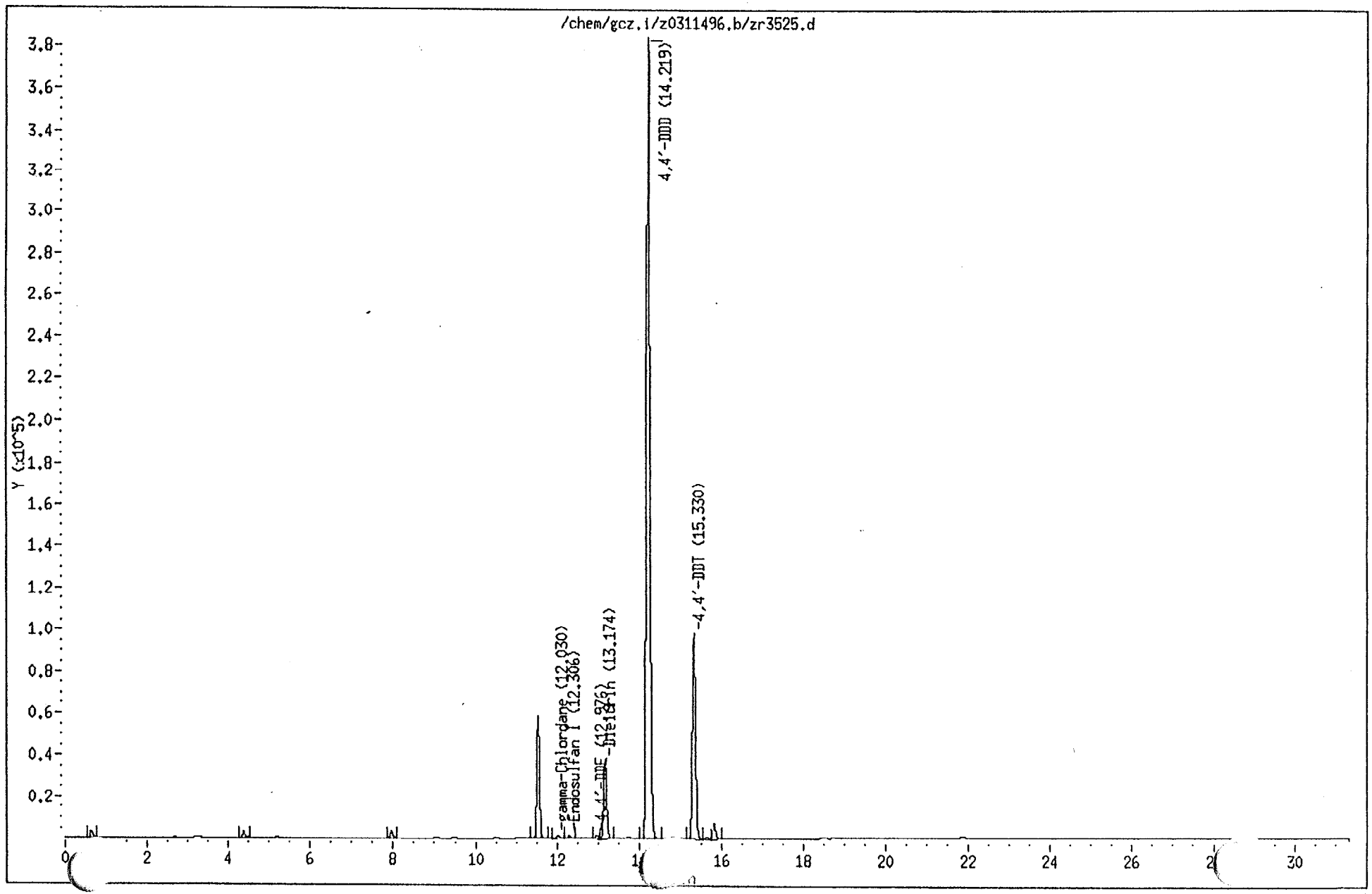
Data File: /chem/gcz.i/z0311496.b/zr3525.d
Date : 14-MAR-96 14:19
Client ID:
Sample Info: jp5002p,n2p60480

Instrument: gcz.i

Operator: art

Column phase: DB-5

Column diameter: 0.53



Data File: /chem/gcz.i/z0311496.b/zf3460.d
Report Date: 15-Mar-1996 07:41

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zf3460.d
Lab Smp Id:
Inj Date : 14-MAR-96 13:45
Operator : art Inst ID: gcz.i
Smp Info : jp5002p,n2p60480
Misc Info : jp5002p,n2p60480,g2,1,10000
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_608.m
Meth Date : 15-Mar-1996 07:27 Quant Type: ESTD
Cal Date : 19-JAN-96 16:03 Cal File: zf2358.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
4,4'-DDE	15.867	15.881	-0.014	89276	0.0122	0.~~0122~~ RT
13 Dieldrin	16.149	16.150	-0.001	40030	0.00530	0.00530
15 4,4'-DDD	17.565	17.580	-0.015	10237676	1.81	1.81
17 4,4'-DDT	18.477	18.491	-0.014	2359754	0.415	0.415

QC 3/15/96

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zr3525.d
Lab Smp Id:
Inj Date : 14-MAR-96 14:19
Operator : art Inst ID: gcz.i
Smp Info : jp5002p,n2p60480
Misc Info : jp5002p,n2p60480
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_db5.m
Meth Date : 15-Mar-1996 07:29 Quant Type: ESTD
Cal Date : 19-JAN-96 16:38 Cal File: zr2377.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
1	2,4,5,6-Tetrachloro-m-xylene	Compound Not Detected.					
2	Alpha-BHC	Compound Not Detected.					
3	Beta-BHC	Compound Not Detected.					
4	Gamma-BHC (Lindane)	Compound Not Detected.					
5	Delta-BHC	Compound Not Detected.					
6	Heptachlor	Compound Not Detected.					
7	Aldrin	Compound Not Detected.					
8	Heptachlor epoxide	Compound Not Detected.					
9	gamma-Chlordane	12.030	11.971	0.059	50906	0.00557	0.00557
10	Endosulfan I	12.306	12.354	-0.048	36676	0.00459	0.00459
M 11	alpha-Chlordane				36676	0.00459	0.00459
12	4,4'-DDE	12.976	12.995	-0.019	40205	0.00522	0.00522
13	Dieldrin	13.174	13.152	0.022	999938	0.112	0.112
14	Endrin	Compound Not Detected.					
15	Endosulfan II	Compound Not Detected.					
16	4,4'-DDD	14.219	14.228	-0.009	11241556	1.74	1.74
17	Endrin aldehyde	Compound Not Detected.					
18	Endosulfan sulfate	Compound Not Detected.					
19	4,4'-DDT	15.330	15.339	-0.009	2729194	0.424	0.424
20	Endrin ketone	Compound Not Detected.					
21	Methoxychlor	Compound Not Detected.					
S 22	Decachlorobiphenyl	Compound Not Detected.					

Report Date : 19-Jan-1996 17:04 Page 1

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 19-JAN-96 13:44
End Cal Date : 19-JAN-96 16:03
Quant Method : ESTD
Origin : Included
Target Version : 3.10
Integrator : HP Genie
Method file : /chem/gcz.i/z011996.b/011996_8080_608.m
Cal Date : 19-Jan-1996 17:02 art
Curve Type : Average

Calibration File Names:
Level 1: /chem/gcz.i/z011996.b/zf2354.d
Level 2: /chem/gcz.i/z011996.b/zf2355.d
Level 3: /chem/gcz.i/z011996.b/zf2356.d
Level 4: /chem/gcz.i/z011996.b/zf2357.d
Level 5: /chem/gcz.i/z011996.b/zf2358.d

		0.0200	0.1000	0.5000	1	2	___		
	Compound	Level 1	Level 2	Level 3	Level 4	Level 5	RRF	% RSD	
	2 Alpha-BHC	*****	10531030	11844386	11164679	10262426	10950000	6.445	
	3 Gamma-BHC (Lindane)	6572850	9990920	10804208	10151051	9322259	9368000	17.604	
	4 Beta-BHC	4615750	5245810	5242744	4905202	4504144	4903000	7.025	
	5 Heptachlor	7362900	8711170	8951994	8504952	7875586	8291000	7.855	
	6 Delta-BHC	*****	8845700	10238526	9711394	8979658	9444000	6.907	
	7 Aldrin	6698050	8645670	9344060	8836927	8122440	8329000	12.142	
	8 Heptachlor epoxide	6998500	8123040	8334934	7832848	7250601	7708000	7.378	
	9 gamma-Chlordane	7627700	8849210	8963558	8784053	8090758	8463000	6.837	
	10 alpha-Chlordane	7359400	8717290	8596110	7608617	6916450	7840000	10.041	
	11 Endosulfan I	6815600	7965810	8108280	8065062	7395390	7570000	7.262	
	12 4,4'-DDE	5517500	7495770	8353310	7931336	7340812	7328000	14.827	
	13 Dieldrin	6039200	7673030	8451696	8065008	7501204	7546000	12.179	
	14 Endrin	4905350	6236780	6952366	6698854	6319128	6222000	12.715	
	15 4,4'-DDD	4216950	5706410	6487750	6152564	5740824	5661000	15.346	
	16 Endosulfan II	6017550	6981020	7315754	6908334	6492953	6743000	7.418	
	17 4,4'-DDT	4444300	5527820	6220516	6238289	6008886	5688000	13.220	
	18 Endrin aldehyde	5298200	5783110	5998424	5521866	5215820	5563000	5.896	
	19 Endosulfan sulfate	4870550	5665790	6311998	6039984	5787233	5735000	9.473	
	20 Methoxychlor	3050600	3496240	3514056	3441099	3355526	3372000	5.627	
	21 Endrin ketone	5948900	7422510	8083386	7595244	7143732	7239000	11.025	
M	23 Chlordane	7493550	8783255	8779834	8196336	7503604	8151316	7.876	
	24 Toxaphene	*****	*****	*****	*****	*****	*****	*****	<-
	25 Aroclor 1016	*****	*****	*****	*****	*****	*****	*****	<-
	Aroclor 1221	*****	*****	*****	*****	*****	*****	*****	<-
	Aroclor 1232	*****	*****	*****	*****	*****	*****	*****	<-
	28 Aroclor 1242	*****	*****	*****	*****	*****	*****	*****	<-
	29 Aroclor 1248	*****	*****	*****	*****	*****	*****	*****	<-

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 19-JAN-96 13:44
End Cal Date : 19-JAN-96 16:03
Quant Method : ESTD
Origin : Included
Target Version : 3.10
Integrator : HP Genie
Method file : /chem/gcz.i/z011996.b/011996_8080_608.m
Cal Date : 19-Jan-1996 17:02 art
Curve Type : Average

	Compound	0.0200 Level 1	0.1000 Level 2	0.5000 Level 3	1 Level 4	2 Level 5	___ RRF	% RSD	
	30 Aroclor 1254	*****	*****	*****	*****	*****	*****	*****	<-
	31 Aroclor 1260	*****	*****	*****	*****	*****	*****	*****	<-
	32 Hexachlorobenzene	*****	*****	*****	*****	*****	*****	*****	<-
S	1 2,4,5,6-Tetrachloro-m-xylene	7059200	7979910	7616588	7020512	6348662	7205000	8.663	
	2 Decachlorobiphenyl	9465700	8890920	7932546	7256251	6618598	8033000	14.468	

Report Date : 19-Jan-1996 17:31

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 19-JAN-96 14:19
End Cal Date : 19-JAN-96 16:38
Quant Method : ESTD
Origin : Included
Target Version : 3.10
Integrator : HP Genie
Method file : /chem/gcz.i/z011996.b/011996_8080_db5.m
Cal Date : 19-Jan-1996 17:26
Curve Type : Average

Calibration File Names:
Level 1: /chem/gcz.i/z011996.b/zr2373.d
Level 2: /chem/gcz.i/z011996.b/zr2374.d
Level 3: /chem/gcz.i/z011996.b/zr2375.d
Level 4: /chem/gcz.i/z011996.b/zr2376.d
Level 5: /chem/gcz.i/z011996.b/zr2377.d

	Compound	0.0200 Level 1	0.1000 Level 2	0.5000 Level 3	1 Level 4	2 Level 5	___ RRF	% RSD
	2 Alpha-BHC	6905350	10509350	12128748	11533507	10962954	10410000	19.699
	3 Beta-BHC	4722050	5293560	5498996	5164343	4852006	5106000	6.231
	4 Gamma-BHC (Lindane)	7035600	9983200	11178518	10614747	9989252	9760000	16.415
	5 Delta-BHC	*****	9064680	10318346	10251703	9742362	9959000	7.485
	6 Heptachlor	7718650	8840700	9248626	8942332	8387466	8527555	6.892
	7 Aldrin	6603850	8506290	9811584	9369480	8743943	8607029	14.317
	8 Heptachlor epoxide	6955600	8031260	8722208	8327860	7861220	7979630	8.261
	9 gamma-Chlordane	7984800	9176300	9791252	9687043	9075294	9142938	7.855
	10 Endosulfan I	7611550	8758710	8453350	7849752	7240671	7982807	7.747
M	11 alpha-Chlordane	7611550	8758710	8453350	7849752	7240671	7982807	7.747
	12 4,4'-DDE	5350900	7358450	9096092	8677998	8009808	7699000	19.086
	13 Dieldrin	9487800	8686250	9102602	8805169	8417914	8900147	4.610
	14 Endrin	5702850	6784470	7420420	7125870	6768324	6760387	9.610
	15 Endosulfan II	6284800	7173590	7782576	7346519	6750646	7057626	8.108
	16 4,4'-DDD	5058200	6286790	7337910	6943275	6650893	6456414	13.504
	17 Endrin aldehyde	6156800	6494120	6739640	6205008	5829296	6284973	5.517
	18 Endosulfan sulfate	5747950	6210350	6874224	6554904	6105595	6298505	6.853
	19 4,4'-DDT	5034750	6053950	6970462	7133283	6987230	6435935	13.865
	20 Endrin ketone	6954400	8167630	8518782	7989400	7535269	7833096	7.732
	21 Methoxychlor	3472900	3619800	3578396	3501050	3333961	3501221	3.155
S	1 2,4,5,6-Tetrachloro-m-xylene	7418950	7988510	7791428	7203623	6654895	7411000	7.053
S	22 Decachlorobiphenyl	9965400	9502910	9210458	8473515	7791946	8988868	9.578

Data File: /chem/gcz.i/z0311496.b/zf3455.d
Report Date: 14-Mar-1996 10:35

OHM Analytical Division

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcz.i
Lab File ID: zf3455.d
Analysis Type:
Lab Sample ID:
Quant Type: ESTD

Injection Date: 14-MAR-96 09:43
Init. Calibration Date(s): JAN/19/96 JAN/19/96
Init. Calibration Times: 13:44 16:03
Method File: /chem/gcz.i/z0311496.b/011996_8080_608.

	COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D	
S	1 2,4,5,6-Tetrachloro-m-xylene	7205000.000	7263569.091	0.010	0.8	15.0	
	2 Alpha-BHC	10950000.000	10602777.164	0.010	3.2	15.0	
	3 Gamma-BHC (Lindane)	9368000.000	9514214.867	0.010	1.6	15.0	
	4 Beta-BHC	4903000.000	4911655.585	0.010	0.2	15.0	
	5 Heptachlor	8281000.000	8702387.191	0.010	5.1	15.0	
	6 Delta-BHC	9444000.000	9485012.100	0.010	0.4	15.0	
	7 Aldrin	8329000.000	8711038.346	0.010	4.6	15.0	
	8 Heptachlor epoxide	7708000.000	7943539.062	0.010	3.1	15.0	
	9 gamma-Chlordane	8463000.000	8637440.936	0.010	2.1	15.0	
	10 alpha-Chlordane	7840000.000	7980474.268	0.010	1.8	15.0	
	11 Endosulfan I	7670000.000	7870169.738	0.010	2.6	15.0	
	12 4,4'-DDE	7328000.000	7569512.733	0.010	3.3	15.0	
	13 Dieldrin	7546000.000	7757572.679	0.010	2.8	15.0	
	14 Endrin	6222000.000	6950309.250	0.010	11.7	15.0	
	15 4,4'-DDD	5661000.000	5822427.986	0.010	2.9	15.0	
	16 Endosulfan II	6743000.000	6876638.905	0.010	2.0	15.0	
	17 4,4'-DDT	5688000.000	5819669.181	0.010	2.3	15.0	
	18 Endrin aldehyde	5563000.000	5515527.317	0.010	0.9	15.0	
	19 Endosulfan sulfate	5735000.000	5803198.202	0.010	1.2	15.0	
	20 Methoxychlor	3372000.000	3481245.544	0.010	3.2	15.0	
	21 Endrin ketone	7239000.000	7382120.046	0.010	2.0	15.0	
S	22 Decachlorobiphenyl	8033000.000	7850317.944	0.010	2.3	15.0	
M	23 Chlordane	8151000.000	8311504.089	0.010	2.0	40.0	
	24 Toxaphene	****	****	0.010	****	40.0	<-
	25 Aroclor 1016	****	****	0.010	****	40.0	<-
	26 Aroclor 1221	****	****	0.010	****	40.0	<-
	27 Aroclor 1232	****	****	0.010	****	40.0	<-
	28 Aroclor 1242	****	****	0.010	****	40.0	<-
	29 Aroclor 1248	****	****	0.010	****	40.0	<-
	30 Aroclor 1254	****	****	0.010	****	40.0	<-
	31 Aroclor 1260	****	****	0.010	****	40.0	<-
	32 Hexachlorobenzene	****	****	0.010	****	40.0	<-
	43 2,4,5-Trichlorophenol	****	****	0.010	****	40.0	<-

Data File: /chem/gcz.i/z0311496.b/zf3467.d
Report Date: 15-Mar-1996 07:03

OHM Analytical Division

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcz.i
Lab File ID: zf3467.d
Analysis Type:
Lab Sample ID:
Quant Type: ESTD

Injection Date: 14-MAR-96 17:49
Init. Calibration Date(s): JAN/19/96 JAN/19/96
Init. Calibration Times: 13:44 16:03
Method File: /chem/gcz.i/z0311496.b/011996_8080_608

	COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D	
S	1 2,4,5,6-Tetrachloro-m-xylene	7205000.000	7290663.636	0.010	1.2	15.0	
	2 Alpha-BHC	10950000.000	10632846.225	0.010	2.9	15.0	
	3 Gamma-BHC (Lindane)	9368000.000	9554809.183	0.010	2.0	15.0	
	4 Beta-BHC	4903000.000	4930300.581	0.010	0.6	15.0	
	5 Heptachlor	8281000.000	8876249.873	0.010	7.2	15.0	
	6 Delta-BHC	9444000.000	9694036.105	0.010	2.6	15.0	
	7 Aldrin	8329000.000	8793959.090	0.010	5.6	15.0	
	8 Heptachlor epoxide	7708000.000	8006837.976	0.010	3.9	15.0	
	9 gamma-Chlordane	8463000.000	8770232.475	0.010	3.6	15.0	
	10 alpha-Chlordane	7840000.000	8130106.413	0.010	3.7	15.0	
	11 Endosulfan I	7670000.000	7914540.796	0.010	3.2	15.0	
	12 4,4'-DDE	7328000.000	7668186.238	0.010	4.6	15.0	
	13 Dieldrin	7546000.000	7843365.021	0.010	3.9	15.0	
	14 Endrin	6222000.000	7022776.219	0.010	12.9	15.0	
	15 4,4'-DDD	5661000.000	5913710.281	0.010	4.5	15.0	
	16 Endosulfan II	6743000.000	6971096.185	0.010	3.4	15.0	
	17 4,4'-DDT	5688000.000	6070433.297	0.010	6.7	15.0	
	18 Endrin aldehyde	5563000.000	5608142.156	0.010	0.8	15.0	
	19 Endosulfan sulfate	5735000.000	5907184.856	0.010	3.0	15.0	
	20 Methoxychlor	3372000.000	3585488.667	0.010	6.3	15.0	
	21 Endrin ketone	7239000.000	7452374.784	0.010	2.9	15.0	
S	22 Decachlorobiphenyl	8033000.000	8012616.583	0.010	0.3	15.0	
M	23 Chlordane	8151000.000	8452981.685	0.010	3.7	40.0	
	24 Toxaphene	****	****	0.010	****	40.0	<-
	25 Aroclor 1016	****	****	0.010	****	40.0	<-
	26 Aroclor 1221	****	****	0.010	****	40.0	<-
	27 Aroclor 1232	****	****	0.010	****	40.0	<-
	28 Aroclor 1242	****	****	0.010	****	40.0	<-
	29 Aroclor 1248	****	****	0.010	****	40.0	<-
	30 Aroclor 1254	****	****	0.010	****	40.0	<-
	31 Aroclor 1260	****	****	0.010	****	40.0	<-
	32 Hexachlorobenzene	****	****	0.010	****	40.0	<-
	43 2,4,5-Trichlorophenol	****	****	0.010	****	40.0	<-

Data File: /chem/gcz.i/z0311496.b/zr3519.d
Report Date: 14-Mar-1996 10:36

OHM Analytical Division

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcz.i
Lab File ID: zr3519.d
Analysis Type:
Lab Sample ID:
Quant Type: ESTD

Injection Date: 14-MAR-96 09:43
Init. Calibration Date(s): JAN/19/96 JAN/19/96
Init. Calibration Times: 14:19 16:38
Method File: /chem/gcz.i/z0311496.b/011996_8080_db5

	COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
S	1 2,4,5,6-Tetrachloro-m-xylene	7411000.000	7568650.000	0.010	2.1	15.0
	2 Alpha-BHC	10410000.000	11428949.969	0.010	9.8	15.0
	3 Beta-BHC	5106000.000	5084042.025	0.010	0.4	15.0
	4 Gamma-BHC (Lindane)	9760000.000	9495280.771	0.010	2.7	15.0
	5 Delta-BHC	9969000.000	9461994.536	0.010	5.1	15.0
	6 Heptachlor	8628000.000	8326074.866	0.010	2.3	15.0
	7 Aldrin	8607000.000	8953522.898	0.010	4.0	15.0
	8 Heptachlor epoxide	7980000.000	8219391.925	0.010	3.0	15.0
	9 gamma-Chlordane	9143000.000	9258124.423	0.010	1.3	15.0
	10 Endosulfan I	7983000.000	7922546.323	0.010	0.8	15.0
M	11 alpha-Chlordane	7983000.000	7922546.323	0.010	0.8	15.0
	12 4,4'-DDE	7699000.000	8114990.328	0.010	5.4	15.0
	13 Dieldrin	8900000.000	8266691.954	0.010	7.1	15.0
	14 Endrin	6760000.000	7532560.252	0.010	11.4	15.0
	15 Endosulfan II	7068000.000	7283057.761	0.010	3.0	15.0
	16 4,4'-DDD	6456000.000	6380683.418	0.010	1.2	15.0
	17 Endrin aldehyde	6285000.000	6237941.399	0.010	0.7	15.0
	18 Endosulfan sulfate	6299000.000	6250902.777	0.010	0.8	15.0
	19 4,4'-DDT	6436000.000	6739206.534	0.010	4.7	15.0
	20 Endrin ketone	7833000.000	7721501.925	0.010	1.4	15.0
	21 Methoxychlor	3501000.000	3775093.324	0.010	7.8	15.0
S	22 Decachlorobiphenyl	8989000.000	8777380.192	0.010	2.4	15.0

Data File: /chem/gcz.i/z0311496.b/zr3532.d
Report Date: 15-Mar-1996 07:13

OHM Analytical Division

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcz.i
Lab File ID: zr3532.d
Analysis Type:
Lab Sample ID:
Quant Type: ESTD

Injection Date: 14-MAR-96 18:24
Init. Calibration Date(s): JAN/19/96 JAN/19/96
Init. Calibration Times: 14:19 16:38
Method File: /chem/gcz.i/z0311496.b/011996_8080_db5

	COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
S	1 2,4,5,6-Tetrachloro-m-xylene	7411000.000	7711887.955	0.010	4.1	15.0
	2 Alpha-BHC	10410000.000	11529011.050	0.010	11.7	15.0
	3 Beta-BHC	5105000.000	5164539.687	0.010	1.1	15.0
	4 Gamma-BHC (Lindane)	9760000.000	9509999.314	0.010	1.5	15.0
	5 Delta-BHC	9969000.000	9674706.740	0.010	3.0	15.0
	6 Heptachlor	8628000.000	8942316.399	0.010	3.6	15.0
	7 Aldrin	8607000.000	9076487.231	0.010	5.5	15.0
	8 Heptachlor epoxide	7980000.000	8325797.891	0.010	4.3	15.0
	9 gamma-Chlordane	9143000.000	9522332.638	0.010	4.1	15.0
	10 Endosulfan I	7983000.000	8071933.440	0.010	1.1	15.0
M	11 alpha-Chlordane	7983000.000	8071933.440	0.010	1.1	15.0
	12 4,4'-DDE	7699000.000	8237544.677	0.010	7.0	15.0
	13 Dieldrin	8900000.000	8404837.400	0.010	5.6	15.0
	14 Endrin	6760000.000	7655087.129	0.010	13.2	15.0
	15 Endosulfan II	7068000.000	7439808.655	0.010	5.3	15.0
	16 4,4'-DDD	6456000.000	6590877.905	0.010	2.1	15.0
	17 Endrin aldehyde	6285000.000	6361770.892	0.010	1.2	15.0
	18 Endosulfan sulfate	6299000.000	6394991.110	0.010	1.5	15.0
	19 4,4'-DDT	6436000.000	7009201.506	0.010	8.9	15.0
	20 Endrin ketone	7833000.000	7913672.647	0.010	1.0	15.0
	21 Methoxychlor	3501000.000	3903594.261	0.010	11.5	15.0
S	22 Decachlorobiphenyl	8989000.000	9229250.000	0.010	2.7	15.0

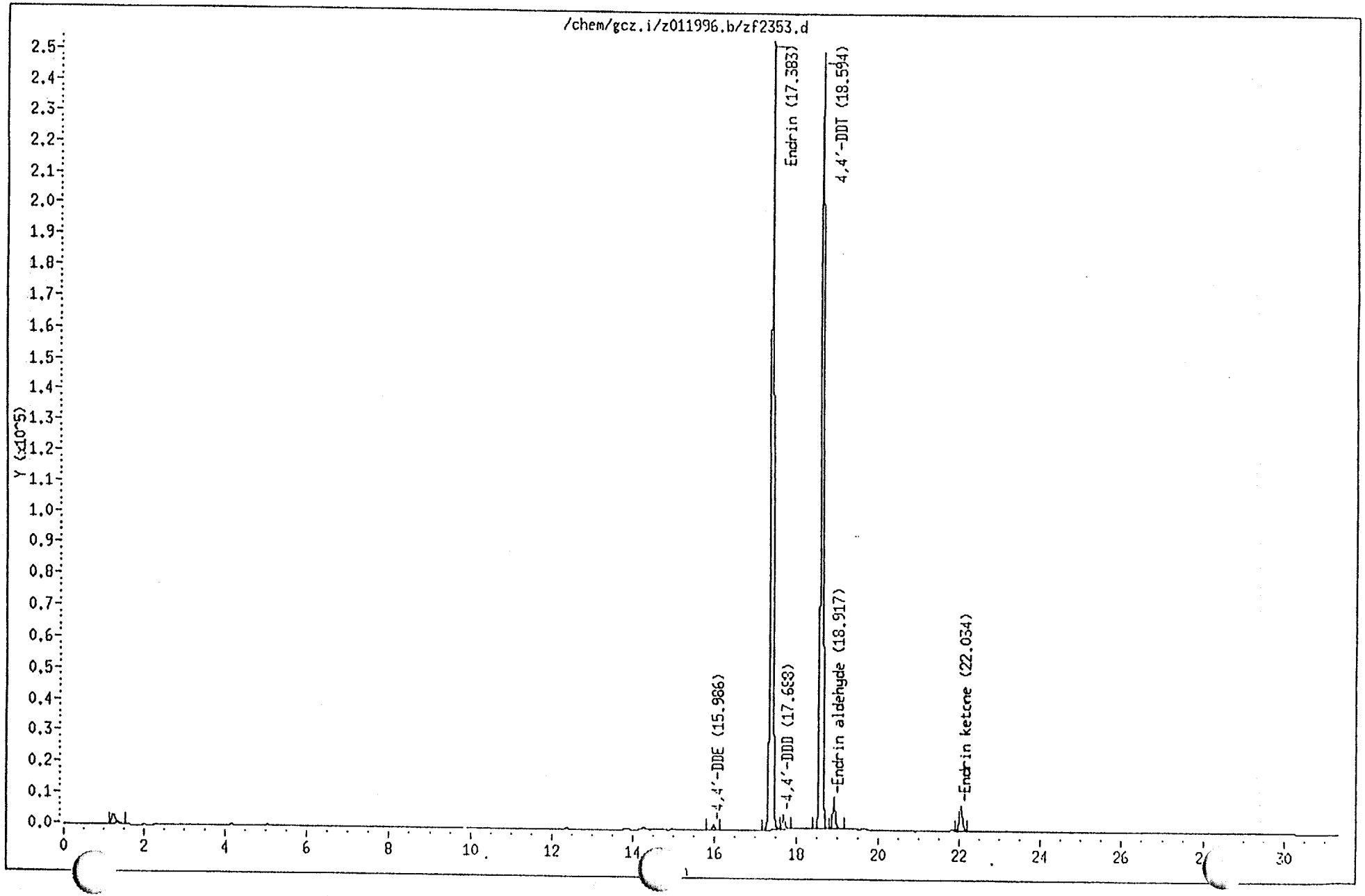
0192

Data File: /chem/gcz.i/z011996.b/zf2353.d
Date : 19-JAN-96 13:10
Client ID:
Sample Info: ga9591,end/ddt

Column phase: DB-608

Instrument: gcz.i

Operator: art
Column diameter: 0.53



Data File: /chem/gcz.i/z011996.b/zf2353.d
Report Date: 19-Jan-1996 14:59

OHM Analytical Division

Data file : /chem/gcz.i/z011996.b/zf2353.d
Lab Smp Id:
Inj Date : 19-JAN-96 13:10
Operator : art Inst ID: gcz.i
Smp Info : ga9591,end/ddt
Misc Info : ga9591,end/ddt
Comment :
Method : /chem/gcz.i/z011996.b/011696_8080_608.m
Meth Date : 19-Jan-1996 14:28 Quant Type: ESTD
Cal Date : 15-JAN-96 16:07 Cal File: zf2245.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/ml)
12 4,4'-DDE	15.986	15.958	0.028	45332	0.00635	0.00635
14 Endrin	17.383	17.358	0.025	6238729	1.13	1.13
15 4,4'-DDD	17.688	17.659	0.029	109948	0.0203	0.0203
17 4,4'-DDT	18.594	18.571	0.023	5726440	1.38	1.38
18 Endrin aldehyde	18.917	18.892	0.025	242702	0.0473	0.0473
21 Endrin ketone	22.034	22.000	0.034	246000	0.0372	0.0372

DDT $\frac{155440}{5791770} = 2.68$

End $\frac{498702}{6727471} = 7.32$

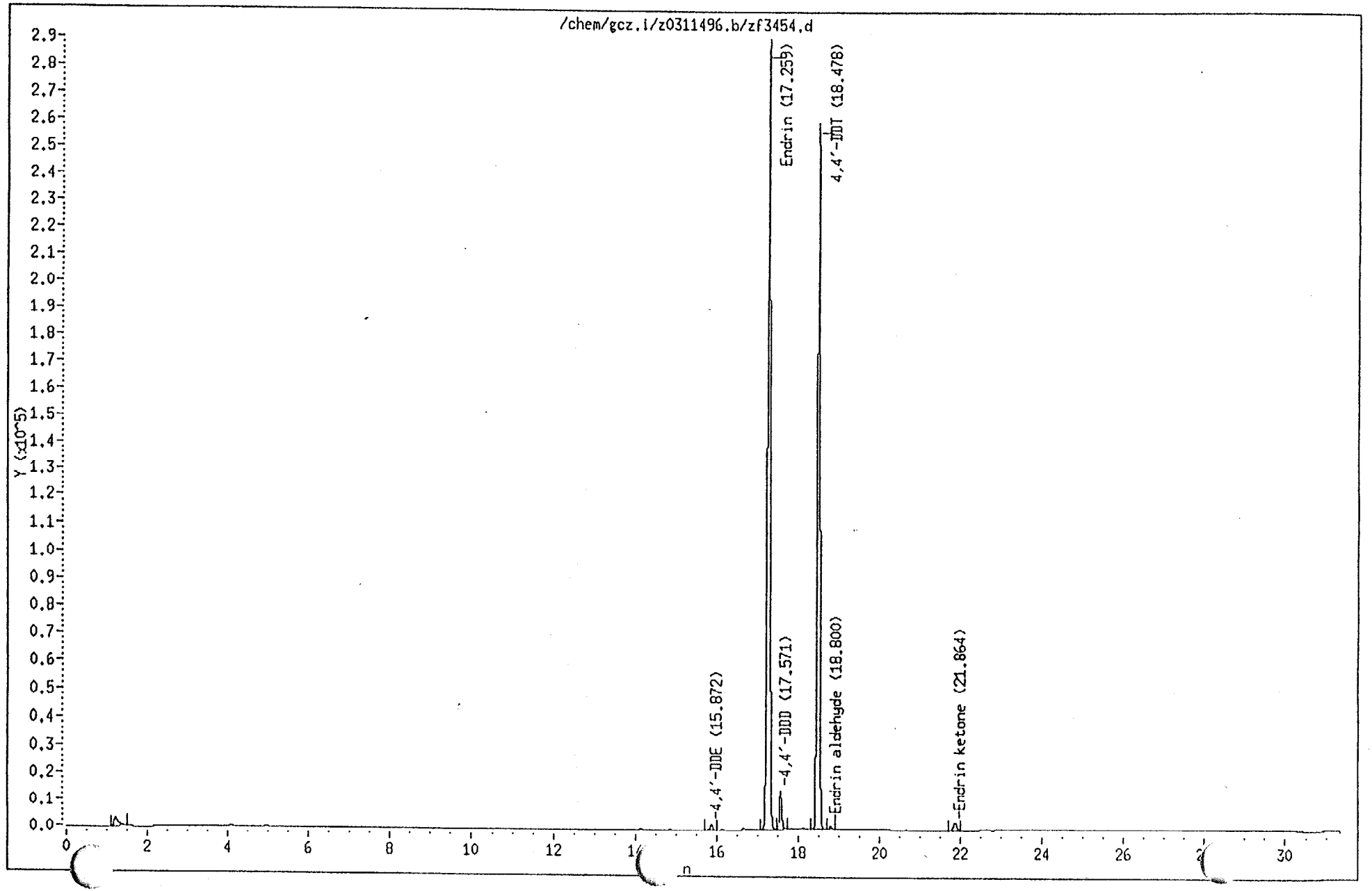
0194

Data File: /chem/gcz.i/z0311496.b/zf3454.d
Date : 14-MAR-96 09:08
Client ID:
Sample Info: ga9591 end/ddt

Column phase: DB-608

Instrument: gcz.i

Operator: art
Column diameter: 0.53



Data File: /chem/gcz.i/z0311496.b/zf3454.d
Report Date: 14-Mar-1996 09:57

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zf3454.d
Lab Smp Id:
Inj Date : 14-MAR-96 09:08
Operator : art Inst ID: gcz.i
Smp Info : ga9591 end/ddt
Misc Info : ga9591 end/ddt
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_608.m
Meth Date : 14-Mar-1996 09:56 Quant Type: ESTD
Cal Date : 19-JAN-96 16:03 Cal File: zf2358.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
12 4,4'-DDE	15.872	15.881	-0.009	51567	0.00704	0.00704
14 Endrin	17.259	17.274	-0.015	6972944	1.12	1.12
15 4,4'-DDD	17.571	17.580	-0.009	314020	0.0555	0.0555
17 4,4'-DDT	18.478	18.491	-0.013	5809005	1.02	1.02
18 Endrin aldehyde	18.800	18.808	-0.008	21008	0.00378	0.00378
21 Endrin ketone	21.864	21.881	-0.017	88878	0.0123	0.0123

DDT $\frac{365537}{6174592} = 5.9\%$

End $\frac{109886}{7087830} = 1.6\%$

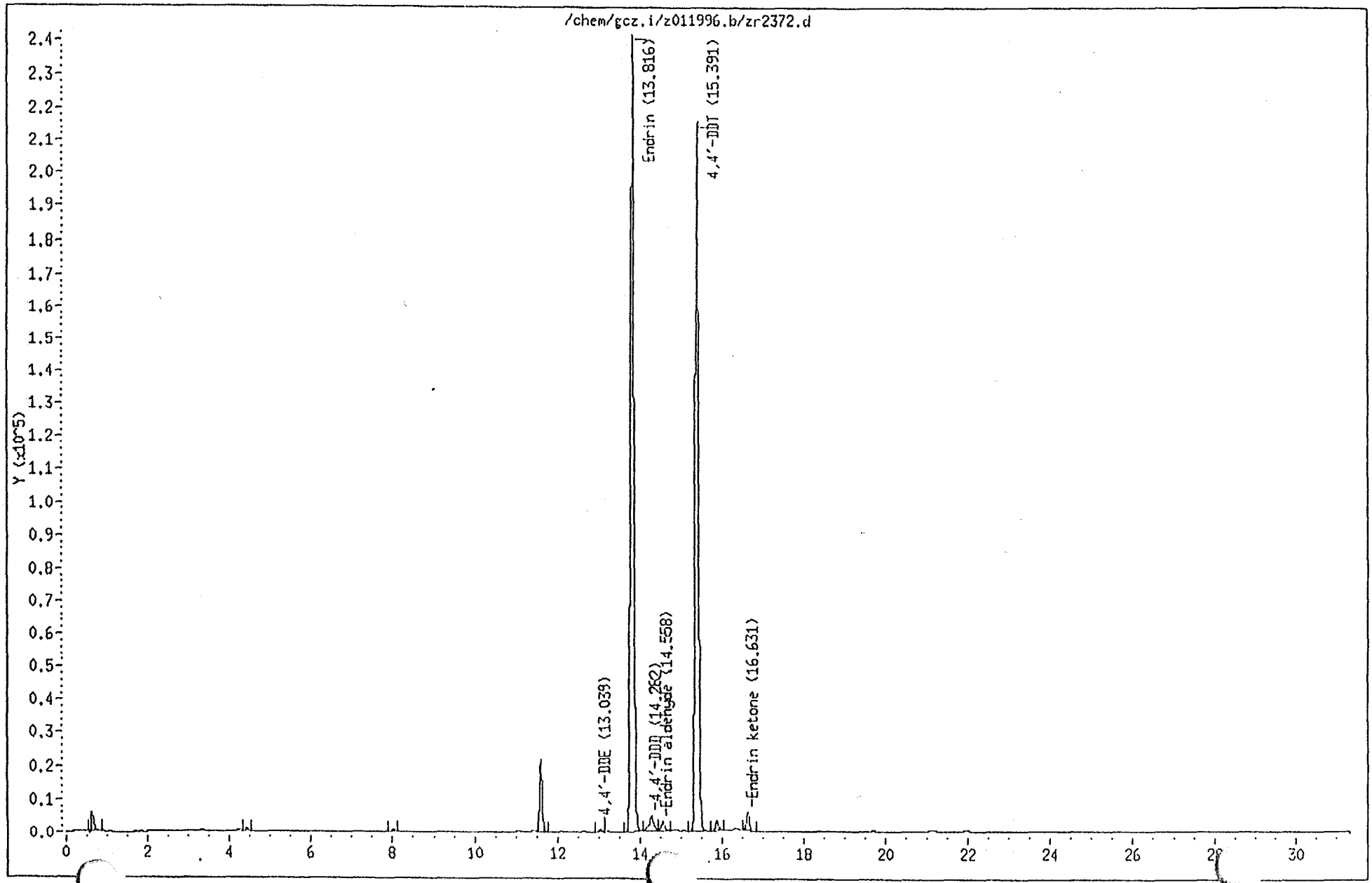
0196

Data File: /chem/gcz.i/z011996.b/zr2372.d
Date : 19-JAN-96 13:44
Client ID:
Sample Info: ga9591,end/ddt

Instrument: gcz.i

Operator: art
Column diameter: 0,53

Column phase: DB-5



Data File: /chem/gcz.i/z011996.b/zr2372.d
Report Date: 19-Jan-1996 15:01

OHM Analytical Division

Data file : /chem/gcz.i/z011996.b/zr2372.d
Lab Smp Id:
Inj Date : 19-JAN-96 13:44
Operator : art Inst ID: gcz.i
Smp Info : ga9591,end/ddt
Misc Info : ga9591,end/ddt
Comment :
Method : /chem/gcz.i/z011996.b/011696_8080_db5.m
Meth Date : 19-Jan-1996 14:28 Quant Type: ESTD
Cal Date : 15-JAN-96 16:41 Cal File: zr2261.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
	2,4,5,6-Tetrachloro-m-xylene	Compound Not Detected.					
2	Alpha-BHC	Compound Not Detected.					
3	Beta-BHC	Compound Not Detected.					
4	Gamma-BHC (Lindane)	Compound Not Detected.					
5	Delta-BHC	Compound Not Detected.					
6	Heptachlor	Compound Not Detected.					
7	Aldrin	Compound Not Detected.					
8	Heptachlor epoxide	Compound Not Detected.					
9	gamma-Chlordane	Compound Not Detected.					
10	Endosulfan I	Compound Not Detected.					
M 11	alpha-Chlordane	Compound Not Detected.					
12	4,4'-DDE	13.039	13.041	-0.002	24628	0.00302	0.00302
13	Dieldrin	Compound Not Detected.					
14	Endrin	13.816	13.812	0.004	6853586	1.12	1.12
15	Endosulfan II	Compound Not Detected.					
16	4,4'-DDD	14.282	14.273	0.009	206102	0.0343	0.0343
17	Endrin aldehyde	14.558	14.553	0.005	91871	0.0156	0.0156
18	Endosulfan sulfate	Compound Not Detected.					
19	4,4'-DDT	15.391	15.383	0.008	6204798	1.13	1.13
20	Endrin ketone	16.631	16.626	0.005	158644	0.0213	0.0213
21	Methoxychlor	Compound Not Detected.					
S 22	Decachlorobiphenyl	Compound Not Detected.					

DDT $\frac{230730}{6275729} = 3.62$

End $\frac{250515}{7104101} = 3.62$

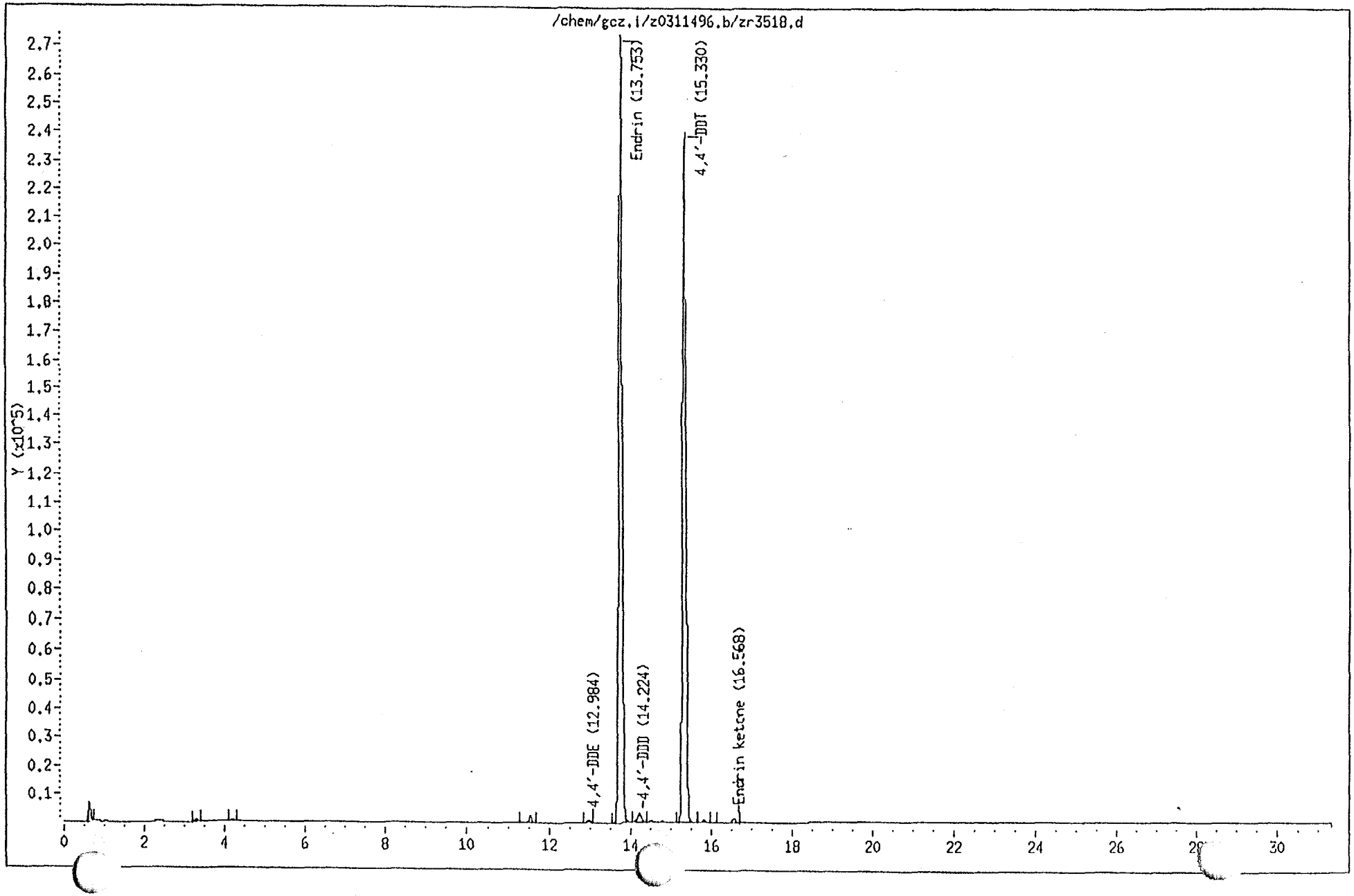
0198

Data File: /chem/gcz.i/z0311496.b/zr3518.d
Date : 14-MAR-96 09:08
Client ID:
Sample Info: ga9591 end/ddt

Column phase: DB-5

Instrument: gcz.i

Operator: art
Column diameter: 0.53



Data File: /chem/gcz.i/z0311496.b/zr3518.d
Report Date: 14-Mar-1996 09:58

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zr3518.d
Lab Smp Id:
Inj Date : 14-MAR-96 09:08
Operator : art Inst ID: gcz.i
Smp Info : ga9591 end/ddt
Misc Info : ga9591 end/ddt
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_db5.m
Meth Date : 14-Mar-1996 09:56 Quant Type: ESTD
Cal Date : 19-JAN-96 16:38 Cal File: zr2377.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
	2,4,5,6-Tetrachloro-m-xylene	Compound Not Detected.					
2	Alpha-BHC	Compound Not Detected.					
3	Beta-BHC	Compound Not Detected.					
4	Gamma-BHC (Lindane)	Compound Not Detected.					
5	Delta-BHC	Compound Not Detected.					
6	Heptachlor	Compound Not Detected.					
7	Aldrin	Compound Not Detected.					
8	Heptachlor epoxide	Compound Not Detected.					
9	gamma-Chlordane	Compound Not Detected.					
10	Endosulfan I	Compound Not Detected.					
M 11	alpha-Chlordane	Compound Not Detected.					
12	4,4'-DDE	12.984	12.995	-0.011	28458	0.00370	0.00370
13	Dieldrin	Compound Not Detected.					
14	Endrin	13.753	13.763	-0.010	7677126	1.14	1.14
15	Endosulfan II	Compound Not Detected.					
16	4,4'-DDD	14.224	14.228	-0.004	114270	0.0177	0.0177
17	Endrin aldehyde	Compound Not Detected.					
18	Endosulfan sulfate	Compound Not Detected.					
19	4,4'-DDT	15.330	15.339	-0.009	6845805	1.06	1.06
20	Endrin ketone	16.568	16.578	-0.010	52294	0.00795	0.00795
21	Methoxychlor	Compound Not Detected.					
S 22	Decachlorobiphenyl	Compound Not Detected.					

DDT $\frac{142728}{6988533} = 2.0\%$

End $\frac{62494}{7739420} = 0.8\%$

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET 0200

EPA SAMPLE NO.

PBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix: (soil/water) SOIL Lab Sample ID: N2P60480P

Sample wt/vol: 30.0 (g/mL) G Lab File ID: ZF3458

% Moisture: N/A decanted: (Y/N) N Date Received: 3/12/96

Extraction: (SepF/Cont/Sonc) 3540 Date Extracted: 03/12/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.7	U
319-85-7	beta-BHC	1.7	U
319-86-8	delta-BHC	1.7	U
76-44-8	Heptachlor	1.7	U
309-00-2	Aldrin	1.7	U
1024-57-3	Heptachlor epoxide	1.7	U
959-98-8	Endosulfan I	1.7	U
60-57-1	Dieldrin	1.7	U
72-55-9	4,4'-DDE	1.7	U
72-20-8	Endrin	1.7	U
33213-65-9	Endosulfan II	1.7	U
72-54-8	4,4'-DDD	5.2	
1031-07-8	Endosulfan sulfate	1.7	U
50-29-3	4,4'-DDT	1.8	
72-43-5	Methoxychlor	1.7	U
53494-70-5	Endrin ketone	1.7	U
7421-93-4	Endrin aldehyde	1.7	U
8001-35-2	Toxaphene	33	U
12674-11-2	Aroclor-1016	17	U
11104-28-2	Aroclor-1221	17	U
11141-16-5	Aroclor-1232	17	U
53469-21-9	Aroclor-1242	17	U
12672-29-6	Aroclor-1248	17	U
11097-69-1	Aroclor-1254	17	U
11096-82-5	Aroclor-1260	17	U
58-89-9	Gamma-BHC (Lindane)	1.7	U
57-74-9	Chlordane	17	U

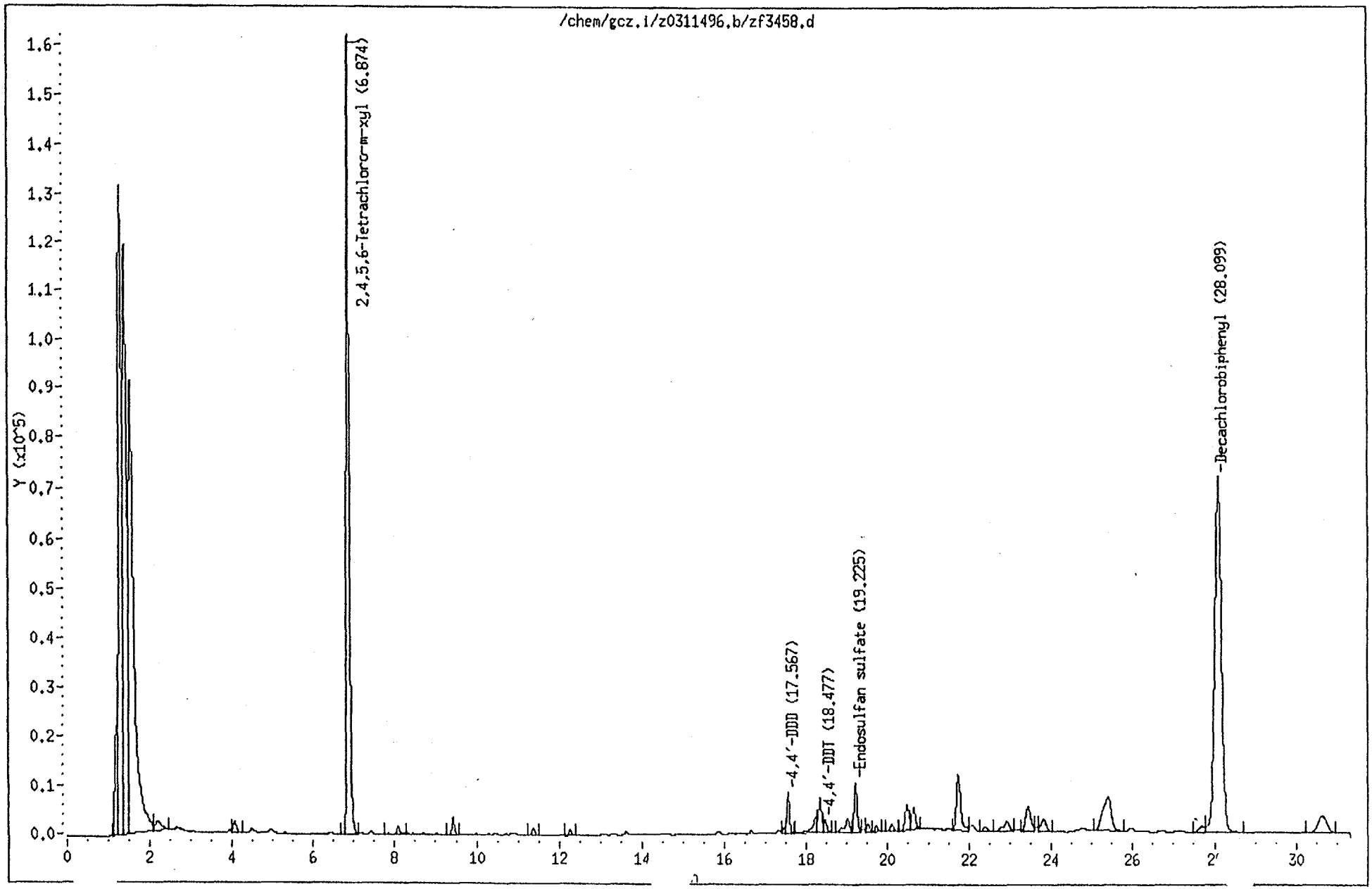
0201

Data File: /chem/gcz.i/z0311496.b/zf3458.d
Date : 14-MAR-96 12:35
Client ID:
Sample Info: n2p60480p,n2p604

Column phase: DB-608

Instrument: gcz.i

Operator: art
Column diameter: 0.53



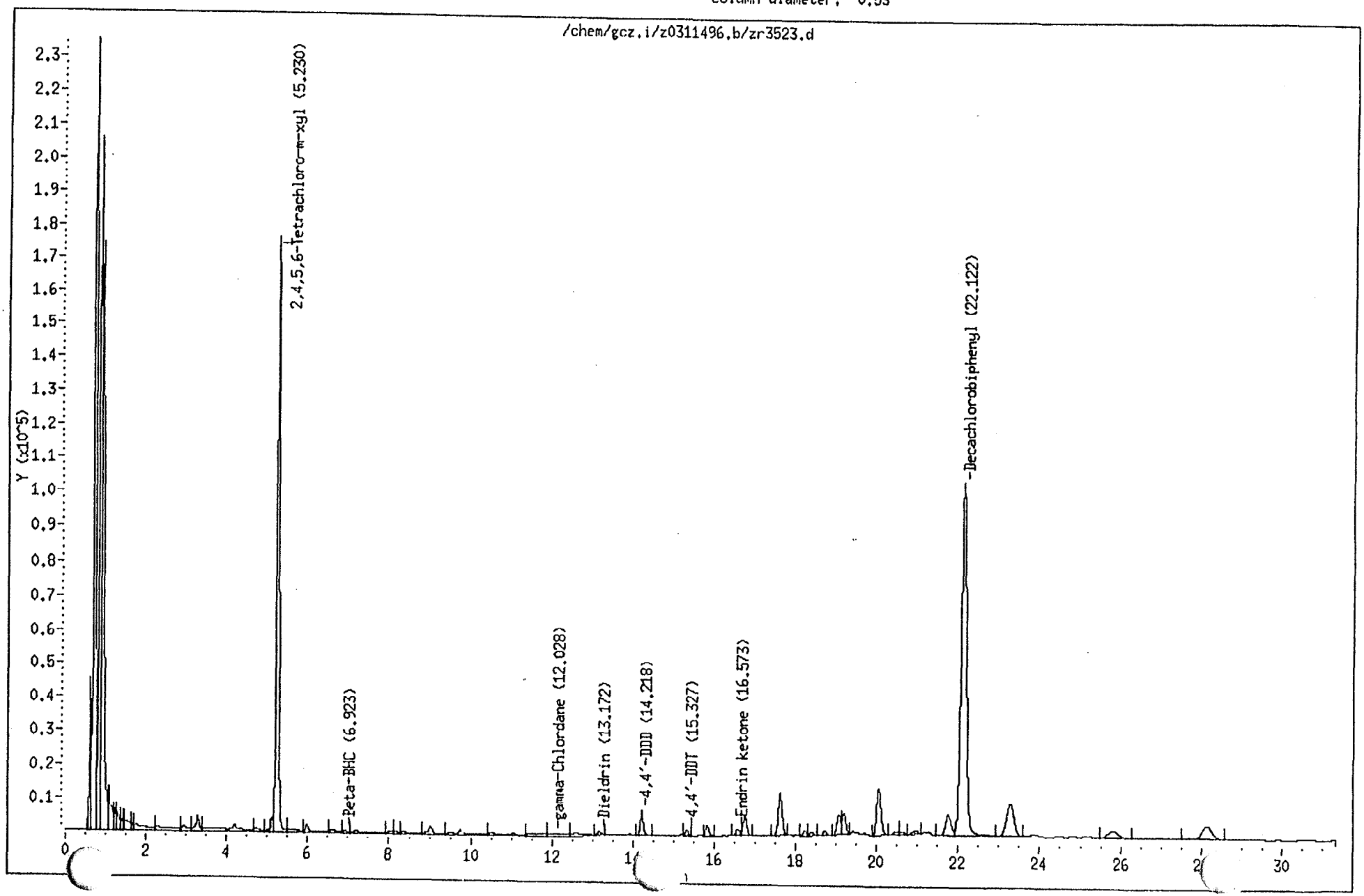
0202

Data File: /chem/gcz.i/z0311496.b/zr3523.d
Date : 14-MAR-96 13:10
Client ID:
Sample Info: n2p60480p,n2p604

Column phase: DB-5

Instrument: gcz.i

Operator: art
Column diameter: 0.53



Data File: /chem/gcz.i/z0311496.b/zf3458.d
Report Date: 15-Mar-1996 07:40

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zf3458.d
Lab Smp Id:
Inj Date : 14-MAR-96 12:35
Operator : art Inst ID: gcz.i
Smp Info : n2p60480p,n2p604
Misc Info : n2p60480p,n2p60480,g2,1,1
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_608.m
Meth Date : 15-Mar-1996 07:27 Quant Type: ESTD
Cal Date : 19-JAN-96 16:03 Cal File: zf2358.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
1	2,4,5,6-Tetrachloro-m-xylene	6.874	6.891	-0.017	3807433	0.528	0.528 (R)
15	4,4'-DDD	17.567	17.580	-0.013	176794	0.0312	0.0312
17	4,4'-DDT	18.477	18.491	-0.014	64477	0.0113	0.0113
19	Endosulfan sulfate	19.225	19.179	0.046	258377	0.0450	~~0.0450~~
S 22	Decachlorobiphenyl	28.099	28.146	-0.047	4252781	0.529	0.529 (R)

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/gcz.i/z0311496.b/zr3523.d
Report Date: 15-Mar-1996 08:20

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zr3523.d
Lab Smp Id:
Inj Date : 14-MAR-96 13:10
Operator : art Inst ID: gcz.i
Smp Info : n2p60480p,n2p604
Misc Info : n2p60480p,n2p604
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_db5.m
Meth Date : 15-Mar-1996 07:29 Quant Type: ESTD
Cal Date : 19-JAN-96 16:38 Cal File: zr2377.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
1	2,4,5,6-Tetrachloro-m-xylene	5.230	5.246	-0.016	3919257	0.529	0.529(R)
2	Alpha-BHC	Compound Not Detected.					
3	Beta-BHC	6.923	6.876	0.047	23293	0.00456	0.00456
4	Gamma-BHC (Lindane)	Compound Not Detected.					
5	Delta-BHC	Compound Not Detected.					
6	Heptachlor	Compound Not Detected.					
7	Aldrin	Compound Not Detected.					
8	Heptachlor epoxide	Compound Not Detected.					
9	gamma-Chlordane	12.028	11.971	0.057	120694	0.0132	0.0132
10	Endosulfan I	Compound Not Detected.					
M 11	alpha-Chlordane	Compound Not Detected.					
12	4,4'-DDE	Compound Not Detected.					
13	Dieldrin	13.172	13.152	0.020	28898	0.00325	0.00325
14	Endrin	Compound Not Detected.					
15	Endosulfan II	Compound Not Detected.					
16	4,4'-DDD	14.218	14.228	-0.010	189053	0.0293	0.0293
17	Endrin aldehyde	Compound Not Detected.					
18	Endosulfan sulfate	Compound Not Detected.					
19	4,4'-DDT	15.327	15.339	-0.012	43880	0.00682	0.00682
20	Endrin ketone	16.573	16.578	-0.005	59165	0.00755	0.00755
21	Methoxychlor	Compound Not Detected.					
S 22	Decachlorobiphenyl	22.122	22.136	-0.014	4853389	0.540	0.540(R)

Flag Legend

R - Spike/Surrogate failed recovery limits.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

0205

EPA SAMPLE NO.

PSPK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix: (soil/water) SOIL Lab Sample ID: N2P60480PS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: ZF3459

% Moisture: N/A decanted: (Y/N) N Date Received: 3/12/96

Extraction: (SepF/Cont/Sonc) 3540 Date Extracted: 03/12/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	170	
319-85-7	beta-BHC	170	
319-86-8	delta-BHC	160	
76-44-8	Heptachlor	180	
309-00-2	Aldrin	180	
1024-57-3	Heptachlor epoxide	180	
959-98-8	Endosulfan I	180	
60-57-1	Dieldrin	190	
72-55-9	4,4'-DDE	190	
72-20-8	Endrin	200	
33213-65-9	Endosulfan II	170	
72-54-8	4,4'-DDD	200	B
1031-07-8	Endosulfan sulfate	170	
50-29-3	4,4'-DDT	200	B
72-43-5	Methoxychlor	200	
53494-70-5	Endrin ketone	180	
7421-93-4	Endrin aldehyde	140	
8001-35-2	Toxaphene	33	U
12674-11-2	Aroclor-1016	17	U
11104-28-2	Aroclor-1221	17	U
11141-16-5	Aroclor-1232	17	U
53469-21-9	Aroclor-1242	17	U
12672-29-6	Aroclor-1248	17	U
11097-69-1	Aroclor-1254	17	U
11096-82-5	Aroclor-1260	17	U
58-89-9	Gamma-BHC (Lindane)	180	
57-74-9	Chlordane	340	

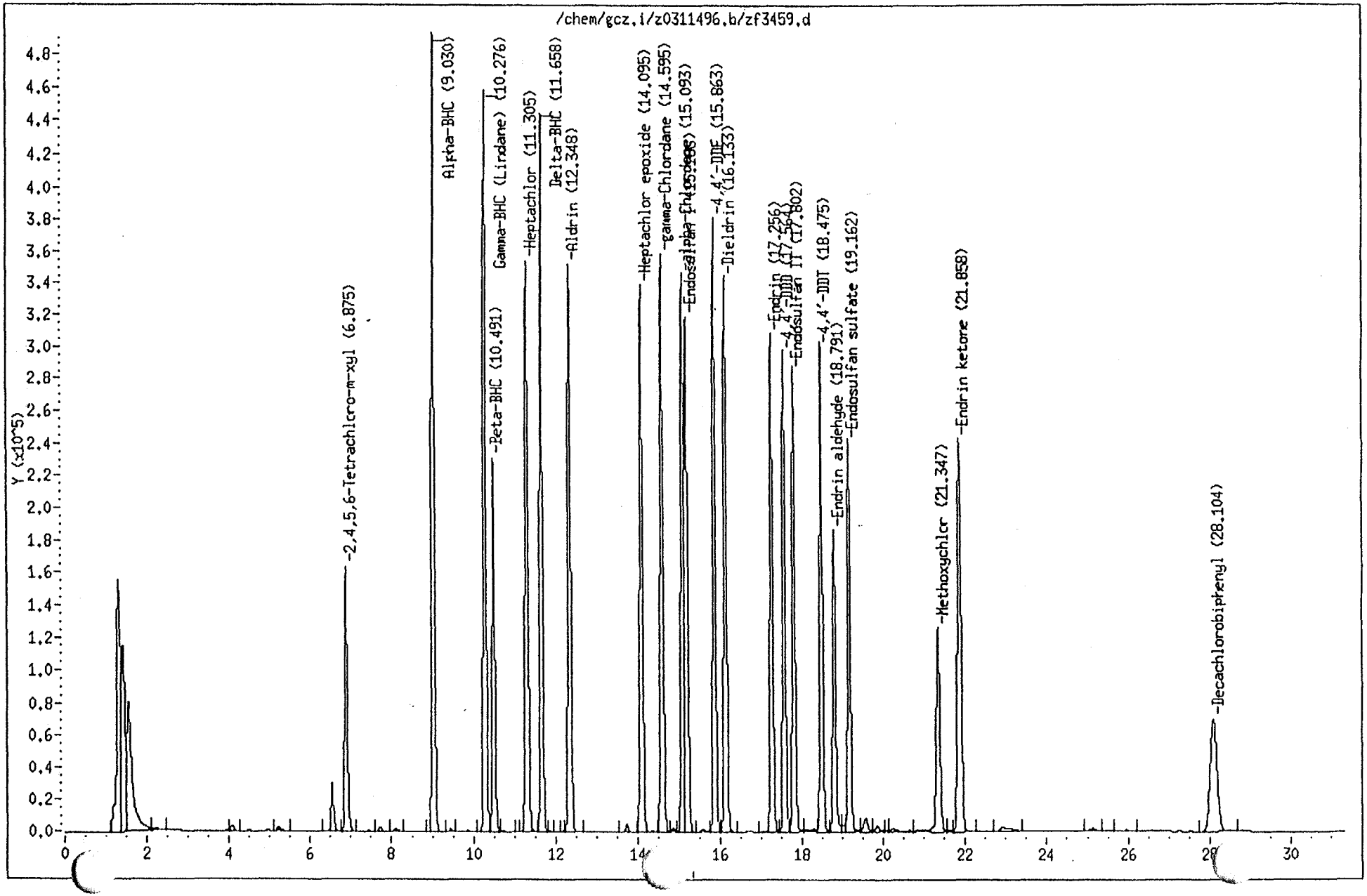
0206

Data File: /chem/gcz.i/z0311496.b/zf3459.d
Date : 14-MAR-96 13:10
Client ID:
Sample Info: n2p60480ps,n2p60

Column phase: DB-608

Instrument: gcz.i

Operator: art
Column diameter: 0.53



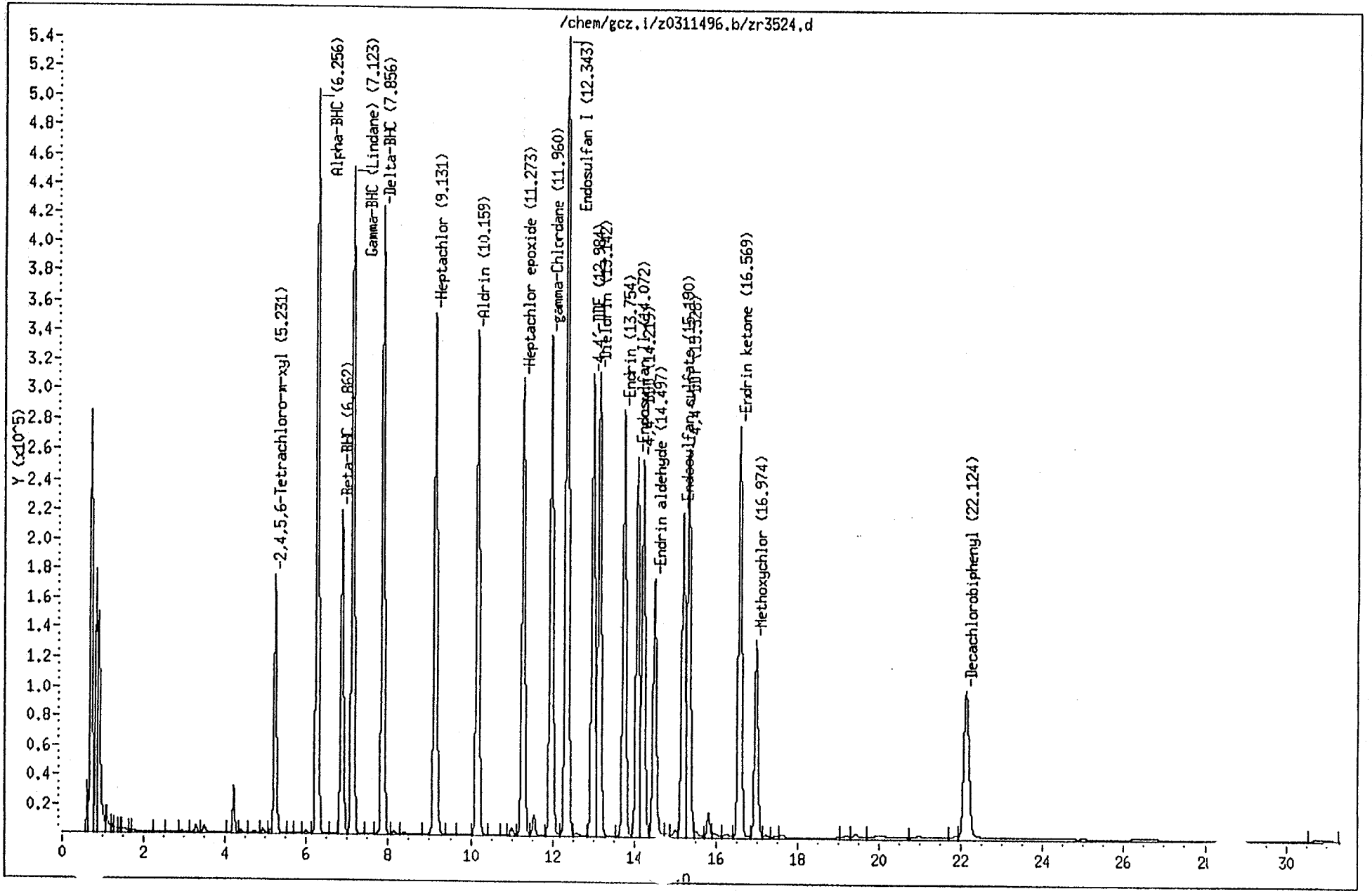
0207

Data File: /chem/gcz.i/z0311496.b/zr3524.d
Date : 14-MAR-96 13:45
Client ID:
Sample Info: n2p60480ps,n2p60

Column phase: DB-5

Instrument: gcz.i

Operator: art
Column diameter: 0.53



OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zf3459.d
Lab Smp Id:
Inj Date : 14-MAR-96 13:10
Operator : art Inst ID: gcz.i
Smp Info : n2p60480ps,n2p60
Misc Info : n2p60480ps,n2p60480,g2,1,1
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_608.m
Meth Date : 15-Mar-1996 07:27 Quant Type: ESTD
Cal Date : 19-JAN-96 16:03 Cal File: zf2358.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
	2,4,5,6-Tetrachloro-m-xylene	6.875	6.891	-0.016	3829903	0.532	0.532 (R)
2	Alpha-BHC	9.030	9.047	-0.017	11022677	1.01	1.01
3	Gamma-BHC (Lindane)	10.276	10.293	-0.017	10177654	1.09	1.09
4	Beta-BHC	10.491	10.509	-0.018	4980759	1.02	1.02
5	Heptachlor	11.305	11.322	-0.017	8863082	1.07	1.07
6	Delta-BHC	11.658	11.676	-0.018	9293421	0.984	0.984
7	Aldrin	12.348	12.366	-0.018	8924410	1.07	1.07
8	Heptachlor epoxide	14.095	14.113	-0.018	8193420	1.06	1.06
9	gamma-Chlordane	14.595	14.613	-0.018	8722868	1.03	1.03
10	alpha-Chlordane	15.093	15.111	-0.018	7751001	0.989	0.989
11	Endosulfan I	15.188	15.206	-0.018	8375069	1.09	1.09
12	4,4'-DDE	15.863	15.881	-0.018	8374520	1.14	1.14
13	Dieldrin	16.133	16.150	-0.017	8363529	1.11	1.11
14	Endrin	17.256	17.274	-0.018	7505144	1.21	1.21
15	4,4'-DDD	17.564	17.580	-0.016	6615911	1.17	1.17
16	Endosulfan II	17.802	17.820	-0.018	6929055	1.03	1.03
17	4,4'-DDT	18.475	18.491	-0.016	6921366	1.22	1.22
18	Endrin aldehyde	18.791	18.808	-0.017	4603435	0.828	0.828
19	Endosulfan sulfate	19.162	19.179	-0.017	5890572	1.03	1.03
20	Methoxychlor	21.347	21.367	-0.020	4021481	1.19	1.19
21	Endrin ketone	21.858	21.881	-0.023	7776484	1.07	1.07
$ 22	Decachlorobiphenyl	28.104	28.146	-0.042	4054860	0.505	0.505 (R)
M 23	Chlordane				16473870	2.02	2.02

GK 3/15/96

'lag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/gcz.i/z0311496.b/zr3524.d
Report Date: 15-Mar-1996 08:20

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zr3524.d
Lab Smp Id:
Inj Date : 14-MAR-96 13:45
Operator : art Inst ID: gcz.i
Smp Info : n2p60480ps,n2p60
Misc Info : n2p60480ps,n2p60
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_db5.m
Meth Date : 15-Mar-1996 07:29 Quant Type: ESTD
Cal Date : 19-JAN-96 16:38 Cal File: zr2377.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/ml)
	1 2,4,5,6-Tetrachloro-m-xylene	5.231	5.246	-0.015	3912134	0.528	0.528(R)
	2 Alpha-BHC	6.256	6.271	-0.015	11358131	1.09	1.09
	3 Beta-BHC	6.862	6.876	-0.014	5240350	1.03	1.03
	4 Gamma-BHC (Lindane)	7.123	7.135	-0.012	10591494	1.08	1.08
	5 Delta-BHC	7.856	7.869	-0.013	9939805	0.997	0.997
	6 Heptachlor	9.131	9.143	-0.012	9459973	1.10	1.10
	7 Aldrin	10.159	10.171	-0.012	9266705	1.08	1.08
	8 Heptachlor epoxide	11.273	11.283	-0.010	8556432	1.07	1.07
	9 gamma-Chlordane	11.960	11.971	-0.011	9635026	1.05	1.05
	10 Endosulfan I	12.343	12.354	-0.011	15985859	2.00	2.00
M	11 alpha-Chlordane				15985859	2.00	2.00
	12 4,4'-DDE	12.984	12.995	-0.011	8645637	1.12	1.12
	13 Dieldrin	13.142	13.152	-0.010	9032778	1.01	1.01
	14 Endrin	13.754	13.763	-0.009	8256067	1.22	1.22
	15 Endosulfan II	14.072	14.083	-0.011	7193420	1.02	1.02
	16 4,4'-DDD	14.219	14.228	-0.009	7437251	1.15	1.15
	17 Endrin aldehyde	14.497	14.506	-0.009	5316657	0.846	0.846
	18 Endosulfan sulfate	15.190	15.200	-0.010	6283284	0.998	0.998
	19 4,4'-DDT	15.328	15.339	-0.011	7816794	1.21	1.21
	20 Endrin ketone	16.569	16.578	-0.009	8148254	1.04	1.04
	21 Methoxychlor	16.974	16.983	-0.009	4089567	1.17	1.17
S	22 Decachlorobiphenyl	22.124	22.136	-0.012	8105204	0.902	0.902(R)

Flag Legend

R - Spike/Surrogate failed recovery limits.

ORGANICS

TCLP Pesticides by GC

2L

LEACHATE PESTICIDE SURROGATE RECOVERY

0211

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

GC Column(1): DB608 ID: 0.53 (mm) GC Column(2): DB5 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK01	116		103				0
02	PSPK01	111		100				0
03	CLJ100-WC1MS	118		105				0
04	CLJ100-WC1MSD	115		100				0
05	CLJ100-WC1	117		102				0

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(30-130)
DCB = Decachlorobiphenyl	(30-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring compound diluted out

3L
LEACHATE PESTICIDE MATRIX SPIKE RECOVERY

0212

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix Spike - EPA Sample No.: CLJ100-WC1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Heptachlor	10	0	12	120	40-131
Heptachlor epoxide	10	0	12	120	30-130
Endrin	20	0	28	140 *	56-121
Methoxychlor	200	0	230	115	30-130
alpha-Chlordane	20	0	26	130	30-130
gamma-Chlordane	20	0	24	120	30-130
Gamma-BHC (Lindane)	200	0	240	120	56-120
Chlordane	40	0	51	128	30-130

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

* Values outside of QC limits

Spike Recovery: 1 out of 8 outside limits

COMMENTS: _____

3L

LEACHATE PESTICIDE MATRIX SPIKE DUPLICATE RECOVERY

0213

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix Spike - EPA Sample No.: CLJ100-WC1

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Heptachlor	10	11	110	9	20	40-131
Heptachlor epoxide	10	11	110	9	20	30-130
Endrin	20	26	130 *	7	21	56-121
Methoxychlor	200	220	110	4	20	30-130
alpha-Chlordane	20	25	125	4	20	30-130
gamma-Chlordane	20	23	115	4	20	30-130
Gamma-BHC (Lindane)	200	230	115	4	15	56-120
Chlordane	40	48	120	6	20	30-130

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

* Values outside of QC limits

RPD: 0 out of 8 outside limits
Spike Recovery: 1 out of 8 outside limits

COMMENTS: _____

3L

LEACHATE PESTICIDE BLANK SPIKE RECOVERY

0214

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix Spike - EPA Sample No.: PSPK01

COMPOUND	SPIKE ADDED (ug/L)	BLANK CONCENTRATION (ug/L)	BS CONCENTRATION (ug/L)	BS % REC #		QC LIMITS REC.
Heptachlor	10	0	11	110		40-131
Heptachlor epoxide	10	0	11	110		30-130
Endrin	20	0	26	130	*	56-121
Methoxychlor	200	0	220	110		30-130
alpha-Chlordane	20	0	24	120		30-130
gamma-Chlordane	20	0	22	110		30-130
Gamma-BHC (Lindane)	200	0	230	115		56-120
Chlordane	40	0	46	115		30-130

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

* Values outside of QC limits

Spike Recovery: 1 out of 8 outside limits

COMMENTS: _____

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

0215

PBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Lab File ID: ZF3461 Lab Sample ID: N7P60483P

Instrument ID: GCZ ZF/ZR Date Extracted: 03/13/96

Matrix: (soil/water) WATER Date Analyzed: 03/14/96

Level: (low/med) _____ Time Analyzed: 14:19

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	CLJ100-WC1	JP5002P	ZF3465	03/14/96
02	CLJ100-WC1MSD	JP5002PR	ZF3464	03/14/96
03	PSPK01	N7P60483PS	ZF3462	03/14/96
04	CLJ100-WC1MS	JP5002PS	ZF3463	03/14/96

COMMENTS:

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET **0216**

EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) WATER Lab Sample ID: JP5002P

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: ZF3465

% Moisture: N/A decanted: (Y/N) N Date Received: 03/12/96

Extraction: (SepF/Cont/Sonc) CLP Date Extracted: 03/13/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

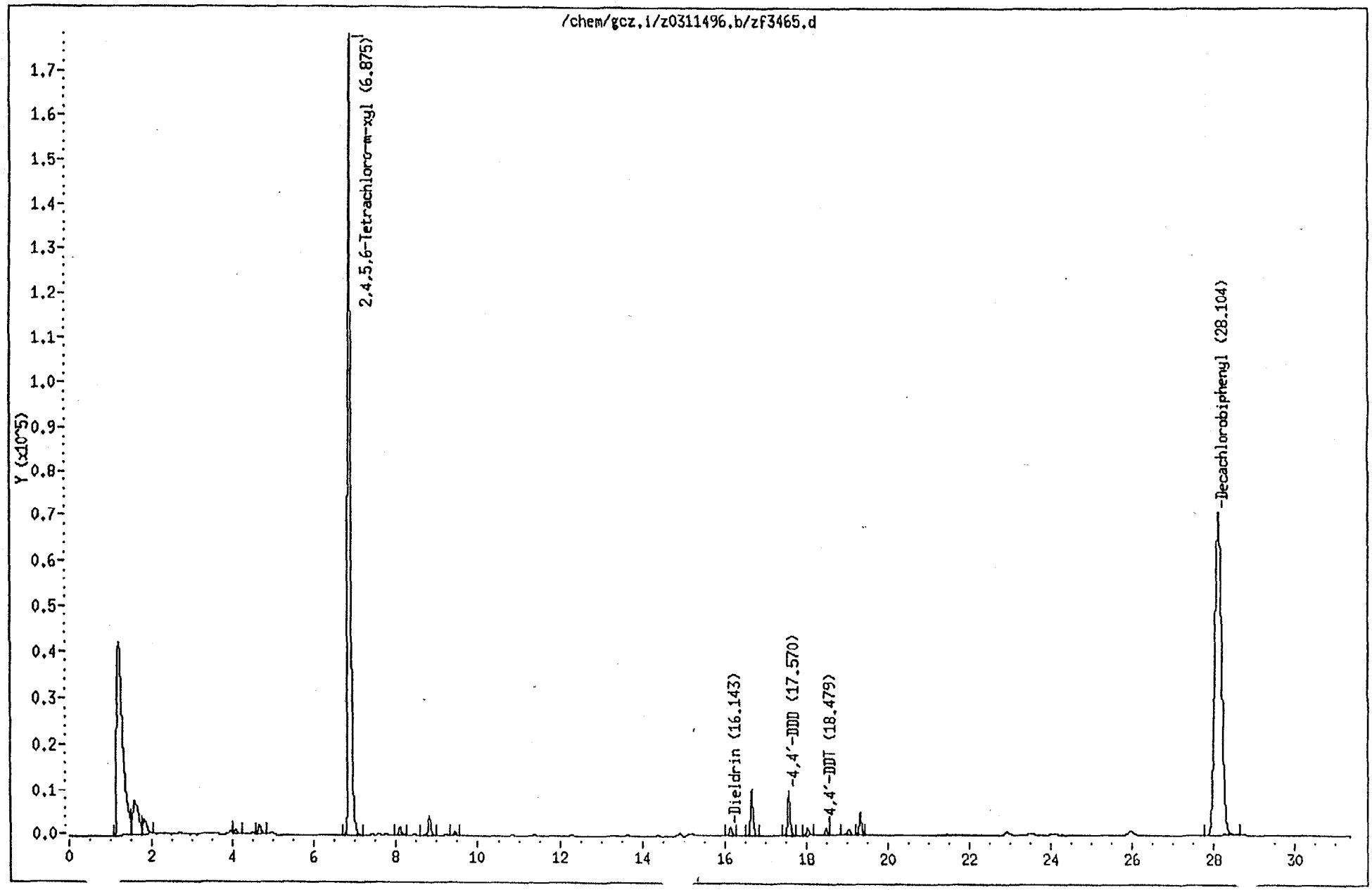
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
76-44-8	Heptachlor	2.0	U
1024-57-3	Heptachlor epoxide	2.0	U
72-20-8	Endrin	2.0	U
72-43-5	Methoxychlor	2.0	U
8001-35-2	Toxaphene	40	U
58-89-9	Gamma-BHC (Lindane)	2.0	U
57-74-9	Chlordane	20	U

Data File: /chem/gcz.i/z0311496.b/zf3465.d
Date : 14-MAR-96 16:39
Client ID:
Sample Info: jp5002p,n7p60483

Column phase: DB-608

Instrument: gcz.i

Operator: art
Column diameter: 0.53



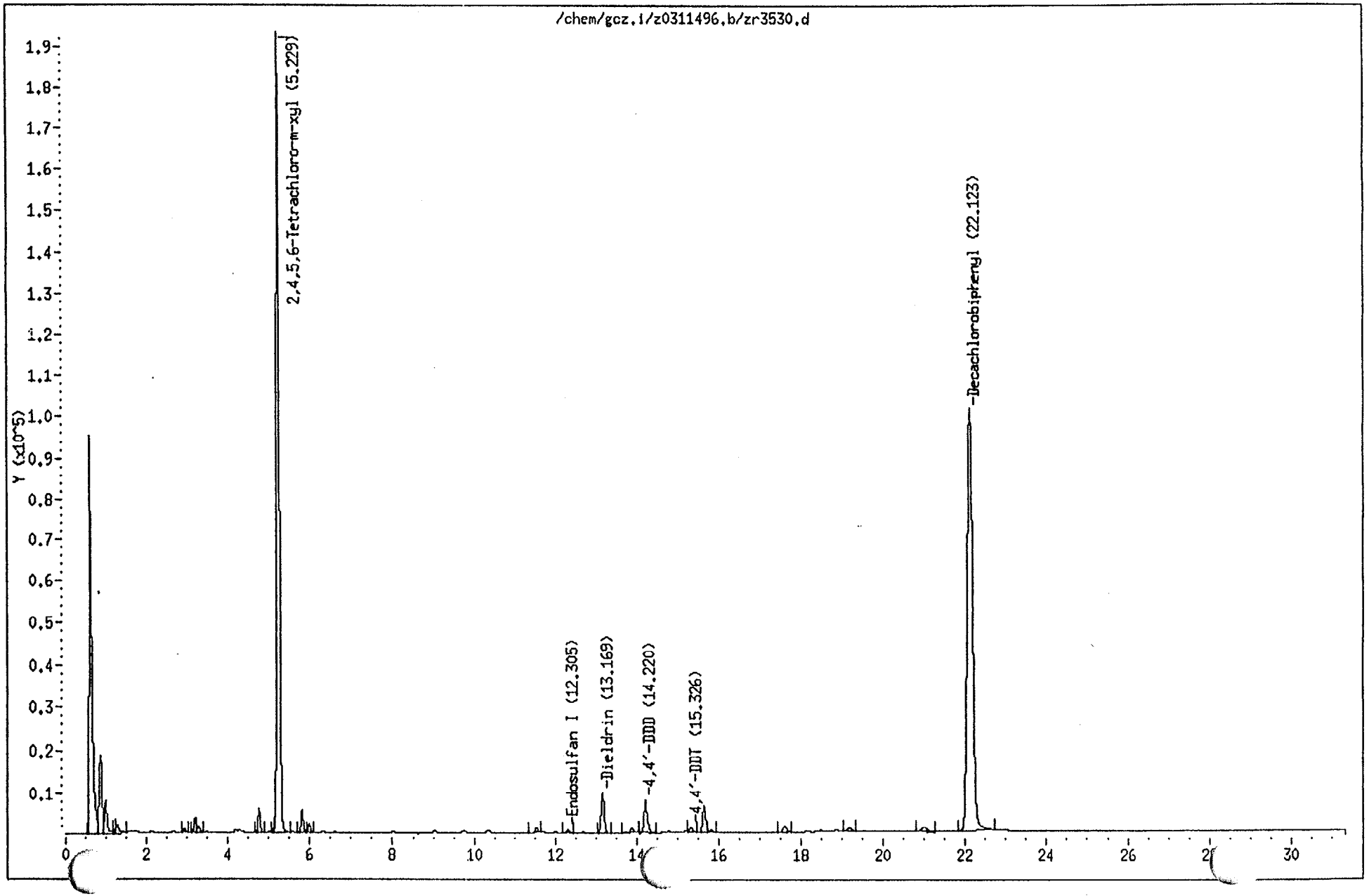
0218

Data File: /chem/gcz.i/z0311496.b/zr3530.d
Date : 14-MAR-96 17:14
Client ID:
Sample Info: jp5002p,n7p60483

Column phase: DB-5

Instrument: gcz.i

Operator: art
Column diameter: 0.53



Data File: /chem/gcz.i/z0311496.b/zf3465.d
Report Date: 15-Mar-1996 07:44

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zf3465.d
Lab Smp Id:
Inj Date : 14-MAR-96 16:39
Operator : art Inst ID: gcz.i
Smp Info : jp5002p,n7p60483
Misc Info : jp5002p,n7p60483,g2,1,1
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_608.m
Meth Date : 15-Mar-1996 07:27 Quant Type: ESTD
Cal Date : 19-JAN-96 16:03 Cal File: zf2358.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
S	2,4,5,6-Tetrachloro-m-xylene	6.875	6.891	-0.016	4218483	0.585	0.585 (R)
13	Dieldrin	16.143	16.150	-0.007	47842	0.00634	0.00634
15	4,4'-DDD	17.570	17.580	-0.010	218580	0.0386	0.0386
17	4,4'-DDT	18.479	18.491	-0.012	34738	0.00611	0.00611
S 22	Decachlorobiphenyl	28.104	28.146	-0.042	4090783	0.509	0.509 (R)

aK 3/5/96

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/gcz.i/z0311496.b/zr3530.d
Report Date: 15-Mar-1996 08:21

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zr3530.d
Lab Smp Id:
Inj Date : 14-MAR-96 17:14
Operator : art Inst ID: gcz.i
Smp Info : jp5002p,n7p60483
Misc Info : jp5002p,n7p60483
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_db5.m
Meth Date : 15-Mar-1996 07:29 Quant Type: ESTD
Cal Date : 19-JAN-96 16:38 Cal File: zr2377.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

						CONCENTRATIONS	
						ON-COLUMN	FINAL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)
	2,4,5,6-Tetrachloro-m-xylene	5.229	5.246	-0.017	4257318	0.574	0.574(R)
2	Alpha-BHC	Compound Not Detected.					
3	Beta-BHC	Compound Not Detected.					
4	Gamma-BHC (Lindane)	Compound Not Detected.					
5	Delta-BHC	Compound Not Detected.					
6	Heptachlor	Compound Not Detected.					
7	Aldrin	Compound Not Detected.					
8	Heptachlor epoxide	Compound Not Detected.					
9	gamma-Chlordane	Compound Not Detected.					
10	Endosulfan I	12.305	12.354	-0.049	21942	0.00275	0.00275
M 11	alpha-Chlordane				21942	0.00275	0.00275
12	4,4'-DDE	Compound Not Detected.					
13	Dieldrin	13.169	13.152	0.017	268088	0.0301	0.0301
14	Endrin	Compound Not Detected.					
15	Endosulfan II	Compound Not Detected.					
16	4,4'-DDD	14.220	14.228	-0.008	233632	0.0362	0.0362
17	Endrin aldehyde	Compound Not Detected.					
18	Endosulfan sulfate	Compound Not Detected.					
19	4,4'-DDT	15.326	15.339	-0.013	43566	0.00677	0.00677
20	Endrin ketone	Compound Not Detected.					
21	Methoxychlor	Compound Not Detected.					
$ 22	Decachlorobiphenyl	22.123	22.136	-0.013	4669400	0.519	0.519(R)

Flag Legend

R - Spike/Surrogate failed recovery limits.

Report Date : 19-Jan-1996 17:04

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 19-JAN-96 13:44
End Cal Date : 19-JAN-96 16:03
Quant Method : ESTD
Origin : Included
Target Version : 3.10
Integrator : HP Genie
Method file : /chem/gcz.i/z011996.b/011996_8080_608.m
Cal Date : 19-Jan-1996 17:02 art
Curve Type : Average

Calibration File Names:
Level 1: /chem/gcz.i/z011996.b/zf2354.d
Level 2: /chem/gcz.i/z011996.b/zf2355.d
Level 3: /chem/gcz.i/z011996.b/zf2356.d
Level 4: /chem/gcz.i/z011996.b/zf2357.d
Level 5: /chem/gcz.i/z011996.b/zf2358.d

	Compound	0.0200 Level 1	0.1000 Level 2	0.5000 Level 3	1 Level 4	2 Level 5	___ RRF	% RSD	
	2 Alpha-BHC	+++++	10531030	11844386	11164679	10262426	10950000	6.445	
	3 Gamma-BHC (Lindane)	6572850	9990920	10804208	10151051	9322259	9368000	17.604	
	4 Beta-BHC	4615750	5245810	5242744	4905202	4504144	4903000	7.025	
	5 Heptachlor	7362900	8711170	8951994	8504952	7875586	8281000	7.855	
	6 Delta-BHC	+++++	8845700	10239525	9711394	8979658	9444000	6.907	
	7 Aldrin	6698050	8645670	9344050	8836927	8122440	8329000	12.142	
	8 Heptachlor epoxide	6998500	8123040	8334934	7832848	7250601	7708000	7.378	
	9 gamma-Chlordane	7627700	8849210	8963558	8784053	8090758	8463000	6.837	
	10 alpha-Chlordane	7359400	8717290	8596110	7608517	6916450	7840000	10.041	
	11 Endosulfan I	6815600	7965810	8108280	8065062	7395390	7670000	7.262	
	12 4,4'-DDE	5517500	7495770	8353310	7931336	7340812	7328000	14.827	
	13 Dieldrin	6039200	7673030	8451696	8065008	7501204	7546000	12.179	
	14 Endrin	4905350	6236780	6952366	6698854	6319128	6222000	12.715	
	15 4,4'-DDD	4216950	5706410	6487750	6152564	5740824	5661000	15.346	
	16 Endosulfan II	6017550	6981020	7315754	6903334	6492953	6743000	7.418	
	17 4,4'-DDT	4444300	5527820	6220516	6238289	6008886	5688000	13.220	
	18 Endrin aldehyde	5298200	5783110	5998424	5521866	5215820	5563000	5.896	
	19 Endosulfan sulfate	4870550	5665790	6311998	6039984	5787233	5735000	9.473	
	20 Methoxychlor	3050600	3496240	3514056	3441099	3355526	3372000	5.627	
	21 Endrin ketone	5948900	7422510	8083386	7595244	7143732	7239000	11.025	
M	23 Chlordane	7493550	8783255	8779834	8195336	7503604	8151316	7.876	
	24 Toxaphene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	25 Aroclor 1016	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	Aroclor 1221	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	Aroclor 1232	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	28 Aroclor 1242	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	29 Aroclor 1248	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 19-JAN-96 13:44
End Cal Date : 19-JAN-96 16:03
Quant Method : ESTD
Origin : Included
Target Version : 3.10
Integrator : HP Genie
Method file : /chem/gcz.i/z011996.b/011996_8080_608.m
Cal Date : 19-Jan-1996 17:02 art
Curve Type : Average

	Compound	0.0200 Level 1	0.1000 Level 2	0.5000 Level 3	1 Level 4	2 Level 5	___ RRF	% RSD	
	30 Aroclor 1254	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	31 Aroclor 1260	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
	32 Hexachlorobenzene	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
S	1 2,4,5,6-Tetrachloro-m-xylene	7059200	7979910	7616588	7020512	6348662	7205000	8.663	
	2 Decachlorobiphenyl	9465700	8890920	7932546	7255251	6618598	8033000	14.468	

Report Date : 19-Jan-1996 17:31

OHM Analytical Division

INITIAL CALIBRATION DATA

Start Cal Date : 19-JAN-96 14:19
End Cal Date : 19-JAN-96 16:38
Quant Method : ESTD
Origin : Included
Target Version : 3.10
Integrator : HP Genie
Method file : /chem/gcz.i/z011996.b/011996_8080_db5.m
Cal Date : 19-Jan-1996 17:26
Curve Type : Average

Calibration File Names:
Level 1: /chem/gcz.i/z011996.b/zr2373.d
Level 2: /chem/gcz.i/z011996.b/zr2374.d
Level 3: /chem/gcz.i/z011996.b/zr2375.d
Level 4: /chem/gcz.i/z011996.b/zr2376.d
Level 5: /chem/gcz.i/z011996.b/zr2377.d

	Compound	0.0200 Level 1	0.1000 Level 2	0.5000 Level 3	1 Level 4	2 Level 5	___ RRF	% RSD
	2 Alpha-BHC	6905350	10509350	12128748	11533507	10962954	10410000	19.699
	3 Beta-BHC	4722050	5293560	5498996	5164343	4852005	5106000	6.231
	4 Gamma-BHC (Lindane)	7035600	9983200	11178518	10614747	9989252	9760000	16.415
	5 Delta-BHC	*****	9064680	10818346	10251703	9742352	9969000	7.485
	6 Heptachlor	7718650	8840700	9248626	8942832	8387456	8627655	6.892
	7 Aldrin	6603850	8506290	9811584	9369480	8743943	8607029	14.317
	8 Heptachlor epoxide	6955600	8031260	8722208	8327860	7861220	7979630	8.261
	9 gamma-Chlordane	7984800	9176300	9791252	9687043	9075294	9142938	7.855
	10 Endosulfan I	7611550	8758710	8453350	7849752	7240671	7982807	7.747
M	11 alpha-Chlordane	7611550	8758710	8453350	7849752	7240671	7982807	7.747
	12 4,4'-DDE	5350900	7358450	9096092	8677998	8009808	7699000	19.086
	13 Dieldrin	9487800	8686250	9102602	8806169	8417914	8900147	4.610
	14 Endrin	5702850	6784470	7420420	7125870	6768324	6760387	9.610
	15 Endosulfan II	6284800	7173590	7782576	7346519	6750646	7067626	8.108
	16 4,4'-DDD	5058200	6286790	7337910	6948275	6650893	6456414	13.504
	17 Endrin aldehyde	6156800	6494120	6739640	6205008	5829296	6284973	5.517
	18 Endosulfan sulfate	5747950	6210350	6874224	6554904	6105595	6298605	6.853
	19 4,4'-DDT	5034750	6053950	6970462	7133283	6987230	6435935	13.865
	20 Endrin ketone	6954400	8167630	8518782	7989400	7535269	7833096	7.732
	21 Methoxychlor	3472900	3619800	3578396	3501050	3333961	3501221	3.155
S	1 2,4,5,6-Tetrachloro-m-xylene	7418950	7988510	7791428	7203523	6654895	7411000	7.053
S	22 Decachlorobiphenyl	9965400	9502910	9210468	8473615	7791946	8988868	9.578

Data File: /chem/gcz.i/z0311496.b/zf3455.d
Report Date: 14-Mar-1996 10:35

OHM Analytical Division

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcz.i
Lab File ID: zf3455.d
Analysis Type:
Lab Sample ID:
Quant Type: ESTD

Injection Date: 14-MAR-96 09:43
Init. Calibration Date(s): JAN/19/96 JAN/19/96
Init. Calibration Times: 13:44 16:03
Method File: /chem/gcz.i/z0311496.b/011996_8080_608.

		COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D	
$	1	2,4,5,6-Tetrachloro-m-xylene	7205000.000	7263569.091	0.010	0.8	15.0	
	2	Alpha-BHC	10950000.000	10502777.164	0.010	3.2	15.0	
	3	Gamma-BHC (Lindane)	9368000.000	9514214.867	0.010	1.6	15.0	
	4	Beta-BHC	4903000.000	4911655.585	0.010	0.2	15.0	
	5	Heptachlor	8281000.000	8702387.191	0.010	5.1	15.0	
	6	Delta-BHC	9444000.000	9435012.100	0.010	0.4	15.0	
	7	Aldrin	8329000.000	8711038.346	0.010	4.6	15.0	
	8	Heptachlor epoxide	7708000.000	7943539.062	0.010	3.1	15.0	
	9	gamma-Chlordane	8463000.000	8637440.936	0.010	2.1	15.0	
	10	alpha-Chlordane	7840000.000	7980474.268	0.010	1.8	15.0	
	11	Endosulfan I	7670000.000	7870169.738	0.010	2.6	15.0	
	12	4,4'-DDE	7328000.000	7569512.733	0.010	3.3	15.0	
	13	Dieldrin	7546000.000	7757572.679	0.010	2.8	15.0	
	14	Endrin	6222000.000	6950309.250	0.010	11.7	15.0	
	15	4,4'-DDD	5661000.000	5822427.986	0.010	2.9	15.0	
	16	Endosulfan II	6743000.000	6876638.905	0.010	2.0	15.0	
	17	4,4'-DDT	5688000.000	5819669.181	0.010	2.3	15.0	
	18	Endrin aldehyde	5563000.000	5515527.317	0.010	0.9	15.0	
	19	Endosulfan sulfate	5735000.000	5803198.202	0.010	1.2	15.0	
	20	Methoxychlor	3372000.000	3481245.544	0.010	3.2	15.0	
	21	Endrin ketone	7239000.000	7382120.046	0.010	2.0	15.0	
$	22	Decachlorobiphenyl	8033000.000	7950317.944	0.010	2.3	15.0	
M	23	Chlordane	8151000.000	8311504.089	0.010	2.0	40.0	
	24	Toxaphene	++++	++++	0.010	++++	40.0	<-
	25	Aroclor 1016	++++	++++	0.010	++++	40.0	<-
	26	Aroclor 1221	++++	++++	0.010	++++	40.0	<-
	27	Aroclor 1232	++++	++++	0.010	++++	40.0	<-
	28	Aroclor 1242	++++	++++	0.010	++++	40.0	<-
	29	Aroclor 1248	++++	++++	0.010	++++	40.0	<-
	30	Aroclor 1254	++++	++++	0.010	++++	40.0	<-
	31	Aroclor 1260	++++	++++	0.010	++++	40.0	<-
	32	Hexachlorobenzene	++++	++++	0.010	++++	40.0	<-
	43	2,4,5-Trichlorophenol	++++	++++	0.010	++++	40.0	<-

Data File: /chem/gcz.i/z0311496.b/zf3467.d
Report Date: 15-Mar-1996 07:03

OHM Analytical Division

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcz.i
Lab File ID: zf3467.d
Analysis Type:
Lab Sample ID:
Quant Type: ESTD

Injection Date: 14-MAR-96 17:49
Init. Calibration Date(s): JAN/19/96 JAN/19/96
Init. Calibration Times: 13:44 16:03
Method File: /chem/gcz.i/z0311496.b/011996_8080_60

	COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D	
$	1 2,4,5,6-Tetrachloro-m-xylene	7205000.000	7290663.636	0.010	1.2	15.0	
	2 Alpha-BHC	10950000.000	10532846.225	0.010	2.9	15.0	
	3 Gamma-BHC (Lindane)	9368000.000	9554809.183	0.010	2.0	15.0	
	4 Beta-BHC	4903000.000	4930300.581	0.010	0.6	15.0	
	5 Heptachlor	8281000.000	8876249.873	0.010	7.2	15.0	
	6 Delta-BHC	9444000.000	9694036.105	0.010	2.6	15.0	
	7 Aldrin	8329000.000	8793959.090	0.010	5.6	15.0	
	8 Heptachlor epoxide	7708000.000	8005837.976	0.010	3.9	15.0	
	9 gamma-Chlordane	8463000.000	8770232.475	0.010	3.6	15.0	
	10 alpha-Chlordane	7840000.000	8130106.413	0.010	3.7	15.0	
	11 Endosulfan I	7670000.000	7914540.796	0.010	3.2	15.0	
	12 4,4'-DDE	7328000.000	7668186.238	0.010	4.6	15.0	
	13 Dieldrin	7546000.000	7843365.021	0.010	3.9	15.0	
	14 Endrin	6222000.000	7022776.219	0.010	12.9	15.0	
	15 4,4'-DDD	5661000.000	5913710.281	0.010	4.5	15.0	
	16 Endosulfan II	6743000.000	5971096.185	0.010	3.4	15.0	
	17 4,4'-DDT	5688000.000	6070433.297	0.010	6.7	15.0	
	18 Endrin aldehyde	5563000.000	5608142.156	0.010	0.8	15.0	
	19 Endosulfan sulfate	5735000.000	5907184.856	0.010	3.0	15.0	
	20 Methoxychlor	3372000.000	3585488.667	0.010	6.3	15.0	
	21 Endrin ketone	7239000.000	7452374.784	0.010	2.9	15.0	
$	22 Decachlorobiphenyl	8033000.000	8012616.583	0.010	0.3	15.0	
M	23 Chlordane	8151000.000	8452981.685	0.010	3.7	40.0	
	24 Toxaphene	****	****	0.010	****	40.0	<-
	25 Aroclor 1016	****	****	0.010	****	40.0	<-
	26 Aroclor 1221	****	****	0.010	****	40.0	<-
	27 Aroclor 1232	****	****	0.010	****	40.0	<-
	28 Aroclor 1242	****	****	0.010	****	40.0	<-
	29 Aroclor 1248	****	****	0.010	****	40.0	<-
	30 Aroclor 1254	****	****	0.010	****	40.0	<-
	31 Aroclor 1260	****	****	0.010	****	40.0	<-
	32 Hexachlorobenzene	****	****	0.010	****	40.0	<-
	43 2,4,5-Trichlorophenol	****	****	0.010	****	40.0	<-

Data File: /chem/gcz.i/z0311496.b/zr3519.d
Report Date: 14-Mar-1996 10:36

OHM Analytical Division

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcz.i
Lab File ID: zr3519.d
Analysis Type:
Lab Sample ID:
Quant Type: ESTD

Injection Date: 14-MAR-96 09:43
Init. Calibration Date(s): JAN/19/96 JAN/19/96
Init. Calibration Times: 14:19 16:38
Method File: /chem/gcz.i/z0311496.b/011996_8080_db5.

	COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
S	1 2,4,5,6-Tetrachloro-m-xylene	7411000.000	7558650.000	0.010	2.1	15.0
	2 Alpha-BHC	10410000.000	11428949.969	0.010	9.8	15.0
	3 Beta-BHC	5106000.000	5084042.025	0.010	0.4	15.0
	4 Gamma-BHC (Lindane)	9760000.000	9495280.771	0.010	2.7	15.0
	5 Delta-BHC	9969000.000	9461994.536	0.010	5.1	15.0
	6 Heptachlor	8628000.000	8826074.866	0.010	2.3	15.0
	7 Aldrin	8607000.000	8953522.898	0.010	4.0	15.0
	8 Heptachlor epoxide	7980000.000	8219391.925	0.010	3.0	15.0
	9 gamma-Chlordane	9143000.000	9258124.423	0.010	1.3	15.0
	10 Endosulfan I	7983000.000	7922546.323	0.010	0.8	15.0
M	11 alpha-Chlordane	7983000.000	7922546.323	0.010	0.8	15.0
	12 4,4'-DDE	7699000.000	8114990.328	0.010	5.4	15.0
	13 Dieldrin	8900000.000	8256691.954	0.010	7.1	15.0
	14 Endrin	6760000.000	7532560.252	0.010	11.4	15.0
	15 Endosulfan II	7068000.000	7233057.761	0.010	3.0	15.0
	16 4,4'-DDD	6455000.000	6380683.418	0.010	1.2	15.0
	17 Endrin aldehyde	6285000.000	6237941.399	0.010	0.7	15.0
	18 Endosulfan sulfate	6299000.000	6250902.777	0.010	0.8	15.0
	19 4,4'-DDT	6436000.000	6739206.534	0.010	4.7	15.0
	20 Endrin ketone	7833000.000	7721501.925	0.010	1.4	15.0
	21 Methoxychlor	3501000.000	3775093.324	0.010	7.8	15.0
S	22 Decachlorobiphenyl	8989000.000	8777380.192	0.010	2.4	15.0

Data File: /chem/gcz.i/z0311496.b/zr3532.d
Report Date: 15-Mar-1996 07:13

OHM Analytical Division

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: gcz.i
Lab File ID: zr3532.d
Analysis Type:
Lab Sample ID:
Quant Type: ESTD

Injection Date: 14-MAR-96 18:24
Init. Calibration Date(s): JAN/19/96 JAN/19/96
Init. Calibration Times: 14:19 16:38
Method File: /chem/gcz.i/z0311496.b/011996_8080_db

	COMPOUND	RRF	RF0	MIN RRF	%D	MAX %D
$	1 2,4,5,6-Tetrachloro-m-xylene	7411000.000	7711887.955	0.010	4.1	15.0
	2 Alpha-BHC	10410000.000	11629011.050	0.010	11.7	15.0
	3 Beta-BHC	5106000.000	5164539.687	0.010	1.1	15.0
	4 Gamma-BHC (Lindane)	9760000.000	9609999.314	0.010	1.5	15.0
	5 Delta-BHC	9969000.000	9674706.740	0.010	3.0	15.0
	6 Heptachlor	8628000.000	8942316.399	0.010	3.6	15.0
	7 Aldrin	8607000.000	9076487.231	0.010	5.5	15.0
	8 Heptachlor epoxide	7980000.000	8325797.891	0.010	4.3	15.0
	9 gamma-Chlordane	9143000.000	9522332.638	0.010	4.1	15.0
	10 Endosulfan I	7983000.000	8071933.440	0.010	1.1	15.0
M	11 alpha-Chlordane	7983000.000	8071933.440	0.010	1.1	15.0
	12 4,4'-DDE	7699000.000	8237544.677	0.010	7.0	15.0
	13 Dieldrin	8900000.000	8404837.400	0.010	5.6	15.0
	14 Endrin	6760000.000	7655087.129	0.010	13.2	15.0
	15 Endosulfan II	7068000.000	7439808.655	0.010	5.3	15.0
	16 4,4'-DDD	6456000.000	6590877.905	0.010	2.1	15.0
	17 Endrin aldehyde	6285000.000	6361770.892	0.010	1.2	15.0
	18 Endosulfan sulfate	6299000.000	6394991.110	0.010	1.5	15.0
	19 4,4'-DDT	6436000.000	7009201.506	0.010	8.9	15.0
	20 Endrin ketone	7833000.000	7913672.647	0.010	1.0	15.0
	21 Methoxychlor	3501000.000	3903594.261	0.010	11.5	15.0
$	22 Decachlorobiphenyl	8989000.000	9229250.000	0.010	2.7	15.0

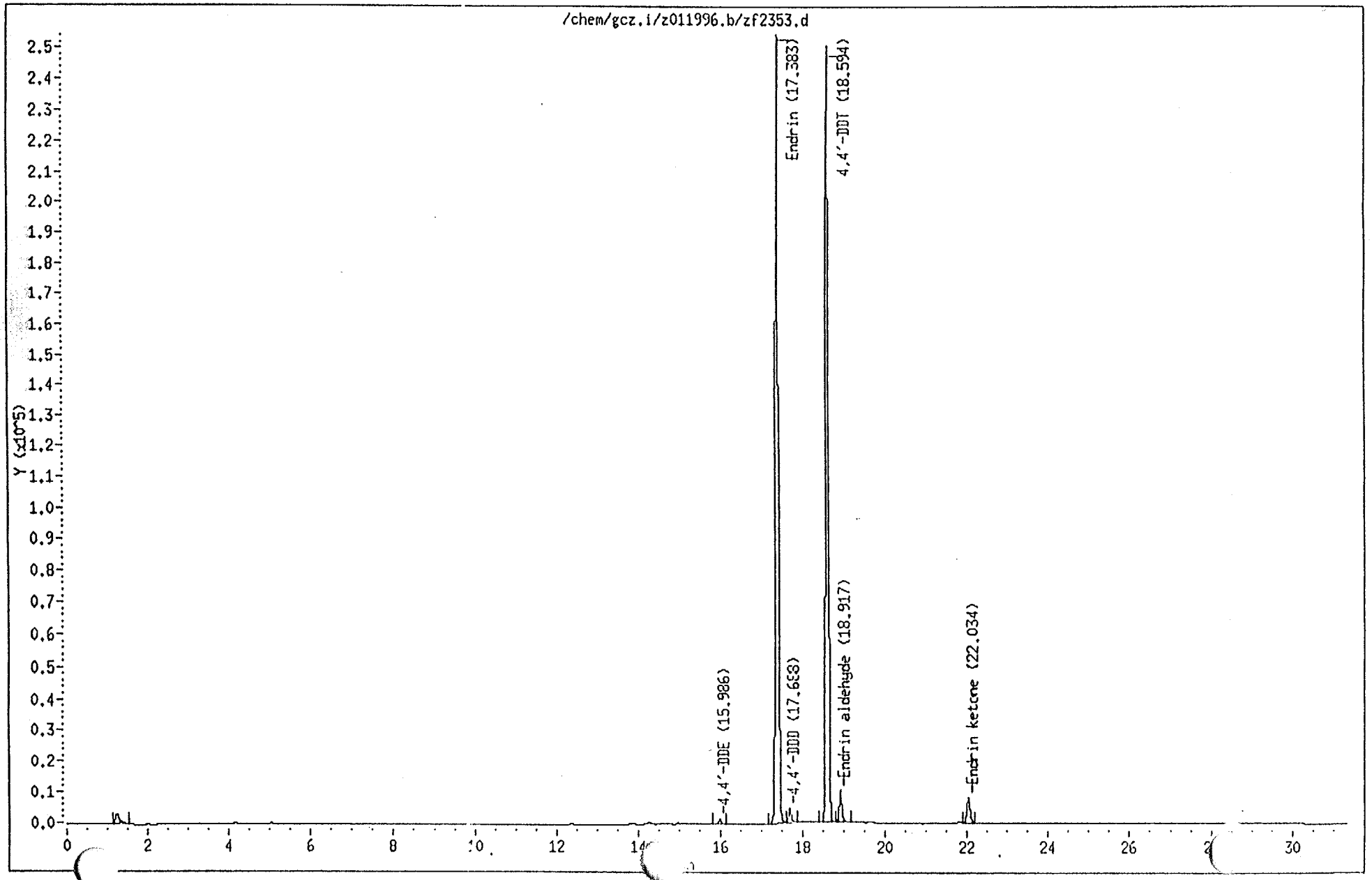
0228

Data File: /chem/gcz.i/z011996.b/zf2353.d
Date : 19-JAN-96 13:10
Client ID:
Sample Info: ga9591,end/ddt

Column phase: DB-608

Instrument: gcz.i

Operator: art
Column diameter: 0.53



Data File: /chem/gcz.i/z011996.b/zf2353.d
Report Date: 19-Jan-1996 14:59

OHM Analytical Division

Data file : /chem/gcz.i/z011996.b/zf2353.d
Lab Smp Id:
Inj Date : 19-JAN-96 13:10
Operator : art
Smp Info : ga9591,end/ddt
Misc Info : ga9591,end/ddt
Comment :
Method : /chem/gcz.i/z011996.b/011696_8080_608.m
Meth Date : 19-Jan-1996 14:28
Cal Date : 15-JAN-96 16:07
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie
Target Version: 3.10

Inst ID: gcz.i

Quant Type: ESTD
Cal File: zf2245.d

Compound Sublist: all.sub

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
2 4,4'-DDE	15.986	15.958	0.028	45332	0.00635	0.00635
14 Endrin	17.383	17.358	0.025	6238729	1.13	1.13
15 4,4'-DDD	17.688	17.659	0.029	109948	0.0203	0.0203
17 4,4'-DDT	18.594	18.571	0.023	5726440	1.38	1.38
18 Endrin aldehyde	18.917	18.892	0.025	242702	0.0473	0.0473
21 Endrin ketone	22.034	22.000	0.034	246000	0.0372	0.0372

DDT $\frac{155280}{5881720} = 2.6\%$

End $\frac{488702}{6727471} = 7.3\%$

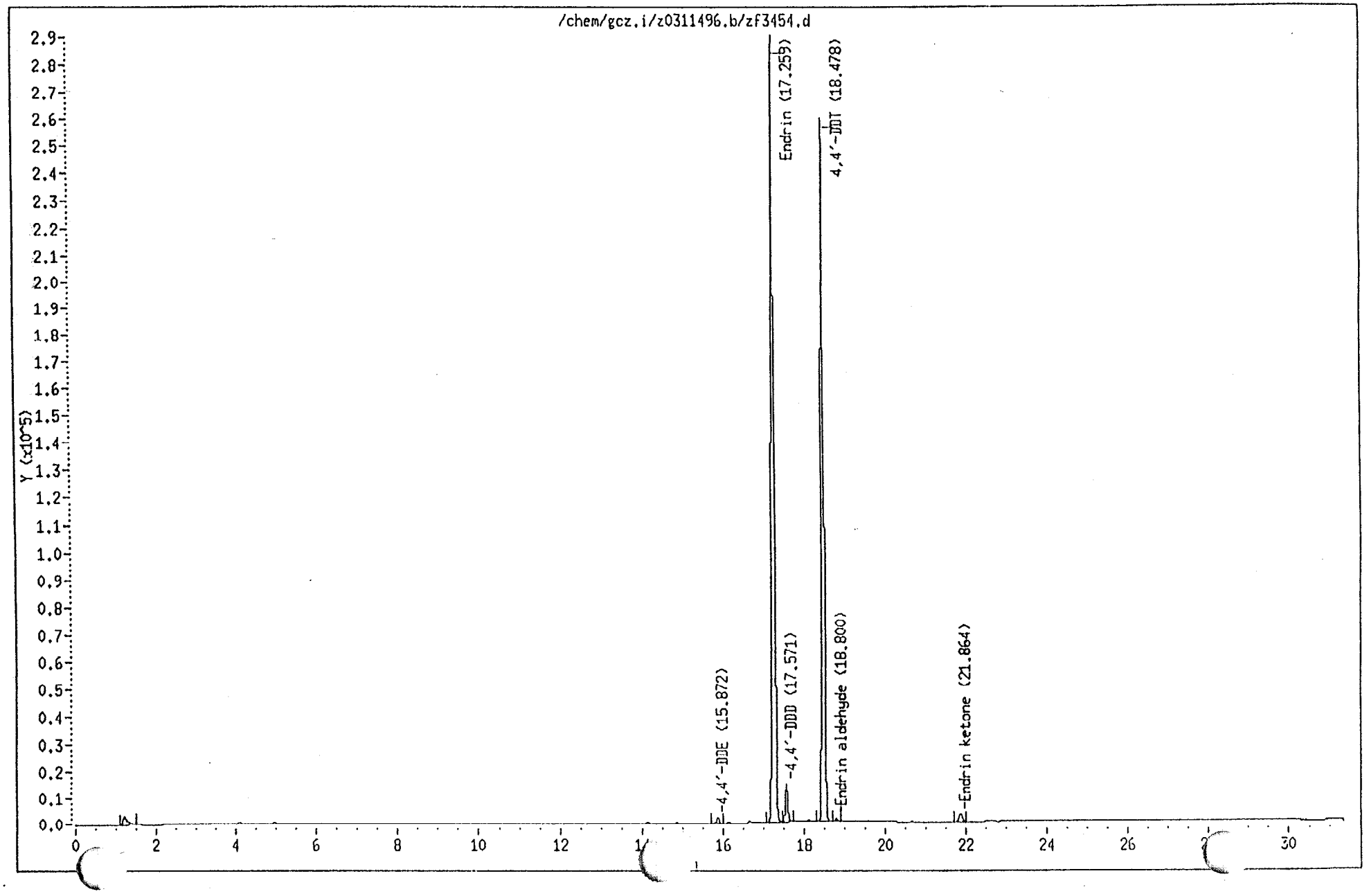
0230

Data File: /chem/gcz.i/z0311496.b/zf3454.d
Date : 14-MAR-96 09:08
Client ID:
Sample Info: ga9591 end/ddt

Column phase: DB-608

Instrument: gcz.i

Operator: art
Column diameter: 0.53



Data File: /chem/gcz.i/z0311496.b/zf3454.d
Report Date: 14-Mar-1996 09:57

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zf3454.d
Lab Smp Id:
Inj Date : 14-MAR-96 09:08
Operator : art Inst ID: gcz.i
Smp Info : ga9591 end/ddt
Misc Info : ga9591 end/ddt
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_608.m
Meth Date : 14-Mar-1996 09:56 Quant Type: ESTD
Cal Date : 19-JAN-96 16:03 Cal File: zf2358.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	FINAL (ug/ml)
12 4,4'-DDE	15.872	15.881	-0.009	51567	0.00704	0.00704
14 Endrin	17.259	17.274	-0.015	6972944	1.12	1.12
15 4,4'-DDD	17.571	17.580	-0.009	314020	0.0555	0.0555
17 4,4'-DDT	18.478	18.491	-0.013	5809005	1.02	1.02
18 Endrin aldehyde	18.800	18.808	-0.008	21008	0.00378	0.00378
21 Endrin ketone	21.864	21.881	-0.017	88878	0.0123	0.0123

$$\text{DDT} \quad \frac{365537}{6174592} = 5.9\%$$

$$\text{End} \quad \frac{109886}{7087830} = 1.6\%$$

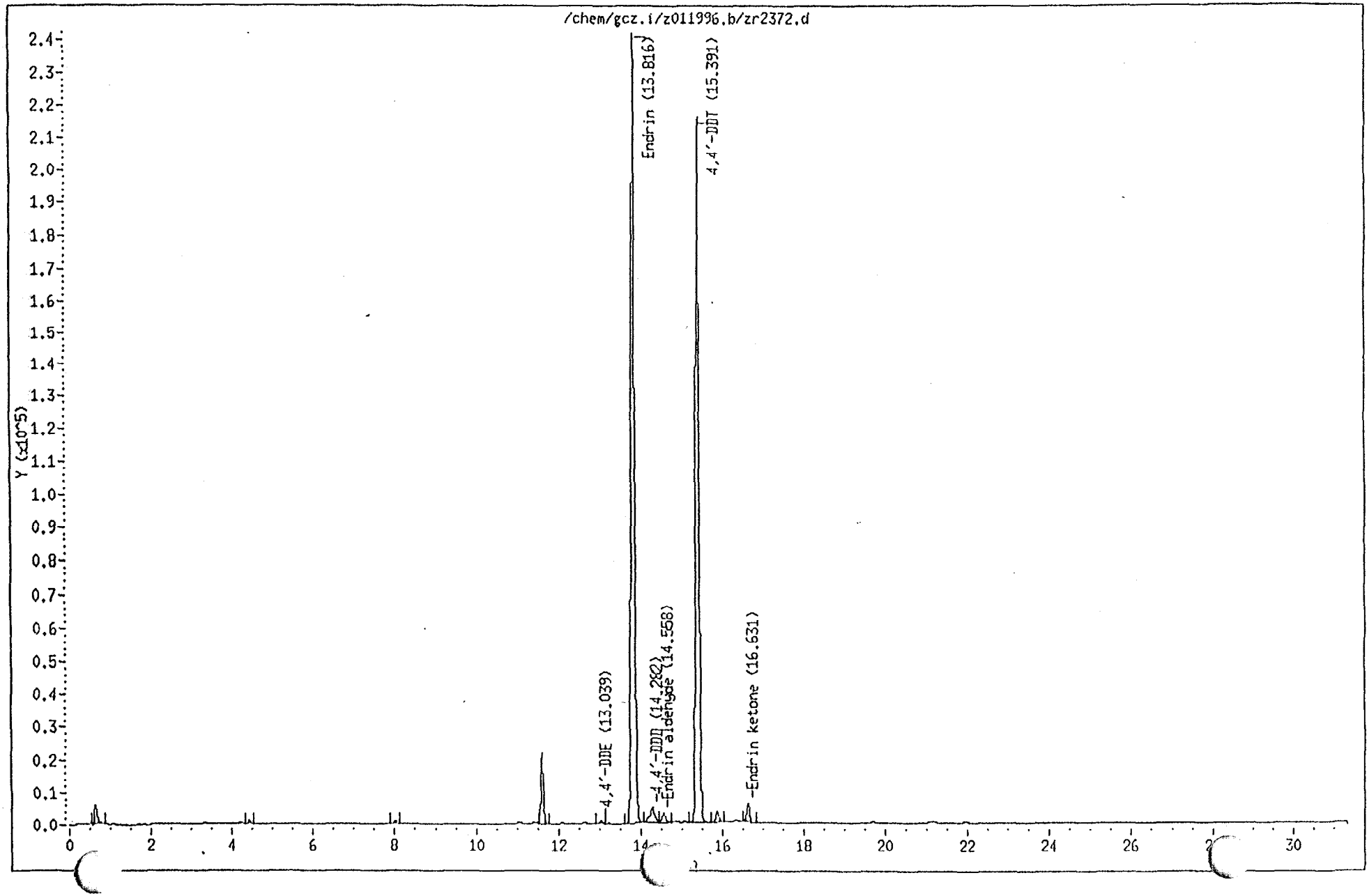
0232

Data File; /chem/gcz.i/z011996.b/zr2372.d
Date ; 19-JAN-96 13:44
Client ID:
Sample Info: ga9591,end/ddt

Column phase; DB-5

Instrument; gcz.i

Operator; art
Column diameter; 0,53



Data File: /chem/gcz.i/z011996.b/zr2372.d
Report Date: 19-Jan-1996 15:01

OHM Analytical Division

Data file : /chem/gcz.i/z011996.b/zr2372.d
Lab Smp Id:
Inj Date : 19-JAN-96 13:44
Operator : art Inst ID: gcz.i
Smp Info : ga9591,end/ddt
Misc Info : ga9591,end/ddt
Comment :
Method : /chem/gcz.i/z011996.b/011696_8080_db5.m
Meth Date : 19-Jan-1996 14:28 Quant Type: ESTD
Cal Date : 15-JAN-96 16:41 Cal File: zr2261.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
	1 2,4,5,6-Tetrachloro-m-xylene	Compound Not Detected.					
	2 Alpha-BHC	Compound Not Detected.					
	3 Beta-BHC	Compound Not Detected.					
	4 Gamma-BHC (Lindane)	Compound Not Detected.					
	5 Delta-BHC	Compound Not Detected.					
	6 Heptachlor	Compound Not Detected.					
	7 Aldrin	Compound Not Detected.					
	8 Heptachlor epoxide	Compound Not Detected.					
	9 gamma-Chlordane	Compound Not Detected.					
	10 Endosulfan I	Compound Not Detected.					
M	11 alpha-Chlordane	Compound Not Detected.					
	12 4,4'-DDE	13.039	13.041	-0.002	24628	0.00302	0.00302
	13 Dieldrin	Compound Not Detected.					
	14 Endrin	13.816	13.812	0.004	6853586	1.12	1.12
	15 Endosulfan II	Compound Not Detected.					
	16 4,4'-DDD	14.282	14.273	0.009	206102	0.0343	0.0343
	17 Endrin aldehyde	14.558	14.553	0.005	91871	0.0156	0.0156
	18 Endosulfan sulfate	Compound Not Detected.					
	19 4,4'-DDT	15.391	15.383	0.008	6204798	1.13	1.13
	20 Endrin ketone	16.631	16.626	0.005	158644	0.0213	0.0213
	21 Methoxychlor	Compound Not Detected.					
S	22 Decachlorobiphenyl	Compound Not Detected.					

DDT $\frac{230730}{4475729} = 3.62$

End $\frac{250515}{7104101} = 3.62$

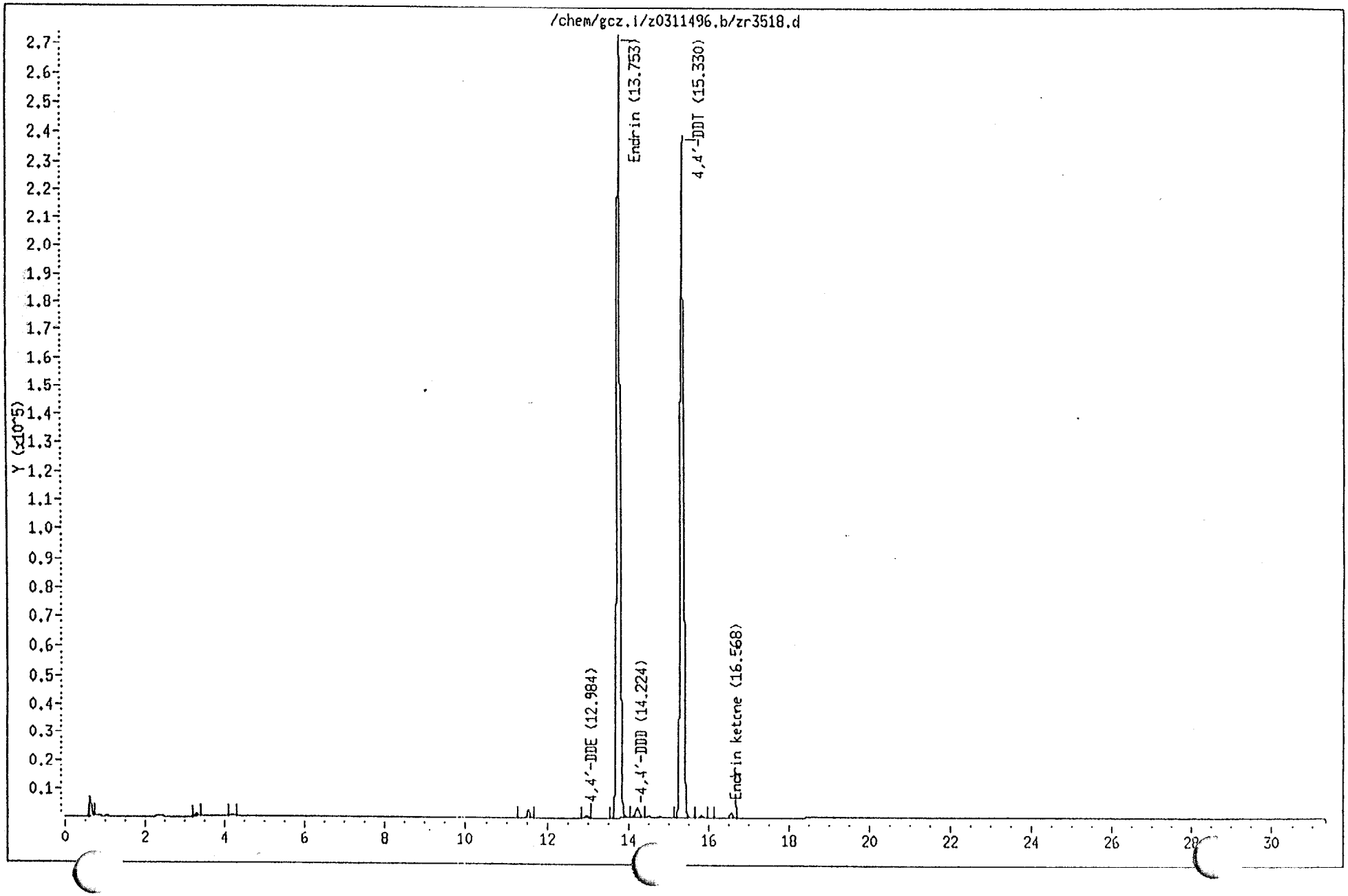
0234

Data File: /chem/gcz.i/z0311496.b/zr3518.d
Date : 14-MAR-96 09:08
Client ID:
Sample Info: ga9591 end/ddt

Column phase: DB-5

Instrument: gcz.i

Operator: art
Column diameter: 0.53



Data File: /chem/gcz.i/z0311496.b/zr3518.d
Report Date: 14-Mar-1996 09:58

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zr3518.d
Lab Smp Id:
Inj Date : 14-MAR-96 09:08
Operator : art Inst ID: gcz.i
Smp Info : ga9591 end/ddt
Misc Info : ga9591 end/ddt
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_db5.m
Meth Date : 14-Mar-1996 09:56 Quant Type: ESTD
Cal Date : 19-JAN-96 16:38 Cal File: zr2377.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
	1 2,4,5,6-Tetrachloro-m-xylene	Compound Not Detected.					
	2 Alpha-BHC	Compound Not Detected.					
	3 Beta-BHC	Compound Not Detected.					
	4 Gamma-BHC (Lindane)	Compound Not Detected.					
	5 Delta-BHC	Compound Not Detected.					
	6 Heptachlor	Compound Not Detected.					
	7 Aldrin	Compound Not Detected.					
	8 Heptachlor epoxide	Compound Not Detected.					
	9 gamma-Chlordane	Compound Not Detected.					
	10 Endosulfan I	Compound Not Detected.					
M	11 alpha-Chlordane	Compound Not Detected.					
	12 4,4'-DDE	12.984	12.995	-0.011	28458	0.00370	0.00370
	13 Dieldrin	Compound Not Detected.					
	14 Endrin	13.753	13.763	-0.010	7677126	1.14	1.14
	15 Endosulfan II	Compound Not Detected.					
	16 4,4'-DDD	14.224	14.228	-0.004	114270	0.0177	0.0177
	17 Endrin aldehyde	Compound Not Detected.					
	18 Endosulfan sulfate	Compound Not Detected.					
	19 4,4'-DDT	15.330	15.339	-0.009	6845805	1.06	1.06
	20 Endrin ketone	16.568	16.578	-0.010	62294	0.00795	0.00795
	21 Methoxychlor	Compound Not Detected.					
S	22 Decachlorobiphenyl	Compound Not Detected.					

DDT $\frac{142728}{6985 33} = 2.0\%$

End $\frac{6294}{773944} = 0.8\%$

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET 0236

EPA SAMPLE NO.

PBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) WATER Lab Sample ID: N7P60483P

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: ZF3461

% Moisture: N/A decanted: (Y/N) N Date Received: 3/12/96

Extraction: (SepF/Cont/Sonc) CLP Date Extracted: 03/13/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
76-44-8	Heptachlor	2.0	U
1024-57-3	Heptachlor epoxide	2.0	U
72-20-8	Endrin	2.0	U
72-43-5	Methoxychlor	2.0	U
8001-35-2	Toxaphene	40	U
58-89-9	Gamma-BHC (Lindane)	2.0	U
57-74-9	Chlordane	20	U

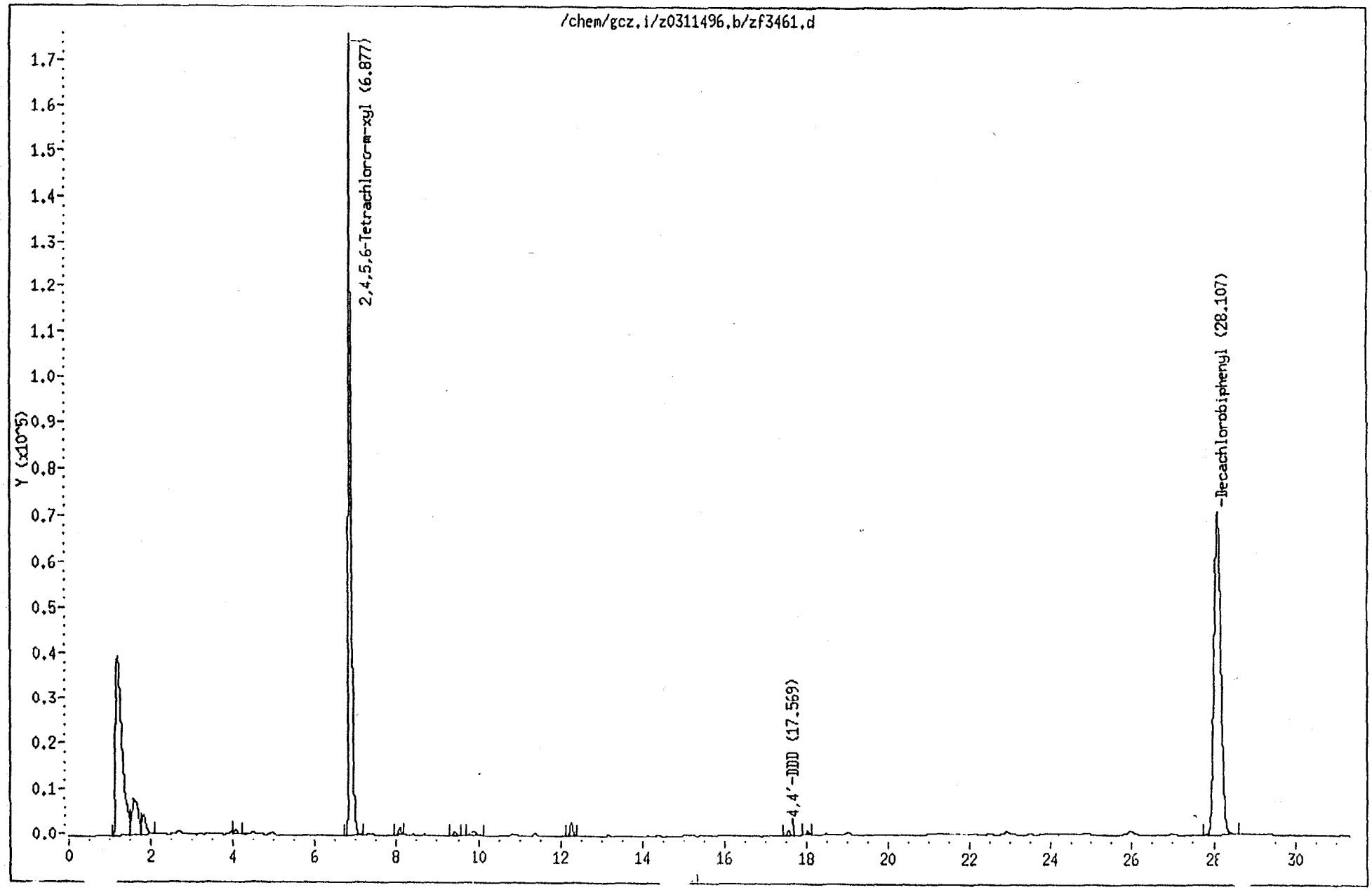
0237

Data File: /chem/gcz.i/z0311496.b/zf3461.d
Date : 14-MAR-96 14:19
Client ID:
Sample Info: n7p60483p,n7p604

Column phase: DB-608

Instrument: gcz.i

Operator: art
Column diameter: 0.53

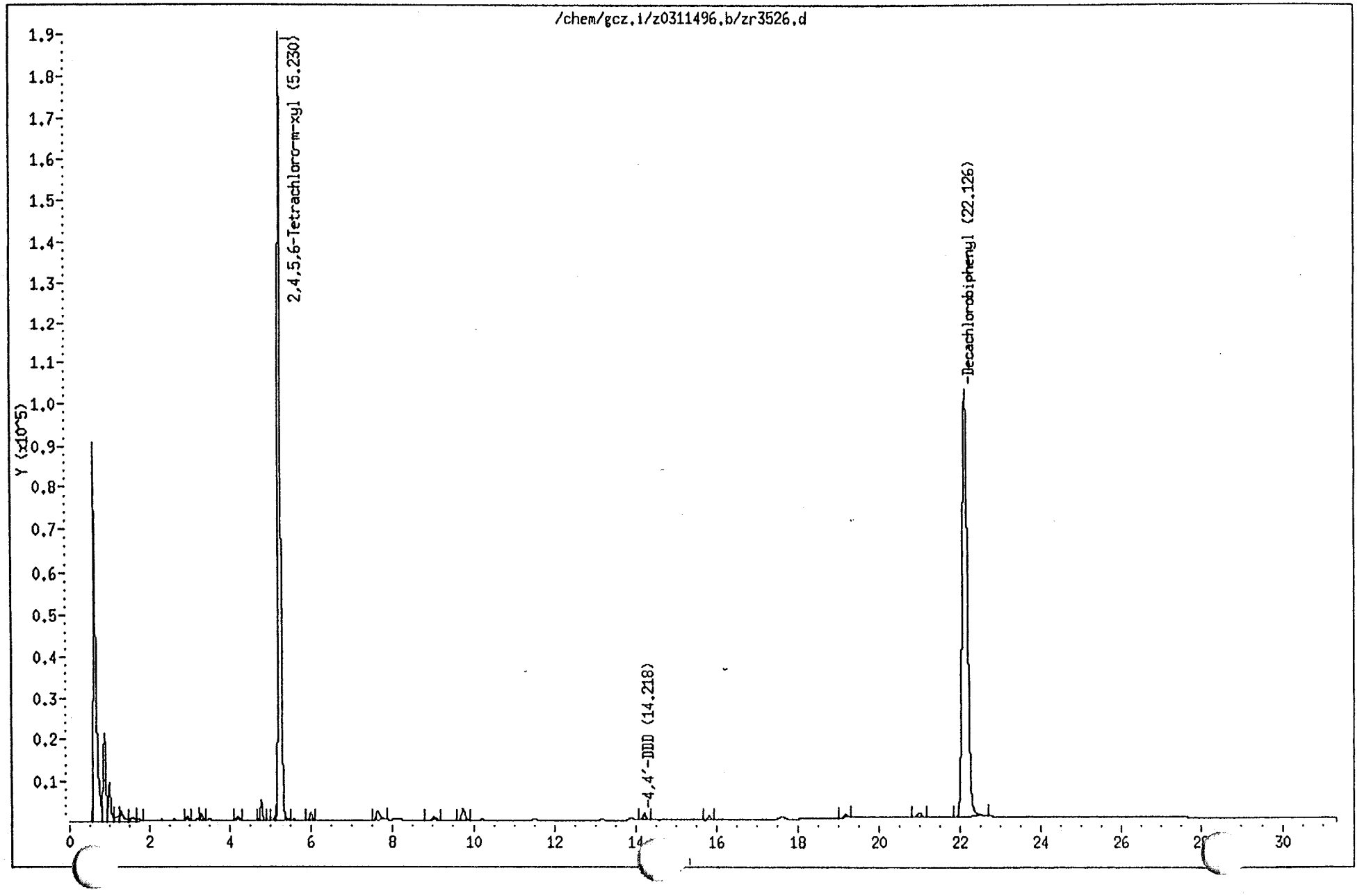


Data File: /chem/gcz.i/z0311496.b/zr3526.d
Date : 14-MAR-96 14:54
Client ID:
Sample Info: n7p60483p,n7p604

Column phase: DB-5

Instrument: gcz.i

Operator: art
Column diameter: 0.53



Data File: /chem/gcz.i/z0311496.b/zf3461.d
Report Date: 15-Mar-1996 07:41

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zf3461.d
Lab Smp Id:
Inj Date : 14-MAR-96 14:19
Operator : art Inst ID: gcz.i
Smp Info : n7p60483p,n7p604
Misc Info : n7p60483p,n7p60483,g2,1,1
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_608.m
Meth Date : 15-Mar-1996 07:27 Quant Type: ESTD
Cal Date : 19-JAN-96 16:03 Cal File: zf2358.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	
5	2,4,5,6-Tetrachloro-m-xylene	6.877	6.891	-0.014	4160960	0.578	0.578(R)	✓
15	4,4'-DDD	17.569	17.580	-0.011	27169	0.00480	0.00480	✓
$ 22	Decachlorobiphenyl	28.107	28.146	-0.039	4123053	0.513	0.513(R)	✓

ac
3/11/96

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/gcz.i/z0311496.b/zr3526.d
Report Date: 15-Mar-1996 08:21

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zr3526.d
Lab Smp Id:
Inj Date : 14-MAR-96 14:54
Operator : art Inst ID: gcz.i
Smp Info : n7p60483p,n7p604
Misc Info : n7p60483p,n7p604
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_db5.m
Meth Date : 15-Mar-1996 07:29 Quant Type: ESTD
Cal Date : 19-JAN-96 16:38 Cal File: zr2377.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
	2,4,5,6-Tetrachloro-m-xylene	5.230	5.246	-0.016	4185479	0.565	0.565(R)
	2 Alpha-BHC	Compound Not Detected.					
	3 Beta-BHC	Compound Not Detected.					
	4 Gamma-BHC (Lindane)	Compound Not Detected.					
	5 Delta-BHC	Compound Not Detected.					
	6 Heptachlor	Compound Not Detected.					
	7 Aldrin	Compound Not Detected.					
	8 Heptachlor epoxide	Compound Not Detected.					
	9 gamma-Chlordane	Compound Not Detected.					
	10 Endosulfan I	Compound Not Detected.					
M	11 alpha-Chlordane	Compound Not Detected.					
	12 4,4'-DDE	Compound Not Detected.					
	13 Dieldrin	Compound Not Detected.					
	14 Endrin	Compound Not Detected.					
	15 Endosulfan II	Compound Not Detected.					
	16 4,4'-DDD	14.218	14.228	-0.010	45711	0.00708	0.00708
	17 Endrin aldehyde	Compound Not Detected.					
	18 Endosulfan sulfate	Compound Not Detected.					
	19 4,4'-DDT	Compound Not Detected.					
	20 Endrin ketone	Compound Not Detected.					
	21 Methoxychlor	Compound Not Detected.					
S	22 Decachlorobiphenyl	22.126	22.136	-0.010	4650318	0.517	0.517(R)

Q Flag Legend

R - Spike/Surrogate failed recovery limits.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET 0241

EPA SAMPLE NO.

CLJ100-WC1MS

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

ρ Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) WATER Lab Sample ID: JP5002PS

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: ZF3463

% Moisture: N/A decanted: (Y/N) ✓ Date Received: 03/12/96

Extraction: (SepF/Cont/Sonc) CLP Date Extracted: 03/13/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
76-44-8	Heptachlor	12	
1024-57-3	Heptachlor epoxide	12	
72-20-8	Endrin	28	
72-43-5	Methoxychlor	230	
8001-35-2	Toxaphene	40	U
58-89-9	Gamma-BHC (Lindane)	240	
57-74-9	Chlordane	51	

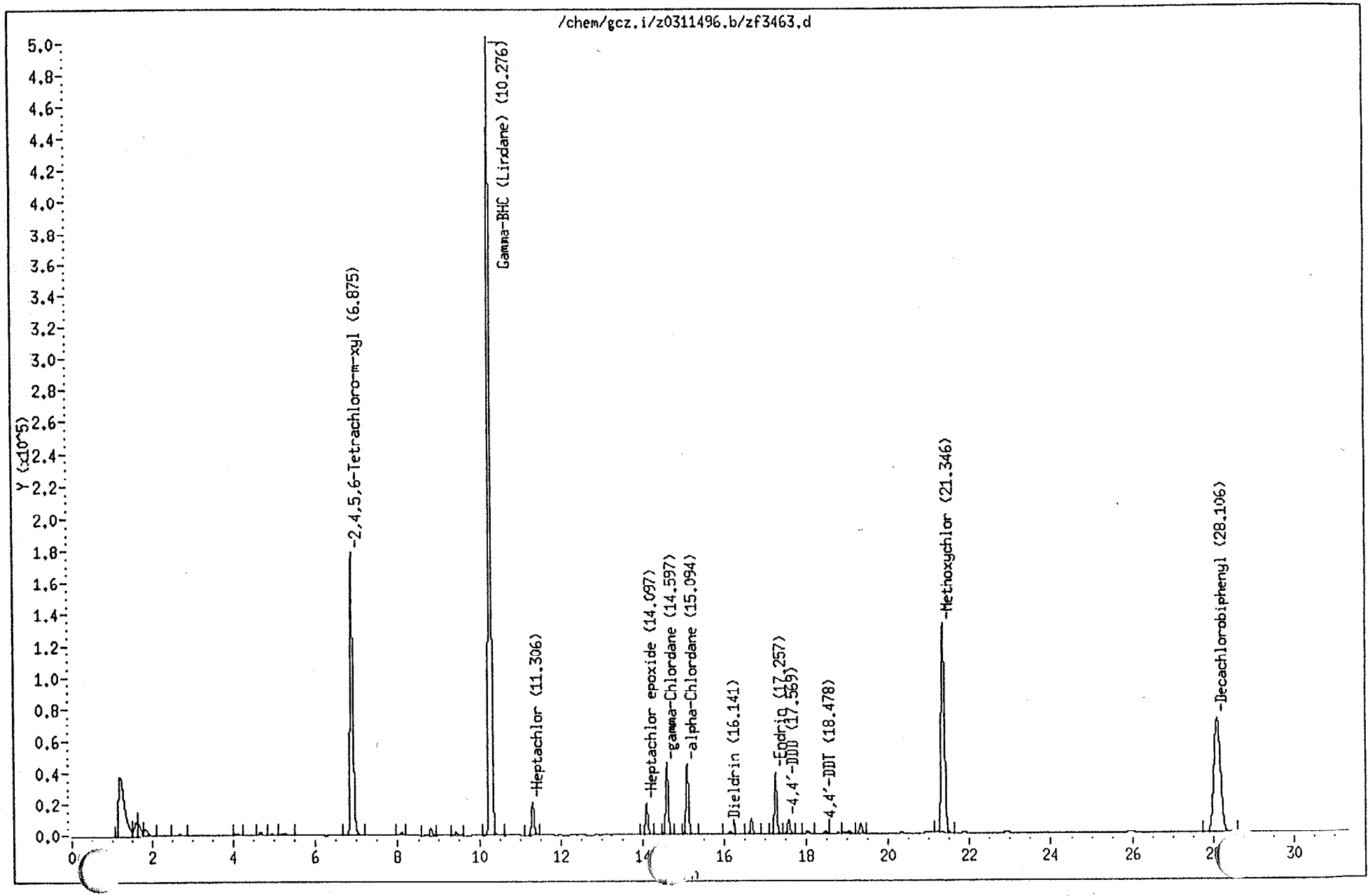
0242

Data File: /chem/gcz.i/z0311496.b/zf3463.d
Date : 14-MAR-96 15:29
Client ID:
Sample Info: jp5002ps,n7p6048

Instrument: gcz.i

Operator: art
Column diameter: 0.53

Column phase: DB-608

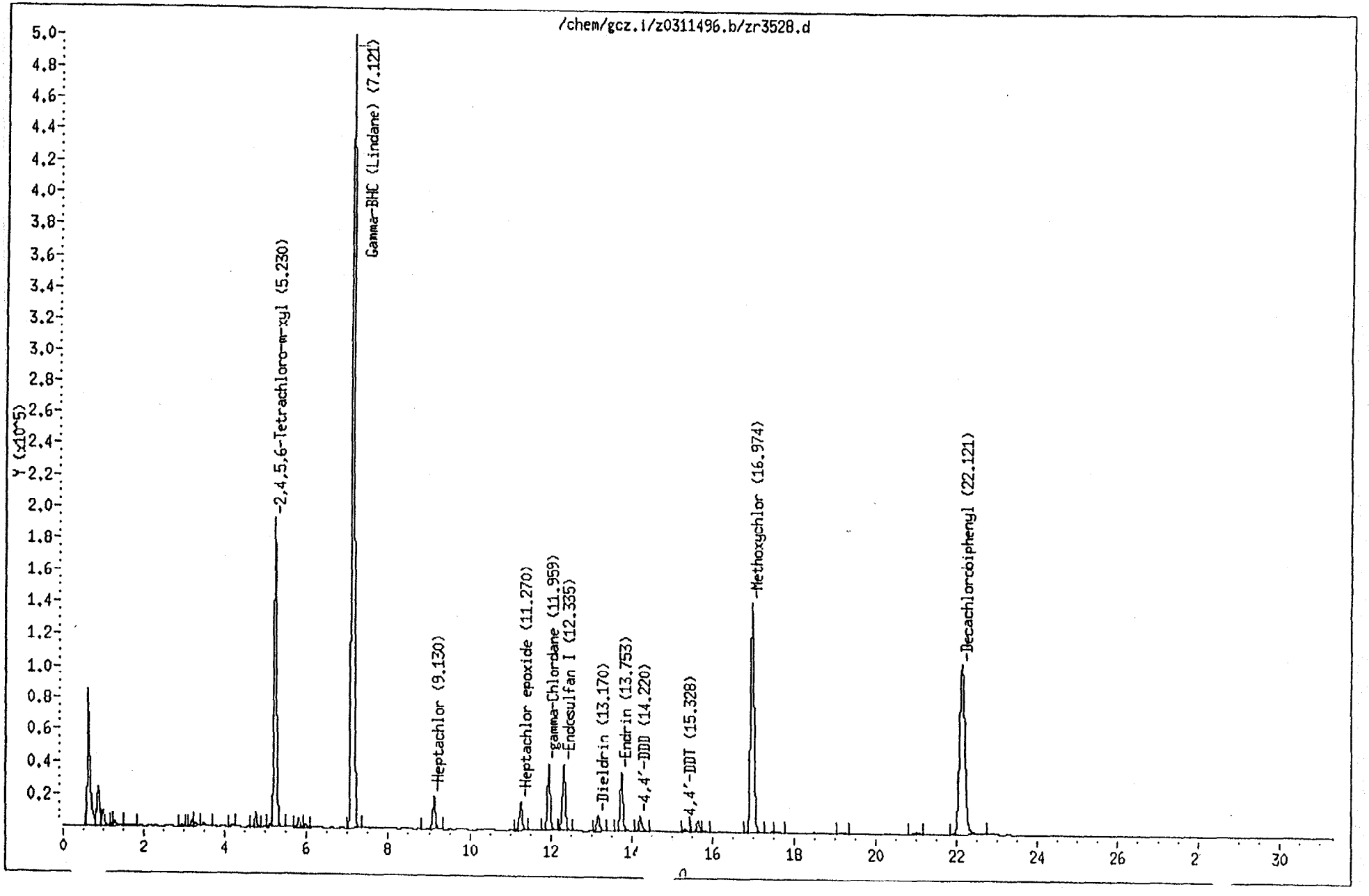


Data File: /chem/gcz.i/z0311496.b/zr3528.d
Date : 14-MAR-96 16:04
Client ID:
Sample Info: jp5002ps,n7p6048

Column phase: DB-5

Instrument: gcz.i

Operator: art
Column diameter: 0.53



Data File: /chem/gcz.i/z0311496.b/zf3463.d
Report Date: 15-Mar-1996 07:41

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zf3463.d
Lab Smp Id:
Inj Date : 14-MAR-96 15:29
Operator : art Inst ID: gcz.i
Smp Info : jp5002ps,n7p6048
Misc Info : jp5002ps,n7p60483,g2,1,1
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_608.m
Meth Date : 15-Mar-1996 07:27 Quant Type: ESTD
Cal Date : 19-JAN-96 16:03 Cal File: zf2358.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
	2,4,5,6-Tetrachloro-m-xylene	6.875	6.891	-0.016	4247020	0.589	0.589(R)
	3 Gamma-BHC (Lindane)	10.276	10.293	-0.017	11267310	1.20	1.20
	5 Heptachlor	11.306	11.322	-0.016	489025	0.0590	0.0590
	8 Heptachlor epoxide	14.097	14.113	-0.016	444677	0.0577	0.0577
	9 gamma-Chlordane	14.597	14.613	-0.016	1027542	0.121	0.121
	10 alpha-Chlordane	15.094	15.111	-0.017	1035784	0.132	0.132
	13 Dieldrin	16.141	16.150	-0.009	48642	0.00645	0.00645
	14 Endrin	17.257	17.274	-0.017	869415	0.140	0.140
	15 4,4'-DDD	17.569	17.580	-0.011	219470	0.0388	0.0388
	17 4,4'-DDT	18.478	18.491	-0.013	33085	0.00582	0.00582
	20 Methoxychlor	21.346	21.367	-0.021	3933817	1.17	1.17
S	22 Decachlorobiphenyl	28.106	28.146	-0.040	4223173	0.526	0.526(R)
M	23 Chlordane				2063326	0.253	0.253

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/gcz.i/z0311496.b/zr3528.d
Report Date: 15-Mar-1996 08:21

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zr3528.d
Lab Smp Id:
Inj Date : 14-MAR-96 16:04
Operator : art Inst ID: gcz.i
Smp Info : jp5002ps,n7p6048
Misc Info : jp5002ps,n7p6048
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_db5.m
Meth Date : 15-Mar-1996 07:29 Quant Type: ESTD
Cal Date : 19-JAN-96 16:38 Cal File: zr2377.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
	2,4,5,6-Tetrachloro-m-xylene	5.230	5.246	-0.016	4258947	0.575	0.575(R)
	2 Alpha-BHC	Compound Not Detected.					
	3 Beta-BHC	Compound Not Detected.					
	4 Gamma-BHC (Lindane)	7.121	7.135	-0.014	11704432	1.20	1.20
	5 Delta-BHC	Compound Not Detected.					
	6 Heptachlor	9.130	9.143	-0.013	506118	0.0587	0.0587
	7 Aldrin	Compound Not Detected.					
	8 Heptachlor epoxide	11.270	11.283	-0.013	422601	0.0530	0.0530
	9 gamma-Chlordane	11.959	11.971	-0.012	1045591	0.114	0.114
	10 Endosulfan I	12.335	12.354	-0.019	1066006	0.134	0.134
M	11 alpha-Chlordane				1066006	0.134	0.134
	12 4,4'-DDE	Compound Not Detected.					
	13 Dieldrin	13.170	13.152	0.018	265388	0.0298	0.0298
	14 Endrin	13.753	13.763	-0.010	940158	0.139	0.139
	15 Endosulfan II	Compound Not Detected.					
	16 4,4'-DDD	14.220	14.228	-0.008	263141	0.0408	0.0408
	17 Endrin aldehyde	Compound Not Detected.					
	18 Endosulfan sulfate	Compound Not Detected.					
	19 4,4'-DDT	15.328	15.339	-0.011	41905	0.00651	0.00651
	20 Endrin ketone	Compound Not Detected.					
	21 Methoxychlor	16.974	16.983	-0.009	4239285	1.21	1.21
S	22 Decachlorobiphenyl	22.121	22.136	-0.015	4805697	0.535	0.535(R)

C~ Flag Legend

R - Spike/Surrogate failed recovery limits.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

0246 EPA SAMPLE NO.

CLJ100-WC1MSD

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

ρ Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) WATER Lab Sample ID: JP5002PR

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: ZF3464

% Moisture: N/A decanted: (Y/N) N Date Received: 03/12/96

Extraction: (SepF/Cont/Sonc) CLP Date Extracted: 03/13/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
76-44-8	Heptachlor	11	
1024-57-3	Heptachlor epoxide	11	
72-20-8	Endrin	26	
72-43-5	Methoxychlor	220	
8001-35-2	Toxaphene	40	U
58-89-9	Gamma-BHC (Lindane)	230	
57-74-9	Chlordane	48	

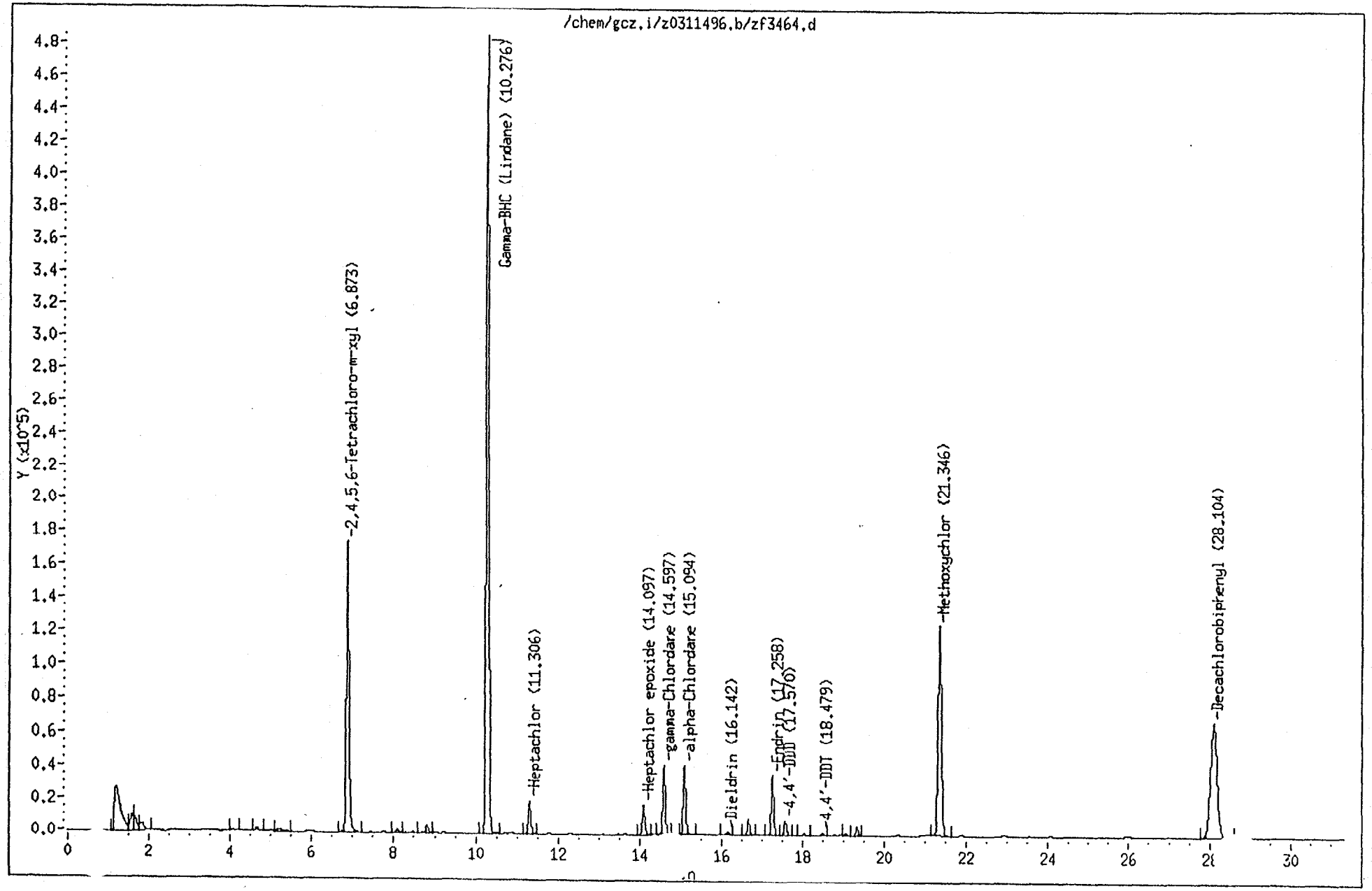
0247

Data File: /chem/gcz.i/z0311496.b/zf3464.d
Date : 14-MAR-96 16:04
Client ID:
Sample Info: jp5002pr,n7p6048

Column phase: DB-608

Instrument: gcz.i

Operator: art
Column diameter: 0.53

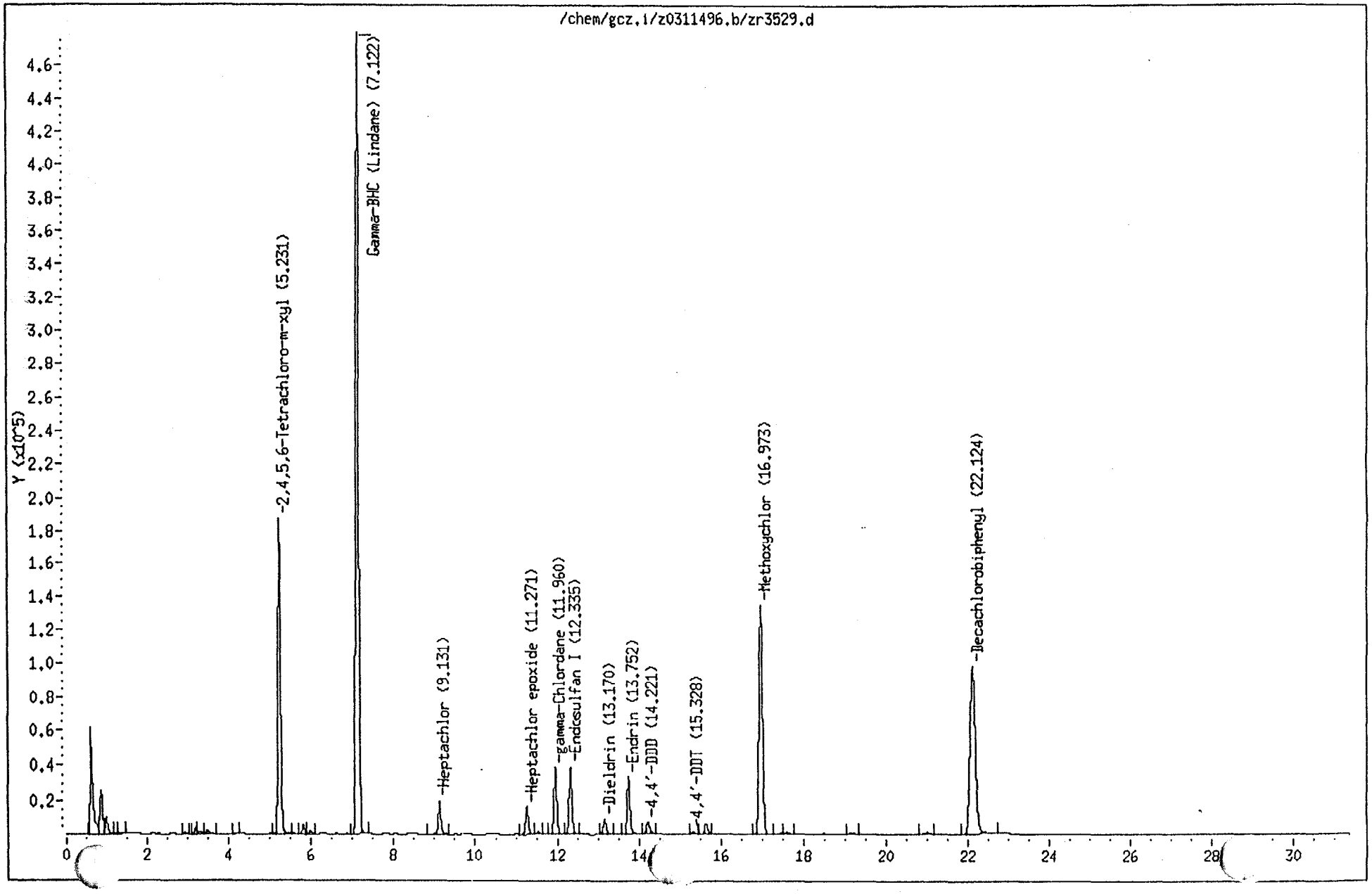


Data File: /chem/gcz.i/z0311496.b/zr3529.d
Date : 14-MAR-96 16:39
Client ID:
Sample Info: jp5002pr,n7p6048

Instrument: gcz.i

Operator: art
Column diameter: 0.53

Column phase: DB-5



Data File: /chem/gcz.i/z0311496.b/zf3464.d
Report Date: 15-Mar-1996 07:41

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zf3464.d
Lab Smp Id:
Inj Date : 14-MAR-96 16:04
Operator : art Inst ID: gcz.i
Smp Info : jp5002pr,n7p6048
Misc Info : jp5002pr,n7p60483,g2,1,1
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_608.m
Meth Date : 15-Mar-1996 07:27 Quant Type: ESTD
Cal Date : 19-JAN-96 16:03 Cal File: zf2358.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

						CONCENTRATIONS	
						ON-COLUMN	FINAL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)
S	2,4,5,6-Tetrachloro-m-xylene	6.873	6.891	-0.018	4130987	0.573	0.573 (R)
3	Gamma-BHC (Lindane)	10.276	10.293	-0.017	10899843	1.16	1.16
5	Heptachlor	11.306	11.322	-0.016	464591	0.0561	0.0561
8	Heptachlor epoxide	14.097	14.113	-0.016	421877	0.0547	0.0547
9	gamma-Chlordane	14.597	14.613	-0.016	974427	0.115	0.115
10	alpha-Chlordane	15.094	15.111	-0.017	983309	0.125	0.125
13	Dieldrin	16.142	16.150	-0.008	45156	0.00598	~~0.00599~~
14	Endrin	17.258	17.274	-0.016	824802	0.132	0.132
15	4,4'-DDD	17.570	17.580	-0.010	207334	0.0366	~~0.0366~~
17	4,4'-DDT	18.479	18.491	-0.012	32786	0.00576	~~0.00576~~ 0.00576
20	Methoxychlor	21.346	21.367	-0.021	3755090	1.11	1.11
S 22	Decachlorobiphenyl	28.104	28.146	-0.042	4004475	0.498	0.498 (R)
M 23	Chlordane				1957736	0.240	0.240

ak 3/15/96

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/gcz.i/z0311496.b/zr3529.d
Report Date: 15-Mar-1996 08:21

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zr3529.d
Lab Smp Id:
Inj Date : 14-MAR-96 16:39
Operator : art Inst ID: gcz.i
Smp Info : jp5002pr,n7p6048
Misc Info : jp5002pr,n7p6048
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_db5.m
Meth Date : 15-Mar-1996 07:29 Quant Type: ESTD
Cal Date : 19-JAN-96 16:38 Cal File: zr2377.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

						CONCENTRATIONS	
						ON-COLUMN	FINAL
	Compounds	RT	EXP RT	DLT RT	RESPONSE	(ug/ml)	(ug/ml)
S	2,4,5,6-Tetrachloro-m-xylene	5.231	5.246	-0.015	4090980	0.552	0.552(R)
	2 Alpha-BHC	Compound Not Detected.					
	3 Beta-BHC	Compound Not Detected.					
	4 Gamma-BHC (Lindane)	7.122	7.135	-0.013	11213853	1.15	1.15
	5 Delta-BHC	Compound Not Detected.					
	6 Heptachlor	9.131	9.143	-0.012	471442	0.0546	0.0546
	7 Aldrin	Compound Not Detected.					
	8 Heptachlor epoxide	11.271	11.283	-0.012	396406	0.0497	0.0497
	9 gamma-Chlordane	11.960	11.971	-0.011	978263	0.107	0.107
	10 Endosulfan I	12.335	12.354	-0.019	1003302	0.126	0.126
M	11 alpha-Chlordane				1003302	0.126	0.126
	12 4,4'-DDE	Compound Not Detected.					
	13 Dieldrin	13.170	13.152	0.018	245443	0.0276	0.0276
	14 Endrin	13.752	13.763	-0.011	876721	0.130	0.130
	15 Endosulfan II	Compound Not Detected.					
	16 4,4'-DDD	14.221	14.228	-0.007	229504	0.0355	0.0355
	17 Endrin aldehyde	Compound Not Detected.					
	18 Endosulfan sulfate	Compound Not Detected.					
	19 4,4'-DDT	15.328	15.339	-0.011	40167	0.00624	0.00624
	20 Endrin ketone	Compound Not Detected.					
	21 Methoxychlor	16.973	16.983	-0.010	3992700	1.14	1.14
S	22 Decachlorobiphenyl	22.124	22.136	-0.012	4522152	0.503	0.503(R)

Q Flag Legend

R - Spike/Surrogate failed recovery limits.

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

0251 EPA SAMPLE NO.

PSPK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100WC-1

Matrix: (soil/water) WATER Lab Sample ID: N7P60483PS

Sample wt/vol: 25.0 (g/mL) ML Lab File ID: ZF3462

% Moisture: N/A decanted: (Y/N) N Date Received: 3/12/96

Extraction: (SepF/Cont/Sonc) CLP Date Extracted: 03/13/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

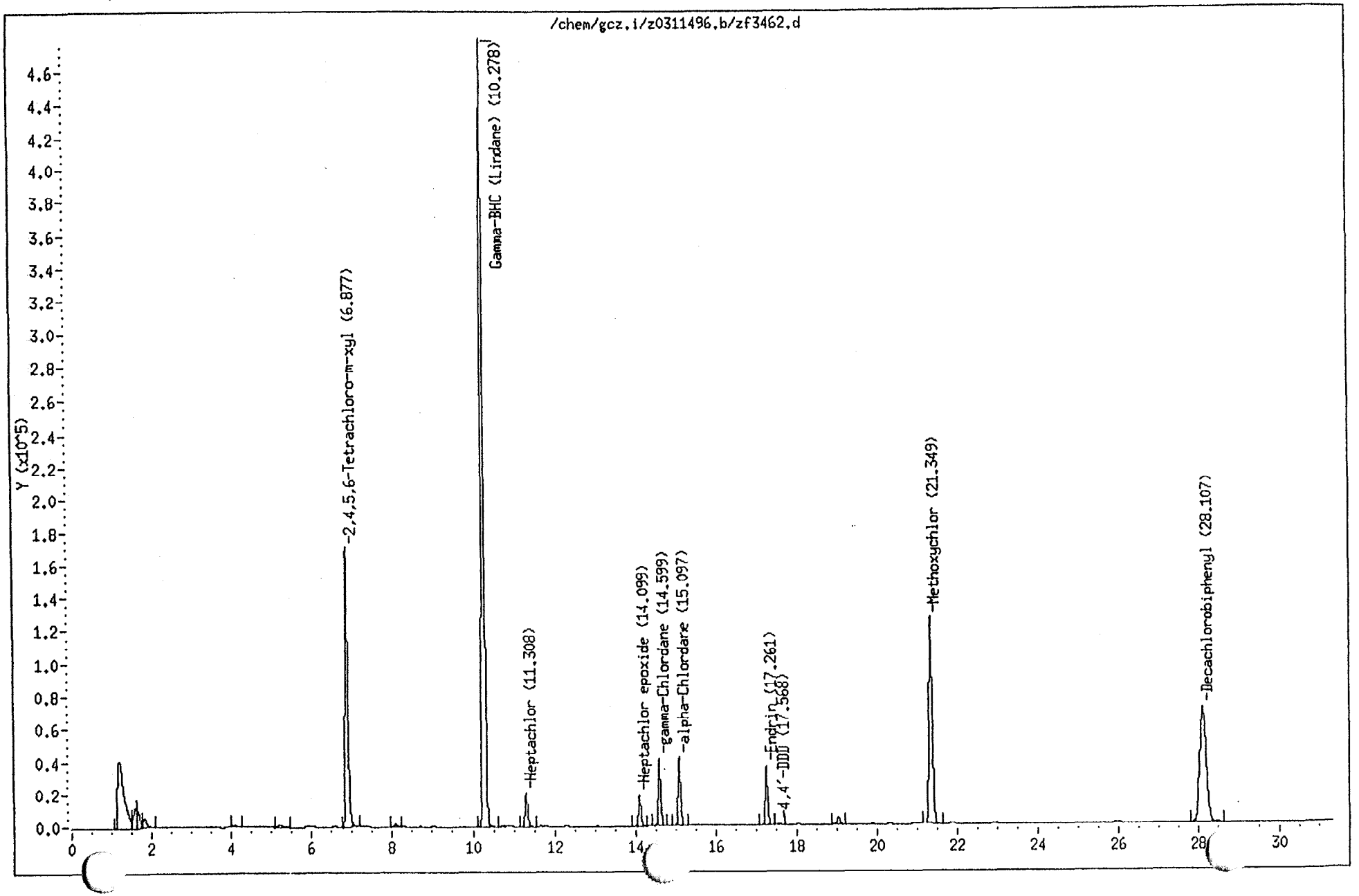
CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
76-44-8	Heptachlor	11	
1024-57-3	Heptachlor epoxide	11	
72-20-8	Endrin	26	
72-43-5	Methoxychlor	220	
8001-35-2	Toxaphene	40	U
58-89-9	Gamma-BHC (Lindane)	230	
57-74-9	Chlordane	46	

Data File: /chem/gcz.i/z0311496.b/zf3462.d
Date : 14-MAR-96 14:54
Client ID:
Sample Info: n7p60483ps,n7p60

Column phase: DB-608

Instrument: gcz.i

Operator: art
Column diameter: 0.53



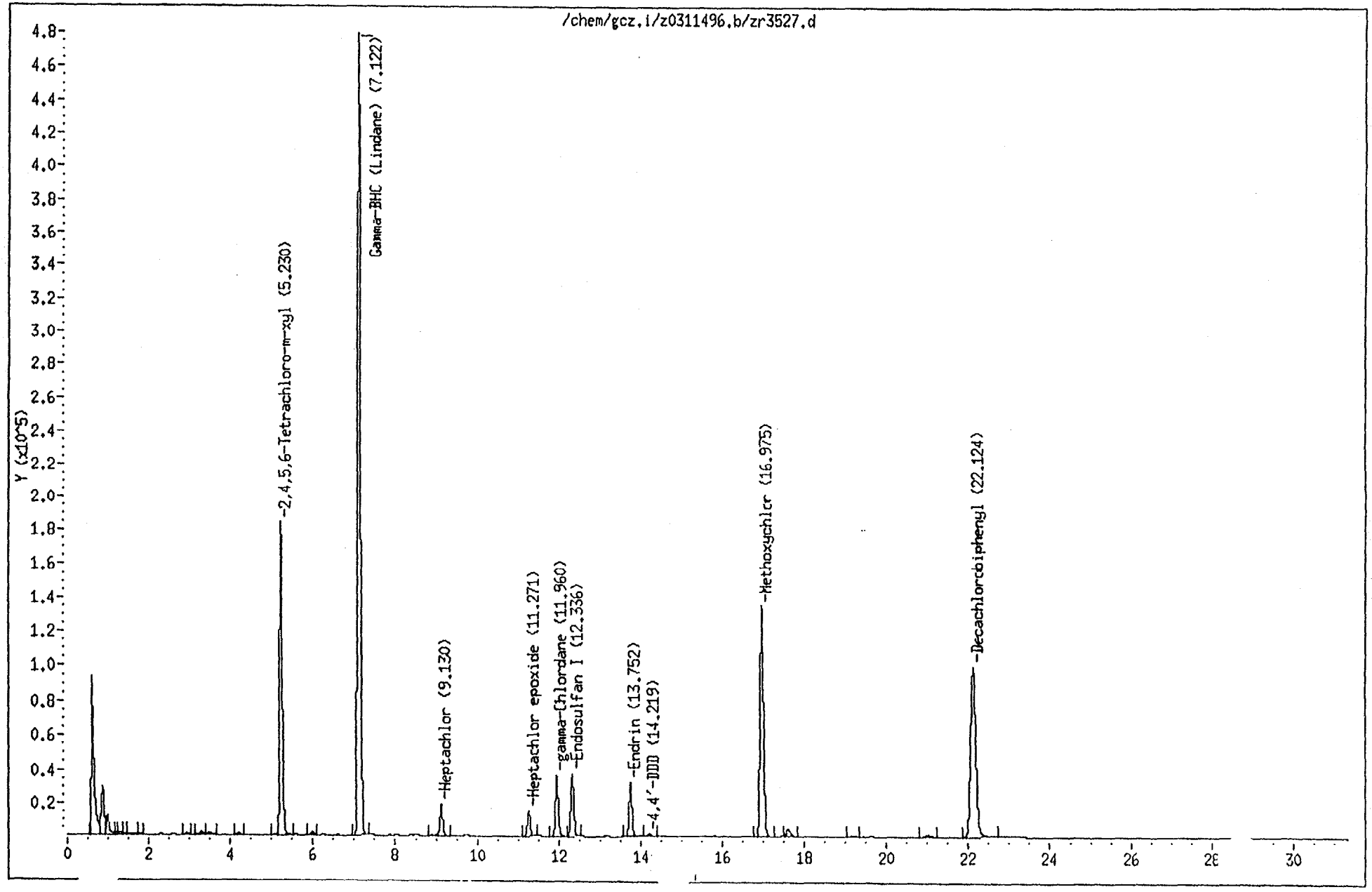
0253

Data File: /chem/gcz.i/z0311496.b/zr3527.d
Date : 14-MAR-96 15:29
Client ID:
Sample Info: n7p60483ps,n7p60

Column phase: DB-5

Instrument: gcz.i

Operator: art
Column diameter: 0.53



Data File: /chem/gcz.i/z0311496.b/zf3462.d
Report Date: 15-Mar-1996 07:41

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zf3462.d
Lab Smp Id:
Inj Date : 14-MAR-96 14:54
Operator : art Inst ID: gcz.i
Smp Info : n7p60483ps,n7p60
Misc Info : n7p60483ps,n7p60483,g2,1,1
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_608.m
Meth Date : 15-Mar-1996 07:27 Quant Type: ESTD
Cal Date : 19-JAN-96 16:03 Cal File: zf2358.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)	
	2,4,5,6-Tetrachloro-m-xylene	6.877	6.891	-0.014	4015969	0.557	0.557	(R)
3	Gamma-BHC (Lindane)	10.278	10.293	-0.015	10744071	1.15	1.15	
5	Heptachlor	11.308	11.322	-0.014	458445	0.0554	0.0554	
8	Heptachlor epoxide	14.099	14.113	-0.014	414461	0.0538	0.0538	
9	gamma-Chlordane	14.599	14.613	-0.014	943466	0.111	0.111	
10	alpha-Chlordane	15.097	15.111	-0.014	946405	0.121	0.121	
14	Endrin	17.261	17.274	-0.013	808092	0.130	0.130	
15	4,4'-DDD	17.568	17.580	-0.012	28918	0.00511	0 ~~.00511~~	
20	Methoxychlor	21.349	21.367	-0.018	3728707	1.10	1.10	
S 22	Decachlorobiphenyl	28.107	28.146	-0.039	4030626	0.502	0.502	(R)
M 23	Chlordane				1889872	0.232	0.232	

GC 3/11/96

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /chem/gcz.i/z0311496.b/zr3527.d
Report Date: 15-Mar-1996 08:21

OHM Analytical Division

Data file : /chem/gcz.i/z0311496.b/zr3527.d
Lab Smp Id:
Inj Date : 14-MAR-96 15:29
Operator : art Inst ID: gcz.i
Smp Info : n7p60483ps,n7p60
Misc Info : n7p60483ps,n7p60
Comment :
Method : /chem/gcz.i/z0311496.b/011996_8080_db5.m
Meth Date : 15-Mar-1996 07:29 Quant Type: ESTD
Cal Date : 19-JAN-96 16:38 Cal File: zr2377.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP Genie Compound Sublist: all.sub
Target Version: 3.10

	Compounds	RT	EXP RT	DLT RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/ml)	CONCENTRATIONS FINAL (ug/ml)
	2,4,5,6-Tetrachloro-m-xylene	5.230	5.246	-0.016	4057974	0.548	0.548(R)
2	Alpha-BHC	Compound Not Detected.					
3	Beta-BHC	Compound Not Detected.					
4	Gamma-BHC (Lindane)	7.122	7.135	-0.013	11210646	1.15	1.15
5	Delta-BHC	Compound Not Detected.					
6	Heptachlor	9.130	9.143	-0.013	472480	0.0548	0.0548
7	Aldrin	Compound Not Detected.					
8	Heptachlor epoxide	11.271	11.283	-0.012	398050	0.0499	0.0499
9	gamma-Chlordane	11.960	11.971	-0.011	961535	0.105	0.105
10	Endosulfan I	12.336	12.354	-0.018	965809	0.121	0.121
M 11	alpha-Chlordane				965809	0.121	0.121
12	4,4'-DDE	Compound Not Detected.					
13	Dieldrin	Compound Not Detected.					
14	Endrin	13.752	13.763	-0.011	859128	0.127	0.127
15	Endosulfan II	Compound Not Detected.					
16	4,4'-DDD	14.219	14.228	-0.009	48405	0.00750	0.00750
17	Endrin aldehyde	Compound Not Detected.					
18	Endosulfan sulfate	Compound Not Detected.					
19	4,4'-DDT	Compound Not Detected.					
20	Endrin ketone	Compound Not Detected.					
21	Methoxychlor	16.975	16.983	-0.008	4035968	1.15	1.15
S 22	Decachlorobiphenyl	22.124	22.136	-0.012	4601541	0.512	0.512(R)

Flag Legend

R - Spike/Surrogate failed recovery limits.

ORGANICS

TCLP Herbicides by GC

2L

LEACHATE HERBICIDE SURROGATE RECOVERY

0257

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

GC Column(1): DB608 ID: 0.53 (mm) GC Column(2): DB5 ID: 0.53 (mm)

	EPA SAMPLE NO.	DPA 1 %REC #	DPA 2 %REC #			OTHER (1)	OTHER (2)	TOT OUT
01	HBLK01	99						0
02	HSPK01	105						0
03	CLJ100-WC1MS	104						0
04	CLJ100-WC1MSD	111						0
05	CLJ100-WC1	101						0

DPA = 2,4-Dichlorophenylacetic-acid

ADVISORY QC LIMITS (10-150)

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

3L

LEACHATE HERBICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY 0258

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix Spike - EPA Sample No.: CLJ100-WC1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
2,4-D	10000	0	6500	65	30-130
2,4,5-TP (Silvex)	2000	0	1900	95	30-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,4-D	10000	6800	68	5	20	30-130
2,4,5-TP (Silvex)	2000	1900	95	0	20	30-130

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

* Values outside of QC limits

RPD: 0 out of 2 outside limits
Spike Recovery: 0 out of 4 outside limits

COMMENTS: _____

3L

LEACHATE HERBICIDE BLANK SPIKE RECOVERY

0259

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix Spike - EPA Sample No.: HSPK01

COMPOUND	SPIKE ADDED (ug/L)	BLANK CONCENTRATION (ug/L)	BS CONCENTRATION (ug/L)	BS % REC #	QC LIMITS REC.
2,4-D	10000	0	6400	64	30-130
2,4,5-TP (Silvex)	2000	0	1800	90	30-130

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

* Values outside of QC limits

Spike Recovery: 0 out of 2 outside limits

MENTS:

4B (GC)
SEMIVOLATILE METHOD BLANK SUMMARY

0260 EPA SAMPLE NO.

HBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Lab File ID: ^H4049 Lab Sample ID: N7H60482H

Instrument ID: HP WB Date Extracted: 03/13/96

Matrix: (soil/water) WATER Date Analyzed: 03/14/96

Level: (low/med) _____ Time Analyzed: 14:48

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	CLJ100-WC1	JP5002H	^H4053	03/14/96
02	CLJ100-WC1MSD	JP5002HR	^H4052	03/14/96
03	HSPK01	N7H60482HS	^H4050	03/14/96
04	CLJ100-WC1MS	JP5002HS	^H4051	03/14/96

COMMENTS:

1B (GC)
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET 0261 EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

ρ Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix: (soil/water) WATER Lab Sample ID: JP5002H

Sample wt/vol: 2.00 (g/mL) ML Lab File ID: ^H4053

Level: (low/med) _____ Date Received: 03/12/96

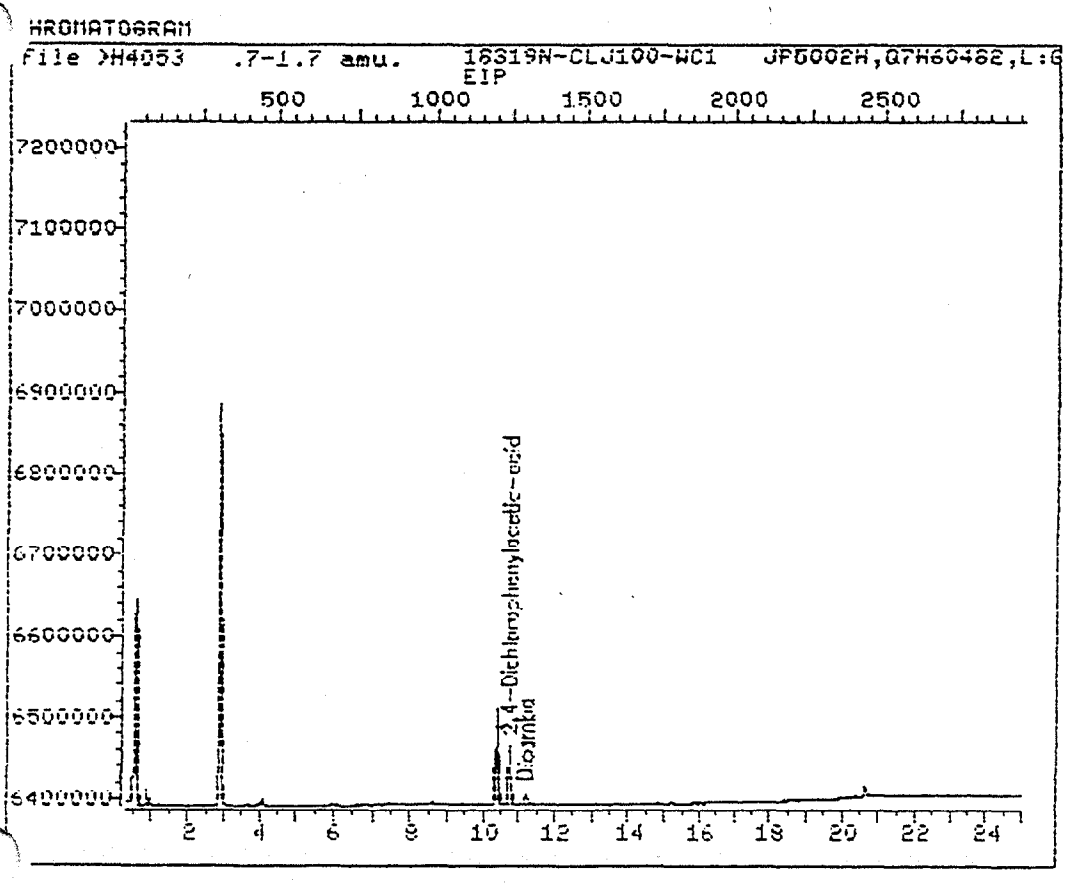
% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/13/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	250	U
93-72-1	2,4,5-TP (Silvex)	250	U



Data File: >H4053::D2 Quant Output File: ^H4053::D2
Name: 18319N-CLJ100-WC1 Instrument ID: H
Misc: JP5002H,Q7H60482,L:G1,2.00,5:1,

Id File: IH0314::D2
Title: Herbicides by Method 8150 08-608 ECD IHHD07
Last Calibration: 960314 13:37 Last Qcal Time: <none>

Operator ID: USER1
Quant Time : 960314 17:39
Injected at: 960314 17:12

QUANT REPORT

Operator ID: USER1 Quant Rev: 7 Quant Time: 960314 17:39
Output File: ^H4053::D2 Injected at: 960314 17:12
Data File: >H4053::D2 Dilution Factor: 1.00000
Name: 18319N-CLJ100-WC1 Instrument ID: H
Misc: JP5002H,Q7H60482,L:G1,2.00,5:1,

ID File: IH0314::D2
Title: Herbicides by Method 8150 DB-608 ECD IHHD07
Last Calibration: 960314 13:37 Last Qcal Time: <none>

Compound	R.T.	Scan#	Area	Conc (STD)	Units	q
2) #2,4-Dichlorophenylacetic-acid	10.70	1249	313098	.408	ug/ml	100
3) #Dicamba	~~11.17~~	1305	60939	~~.0190~~	ug/ml	100

Compound uses ESTD

Calibration Report

Title: Herbicide Calib Curve Information, Method 8150 C#007
Calibrated: 960314 13:34

Compound	Files: >H4042 RF .100	>H4043 RF .200	>H4044 RF .500	>H4045 RF 1.00	>H4046 RF 2.00	$\overline{RRT}$	$\overline{RF}$	% RSD	CORR1
Dalapon	1761420	1605235	1471020	1364521	1300371	1.225	1500513	12.399	.999748
2,4-Dichlorophenylacetic-acid	-	911420.	804892.	700684.	651022.	10.697	767005.	15.081	.999483
Dicamba	3824610	3490655	3147788	2870932	2742474	11.858	3215332	13.857	.999730
Dichloroprop	1282510	1119900	954376.	858275.	795692.	12.003	1002151	19.837	.999483
2,4-D	-	1470390	1256718	1107663	1019739	12.653	1213627	16.245	.999556
2,4,5-TP (Silvex)	5958720	5507395	4944682	4466947	4240188	13.572	5023586	14.210	.999609
2,4,5-T	5798490	5303070	4783108	4318971	4056576	14.282	4852043	14.649	.999476
2,4-DB	786440.	730660.	684540.	640005.	614635.	14.867	691696.	10.108	.999797
Dinoseb	5941590	5199810	4534466	4034742	3837625	14.425	4709646	18.402	.999685

RF - Response Factor (Subscript is amount in ug/ml)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CORRn - Coefficient of Correlation (nth degree)

Calibration Check Report

Title: Herbicide Calib Curve Information, Method 8150 CHH007
Calibrated: 960314 13:34

Check Standard Data File: >H4048
Injection Time: 960314 14:16

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
Dalapon	1500513	1471985	1.90	Average	(Conc=.408)
2,4-Dichlorophenylacetic-acid	767085.	825880.	7.68	Average	(Conc=.416)
Dicamba	3215332	3176333	1.21	Average	(Conc=.393)
Dichloroprop	1002151	963235.	3.88	Average	(Conc=.400)
2,4-D	1213627	1261832	3.97	Average	(Conc=.351)
2,4,5-TP (Silvex)	5023586	4987523	.72	Average	(Conc=.394)
2,4,5-T	4852043	4886181	.70	Average	(Conc=.381)
2,4-DB	691696.	701030.	1.35	Average	(Conc=.367)
Dinoseb	4709646	4627246	1.75	Average	(Conc=.308)

- Response Factor from daily standard file at .400 ug/ml

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

Calibration Check Report

Title: Herbicide Calib Curve Information, Method 8150 CHHD07
Calibrated: 960314 13:34

Check Standard Data File: >H4055
Injection Time: 960314 18:18

Compound	$\overline{RF}$	RF	%Diff	Calib Meth	
Dalapon	1500513	1485125	1.03	Average	(Conc=.408)
2,4-Dichlorophenylacetic-acid	767005.	825265.	7.60	Average	(Conc=.416)
Dicamba	3215332	3172422	1.33	Average	(Conc=.393)
Dichloroprop	1002151	960035.	4.20	Average	(Conc=.400)
2,4-D	1213627	1253077	3.25	Average	(Conc=.351)
2,4,5-TP (Silvex)	5023586	5004376	.38	Average	(Conc=.394)
2,4,5-T	4852043	4883517	.65	Average	(Conc=.381)
2,4-DB	691696.	690567.	.16	Average	(Conc=.367)
Dinoseb	4709646	4637941	1.52	Average	(Conc=.308)

RF - Response Factor from daily standard file at .400 ug/ml

$\overline{RF}$ - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

1B (GC)
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET 0267 EPA SAMPLE NO.

HBLK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix: (soil/water) WATER Lab Sample ID: N7H60482H

Sample wt/vol: 2.00 (g/mL) ML Lab File ID: ^H4049

Level: (low/med) _____ Date Received: 3/12/96

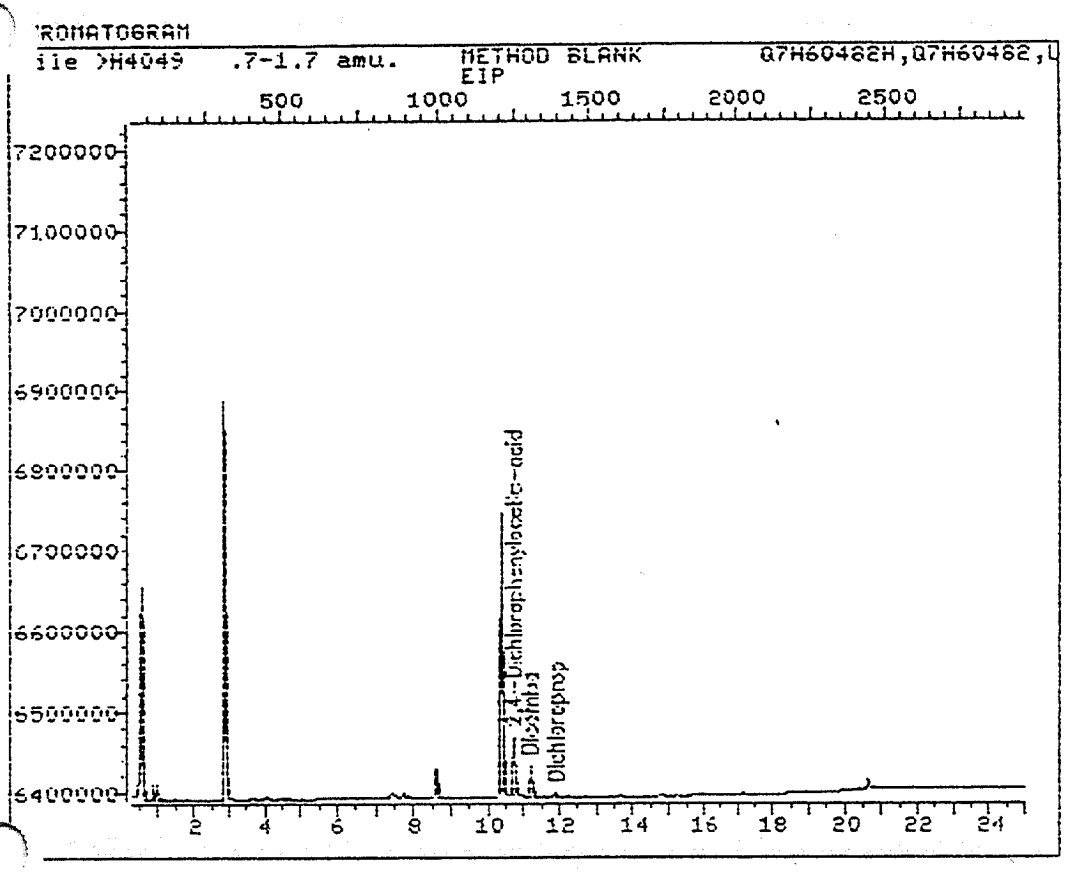
% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/13/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	250	U
93-72-1	2,4,5-TP (Silvex)	250	U



Data File: >H4049::D2 Quant Output File: ^H4049::D2
Name: METHOD BLANK Instrument ID: H
Misc: Q7H60482H,Q7H60482,L:G1,2,5:1,

Id File: IH0314::D2
Title: Herbicides by Method 8150 DB-608 ECD IHHD07
Last Calibration: 960314 13:37 Last Qcal Time: <none>

Operator ID: USER2
Quant Time : 960314 15:15
Injected at: 960314 14:48

QUANT REPORT Page 1

Operator ID: USER2 Quant Rev: 7 Quant Time: 960314 15:15
Output File: ^H4049::D2 Injected at: 960314 14:48
Data File: >H4049::D2 Dilution Factor: 1.00000
Name: METHOD BLANK Instrument ID: H
Misc: Q7H60482H,Q7H60482,L:G1,2,5:1,

ID File: IH0314::D2
Title: Herbicides by Method 8150 DB-608 ECD IHHD07
Last Calibration: 960314 13:37 Last Qcal Time: <none>

	Compound	R.T.	Scan#	Area	Conc (STD)	Units	q
2)	#2,4-Dichlorophenylacetic-acid	10.70 ✓	1249	307730	.401	ug/ml	100
3)	#Dicamba	~~11.17~~	1305	147980	~~.0460~~	ug/ml	100
4)	#Dichloroprop	~~11.50~~	1390	24590	~~.0245~~	ug/ml	100

Compound uses ESTD

1B (GC)
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET 0270

EPA SAMPLE NO.
CLJ100-WC1MS

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix: (soil/water) WATER Lab Sample ID: JP5002HS

Sample wt/vol: 2.00 (g/mL) ML Lab File ID: ^H4051

Level: (low/med) _____ Date Received: 03/12/96

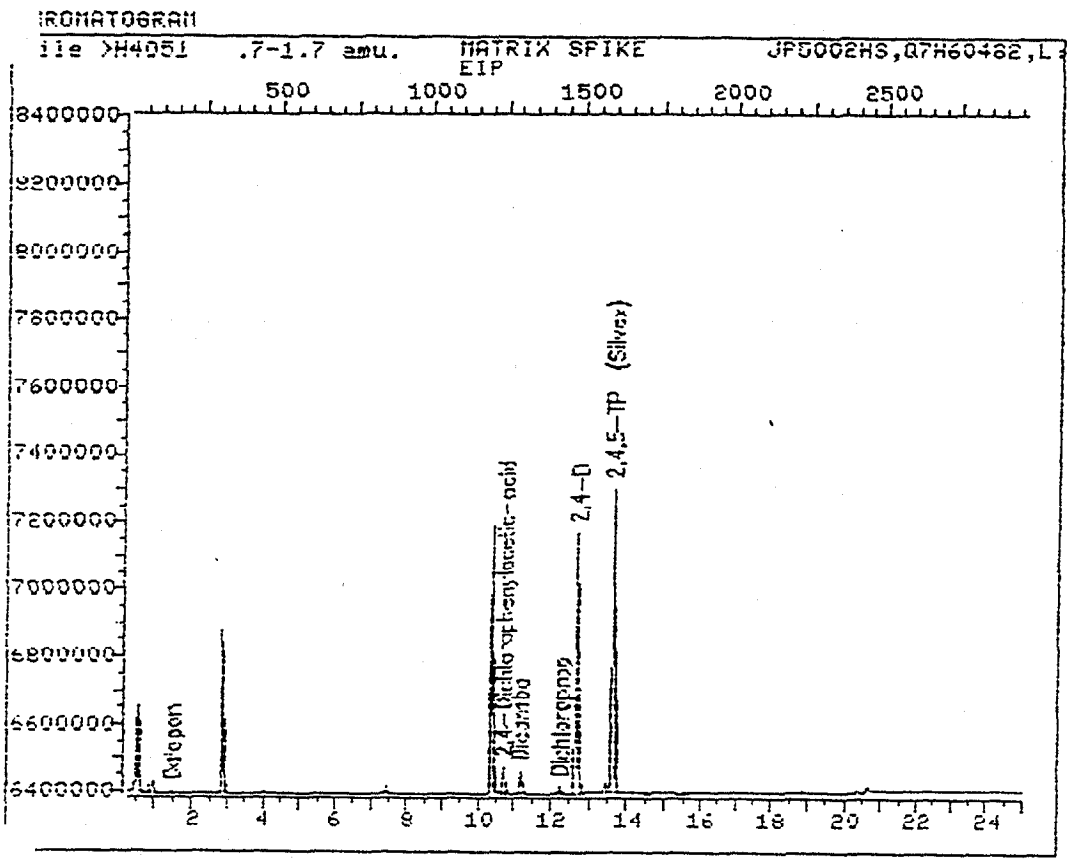
% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/13/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	6500	
93-72-1	2,4,5-TP (Silvex)	1900	



Data File: >H4051::D2 Quant Output File: ^H4051::D2
Name: MATRIX SPIKE Instrument ID: H
Misc: JP5002HS,Q7H60482,L:G1,2.00,5:1,

Id File: IH0314::D2
Title: Herbicides by Method 8150 DB-608 ECD IHHD07
Last Calibration: 960314 13:37 Last Qcal Time: <none>

Operator ID: USER1
Quant Time : 960314 16:33
Injected at: 960314 16:07

QUANT REPORT Page 1

Operator ID: USER1 Quant Rev: 7 Quant Time: 960314 16:33
Output File: ^H4051::D2 Injected at: 960314 16:07
Data File: >H4051::D2 Dilution Factor: 1.00000
Name: MATRIX SPIKE Instrument ID: H
Misc: JP5002HS,Q7H60482,L:G1,2.00,5:1,

ID File: IH0314::D2
Title: Herbicides by Method 8150 DB-608 ECD IHH007
Last Calibration: 960314 13:37 Last Qcal Time: <none>

WID

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	#Dalapon	~~1.46~~	140	21509	~~.0145~~	ug/ml	100
2)	#2,4-Dichlorophenylacetic-acid	10.70	1249	323338	.422	ug/ml	100
3)	#Dicamba	~~11.17~~	1305	247052	~~.0268~~	ug/ml	100
4)	#Dichloroprop	~~12.23~~	1433	67078	~~.0669~~	ug/ml	100
5)	#2,4-D	12.65	1483	3161821	2.61	ug/ml	100
6)	#2,4,5-TP (Silvex)	13.58	1594	3766277	.750	ug/ml	100

#Compound uses ESTD

1B (GC)
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET 0273 EPA SAMPLE NO.

CLJ100-WC1MSD

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix: (soil/water) WATER Lab Sample ID: JP5002HR

Sample wt/vol: 2.00 (g/mL) ML Lab File ID: ^H4052

Level: (low/med) _____ Date Received: 03/12/96

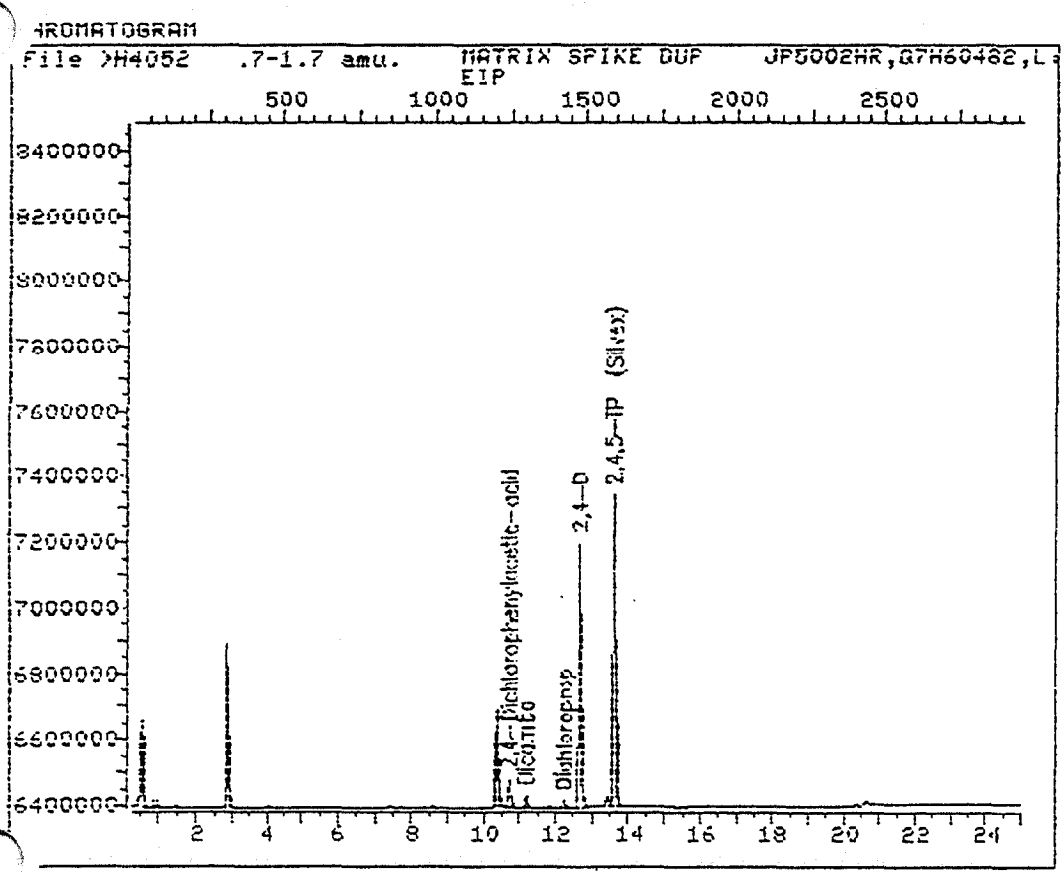
% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/13/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/14/96

Injection Volume: 60 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	6800	
93-72-1	2,4,5-TP (Silvex)	1900	



Data File: >H4052::D2 Quant Output File: ^H4052::D2
Name: MATRIX SPIKE DUP Instrument ID: H
Misc: JP5002HR,Q7H60482,L:G1,2.00,5:1,

Id File: IH0314::D2
Title: Herbicides by Method 8150 DB-608 ECD IHHD07
Last Calibration: 960314 13:37 Last Qcal Time: <none>

Operator ID: USER1
Quant Time : 960314 17:06
Injected at: 960314 16:40

QUANT REPORT

Operator ID: USER1 Quant Rev: 7 Quant Time: 960314 17:06
Output File: ^H4052::D2 Injected at: 960314 16:40
Data File: >H4052::D2 Dilution Factor: 1.00000
Name: MATRIX SPIKE DUP Instrument ID: H
Misc: JP5002HR,Q7H60482,L:G1,2.00,5:1,

ID File: IH0314::D2
Title: Herbicides by Method 8150 DB-608 ECD IHHD07
Last Calibration: 960314 13:37 Last Qcal Time: <none>

	Compound	R.T.	Scan#	Area	Conc (WTD)	Units	q
2)	#2,4-Dichlorophenylacetic-acid	10.69	1248	345324	.450	ug/ml	100
3)	#Dicamba	~~11.16~~	1304	129801	~~.0404~~	ug/ml	100
4)	#Dichloroprop	~~12.23~~	1432	67334	~~.0672~~	ug/ml	100
5)	#2,4-D	12.64	1482	3273453	2.70	ug/ml	100
6)	#2,4,5-TP (Silvex)	13.57	1593	3912436	.779	ug/ml	100

Compound uses ESTD

1B (GC)
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

0276 EPA SAMPLE NO.

HSPK01

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix: (soil/water) WATER Lab Sample ID: N7H60482HS

Sample wt/vol: 2.00 (g/mL) ML Lab File ID: ^H4050

Level: (low/med) _____ Date Received: 3/12/96

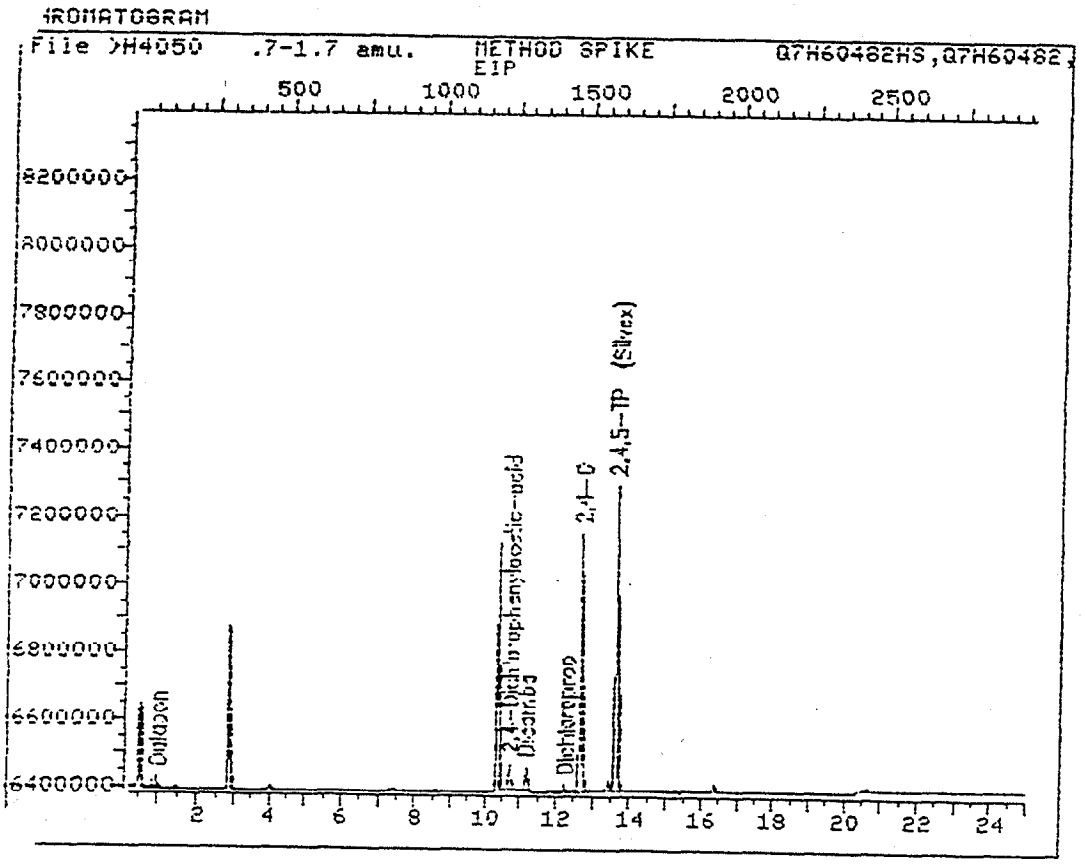
% Moisture: N/A decanted: (Y/N) N Date Extracted: 03/13/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/14/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4-D	6400	
93-72-1	2,4,5-TP (Silvex)	1800	



Data File: >H4050::D2 Quant Output File: ^H4050::D2
Name: METHOD SPIKE Instrument ID: H
Misc: Q7H60482HS,Q7H60482,L:G1,2,5:1,

Id File: IH0314::D2
Title: Herbicides by Method 8150 DB-608 ECD IHHD07
Last Calibration: 960314 13:37 Last Qcal Time: <none>

Operator ID: USER1
Quant Time : 960314 16:01
Injected at: 960314 15:34

QUANT REPORT Page 1

Operator ID: USER1 Quant Rev: 7 Quant Time: 960314 16:01
Output File: ^H4050::D2 Injected at: 960314 15:34
Data File: >H4050::D2 Dilution Factor: 1.00000
Name: METHOD SPIKE Instrument ID: H
Misc: Q7H60482HS,Q7H60482,L:G1,2,5:1,

ID File: IH0314::D2
Title: Herbicides by Method 8150 DB-608 ECD IHHD07
Last Calibration: 960314 13:37 Last Qcal Time: <none>

WD

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	#Dalapon	~~.98~~	82	88326	~~.8589~~	ug/ml	100
2)	#2,4-Dichlorophenylacetic-acid	10.70	1249	326927	.426	ug/ml	100
3)	#Dicamba	~~11.17~~	1305	261894	~~.8815~~	ug/ml	100
4)	#Dichloroprop	~~12.23~~	1433	61957	~~.8618~~	ug/ml	100
5)	#2,4-D	12.65	1483	3081501	2.54	ug/ml	100
6)	#2,4,5-TP (Silvex)	13.58	1594	3712727	.739	ug/ml	100

Compound uses ESTD

INORGANICS

TCLP Metals/Metals

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

SOW No.:

EPA Sample No.	Lab Sample ID.
CLJ100-WC1	JP5002
CLJ100-WC1D	JP5002D
CLJ100-WC1S	JP5002S
CLJ100-WC1SD	JP5002SD

Were ICP interelement corrections applied? Yes/No YES

Were ICP background corrections applied? Yes/No YES

If yes-were raw data generated before application of background corrections? Yes/No NO

Comments: See SDG Narrative

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

Signature: Joseph A. Hnatow Name: Joseph A. Hnatow

Date: 4-29-96 Title: Lab Manager

Narrative for SDG # CLJ100-WC1

TCLP Metals/Metals

CLP Forms and/or analytical requirements do not apply to all TCLP Level C type deliverable requirements. Every effort was made to conform to the CLP format and all applicable CLP/Level C forms have been included.

All of the initial and continuing calibration criteria were within QC limits.

The CRDL standard met all QC criteria.

Low levels of Barium and Vanadium were detected in the initial calibration blank. This anomaly should not impact the validity of the data generated.

Low levels of Barium were detected in the continuing calibration blank. This anomaly should not impact the validity of the data generated.

Low levels of Manganese and Zinc were detected in the method blank. This anomaly should not impact the validity of the data generated.

Low soil matrix spike recoveries were noted for Antimony, Chromium, Iron and Selenium.

Soil matrix spike recoveries for Aluminum were outside QC limits due to the high levels of this element present in the unspiked sample.

Matrix spike recoveries for Mercury in the leachate sample were outside QC limits.

Post spike recoveries were outside QC limits for Selenium in soil Sample #CLJ100-WC1 and has been flagged with the appropriate qualifier.

Duplicate results were within QC limits.

All Laboratory Control Samples (LCS) were within acceptable QC limits.

All holding times were met for this SDG.

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

0282

EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix (soil/water): SOIL Lab Sample ID: JP5002

Level (low/med): MED Date Received: 03/12/96

% Solids: 83

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2420		N	P
7440-36-0	Antimony	2.7	U	N	P
7440-38-2	Arsenic	20.4			P
7440-39-3	Barium	30.6			P
7440-41-7	Beryllium	.097	U		P
7440-43-9	Cadmium	1.8			P
7440-70-2	Calcium	7610			P
7440-47-3	Chromium	59.4		N	P
7440-48-4	Cobalt	.40	B		P
7440-50-8	Copper	10.6			P
7439-89-6	Iron	3800		N	P
7439-92-1	Lead	70.3			P
7439-95-4	Magnesium	390	B		P
7439-96-5	Manganese	41.3			P
7439-97-6	Mercury	3.6			CV
7440-02-0	Nickel	3.0	B		P
7440-09-7	Potassium	129	B		P
7782-49-2	Selenium	.28	B	NW	F
7440-22-4	Silver	.76	U		P
7440-23-5	Sodium	47.5	B		P
7440-28-0	Thallium	.11	U	W	F
7440-62-2	Vanadium	6.8			P
7440-66-6	Zinc	83.2			P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSIS DATA SHEET

0283 EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Matrix (soil/water): LEACH Lab Sample ID: JP5002

Level (low/med): LOW Date Received: 03/12/96

% Solids:

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	67.5			P
7440-39-3	Barium	188	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	11.9			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	6.8	B		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	24.5	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	1.0	U	N	CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	21.5	U		P
7440-22-4	Silver	6.3	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: NA Case No.: 18319N SAS No.: NA SDG No.: CLJ100-WC1

Initial Calibration Source: NIST

Continuing Calibration Source: NIST

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum	9850.0	9940.00	100.9	4800.0	4950.00	103.1	4940.00	102.9	P
Antimony	4990.0	5150.00	103.2	2470.0	2570.00	104.0	2580.00	104.5	P
Arsenic	2490.0	2510.00	100.8	1260.0	1280.00	101.6	1280.00	101.6	
Barium	9920.0	9730.00	98.1	4650.0	4770.00	102.6	4830.00	103.9	P
Beryllium	252.0	252.00	100.0	123.0	121.00	98.4	122.00	99.2	P
Cadmium	1300.0	1290.00	99.2	756.0	744.00	98.4	748.00	98.9	P
Calcium	9730.0	10100.00	103.8	4880.0	4960.00	101.6	5020.00	102.9	P
Chromium	480.0	478.00	99.6	230.0	237.00	103.0	240.00	104.3	P
Cobalt	2510.0	2520.00	100.4	1260.0	1260.00	100.0	1270.00	100.8	P
Copper	1230.0	1230.00	100.0	699.0	712.00	101.9	726.00	103.9	P
Iron	4960.0	4950.00	99.8	2470.0	2560.00	103.6	2540.00	102.8	P
Lead	1320.0	1320.00	100.0	765.0	760.00	99.3	768.00	100.4	P
Magnesium	10200.0	10200.00	100.0	5050.0	4960.00	98.2	5040.00	99.8	P
Manganese	739.0	759.00	102.7	385.0	384.00	99.7	391.00	101.6	P
Mercury	5.0	4.80	96.0	5.0	5.88	117.6	5.66	113.2	CV
Nickel	2000.0	1980.00	99.0	977.0	972.00	99.5	990.00	101.3	P
Potassium	10500.0	9880.00	94.1	9230.0	10100.00	109.4	9650.00	104.6	P
Selenium									
Silver	472.0	463.00	98.1	213.0	225.00	105.6	229.00	107.5	
Sodium	9360.0	9070.00	96.9	4460.0	4710.00	105.6	4500.00	100.9	P
Thallium									
Vanadium	2460.0	2450.00	99.6	1200.0	1210.00	100.8	1220.00	101.7	P
Zinc	986.0	1000.00	101.4	542.0	544.00	100.4	555.00	102.4	P
Cyanide									

1

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: NA Case No.: 18319N SAS No.: NA SDG No.: CLJ100-WC-1

Initial Calibration Source: NIST

Continuing Calibration Source: NIST

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum				4800.0	4920.00	102.5			P
Antimony				2470.0	2560.00	103.6			P
Arsenic				1260.0	1290.00	102.4			P
Barium				4650.0	4830.00	103.9			P
Beryllium				123.0	122.00	99.2			P
Cadmium				756.0	753.00	99.6			P
Calcium				4880.0	5020.00	102.9			P
Chromium				230.0	241.00	104.8			P
Cobalt				1260.0	1270.00	100.8			P
Copper				699.0	716.00	102.4			P
Iron				2470.0	2520.00	102.0			P
Lead				765.0	756.00	98.8			P
Magnesium				5050.0	5030.00	99.6			P
Manganese				385.0	394.00	102.3			P
Mercury				5.0	5.63	112.6	5.30	106.0	CV
Nickel				977.0	993.00	101.6			P
Potassium				9230.0	955.00	10.3			P
Selenium									
Silver				213.0	227.00	106.6			
Sodium				4460.0	4580.00	102.7			P
Thallium									
Vanadium				1200.0	1220.00	101.7			P
Zinc				542.0	551.00	101.7			P
Cyanide									

1

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: NA Case No.: 18319N SAS No.: NA SDG No.: CLJ100-WC

Initial Calibration Source: NIST

Continuing Calibration Source: NIST

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									P
Antimony									P
Arsenic									P
Barium									P
Beryllium									P
Cadmium									P
Calcium									P
Chromium									P
Cobalt									P
Copper									P
Iron									P
Lead									P
Magnesium									P
Manganese									P
Mercury				5.0	5.48	109.6			CV
Nickel									P
Potassium									P
Selenium									
Silver									
Sodium									P
Thallium									
Vanadium									P
Zinc									P
Cyanide									

1

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: NA Case No.: 18319N SAS No.: NA SDG No.: CLJ100- WC 1

Initial Calibration Source: INORGANIC VENTURES

Continuing Calibration Source: PERKIN-ELMER

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium	30.0	31.11	103.7	20.0	19.40	97.0	19.57	97.9	F
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: NA Case No.: 18319N SAS No.: NA SDG No.: CLJ100- WC I

Initial Calibration Source: INORGANIC VENTURES

Continuing Calibration Source: PERKIN-ELMER

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium	30.0	31.30	104.3	20.0	21.10	105.5	21.30	106.5	F
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: NA Case No.: 18319N SAS No.: NA SDG No.: CLJ100-WC1

Initial Calibration Source: INORGANIC VENTURES

Continuing Calibration Source: PERKIN-ELMER

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium				20.0	21.10	105.5			F
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: NA Case No.: ~~46874NB~~ 18319N SAS No.: NA SDG No.: ~~CP63CS-03A8~~ CLJ100-WC1

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	108.0	U	108.0	U	108.0	U	108.0	U	108.000	U	P
Antimony	22.4	U	22.4	U	22.4	U	22.4	U	22.400	U	P
Arsenic	23.3	U	23.3	U	23.3	U	23.3	U	23.300	U	F
Barium	4.3	B	1.2	B	1.7	B	1.2	B	0.900	U	P
Beryllium	0.8	U	0.8	U	0.8	U	0.8	U	0.800	U	P
Cadmium	1.2	U	1.2	U	1.2	U	1.2	U	1.200	U	P
Calcium	39.7	U	39.7	U	39.7	U	39.7	U	39.700	U	P
Chromium	2.2	U	2.2	U	2.2	U	2.2	U	2.200	U	P
Cobalt	2.4	U	2.4	U	2.4	U	2.4	U	2.400	U	P
Copper	3.2	U	3.2	U	3.2	U	3.2	U	3.200	U	P
Iron	15.5	U	15.5	U	15.5	U	15.5	U	20.600	U	P
Lead	24.5	U	24.5	U	24.5	U	24.5	U	24.500	U	P
Magnesium	24.2	U	24.2	U	24.2	U	24.2	U	24.200	U	P
Manganese	0.8	U	0.8	U	0.8	U	0.8	U	1.600	B	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.130	U	CV
Nickel	9.7	U	9.7	U	9.7	U	9.7	U	9.700	U	P
Potassium	813.0	U	813.0	U	813.0	U	813.0	U	813.000	U	P
Selenium	2.3	U	2.3	U	2.3	U			2.300	U	P
Silver	6.3	U	6.3	U	6.3	U	6.3	U	6.300	U	P
Sodium	320.0	U	320.0	U	320.0	U	320.0	U	320.000	U	P
Thallium	1.0	U	1.0	U	1.0	U	1.0	U	1.000	U	P
Vanadium	3.4	B	2.8	U	2.8	U	2.8	U	2.800	U	P
Zinc	3.4	U	3.4	U	3.4	U	3.4	U	13.900	B	P
Cyanide											

U.S. EPA - CLP
3
BLANKS

0291

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: NA Case No.: ~~10874N~~ 18319N SAS No.: NA SDG No.: ~~CP63CS 03~~ CLJ100-WC1

Preparation Blank Matrix (soil/water): WATER

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic									23.300	U	F
Barium									1.000	B	P
Beryllium											
Cadmium									1.200	U	P
Calcium											
Chromium									2.200	U	P
Cobalt											
Copper											
Iron											
Lead									24.500	U	P
Magnesium											
Manganese											
Mercury			0.2	U	0.2	U			0.130	U	CV
Nickel											
Potassium											
Selenium									21.500	U	P
Silver									6.300	U	P
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

N7M7843

U.S. EPA - CLP

4

ICP INTERFERENCE CHECK SAMPLE

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: NA Case No.: 18319N SAS No.: NA SDG No.: CLJ100-WC1

ICP ID Number: 61 ICS Source: INORGANIC VENTURES

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	419000	462000	435000	419000.0	90.7	438000	428000.0	92.6
Antimony	0	1020	35	909.0	89.1	22	914.0	89.6
Arsenic		946	34	898.0	94.9	50	873.0	
Barium	0	458	3	403.0	88.0	2	412.0	90.0
Beryllium	0	463	0	412.0	89.0	0	422.0	91.1
Cadmium	0	904	-2	815.0	90.2	-2	837.0	92.6
Calcium	184000	228000	189000	206000.0	90.4	192000	212000.0	93.0
Chromium	0	448	2	401.0	89.5	0	408.0	91.1
Cobalt	0	450	-2	400.0	88.9	-2	406.0	90.2
Copper	0	469	17	415.0	88.5	5	413.0	88.1
Iron	173000	175000	179000	156000.0	89.1	180000	159000.0	90.9
Lead	0	914	-56	775.0	84.8	-67	799.0	87.4
Magnesium	278000	242000	252000	221000.0	91.3	254000	227000.0	93.8
Manganese	0	467	13	419.0	89.7	12	443.0	94.9
Mercury								
Nickel	0	881	5	791.0	89.8	0	811.0	92.1
Potassium								
Selenium								
Silver	0	968	-8	805.0	83.2	-11	822.0	84.9
Sodium								
Thallium								
Vanadium	0	467	4	411.0	88.0	3	420.0	89.9
Zinc	0	941	11	852.0	90.5	10	863.0	91.7
Cyanide								

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

0293

EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

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

% Solids for Sample:

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	4311.5938		2415.4585		1231.88	153.9	N	P
Antimony	75-125	47.5845		.7307	U	63.84	74.5	N	P
Arsenic	75-125	229.4686		20.4106		244.93	85.4		P
Barium	75-125	230.6763		30.5556		239.13	83.7		P
Beryllium	75-125	5.3986		.0809	U	5.98	90.3		P
Cadmium	75-125	7.4396		1.8357		6.24	89.8		P
Calcium		13164.2500		7608.6953		1231.88	451.0		P
Chromium	75-125	72.7053		59.4203		24.03	55.3	N	P
Cobalt	75-125	54.4686		.3961	B	60.51	89.4		P
Copper	75-125	36.5942		10.6039		31.40	82.8		P
Iron	75-125	3985.5068		3804.3477		1193.24	15.2	N	P
Lead	75-125	131.6425		70.2899		64.87	94.6		P
Magnesium	75-125	1630.4346		390.0966	B	1292.27	96.0		P
Manganese	75-125	97.7053		41.3043		60.39	93.4		P
Mercury		4.6635		4.3612		.30	100.8		CV
Nickel	75-125	55.3140		3.0072	B	59.30	88.2		P
Potassium	75-125	1268.1157		129.2270	B	1304.35	87.3		P
Selenium	75-125	1.5097		.2844	B	2.42	50.6	N	P
Silver	75-125	6.2681		.0906	U	7.36	85.2		P
Sodium	75-125	1048.3091		47.4638	B	1130.43	88.5		P
Thallium	75-125	2.1135		.0329	U	2.42	87.3		F
Vanadium	75-125	61.5942		6.7754		61.11	89.7		P
Zinc	75-125	160.6280		83.2126		63.04	122.8		P
Cyanide									NR

Comments:

U.S. EPA - CLP **0294** EPA SAMPLE NO.

5B

POST DIGEST SPIKE SAMPLE RECOVERY

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

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

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		30.20		20.00		11.0	92.7		P
Antimony		.54		.006	U	.6	90.0		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium		.69		.49		.2	100.0		P
Cobalt									NR
Copper									NR
Iron		41.20		31.50		11.1	87.4		P
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

0295 EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

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

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium	85-115	.009		.003	B	.01	60.0	N	F
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

0296

EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

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

% Solids for Sample: _____

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic	75-125	4930.0000		67.5000		4980.00	97.6		P
Barium	75-125	9360.0000		188.0000	B	10100.00	90.8		P
Beryllium									NR
Cadmium	75-125	959.0000		11.9000		1010.00	93.8		P
Calcium									NR
Chromium	75-125	4650.0000		6.7900	B	4980.00	93.2		P
Cobalt									NR
Copper									NR
Iron									NR
Lead	75-125	4920.0000		24.3000	U	5200.00	94.6		P
Magnesium									NR
Manganese									NR
Mercury	75-125	2.6500		.1300	U	2.00	132.5	N	CV
Nickel									NR
Potassium									NR
Selenium	75-125	886.0000		2.3700	U	935.00	94.8		P
Silver	75-125	86.3000		-5.4300	U	103.00	83.8		P
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

6

DUPLICATES

0297

EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

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

% Solids for Sample: _____ % Solids for Duplicate: _____

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic	23	67.5000		49.6000		17.9		P
Barium		188.0000	B	187.0000	B	1.0		P
Beryllium								NR
Cadmium	5.0	11.9000		11.0000		.9		P
Calcium								NR
Chromium		6.7900	B	4.9000	B	1.9		P
Cobalt								NR
Copper								NR
Iron								N
Lead		24.3000	U	17.5000	U			P
Magnesium								NR
Manganese								NR
Mercury		.1300	U	.0480	U			CV
Nickel								NR
Potassium								NR
Selenium		2.3700	U	3.0500	U			P
Silver		-5.4300	U	-5.8300	U			P
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc								NR
Cyanide								NR

U.S. EPA - CLP

6
DUPLICATES

0298 EPA SAMPLE NO.

CLJ100-WC1

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Lab Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

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

% Solids for Sample: _____ % Solids for Duplicate: _____

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		2415.4585		2545.7041		5.3		P
Antimony		.7307	U	1.1592	U			P
Arsenic		20.4106		21.4313		4.9		P
Barium	24	30.5556		32.0877		1.5		P
Beryllium		.0809	U	.0651	U			P
Cadmium	.59	1.8357		1.9182		.08		P
Calcium		7608.6953		7956.8057		4.5		P
Chromium		59.4203		62.2810		4.7		P
Cobalt		.3961	B	.6654	B	.3		P
Copper	3.0	10.6039		11.0827		.5		P
Iron		3804.3477		3990.2432		4.8		P
Lead		70.2899		74.1214		5.3		P
Magnesium		390.0966	B	404.9446	B	14.8		P
Manganese		41.3043		43.5730		5.3		P
Mercury		4.3612		4.2157		3.4		CV
Nickel		3.0072	B	2.8536	B	.2		P
Potassium		129.2270	B	131.4294	B	2.2		P
Selenium		.2844	B	.3144	B	.03		P
Silver		.0906	U	.0734	U			P
Sodium		47.4638	B	38.7184	B	8.7		P
Thallium		.0329	U	.0104	U			F
Vanadium	5.9	6.7754		7.0332		.3		P
Zinc		83.2126		86.4355		3.8		P
Cyanide								NR

LABORATORY CONTROL SAMPLE

Lab Name: OHM ANALYTICAL DIVISION Contract: NFESC

Code: N/A Case No.: 18319N SAS No.: N/A SDG No.: CLJ100-WC1

Solid LCS Source:

Aqueous LCS Source: INORGANIC VENTURES

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum	10200	9290.00	91.1						
Antimony	528.6	458.00	86.6						
Arsenic	2028.0	1880.00	92.7						
Barium	1980.0	1820.00	91.9						
Beryllium	49.5	45.20	91.3						
Cadmium	51.7	48.30	93.4						
Calcium	10200	9650.00	94.6						
Chromium	199.0	187.00	94.0						
Cobalt	501.0	468.00	93.4						
Copper	260.0	232.00	89.2						
on	9880.0	9400.00	95.1						
ead	537.1	499.00	92.9						
Magnesium	10700	9560.00	89.3						
Manganese	500.0	477.00	95.4						
Mercury	5.0	6.00	120						
Nickel	491.0	468.00	95.3						
Potassium	10800	9760.00	90.4						
Selenium	20.0	20.10	101						
Silver	60.9	52.80	86.7						
Sodium	9360.0	8600.00	91.9						
Thallium	20.0	20.70	104						
Vanadium	506.0	475.00	93.9						
Zinc	522.0	480.00	92.0						
Cyanide									

INORGANICS

Conventionals

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

0301

Lab Name: *Analytical Services Corp* Contract: NFESC

Lab Code: N/A Case #: 018319N SAS #: N/A SDG #: CLJ100-W

DW No.: N/A

EPA Sample No.	Lab Sample ID.
CLJ100-WC1	Ip5002

Were ICP interelement corrections applied? Yes/NO ___

Were ICP background corrections applied? Yes/NO ___

If YES - were raw data generated before application of background corrections? Yes/NO ___

COMMENTS: _____

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

Signature: Joseph A. Hnatow Name: Joseph A. Hnatow

Date: 4/29/96 Title: Lab Manager

Narrative for SDG # CLJ100-WC1

Conventionals

CLP Forms and/or analytical requirements do not apply to all Conventional Level C deliverable requirements. Every effort was made to conform to the CLP format and all applicable CLP/Level C forms have been included.

The pH results are reported in standard units and not mg/kg.

The Flashpoint results are reported in °C not mg/kg.

The Paint Filter Test results are reported as Pass/Fail.

The method qualifier for pH (Electrode) is "PH", for Flashpoint it is "FP" and for Paint Filter Test it is "PFT". The CLP manual does not address these results or this method for reporting.

The method blank was within QC limits for this SDG.

Standard QA/QC is not a requirement for the parameters analyzed. Batch acceptance was based on acceptable LCS recoveries for this SDG.

The LCS was within acceptable QC limits.

All sample holding times were met for this SDG.

CONVENTIONAL ANALYSIS DATA SHEET (1)

0303

Lab Name: *OHM Analytical Div.* Contract: NFESC EPA SAMPLE #: CLJ100-W

Lab Code: N/A Case #: D18319N SAS #: N/A SDG #: CLJ100-W

Matrix: (soil/water) SOIL Level: (low/med) LOW Lab Sample ID: JP5002

% Solids: 82.8 Date Received: 03/15/9

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

CAS NO.	ANALYTE	CONCENTRATION	C	Q	M
	Reactive Cyanide	10.0	U		RC
	Reactive Sulfide	20.0	U	RS	~~RC~~ RS
	Flashpoint, °C	>93°C			FP
	pH (Electrode)	7.31 SU			PH
	PAINT FILTER TEST	Pass			PFT

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

COMMENTS: _____

Lab Name: *OHM Analytical Div.* Contract: NFESC Lab Code: N/A

Case #: 018319N SAS #: N/A SDG #: GJ100-W

Prep Blank Matrix: (soil/water) Soil

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

ANALYTE	Init Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L 1	C	2	C	3	C	Preparation Blank	C	M
Reactive Cyanide									10.0	U	RC
Reactive Sulfide									20.0	U	RS

LABORATORY CONTROL SAMPLE (7) 0305

Lab Name: *OHM Analytical Division* Contract: NFESC

Lab Code: N/A Case #: 018319N SAS #: N/A SDG #: GJ10

Solid LCS Source: _____ Aqueous LCS Source: BAKER

ANALYTE	AQUEOUS (ug/L)			SOLID (mg/kg)					
	True	Found	% R	True	Found	C	Limits		% R
Reactive Cyanide	1050	60	6%						
Reactive Sulfide	800	287	36%						

CHAIN-OF-CUSTODY RECORD(S)

OHM Remediation Services Corp.

LAB COPY

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

166505

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune	Camp Lejeune, N.C.

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
18329	Alan Whitt	

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
VANN Marshburn	Jim Dunn / Alan Whitt

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)	REMARKS
								Total TCLP / Volatiles (8240 TCLP) / BT/PCB (8080) / CLP Metals (6010/7000) / RCRA Char. / Paint Filter Test 9095 / Semi-Volatiles (8270 TCLP)	
1	CLJ100-WC-001	3/11/96	1435	X		Two sample points Soils 0'-6"	1-1L	X X X X X X X	NCSA level "C"
2									
3									
4									
5									
6									
7									
8									
9									
10									

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1	Aaron R. Dean	FED-EX# 692149216	3/11/96	1700
2	1	Fedex 692149216	Donita Jensen	3-12-96	1022
3					
4	1				

REMARKS

Sample sent To A.S.C.
3 Day T.A.T Please Fax
Results To (910) 451-1809.
See SRF-BACK template Thanks

SAMPLER'S SIGNATURE
Aaron R. Dean

0307

Field Screening, Off-Site Lab Analytical Data

CKY incorporated
Analytical Laboratories

Date: 04-29-1996
CKY Batch No.: 96D042

Attn.: Jim Dunn

OHM
5335 Triangle Parkway, Suite 450
Norcross, GA 30092

Subject: Laboratory Report
Project: 18319/CAMP LEJEUNE

Enclosed is the Laboratory report for samples received on 04/25/96. The samples were received in coolers with ice and intact; the chain-of-custody forms were properly filled out. The data reported include :

Sample ID	Control No.	Matrix	Analysis
CLJ100-FS-022	D042-01	Soil	EPA 8080 (Pesticides)
CLJ100-FS-023	D042-02	Soil	EPA 8080 (Pesticides)
CLJ100-FS-033	D042-03	Soil	EPA 8080 (Pesticides)

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

K. Y. Pang

Kam Y. Pang, Ph.D.
Laboratory Director

P.S. - All analyses requested for the above referenced project have been completed. Therefore, unless instructed, the remaining portions of the samples will be disposed after fifteen (15) days from the date of this report.

Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

TRANSFER 2

Form 0019
Field Technical Services
Rev. 08/89

96D042 L1

166541

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune	Camp Lejeune, NC

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
18319	Alan Whitt	(910) 451-2599

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
VANN Murfreesburn	Jim Dunn / Alan Whitt

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TCL PST 8080	REMARKS T=3 cy
1	CLJ100-FS-022	4/18/96	1634		X	Soil at 6' from 702-701A, 702-701B	1-4oz	X	
2	CLJ100-FS-023	4/18/96	1635		X	Soil at 6' from 703-702A, 703-702B	1-4oz	X	
3	CLJ100-FS-033	4/18/96	1716		X	Soil at 6" from 804-803B, 804-803C	1-4oz	X	
4									
5									
6									
7									
8									
9									
10									

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-3	Aaron R. Aman	FED-EX 692149126 4	4/24/96	1700
2			J. Patel	4/25/96	10:30 AM
3					
4					

REMARKS

Samples Sent To CKY INC. 24 hour T.A.T. Please fax results To [(910) 451-1809] Thanks.

SAMPLER'S SIGNATURE

Aaron R. Aman

SAMPLE RECEIPT FORM

CONTROL NO.	96D042
CLIENT	OHM
PROJECT	CAMP LEJEUNE

DATE	04-25-96
TIME	10:00 AM
RECIPIENT	I. PATEL

SAMPLE TRANSPORTATION TO CKY LABORATORY:	BY	ON(DATE)	AT(TIME)	FROM(SITE/CO.)	COMMENTS
PICKED-UP BY CKY COURIER					
DELIVERED BY CLIENT ✓					
SHIPPED/AIRBILL NO	FEDERAPTN: 6921 491264 SEE AIRBILL				

SAMPLE BATCH PACKAGING/SEALING UPON RECEIPT:			✓ INTACT	DAMAGED	SEALED	✓ NOT SEALED	NO CONTAINER
CONTAINER:	INSIDE TEMPERATURE:		3° C	CUSTODY SEAL		LOCATION	NUMBER
✓ COOLER	PACKAGING	TYPE	SUFFICIENCY	INTACT	DAMAGED		
BOX	INSULATION:		OK	NAME:			
___ OTHER:	ICE/COOLANT:	REGULAR		DATE:			
	PACKING MATERIAL:	BUBBLEPAK		TIME:			

SAMPLE DOCUMENTATION/CHAIN-OF-CUSTODY(COC)	SEALED	✓ ENCLOSED	HANDCARRIED	FAXED	MAILED

SAMPLE LOG-IN:	CRITERIA	COMMENTS	DISCREPANCY
SAMPLE CUSTODY SEAL	EVERY SAMPLE	NONE	
CONTAINER TYPE/MATERIAL	APPROPRIATE	OK	
SAMPLE AMOUNT	ENOUGH		
SAMPLE PRESERVATION/HOLDING TIME	SUFFICIENT		
HEADSPACE/BUBBLES	ZERO/NONE		
SAMPLE LABEL INFORMATION	SUFFICIENT		
CHAIN-OF-CUSTODY INFORMATION	SUFFICIENT		

SAMPLE INFO.:	SAMPLE ID ✓	DATE ✓	TIME ✓	SIGNATURE ✓	ANALYSES ✓	PRESERVATIVE	CONTAINER ✓
INDIVIDUAL SAMPLE CONTAINER:		NONE	✓ SEALED PLASTIC BAG		CAN	OTHER(SPECIFY):	

SAMPLE NUMBER	CLIENT ID	DISCREPANCY	ACTION
-1	CLJ100-FS-022	LABEL WRITTEN AS 022 ONLY	- Follow ID in the COC.
-2	CLJ100-FS-023	LABEL " " 023 ONLY	
-3	CLJ100-FS-033	LABEL " " 033 ONLY	

CLIENT SERVICES COPY RECEIVED BY	4/25 [illegible]	DATE		TIME	

CKY INC. ANALYTICAL LABORATORIES 630 Maple Ave. Tennessee Calif 90503 Tel (310) 618-8889 F (310) 618-8818

FACSIMILE TRANSMITTAL

DATE: 4-25-96
TO: Kam Pang
COMPANY: CKP
FAX NUMBER: 310 618 0818

FROM: Claudine Bigham
OHM Remediation Services Corp.
Camp Lejeune Project
Phone # (910)451-2599
(910)451-2390
Fax # (910)451-1809

Number of Pages (Including Cover) 1
Comments:

Please change the TAT for COC # 166541 from 24 hours to 48 hours per the purchase order

Thank You,
Claudine Bigham

LABORATORY REPORT FOR

OHM

18319/CAMP LEJEUNE

EPA 8080

SDG#: 96D042

APRIL 29, 1996

CASE NARRATIVE

CLIENT: OHM

PROJECT: 18319/CAMP LEJEUNE

SDG: 96D042

EPA 8080

Three (3) soil samples were received on 04/25/96 to be analyzed for Pesticides in accordance with Method 8081 in SW846, 1994.

1. Holding Time

   All samples were extracted and analyzed within holding time.

2. Surrogate Recovery

   All surrogate recoveries were within QC limits.

3. Matrix Spike/Matrix Spike Duplicate

   All recoveries and RPDs were within QC limits.

4. Laboratory Control Sample/Laboratory Control Sample Duplicate

   All recoveries were within QC limits.

5. Method Blank

   Method blank was free of contamination.

6. Instrument Performance and Calibration

   Initial calibration was five-point and the RSDs were all within QC limits. Continuing calibration was done at 12 hour interval. DDT and Endrin breakdown was within QC limits.

7. Sample Analysis

   All sample analyses were done within QC requirements. Samples were analyzed in a dual-column, dual ECD system, and all results were quantified from RTX5 column and confirmed by a second column (RTX35).

CKY INC., ANALYTICAL LABORATORIES, 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-8889 Fax: (310) 618-0818

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	04/18/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	04/25/96
BATCH NO.:	96D042	DATE EXTRACTED:	04/25/96
SAMPLE ID:	CLJ100-FS-022	DATE ANALYZED:	04/25/96
CONTROL NO.:	D042-01	MATRIX:	SOIL
% MOISTURE:	9.5	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	1.88
alpha-BHC	ND	1.88
beta-BHC	ND	1.88
delta-BHC	ND	1.88
gamma-BHC (Lindane)	ND	1.88
alpha-Chlordane	ND	1.88
gamma-Chlordane	ND	1.88
4,4'-DDD	19	3.65
4,4'-DDE	38	3.65
4,4'-DDT	18	3.65
Dieldrin	13	3.65
Endosulfan I	ND	1.88
Endosulfan II	ND	3.65
Endosulfan Sulfate	ND	3.65
Endrin	ND	3.65
Endrin aldehyde	ND	3.65
Heptachlor	ND	1.88
Heptachlor Epoxide	ND	1.88
Methoxychlor	ND	18.8
Toxaphene	ND	188

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	87	20-150
Decachlorobiphenyl	65	20-150

RL: Reporting Limit

2

Areas, times, and heights stored in: E:\TD25-10.ATB

***** EXTERNAL STANDARD TABLE *****

********** 04-26-1996 11:01:55 Version 5.2.0 **********
* Sample Name: 96D042-01 Data File: E:\TD25-11 *
* Date: 04-25-1996 17:52:39 Method: B:\QEST4B 04-26-1996 10:56:19 Version: 8 *
* Interface: 7 Cycle#: 11 Operator: RZ Channel: 8 Vial#: N.A. *
* Starting Peak Width: 15 Threshold: 15 Area Threshold: 1500 *
****

Starting Delay: 0.00 Ending retention time: 32.00
Area reject: 0 One sample per 1.002 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.00000

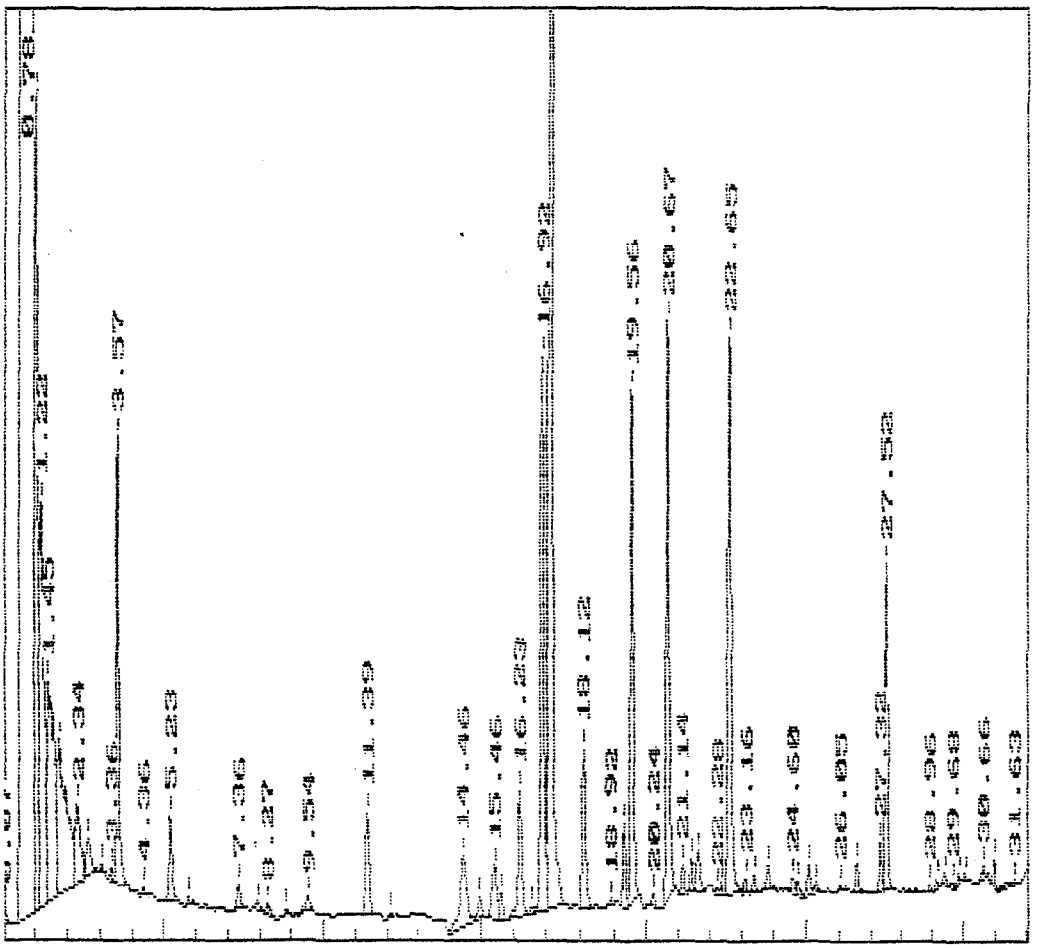
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in PPB	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
11	3.574	TCX	37.4480	8.8101%	527306	96616	5.5	1	0	0	7.1018E-05
	5.795	alpha-BHC	0.3993	0.0939%	7987	1574	5.1	1	0	.0846	4.9995E-05
	7.365	gamma-BHC	1.7946	0.4222%	34660	5215	6.6	1	0	0	5.1776E-05
16	7.949	beta-BHC	2.3936	0.5631%	18175	1758	10.3	2	0	.2421	1.3170E-04
19	9.536	delta-BHC	2.1709	0.5107%	31867	2995	10.6	1	0	.1649	6.8125E-05
24	15.464	alpha-Chlordane	7.0617	1.6613%	117471	11170	10.5	2	0	-.1020	6.0114E-05
28	16.917	Dieldrin	51.2183	12.0497%	850378	119588	7.1	2	0	0	6.0230E-05
29	17.151	DDE	162.9739	38.3414%	2354647	313226	7.5	2	0	-.1112	6.9214E-05
32	19.322	Endosulfan II	7.5372	1.7732%	98700	17780	5.6	1	0	.2693	7.6365E-05
33	19.556	DDD	60.0414	14.1254%	696000	110904	6.3	1	0	0	8.6266E-05
35	20.675	DDT	61.1284	14.3811%	784339	124679	6.3	1	0	0	7.7936E-05
36	21.142	Endosulfan sulfate	3.4599	0.8140%	43464	6491	6.7	2	0	.2475	7.9605E-05
43	23.413	Endrin Ketone	1.6278	0.3830%	25374	3858	6.6	2	0	.3574	6.4152E-05
52	27.522	DCB	25.8050	6.0709%	390739	70619	5.5	2	0	0	6.6041E-05

TOTAL AMOUNT = 425.0600

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
Heptachlor	9.02	TCX
Aldrin	10.49	TCX
Heptachlor Epoxide	13.39	TCX
gamma-Chlordane	14.56	TCX
Endosulfan I	15.35	TCX
Endrin	18.37	TCX
Endrin aldehyde	20.52	TCX
Methoxychlor	23.61	TCX

Areas, times, and heights stored in: E:\TD25-11.ATB
Data File = E:\TD25-11.PTS Printed on 04-25-1996 at 18:27:32
Start time: 0.00 min. Stop time: 32.00 min. Offset: 0 cts
Full Range: 200 K-Counts



EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	04/18/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	04/25/96
BATCH NO.:	96D042	DATE EXTRACTED:	04/25/96
SAMPLE ID:	CLJ100-FS-023	DATE ANALYZED:	04/25/96
CONTROL NO.:	D042-02	MATRIX:	SOIL
% MOISTURE:	7.8	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	1.84
alpha-BHC	ND	1.84
beta-BHC	ND	1.84
delta-BHC	ND	1.84
gamma-BHC (Lindane)	ND	1.84
alpha-Chlordane	25	1.84
gamma-Chlordane	25	1.84
4,4'-DDD	200	3.58
4,4'-DDE	92	3.58
4,4'-DDT	120	3.58
Dieldrin	58	3.58
Endosulfan I	ND	1.84
Endosulfan II	ND	3.58
Endosulfan Sulfate	ND	3.58
Endrin	ND	3.58
Endrin aldehyde	ND	3.58
Heptachlor	ND	1.84
Heptachlor Epoxide	ND	1.84
Methoxychlor	ND	18.4
Toxaphene	ND	184

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	71	20-150
Decachlorobiphenyl	46	20-150

RL: Reporting Limit
Dieldrin, DDD, DDE, and DDT were out of calibration range.

3

***** EXTERNAL STANDARD TABLE *****

********** 04-26-1996 16:52:15 Version 5.2.0 **********
* Sample Name: 96D042-02 Data File: E:\TD25-12 *
* Date: 04-25-1996 18:29:54 Method: B:\QEST4B 04-26-1996 16:50:44 Version: 8 *
* Interface: 7 Cycle#: 12 Operator: RZ Channel: B Vial#: N.A. *
* Starting Peak Width: 15 Threshold: 15 Area Threshold: 1500 *
****

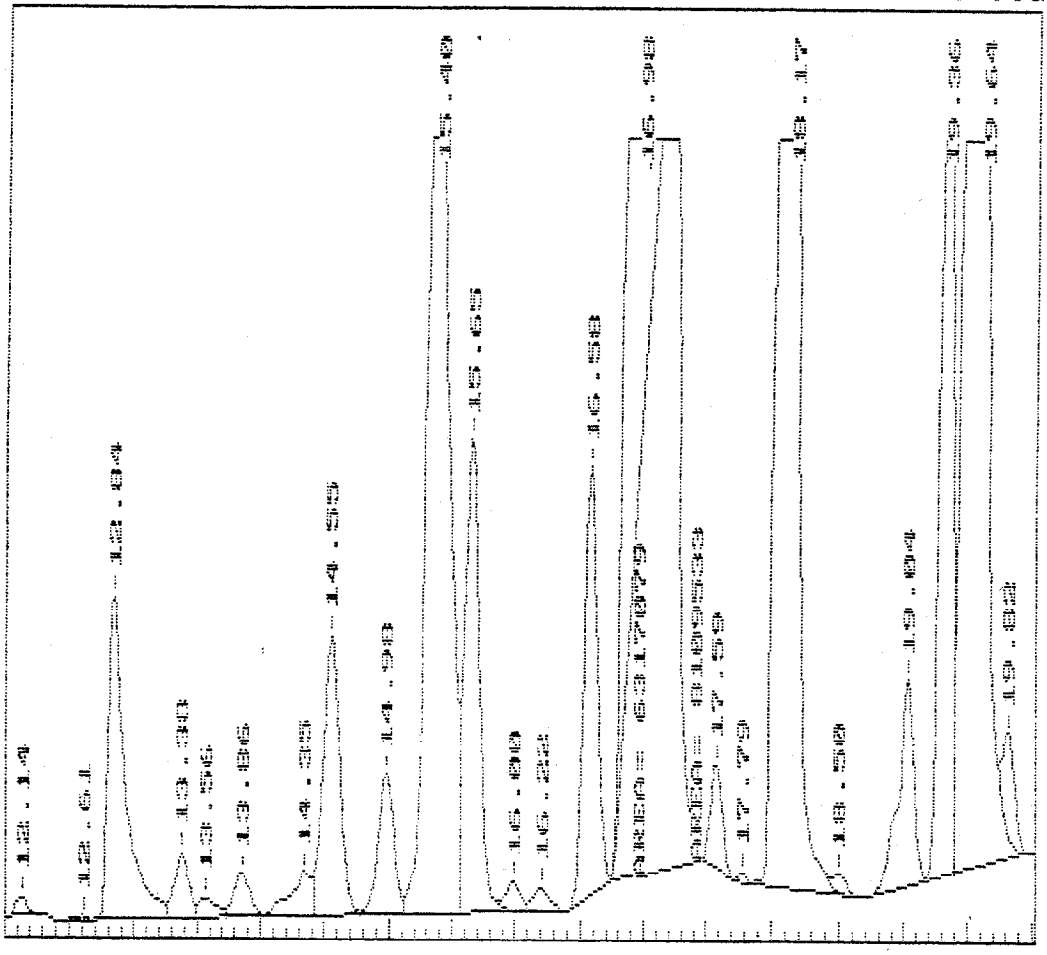
Starting Delay: 0.00 Ending retention time: 32.00
Area reject: 0 One sample per 1.002 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.00000

PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in PPB	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
9	3.574	TCX	32.3073	1.2616%	454920	86388	5.3	1	0	0	7.1018E-05
14	5.778	alpha-BHC	0.8496	0.0332%	16993	3116	5.5	2	0	-.2038	4.9995E-05
	7.365	gamma-BHC	1.5276	0.0597%	29505	4188	7.0	1	0	0	5.1776E-05
	7.932	beta-BHC	5.7883	0.2260%	43951	5776	7.6	2	0	0	1.3170E-04
22	9.536	delta-BHC	4.3033	0.1680%	63168	8214	7.7	2	0	.1649	6.8125E-05
26	10.504	Aldrin	4.2079	0.1643%	71496	6951	10.3	2	0	.1363	5.8855E-05
34	13.377	Heptachlor Epoxide	20.9988	0.8200%	338942	41912	8.1	2	0	0	6.1954E-05
38	14.546	gamma-Chlordane	95.9519	3.7469%	1653252	180775	9.1	2	0	0	5.8038E-05
40	15.397	Endosulfan I	417.5020	16.3035%	6923853	500779	13.8	2	0	.3087	6.0299E-05
41	15.648	alpha-Chlordane	148.4894	5.7985%	2470122	305356	8.1	3	0	0	6.0114E-05
45	16.984	Dieldrin	380.478 ~~228.9641~~	8.9411%	3801492	163448	23.3	1	0	.3776	6.0230E-05
51	19.355	Endosulfan II	281.4867	10.9921%	3686069	474226	7.8	2	0	.4426	7.6365E-05
52	19.639	DDD	631.3313	24.6536%	7318393	467523	15.7	3	0	.3536	8.6266E-05
55	20.691	DDT	504.6164	19.7054%	6474732	475928	13.6	3	0	.1030	7.7936E-05
57	21.142	Endosulfan sulfate	7.1312	0.2785%	89582	15471	5.8	4	0	.2475	7.9605E-05
67	23.430	Endrin Ketone	36.8321	1.4383%	574140	85797	6.7	2	0	.4290	6.4152E-05
68	23.697	Methoxychlor	113.8345	4.4453%	535819	69758	7.7	2	0	.3697	2.1245E-04
85	27.522	DCB	24.6840	0.9639%	373766	65244	5.7	2	0	0	6.6041E-05
		DDE	561.291								
		TOTAL AMOUNT =	2560.8064								

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
Heptachlor	9.02	TCX
DDE ✓	17.17	TCX
Endrin	18.37	TCX
Endrin aldehyde	20.52	TCX

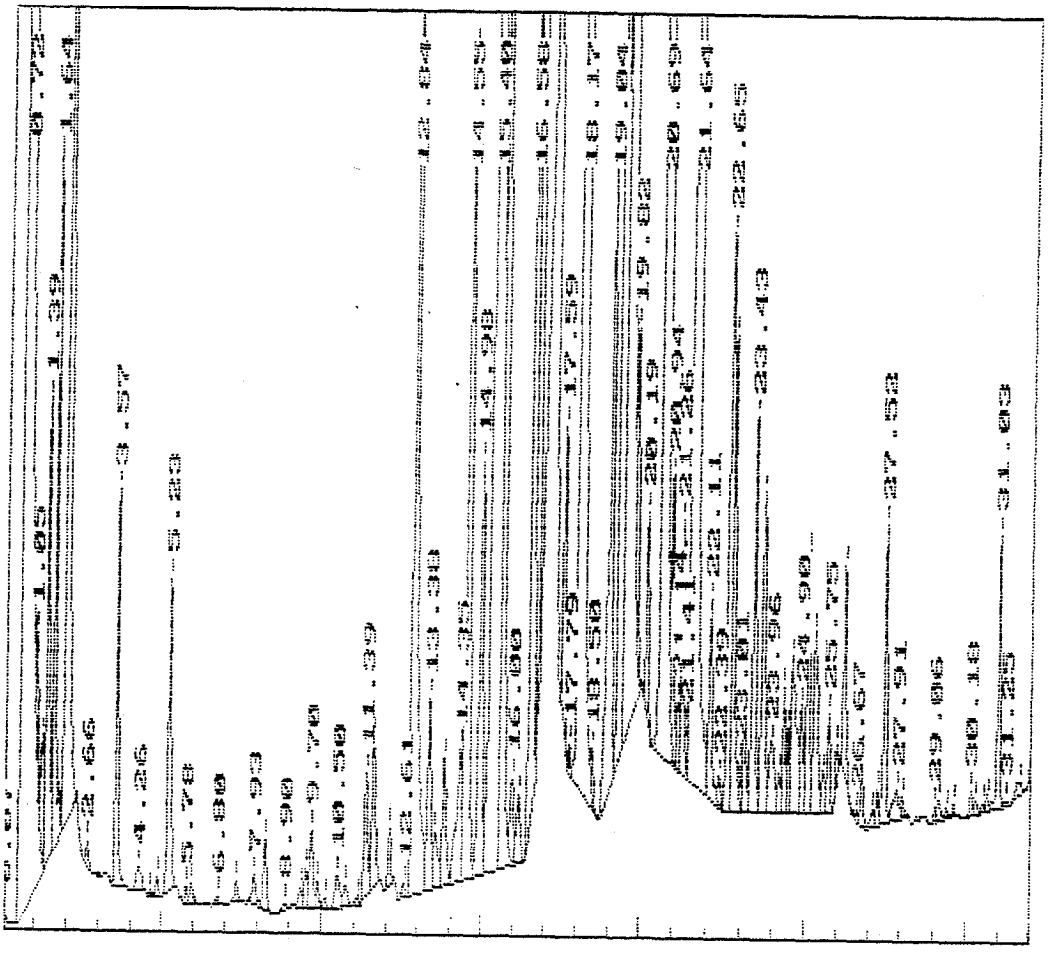
START TIME= 16.750 START HEIGHT= 56312
STOP TIME: 17.017 STOP HEIGHT: 59366
AREA = 6317079
START TIME= 17.017 START HEIGHT= 59366
STOP TIME: 17.468 STOP HEIGHT: 69723
AREA = 8109533
Plot of data file: E:\TD25-12.PTS
Date: 04-29-1996 Time: 14:58:49
Sample Name: 96D042-02
Start Time: 11.99 Stop Time: 20.02 Min. Scale: 21463 Max. Scale: 621463



Dieldrin: $\frac{6317079}{16603} = 380.478$

DDE: $\frac{8109533}{14448} = 561.291$

Areas, times, and heights stored in: E:\TD25-12.ATB
Data File = E:\TD25-12.PTS Printed on 04-25-1996 at 19:03:29
Start time: 0.00 min. Stop time: 32.00 min. Offset: 0 cts
Full Range: 200 K-Counts



EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	04/18/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	04/25/96
BATCH NO.:	96D042	DATE EXTRACTED:	04/25/96
SAMPLE ID:	CLJ100-FS-023DIL	DATE ANALYZED:	04/26/96
CONTROL NO.:	D042-02T	MATRIX:	SOIL
% MOISTURE:	7.8	DILUTION FACTOR:	100

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	184
alpha-BHC	ND	184
beta-BHC	ND	184
delta-BHC	ND	184
gamma-BHC (Lindane)	ND	184
alpha-Chlordane	ND	184
gamma-Chlordane	ND	184
4,4'-DDD	4400	358
4,4'-DDE	2900	358
4,4'-DDT	3000	358
Dieldrin	650	358
Endosulfan I	ND	184
Endosulfan II	ND	358
Endosulfan Sulfate	ND	358
Endrin	ND	358
Endrin aldehyde	ND	358
Heptachlor	ND	184
Heptachlor Epoxide	ND	184
Methoxychlor	ND	1840
Toxaphene	ND	18400

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	DO	20-150
Decachlorobiphenyl	DO	20-150

RL: Reporting Limit
DO: Diluted Out

CKY INC., ANALYTICAL LABORATORIES, 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-8889 Fax: (310) 618-0818

***** EXTERNAL STANDARD TABLE *****

********** 04-26-1996 16:06:57 Version 5.2.0 **********
* Sample Name: 96D042-02T 100X Data File: E:\TD25-26 *
* Date: 04-26-1996 15:33:30 Method: QEST4B 04-26-1996 10:56:01 Version: 7 *
* Interface: 7 Cycle#: 26 Operator: RZ Channel: B Vial#: N.A. *
* Starting Peak Width: 15 Threshold: 15 Area Threshold: 1500 *
****

Starting Delay: 0.00 Ending retention time: 32.00
Area reject: 0 One sample per 1.002 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.00000

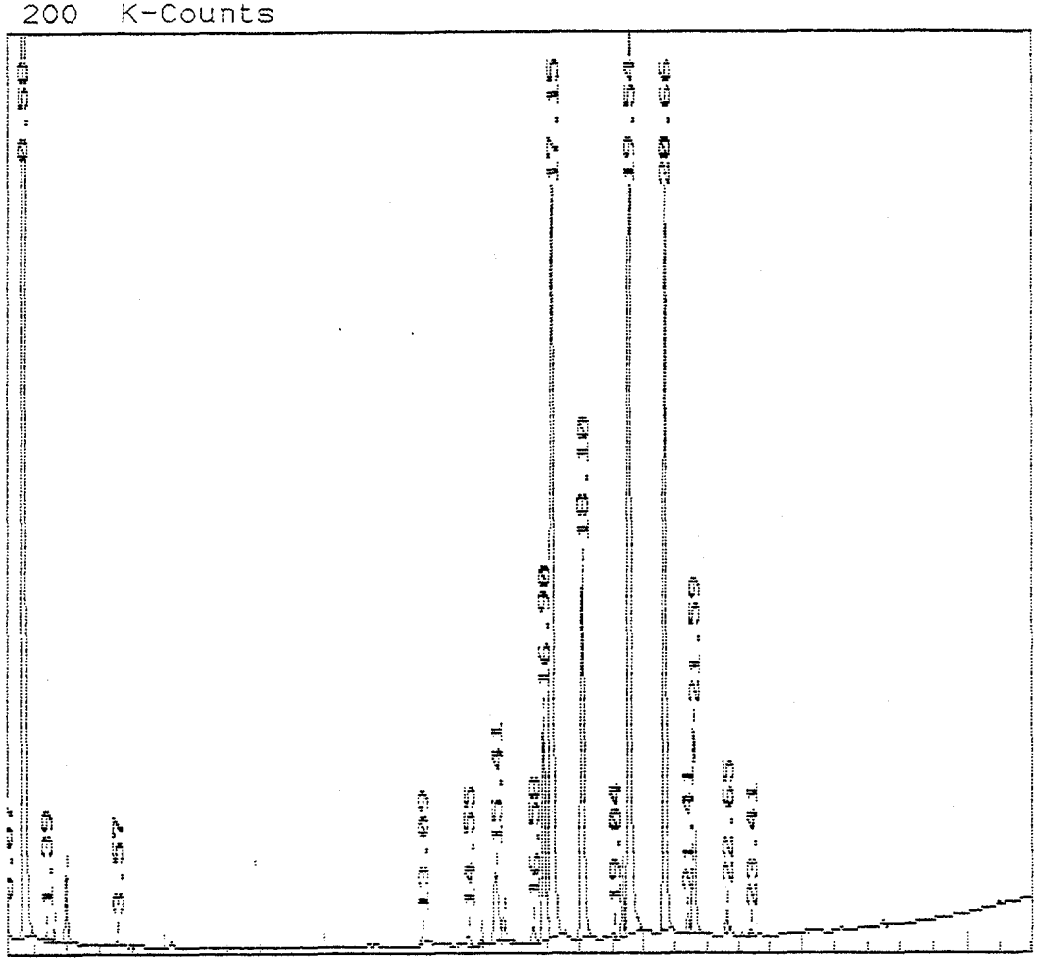
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in PPB	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
6	3.574	TCX	0.4144	0.1176%	5835	1217	4.8	1	0	0	7.1018E-05
	14.546	gamma-Chlordane	1.0605	0.3011%	18273	2238	8.2	1	0	0	5.8038E-05
	15.414	Endosulfan I	9.5909	2.7228%	159056	15423	10.3	2	0	.4175	6.0299E-05
13	16.900	Dieldrin	20.3901	5.7887%	338537	49234	6.9	2	0	-.1158	6.0230E-05
14	17.151	DDE	97.8323 v	27.7744%	1413482	188112	7.5	2	0	-.1112	6.9214E-05
17	19.322	Endosulfan II	6.0683	1.7228%	79464	13494	5.9	2	0	.2693	7.6365E-05
18	19.539	DDD	139.1306	39.4989%	1612801	238655	6.8	2	0	-.1584	8.6266E-05
19	20.658	DDT	77.3402	21.9567%	992353	163294	6.1	1	0	0	7.7936E-05
23	23.413	Endrin Ketone	0.4121	0.1170%	6424	1202	5.3	1	0	.3574	6.4152E-05

TOTAL AMOUNT = 352.2394

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
alpha-BHC	5.79	TCX
gamma-BHC	7.36	TCX
beta-BHC	7.93	TCX
Heptachlor	9.02	TCX
delta-BHC	9.52	TCX
Aldrin	10.49	TCX
Heptachlor Epoxide	13.39	TCX
alpha-Chlordane	15.48	TCX
Endrin	18.37	TCX
Endrin aldehyde	20.52	TCX
Endosulfan sulfate	21.09	TCX
Methoxychlor	23.61	TCX
DCB	27.52	TCX

Areas, times, and heights stored in: E:\TD25-26.ATB
Data File = E:\TD25-26.PTS Printed on 04-26-1996 at 16:07:02
Start time: 0.00 min. Stop time: 32.00 min. Offset: 0 cts
Full Range: 200 K-Counts



EPA METHOD 8080
PESTICIDES

LIENT:	OHM	DATE COLLECTED:	04/18/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	04/25/96
BATCH NO.:	96D042	DATE EXTRACTED:	04/25/96
SAMPLE ID:	CLJ100-FS-033	DATE ANALYZED:	04/25/96
CONTROL NO.:	D042-03	MATRIX:	SOIL
% MOISTURE:	5.0	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	1.79
alpha-BHC	ND	1.79
beta-BHC	ND	1.79
delta-BHC	ND	1.79
gamma-BHC (Lindane)	ND	1.79
alpha-Chlordane	66	1.79
gamma-Chlordane	54	1.79
4,4'-DDD	93	3.47
4,4'-DDE	65	3.47
4,4'-DDT	83	3.47
Dieldrin	65	3.47
Endosulfan I	ND	1.79
Endosulfan II	ND	3.47
Endosulfan Sulfate	ND	3.47
Endrin	ND	3.47
Endrin aldehyde	ND	3.47
Heptachlor	ND	1.79
Heptachlor Epoxide	ND	1.79
Methoxychlor	ND	17.9
Toxaphene	ND	179

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	65	20-150
Decachlorobiphenyl	53	20-150

RL: Reporting Limit
All results were out of calibration range.

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Areas, times, and heights stored in: E:\TD25-12.ATB

EXTERNAL STANDARD TABLE

********** 04-26-1996 11:02:26 Version 5.2.0 **********
* Sample Name: 96D042-03 Data File: E:\TD25-13 *
* Date: 04-25-1996 19:07:09 Method: B:\QEST4B 04-26-1996 10:56:19 Version: 8 *
* Interface: 7 Cycle#: 13 Operator: RZ Channel: B Vial#: N.A. *
* Starting Peak Width: 15 Threshold: 15 Area Threshold: 1500 *
****

Starting Delay: 0.00 Ending retention time: 32.00
Area reject: 0 One sample per 1.002 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.00000

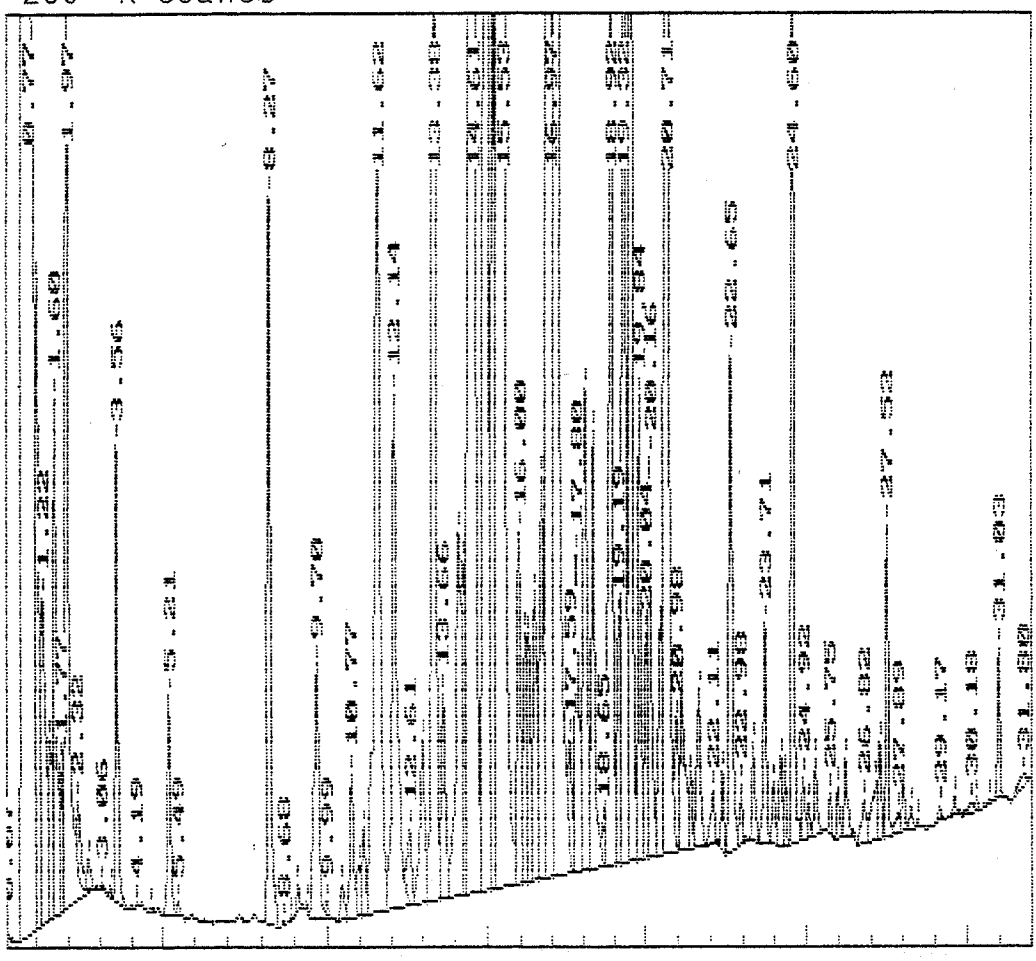
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in PPB	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
13	3.557	TCX	36.1982	1.1970%	509707	98475	5.2	1	0	-.4728	7.1018E-05
	9.101	Heptachlor	2.0823	0.0689%	34894	5637	6.2	1	0	.9035	5.9677E-05
	10.454	Aldrin	3.8880	0.1286%	66061	7762	8.5	2	0	-.3412	5.8855E-05
33	13.377	Heptachlor Epoxide	142.2245	4.7033%	2295645	281061	8.2	2	0	0	6.1954E-05
37	14.613	gamma-Chlordane	433.4978 ✓	14.3355%	7469167	503478	14.8	2	0	.3605	5.8038E-05
40	15.531	alpha-Chlordane	496.2409 ✓	16.4103%	8254967	502234	16.4	2	0	.3294	6.0114E-05
46	16.967	Dieldrin	374.5025 ✓	12.3845%	6217865	500221	12.4	2	0	.2789	6.0230E-05
47	17.201	DDE	446.1787 ✓	14.7548%	6446390	499459	12.9	3	0	.1805	6.9214E-05
51	18.353	Endrin	65.5859 ✓	2.1689%	817069	94539	8.6	3	0	0	8.0270E-05
55	19.322	Endosulfan II	211.9879	7.0103%	2775981	398325	7.0	2	0	.2693	7.6365E-05
56	19.556	DDD	264.7494 ✓	8.7551%	3068975	467710	6.6	2	0	0	8.6266E-05
60	20.508	Endrin aldehyde	36.7514	1.2153%	403678	53983	7.5	2	0	0	9.1042E-05
61	20.708	DDT	380.7231 ✓	12.5902%	4885058	494367	9.9	3	0	.1838	7.7936E-05
63	21.142	Endosulfan sulfate	30.5048	1.0088%	383201	36355	10.5	4	0	.2475	7.9605E-05
70	23.347	Endrin Ketone	9.4446	0.3123%	147223	21513	6.8	2	0	.0711	6.4152E-05
71	23.714	Methoxychlor	65.1068	2.1530%	306458	47199	6.5	2	0	.4404	2.1245E-04
85	27.522	DCB	24.2877	0.8032%	367764	67384	5.5	3	0	0	6.6041E-05

TOTAL AMOUNT = 3023.9546

PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
alpha-BHC	5.79	TCX
gamma-BHC	7.36	TCX
beta-BHC	7.93	TCX
delta-BHC	9.52	TCX
Endosulfan I	15.35	TCX

Areas, times, and heights stored in: E:\TD25-13.ATB
Data File = E:\TD25-13.PTS Printed on 04-25-1996 at 19:40:43
Start time: 0.00 min. Stop time: 32.00 min. Offset: 0 cts
Full Range: 200 K-Counts



EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	04/18/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	04/25/96
BATCH NO.:	96D042	DATE EXTRACTED:	04/25/96
SAMPLE ID:	CLJ100-FS-033DIL	DATE ANALYZED:	04/26/96
CONTROL NO.:	D042-03T	MATRIX:	SOIL
% MOISTURE:	5.0	DILUTION FACTOR:	10

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17.9
alpha-BHC	ND	17.9
beta-BHC	ND	17.9
delta-BHC	ND	17.9
gamma-BHC (Lindane)	ND	17.9
alpha-Chlordane	260	17.9
gamma-Chlordane	250	17.9
4,4'-DDD	110	34.7
4,4'-DDE	280	34.7
4,4'-DDT	320	34.7
Dieldrin	300	34.7
Endosulfan I	ND	17.9
Endosulfan II	ND	34.7
Endosulfan Sulfate	ND	34.7
ndrin	ND	34.7
ndrin aldehyde	ND	34.7
Heptachlor	ND	17.9
Heptachlor Epoxide	ND	17.9
Methoxychlor	ND	179
Toxaphene	ND	1790

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	128	20-150
Decachlorobiphenyl	79	20-150

RL: Reporting Limit

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***** EXTERNAL STANDARD TABLE *****

********** 04-26-1996 15:31:18 Version 5.2.0 **********
* Sample Name: 96D042-03T 10X Data File: E:\TD25-25 *
* Date: 04-26-1996 14:57:47 Method: QEST4B 04-26-1996 10:56:01 Version: 7 *
* Interface: 7 Cycle#: 25 Operator: RZ Channel: B Vial#: N.A. *
* Starting Peak Width: 15 Threshold: 15 Area Threshold: 1500 *
****

Starting Delay: 0.00 Ending retention time: 32.00
Area reject: 0 One sample per 1.002 sec.
Amount injected: 1.00 Dilution factor: 1.00
Sample Weight: 1.00000

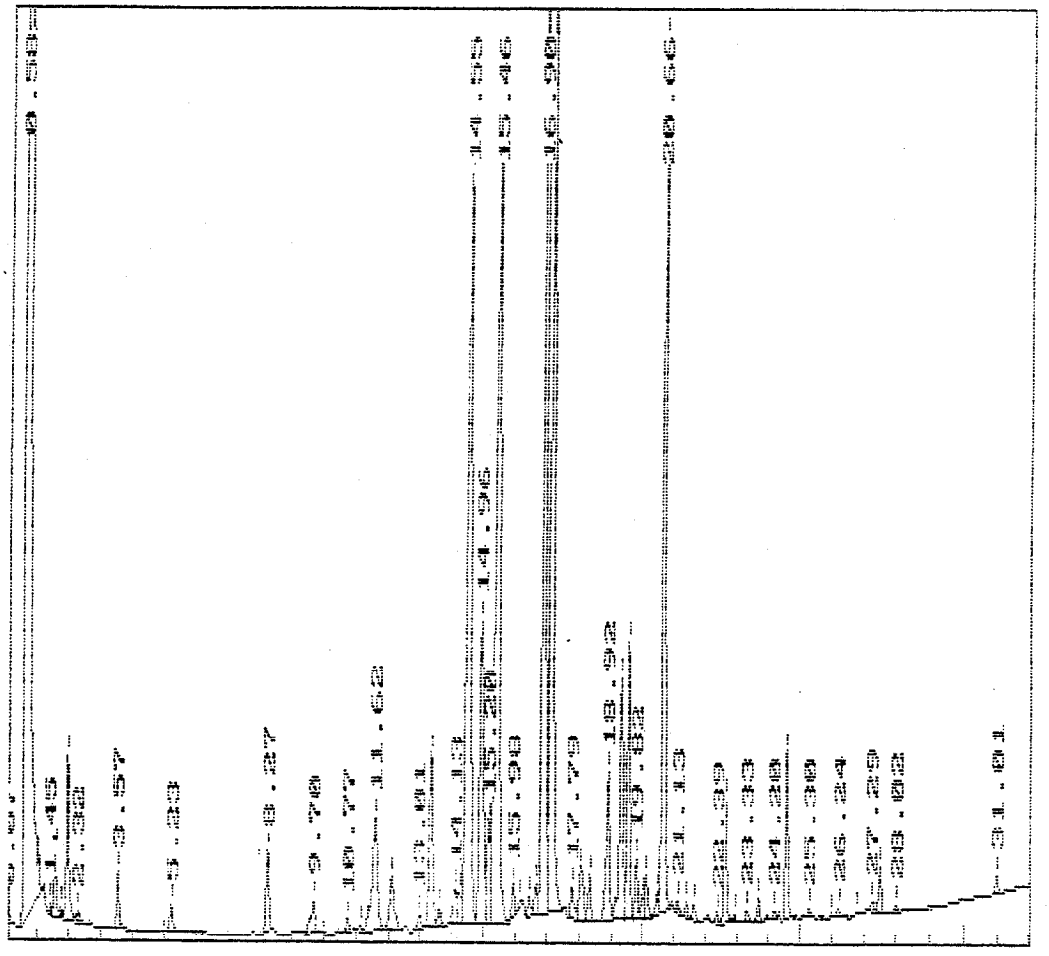
PEAK NUM	RET TIME	PEAK NAME	CONCENTRATION in PPB	NORMALIZED CONC	AREA	HEIGHT	AREA/ HEIGHT	BL	REF PEAK	% DELTA RET TIME	CONC/AREA
8	3.574	TCX	4.2916	0.7156%	60430	11892	5.1	1	0	0	7.1018E-05
	13.377	Heptachlor Epoxide	18.6330	3.1069%	300755	38017	7.9	2	0	0	6.1954E-05
	14.546	gamma-Chlordane	87.3148	14.5590%	1504434	160912	9.3	2	0	0	5.8038E-05
24	15.464	alpha-Chlordane	101.8676	16.9856%	1694568	176714	9.6	2	0	-.1020	6.0114E-05
29	16.900	Dieldrin	109.4962	18.2576%	1817966	251242	7.2	2	0	-.1158	6.0230E-05
30	17.151	DDE	105.6467	17.6158%	1526384	202103	7.6	2	0	-.1112	6.9214E-05
33	18.337	Endrin	5.0944	0.8494%	63466	9405	6.7	2	0	-.1818	8.0270E-05
35	19.322	Endosulfan II	29.6123	4.9376%	387774	52540	7.4	2	0	.2693	7.6365E-05
36	19.556	DDD	34.0178	5.6722%	394334	59809	6.6	2	0	0	8.6266E-05
40	20.491	Endrin aldehyde	2.8201	0.4702%	30976	4754	6.5	2	0	-.1418	9.1042E-05
41	20.658	DDT	89.0518	14.8487%	1142624	187477	6.1	2	0	0	7.7936E-05
42	21.125	Endosulfan sulfate	1.1161	0.1861%	14021	2251	6.2	1	0	.1683	7.9605E-05
48	23.330	Endrin Ketone	1.0969	0.1829%	17099	2363	7.2	1	0	0	6.4152E-05
49	23.697	Methoxychlor	6.1335	1.0227%	28871	4881	5.9	1	0	.3697	2.1245E-04
57	27.522	DCB	3.5357	0.5896%	53538	9871	5.4	1	0	0	6.6041E-05

TOTAL AMOUNT = 599.7287

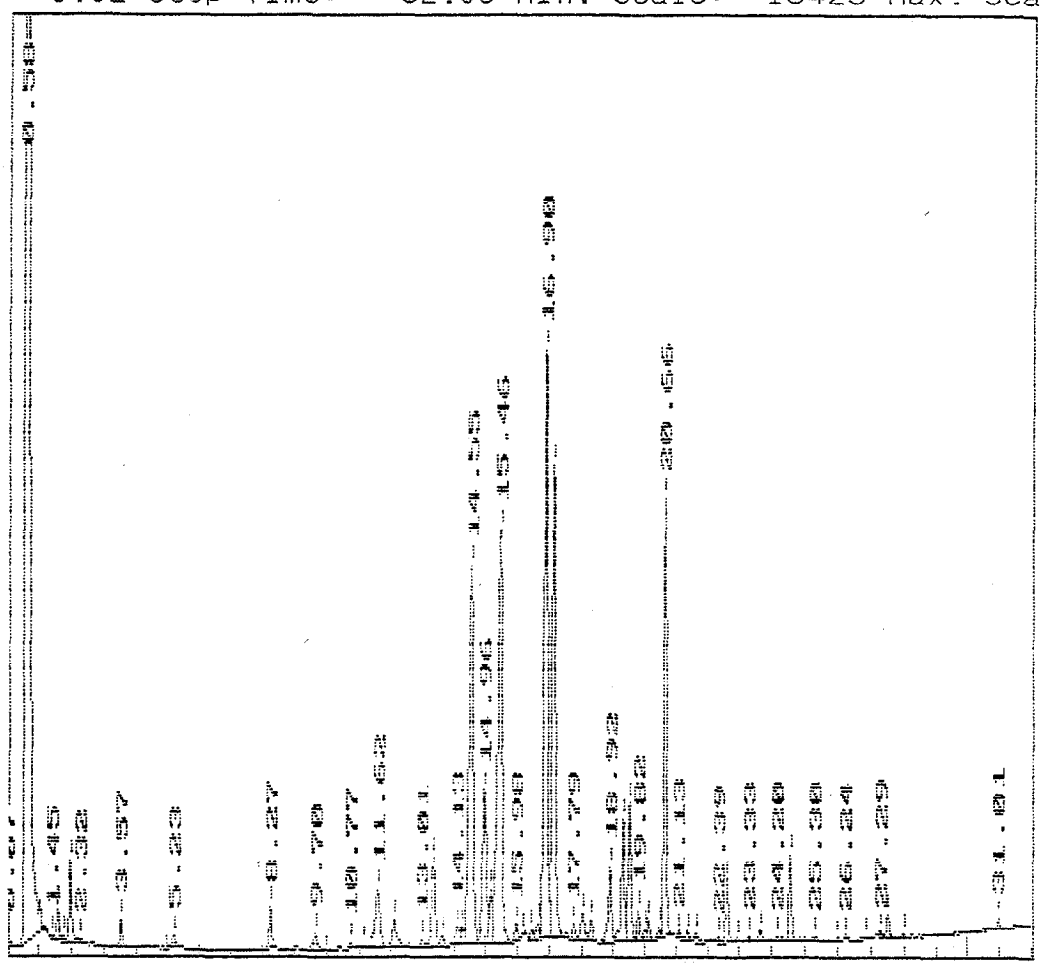
PEAKS NOT FOUND IN THIS RUN

NAME	ADJUSTED RET.TIME.	REFERENCE PEAK
alpha-BHC	5.79	TCX
gamma-BHC	7.36	TCX
beta-BHC	7.93	TCX
Heptachlor	9.02	TCX
delta-BHC	9.52	TCX
Aldrin	10.49	TCX
Endosulfan I	15.05	TCX

Areas, times, and heights stored in: E:\TD25-25.ATB
Data File = E:\TD25-25.PTS Printed on 04-26-1996 at 15:31:22
Start time: 0.00 min. Stop time: 32.00 min. Offset: 0 cts
Full Range: 200 K-Counts



Plot of data file: E:\TD25-25.PTS
Date: 04-26-1996 Time: 15:37:07
Sample Name: 96D042-03T 10X
Start Time: 0.02 Stop Time: 32.06 Min. Scale: 18425 Max. Scale: 418425



EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	NA
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	NA
BATCH NO.:	96D042	DATE EXTRACTED:	04/25/96
SAMPLE ID:	MBLK1S	DATE ANALYZED:	04/25/96
CONTROL NO.:	CPD013SB	MATRIX:	SOIL
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	1.7
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
delta-BHC	ND	1.7
gamma-BHC (Lindane)	ND	1.7
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
4,4'-DDD	ND	3.3
4,4'-DDE	ND	3.3
4,4'-DDT	ND	3.3
Dieldrin	ND	3.3
Endosulfan I	ND	1.7
Endosulfan II	ND	3.3
Endosulfan Sulfate	ND	3.3
Endrin	ND	3.3
Endrin aldehyde	ND	3.3
Heptachlor	ND	1.7
Heptachlor Epoxide	ND	1.7
Methoxychlor	ND	17
Toxaphene	ND	170

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	110	20-150
Decachlorobiphenyl	79	20-150

RL: Reporting Limit

7

CKY QUALITY CONTROL DATA
MS/MSD ANALYSIS

CLIENT: OHM
P[illegible]: 18319/CAMP LEJEUNE
M[illegible]: EPA 8080
MATRIX: SOIL
% MOISTURE: 5.1

BATCH NO.: 96D042
SAMPLE ID: 28-006-EX-1725
CONTROL NO.: D041-01

DATE RECEIVED: NA
DATE EXTRACTED: 04/25/96
DATE ANALYZED: 04/25/96

ACCESSION: 96D041 96D042

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	11.00	4.70	43	11.00	4.66	42	1	20-170	50
alpha-Chlordane	ND	11.00	8.40	76	11.00	7.64	70	9	20-170	50
gamma-Chlordane	ND	11.00	10.90	99	11.00	10.20	93	7	20-170	50
4,4'-DDD	ND	35.10	20.10	57	35.10	19.00	54	6	20-170	50
4,4'-DDT	ND	35.10	30.90	88	35.10	30.10	86	2	20-170	50
Dieldrin	ND	35.10	19.50	56	35.10	18.50	53	6	20-170	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT %
Tetrachloro-m-xylene	42.60	28.00	66	42.60	27.60	65	28-137
Decachlorobiphenyl	71.10	48.80	69	71.10	48.00	68	51-153

CKY INC., ANALYTICAL LABORATORIES. 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-8889 Fax: (310) 618-0818

CKY QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLIENT: OHM
PROJECT: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96D042
SAMPLE ID: LCS1S/LCS1SD
CONTROL NO.: CPD013SL/C

DATE RECEIVED: NA
DATE EXTRACTED: 04/25/96
DATE ANALYZED: 04/25/96

ACCESSION: 96D041 96D042

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	10.40	6.01	58	10.40	5.81	56	3	47-116	75
alpha-Chlordane	ND	10.40	11.10	107	10.40	10.90	104	3	45-119	75
gamma-Chlordane	ND	10.40	10.40	100	10.40	10.30	99	1	45-119	75
4,4'-DDD	ND	33.30	26.90	81	33.30	27.50	83	2	48-136	75
4,4'-DDT	ND	33.30	37.10	111	33.30	38.70	116	4	34-143	75
Dieldrin	ND	33.30	24.60	74	33.30	24.50	73	1	42-132	75

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT %
Tetrachloro-m-xylene	40.40	35.60	88	40.40	34.20	84	28-137
Decachlorobiphenyl	67.50	69.70	103	67.50	70.90	105	51-153

CKY INC., ANALYTICAL LABORATORIES, 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-8889 Fax: (310) 618-0818

DDT/Endrin Breakdown

Instrument ID: GC-2

Date: 04/25/96

	File: SD25-5	File: TD25-5
	Column: RTX-5	Column: RTX-35
	%breakdown	%breakdown
DDT	0.6	0
Endrin	2.7	1.2

Date: 04/26/96

	File: SD25-21	File: TD25-21
	Column: RTX-5	Column: RTX-35
	%breakdown	%breakdown
DDT	0.6	0
Endrin	4.3	2.7

	File:	File:
	Column:	Column:
	%breakdown	%breakdown
DDT		
Endrin		

INITIAL CALIBRATION
METHOD 8080

Name : CKY Inc
Instrument ID : GC2
GC Columm : RTX-35
Column size ID: .53MM
LFID & Datime: TD15-3 04-15-96 16:32:20 TD15-4 04-15-96 17:08:01
LFID & Datime: TD15-5 04-15-96 17:43:46 TD15-6 04-15-96 18:19:29
LFID & Datime: TD15-7 04-15-96 18:55:10 TD15-8 04-15-96 19:30:50
LFID & Datime: TD15-9 04-15-96 20:06:33 TD15-10 04-15-96 20:42:17
LFID & Datime: TD15-11 04-15-96 21:18:03 TD15-12 04-15-96 21:53:45
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA/UNIT) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN	%RSD
alpha-BHC	5.0	19379	20433	21085	20750	18363	20002	6
gamma-BHC	5.0	19208	20071	20295	19778	17217	19314	6
beta-BHC	5.0	7381	8053	8009	7767	6754	7593	7
Heptachlor	5.0	17969	17569	17292	16523	14431	16757	8
delta-BHC	5.0	12024	14186	15641	16429	15113	14679	12
Aldrin	5.0	16855	17907	17756	17291	15145	16991	7
Heptachlor Epoxide	5.0	16695	17266	16761	16107	13874	16141	8
gamma-Chlordane	5.0	17650	18322	17818	17262	15100	17230	7
Endosulfan I	5.0	17645	17441	17232	16463	14137	16584	9
alpha-Chlordane	5.0	17416	17881	17212	16420	14244	16635	9
Dieldrin	10.0	18242	17919	17228	16057	13570	16603	11
E	10.0	14110	15228	15232	14773	12899	14448	7
drin	10.0	13433	13436	13021	12092	10307	12458	11
Endosulfan II	10.0	14222	14407	13613	12656	10577	13095	12
DDD	10.0	11727	12103	12135	11766	10229	11592	7
Endrin Aldehyde	10.0	12134	12036	11278	10671	8800	10984	12
DDT	10.0	13660	13559	13337	12666	10933	12831	9
Endosulfan Sulfate	10.0	13652	13860	12985	12171	10144	12562	12
Endrin Ketone	10.0	17939	17619	16015	14462	11904	15588	16
Methoxychlor	50.0	5737	5159	4769	4272	3597	4707	17
TCX	5.0	15328	15493	14625	13512	11445	14081	12
DCB	10.0	18873	17295	15065	13386	11089	15142	20

INITIAL CALIBRATION
METHOD 8080

Lab Name : CKY Inc
Instrument ID : GC2
Columm : RTX-5
Column size ID: .53MM
LFID & Datime: SD15-3 04-15-96 16:32:20 SD15-4 04-15-96 17:08:01
LFID & Datime: SD15-5 04-15-96 17:43:46 SD15-6 04-15-96 18:19:29
LFID & Datime: SD15-7 04-15-96 18:55:10 SD15-8 04-15-96 19:30:50
LFID & Datime: SD15-9 04-15-96 20:06:33 SD15-10 04-15-96 20:42:17
LFID & Datime: SD15-11 04-15-96 21:18:03 SD15-12 04-15-96 21:53:45
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA/UNIT) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN	%RSD
alpha-BHC	5.0	47298	44467	41933	40486	38791	42595	8
gamma-BHC	5.0	44363	41480	38936	36805	37397	39796	8
beta-BHC	5.0	14366	14605	14209	13144	11356	13536	10
Heptachlor	5.0	37148	34811	32495	29674	25258	31877	14
delta-BHC	5.0	31662	32279	31236	30453	27179	30562	7
Aldrin	5.0	41644	41038	37885	34221	29585	36875	14
Heptachlor Epoxide	5.0	36751	35778	32500	28937	23352	31464	17
gamma-Chlordane	5.0	40737	40211	37260	34082	29904	36439	12
Endosulfan I	5.0	39258	36393	33575	29949	24149	32665	18
alpha-Chlordane	5.0	38260	37319	34399	31124	27223	33665	14
Dieldrin	10.0	38576	34319	30754	26795	23180	30725	20
DDE	10.0	33248	32845	30203	27632	26043	29994	11
drin	10.0	23951	22055	19693	16944	14030	19335	20
dosulfan II	10.0	25509	24292	21740	19221	15314	21215	19
DDD	10.0	24636	23597	22854	21079	17988	22031	12
Endrin Aldehyde	10.0	18501	17726	15882	14700	11543	15671	18
DDT	10.0	21088	19865	19404	17692	15762	18762	11
Endosulfan Sulfate	10.0	20434	20011	18342	17063	13829	17936	15
Endrin Ketone	10.0	19313	18130	16161	14432	11450	15897	20
Methoxychlor	50.0	4655	4193	3857	3362	2790	3771	19
TCX	5.0	26067	25829	24490	21989	19233	23522	12
DCB	10.0	13357	13145	12334	11915	10428	12236	10

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 4/15/1996
Date of Cont. Calib: 4/25/1996
File Name: TD25-6/7

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	20002	19.51	2.4
gamma-BHC	20	19314	19.30	3.5
beta-BHC	20	7593	19.73	1.4
Heptachlor	20	16757	17.41	13.0
delta-BHC	20	14679	20.07	0.3
Aldrin	20	16991	19.48	2.6
Heptachlor Epoxide	20	16141	19.13	4.4
gamma-Chlordane	20	17230	19.08	4.6
Endosulfan I	20	16584	19.06	4.7
alpha-Chlordane	20	16635	19.24	3.8
Dieldrin	40	16603	38.15	4.6
DDE	40	14448	39.80	0.5
Endrin	40	12458	42.00	5.0
Endosulfan II	40	13095	41.10	2.7
DDD	40	11592	39.26	1.9
Endrin Aldehyde	40	10984	40.51	1.3
DDT	40	12831	34.79	13.0
Endosulfan Sulfate	40	12562	41.06	2.7
Endrin Ketone	40	15588	37.21	7.0
Methoxychlor	200	4707	174.90	12.5

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-5
Date of Initial Calib: 4/15/1996
Date of Cont. Calib: 4/25/1996
File Name: SD25-6/7

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	42595	19.65	1.7
gamma-BHC	20	39796	19.68	1.6
beta-BHC	20	13536	22.77	13.9
Heptachlor	20	31877	21.61	8.0
delta-BHC	20	30562	22.84	14.2
Aldrin	20	36875	21.28	6.4
Heptachlor Epoxide	20	31464	21.55	7.8
gamma-Chlordane	20	36439	21.28	6.4
Endosulfan I	20	32665	20.33	1.7
alpha-Chlordane	20	33665	20.93	4.6
Dieldrin	40	30725	38.84	2.9
DDE	40	29994	41.07	2.7
Endrin	40	19335	45.68	14.2
Endosulfan II	40	21215	44.47	11.2
DDD	40	22031	40.23	0.6
Endrin Aldehyde	40	15671	45.12	12.8
DDT	40	18762	45.74	14.3
Endosulfan Sulfate	40	17936	45.97	14.9
Endrin Ketone	40	15897	43.49	8.7
Methoxychlor	200	3771	256.44	28.2

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-5
Date of Initial Calib: 4/15/1996
Date of Cont. Calib: 4/25/1996
File Name: SD25-17/18

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	42595	16.53	17.4
gamma-BHC	20	39796	16.71	16.4
beta-BHC	20	13536	18.03	9.8
Heptachlor	20	31877	19.47	2.7
delta-BHC	20	30562	19.91	0.4
Aldrin	20	36875	17.95	10.3 ✓
Heptachlor Epoxide	20	31464	18.62	6.9
gamma-Chlordane	20	36439	18.25	8.8 ✓
Endosulfan I	20	32665	17.51	12.5
alpha-Chlordane	20	33665	18.12	9.4 ✓
Dieldrin	40	30725	33.94	15.1
DDE	40	29994	37.13	7.2 ✓
Endrin	40	19335	41.60	4.0
Endosulfan II	40	21215	40.33	0.8
DDD	40	22031	37.97	5.1 ✓
Endrin Aldehyde	40	15671	41.49	3.7
DDT	40	18762	30.08	24.8 x
Endosulfan Sulfate	40	17936	40.42	1.0
Endrin Ketone	40	15897	40.81	2.0
Methoxychlor	200	3771	173.71	13.1

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 4/15/1996
Date of Cont. Calib: 4/26/1996
File Name: TD25-17/18

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	20002	20.60	3.0
gamma-BHC	20	19314	20.48	2.4
beta-BHC	20	7593	22.15	10.7
Heptachlor	20	16757	21.30	6.5
delta-BHC	20	14679	22.93	14.7
Aldrin	20	16991	20.73	3.6
Heptachlor Epoxide	20	16141	20.87	4.3
gamma-Chlordane	20	17230	20.88	4.4
Endosulfan I	20	16584	20.27	1.4
alpha-Chlordane	20	16635	20.74	3.7
Dieldrin	40	16603	40.43	1.1
DDE	40	14448	43.06	7.6
Endrin	40	12458	46.18	15.5
Endosulfan II	40	13095	44.78	12.0
DDD	40	11592	48.14	20.3
Endrin Aldehyde	40	10984	43.40	8.5
DDT	40	12831	26.47	33.8
Endosulfan Sulfate	40	12562	43.40	8.5
Endrin Ketone	40	15588	37.92	5.2
Methoxychlor	200	4707	185.06	7.5

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-5
Date of Initial Calib: 4/15/1996
Date of Cont. Calib: 4/26/1996
File Name: SD25-22/23

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	42595	18.49	7.5
gamma-BHC	20	39796	18.53	7.4
beta-BHC	20	13536	18.78	6.1
Heptachlor	20	31877	21.05	5.3
delta-BHC	20	30562	20.37	1.9
Aldrin	20	36875	18.09	9.6
Heptachlor Epoxide	20	31464	18.79	6.1
gamma-Chlordane	20	36439	18.33	8.3
Endosulfan I	20	32665	18.83	5.9
alpha-Chlordane	20	33665	18.14	9.3
Dieldrin	40	30725	36.94	7.7
DDE	40	29994	37.51	6.2
Endrin	40	19335	45.01	12.5
Endosulfan II	40	21215	41.76	4.4
DDD	40	22031	39.68	0.8
Endrin Aldehyde	40	15671	42.68	6.7
DDT	40	18762	45.34	13.4
Endosulfan Sulfate	40	17936	42.33	5.8
Endrin Ketone	40	15897	45.41	13.5
Methoxychlor	200	3771	288.68	44.3

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 4/15/1996
Date of Cont. Calib: 4/26/1996
File Name: TD25-22/23

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	20002	21.53	7.7
gamma-BHC	20	19314	21.38	6.9
beta-BHC	20	7593	22.45	12.3
Heptachlor	20	16757	22.24	11.2
delta-BHC	20	14679	23.00	15.0
Aldrin	20	16991	21.44	7.2
Heptachlor Epoxide	20	16141	21.22	6.1
gamma-Chlordane	20	17230	21.19	5.9
Endosulfan I	20	16584	21.26	6.3
alpha-Chlordane	20	16635	21.09	5.4
Dieldrin	40	16603	42.28	5.7
DDE	40	14448	43.85	9.6
Endrin	40	12458	47.21	18.0
Endosulfan II	40	13095	44.89	12.2
DDD	40	11592	45.05	12.6
Endrin Aldehyde	40	10984	44.40	11.0
DDT	40	12831	40.80	2.0
Endosulfan Sulfate	40	12562	43.96	9.9
Endrin Ketone	40	15588	40.03	0.1
Methoxychlor	200	4707	236.70	18.4

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-5
Date of Initial Calib: 4/15/1996
Date of Cont. Calib: 4/26/1996
File Name: SD25-27/28

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	42595	18.72	6.4
gamma-BHC	20	39796	18.84	5.8
beta-BHC	20	13536	19.37	3.2
Heptachlor	20	31877	21.60	8.0
delta-BHC	20	30562	21.01	5.0
Aldrin	20	36875	18.78	6.1 ✓
Heptachlor Epoxide	20	31464	19.46	2.7
gamma-Chlordane	20	36439	18.99	5.1 ✓
Endosulfan I	20	32665	19.57	2.1
alpha-Chlordane	20	33665	18.78	6.1 ✓
Dieldrin	40	30725	38.43	3.9 ✓
DDE	40	29994	38.50	3.7
Endrin	40	19335	47.09	17.7
Endosulfan II	40	21215	43.39	8.5
DDD	40	22031	42.12	5.3 ✓
Endrin Aldehyde	40	15671	44.42	11.0
DDT	40	18762	47.94	19.8 X
Endosulfan Sulfate	40	17936	44.20	10.5
Endrin Ketone	40	15897	47.46	18.6
Methoxychlor	200	3771	301.28	50.6

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 4/15/1996
Date of Cont. Calib: 4/26/1996
File Name: TD25-27/28

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	20002	22.36	11.8
gamma-BHC	20	19314	22.18	10.9
beta-BHC	20	7593	22.61	13.0
Heptachlor	20	16757	23.07	15.4
delta-BHC	20	14679	23.39	17.0
Aldrin	20	16991	21.73	8.6 ✓
Heptachlor Epoxide	20	16141	21.75	8.7
gamma-Chlordane	20	17230	21.57	7.8 ✓
Endosulfan I	20	16584	21.89	9.4
alpha-Chlordane	20	16635	21.48	7.4 ✓
Dieldrin	40	16603	43.36	8.4 ✓
DDE	40	14448	44.59	11.5
Endrin	40	12458	49.03	22.6
Endosulfan II	40	13095	45.59	14.0
DDD	40	11592	46.62	16.6 *
Endrin Aldehyde	40	10984	45.29	13.2
DDT	40	12831	41.69	4.2 ✓
Endosulfan Sulfate	40	12562	44.89	12.2
Endrin Ketone	40	15588	40.65	1.6
Methoxychlor	200	4707	237.94	19.0

RETENTION TIME WINDOW STUDY
FOR PESTICIDES
GC #2 RTX–5

DATE	03/06/96	03/07/96	03/08/96		
ANALYTE	SC06/5	SC06–34/35	SC08–3/4	AVERAGE	3 x S.D.
alpha –BHC	4.84	4.86	4.88	4.86	0.06
gamma–BHC	5.91	5.93	5.95	5.93	0.06
Heptachlor	8.68	8.69	8.72	8.70	0.06
Endosulfan I	13.89	13.89	13.93	13.90	0.07
Dieldrin	15.36	15.38	15.42	15.39	0.09
Endrin	16.42	16.43	16.45	16.43	0.05
DDD	17.7	17.77	17.79	17.75	0.14
DDT	19.31	19.31	19.32	19.31	0.02
Methoxychlor	21.64	21.64	21.66	21.65	0.03
beta–BHC	5.73	5.74	5.76	5.74	0.05
delta–BHC	6.81	6.83	6.85	6.83	0.06
Aldrin	10.15	10.19	10.22	10.19	0.11
Heptachlor epoxide	12.11	12.12	12.17	12.13	0.10
gamma–Chlordane	13.29	13.31	13.36	13.32	0.11
alpha–Chlordane	14.13	14.16	14.20	14.16	0.11
DDE	15.73	15.75	15.78	15.75	0.08
Endosulfan II	16.92	16.93	16.99	16.95	0.11
Endrin aldehyde	17.85	17.87	17.90	17.87	0.08
Endosulfan sulfate	18.87	18.89	18.92	18.89	0.08
ıdrin ketone	20.56	20.57	20.61	20.58	0.08
CX	3.76	3.77	3.79	3.77	0.05
DCB	26.84	26.85	26.87	26.85	0.05

RETENTION TIME WINDOW STUDY
FOR PESTICIDES
GC #2 RTX–35

DATE	03/06/96	03/07/96	03/08/96		
ANALYTE	TC06–16/17	TC06–34/35	TC08–3/4	AVERAGE	3 x S.D.
alpha –BHC	4.79	4.81	4.83	4.81	0.06
gamma–BHC	6.25	6.25	6.26	6.25	0.02
Heptachlor	7.78	7.80	7.82	7.80	0.06
Endosulfan I	13.69	13.71	13.74	13.71	0.08
Dieldrin	15.45	15.46	15.50	15.47	0.08
Endrin	17.05	17.07	17.10	17.07	0.08
DDD	18.45	18.45	18.47	18.46	0.03
DDT	19.61	19.62	19.64	19.62	0.05
Methoxychlor	22.68	22.70	22.71	22.70	0.05
beta–BHC	6.78	6.79	6.81	6.79	0.05
delta–BHC	8.27	8.28	8.30	8.28	0.05
Aldrin	9.15	9.17	9.20	9.17	0.08
Heptachlor epoxide	11.96	11.97	12.01	11.98	0.08
gamma–Chlordane	12.99	13.01	13.04	13.01	0.08
alpha–Chlordane	13.84	13.86	13.89	13.86	0.08
DDE	15.80	15.82	15.85	15.82	0.08
Endosulfan II	18.05	18.07	18.10	18.07	0.08
Endrin aldehyde	19.39	19.41	19.44	19.41	0.08
Endosulfan sulfate	20.06	20.07	20.09	20.07	0.05
[illegible]drin ketone	22.29	22.31	22.33	22.31	0.06
X	2.89	2.90	2.92	2.90	0.05
DCB	26.59	26.60	26.64	26.61	0.08

CKY Analytical Laboratories
Sample Preparation Department

EXTRACTION LOG FOR PESTICIDES/PCBs

CKYT–E01–002

CLIENT: OHM
MATRIX: SOIL
METHOD: 8080
DATE EXTRACTED: 4/26/96
PAGE #
DATE COMPLETED: 4/26/96

LAB SAMPLE ID	SAMPLE AMOUNT (g/ml)	pH	EXTRACT VOLUME (ml)	CLEAN–UP (G/S/A/F)	NOTES
CPD013 SB	–		10		
SL	–				
SC	–				
D041 - 01	30.0				
1M					
1S					
D042 - 01					
02					
03					

CLEAN–UP	CODE
GPC	G
TBA	S
ACID	A
FLORISIL	F

REAGENT	LOT #
Na2SO4	954205 A
CH2CL2	953982
HEXANE	957063

STANDARDS	ID	AMOUNT ADDED (ml)
SPIKE ID MIX A	S10C-01-24-02	0.25
SURROGATE ID	S10C-01-20-01	2.0
SPIKE ID MIX B	S10C-01-25-01	0.25

SDG #	EXTRACT LOCATION

COMMENTS:

PREPARED BY: MD
STD's ADDED BY: MD/ML
CHECKED BY:

Extracts Received By:

SEQUENCE FILE: SD25

	SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	IBLK/10-1-17-2	PEST4A	SD25-	1.0000	1.0000	1.0000	1.0000
2	IBLK/10-1-17-2	PEST4A	SD25-	1.0000	1.0000	1.0000	1.0000
3	DCC1-1660/10-1-122	PCB	SD25-	1.0000	1.0000	1.0000	1.0000
4	HEX	PEST4A	SD25-	1.0000	1.0000	1.0000	1.0000
5	PEM01/10-1-18-1	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
6	DCC1-MIXA/10-1-241	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
7	DCC1-MIXB/10-1-241	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
8	CPD013SB	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
9	CPD013SL	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
10	CPD013SC	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
11	96D042-01	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
12	96D042-02	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
13	96D042-03	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
14	96D041-01	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
15	96D041-01M	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
16	96D041-01S	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
17	DCC2-MIXA/10-1-242	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
18	DCC2-MIXB/10-1-242	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
19	DCC2-1660/10-1-122	PCB	SD25-	1.0000	1.0000	1.0000	1.0000
20	IBLK/10-1-17-2	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
21	PEM02/10-1-18-1	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
22	DCC3-MIXA/10-1-242	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
23	DCC3-MIXB/10-1-242	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
24	96D042-02T 10X	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
25	96D042-03T 10X	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
26	96D042-02T 100X	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
27	DCC4-MIXA/10-1-242	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000
28	DCC4-MIXB/10-1-242	PEST4B	SD25-	1.0000	1.0000	1.0000	1.0000

Field Screening, On-Site

On-Site Analysis, EPA Analytical Method 8080
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Field Data Summary
Camp Lejeune Site 80
Project 18319

QC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166530	CLJ100-FS-001	602-601D,602-601E	4-18-96	<25	<25	<25	31.54	<25	<25
166530	CLJ100-FS-002	603-602D,603-602E	4-18-96	<25	<25	<25	139.26	<25	<25
166530	CLJ100-FS-003	604-603D,604-603E	4-18-96	<25	<25	<25	<25	<25	<25
166530	CLJ100-FS-004	602-601C,602-601D	4-18-96	<25	<25	<25	<25	<25	<25
166530	CLJ100-FS-005	603-602C,603-602D	4-18-96	<25	<25	<25	<25	<25	<25
166530	CLJ100-FS-006	604-603C,604-603D	4-18-96	<25	<25	<25	22.5J	<25	75.00
166530	CLJ100-FS-007	602-601B,602-601C	4-18-96	<25	<25	<25	<25	<25	<25
166530	CLJ100-FS-008	603-602B,603-602C	4-18-96	<25	<25	<25	<25	<25	<25
166530	CLJ100-FS-009	604-603B,604-603C	4-18-96	<25	<25	<25	153.33	<25	<25
166530	CLJ100-FS-010	602-601A,602-601B	4-18-96	<25	<25	<25	<25	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-23-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

QC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166531	CLJ100-FS-011	603-602A,603-602B	4-18-96	<25	<25	<25	20.00	<25	<25
166531	CLJ100-FS-011DP	603-602A,603-602B	4-18-96	<25	<25	<25	22.86J	<25	<25
166531	CLJ100-FS-012	604-603A,604-603B	4-18-96	196.80	64.37	91.95	91.95	<25	<25
166531	CLJ100-FS-013	702-701D,702-701E	4-18-96	<25	<25	<25	<25	<25	<25
166531	CLJ100-FS-014	703-702D,703-702E	4-18-96	<25	<25	<25	<25	<25	<25
166531	CLJ100-FS-015	704-703D,704-703E	4-18-96	<25	<25	<25	15.38J	<25	12.31J
166531	CLJ100-FS-016	702-701C,702-701D	4-18-96	<25	<25	<25	<25	<25	<25
166531	CLJ100-FS-017	703-702C,703-702D	4-18-96	<25	<25	<25	<25	<25	<25
166531	CLJ100-FS-018	704-703C,704-703D	4-18-96	<25	<25	17.92J	73.60	<25	128.00
166531	CLJ100-FS-019	702-701B,702-701C	4-18-96	<25	<25	<25	<25	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: CBighan
Date: 4-23-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

QC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166532	CLJ100-FS-020	703-702B,703-702C	4-18-96	<25	<25	<25	<25	<25	<25
166532	CLJ100-FS-021	704-703B,704-703C	4-18-96	<25	<25	<25	48.00	<25	144.00
166532	CLJ100-FS-022	702-701A,702-701B	4-18-96	<25	<25	<25	<25	<25	<25
166532	CLJ100-FS-023	703-702A,703-702B	4-18-96	<25	224.00	73.60	768.00	3936.00	2048.00
166532	CLJ100-FS-023DP	703-702A,703-702B	4-18-96	<25	<25	<25	128.00	853.33	405.33
166532	CLJ100-FS-024	704-703A,704-703B	4-18-96	<25	<25	<25	246.40	<25	368.00
166532	CLJ100-FS-025	802-801D,802-801E	4-18-96	<25	<25	<25	<25	<25	<25
166532	CLJ100-FS-026	803-802D,803-802E	4-18-96	<25	12.80J	<25	300.80	<25	136.00
166532	CLJ100-FS-027	804-803D,804-803E	4-18-96	<25	18.53J	60.63	1566.32	336.84	710.74
166532	CLJ100-FS-028	802-801C,802-801D	4-18-96	<25	47.20	51.20	132.80	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-23-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

QC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166533	CLJ100-FS-029	803-802C,803-802D	4-18-96	<25	<25	<25	28.08	<25	<25
166533	CLJ100-FS-030	804-803C,804-803D	4-18-96	<25	<25	<25	<25	<25	<25
166533	CLJ100-FS-031	802-801B,802-801C	4-18-96	<25	24.96	22.4J	144.00	<25	<25
166533	CLJ100-FS-032	803-802B,803-802C	4-18-96	<25	13.54J	<25	264.00	<25	<25
166533	CLJ100-FS-032DP	803-802B,803-802C	4-18-96	12.72J	164.80	155.20	1609.60	<25	<25
166533	CLJ100-FS-033	804-803B,804-803C	4-18-96	24.48	137.28	136.96	192.00	<25	75.52
166533	CLJ100-FS-034	802-801A,802-801B	4-18-96	<25	47.36	44.48	654.40	<25	<25
166533	CLJ100-FS-035	803-802A,803-802B	4-18-96	<25	63.52	61.60	267.20	<25	<25
166533	CLJ100-FS-036	804-803A,804-803B	4-18-96	<25	22.40J	28.80	481.60	<25	50.40
166533	CLJ100-FS-037	1004-1003A,1004-1003B	4-18-96	<25	<25	<25	18.72J	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-23-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

QC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166515	CLJ100-FS-038	1003-1002A,1003-1002B	4/19/96	<25	<25	<25	20.52J	<25	<25
166515	CLJ100-FS-039	1002-1001A,1002-1001B	4/19/96	<25	<25	<25	33.60	<25	<25
166515	CLJ100-FS-040	1004-1003B,1004-1003C	4/19/96	<25	<25	<25	<25	<25	<25
166515	CLJ100-FS-041	1003-1002B,1003-1002C	4/19/96	<25	<25	<25	43.56	<25	<25
166515	CLJ100-FS-042	1002-1001B,1002-1001C	4/19/96	<25	74.56	54.56	18.72J	<25	14.83J
166515	CLJ100-FS-043	1004-1003C,1004-1003D	4/19/96	<25	<25	<25	60.64	<25	<25
166515	CLJ100-FS-044	1003-1002C,1003-1002D	4/19/96	<25	<25	<25	<25	<25	<25
166515	CLJ100-FS-044DP	1003-1002C,1003-1002D	4/19/96	<25	<25	<25	63.04	<25	<25
166515	CLJ100-FS-045	1002-1001C,1002-1001D	4/19/96	<25	32.00	25.60	15.36J	<25	119.36
166515	CLJ100-FS-046	1004-1003D,1004-1003E	4/19/96	<25	<25	<25	<25	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bixler
Date: 4-23-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

QC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166516	CLJ100-FS-047	1003-1002D,1003-1002E	4/19/96	<25	<25	15.76J	756.80	<25	<25
166516	CLJ100-FS-048	1002-1001D,1002-1001E	4/19/96	<25	<25	<25	598.40	<25	<25
166516	CLJ100-FS-049	905-904A,905-904B	4/19/96	<25	462.40	393.60	87.20	<25	1235.20
166516	CLJ100-FS-050	904-903A,904-903B	4/19/96	<25	<25	<25	176.00	<25	<25
166516	CLJ100-FS-051	903-902A,903-902B	4/19/96	<25	<25	16.76J	220.27	<25	<25
166516	CLJ100-FS-052	902-901A,902-901B	4/19/96	<25	<25	<25	<25	<25	<25
166516	CLJ100-FS-053	905-904B,905-904C	4/19/96	32.47	637.96	603.52	218.12	<25	1274.28
166516	CLJ100-FS-054	904-903B,904-903C	4/19/96	34.92	747.00	700.20	248.40	<25	1366.20
166516	CLJ100-FS-055	903-902B,903-902C	4/19/96	<25	<25	<25	228.60	<25	<25
166516	CLJ100-FS-056	902-901B,902-901C	4/19/96	<25	<25	<25	171.20	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: _____
Date: 4-23-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

QC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166517	CLJ100-FS-057	905-904C,905-904D	4/19/96	<25	<25	<25	<25	<25	<25
166517	CLJ100-FS-058	904-903C,904-903D	4/19/96	<25	<25	<25	275.87	<25	<25
166517	CLJ100-FS-058DP	903-902C,903-902D	4/19/96	<25	13.06J	15.63J	374.40	<25	<25
166517	CLJ100-FS-059	903-902C,903-902D	4/19/96	<25	30.24	42.66	471.60	<25	<25
166517	CLJ100-FS-060	902-901C,902-901D	4/19/96	25.20	<25	<25	<25	<25	<25
166517	CLJ100-FS-061	905-904D,905-904E	4/19/96	<25	<25	<25	235.20	<25	<25
166517	CLJ100-FS-062	904-903D,904-903E	4/19/96	<25	15.79J	24.96	345.60	<25	<25
166517	CLJ100-FS-063	903-902D,903-902E	4/19/96	<25	<25	16.96J	204.80	<25	<25
166517	CLJ100-FS-064	902-901D,902-901E	4/19/96	<25	<25	<25	50.51	<25	<25
166517	CLJ100-FS-065	905-904E,905-904F	4/19/96	<25	<25	<25	96.00	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst:_____
Date:_____

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166517R	CLJ100-FS-057R	905-904C,905-904D	4/19/96	<25	<25	<25	52.71	<25	<25
166517R	CLJ100-FS-058R	904-903C,904-903D	4/19/96	<25	30.40	41.12	652.80	<25	<25
166517R	LJ100-FS-058RD	903-902C,903-902D	4/19/96	<25	43.52	56.53	913.07	<25	<25
166517R	CLJ100-FS-059R	903-902C,903-902D	4/19/96	<25	33.60	45.94	614.86	<25	<25
166517R	CLJ100-FS-060R	902-901C,902-901D	4/19/96	<25	<25	<25	<25	<25	<25
166517R	CLJ100-FS-061R	905-904D,905-904E	4/19/96	<25	40.16	52.64	673.60	<25	<25
166517R	CLJ100-FS-062R	904-903D,904-903E	4/19/96	<25	48.32	73.60	798.40	<25	<25
166517R	CLJ100-FS-063R	903-902D,903-902E	4/19/96	<25	28.42	48.56	517.65	<25	<25
166517R	CLJ100-FS-064R	902-901D,902-901E	4/19/96	<25	48.32	53.28	456.00	<25	<25
166517R	CLJ100-FS-065R	905-904E,905-904F	4/19/96	<25	<25	14.22J	321.60	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-26-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166518R	CLJ100-FS-066R	904-903E,904-903F	4/19/96	<25	21.28J	40.48	547.20	<25	<25
166518R	CLJ100-FS-067R	903-902E,903-902F	4/19/96	<25	<25	19.84J	369.60	<25	<25
166518R	CLJ100-FS-068R	902-901E,902-901F	4/19/96	<25	47.47	44.53	730.67	<25	<25
166518R	CLJ100-FS-069R	905-904F,905-904G	4/19/96	<25	50.40	59.36	848.00	<25	42.24
166518R	CLJ100-FS-070R	904-903F,904-903G	4/19/96	<25	18.08J	41.76	881.60	<25	<25
166518R	CLJ100-FS-071R	903-902F,903-902G	4/19/96	<25	40.48	44.48	740.80	<25	<25
166518R	CLJ100-FS-072R	902-901F,902-901G	4/19/96	<25	<25	<25	24.96	<25	<25
166518R	CLJ100-FS-073R	504-503A,504-503B	4/19/96	<25	<25	<25	<25	<25	<25
166518R	CLJ100-FS-074R	503-502A,503-502B	4/19/96	<25	17.92J	42.56	3075.20	<25	148.48
166518R	CLJ100-FS-075R	502-501A,502-501B	4/19/96	<25	24.71	23.82	583.11	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-26-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

QC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166519	CLJ100-FS-076	504-503B,504-503C	4/19/96	<25	<25	<25	33.12	<25	<25
166519	CLJ100-FS-077	503-502B,503-502C	4/19/96	<25	<25	<25	138.06	<25	<25
166519	CLJ100-FS-078	502-501B,502-501C	4/19/96	<25	<25	<25	408.60	<25	<25
166519	CLJ100-FS-079	504-503C,504-503D	4/19/96	<25	<25	<25	135.68	<25	<25
166519	CLJ100-FS-080	503-502C,503-502D	4/19/96	<25	<25	<25	<25	<25	<25
166519	CLJ100-FS-080DP	503-502C,503-502D	4/19/96	<25	<25	<25	<25	<25	<25
166519	CLJ100-FS-081	502-501C,502-501D	4/19/96	<25	<25	<25	41.60	<25	<25
166519	CLJ100-FS-082	504-503D,504-503E	4/19/96	<25	<25	<25	15.07J	<25	<25
166519	CLJ100-FS-083	503-502D,503-502E	4/19/96	<25	<25	<25	33.28	<25	<25
166519	CLJ100-FS-084	502-501D,502-501E	4/19/96	<25	<25	<25	16.30J	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bishop
Date: 4-23-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

OC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166520	CLJ100-FS-087	403-402A,403-402B	4/19/96	<25	<25	<25	<25	<25	<25
166520	CLJ100-FS-088	402-401A,402-401B	4/19/96	<25	<25	<25	<25	<25	<25
166520	CLJ100-FS-089	405-404B,405-404C	4/19/96	<25	<25	<25	33.01	<25	<25
166520	CLJ100-FS-090	404-403B,404-403C	4/19/96	<25	<25	<25	<25	<25	<25
166520	CLJ100-FS-091	403-402B,403-402C	4/19/96	<25	<25	<25	18.19	<25	<25
166520	CLJ100-FS-093	405-404C,405-404D	4/19/96	32.16	16.80J	13J	848.00	<25	<25
166520	CLJ100-FS-094	404-403C,404-403D	4/19/96	193.92	119.47	92.59	565.33	565.33	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bighan
Date: 4-23-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

OC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166521	CLJ100-FS-095	403-402C,403-402D	4/19/96	<25	<25	<25	102.40	<25	<25
166521	CLJ100-FS-097	405-404D,405-404E	4/19/96	<25	<25	<25	242.00	<25	<25
166521	CLJ100-FS-098	404-403D,404-403E	4/19/96	<25	<25	<25	95.42	<25	<25
166521	CLJ100-FS-098DP	404-403D,404-403E	4/19/96	58.18	<25	<25	250.18	<25	<25
166521	CLJ100-FS-099	403-402D,403-402E	4/19/96	<25	<25	<25	151.20	<25	<25
166521	CLJ100-FS-101	405-404E,405-404F	4/19/96	<25	34.13	42.84	1456.00	<25	159.64
166521	CLJ100-FS-102	404-403E,404-403F	4/19/96	<25	<25	<25	21.63J	<25	<25
166521	CLJ100-FS-103	403-402D,403-402F	4/19/96	<25	<25	<25	244.18	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-23-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

QC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166522	CLJ100-FS-104	402-401E,402-401F	4/19/96	<25	<25	<25	21.12J	<25	<25
166522	CLJ100-FS-105	405-404F,405-404G	4/19/96	<25	<25	<25	38.24	<25	13.90J
166522	CLJ100-FS-106	404-403F,404-403G	4/19/96	<25	<25	<25	228.80	<25	<25
166522	CLJ100-FS-107	403-402F,403-402G	4/19/96	<25	<25	<25	50.88	<25	<25
166522	CLJ100-FS-108	402-401F,402-401G	4/19/96	<25	<25	<25	195.20	<25	<25
166522	CLJ100-FS-109	304-303A,304-303B	4/19/96	<25	<25	<25	64.96	<25	<25
166522	CLJ100-FS-110	303-302A,303-302B	4/19/96	<25	<25	<25	14.80J	<25	<25
166522	CLJ100-FS-111	302-301A,302-301B	4/19/96	<25	12.98J	35.04	214.40	<25	47.36
166522	CLJ100-FS-112	304-303B,304-303C	4/19/96	<25	69.44	99.68	619.20	796.80	432.00
166522	CLJ100-FS-113	303-302B,303-302C	4/19/96	<25	115.84	192.00	1976.00	<25	161.60

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-24-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

OC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166523	CLJ100-FS-114	302-301B,302-301C	4/19/96	<25	52.48	98.88	568.00	<25	52.64
166523	CLJ100-FS-115	304-303C,304-303D	4/19/96	<25	51.36	86.24	545.60	1878.40J	272.00
166523	CLJ100-FS-116	303-302C,303-302D	4/19/96	<25	113.76	219.20	2200.00	26.08	96.80
166523	CLJ100-FS-116DP	303-302C,303-302D	4/19/96	<25	283.20	436.80	4464J	278.40	158.40
166523	CLJ100-FS-117	302-301C,302-301D	4/19/96	<25	224.00	328.53	836.27	<25	92.80
166523	CLJ100-FS-118	304-303D,304-303E	4/19/96	<25	61.01	334.93	765.87	6647.47J	339.20
166523	CLJ100-FS-119	303-302D,303-302E	4/19/96	<25	74.88	118.72	702.40	691.20	236.80
166523	CLJ100-FS-120	302-301D,302-301E	4/19/96	<25	<25	30.08	355.20	<25	65.60
166523	CLJ100-FS-121	304-303E,304-303F	4/19/96	<25	<25	249.60	664.00	<25	<25
166523	CLJ100-FS-122	303-302E,303-302F	4/19/96	<25	220.24	1146.35	4496.94J	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-26-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

OC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166524	CLJ100-FS-123	302-301E,302-301F	4/19/96	<25	29.44	74.56	556.80	<25	108.00
166524	CLJ100-FS-124	304-303F,304-303G	4/19/96	<25	100.80	817.60	3608J	<25	<25
166524	CLJ100-FS-125	303-302F,303-302G	4/19/96	<25	<25	146.08	697.60	<25	<25
166524	CLJ100-FS-126	302-301F,302-301G	4/19/96	<25	<25	94.40	539.20	<25	<25
166524	CLJ100-FS-127	304-303G,304-303H	4/19/96	<25	<25	19.04J	234.40	<25	<25
166524	CLJ100-FS-128	303-302G,303-302H	4/19/96	23.52J	<25	297.60	1272.00	<25	211.20
166524	CLJ100-FS-129	302-301G,302-301H	4/19/96	<25	<25	<25	51.04	<25	<25
166524	CLJ100-FS-130	304-303H,304-303I	4/19/96	<25	<25	13.12J	205.44	<25	<25
166524	CLJ100-FS-131	303-302H,303-302I	4/19/96	<25	<25	19.73J	167.47	<25	<25
166524	CLJ100-FS-131DP	303-302H,303-302I	4/19/96	<25	<25	<25	99.20	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-26-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

OC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166525	CLJ100-FS-132	302-301H,302-301I	4/19/96	<25	<25	608.00	4345J	<25	214.40
166525	CLJ100-FS-133	304-303I,304-303J	4/19/96	<25	<25	17.73J	216.47	<25	<25
166525	CLJ100-FS-134	303-302I,303-302J	4/19/96	<25	<25	<25	142.72	<25	<25
166525	CLJ100-FS-135	303-302I,302-301J	4/19/96	<25	<25	<25	190.40	<25	62.40
166525	CLJ100-FS-136	304-303J,303-302J	4/19/96	<25	<25	<25	<25	<25	<25
166525	CLJ100-FS-137	303-302J,303-302K	4/19/96	<25	<25	<25	45.44	<25	<25
166525	CLJ100-FS-138	302-301J,302-301K	4/19/96	<25	<25	<25	35.20	<25	39.07

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-26-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

OC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166534	CLJ100-FS-139	603-602E,603-602F	4/23/96	<25	<25	<25	<25	<25	<25
166534	CLJ100-FS-140	604-603A,604-603AA	4/23/96	<25	<25	<25	<25	<25	38.56
166534	CLJ100-FS-141	704-703A,704-703AA	4/23/96	<25	<25	<25	87.84	<25	390.40
166534	CLJ100-FS-142	703-702A,703-702AA	4/23/96	<25	<25	<25	92.31	<25	206.52
166534	LJ100-FS-023-1.	703-702A,703-702B	4/23/96	<25	<25	<25	<25	<25	<25
166534	CLJ100-FS-145	804-803A,804-803AA	4/23/96	<25	78.40	90.88	92.32	<25	<25
166534	CLJ100-FS-146	803-802A,803-802AA	4/23/96	<25	<25	109.33	1157.33	<25	<25
166534	CLJ100-FS-147	802-801A,802-801AA	4/23/96	<25	77.49	74.97	3042.29J	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-26-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

QC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166535	CLJ100-FS-148	801-800C,801-800D	4/23/96	<25	<25	<25	21.76J	<25	<25
166535	CLJ100-FS-149	801-800B,801-800C	4/23/96	<25	<25	<25	<25	<25	<25
166535	CLJ100-FS-150	801-800A,801-800B	4/23/96	<25	12.51J	28.80	553.60	<25	<25
166535	CLJ100-FS-151	805-804B,805-804C	4/23/96	<25	74.49	59.73	156.44	<25	496.00
166535	CLJ100-FS-152	805-804A,805-804B	4/23/96	<25	<25	<25	71.84	<25	<25
166535	LJ100-FS-027-1.	804-803D,804-803E	4/23/96	<25	<25	<25	15.24J	<25	136.80
166535	CLJ100-FS-153	905-904G,905-904H	4/23/96	<25	<25	<25	268.80	<25	<25
166535	CLJ100-FS-154	904-903G,904-903H	4/23/96	<25	100.69	87.47	686.93	<25	<25
166535	CLJ100-FS-155	903-902G,903-902H	4/23/96	<25	<25	<25	21.60J	<25	<25
166535	CLJ100-FS-156	901-900D,901-900E	4/23/96	<25	<25	<25	14.83J	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-26-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

QC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166536	CLJ100-FS-157	901-900B,901-900C	4/23/96	<25	<25	<25	<25	<25	<25
166536	CLJ100-FS-159	904-903A,904-903AA	4/23/96	<25	<25	<25	<25	<25	<25
166536	CLJ100-FS-160	903-902A,903-902AA	4/23/96	<25	<25	<25	<25	<25	<25
166536	CLJ100-FS-054-1	904-903B,904-903C	4/23/96	<25	<25	60.80	525.71	<25	<25
166536	CLJ100-FS-161	505-504C,505-504D	4/23/96	<25	<25	<25	12.34J	<25	<25
166536	CLJ100-FS-162	501-500C,501-500D	4/23/96	<25	<25	26.72	593.60	414.40	265.60
166536	CLJ100-FS-163	501-500B,501-500C	4/23/96	<25	<25	<25	30.63	<25	<25
166536	CLJ100-FS-164	501-500A,501-500B	4/23/96	<25	<25	<25	188.24	<25	<25
166536	CLJ100-FS-165	503-502A,503-502AA	4/23/96	<25	<25	<25	594.00	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 8-26-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

QC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166537	CLJ100-FS-166	502-501A,502-501AA	4/23/96	<25	<25	<25	181.60	<25	<25
166537	CLJ100-FS-074-1	503-502A,503-502B	4/23/96	<25	<25	<25	38.83	<25	<25
166537	CLJ100-FS-167	406-405C,406-405D	4/23/96	<25	<25	<25	41.35	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 7-26-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

QC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166538	CLJ100-FS-168	406-405D,406-405E	4/24/96	<25	<25	<25	780.80	<25	27.36
166538	CLJ100-FS-171	405-404G,405-404H	4/24/96	<25	<25	<25	<25	<25	<25
166538	CLJ100-FS-172	404-403G,404-403H	4/24/96	<25	<25	<25	19.20J	<25	<25
166538	CLJ100-FS-173	403-402G,403-402H	4/24/96	<25	<25	<25	52.96	<25	<25
166538	CLJ100-FS-174	402-401G,402-401H	4/24/96	<25	<25	<25	58.72	<25	<25
166538	CLJ100-FS-175	401-400F,401-400G	4/24/96	<25	<25	<25	<25	<25	<25
166538	CLJ100-FS-176	304-303A,304-303AA	4/24/96	<25	<25	<25	<25	<25	<25
166538	CLJ100-FS-177	302-301A,302-301AA	4/24/96	<25	278.40	256.00	276.80	<25	1579.20

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bighar
Date: 4-26-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

OC Numbe	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166539	CLJ100-FS-178	301-300A,301-300B	4/24/96	82.13	2056.53	1798.40	955.73	<25	207.57
166539	CLJ100-FS-085	404-404A,405-404B	4/24/96	<25	<25	<25	<25	<25	<25
166539	CLJ100-FS-086	404-403A,404-403B	4/24/96	<25	<25	<25	<25	<25	<25
166539	CLJ100-FS- 092	402-401B,402-401C	4/24/96	<25	<25	<25	<25	<25	<25
166539	CLJ100-FS-096	402-401C,402-401D	4/24/96	306.00	191.00	166.60	3668J	55.40	<25
166539	CLJ100-FS-100	402-401D,402-401E	4/24/96	17.44J	34.56	17.92J	148.64	171.20	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-26-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166540	CLJ100-FS-179	806-805B,806-805C	4/26/96	<25	<25	<25	<25	<25	<25
166540	CLJ100-FS-180	806-805A,806-805B	4/26/96	<25	<25	<25	168.32	<25	<25
166540	CLJ100-FS-181	805-804A,805-804AA	4/26/96	<25	315.73	<25	1817.60	<25	<25
166540	CLJ100-FS-182	804-803AA,804-803BB	4/26/96	<25	<25	<25	89.60	<25	<25
166540	CLJ100-FS-183	803-802AA,803-802BB	4/26/96	15.81J	249.60	233.60	2212.80	<25	<25
166540	CLJ100-FS-184	802-801AA,802-801BB	4/26/96	<25	92.80	91.31	3176.53J	<25	<25
166540	CLJ100-FS-185	801-800A,801-800AA	4/26/96	<25	65.60	64.40	1708.00	<25	<25
166540	CLJ100-FS-186	800-799A,800-799B	4/26/96	<25	<25	12.53J	434.29	<25	<25
166540	CLJ100-FS-027-2	24' 804-803D,804-803E	4/26/96	<25	<25	<25	25.20	<25	<25
166540	LJ100-FS-027-2.	30' 804-803D,804-803D	4/26/96	<25	<25	<25	<25	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-28-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166542	CLJ100-FS-187	906-905G,906-905H	4/27/96	<25	<25	<25	65.76	<25	<25
166542	CLJ100-FS-188	905-904H,905-904I	4/27/96	<25	90.72	88.96	2188.80	246.40	117.60
166542	CLJ100-FS-189	904-903H,904-903I	4/27/96	14.64J	107.36	94.08	1262.40	132.48	<25
166542	LJ100-FS-054-1.	18' 904-903B,904-903C	4/27/96	21.44J	115.20	86.56	1388.80	<25	<25
166542	CLJ100-FS-054-2	24' 904-903B,904-903C	4/27/96	<25	<25	<25	45.12	<25	<25
166542	LJ100-FS-074-1.	18' 503-502A,503-502B	4/27/96	<25	<25	<25	22.40J	<25	<25
166542	CLJ100-FS-074-2	24' 503-502A,503-502B	4/27/96	<25	<25	<25	<25	<25	<25
166542	CLJ100-FS-190	503-502AA,503-502BB	4/27/96	<25	<25	<25	48.96	<25	<25
166542	CLJ100-FS-191	502-501AA,502-501BB	4/27/96	<25	<25	<25	480.00	<25	29.92
166542	CLJ100-FS-192	501-500A,501-500AA	4/27/96	<25	<25	<25	358.40	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-29-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166543	CLJ100-FS-193	500-499A,500-499B	4/27/96	<25	<25	<25	<25	<25	<25
166543	CLJ100-FS-194	302-301AA,302-301BB	4/27/96	<25	<25	<25	<25	<25	78.00
166543	CLJ100-FS-195	301-300A,301-300AA	4/27/96	<25	96.53	96.53	120.00	<25	2533.33
166543	CLJ100-FS-196	300-299A,300-299B	4/27/96	<25	<25	97.92	129.44	<25	65.28
166543	CLJ100-FS-197	301-300B,301-300C	4/27/96	<25	48.56	914.82	1010.82	<25	<25
166543	CLJ100-FS-198	301-300C,301-300D	4/27/96	<25	798.40	910.40	1168.00	<25	2396.80
166543	CLJ100-FS-199	301-300D,301-300E	4/27/96	<25	<25	324.80	1310.40	<25	430.40
166543	CLJ100-FS-200	301-300E,301-300F	4/27/96	<25	<25	169.60	992.00	<25	475.20
166543	CLJ100-FS-201	301-300F,301-300G	4/27/96	<25	<25	52.48	531.20	<25	179.20
166543	CLJ100-FS-202	301-300G,301-300H	4/27/96	<25	<25	12.16J	443.20	<25	51.52

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-28-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166544	CLJ100-FS-203	301-300H,301-300I	4/27/96	<25	<25	<25	103.20	<25	34.40
166544	CLJ100-FS-204	301-300I,301-300J	4/27/96	<25	<25	<25	18.02J	<25	21.22J
166544	CLJ100-FS-205	303-302K,303-302L	4/27/96	<25	<25	<25	<25	<25	<25
166544	CLJ100-FS-206	406-405B,406-405C	4/27/96	<25	<25	<25	<25	<25	<25
166544	CLJ100-FS-207	407-406C,407-406D	4/27/96	<25	<25	<25	133.65	<25	<25
166544	CLJ100-FS-208	401-400C,401-400D	4/27/96	<25	<25	<25	<25	<25	<25
166544	CLJ100-FS-209	401-400D,401-400E	4/27/96	86.83	77.65	59.09	753.07	119.89	<25
166544	CLJ100-FS-210	401-400G,401-400H	4/27/96	<25	<25	<25	<25	<25	<25
166544	CLJ100-FS-211	402-401H,402-401I	4/27/96	<25	<25	<25	13.93J	<25	<25
166544	CLJ100-FS-212	403-402H,403-402I	4/27/96	<25	<25	<25	47.20	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 4-28-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166545	CLJ100-FS-213	403-402I,403-402J	4/29/96	<25	<25	<25	<25	<25	<25
166545	CLJ100-FS-214	404-403H,404-403I	4/29/96	<25	<25	<25	13.08J	<25	<25
166545	CLJ100-FS-215	401-400E,401-400F	4/30/96	<25	<25	<25	<25	<25	<25
166545	CLJ100-FS-216	400-399D,400-399E	4/30/96	<25	<25	<25	<25	<25	<25
166545	CLJ100-FS-217	503-502BB,503-502CC	4/29/96	<25	46.08	105.12	257.60	126.56	233.60
166545	CLJ100-FS-218	502-501BB,502-501CC	4/29/96	<25	<25	<25	260.80	<25	76.96
166545	CLJ100-FS-219	504-503A,504-503AA	4/29/96	<25	<25	<25	401.60	<25	22.08J
166545	CLJ100-FS-220	504-503AA,504-503BB	4/29/96	<25	<25	<25	75.25	<25	<25
166545	CLJ100-FS-221	501-500AA,501-500BB	4/30/96	<25	40.48	52.96	3400J	<25	36.48
166545	CLJ100-FS-222	500-499A,500-499AA	4/30/96	<25	<215	<25	<25	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C. Bigham
Date: 4-30-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166546	CLJ100-FS-223	901-900E,901-900F	4/30/96	<25	<25	<25	<25	<25	<25
166546	CLJ100-FS-224	807-806A,807-806B	4/30/96	<25	<25	<25	<25	<25	<25
166546	CLJ100-FS-225	801-800AA,801-800BB	4/30/96	<25	47.52	55.84	1920.00	<25	13.34J
166546	CLJ100-FS-226	800-799A,800-799AA	4/30/96	<25	<25	<25	168.73	<25	38.40
166546	CLJ100-FS-227	799-798A,799-798B	4/30/96	<25	<25	<25	330.97	<25	22.67J
166546	CLJ100-FS-228	800-799B,800-799C	4/30/96	308.80	600.00	601.60	3820.80J	<25	<25
166546	CLJ100-FS-229	301-300AA,301-300BB	4/30/96	<25	169.60	164.71	169.04	<25	2326.59
166546	CLJ100-FS-230	300-299A,300-299AA	4/30/96	<25	142.24	145.12	713.60	<25	707.20
166546	CLJ100-FS-231	299-298A,299-298B	4/30/96	<25	<25	<25	14.11J	<25	<25
166546	CLJ100-FS-232	300-299B,300-299C	4/30/96	<25	57.28	69.44	468.80	376.00	1276.80

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-1-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166547	CLJ100-FS-233	300-299C,300-299D	4/30/96	13.68J	1036.80	564.80	2880J	<25	595.20
166547	CLJ100-FS-234	300-299D,300-299E	4/30/96	<25	600.00	297.60	4422.40J	324.80	318.40
166547	CLJ100-FS-235	300-299E,300-299F	4/30/96	<25	119.36	227.20	1160.00	82.40	177.60
166547	CLJ100-FS-236	300-299F,300-299G	4/30/96	<25	<25	24.32J	427.20	49.28	496.00
166547	CLJ100-FS-237	300-299G,300-299H	4/30/96	<25	<25	28.96	686.40	<25	18.56J
166547	CLJ100-FS-238	300-299H,300-299I	4/30/96	<25	<25	<25	125.76	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-1-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166548	CLJ100-FS-239	505-504A,505-504AA	5/1/96	<25	<25	<25	<25	<25	<25
166548	CLJ100-FS-240	505-504AA,505-504BB	5/1/96	<25	<25	<25	392.00	<25	<25
166548	CLJ100-FS-240DP	505-504AA,505-504BB	5/1/96	<25	<25	<25	531.20	<25	<25
166548	CLJ100-FS-241	504-503BB,504-503CC	5/1/96	<25	<25	<25	356.80	<25	174.40
166548	CLJ100-FS-242	503-502CC,503-502DD	5/1/96	<25	<25	<25	291.20	<25	441.60
166548	CLJ100-FS-243	502-501CC,502-501DD	5/1/96	<25	<25	<25	21.28J	<25	<25
166548	CLJ100-FS-244	501-500BB,501-500CC	5/1/96	<25	<25	<25	45.76	<25	<25
166548	CLJ100-FS-245	500-499AA,500-499BB	5/1/96	<25	<25	<25	48.00	<25	<25
166548	CLJ100-FS-245DP	500-499AA,500-499BB	5/1/96	<25	<25	<25	40.00	<25	<25
166548	CLJ100-FS-246	801-800BB,801-800CC	5/1/96	<25	<25	<25	52.16	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-2-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166549	CLJ100-FS-246DP	801-800BB,801-800CC	5/1/96	<25	<25	<25	124.64	<25	<25
166549	CLJ100-FS-247	800-799AA,800-799BB	5/1/96	<25	<25	<25	<25	<25	<25
166549	CLJ100-FS-248	799-798A,799-798AA	5/1/96	<25	<25	<25	<25	<25	<25
166549	CLJ100-FS-249	798-797A,798-797B	5/1/96	<25	<25	<25	18.08J	<25	<25
166549	CLJ100-FS-250	799-798B,799-798C	5/1/96	28.64	297.60	356.80	161.60	<25	<25
166549	CLJ100-FS-251	800-799C,800-799D	5/1/96	<25	<25	<25	<25	<25	<25
166549	CLJ100-FS-251DP	800-799C,800-799D	5/1/96	<25	<25	<25	<25	<25	<25
166549	CLJ100-FS-252	803-802BB,803-802CC	5/1/96	<25	12.64J	14.40J	310.40	<25	<25
166549	CLJ100-FS-253	802-801BB,802-801CC	5/1/96	<25	103.36	135.04	2094.40	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-2-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166550	CLJ100-FS-254	301-300BB,301-300CC	5/1/96	<25	<25	<25	<25	<25	<25
166550	CLJ100-FS-255	300-299AA,300-299BB	5/1/96	<25	19.04J	18.72J	61.44	<25	1275.20
166550	CLJ100-FS-256	299-298A,299-298AA	5/1/96	<25	40.96	48.80	251.20	<25	433.60
166550	CLJ100-FS-256DP	299-298A,299-298AA	5/1/96	<25	<25	<25	32.96	<25	17.12J
166550	CLJ100-FS-257	299-298B,299-298C	5/1/96	<25	<25	68.48	812.80	<25	<25
166550	CLJ100-FS-258	299-298C,299-298D	5/1/96	<25	25.44	71.04	2417.60	<25	593.60
166550	CLJ100-FS-259	299-298D,299-298E	5/1/96	<25	<25	<25	792.00	<25	171.20
166550	CLJ100-FS-260	299-298E,299-298F	5/1/96	<25	<25	<25	30.08	<25	158.40
166550	CLJ100-FS-261	299-298F,299-298G	5/1/96	<25	<25	<25	352.00	<25	24.96
166550	CLJ100-FS-262	299-298G,299-298H	5/1/96	<25	<25	79.04	4432.00J	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-2-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166551	CLJ100-FS-263	299-298H,299-298I	5/1/96	<25	<25	12.69J	1216.00	<25	<25
166551	CLJ100-FS-264	300-299I,300-299J	5/1/96	<25	<25	<25	29.12	<25	37.12
166551	CLJ100-FS-264DP	300-299I,300-299J	5/1/96	<25	<25	<25	32.00	<25	73.60

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-2-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166554	CLJ100-FS-265	506-505AA,506-505BB	5/2/96	<25	<25	<25	<25	<25	30.80
166554	CLJ100-FS-266	505-504BB,505-504CC	5/2/96	<25	<25	113.33	438.00	<25	<25
166554	CLJ100-FS-267	504-503CC,504-503DD	5/2/96	<25	<25	<25	<25	<25	<25
166554	CLJ100-FS-268	503-502DD,503-502EE	5/2/96	<25	<25	<25	34.08	97.60	51.60
166554	CLJ100-FS-268DP	503-502DD,503-502EE	5/2/96	<25	<25	<25	54.88	392.00	91.20
166554	CLJ100-FS-269	501-500CC,501-500DD	5/2/96	<25	<25	<25	72.48	<25	25.20
166554	CLJ100-FS-270	500-499BB,500-499CC	5/2/96	<25	<25	<25	<25	<25	<25
166554	CLJ100-FS-271	499-498AA,499-498BB	5/2/96	<25	27.90	29.70	1607.40	<25	50.58
166554	CLJ100-FS-272	804-803BB,804-803CC	5/2/96	<25	<25	36.24	355.20	<25	<25
166554	CLJ100-FS-273	804-803CC,804-803DD	5/2/96	<25	<25	<25	161.80	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-3-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166555	CLJ100-FS-274	802-801CC,802-801DD	5/2/96	<25	<25	<25	510.00	<25	55.40
166555	CLJ100-FS-274DP	802-801CC,802-801DD	5/2/96	<25	<25	<25	439.20	<25	26.16
166555	CLJ100-FS-275	801-800CC,801-800DD	5/2/96	<25	<25	<25	54.24	<25	22.72J
166555	CLJ100-FS-276	800-799BB,800-799CC	5/2/96	<25	<25	<25	25.76	<25	<25
166555	CLJ100-FS-277	798-797B,798-797C	5/2/96	21.71J	471.27	562.91	301.09	<25	<25
166555	CLJ100-FS-278	799-798C,799-798D	5/2/96	<25	<25	<25	<25	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-3-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166558	CLJ100-FS-279	506-505BB, 506-505CC	5/3/96	<25	<25	<25	140.00	<25	<25
166558	CLJ100-FS-280	505-504CC,505-504DD	5/3/96	<25	<25	<25	104.76	<25	162.36
166558	CLJ100-FS-281	504-503DD,504-503EE	5/3/96	<25	<25	<25	<25	<25	<25
166558	CLJ100-FS-282	503-502EE,503-502FF	5/3/96	<25	<25	<25	85.28	<25	187.20
166558	CLJ100-FS-283	502-501DD,502-501EE	5/3/96	<25	<25	<25	171.73	<25	213.33
166558	CLJ100-FS-284	501-500DD,501-500EE	5/3/96	<25	<25	<25	<25	<25	<25
166558	CLJ100-FS-285	500-499CC,500-499DD	5/3/96	<25	<25	<25	38.34	<25	99.18
166558	CLJ100-FS-286	499-498BB,499-498CC	5/3/96	<25	<25	<25	131.76	<25	<25
166558	CLJ100-FS-287	498-497AA,498-497BB	5/3/96	<25	<25	<25	154.00	<25	<25
166558	CLJ100-FS-288	499-498A,499-498AA	5/3/96	<25	<25	<25	72.00	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-3-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166559	CLJ100-FS-289	300-299BB,300-299CC	5/3/96	<25	<25	<25	<25	<25	<25
166559	CLJ100-FS-290	299-298AA,299-298BB	5/3/96	<25	214.93	216.53	142.93	<25	906.67
166559	CLJ100-FS-291	298-297A,298-297AA	5/3/96	<25	70.98	82.74	308.00	<25	225.40
166559	CLJ100-FS-292	298-297C,298-297D	5/3/96	<25	72.18	118.44	1188.00	<25	151.38
166559	CLJ100-FS-293	298-297C,298-297D	5/3/96	<25	<25	<25	262.15	<25	64.98
166559	CLJ100-FS-294	298-297D,298-297E	5/3/96	<25	<25	34.08	460.80	<25	29.92
166559	CLJ100-FS-295	298-297F,298-297G	5/3/96	<25	<25	<25	19.80J	<25	<25
166559	CLJ100-FS-296	298-297G,298-297H	5/3/96	<25	288.60	525.00	7746.00J	<25	<25
166559	CLJ100-FS-297	298-297H,298-297I	5/3/96	<25	<25	<25	343.20	<25	<25
166559	CLJ100-FS-298	299-298I,299-298J	5/3/96	<25	<25	<25	<25	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-9-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166560	CLJ100-FS-299	803-802DD,803-802EE	5/3/96	<25	69.77	87.50	1414.00	<25	123.67
166560	CLJ100-FS-300	802-801DD,802-801EE	5/3/96	<25	<25	<25	175.00	<25	<25
166560	CLJ100-FS-301	801-800DD,801-800EE	5/3/96	<25	<25	<25	19.50J	<25	<25
166560	CLJ100-FS-302	800-799CC,800-799DD	5/3/96	<25	<25	<25	113.16	<25	18.12J
166560	CLJ100-FS-303	797-796B,797-796C	5/3/96	<25	<25	<25	<25	<25	<25
166560	CLJ100-FS-304	798-797C,798-797D	5/3/96	<25	<25	<25	<25	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-4-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166561	CLJ100-FS-305	299-298BB,299-298CC	5/4/96	<25	<25	<25	14.04J	<25	<25
166561	CLJ100-FS-305DP	299-298BB,299-298CC	5/4/96	<25	28.56	28.80	14.04J	<25	<25
166561	CLJ100-FS-306	298-297AA,298-297BB	5/4/96	<25	<25	<25	15.33J	<25	<25
166561	CLJ100-FS-307	297-296A,297-296AA	5/4/96	<25	13.88J	17.11J	130.20	<25	273.78
166561	CLJ100-FS-308	298-297A,298-297B	5/4/96	<25	<25	<25	<25	<25	<25
166561	CLJ100-FS-309	297-296B,297-296C	5/4/96	<25	440.00	510.00	2751.00J	<25	<25
166561	CLJ100-FS-310	297-296C,297-296D	5/4/96	<25	<25	<25	69.48	<25	979.20
166561	CLJ100-FS-311	297-296D,297-296E	5/4/96	<25	<25	<25	<25	<25	<25
166561	CLJ100-FS-312	298-297E,298-297F	5/4/96	<25	<25	<25	781.00	<25	61.82
166561	CLJ100-FS-313	297-296G,297-296H	5/4/96	<25	<25	<25	<25	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-30-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166562	CLJ100-FS-314	297-296H,297-296I	5/4/96	<25	<25	<25	<25	<25	<25
166562	CLJ100-FS-315	298-297I,298-297J	5/4/96	<25	<25	<25	17.74J	<25	<25
166562	CLJ100-FS-316	504-503EE,504-503FF	5/4/96	<25	<25	<25	<25	<25	<25
166562	CLJ100-FS-316DP	504-503EE,504-503FF	5/4/96	<25	<25	<25	<25	<25	<25
166562	CLJ100-FS-317	503-502FF,503-502GG	5/4/96	<25	<25	<25	<25	<25	<25
166562	CLJ100-FS-318	502-501EE,502-501FF	5/4/96	<25	<25	<25	62.86	<25	61.60
166562	CLJ100-FS-319	500-499DD,500-499EE	5/4/96	<25	<25	<25	<25	<25	18.84J
166562	CLJ100-FS-320	499-498CC,499-498DD	5/4/96	<25	<25	<25	41.07	<25	<25
166562	CLJ100-FS-321	498-497BB,498-497CC	5/4/96	<25	<25	12.88J	123.68	<25	<25
166562	CLJ100-FS-322	507-506CC,507-506CC	5/4/96	<25	<25	56.16	132.84	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-5-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166563	CLJ100-FS-323	506-505CC,506-505DD	5/4/96	<25	<25	<25	<25	<25	<25
166563	CLJ100-FS-324	505-504DD,505-504EE	5/4/96	<25	<25	<25	<25	<25	<25
166563	CLJ100-FS-325	497-496AA,497-496BB	5/4/96	<25	<25	<25	<25	<25	<25
166563	CLJ100-FS-326	803-802EE,803-802FF	5/4/96	12.94J	190.40	199.92	632.80	<25	<25
166563	CLJ100-FS-327	802-801EE,802-801FF	5/4/96	<25	51.20	61.44	440.00	<25	<25
166563	CLJ100-FS-328	800-799DD,800-799EE	5/4/96	<25	<25	<25	13.52J	<25	<25
166563	CLJ100-FS-329	799-798CC,799-798DD	5/4/96	<25	<25	<25	72.54	<25	<25
166563	CLJ100-FS-292-2	2' 298-297C,298-297D	5/4/96	<25	<25	<25	<25	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-5-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166565	CLJ100-FS-330	297-296AA,297-296BB	5/5/96	<25	<25	<25	<25	<25	<25
166565	CLJ100-FS-331	296-295A,296-295AA	5/5/96	<25	<25	<25	<25	<25	<25
166565	CLJ100-FS-332	297-296A,297-296B	5/5/96	<25	<25	<25	<25	<25	<25
166565	CLJ100-FS-333	296-295B,296-295C	5/5/96	<25	<25	<25	<25	<25	<25
166565	CLJ100-FS-334	296-295C,296-295D	5/5/96	<25	<25	<25	<25	<25	<25
166565	CLJ100-FS-335	297-296E,297-296F	5/5/96	<25	<25	<25	<25	<25	<25
166565	CLJ100-FS-336	507-506AA,506-505BB	5/5/96	<25	<25	<25	<25	<25	<25
166565	CLJ100-FS-337	508-507BB,508-507CC	5/5/96	<25	<25	<25	86.16	<25	348.00
166565	CLJ100-FS-338	507-506CC,507-506DD	5/5/96	<25	<25	<25	<25	<25	83.52
166565	CLJ100-FS-339	502-501FF,502-501GG	5/5/96	<25	<25	<25	<25	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-6-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166566	CLJ100-FS-340	501-500EE,501-500FF	5/5/96	<25	<25	<25	<25	<25	<25
166566	CLJ100-FS-341	499-498DD,499-498EE	5/5/96	<25	<25	<25	<25	<25	<25
166566	CLJ100-FS-342	498-497CC,498-497DD	5/5/96	<25	<25	<25	<25	<25	<25
166566	CLJ100-FS-343	497-496BB,497-496CC	5/5/96	36.80	224.00	235.20	6944.00J	<25	97.28
166566	CLJ100-FS-344	799-798BB,799-798CC	5/5/96	<25	<25	<25	<25	<25	<25
166566	CLJ100-FS-345	798-797CC,798-797DD	5/5/96	<25	<25	<25	<25	<25	<25
166566	CLJ100-FS-346	799-798DD,799-798EE	5/5/96	<25	<25	<25	<25	<25	<25
166566	CLJ100-FS-347	801-800EE,801-800FF	5/5/96	<25	<25	<25	45.32	<25	<25
166566	CLJ100-FS-348	802-801FF,802-801GG	5/5/96	<25	<25	<25	<25	<25	<25
166566	CLJ100-FS-349	803-802FF,803-802GG	5/5/96	<25	13.16J	33.20	778.00	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-6-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166567	CLJ100-FS-350	508-507AA,508-507BB	5/6/96	<25	<25	<25	<25	<25	<25
166567	CLJ100-FS-351	509-508BB,509-508CC	5/6/96	<25	<25	<25	<25	<25	<25
166567	CLJ100-FS-351DP	509-508BB,509-508CC	5/6/96	<25	<25	<25	<25	<25	<25
166567	CLJ100-FS-352	508-507CC,508-507DD	5/6/96	<25	<25	<25	<25	<25	<25
166567	CLJ100-FS-353	497-496CC,497-496DD	5/6/96	<25	<25	<25	<25	<25	<25
166567	CLJ100-FS-354	496-495BB,496-495CC	5/6/96	<25	<25	<25	<25	<25	<25
166567	CLJ100-FS-355	496-495BB,496-495CC	5/6/96	<25	<25	<25	<25	<25	<25
166567	CLJ100-FS-356	801-800FF,801-800GG	5/6/96	<25	<25	<25	<25	<25	<25
166567	CLJ100-FS-356DP	801-800FF,801-800GG	5/6/96	<25	<25	<25	<25	<25	<25
166567	CLJ100-FS-357	803-802GG,803-802HH	5/6/96	<25	<25	<25	<25	<25	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C Bigham
Date: 5-1996

Confirmation Samples, On-Site Lab Analytical Data

EPA Analytical Method 8080
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Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166568	CLJ100-CS-001	CONF. AOC 1-12, BASE	5/29/96	<25	<25	<25	<25	<25	<25
166568	CLJ100-CS-002	CONF. AOC 1-12, BASE	5/29/96	<25	94.56	129.92	1760.00	<25	<25
166568	CLJ100-CS-003	CONF. AOC 1-12, BASE	5/29/96	<25	372.80	1867.20	1329.60	3128000.00	218400.00
166568	CLJ100-CS-004	CONF. AOC 1-12, BASE	5/29/96	<25	13.58 J	46.08	915.20	1692.80	294.40
166568	CLJ100-CS-005	CONF. AOC 1-12, BASE	5/29/96	<25	<25	<25	<25	<25	<25
166568	CLJ100-CS-006	CONF. AOC 1-12, BASE	5/29/96	<25	<25	17.12 J	60.32	5256.00	436.80
166568	CLJ100-CS-007	CONF. AOC 1-12, BASE	5/29/96	<25	<25	12.90 J	659.20	< 25	< 25
166568	CLJ100-CS-008	CONF. AOC 1-12, BASE	5/29/96	<25	<25	<25	<25	<25	<25
166568	CLJ100-CS-009	CONF. AOC 1-12, BASE	5/29/96	<25	28.00	31.04	87.52	< 25	68.32
166568	CLJ100-CS-010	CONF. AOC 1-12, BASE	5/29/96	<25	9.90 J	9.23 J	8.67 J	235.20	616.00

J = Estimated Value
PQL = 25 ug/Kg

Analyst:
Date: 5-31-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166570	LS100-CS-010D	CONF. AOC 1-12, BASE	5/29/96	<25	10.83 J	10.29 J	23.36 J	249.60	665.60
166570	CLJ100-CS-011	CONF. AOC 1-12, SIDEW	5/29/96	<25	<25	<25	<25	<25	<25
166570	CLJ100-CS-012	CONF. AOC 1-12, SIDEW	5/29/96	<25	<25	<25	81.44	<25	67.52
166570	CLJ100-CS-013	CONF. AOC 1-12, SIDEW	5/29/96	<25	<25	<25	10.40 J	<25	36.00
166570	CLJ100-CS-014	CONF. AOC 1-12, SIDEW	5/29/96	<25	<25	<25	16.6 J	600.00	<25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: [signature]
Date: 5-31-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166575	CLJ100-CS-015	CONF. AOC33-38, BASE	5/30/96	< 25	<25	32.64	1152.00	<25	<25
166575	CLJ100-CS-016	CONF. AOC33-38, BASE	5/30/96	73.60	284.80	244.80	891.20	<25	<25
166575	CLJ100-CS-017	CONF. AOC33-38, BASE	5/30/96	8.00	82.56	69.12	867.20	<25	<25
166575	CLJ100-CS-018	CONF AOC33-38, SDWL	5/30/96	14.90 J	74.24	81.92	969.60	<25	<25
166575	CLJ100-CS-019	CONF AOC33-38, SDWL	5/30/96	<25	142.24	146.88	1376.00	<25	<25
166575	CLJ100-CS-020	CONF AOC33-38, SDWL	5/30/96	<25	15.07 J	7.28 J	38.56	<25	<25
166575	CLJ100-CS-020D	CONF AOC33-38, SDWL	5/30/96	<25	11.34 J	< 25	27.36	<25	<25
166575	CLJ100-CS-021	CONF AOC33-38, SDWL	5/30/96	<25	82.40	79.36	1707.20	<25	34.24
166575	CLJ100-CS-022	CONF AOC33-38, SDWL	5/30/96	<25	< 25	< 25	47.52	<25	0.00
166575	CLJ100-CS-023	CONF AOC33-38, SDWL	5/30/96	<25	11.33 J	16.16 J	800.00	<25	12.16

J = Estimated Value
PQL = 25 ug/Kg

Analyst: [signature]
Date: 5-31-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166576	CLJ100-CS-024	CONF. AOC39-42, BASE	5/30/96	<25	18.72 J	11.10 J	846.40	<25	332.80
166576	CLJ100-CS-025	CONF. AOC39-42, SDWL	5/30/96	<25	19.36 J	11.94 J	3440.00	<25	91.84
166576	CLJ100-CS-026	CONF. AOC25-28, BASE	5/30/96	<25	< 25	< 25	104.48	<25	300.80
166576	CLJ100-CS-027	CONF. AOC25-28, SDWL	5/30/96	<25	30.24	10.99 J	513.60	760.00	211.20
166576	CLJ100-CS-028	CONF. AOC29-32,SDWL	5/30/96	<25	7.26 J	< 25	214.40	< 25	1035.20
166576	CLJ100-CS-029	CONF. AOC29-32,SDWL	5/30/96	8.74 J	34.88	11.38 J	232.00	478.40	< 25
166576	CLJ100-CS-030	CONF. AOC29-32,BASE	5/30/96	< 25	< 25	< 25	< 25	< 25	< 25
166576	CLJ100-CS-030D	CONF. AOC29-32,BASE	5/30/96	< 25	< 25	< 25	< 25	< 25	< 25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: Carl R. Campbell
Date: 5-31-96

7 DARK SOILS
6 HAVE HITS
BUT PASS
1 "HOT" (039)

11 SANDY SOILS
ALL CLEAN

COC Number	Sample Name	Sample Locati				Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166579	CLJ100-CS-031	CONF. AOC25-28				< 25	< 25	< 25	< 25
166579	CLJ100-CS-032	CONF. AOC29-32				< 25	< 25	< 25	< 25
166579	CLJ100-CS-033	CONF. AOC29-32				< 25	< 25	< 25	< 25
166579	CLJ100-CS-034	CONF. AOC29-32 SDWL	5/31/96	< 25	< 25	< 25	< 25	< 25	< 25
166579	CLJ100-CS-035	CONF. AOC29-32 SDWL	5/31/96	< 25	< 25	< 25	< 25	< 25	< 25
166579	CLJ100-CS-036	CONF. AOC29-32 SDWL	5/31/96	< 25	< 25	< 25	107.36	< 25	< 25
166579	CLJ100-CS-037	CONF. AOC29-32 SDWL	5/31/96	< 25	< 25	< 25	31.52	< 25	< 25
166579	CLJ100-CS-038	CONF. AOC29-32 BASE	5/31/96	< 25	< 25	< 25	24.96	< 25	< 25
166579	CLJ100-CS-039	CONF. AOC29-32 BASE	5/31/96	< 25	37.76	16.80	646.40	< 25	< 25
166579	CLJ100-CS-040	CONF. AOC29-32 BASE	5/31/96	< 25	27.20	17.92	35.04	< 25	< 25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: C. R. Pamperl
Date: 6-1-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166580	CLJ100-CS-040D	CONF. AOC29-32 BASE	5/31/96	< 25	20.16 J	15.30 J	31.04	< 25	< 25
166580	CLJ100-CS-041	CONF. AOC13-16 BASE	5/31/96	< 25	< 25	< 25	< 25	< 25	< 25
166580	CLJ100-CS-042	CONF. AOD13-16 SDWL	5/31/96	< 25	< 25	< 25	5.39 J	< 25	< 25
166580	CLJ100-CS-043	CONF. AOD13-16 SDWL	5/31/96	< 25	< 25	< 25	< 25	< 25	< 25
166580	CLJ100-CS-044	CONF. AOD13-16 SDWL	5/31/96	< 25	< 25	< 25	27.20	< 25	< 25
166580	CLJ100-CS-045	CONF. AOD13-16 SDWL	5/31/96	< 25	< 25	< 25	< 25	< 25	< 25
166580	CLJ100-CS-046	CONF. AOC17-20 BASE	5/31/96	< 25	< 25	< 25	< 25	< 25	< 25
166580	CLJ100-CS-047	CONF. AOC17-20 BASE	5/31/96	< 25	< 25	< 25	< 25	< 25	< 25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: Carl R. Paynel
Date: 6-1-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

18 SANDY SOILS
ALL CLEAN

COC Number	Sample Name			rin Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166581	CLJ100-CS-048			5	< 25	< 25	< 25	< 25	< 25
166581	CLJ100-CS-049			5	< 25	< 25	< 25	< 25	< 25
166581	CLJ100-CS-050			5	< 25	< 25	12.29 J	< 25	< 25
166581	CLJ100-CS-050D				< 25	< 25	11.05 J	< 25	< 25
166581	CLJ100-CS-051				< 25	< 25	< 25	< 25	< 25
166581	CLJ100-CS-052				< 25	< 25	< 25	< 25	< 25
166581	CLJ100-CS-053			< 25	< 25	< 25	< 25	< 25	< 25
166581	CLJ100-CS-054	CONF. AOC17-20, SDWL	6/1/96	< 25	< 25	< 25	< 25	< 25	< 25
166581	CLJ100-CS-055	CONF. AOC17-20, SDWL	6/1/96	< 25	< 25	< 25	< 25	< 25	< 25
166581	CLJ100-CS-056	CONF. AOC1-12, SDWL	6/1/96	< 25	< 25	< 25	< 25	< 25	< 25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: Carol D. Paugel
Date: 6-2-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166582	CLJ100-CS-057	CONF. AOC1-12, SDWL	6/1/96	< 25	< 25	< 25	< 25	< 25	< 25
166582	CLJ100-CS-058	CONF. AOC1-12, SDWL	6/1/96	< 25	< 25	< 25	6.92 J	< 25	< 25
166582	CLJ100-CS-059	CONF. AOC1-12, SDWL	6/1/96	< 25	< 25	< 25	< 25	< 25	< 25
166582	CLJ100-CS-060	CONF. AOC1-12, SDWL	6/1/96	< 25	< 25	< 25	< 25	< 25	< 25
166582	CLJ100-CS-060D	CONF. AOC1-12, SDWL	6/1/96	< 25	< 25	< 25	< 25	< 25	< 25
166582	CLJ100-CS-061	CONF. AOC1-12, BASE	6/1/96	< 25	< 25	< 25	< 25	< 25	< 25
166582	CLJ100-CS-062	CONF. AOC1-12, BASE	6/1/96	< 25	< 25	< 25	7.29 J	< 25	< 25
166582	CLJ100-CS-063	CONF. AOC1-12, BASE	6/1/96	< 25	< 25	< 25	< 25	< 25	< 25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: Carl R. Pampel
Date: 6-2-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166585	CLJ100-CS-064	CONF. AOC1-12, BASE	6/4/96	< 25	< 25	< 25	< 25	< 25	< 25
166585	CLJ100-CS-065	CONF. AOC39-42 ,BASE	6/4/96	< 25	< 25	< 25	< 25	< 25	< 25
166585	CLJ100-CS-066	CONF. AOC39-42,SDWL	6/4/96	< 25	177.60	120.00	11.07 J	< 25	< 25
166585	CLJ100-CS-067	CONF. AOC33-38 ,BASE	6/4/96	353.60	68.00	52.67	360.00	< 25	< 25
166585	CLJ100-CS-068	CONF. AOC33-38 ,BASE	6/4/96	< 25	< 25	< 25	< 25	< 25	< 25
166585	CLJ100-CS-069	CONF. AOC33-38 ,BASE	6/4/96	24.00 J	< 25	< 25	57.12	< 25	< 25
166585	CLJ100-CS-070	CONF. AOC33-38,SDWL	6/4/96	< 25	< 25	< 25	441.60	< 25	< 25
166585	CLJ100-CS-070D	CONF. AOC33-38,SDWL	6/4/96	< 25	< 25	< 25	379.20	< 25	< 25
166585	CLJ100-CS-071	CONF. AOC33-38,SDWL	6/4/96	11.20 J	< 25	< 25	< 25	< 25	< 25
166585	CLJ100-CS-072	CONF. AOC33-38,SDWL	6/4/96	318.00	20.80 J	11.20 J	< 25	< 25	< 25

J = Estimated Value
PQL = 25 ug/Kg

Analyst:
Date: 6-4-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166586	CLJ100-CS-073	CONF. AOC33-38,SDWL	6/4/96	< 25	< 25	< 25	< 25	< 25	< 25
166586	CLJ100-CS-074	CONF. AOC29-32, BASE	6/4/96	< 25	< 25	< 25	< 25	< 25	< 25
166586	CLJ100-CS-070\5	CONF. AOC1-12, BASE	6/4/96	< 25	< 25	< 25	6.38 J	< 25	< 25
166586	CLJ100-CS-076	CONF. AOC1-12, BASE	6/4/96	< 25	< 25	< 25	< 25	60640.00	< 25
166586	CLJ100-CS-077	CONF. AOC1-12, BASE	6/4/96	< 25	< 25	< 25	< 25	< 25	< 25
166586	CLJ100-CS-078	CONF. AOC1-12, BASE	6/4/96	< 25	< 25	< 25	< 25	< 25	< 25
166586	CLJ100-CS-079	CONF. AOC1-12, BASE	6/4/96	< 25	< 25	< 25	< 25	< 25	< 25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: Carl R. Paugel
Date: 6-5-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166589	CLJ100-CS-080	CONF. AOC1-12, BASE	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25
166589	CLJ100-CS-080D	CONF. AOC1-12, BASE	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25
166589	CLJ100-CS-081	CONF. AOC1-12, BASE	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25
166589	CLJ100-CS-082	CONF. AOC1-12, BASE	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25
166589	CLJ100-CS-083	CONF. AOC1-12, SDWL	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25
166589	CLJ100-CS-084	CONF. AOC1-12, SDWL	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25
166589	CLJ100-CS-085	CONF. AOC1-12, SDWL	6/5/96	< 25	< 25	< 25	113.12	< 25	< 25
166589	CLJ100-CS-086	CONF. AOC1-12, SDWL	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25
166589	CLJ100-CS-087	CONF. AOC1-12, SDWL	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25
166589	CLJ100-CS-088	CONF. AOC1-12, SDWL	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: Carl R. Campbell
Date: 6-5-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166590	CLJ100-CS-089	CONF. AOC1-12, SDWL	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25
166590	CLJ100-CS-090	CONF. AOC1-12, SDWL	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25
166590	CLJ100-CS-090D	CONF. AOC1-12, SDWL	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25
166590	CLJ100-CS-091	CONF. AOC1-12, BASE	6/5/96	< 25	< 25	< 25	118.88	< 25	< 25
166590	CLJ100-CS-092	CONF. AOC1-12, BASE	6/5/96	< 25	< 25	< 25	12.77	< 25	< 25
166590	CLJ100-CS-093	CONF. AOC1-12, BASE	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25
166590	CLJ100-CS-094	CONF. AOC1-12, BASE	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25
166590	CLJ100-CS-095	CONF. AOC1-12, BASE	6/5/96	< 25	< 25	< 25	< 25	< 25	< 25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: [signature]
Date: 6-6-96

Field Data Summary
Camp Lejeune Site 80
Project 18319

COC Number	Sample Name	Sample Location	Date Sampled	Aldrin (ug/Kg)	g-Chlordane (ug/Kg)	a-Chlordane (ug/Kg)	Dieldrin (ug/Kg)	4,4-DDD (ug/Kg)	4,4-DDT (ug/Kg)
166597	CLJ100-CS-096	CONF. AOC1-12, BASE	6/6/96	< 25	< 25	< 25	< 25	< 25	< 25
166597	CLJ100-CS-097	CONF.AOC33-38, SDWL	6/6/96	< 25	< 25	< 25	8.16	< 25	< 25
166597	CLJ100-CS-098	CONF.AOC33-38, BASE	6/6/96	< 25	< 25	< 25	297.60	< 25	< 25
166597	CLJ100-CS-099	CONF.AOC33-38, SDWL	6/6/96	< 25	< 25	< 25	12.00	< 25	< 25
166597	CLJ100-CS-100	CONF.AOC33-38, BASE	6/6/96	< 25	< 25	< 25	< 25	< 25	< 25
166597	CLJ100-CS-100D	CONF.AOC33-38, BASE	6/6/96	< 25	< 25	< 25	< 25	< 25	< 25

J = Estimated Value
PQL = 25 ug/Kg

Analyst: Carl R. Taupel
Date: 6-6-96

Confirmation Samples Off-Site Lab Analytical Data

CKY incorporated
Analytical Laboratories

Date: 06-07-1996
CKY Batch No.: 96E080

Ms. Missy Art

OHM
5335 Triangle Parkway Suite 450
Norcross GA 30092

Subject: Laboratory Report
Project: 18319/CAMP LEJEUNE

Enclosed is the Laboratory report for samples received on 05/31/96. The samples were received in coolers with ice and intact; the chain-of-custody forms were properly filled out. The data reported include :

Sample ID	Control No.	Matrix	Analysis
CLJ100-CS-001	E080-01	Soil	EPA 8080
CLJ100-CS-005	E080-05	Soil	EPA 8080
CLJ100-CS-008	E080-08	Soil	EPA 8080
CLJ100-CS-009	E080-09	Soil	EPA 8080
CLJ100-CS-010	E080-10	Soil	EPA 8080
CLJ100-CS-010DP	E080-11	Soil	EPA 8080
CLJ100-CS-011	E080-12	Soil	EPA 8080
CLJ100-CS-012	R080-13	Soil	EPA 8080
CLJ100-CS-013	E080-14	Soil	EPA 8080
CLJ100-CS-014	E080-15	Soil	EPA 8080
CLJ100-RB-529	E080-16	water	EPA 8080
CLJ100-FB-529	E080-17	water	EPA 8080

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

P.S. - All analyses requested for the above referenced project have been completed. Therefore, unless instructed, the remaining portions of the samples will be disposed after fifteen (15) days from the date of this report.

630 Maple Ave., Torrance, Calif. 90503 • Telephone 310-618-8889 • Fax: 310-618-0818

On [illegible]ediation Serv[illegible] Corp.

CHAIN-OF-CUSTODY RECORD

TRANSFER 1

Form 0019
Field Technical Services
Rev. 08/89

166571

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
[illegible]	[illegible], NC.

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
[illegible]	[illegible]	[illegible]

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
[illegible]	[illegible]

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TCL [illegible] (8040)	REMARKS
1	[illegible]	[illegible]	1440		X	[illegible]	1-8oz	X	[illegible]
2	[illegible]	[illegible]	1445		X	[illegible]	1-8oz	X	
3	[illegible]	[illegible]	1451		X	[illegible]	1-8oz	X	
4	[illegible]	[illegible]	1503		X	[illegible]	1-8oz	X	
5	[illegible]	[illegible]	1507		X	[illegible]	1-8oz	X	
6	[illegible]	[illegible]	1512		X	[illegible]	1-8oz	X	
7	[illegible]	[illegible]	1521		X	[illegible]	1-8oz	X	
8	[illegible]	[illegible]	1526		X	[illegible]	1-8oz	X	
9	[illegible]	[illegible]	1538		X	[illegible]	1-8oz	X	
10	[illegible]	[illegible]	1545		X	[illegible]	1-8oz	X	

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	[illegible]	[illegible]	[illegible]	[illegible]	700
2					
3					
4					

REMARKS

Samples sent [illegible]
48 hour TAT [illegible]
Hold Samples until [illegible] with us

SAMPLER'S SIGNATURE

[illegible]

Oh[illegible]mediation Serv[illegible] Corp.

CHAIN-OF-CUSTODY RECORD

TRANSFER 1

Form 0019
Field Technical Services
Rev. 08/89

166572

16E080

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
[illegible]	[illegible], N.C.

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
[illegible]	Alan [illegible]	[illegible] 951-2599

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
[illegible]	[illegible] Alan Whitt

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): TCL Pesticides (8080)

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	TCL Pesticides (8080)								REMARKS
1	[illegible]	[illegible]	[illegible]		X	[illegible]	1-8oz	X								[illegible] C
2	[illegible]	[illegible]	[illegible]		X	[illegible]	1-8oz	X								
3	[illegible]	[illegible]	[illegible]		X	[illegible]	1-8oz	X								
4	[illegible]	[illegible]	1559		X	[illegible]	1-8oz	X								
5	[illegible]	[illegible]	1100		X	[illegible]	1-8oz	X								
6	[illegible]	[illegible]	1613		X	[illegible]	1-1L	X								
7	[illegible]	[illegible]	1607		X	[illegible]	1-1L	X								
8																
9																
10																

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1 - 7	[illegible]	FED EX 692149 1286	[illegible]	1700
2				[illegible]	[illegible]
3					
4					

REMARKS

Samples Sent [illegible] CAY [illegible] 48 hour T.A.T. Please Fax Results To [illegible] Thanks

Hold Samples until confirmed within

SAMPLER'S SIGNATURE [illegible]

CKY, INCORPORATED

TELEPHONE RECORD LOG

DATE OF CALL: 5/29/96

CLIENT NAME: Carl Pampel - OHM - (NC) (Camp. Lejeu

CALL INITIATED BY: _____ LABORATORY _____ CLIENT

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

1) will send 15 soil / 1 RS / 1 FB Hold til 5/31 until request for analysis. (for 8080)
2) 48 hrs turn around time
3) aldrin / Dieldrin MDL changed to 340/360 (original at 0.5/1 ppb)

Summary of Questions/Issue Discussed:

4) PQL can be used up to 25 ppb for all Target analytes
5) Contain high TPH & aldrin / chlordane interferences
6) We get work on April with low report DT we can adjust up to 25 ppb

Summary of Resolution:

Carl will call to authorize to run the samples: send on 5/30/96

15 Soils
1 RS
1 FB

Signature

5/29/96
Date

May 31, 1996

Project: Camp Lejeune - Job No. 18319
CKY Control No. 96E080

= =

As per instructions of Mr. Carl Pampel, CKY is to dispose the following samples (DO NOT ANALYZE):

96E080-2, 96E080-3, 96E080-4, 96E080-6, 96E080-7

All the rest of the samples should be analyzed withing 48 Hrs.

Client will provide duplicate samples (Ex.: CLJ100-CS-010DP); these samples need to be analyzed individually as a regular sample.

In regards to the shipment to be received today, the following samples with the following suffix should be disposed:

015, 016, 017, 018, 019, 021, 023, 024, 025, 027

All the rest of the samples in this batch to be received should be analyzed within 48 hrs. as well.

There will be two duplicate samples in this coming batch.

SAMPLE RECEIPT FORM

CONTROL NO.	96E080
CLIENT	OHM
PROJECT	CAMP LEJEUNE

DATE	05-30-96
TIME	10:00 AM
RECIPIENT	I. PATEL

SAMPLE TRANSPORTATION TO CKY LABORATORY:	BY	ON(DATE)	AT(TIME)	FROM(SITE/CO.)	COMMENTS
PICKED-UP BY CKY COURIER					
DELIVERED BY CLIENT ✓					
SHIPPED/AIRBILL NO	FEDEX AIRBILL #: 692149128 6	SEE AIRBILL			

SAMPLE BATCH PACKAGING/SEALING UPON RECEIPT:	✓ INTACT	DAMAGED	✓ SEALED	NOT SEALED	NO CONTAINER

CONTAINER:	INSIDE TEMPERATURE:		2° C	CUSTODY SEAL		LOCATION	NUMBER
✓ COOLER	PACKAGING	TYPE	SUFFICIENCY	✓ INTACT	DAMAGED	FRONT CLOSURE	1
BOX	INSULATION:		OK	NAME:	SEE COC	SIDE	1
OTHER:	ICE/COOLANT:	REGULAR	↓	DATE:			
	PACKING MATERIAL:	BUBBLEPAK PAPERBOARD	↓	TIME:			

SAMPLE DOCUMENTATION/CHAIN-OF-CUSTODY(COC)	SEALED	✓ ENCLOSED	HANDCARRIED	FAXED	MAILED

SAMPLE LOG-IN:	CRITERIA	COMMENTS	DISCREPANCY
SAMPLE CUSTODY SEAL	EVERY SAMPLE	NONE	
CONTAINER TYPE/MATERIAL	APPROPRIATE	OK	
SAMPLE AMOUNT	ENOUGH	↓	
SAMPLE PRESERVATION/HOLDING TIME	SUFFICIENT		
HEADSPACE/BUBBLES	ZERO/NONE		
SAMPLE LABEL INFORMATION	SUFFICIENT		
CHAIN-OF-CUSTODY INFORMATION	SUFFICIENT	↓	

SAMPLE INFO.:	SAMPLE ID	DATE	TIME	SIGNATURE	ANALYSES	PRESERVATIVE	CONTAINER
INDIVIDUAL SAMPLE CONTAINER:		NONE	✓ SEALED PLASTIC BAG		CAN	OTHER(SPECIFY): BUBBLE PAK	

SAMPLE NUMBER	CLIENT ID	DISCREPANCY	ACTION

CLIENT SERVICES COPY RECEIVED BY	Anita 6/3	DATE		TIME	

CKY INC., ANALYTICAL LABORATORIES, 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-8889 Fax (310) 618-0818

FedEx

USE THIS AIRBILL FOR DANGEROUS GOODS SHIPMENTS ONLY WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 6921491286

96E080

6921491286

5/30/96

Date 5-29-96

RECIPIENT'S COPY

From (Your Name) Please Print	Your Phone Number (Very Important)	To (Recipient's Name) Please Print	Recipient's Phone Number (Very Important)
AARON R. GRAN	(910) 451-2549	KAM Peng	(310) 618-8889
Company	**Department/Floor No.**	**Company**	**Department/Floor No.**
TUM REMEDIATION SERVICES		CKY INC.	
Street Address		**Exact Street Address** (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.)	
CAMP LEJEUNE/ HOLCOMB BLVD		630 Maple Avenue	
City	**State** / **ZIP Required**	**City**	**State** / **ZIP Required**
JACKSONVILLE	NC	Torrance	CA 90503

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.)
18319

H IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here (Not available at all locations)
Street Address
City State ZIP Required

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card
5 [ ] Cash/ Check

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning)	Standard Overnight (Delivery by next business afternoon; No Saturday Delivery†)
11 [X]	51 [ ]
Economy Two-Day (Delivery by second business day†)	**Government Overnight** (Restricted for authorized users only)
30 [ ]	41 [ ]

Freight Service (for packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT** (Confirmed reservation required) 80 [ ] TWO-DAY FREIGHT**
†Delivery commitment may be later in some areas. **Call for delivery schedule.

INSTRUCTIONS (Mark appropriate boxes)
- Dangerous Goods as per attached Shipper's Declaration [X]
- Dangerous Goods Shipper's Declaration not required [ ]
Cargo Aircraft only [ ]

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service
1 [ ] HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
2 [X] DELIVER WEEKDAY

Saturday Service
31 [ ] HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
3 [ ] DELIVER SATURDAY (Extra charge) (Not available to all locations)
9 [ ] SATURDAY PICK-UP (Extra charge)

Special Handling
4 [X] DANGEROUS GOODS (Extra charge)
6 [ ] DRY ICE (Dangerous Goods Shipper's Declaration not required)
Dry Ice, 9, UN 1845 ____ x ____ kg, 904
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6 PACKAGES | WEIGHT in Pounds Only | YOUR DECLARED VALUE (See rate)

1	51	
Total	Total	Total
1	51	

DIM SHIPMENT (Chargeable Weight) [ ] ____ lbs.
L x W x H

Received At
[ ] Regular Stop [ ] Drop Box
[ ] On-Call Stop [ ] B.S.C. [ ] Station

Emp. No. | Date
[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del. [ ] Chg. To Hold
Street Address
City State Zip
Received By: X
Date/Time Received FedEx Employee Number

SIGNATURE RELEASE UNAVAILABLE

Federal Express Use	
Base Charges	
Declared Value Charge	
Other 1	
Other 2	
Total Charges	

REVISION DATE 11/94
Part # 146187/146188
FORMAT #219 GBFE
219
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6921491286 Page 1 of 1 Pages

Two completed and signed copies of this Declaration must be handed to the operator.

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non applicable)
PASSENGER AND CARGO AIRCRAFT | ~~CARGO AIRCRAFT ONLY~~

Airport of Departure:

Airport of Destination:

Shipment type: (delete non-applicable)
NON-RADIOACTIVE | ~~RADIOACTIVE~~

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification: Proper Shipping Name	Class or Division	UN or ID No.	Packing Group	Subsidiary Risk	Quantity and type of packing	Packing Inst.	Authorization
other Regulated Substances	class 9	I.D. 9127		n/a	1 plastic container w/ 15 - 250 mL glass Jars 2 - 1 L glass Jars 5.75 L Total	906	

Additional Handling Information

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labeled, and are in all respects in the proper condition for transport by air according to the applicable International and National Governmental Regulations.

Name/Title of Signatory: AARON R. GRAN / Project Tech
Place and Date:
Signature (see warning above):

Emergency Telephone Number (Required for US Origin or Destination Shipments)

IF ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN OR INCIDENTAL TO MEDICAL DIAGNOSIS OR TREATMENT

LABORATORY REPORT FOR

OHM

18319/CAMP LEJEUNE

CHLORINATED PESTICIDES

SDG#: 96E080

JUNE 08, 1996

CASE NARRATIVE

CLIENT: OHM

PROJECT: 18319/CAMP LEJEUNE

SDG: 96E080

CHLORINATED PESTICIDES

Fifteen (15) soil and two (2) samples were received on 05/30/96 for Pesticide analysis in accordance with SW846. Samples CLJ100-CS-002, -003, -004, and -007 were canceled and the others were requested for the analysis on 05/31/96.

I. Holding Time

All samples were extracted and analyzed within the holding time criteria.

II. Blank

Both soil and water method blanks were free of contamination.

III. Matrix Spike/Matrix Spike Duplicate

All recoveries and RPDs were within the QC limits for soil matrix. There was no MS/MSD performed for reinstate and field water samples, LCS/LCSD were performed as precision QC.

IV. Lab Control Sample

All results were within the control limits.

V. Surrogate Recovery

All surrogate recoveries were within the control limits.

VI. Instrument Performance and Calibration

An initial calibration was five-point and all RSDs were within the QC limits in a quantitation column. Rtx35 was used as the quantitation column. All continue calibrations were checked at 12 hour interval and all recoveries in the quantitation were within the QC limits. All DDT and Endrin breakdown were within QC limits.

VII. Sample Analysis

All sample analyses met the project specific QC requirements.

The LCS and MS/MSD associated with the preliminary soil results were not spiked with

CKY INC., ENVIRONMENTAL SERVICES, 3942 Valley Ave., Suite F, Pleasanton, CA 94566 • Tel: 415-[illegible] • FAX: [illegible]

the required DDD, alpha-chlordane, and gamma-chlordane analytes. All samples in 96E080 were re-extracted and re-analyzed with the required analytes spiked in the LCS and MS/MSD. Only reanalysis results were submitted in a final data package.

CKY INC., ENVIRONMENTAL SERVICES, 3942 Valley Ave., Suite F, Pleasanton, CA 94566 • Tel: 415-846-3188 • FAX: [illegible]

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/29/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E080	DATE EXTRACTED:	06/03/96
SAMPLE ID:	CLJ100-CS-001	DATE ANALYZED:	06/05/96
CONTROL NO.:	E080-01	MATRIX:	SOIL
% MOISTURE:	9.5	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.8
alpha-BHC	ND	11
beta-BHC	ND	22.1
delta-BHC	ND	27.6
gamma-BHC (Lindane)	ND	18.8
alpha-Chlordane	ND	110
gamma-Chlordane	ND	110
4,4'-DDD	ND	110
4,4'-DDE	ND	110
4,4'-DDT	280	110
Dieldrin	50	22.1
Endosulfan I	ND	18.8
Endosulfan II	ND	221
Endosulfan Sulfate	ND	22.1
Endrin	ND	110
Endrin aldehyde	ND	11
Heptachlor	ND	221
Heptachlor Epoxide	ND	552
Methoxychlor	ND	1100
Toxaphene	ND	2210

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	96	20-150
Decachlorobiphenyl	97	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/29/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E080	DATE EXTRACTED:	06/03/96
SAMPLE ID:	CLJ100-CS-005	DATE ANALYZED:	06/05/96
CONTROL NO.:	E080-05	MATRIX:	SOIL
% MOISTURE:	10.2	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.9
alpha-BHC	ND	11.1
beta-BHC	ND	22.3
delta-BHC	ND	27.8
gamma-BHC (Lindane)	ND	18.9
alpha-Chlordane	ND	111
gamma-Chlordane	ND	111
4,4'-DDD	ND	111
4,4'-DDE	ND	111
4,4'-DDT	ND	111
Dieldrin	ND	22.3
Endosulfan I	ND	18.9
Endosulfan II	ND	223
Endosulfan Sulfate	ND	22.3
Endrin	ND	111
Endrin aldehyde	ND	11.1
Heptachlor	ND	223
Heptachlor Epoxide	ND	557
Methoxychlor	ND	1110
Toxaphene	ND	2230

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	100	20-150
Decachlorobiphenyl	99	20-150

RL: Reporting Limit

04

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/29/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E080	DATE EXTRACTED:	06/03/96
SAMPLE ID:	CLJ100-CS-008	DATE ANALYZED:	06/05/96
CONTROL NO.:	E080-08	MATRIX:	SOIL
% MOISTURE:	11.5	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.2
alpha-BHC	ND	11.3
beta-BHC	ND	22.6
delta-BHC	ND	28.2
gamma-BHC (Lindane)	ND	19.2
alpha-Chlordane	ND	113
gamma-Chlordane	ND	113
4,4'-DDD	ND	113
4,4'-DDE	ND	113
4,4'-DDT	ND	113
Dieldrin	ND	22.6
Endosulfan I	ND	19.2
Endosulfan II	ND	226
Endosulfan Sulfate	ND	22.6
Endrin	ND	113
Endrin aldehyde	ND	11.3
Heptachlor	ND	226
Heptachlor Epoxide	ND	565
Methoxychlor	ND	1130
Toxaphene	ND	2260

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	96	20-150
Decachlorobiphenyl	97	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/29/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E080	DATE EXTRACTED:	06/03/96
SAMPLE ID:	CLJ100-CS-009	DATE ANALYZED:	06/05/96
CONTROL NO.:	E080-09	MATRIX:	SOIL
% MOISTURE:	14.5	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.9
alpha-BHC	ND	11.7
beta-BHC	ND	23.4
delta-BHC	ND	29.2
gamma-BHC (Lindane)	ND	19.9
alpha-Chlordane	100	117
gamma-Chlordane	ND	117
4,4'-DDD	ND	117
4,4'-DDE	650*	117
4,4'-DDT	280	117
Dieldrin	110	23.4
Endosulfan I	ND	19.9
Endosulfan II	ND	234
Endosulfan Sulfate	ND	23.4
Endrin	ND	117
Endrin aldehyde	ND	11.7
Heptachlor	ND	234
Heptachlor Epoxide	ND	585
Methoxychlor	ND	1170
Toxaphene	ND	2340

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	99	20-150
Decachlorobiphenyl	94	20-150

RL: Reporting Limit
* : Was diluted at DF 5 and reanalyzed on 06/06/96 due to high concentration level.

06

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/29/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E080	DATE EXTRACTED:	06/03/96
SAMPLE ID:	CLJ100-CS-010	DATE ANALYZED:	06/05/96
CONTROL NO.:	E080-10	MATRIX:	SOIL
% MOISTURE:	17.5	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	20.6
alpha-BHC	ND	12.1
beta-BHC	ND	24.2
delta-BHC	ND	30.3
gamma-BHC (Lindane)	ND	20.6
alpha-Chlordane	ND	121
gamma-Chlordane	ND	121
4,4'-DDD	ND	121
4,4'-DDE	980*	121
4,4'-DDT	1200*	121
Dieldrin	97	24.2
Endosulfan I	ND	20.6
Endosulfan II	ND	242
Endosulfan Sulfate	ND	24.2
Endrin	ND	121
Endrin aldehyde	ND	12.1
Heptachlor	ND	242
Heptachlor Epoxide	ND	606
Methoxychlor	ND	1210
Toxaphene	ND	2420

URROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	96	20-150
Decachlorobiphenyl	92	20-150

RL: Reporting Limit
* : Was diluted at DF 10 and reanalyzed on 06/06/96 due to high concentration level.

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/29/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E080	DATE EXTRACTED:	06/03/96
SAMPLE ID:	CLJ100-CS-010DP	DATE ANALYZED:	06/05/96
CONTROL NO.:	E080-11	MATRIX:	SOIL
% MOISTURE:	19.6	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	21.1
alpha-BHC	ND	12.4
beta-BHC	ND	24.9
delta-BHC	ND	31.1
gamma-BHC (Lindane)	ND	21.1
alpha-Chlordane	ND	124
gamma-Chlordane	ND	124
4,4'-DDD	ND	124
4,4'-DDE	930*	124
4,4'-DDT	1200*	124
Dieldrin	77	24.9
Endosulfan I	ND	21.1
Endosulfan II	ND	249
Endosulfan Sulfate	ND	24.9
Endrin	ND	124
Endrin aldehyde	ND	12.4
Heptachlor	ND	249
Heptachlor Epoxide	ND	622
Methoxychlor	ND	1240
Toxaphene	ND	2490

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	98	20-150
Decachlorobiphenyl	95	20-150

RL: Reporting Limit
* : Was diluted at DF 5 and reanalyzed due to high concentration level.

CKY INC., ANALYTICAL LABORATORIES, 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-8889 Fax: (310) 618-0818

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/29/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E080	DATE EXTRACTED:	06/03/96
SAMPLE ID:	CLJ100-CS-011	DATE ANALYZED:	06/05/96
CONTROL NO.:	E080-12	MATRIX:	SOIL
% MOISTURE:	11.1	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.1
alpha-BHC	ND	11.2
beta-BHC	ND	22.5
delta-BHC	ND	28.1
gamma-BHC (Lindane)	ND	19.1
alpha-Chlordane	ND	112
gamma-Chlordane	ND	112
4,4'-DDD	ND	112
4,4'-DDE	ND	112
4,4'-DDT	ND	112
Dieldrin	ND	22.5
Endosulfan I	ND	19.1
Endosulfan II	ND	225
Endosulfan Sulfate	ND	22.5
Endrin	ND	112
Endrin aldehyde	ND	11.2
Heptachlor	ND	225
Heptachlor Epoxide	ND	562
Methoxychlor	ND	1120
Toxaphene	ND	2250

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	98	20-150
Decachlorobiphenyl	96	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/29/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E080	DATE EXTRACTED:	06/03/96
SAMPLE ID:	CLJ100-CS-012	DATE ANALYZED:	06/05/96
CONTROL NO.:	E080-13	MATRIX:	SOIL
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17
alpha-BHC	ND	10
beta-BHC	ND	20
delta-BHC	ND	25
gamma-BHC (Lindane)	ND	17
alpha-Chlordane	ND	100
gamma-Chlordane	ND	100
4,4'-DDD	ND	100
4,4'-DDE	220	100
4,4'-DDT	150	100
Dieldrin	64	20
Endosulfan I	ND	17
Endosulfan II	ND	200
Endosulfan Sulfate	ND	20
Endrin	ND	100
Endrin aldehyde	ND	10
Heptachlor	ND	200
Heptachlor Epoxide	ND	500
Methoxychlor	ND	1000
Toxaphene	ND	2000

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	101	20-150
Decachlorobiphenyl	97	20-150

RL: Reporting Limit

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EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/29/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E080	DATE EXTRACTED:	06/03/96
SAMPLE ID:	CLJ100-CS-013	DATE ANALYZED:	06/05/96
CONTROL NO.:	E080-14	MATRIX:	SOIL
% MOISTURE:	14.9	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	20
alpha-BHC	ND	11.8
beta-BHC	ND	23.5
delta-BHC	ND	29.4
gamma-BHC (Lindane)	ND	20
alpha-Chlordane	ND	118
gamma-Chlordane	ND	118
4,4'-DDD	ND	118
4,4'-DDE	330	118
4,4'-DDT	180	118
Dieldrin	ND	23.5
Endosulfan I	ND	20
Endosulfan II	ND	235
Endosulfan Sulfate	ND	23.5
Endrin	ND	118
Endrin aldehyde	ND	11.8
Heptachlor	ND	235
Heptachlor Epoxide	ND	588
Methoxychlor	ND	1180
Toxaphene	ND	2350

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	101	20-150
Decachlorobiphenyl	93	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/29/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E080	DATE EXTRACTED:	06/03/96
SAMPLE ID:	CLJ100-CS-014	DATE ANALYZED:	06/05/96
CONTROL NO.:	E080-15	MATRIX:	SOIL
% MOISTURE:	9.5	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.8
alpha-BHC	ND	11
beta-BHC	ND	22.1
delta-BHC	ND	27.6
gamma-BHC (Lindane)	ND	18.8
alpha-Chlordane	ND	110
gamma-Chlordane	ND	110
4,4'-DDD	150	110
4,4'-DDE	ND	110
4,4'-DDT	ND	110
Dieldrin	79	22.1
Endosulfan I	ND	18.8
Endosulfan II	ND	221
Endosulfan Sulfate	ND	22.1
Endrin	ND	110
Endrin aldehyde	ND	11
Heptachlor	ND	221
Heptachlor Epoxide	ND	552
Methoxychlor	ND	1100
Toxaphene	ND	2210

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	95	20-150
Decachlorobiphenyl	95	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	NA
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	NA
BATCH NO.:	96E080	DATE EXTRACTED:	06/03/96
SAMPLE ID:	MBLK1S	DATE ANALYZED:	06/05/96
CONTROL NO.:	CPF002SB	MATRIX:	SOIL
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17
alpha-BHC	ND	10
beta-BHC	ND	20
delta-BHC	ND	25
gamma-BHC (Lindane)	ND	17
alpha-Chlordane	ND	100
gamma-Chlordane	ND	100
4,4'-DDD	ND	100
4,4'-DDE	ND	100
4,4'-DDT	ND	100
Dieldrin	ND	20
Endosulfan I	ND	17
Endosulfan II	ND	200
Endosulfan Sulfate	ND	20
Endrin	ND	100
Endrin aldehyde	ND	10
Heptachlor	ND	200
Heptachlor Epoxide	ND	500
Methoxychlor	ND	1000
Toxaphene	ND	2000

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	95	20-150
Decachlorobiphenyl	97	20-150

RL: Reporting Limit

CKY QUALITY CONTROL DATA
MS/MSD ANALYSIS

C[illegible]: OHM
Pr[illegible].: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: 9.5

BATCH NO.: 96E080
SAMPLE ID: CLJ100-CS-001
CONTROL NO.: E080-01

DATE RECEIVED: 05/31/96
DATE EXTRACTED: 06/03/96
DATE ANALYZED: 06/05/96

ACCESSION: 96E080

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	185.00	206.00	111	185.00	206.00	111	0	20-170	50
alpha-Chlordane	ND	185.00	218.00	118	185.00	241.00	131	10	20-170	50
gamma-Chlordane	ND	185.00	200.00	108	185.00	202.00	110	1	20-170	50
4,4'-DDD	ND	368.00	449.00	122	368.00	484.00	132	8	20-170	50
4,4'-DDT	309.00	368.00	441.00	36	368.00	443.00	36	2	20-170	50
Dieldrin	ND	368.00	399.00	108	368.00	404.00	110	1	20-170	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT %
Tetrachloro-m-xylene	442.00	444.00	100	442.00	456.00	103	20-150
Decachlorobiphenyl	737.00	716.00	97	737.00	717.00	97	20-150

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CKY QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: OHM
PROJECT: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96E080
SAMPLE ID: LCS1S
CONTROL NO.: CPF002SC

DATE RECEIVED: NA
DATE EXTRACTED: 06/02/96
DATE ANALYZED: 06/05/96

ACCESSION: 96E080

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	LCS RSLT (ug/kg)	LCS % REC	QC LIMIT (%)
Aldrin	ND	167.00	187.00	112	47-116
alpha-Chlordane	ND	167.00	184.00	110	45-119
gamma-Chlordane	ND	167.00	181.00	108	45-119
4,4'-DDD	ND	333.00	366.00	110	48-136
4,4'-DDT	ND	333.00	362.00	109	34-143
Dieldrin	ND	333.00	308.00	92	42-132

SURROGATE PARAMETER	SPIKE AMOUNT (ug/kg)	LCS RESULT (ug/kg)	LCS % REC	QC LIMIT %
Tetrachloro-m-xylene	400.00	410.00	102	20-150
Decachlorobiphenyl	667.00	635.00	95	20-150

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/29/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E080	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-RB-529	DATE ANALYZED:	06/05/96
CONTROL NO.:	E080-16	MATRIX:	WATER
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	RL (ug/L)
Aldrin	ND	.04
alpha-BHC	ND	.03
beta-BHC	ND	.05
delta-BHC	ND	.05
gamma-BHC (Lindane)	ND	.04
alpha-Chlordane	ND	.14
gamma-Chlordane	ND	.14
4,4'-DDD	ND	.04
4,4'-DDE	ND	.1
4,4'-DDT	ND	.02
Dieldrin	ND	.14
Endosulfan I	ND	.04
Endosulfan II	ND	.1
Endosulfan Sulfate	ND	.06
Endrin	ND	.1
Endrin aldehyde	ND	.03
Heptachlor	ND	.05
Heptachlor Epoxide	ND	.05
Methoxychlor	ND	.5
Toxaphene	ND	1

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	107	30-150
Decachlorobiphenyl	48	24-154

RL: Reporting Limit

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EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/29/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E080	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-FB-529	DATE ANALYZED:	06/05/96
CONTROL NO.:	E080-17	MATRIX:	WATER
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	RL (ug/L)
Aldrin	ND	.04
alpha-BHC	ND	.03
beta-BHC	ND	.05
delta-BHC	ND	.05
gamma-BHC (Lindane)	ND	.04
alpha-Chlordane	ND	.14
gamma-Chlordane	ND	.14
4,4'-DDD	ND	.04
4,4'-DDE	ND	.1
4,4'-DDT	ND	.02
Dieldrin	ND	.14
Endosulfan I	ND	.04
Endosulfan II	ND	.1
Endosulfan Sulfate	ND	.06
Endrin	ND	.1
Endrin aldehyde	ND	.03
Heptachlor	ND	.05
Heptachlor Epoxide	ND	.05
Methoxychlor	ND	.5
Toxaphene	ND	1

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	103	30-150
Decachlorobiphenyl	46	24-154

RL: Reporting Limit

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EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	NA
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	NA
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	MBLK1W	DATE ANALYZED:	06/05/96
CONTROL NO.:	CPF003WB	MATRIX:	WATER
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	RL (ug/L)
Aldrin	ND	.04
alpha-BHC	ND	.03
beta-BHC	ND	.05
delta-BHC	ND	.05
gamma-BHC (Lindane)	ND	.04
alpha-Chlordane	ND	.14
gamma-Chlordane	ND	.14
4,4'-DDD	ND	.04
4,4'-DDE	ND	.1
4,4'-DDT	ND	.02
Dieldrin	ND	.14
Endosulfan I	ND	.04
Endosulfan II	ND	.1
Endosulfan Sulfate	ND	.06
Endrin	ND	.1
Endrin aldehyde	ND	.03
Heptachlor	ND	.05
Heptachlor Epoxide	ND	.05
Methoxychlor	ND	.5
Toxaphene	ND	1

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	117	30-150
Decachlorobiphenyl	57	24-154

RL: Reporting Limit

CKY INC., ANALYTICAL LABORATORIES, 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-8889 Fax (310) 618-0818

CKY QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CI: OHM
PR .: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 96E080
SAMPLE ID: LCS1W/LCS1WD
CONTROL NO.: CPF003WL/C

DATE RECEIVED: NA
DATE EXTRACTED: 06/04/96
DATE ANALYZED: 06/05/96

ACCESSION: 96F004 96E080

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	.50	.49	98	.50	.52	104	6	47-116	50
alpha-Chlordane	ND	.50	.54	108	.50	.58	116	7	45-119	50
gamma-Chlordane	ND	.50	.50	100	.50	.53	106	6	45-119	50
4,4'-DDD	ND	1.00	1.09	109	1.00	1.13	113	4	48-136	50
4,4'-DDT	ND	1.00	1.14	114	1.00	1.15	115	1	34-143	50
Dieldrin	ND	1.00	.98	98	1.00	1.01	101	3	42-132	50

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT %
Tetrachloro-m-xylene	1.20	.92	77	1.20	1.01	84	30-150
Decachlorobiphenyl	2.00	1.70	85	2.00	1.75	88	24-154

INITIAL CALIBRATION
METHOD 8080

Lab Name : CKY Inc
Instrument ID : GC2
GC Columm : Rtx-35
Column size ID: .53mm
LFID & Datime: TE24-19 05-24-96 21:54:58 TE24-20 05-24-96 22:31:41
LFID & Datime: TE24-21 05-24-96 23:08:24 TE24-22 05-24-96 23:45:08
LFID & Datime: TE24-23 05-25-96 00:21:50 TE24-24 05-25-96 00:58:31
LFID & Datime: TE24-25 05-25-96 01:35:14 TE24-26 05-25-96 02:11:59
LFID & Datime: TE24-27 05-25-96 02:48:44 TE24-28 05-25-96 03:25:29
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA/UNIT) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN	%RSD
alpha-BHC	5.0	17678	19650	20474	21133	20017	19791	7
gamma-BHC	5.0	17612	19410	19738	19946	18668	19075	5
beta-BHC	5.0	6739	7026	7777	7996	7731	7454	7
Heptachlor	5.0	17693	17858	17225	16941	15567	17057	5
delta-BHC	5.0	11589	12737	15058	16159	17006	14510	16
Aldrin	5.0	18045	17786	18681	17927	17282	17944	3
Heptachlor Epoxide	5.0	18274	17604	17968	16964	15962	17354	5
gamma-Chlordane	5.0	19619	18677	19081	18009	17106	18498	5
Endosulfan I	5.0	17577	18227	17895	17535	16138	17474	5
alpha-Chlordane	5.0	19235	18309	18529	17349	16511	17987	6
Dieldrin	10.0	17776	18480	17738	16977	15492	17293	7
DDE	10.0	14637	14751	15728	15085	14358	14912	4
Endrin	10.0	14416	14847	14283	13564	12212	13865	7
Endosulfan II	10.0	16430	15492	15357	13933	12725	14787	10
DDD	10.0	11133	12298	12243	12396	11543	11923	5
Endrin Aldehyde	10.0	13641	12639	12850	11593	10611	12267	10
DDT	10.0	12292	12971	12681	12553	11430	12385	5
Endosulfan Sulfate	10.0	15631	14752	14697	13372	12260	14142	9
Endrin Ketone	10.0	18397	17044	16317	14430	12971	15832	14
Methoxychlor	50.0	5407	5152	4729	4376	3878	4708	13
TCX	5.0	16170	15495	15351	14113	13031	14832	8
DCB	10.0	19012	16608	15132	13136	11773	15132	19

CONTINUE CALIBRATION
METHOD 8080

L Name	:	CKY Inc			
Instrument ID	:	GC2			
GC Column	:	Rtx-35			
Column size ID	:	.53mm			
Mid Con Init LFID & Datime:		TE24-23	05-25-96	00:21:50	TE24-24 0
Mid Con Cont LFID & Datime:		TF04-22	06-04-96	23:48:37	TF04-23 0
CONC UNIT	:	ppb			

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%RSD
alpha-BHC	20.0	19791	21.6	8
gamma-BHC	20.0	19075	21.4	7
beta-BHC	20.0	7454	21.7	9
Heptachlor	20.0	17057	22.4	12
delta-BHC	20.0	14510	22.1	11
Aldrin	20.0	17944	20.5	2
Heptachlor Epoxide	20.0	17354	19.9	1
gamma-Chlordane	20.0	18498	20.0	0
Endosulfan I	20.0	17474	19.7	1
alpha-Chlordane	20.0	17987	20.0	0
Dieldrin	40.0	17293	39.2	2
DDE	40.0	14912	42.7	7
Endrin	40.0	13865	42.4	6
Endosulfan II	40.0	14787	39.5	1
[illegible]	40.0	11923	43.2	8
Endrin Aldehyde	40.0	12267	39.8	0
DDT	40.0	12385	43.8	10
Endosulfan Sulfate	40.0	14142	38.7	3
Endrin Ketone	40.0	15832	39.1	2
Methoxychlor	200.0	4708	228.0	14
TCX	20.0	14632	20.9	5
DCB	40.0	15132	37.3	7

CONTINUE CALIBRATION
METHOD 8080

L... Name : CKY Inc
Instrument ID : GC2
GC Columm : Rtx-35
Column size ID : .53mm
Mid Con Init LFID & Datime: TE24-23 05-25-96 00:21:50 TE24-24 0
Mid Con Cont LFID & Datime: TF04-41 06-05-96 11:27:08 TF04-42 0
CONC UNIT : ppb

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%RSD
alpha-BHC	20.0	19791	21.4	7
gamma-BHC	20.0	19075	21.2	6
beta-BHC	20.0	7454	21.4	7
Heptachlor	20.0	17057	21.0	5
delta-BHC	20.0	14510	21.6	8
Aldrin	20.0	17944	19.4	3
Heptachlor Epoxide	20.0	17354	18.6	7
gamma-Chlordane	20.0	18498	18.8	6
Endosulfan I	20.0	17474	22.8	14
alpha-Chlordane	20.0	17987	18.9	6
Dieldrin	40.0	17293	39.1	2
DDE	40.0	14912	40.3	1
Endrin	40.0	13865	42.0	5
...sulfan II	40.0	14787	37.2	7
[illegible]	40.0	11923	42.3	6
Endrin Aldehyde	40.0	12267	37.3	7
DDT	40.0	12385	41.4	4
Endosulfan Sulfate	40.0	14142	36.6	9
Endrin Ketone	40.0	15832	36.8	8
Methoxychlor	200.0	4708	211.2	6
TCX	20.0	14832	19.9	0
DCB	40.0	15132	35.7	11

CONTINUE CALIBRATION
METHOD 8080

La Name	:	CKY Inc			
Instrument ID	:	GC2			
GC Columm	:	Rtx-35			
Column size ID	:	.53mm			
Mid Con Init LFID & Datime:		TE24-23	05-25-96	00:21:50	TE24-24 0
Mid Con Cont LFID & Datime:		TF04-60	06-05-96	23:49:55	TF04-61 0
CONC UNIT	:	ppb			

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%RSD
alpha-BHC	20.0	19791	21.7	8
gamma-BHC	20.0	19075	21.4	7
beta-BHC	20.0	7454	22.5	13
Heptachlor	20.0	17057	20.9	4
delta-BHC	20.0	14510	22.9	14
Aldrin	20.0	17944	20.1	0
Heptachlor Epoxide	20.0	17354	19.3	3
gamma-Chlordane	20.0	18498	19.5	3
Endosulfan I	20.0	17474	19.6	2
alpha-Chlordane	20.0	17987	19.5	3
Dieldrin	40.0	17293	39.1	2
DDE	40.0	14912	41.8	4
Endrin	40.0	13865	42.0	5
Endosulfan II	40.0	14787	38.5	4
[illegible]	40.0	11923	42.4	6
Endrin Aldehyde	40.0	12267	38.3	4
DDT	40.0	12385	40.3	1
Endosulfan Sulfate	40.0	14142	37.9	5
Endrin Ketone	40.0	15832	37.7	6
Methoxychlor	200.0	4708	206.1	3
TCX	20.0	14832	20.5	3
DCB	40.0	15132	35.9	10

CONTINUE CALIBRATION
METHOD 8080

Lab Name	:	CKY Inc			
Instrument ID	:	GC2			
GC Columm	:	Rtx-35			
Column size ID	:	.53mm			
Mid Con Init LFID & Datime:		TE24-23	05-25-96	00:21:50	TE24-24 0
Mid Con Cont LFID & Datime:		TF04-79	06-06-96	11:26:47	TF04-80 0
CONC UNIT	:	ppb			

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%RSD
alpha-BHC	20.0	19791	21.2	6
gamma-BHC	20.0	19075	21.1	6
beta-BHC	20.0	7454	22.8	14
Heptachlor	20.0	17057	21.8	9
delta-BHC	20.0	14510	21.5	8
Aldrin	20.0	17944	20.2	1
Heptachlor Epoxide	20.0	17354	19.6	2
gamma-Chlordane	20.0	18498	19.8	1
Endosulfan I	20.0	17474	19.5	2
alpha-Chlordane	20.0	17987	19.8	1
Dieldrin	40.0	17293	38.7	3
[illegible]	40.0	14912	42.2	6
[illegible] in	40.0	13865	41.7	4
Endosulfan II	40.0	14787	39.2	2
DDD	40.0	11923	42.5	6
Endrin Aldehyde	40.0	12267	38.9	3
DDT	40.0	12385	42.9	7
Endosulfan Sulfate	40.0	14142	38.6	4
Endrin Ketone	40.0	15832	38.1	5
Methoxychlor	200.0	4708	219.1	10
TCX	20.0	14832	20.9	4
DCB	40.0	15132	34.8	13

DDT/Endrin Breakdown

Instrument ID: GC-2

	File: SF04-2	File: TF04-2
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	0.4	0
Endrin	2.1	1.2

	File: SF04-21	File: TF04-21
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	1.8	0
Endrin	0.9	0

	File: SF04-45	File: TF04-45
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	1.3	0
Endrin	2.1	0

DDT/Endrin Breakdown

Instrument ID: GC-2

	File: SF04-59	File: TF04-59
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	8.2	0
Endrin	6.7	0

	File: SF04-78	File: TF04-78
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	7.5	0
Endrin	2.4	0.9

	File:	File:
	Col:	Col:
	%breakdown	%breakdown
DDT		
Endrin		

SEQUENCE RECORDED IN F:\SF04.SEQ

SEQUENCE FILE: F:\SF04.SEQ

	SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	IBLK/10C-1-34-1	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
2	PEM01/10-1-20-2	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
3	DCC1-MIXA/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
4	DCC1-MIXB/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
5	CPF004SQ	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
6	CPF004SZ	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
7	CPF004SZ	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
8	96F004-01	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
9	96F004-02	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
10	96F004-03	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
11	96F004-04	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
12	96F004-05	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
13	96F004-06	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
14	96F004-07	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
15	96F004-12	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
16	96F004-10	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
17	96F004-11	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
18	96F004-08	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
19	96F004-13	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
20	96F004-14	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
21	PEM02/10-1-20-2	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
22	DCC2-MIXA/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
23	DCC2-MIXB/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
24	96F004-15	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
25	96F004-16	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
26	96F004-17	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
27	96F004-18	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
28	96F004-12M	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
29	96F004-12S	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
30	CPF003WB	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
31	CPF003WL	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
32	CPF003WC	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
33	96E080-16	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
34	96E080-17	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
35	96F004-19	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
36	96F004-20	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
37	96F004-06T 10X	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
38	CPF002SB	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
39	SPIKE TEST	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
40	PEM03/10-1-20-2	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
41	DCC3-MIXA/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
42	DCC3-MIXB/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
43	96F002SL	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
44	96F002SC	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
45	96E080-01	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
46	96E080-01M	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000

48	96E080-05	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
49	96E080-06	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
50	96E080-08	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
51	96E080-09	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
52	96E080-10	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
53	96E080-11	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
54	96E080-11T 5X	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
55	96E080-12	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
56	96E080-13	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
57	96E080-14	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
58	96E080-15	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
59	PEM04/10C-1-20-2	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
60	DCC4-MIXA/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
61	DCC4-MIXB/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
62	DCC1-1660/10-1-302	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
63	96E080-09T 5X	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
64	96E080-10T 10X	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
65	CPF006SB	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
66	CPF006SL	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
67	CPF006SC	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
68	96F013-12	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
69	96F013-12M	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
70	96F013-12S	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
71	CPF007SB	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
72	CPF007SL	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
73	CPF007SC	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
74	96F009-01	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
75	96F009-01M	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
76	96F009-01S	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
77	96F009-02	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
78	PEM05/10C-1-20-2	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
79	DCC5-MIXA/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
80	DCC5-MIXB/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
81	DCC2-1660/10-1-302	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
82	96F009-03	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
83	96F009-04	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
84	96F009-05	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
85	96F009-06	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
86	96F009-07	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
87	96F009-08	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
88	96F009-09	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
89	96F009-10	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
90	96F009-11	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
91	96F009-12	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
92	96F009-13	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
93	96F009-14	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
94	96F009-15	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
95	96F009-16	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
96	96F009-17	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
97	96F009-18	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
98	PEM06/10C-1-20-2	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
99	DCC6-MIXA/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
100	DCC6-MIXB/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000

CKY Analytical Laboratories
Sample Preparation Department

EXTRACTION LOG FOR PESTICIDES/PCBs

CKYT–E01–002

CLIENT: OTIM
METHOD: 8080
PAGE #:
MATRIX: SOIL
DATE EXTRACTED: 6/03/96
DATE COMPLETED: 6/03/96

LAB SAMPLE ID	SAMPLE AMOUNT (g/ml)	pH	EXTRACT VOLUME (ml)	CLEAN–UP (G/S/A/F)	NOTES
CPF002 SQ			10		
SZ					
SZ					
EQ80 - 01	3.0				
1M					
1S					
05					
06					
08					
09					
10					
11					
12					
13					
14					
15					

CLEAN–UP	CODE
GPC	G
TBA	S
ACID	A
FLORISIL	F

REAGENT	LOT #
Na2SO4	954496
CH2CL2	36082
HEXANE	962303

STANDARDS	ID	AMOUNT ADDED (ml)
SPIKE ID MIX A	S10C-01-0-34-02	0.40
SURROGATE ID	S10C-01-0-35-02	2.0
MIX B spike	S10C-01-0-35-01	0.40

SDG #	EXTRACT LOCATION
	GC-RT-C1

COMMENTS: time started: 17:00
time completed: 21:00

PREPARED BY: ML / MD / PY
STD's ADDED BY: MD / ML
CHECKED BY:

Extracts Received By: 6/4/96

CKY Analytical Laboratories
Sample Preparation Department

EXTRACTION LOG FOR PESTICIDES/PCBs

CKYT-E01-002

CLIENT OHM
MATRIX WATER
METHOD 8080
DATE EXTRACTED 6/02/96 16:00
PAGE # 92
DATE COMPLETED 6/03/96 16:00

LAB SAMPLE ID	SAMPLE AMOUNT (g/ml)	pH	EXTRACT VOLUME (ml)	CLEAN-UP (G/S/A/F)	NOTES
CPF003 - WB	1000		10		
WL	↓		↓		
WC					
E080 - 16					
17					
F004 - 19					
20	↓		↓		
				/	
30					

CLEAN-UP	CODE
GPC	G
TBA	S
ACID	A
FLORISIL	F

REAGENT	LOT #
Na2SO4	954496
CH2CL2	MD ~~954496~~ 36082
HEXANE	962303

STANDARDS	ID	AMOUNT ADDED (ml)
SPIKE ID	S10C-01-22-02	1.0
SURROGATE ID	S10C-1-23-2	1.0

SDG #	EXTRACT LOCATION
	GC-R1-01

COMMENTS:

PREPARED BY: MD
STD's ADDED BY: MD / TOM
CHECKED BY: ML

Extracts Received By:

C K Y incorporated
Analytical Laboratories

Date: 06-05-1996
CKY Batch No.: 96E081

Ms. Missy Art

OHM
5335 TRIANGLE PARKWAY SUITE 450
NORCROSS GA 30092

Subject: Laboratory Report
Project: 18319/CAMP LEJEUNE

Enclosed is the Laboratory report for samples received on 05/31/96. The samples were received in coolers with ice and intact; the chain-of-custody forms were properly filled out. The data reported include :

Sample ID	Control No.	Matrix	Analysis
CLJ100-CS-020	E081-06	Soil	EPA 8080
CLJ100-CS-020DP	E081-07	Soil	EPA 8080
CLJ100-CS-022	E081-09	Soil	EPA 8080
CLJ100-CS-026	E081-13	Soil	EPA 8080
CLJ100-CS-028	E081-15	Soil	EPA 8080
CLJ100-CS-029	E081-16	Soil	EPA 8080
CLJ100-CS-030	E081-17	Soil	EPA 8080
CLJ100-CS-030DP	E081-18	Soil	EPA 8080

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Pang

Kam Y. Pang, Ph.D.
Laboratory Director

P.S. - All analyses requested for the above referenced project have been completed. Therefore, unless instructed, the remaining portions of the samples will be disposed after fifteen (15) days from the date of this report.

630 Maple Ave., Torrance, Calif. 90503 • Telephone 310-618-8889 • Fax: 310-618-0818

CASE NARRATIVE

CLIENT: OHM

PROJECT: CAMP LEJEUNE

SDG: 96E081

PESTICIDES

Eighteen (18) soil and two (1) oil samples were received on 05/31/96 for Pesticides and PCBs analysis in accordance with USEPA SW 846. Only eight (8) samples were authorized for analysis.

I. **Holding Time**

All samples were analyzed within holding time criteria.

II. **Blank**

A method blank was free of contamination.

III. **Matrix Spike/Matrix Spike Duplicate**

All recoveries and RPDs were within QC limits.

IV. **Lab Control Sample**

All lab control results were within the control limits.

V. **Surrogate Recovery**

All surrogate recoveries were within the control limits.

VI. **Instrument Performance and Calibration**

Initial calibrations were five-point for Pesticides, all RSDs were within the QC limits. Rtx-35 was used as a quantitation column.

VII. **Sample Analysis**

Sample analysis was done within QC requirements.

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/30/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E081	DATE EXTRACTED:	05/31/96
SAMPLE ID:	CLJ100-CS-020	DATE ANALYZED:	05/31/96
CONTROL NO.:	E081-06	MATRIX:	SOIL
% MOISTURE:	13.2	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.6
alpha-BHC	ND	11.5
beta-BHC	ND	23
delta-BHC	ND	28.8
gamma-BHC (Lindane)	ND	19.6
alpha-Chlordane	ND	115
gamma-Chlordane	ND	115
4,4'-DDD	ND	115
4,4'-DDE	ND	115
4,4'-DDT	ND	115
Dieldrin	30	23
Endosulfan I	ND	19.6
Endosulfan II	ND	230
Endosulfan Sulfate	ND	23
Endrin	ND	115
Endrin aldehyde	ND	11.5
Heptachlor	ND	230
Heptachlor Epoxide	ND	576
Methoxychlor	ND	1150
Toxaphene	ND	2300

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	113	20-150
Decachlorobiphenyl	78	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/30/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E081	DATE EXTRACTED:	05/31/96
SAMPLE ID:	CLJ100-CS-020DP	DATE ANALYZED:	05/31/96
CONTROL NO.:	E081-07	MATRIX:	SOIL
% MOISTURE:	13.6	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.7
alpha-BHC	ND	11.6
beta-BHC	ND	23.1
delta-BHC	ND	28.9
gamma-BHC (Lindane)	ND	19.7
alpha-Chlordane	ND	116
gamma-Chlordane	ND	116
4,4'-DDD	ND	116
4,4'-DDE	120	116
4,4'-DDT	ND	116
Dieldrin	86	23.1
Endosulfan I	ND	19.7
Endosulfan II	ND	231
Endosulfan Sulfate	ND	23.1
Endrin	ND	116
Endrin aldehyde	ND	11.6
Heptachlor	ND	231
Heptachlor Epoxide	ND	579
Methoxychlor	ND	1160
Toxaphene	ND	2310

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	99	20-150
Decachlorobiphenyl	72	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/30/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E081	DATE EXTRACTED:	05/31/96
SAMPLE ID:	CLJ100-CS-022	DATE ANALYZED:	06/01/96
CONTROL NO.:	E081-09	MATRIX:	SOIL
% MOISTURE:	11.7	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.3
alpha-BHC	ND	11.3
beta-BHC	ND	22.7
delta-BHC	ND	28.3
gamma-BHC (Lindane)	ND	19.3
alpha-Chlordane	ND	113
gamma-Chlordane	ND	113
4,4'-DDD	ND	113
4,4'-DDE	ND	113
4,4'-DDT	ND	113
Dieldrin	110	22.7
Endosulfan I	ND	19.3
Endosulfan II	ND	227
Endosulfan Sulfate	ND	22.7
Endrin	ND	113
Endrin aldehyde	ND	11.3
Heptachlor	ND	227
Heptachlor Epoxide	ND	566
Methoxychlor	ND	1130
Toxaphene	ND	2270

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	106	20-150
Decachlorobiphenyl	74	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/30/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E081	DATE EXTRACTED:	05/31/96
SAMPLE ID:	CLJ100-CS-026	DATE ANALYZED:	06/01/96
CONTROL NO.:	E081-13	MATRIX:	SOIL
% MOISTURE:	8.9	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.7
alpha-BHC	ND	11
beta-BHC	ND	22
delta-BHC	ND	27.4
gamma-BHC (Lindane)	ND	18.7
alpha-Chlordane	ND	110
gamma-Chlordane	ND	110
4,4'-DDD	330*	110
4,4'-DDE	350*	110
4,4'-DDT	610*	110
Dieldrin	110	22
Endosulfan I	ND	18.7
Endosulfan II	ND	220
Endosulfan Sulfate	ND	22
Endrin	ND	110
Endrin aldehyde	ND	11
Heptachlor	ND	220
Heptachlor Epoxide	ND	549
Methoxychlor	ND	1100
Toxaphene	ND	2200

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	110	20-150
Decachlorobiphenyl	75	20-150

RL: Reporting Limit
* : Was diluted at DF 5 and reanalyzed on 06/02/96 due to high concentration level.

EPA METHOD 8080
PESTICIDES

LIENT:	OHM	DATE COLLECTED:	05/30/96
ROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E081	DATE EXTRACTED:	05/31/96
SAMPLE ID:	CLJ100-CS-028	DATE ANALYZED:	06/01/96
CONTROL NO.:	E081-15	MATRIX:	SOIL
% MOISTURE:	7.5	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.4
alpha-BHC	ND	10.8
beta-BHC	ND	21.6
delta-BHC	ND	27
gamma-BHC (Lindane)	ND	18.4
alpha-Chlordane	ND	108
gamma-Chlordane	ND	108
4,4'-DDD	ND	108
4,4'-DDE	230	108
4,4'-DDT	300	108
Dieldrin	250	21.6
Endosulfan I	ND	18.4
Endosulfan II	ND	216
Endosulfan Sulfate	ND	21.6
Endrin	ND	108
Endrin aldehyde	ND	10.8
Heptachlor	ND	216
Heptachlor Epoxide	ND	541
Methoxychlor	ND	1080
Toxaphene	ND	2160

URROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	113	20-150
Decachlorobiphenyl	73	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/30/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E081	DATE EXTRACTED:	05/31/96
SAMPLE ID:	CLJ100-CS-029	DATE ANALYZED:	06/01/96
CONTROL NO.:	E081-16	MATRIX:	SOIL
% MOISTURE:	12.2	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.4
alpha-BHC	ND	11.4
beta-BHC	ND	22.8
delta-BHC	ND	28.5
gamma-BHC (Lindane)	ND	19.4
alpha-Chlordane	ND	114
gamma-Chlordane	ND	114
4,4'-DDD	1300*	114
4,4'-DDE	1600*	114
4,4'-DDT	ND	114
Dieldrin	310	22.8
Endosulfan I	ND	19.4
Endosulfan II	ND	228
Endosulfan Sulfate	ND	22.8
Endrin	ND	114
Endrin aldehyde	ND	11.4
Heptachlor	ND	228
Heptachlor Epoxide	ND	569
Methoxychlor	ND	1140
Toxaphene	ND	2280

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	100	20-150
Decachlorobiphenyl	68	20-150

RL: Reporting Limit
* : Was diluted at DF 10 and reanalyzed on 06/02/96 due to high concentration level.

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/30/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E081	DATE EXTRACTED:	05/31/96
SAMPLE ID:	CLJ100-CS-030	DATE ANALYZED:	06/01/96
CONTROL NO.:	E081-17	MATRIX:	SOIL
% MOISTURE:	7.6	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.4
alpha-BHC	ND	10.8
beta-BHC	ND	21.6
delta-BHC	ND	27.1
gamma-BHC (Lindane)	ND	18.4
alpha-Chlordane	ND	108
gamma-Chlordane	ND	108
4,4'-DDD	ND	108
4,4'-DDE	ND	108
4,4'-DDT	ND	108
Dieldrin	ND	21.6
Endosulfan I	ND	18.4
Endosulfan II	ND	216
Endosulfan Sulfate	ND	21.6
Endrin	ND	108
Endrin aldehyde	ND	10.8
Heptachlor	ND	216
Heptachlor Epoxide	ND	541
Methoxychlor	ND	1080
Toxaphene	ND	2160

URROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	95	20-150
Decachlorobiphenyl	68	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/30/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	05/31/96
BATCH NO.:	96E081	DATE EXTRACTED:	05/31/96
SAMPLE ID:	CLJ100-CS-030DP	DATE ANALYZED:	06/01/96
CONTROL NO.:	E081-18	MATRIX:	SOIL
% MOISTURE:	6.9	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.3
alpha-BHC	ND	10.7
beta-BHC	ND	21.5
delta-BHC	ND	26.9
gamma-BHC (Lindane)	ND	18.3
alpha-Chlordane	ND	107
gamma-Chlordane	ND	107
4,4'-DDD	ND	107
4,4'-DDE	ND	107
4,4'-DDT	ND	107
Dieldrin	ND	21.5
Endosulfan I	ND	18.3
Endosulfan II	ND	215
Endosulfan Sulfate	ND	21.5
Endrin	ND	107
Endrin aldehyde	ND	10.7
Heptachlor	ND	215
Heptachlor Epoxide	ND	537
Methoxychlor	ND	1070
Toxaphene	ND	2150

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	99	20-150
Decachlorobiphenyl	70	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	NA
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	NA
BATCH NO.:	96E081	DATE EXTRACTED:	05/31/96
SAMPLE ID:	MBLK1S	DATE ANALYZED:	05/31/96
CONTROL NO.:	CPE017SB	MATRIX:	SOIL
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17
alpha-BHC	ND	10
beta-BHC	ND	20
delta-BHC	ND	25
gamma-BHC (Lindane)	ND	17
alpha-Chlordane	ND	100
gamma-Chlordane	ND	100
4,4'-DDD	ND	100
4,4'-DDE	ND	100
4,4'-DDT	ND	100
Dieldrin	ND	20
Endosulfan I	ND	17
Endosulfan II	ND	200
Endosulfan Sulfate	ND	20
Endrin	ND	100
Endrin aldehyde	ND	10
Heptachlor	ND	200
Heptachlor Epoxide	ND	500
Methoxychlor	ND	1000
Toxaphene	ND	2000

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	103	20-150
Decachlorobiphenyl	74	20-150

RL: Reporting Limit

CKY QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: OHM
PROJECT: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96E081
SAMPLE ID: LCS1S
CONTROL NO.: CPE017SL

DATE RECEIVED: NA
DATE EXTRACTED: 05/31/96
DATE ANALYZED: 05/31/96

ACCESSION: 96E081

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	LCS RSLT (ug/kg)	LCS % REC	QC LIMIT (%)
Aldrin	ND	167.00	172.00	103	47-116
alpha-Chlordane	ND	167.00	188.00	113	45-119
gamma-Chlordane	ND	167.00	171.00	103	45-119
4,4'-DDD	ND	333.00	376.00	113	48-136
4,4'-DDT	ND	333.00	366.00	110	34-143
Dieldrin	ND	333.00	335.00	101	41-132

SURROGATE PARAMETER	SPIKE AMOUNT (ug/kg)	LCS RESULT (ug/kg)	LCS % REC	QC LIMIT %
Tetrachloro-m-xylene	400.00	411.40	103	28-137
Decachlorobiphenyl	667.00	623.00	93	51-153

CKY QUALITY CONTROL DATA
MS/MSD ANALYSIS

CL: OHM
PR: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: 11.7

BATCH NO.: 96E081
SAMPLE ID: CLJ100-CS-022
CONTROL NO.: E081-09

DATE RECEIVED: 05/31/96
DATE EXTRACTED: 05/31/96
DATE ANALYZED: 06/01/96

ACCESSION: 96E081

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	189.00	200.00	106	189.00	221.00	117	10	20-170	50
alpha-Chlordane	ND	189.00	239.00	127	189.00	263.00	139	10	20-170	50
gamma-Chlordane	ND	189.00	233.00	123	189.00	251.00	133	8	20-170	50
4,4'-DDD	ND	377.00	462.00	122	377.00	463.00	123	0	20-170	50
4,4'-DDT	ND	377.00	476.00	126	377.00	476.00	126	0	20-170	50
Dieldrin	108.00	377.00	472.00	97	377.00	484.00	100	3	20-170	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT %
Tetrachloro-m-xylene	453.00	449.00	99	453.00	474.00	105	28-137
Decachlorobiphenyl	755.00	728.00	96	755.00	752.00	100	51-153

CKY Analytical Laboratories
Sample Preparation Department

EXTRACTION LOG FOR PESTICIDES/PCBs

CKYT–E01–002

CLIENT CKY INC. / OTIM METHOD 8080 PAGE #

MATRIX SOIL DATE EXTRACTED 5/31/96 DATE COMPLETED 5/31/96

LAB SAMPLE ID	SAMPLE AMOUNT (g/ml)	pH	EXTRACT VOLUME (ml)	CLEAN-UP (G/S/A/F)	NOTES
CPE017 - SB	–		10		
SL	–				
E082 - 01	30.0				
1M	↓				
1S	↓				
E081 - 01	3.0				
– 02					
– 03					
– 04					
– 05					
– 06					
– 07					
– 08					
– 09					
– 9M					
– 9S					
– 10					
– 11					
– 12					
– 13					
– 14					
– 15					
– 16					
– 17					
– 18	↓		↓		

CLEAN-UP	CODE
GPC	G
TBA	S
ACID	A
FLORISIL	F

REAGENT	LOT #
Na2SO4	352896 11
CH2CL2	36082
HEXANE	962303

STANDARDS	ID	AMOUNT ADDED (ml)
SPIKE IDMIX A	S10C-01-24-02	0.25
SURROGATE ID	S10C-1-23-2	2.0
SPIKE MIX B	S10C-1-25-01	0.40

SDG #	EXTRACT LOCATION
	GC-R1-C1

COMMENTS:

PREPARED BY: MD/ML

STD's ADDED BY: MD/ML

CHECKED BY: FY

Extracts Received By:

76E021/D2

TRANSFER 2

Form 0019
Field Technical Services
Rev. 08/89

166573

Ornil Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

OJECT NAME: Camp Lejeune	PROJECT LOCATION: Camp Lejeune, NC.
ROJ. NO.: [illegible]319	PROJECT CONTACT: Alan Whitt
PROJECT TELEPHONE NO.: (910) 451-2599	
LIENT'S REPRESENTATIVE: VANN Marshburn	PROJECT MANAGER/SUPERVISOR: Tim Dunn / Alan Whitt

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): TCL Pesticides (8080)

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	TCL Pesticides (8080)	REMARKS
1	[illegible]-CS-015	[illegible]	1328		X	Confirmation Sample from AOC 33-38 Base	1-8oz	X	Nensa Level C
2	[illegible]-CS-016	[illegible]	1333		X	Confirmation Sample from AOC 33-38 Base	1-8oz	X	
3	[illegible]-CS-017	[illegible]	1335		X	Confirmation Sample from AOC 33-38 Base	1-8oz	X	
4	[illegible]-CS-018	[illegible]	1341		X	Confirmation Sample from AOC 33-38 Sidewall	1-8oz	X	
5	[illegible]	[illegible]	1346		X	Confirmation Sample from AOC 33-38 Sidewall	1-8oz	X	
6	[illegible]	[illegible]	1353		X	Confirmation Sample from AOC 33-38 Sidewall	1-8oz	X	
7	[illegible]	[illegible]	1353		X	Duplicate Confirmation Sample from AOC 33-38 Sidewall	1-8oz	X	
8	[illegible]	[illegible]	1358		X	Confirmation Sample from AOC 33-38 Sidewall	1-8oz	X	
9	[illegible]	[illegible]	1403		X	Confirmation Sample from AOC 33-38 Sidewall	1-8oz	X	
10	[illegible]	[illegible]	1408		X	Confirmation Sample from AOC 33-38 Sidewall	1-8oz	X	

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-10	[illegible]	FED-EX 6921491290	5/30/96	1700
2			[illegible]	5/31/96	700

REMARKS

Samples sent to CKY INC.
48 hour TAT Please Fax Results
To (910) 451-1809 [illegible]

Hold Samples until we contact you.

Or[illegible]mediation
Ser[illegible]s Corp.

CHAIN-OF-CUSTODY RECORD

TRANSFER 1

Form 0019
Field Technical Services
Rev. 08/89

166573

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)	REMARKS
1					X			X	
2					X			X	
3					X			X	
4					X			X	
5					X			X	
6					X			X	
7					X			X	
8					X			X	
9					X			X	
10					X			X	

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1					
2					
3					
4					

REMARKS

SAMPLER'S SIGNATURE

96E081/D2

Ornil Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

166574

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune	Camp Lejeune, NC.

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
[illegible]319	Alan Whitt	(910) 451-2599

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
Vann Marshburn	Tim Dowell, Alan Whitt

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): TCL Pesticides (8080)

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	TCL Pesticides (8080)	REMARKS
1	[illegible]-CS-024	5/30/96	1412		X	Confirmation Sample From ADC 39-42 Base	1-8oz	X	NEESA Level C
2	[illegible]-CS-025	5/30/96	1414		X	Confirmation Sample From ADC 39-42 Sidewall	1-8oz	X	
3	[illegible]-CS-026	5/30/96	1417		X	Confirmation Sample From ADC 25-28 Base	1-8oz	X	
4	[illegible]-CS-027	5/30/96	1420		X	Confirmation Sample From ADC 25-28 Sidewall	1-8oz	X	
5	[illegible]-CS-028	5/30/96	1423		X	Confirmation Sample From ADC 29-32 Sidewall	1-8oz	X	
6	[illegible]-CS-029	5/30/96	1426		X	Confirmation Sample From ADC 29-32 Sidewall	1-8oz	X	
7	[illegible]-CS-030	5/30/96	1430		X	Confirmation Sample From ADC 29-32 Base	1-8oz	X	
8	[illegible]-CS-030 DP	5/30/96	1430		X	Duplicate Confirmation Sample From ADC 29-32 Base	1-8oz	X	
9	[illegible] FB-530	5/30/96	1437		X	Field Blank	1-1L	X	Do Not Run!
10	[illegible] RB-530	5/30/96	1441		X	Rinsate Blank	1-1L	X	Do NOT Run!

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-10	[illegible] R. Azan	FED-EX 6921491290	5/30/96	1700
				5/31	700

REMARKS

Samples sent to [illegible] 48 hour T.A.T. [illegible] (910) 451-1809. Thanks

Oh[illegible]mediation Services Corp.

CHAIN-OF-CUSTODY RECORD

TRANSFER 1

Form 0019
Field Technical Services
Rev. 08/89

166574

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
[illegible]	[illegible]

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
[illegible]	[illegible]	[illegible]

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
[illegible]	[illegible]

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS)

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	[illegible]							REMARKS
1	[illegible]	[illegible]	1412		[illegible]	[illegible]	[illegible]	X							[illegible]
2	[illegible]	[illegible]	1414		X	[illegible]	1-8oz	X							
3	[illegible]	[illegible]	[illegible]		X	[illegible]	1-8oz	X							
4	[illegible]	[illegible]	[illegible]		X	[illegible]	1-8oz	X							
5	[illegible]	[illegible]	[illegible]		X	[illegible]	1-8oz	X							
6	[illegible]	[illegible]	[illegible]		X	[illegible]	1-8oz	X							
7	[illegible]	[illegible]	[illegible]		X	[illegible]	1-8oz	X							
8	[illegible]	[illegible]	[illegible]		X	[illegible]	1-8oz	X							
9	[illegible]	[illegible]	1437		X	[illegible]	1-1L	X							Do Not Run!
10	[illegible]	[illegible]	1441		X	[illegible]	1-1L	X							Do NOT Run!

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	[illegible]		[illegible] 6921491290	[illegible]	[illegible]
2			[illegible]	[illegible]	100
3					
4					

REMARKS

[illegible]

SAMPLER'S SIGNATURE [illegible]

SAMPLE RECEIPT FORM

CONTROL NO.	96E081
CLIENT	OHM
PROJECT	Camp Lejeune

DATE	05 - 31 - 96
TIME	900
RECIPIENT	Tom Vu

SAMPLE TRANSPORTATION TO CKY LABORATORY:		BY	ON(DATE)	AT(TIME)	FROM(SITE/CO.)	COMMENTS
PICKED-UP BY CKY COURIER						
DELIVERED BY CLIENT	✓					
SHIPPED/AIRBILL NO	Fedex, APTN: 6921491290	See Air Bill				

SAMPLE BATCH PACKAGING/SEALING UPON RECEIPT:	✓ INTACT	DAMAGED	✓ SEALED	NOT SEALED	NO CONTAINER

CONTAINER:		INSIDE TEMPERATURE:	2° C	CUSTODY SEAL		LOCATION	NUMBER
✓ COOLER	PACKAGING	TYPE	SUFFICIENCY	✓ INTACT	DAMAGED		
BOX	INSULATION:		OK	NAME:		Front Closure	2
OTHER:	ICE/COOLANT:	Regular	↓	DATE:			
	PACKING MATERIAL:	Popcorn		TIME:			

SAMPLE DOCUMENTATION/CHAIN-OF-CUSTODY(COC)	SEALED	✓ ENCLOSED	HANDCARRIED	FAXED	MAILED

SAMPLE LOG-IN:	CRITERIA	COMMENTS	DISCREPANCY
SAMPLE CUSTODY SEAL	EVERY SAMPLE	None	
CONTAINER TYPE/MATERIAL	APPROPRIATE	OK	
SAMPLE AMOUNT	ENOUGH	↓	
SAMPLE PRESERVATION/HOLDING TIME	SUFFICIENT		
HEADSPACE/BUBBLES	ZERO/NONE		
SAMPLE LABEL INFORMATION	SUFFICIENT		
CHAIN-OF-CUSTODY INFORMATION	SUFFICIENT		

SAMPLE INFO.:	SAMPLE ID ✓	DATE ✓	TIME ✓	SIGNATURE ✓	ANALYSES ✓	PRESERVATIVE ✓	CONTAINER ✓
INDIVIDUAL SAMPLE CONTAINER:		NONE	✓ SEALED PLASTIC BAG		CAN	✓ OTHER(SPECIFY): Bubble Wrap	

SAMPLE NUMBER	CLIENT ID	DISCREPANCY	ACTION

CLIENT SERVICES COPY RECEIVED BY	Alicia 5/31	DATE		TIME	

CKY INC., ANALYTICAL LABORATORIES, 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-8889 Fax (310) 618-0818

FedEx

USE THIS AIRBILL FOR DANGEROUS GOODS SHIPMENTS ONLY WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER **6921491290**

6921491290

96E081
T-20C-W

FEDEX REGULATORY COPY
RETAIN FOR 1 YEAR

1 Sender's FedEx Account Number: 1224-5571-1 | Date: 5-30-96

From (Your Name) Please Print: AARON R CRAW | Your Phone Number (Very Important): (910) 451-7599

Company: GEM REMEDIATION SERVICES | Department/Floor No.:

Street Address: CAMP LEJEUNE / HOLCOMB BLVD

City: JACKSONVILLE | State: NC | ZIP Required: 2 8 5 4 3

2 To (Recipient's Name) Please Print: KAM PANG | Recipient's Phone Number (We): (310) 6[illegible]

Company: CKY INC | Department/Floor No.:

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 630 Maple Avenue

City: Torrance | State: CA | ZIP Required: 90 5[illegible]

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 19319

H IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here (Not available at all locations)
Street Address:
City: State: ZIP Required:

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card
5 [ ] Cash/Check Acct/Credit Card No. Exp. Date

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning†)	Standard Overnight (Delivery by next business afternoon. No Saturday Delivery††)
11 [X]	51 [ ]
Economy, Two-Day (Delivery by second business day††)	**Government Overnight** (Restricted for authorized users only)
30 [ ]	41 [ ]

Freight Service (for packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT ** (Commitment reservation required) 80 [ ] TWO-DAY FREIGHT **
†Delivery commitment may be later in some areas. **Call for delivery schedule.

INSTRUCTIONS (Mark appropriate boxes)
- Dangerous Goods as per attached Shipper's Declaration [X]
- Dangerous Goods Shipper's Declaration not required [ ]
- Cargo Aircraft only [X]

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service
1 [ ] HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
2 [X] DELIVER WEEKDAY

Saturday Service
31 [ ] HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
3 [ ] DELIVER SATURDAY (Extra charge) (Not available to all locations)
9 [ ] SATURDAY PICK-UP (Extra charge)

Special Handling
4 [X] DANGEROUS GOODS (Extra charge)
6 [ ] DRY ICE Dangerous Goods Shipper's Declaration not required
Dry Ice, 9, UN 1845, III _____ X _____ kg, 904
[ ] CEDEX PTION
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6 PACKAGES | WEIGHT in Pounds Only | YOUR DECLARED VALUE (See right)

1	54	
Total	Total	Total
1	54	

DIM SHIPMENT (Chargeable Weight) [ ] _____ lbs.
L x W x H

Received At:
1 [ ] Regular Stop 3 [ ] Drop Box 4 [ ] B.S.C. 5 [ ] Station 2 [ ] On-Call Stop

SERVICE CONDITIONS, DECLARED VALUE AND LIMIT OF LIABILITY

Use of this airbill constitutes your agreement to the service conditions in our current Service Guide, available upon request. See back of sender's copy of this airbill for information. Service conditions may vary for Government Overnight Service. See U.S. Government Service Guide for details.

We will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, and document your actual loss for a timely claim. Limitations found in the current Federal Express Service Guide apply. Your right to recover from Federal Express for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the declared value specified to the left. Recovery cannot exceed actual documented loss.

In the event of untimely delivery, Federal Express will at your request and with some limitations refund all transportation charges paid. See Service Guide for further information.

SIGNATURE RELEASE UNAVAILABLE

Federal Express Use	
Base Charges	
Declared Value Charge	
Other 1	
Other 2	
Total Charges	

REVISION DATE 11/94
Part # 146187/146188
FORMAT #219 GBFE
219
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6921491290 Page 1 of 1 Pages

Two completed and signed copies of this Declaration must be handed to the operator.

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non applicable)
PASSENGER AND CARGO AIRCRAFT | ~~CARGO AIRCRAFT ONLY~~

Airport of Departure:

Airport of Destination:

Shipment type: (delete non-applicable)
NON-RADIOACTIVE | ~~RADIOACTIVE~~

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification: Proper Shipping Name	Class or Division	UN or ID No.	Packing Group	Subsidiary Risk	Quantity and type of packing	Packing Inst.	Authorization
other Regulated substances	Class 9	ID 9037		N/A	1 plastic container w/ 12 - 250 mL glass Jars 2 - 1 L glass Jars 6.5 L Total	906	

Additional Handling Information

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labeled, and are in all respects in the proper condition for transport by air according to the applicable International and National Governmental Regulations.

Name/Title of Signatory: Aaron R Crow / Project Tech
Place and Date: [illegible] 5-30-96
Signature (see warning above):

Emergency Telephone Number (Required for US Origin or Destination Shipments): 919-[illegible]210

IF ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

DATE: June 7, 1996

TO: Missy Art

FROM: W. Tu Nisamaneepong

SUBJECT: Project Camp Lejeune SDG#96004 and SDG# 96E081

Enclosed please find resubmittal and missing report for SDG# 96E081 and SDG 96F004 itemized as follows.

Item# 1: SDG# 96F004 Resubmittal of revised LCS and MS/MSD report

QC limit ranges of surrogate recoveries in the LCS and MS/MSD were incorrect due to transcript errors. Two copies of revised LCS and MS/MSD reports page# 20, 21, and 25 are enclosed.

Item# 2 SDG# 96E081 Resubmittal revised LCS and MS/MSD report and missing calibration summary

QC limit ranges of surrogate recoveries in the LCS and MS/MSD were incorrect due to transcript errors. Two copies of revised LCS and MS/MSD reports are enclosed. Two copies of missing initial calibration table and daily calibration check summary are also enclosed.

We are sorry for any inconvenience that may have caused you on data review. Please call me at (310) 618-8889 if you have any questions. Thank you.

MEMO Date: 06/08/96

Resubmittal Item # 1

COC # 96F004

CKY QUALITY CONTROL DATA
MS/MSD ANALYSIS

CL: OHM
PR: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96F004
SAMPLE ID: CLJ100-CS-041
CONTROL NO.: F004-12

DATE RECEIVED: 06/01/96
DATE EXTRACTED: 06/04/96
DATE ANALYZED: 06/05/96

ACCESSION: 96F004

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	167.00	187.00	112	167.00	195.00	117	4	20-170	50
alpha-Chlordane	ND	167.00	208.00	125	167.00	204.00	122	2	20-170	50
gamma-Chlordane	ND	167.00	179.00	107	167.00	189.00	113	5	20-170	50
4,4'-DDD	ND	333.00	333.00	100	333.00	400.00	120	18	20-170	50
4,4'-DDT	ND	333.00	349.00	105	333.00	415.00	125	17	20-170	50
Dieldrin	ND	333.00	285.00	86	333.00	330.00	99	15	20-170	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT %
Tetrachloro-m-xylene	400.00	383.00	96	400.00	416.00	104	20-150
Decachlorobiphenyl	667.00	619.00	93	667.00	659.00	99	20-150

REVISED REPORT
20 6-7-96

CKY QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CL[illegible]: OHM
P[illegible]: 18319/CAMP LEJEUNE
ME[illegible]: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96F004
SAMPLE ID: LCS1S/LCS1SD
CONTROL NO.: CPF004SL/C

DATE RECEIVED: NA
DATE EXTRACTED: 06/04/96
DATE ANALYZED: 06/04/96

ACCESSION: 96F004

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	167.00	177.00	106	167.00	178.00	107	1	47-116	75
alpha-Chlordane	ND	167.00	182.00	109	167.00	198.00	119	8	45-119	75
gamma-Chlordane	ND	167.00	174.00	104	167.00	176.00	105	1	45-119	75
4,4'-DDD	ND	333.00	364.00	109	333.00	360.00	108	1	48-136	75
4,4'-DDT	ND	333.00	386.00	116	333.00	378.00	114	2	34-143	75
Dieldrin	ND	333.00	312.00	94	333.00	307.00	92	2	42-132	75

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT %
Tetrachloro-m-xylene	400.00	405.00	101	400.00	397.00	99	20-150
Decachlorobiphenyl	667.00	608.00	91	667.00	612.00	92	20-150

REVISED REPORT
21 6-7-96

CKY QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CL: OHM
PR: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 96F004
SAMPLE ID: LCS1W/LCS1WD
CONTROL NO.: CPF003WL/C

DATE RECEIVED: NA
DATE EXTRACTED: 06/04/96
DATE ANALYZED: 06/05/96

ACCESSION: 96F004

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	.50	.49	98	.50	.52	104	6	47-116	50
alpha-Chlordane	ND	.50	.54	108	.50	.58	116	7	45-119	50
gamma-Chlordane	ND	.50	.50	100	.50	.53	106	6	45-119	50
4,4'-DDD	ND	1.00	1.09	109	1.00	1.13	113	4	48-136	50
4,4'-DDT	ND	1.00	1.14	114	1.00	1.15	115	1	34-143	50
Dieldrin	ND	1.00	.98	98	1.00	1.01	101	3	42-132	50

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT %
Tetrachloro-m-xylene	1.20	.92	77	1.20	1.01	84	30-150
Decachlorobiphenyl	2.00	1.70	85	2.00	1.75	88	24-154

REVISED REPORT
25 6.7.96

CKY QUALITY CONTROL DATA
MS/MSD ANALYSIS

CL: OHM
P: 18319/CAMP LEJEUNE
ME: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96F004
SAMPLE ID: CLJ100-CS-041
CONTROL NO.: F004-12

DATE RECEIVED: 06/01/96
DATE EXTRACTED: 06/04/96
DATE ANALYZED: 06/05/96

ACCESSION: 96F004

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	167.00	187.00	112	167.00	195.00	117	4	20-170	50
alpha-Chlordane	ND	167.00	208.00	125	167.00	204.00	122	2	20-170	50
gamma-Chlordane	ND	167.00	179.00	107	167.00	189.00	113	5	20-170	50
4,4'-DDD	ND	333.00	333.00	100	333.00	400.00	120	18	20-170	50
4,4'-DDT	ND	333.00	349.00	105	333.00	415.00	125	17	20-170	50
Dieldrin	ND	333.00	285.00	86	333.00	330.00	99	15	20-170	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT %
Tetrachloro-m-xylene	400.00	383.00	96	400.00	416.00	104	20-150
Decachlorobiphenyl	667.00	619.00	93	667.00	659.00	99	20-150

REVISED REPORT
20 6-7-96

CKY QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CL[illegible]: OHM
P[illegible]: 18319/CAMP LEJEUNE
ME[illegible]: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96F004
SAMPLE ID: LCS1S/LCS1SD
CONTROL NO.: CPF004SL/C

DATE RECEIVED: NA
DATE EXTRACTED: 06/04/96
DATE ANALYZED: 06/04/96

ACCESSION: 96F004

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	167.00	177.00	106	167.00	178.00	107	1	47-116	75
alpha-Chlordane	ND	167.00	182.00	109	167.00	198.00	119	8	45-119	75
gamma-Chlordane	ND	167.00	174.00	104	167.00	176.00	105	1	45-119	75
4,4'-DDD	ND	333.00	364.00	109	333.00	360.00	108	1	48-136	75
4,4'-DDT	ND	333.00	386.00	116	333.00	378.00	114	2	34-143	75
Dieldrin	ND	333.00	312.00	94	333.00	307.00	92	2	42-132	75

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT %
Tetrachloro-m-xylene	400.00	405.00	101	400.00	397.00	99	20-150
Decachlorobiphenyl	667.00	608.00	91	667.00	612.00	92	20-150

REVISED REPORT
21 6-7-96

CKY QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CL: OHM
PR: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 96F004
SAMPLE ID: LCS1W/LCS1WD
CONTROL NO.: CPF003WL/C

DATE RECEIVED: NA
DATE EXTRACTED: 06/04/96
DATE ANALYZED: 06/05/96

ACCESSION: 96F004

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	.50	.49	98	.50	.52	104	6	47-116	50
alpha-Chlordane	ND	.50	.54	108	.50	.58	116	7	45-119	50
gamma-Chlordane	ND	.50	.50	100	.50	.53	106	6	45-119	50
4,4'-DDD	ND	1.00	1.09	109	1.00	1.13	113	4	48-136	50
4,4'-DDT	ND	1.00	1.14	114	1.00	1.15	115	1	34-143	50
Dieldrin	ND	1.00	.98	98	1.00	1.01	101	3	42-132	50

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT %
Tetrachloro-m-xylene	1.20	.92	77	1.20	1.01	84	30-150
Decachlorobiphenyl	2.00	1.70	85	2.00	1.75	88	24-154

REVISED REPORT
25 Jun 6-7-96

MEMO Date: 06/08/96

Resubmittal Item # 2

COC # 96E081

CKY QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: OHM
PROJECT: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96E081
SAMPLE ID: LCS1S
CONTROL NO.: CPE017SL

DATE RECEIVED: NA
DATE EXTRACTED: 05/31/96
DATE ANALYZED: 05/31/96

ACCESSION: 96E081

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	LCS RSLT (ug/kg)	LCS % REC	QC LIMIT (%)
Aldrin	ND	167.00	172.00	103	47-116
alpha-Chlordane	ND	167.00	188.00	113	45-119
gamma-Chlordane	ND	167.00	171.00	103	45-119
4,4'-DDD	ND	333.00	376.00	113	48-136
4,4'-DDT	ND	333.00	366.00	110	34-143
Dieldrin	ND	333.00	335.00	101	41-132

SURROGATE PARAMETER	SPIKE AMOUNT (ug/kg)	LCS RESULT (ug/kg)	LCS % REC	QC LIMIT %
Tetrachloro-m-xylene	400.00	411.40	103	20-150
Decachlorobiphenyl	667.00	623.00	93	20-150

REVISED REPORT
6.9.96

CKY QUALITY CONTROL DATA
MS/MSD ANALYSIS

CL[illegible]: OHM
PR[illegible]: 18319/CAMP LEJEUNE
ME[illegible]: EPA 8080
MATRIX: SOIL
% MOISTURE: 11.7

BATCH NO.: 96E081
SAMPLE ID: CLJ100-CS-022
CONTROL NO.: E081-09

DATE RECEIVED: 05/31/96
DATE EXTRACTED: 05/31/96
DATE ANALYZED: 06/01/96

ACCESSION: 96E081

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	189.00	200.00	106	189.00	221.00	117	10	20-170	50
alpha-Chlordane	ND	189.00	239.00	127	189.00	263.00	139	10	20-170	50
gamma-Chlordane	ND	189.00	233.00	123	189.00	251.00	133	8	20-170	50
4,4'-DDD	ND	377.00	462.00	122	377.00	463.00	123	0	20-170	50
4,4'-DDT	ND	377.00	476.00	126	377.00	476.00	126	0	20-170	50
Dieldrin	108.00	377.00	472.00	97	377.00	484.00	100	3	20-170	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT %
Tetrachloro-m-xylene	453.00	449.00	99	453.00	474.00	105	20-150
Decachlorobiphenyl	755.00	728.00	96	755.00	752.00	100	20-150

REVISED REPORT
6.4.96

CKY QUALITY CONTROL DATA
LCS ANALYSIS

CL T: OHM
PR CT: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96E081
SAMPLE ID: LCS1S
CONTROL NO.: CPE017SL

DATE RECEIVED: NA
DATE EXTRACTED: 05/31/96
DATE ANALYZED: 05/31/96

ACCESSION: 96E081

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	LCS RSLT (ug/kg)	LCS % REC	QC LIMIT (%)
Aldrin	ND	167.00	172.00	103	47-116
alpha-Chlordane	ND	167.00	188.00	113	45-119
gamma-Chlordane	ND	167.00	171.00	103	45-119
4,4'-DDD	ND	333.00	376.00	113	48-136
4,4'-DDT	ND	333.00	366.00	110	34-143
Dieldrin	ND	333.00	335.00	101	41-132

SURROGATE PARAMETER	SPIKE AMOUNT (ug/kg)	LCS RESULT (ug/kg)	LCS % REC	QC LIMIT %
Tetrachloro-m-xylene	400.00	411.40	103	20-150
Decachlorobiphenyl	667.00	623.00	93	20-150

REVISED REPORT
6.4.96

CKY QUALITY CONTROL DATA
MS/MSD ANALYSIS

C[illegible]: OHM
P[illegible]: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: 11.7

BATCH NO.: 96E081
SAMPLE ID: CLJ100-CS-022
CONTROL NO.: E081-09

DATE RECEIVED: 05/31/96
DATE EXTRACTED: 05/31/96
DATE ANALYZED: 06/01/96

ACCESSION: 96E081

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	189.00	200.00	106	189.00	221.00	117	10	20-170	50
alpha-Chlordane	ND	189.00	239.00	127	189.00	263.00	139	10	20-170	50
gamma-Chlordane	ND	189.00	233.00	123	189.00	251.00	133	8	20-170	50
4,4'-DDD	ND	377.00	462.00	122	377.00	463.00	123	0	20-170	50
4,4'-DDT	ND	377.00	476.00	126	377.00	476.00	126	0	20-170	50
Dieldrin	108.00	377.00	472.00	97	377.00	484.00	100	3	20-170	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT %
Tetrachloro-m-xylene	453.00	449.00	99	453.00	474.00	105	20-150
Decachlorobiphenyl	755.00	728.00	96	755.00	752.00	100	20-150

REVISED REPORT
6.4.96

INITIAL CALIBRATION
METHOD 8080

Lab Name : CKY Inc
Instrument ID : GC2
GC Column : Rtx-35
Column size ID: .53mm
LFID & Datime: TE24-19 05-24-96 21:54:58 TE24-20 05-24-96 22:31:41
LFID & Datime: TE24-21 05-24-96 23:08:24 TE24-22 05-24-96 23:45:08
LFID & Datime: TE24-23 05-25-96 00:21:50 TE24-24 05-25-96 00:58:31
LFID & Datime: TE24-25 05-25-96 01:35:14 TE24-26 05-25-96 02:11:59
LFID & Datime: TE24-27 05-25-96 02:48:44 TE24-28 05-25-96 03:25:29
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA/UNIT) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN	%RSD
alpha-BHC	5.0	17678	19650	20474	21133	20017	19791	7
gamma-BHC	5.0	17612	19410	19738	19946	18668	19075	5
beta-BHC	5.0	6739	7026	7777	7996	7731	7454	7
Heptachlor	5.0	17693	17858	17225	16941	15567	17057	5
delta-BHC	5.0	11589	12737	15058	16159	17006	14510	16
Aldrin	5.0	18045	17786	18681	17927	17282	17944	3
Heptachlor Epoxide	5.0	18274	17604	17968	16964	15962	17354	5
gamma-Chlordane	5.0	19619	18677	19081	18009	17106	18498	5
dosulfan I	5.0	17577	18227	17895	17535	16138	17474	5
pha-Chlordane	5.0	19235	18309	18529	17349	16511	17987	6
Dieldrin	10.0	17776	18480	17738	16977	15492	17293	7
DDE	10.0	14637	14751	15728	15085	14358	14912	4
Endrin	10.0	14416	14847	14283	13564	12212	13865	7
Endosulfan II	10.0	16430	15492	15357	13933	12725	14787	10
DDD	10.0	11133	12298	12243	12396	11543	11923	5
Endrin Aldehyde	10.0	13641	12639	12850	11593	10611	12267	10
DDT	10.0	12292	12971	12681	12553	11430	12385	5
Endosulfan Sulfate	10.0	15631	14752	14697	13372	12260	14142	9
Endrin Ketone	10.0	16397	17044	16317	14430	12971	15832	14
Methoxychlor	50.0	5407	5152	4729	4376	3878	4708	13
TCX	5.0	16170	15498	15351	14113	13031	14832	8
DCB	10.0	19012	16608	15132	13136	11773	15132	19

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 5/24/1996
Date of Cont. Calib: 5/31/1996
File Name: TE31-3/4

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	19791	21.28	6.4
gamma-BHC	20	19075	21.14	5.7
beta-BHC	20	7454	22.70	13.5
Heptachlor	20	17057	20.40	2.0
delta-BHC	20	14510	21.23	6.2
Aldrin	20	17944	21.31	6.6
Heptachlor Epoxide	20	17354	20.78	3.9
gamma-Chlordane	20	18498	20.77	3.9
Endosulfan I	20	17474	20.04	0.2
alpha-Chlordane	20	17987	20.73	3.7
Dieldrin	40	17293	40.13	0.3
DDE	40	14912	44.49	11.2
Endrin	40	13865	39.58	1.1
Endosulfan II	40	14787	41.89	4.7
DDD	40	11923	42.62	6.6
Endrin Aldehyde	40	12267	41.52	3.8
DDT	40	12385	41.41	3.5
Endosulfan Sulfate	40	14142	41.25	3.1
Endrin Ketone	40	15832	41.60	4.0
Methoxychlor	200	4708	206.92	3.5

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 5/24/1996
Date of Cont. Calib: 5/31/1996
File Name: TE31-10/11

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	19791	22.11	10.5
gamma-BHC	20	19075	21.93	9.7
beta-BHC	20	7454	21.22	6.1
Heptachlor	20	17057	21.97	9.8
delta-BHC	20	14510	22.95	14.7
Aldrin	20	17944	21.59	7.9
Heptachlor Epoxide	20	17354	21.03	5.2
gamma-Chlordane	20	18498	20.99	5.0
Endosulfan I	20	17474	20.48	2.4
alpha-Chlordane	20	17987	20.94	4.7
Dieldrin	40	17293	41.10	2.8
DDE	40	14912	44.94	12.3
Endrin	40	13865	42.10	5.3
Endosulfan II	40	14787	42.40	6.0
DDD	40	11923	44.46	11.2
Endrin Aldehyde	40	12267	42.36	5.9
DDT	40	12385	43.69	9.2
Endosulfan Sulfate	40	14142	41.96	4.9
Endrin Ketone	40	15832	42.42	6.1
Methoxychlor	200	4708	226.86	13.4

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 5/24/1996
Date of Cont. Calib: 6/1/1996
File Name: TE31-24/25

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	19791	22.26	11.3
gamma-BHC	20	19075	22.22	11.1
beta-BHC	20	7454	19.74	1.3
Heptachlor	20	17057	20.10	0.5
delta-BHC	20	14510	22.11	10.6
Aldrin	20	17944	21.81	9.0
Heptachlor Epoxide	20	17354	21.10	5.5
gamma-Chlordane	20	18498	21.32	6.6
Endosulfan I	20	17474	20.64	3.2
alpha-Chlordane	20	17987	21.21	6.0
Dieldrin	40	17293	41.51	3.8
DDE	40	14912	45.91	14.8
Endrin	40	13865	44.01	10.0
Endosulfan II	40	14787	42.91	7.3
DDD	40	11923	43.15	7.9
Endrin Aldehyde	40	12267	43.07	7.7
DDT	40	12385	45.57	13.9
Endosulfan Sulfate	40	14142	42.46	6.1
Endrin Ketone	40	15832	42.75	6.9
Methoxychlor	200	4708	228.62	14.3

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 5/24/1996
Date of Cont. Calib: 6/1/1996
File Name: TE31-36/37

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	19791	22.65	13.3
gamma-BHC	20	19075	22.67	13.3
beta-BHC	20	7454	19.44	2.8
Heptachlor	20	17057	21.90	9.5
delta-BHC	20	14510	22.40	12.0
Aldrin	20	17944	21.80	9.0
Heptachlor Epoxide	20	17354	21.40	7.0
gamma-Chlordane	20	18498	21.42	7.1
Endosulfan I	20	17474	21.07	5.3
alpha-Chlordane	20	17987	21.32	6.6
Dieldrin	40	17293	42.30	5.8
DDE	40	14912	44.96	12.4
Endrin	40	13865	45.13	12.8
Endosulfan II	40	14787	43.39	8.5
DDD	40	11923	45.14	12.8
Endrin Aldehyde	40	12267	43.58	8.9
DDT	40	12385	44.53	11.3
Endosulfan Sulfate	40	14142	43.13	7.8
Endrin Ketone	40	15832	42.99	7.5
Methoxychlor	200	4708	228.77	14.4

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 5/24/1996
Date of Cont. Calib: 6/2/1996
File Name: TF01-27/28

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	19791	22.54	12.7
gamma-BHC	20	19075	22.47	12.4
beta-BHC	20	7454	21.90	9.5
Heptachlor	20	17057	19.02	4.9
delta-BHC	20	14510	23.07	15.3
Aldrin	20	17944	21.36	6.8
Heptachlor Epoxide	20	17354	19.76	1.2
gamma-Chlordane	20	18498	20.80	4.0
Endosulfan I	20	17474	20.63	3.1
alpha-Chlordane	20	17987	20.61	3.0
Dieldrin	40	17293	41.70	4.2
DDE	40	14912	44.20	10.5
Endrin	40	13865	43.20	8.0
Endosulfan II	40	14787	40.41	1.0
DDD	40	11923	45.14	12.8
Endrin Aldehyde	40	12267	39.71	0.7
DDT	40	12385	42.71	6.8
Endosulfan Sulfate	40	14142	38.31	4.2
Endrin Ketone	40	15832	36.49	8.8
Methoxychlor	200	4708	228.73	14.4

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 5/24/1996
Date of Cont. Calib: 6/2/1996
File Name: TF01-31/32

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	19791	22.75	13.8
gamma-BHC	20	19075	22.55	12.8
beta-BHC	20	7454	22.64	13.2
Heptachlor	20	17057	21.79	8.9
delta-BHC	20	14510	22.78	13.9
Aldrin	20	17944	22.98	14.9
Heptachlor Epoxide	20	17354	21.78	8.9
gamma-Chlordane	20	18498	22.41	12.0
Endosulfan I	20	17474	21.64	8.2
alpha-Chlordane	20	17987	22.25	11.2
Dieldrin	40	17293	43.48	8.7
DDE	40	14912	45.24	13.1
Endrin	40	13865	45.26	13.1
Endosulfan II	40	14787	44.37	10.9
DDD	40	11923	44.63	11.6
Endrin Aldehyde	40	12267	44.62	11.6
DDT	40	12385	45.27	13.2
Endosulfan Sulfate	40	14142	43.34	8.3
Endrin Ketone	40	15832	41.10	2.8
Methoxychlor	200	4708	230.88	15.4

DDT/Endrin Breakdown

Instrument ID: GC-2

	File: SE31-2	File: TE31-2
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	0.4	0
Endrin	7.2	3.7

	File: SE31-23	File: TE31-23
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	1.4	0.5
Endrin	3.0	1.2

	File: SE31-35	File: TE31-35
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	0.4	0.7
Endrin	4.0	1.1

DDT/Endrin Breakdown

Instrument ID: GC-2

	File: SF01-26	File: TF01-26
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	1.4	0.7
Endrin	8.1	2.5

	File:	File:
	Col:	Col:
	%breakdown	%breakdown
DDT		
Endrin		

	File:	File:
	Col:	Col:
	%breakdown	%breakdown
DDT		
Endrin		

SEQUENCE FILE: SE31

	SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	IBLK/10C-1-34-1	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
2	PEM01/10C-1-20-2	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
3	DCC1-MIXA/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
4	DCC1-MIXB/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
5	CPE017SB	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
6	CPE017SL	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
7	96E082-01	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
8	96E082-01M	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
9	96E082-01S	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
10	DCC2-MIXA/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
11	DCC2-MIXB/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
12	96E081-01	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
13	96E081-02	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
14	96E081-03	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
15	96E081-04	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
16	96E081-05	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
17	96E081-06	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
18	96E081-07	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
19	96E081-08	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
20	96E081-09	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
21	96E081-09M	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
22	96E081-09S	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
23	PEM02/10-1-20-2	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
24	DCC2-MIXA/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
25	DCC2-MIXB/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
26	96E081-10	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
27	96E081-11	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
28	96E081-12	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
29	96E081-13	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
30	96E081-14	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
31	96E081-15	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
32	96E081-16	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
33	96E081-17	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
34	96E081-18	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
35	PEM03/10C-1-20-2	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
36	DCC3-MIXA/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
37	DCC3-MIXB/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000

SEQUENCE FILE: SF01

	SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	IBLK/10C-1-34-1	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
2	S1-1660/10-1-30-2	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
3	S2-1660/10-1-30-2	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
4	S3-1660/10-1-30-2	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
5	S4-1660/10-1-30-2	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
6	S5-1660/10-1-30-2	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
7	DCC1-1221/10-1-122	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
8	DCC1-1232/10-1-122	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
9	DCC1-1242/10-1-122	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
10	DCC1-1248/10-1-122	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
11	DCC1-1254/10-1-122	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
12	DCC1-TOX/10-1-33-1	PCB01	SF01-	1.0000	1.0000	1.0000	1.0000
13	CPE009SB	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
14	CPE009SL	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
15	CPE009SC	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
16	96E040-04T 20X	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
17	96E028-10M	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
18	96E028-10S	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
19	96E028-05	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
20	96E028-06	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
21	96E028-07	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
22	96E028-08	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
23	96E028-09	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
24	96E028-10	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
25	DCC1-1660/10-1-302	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
26	PEM01/10C-1-20-2	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
27	DCC1-MIXA/10-1-242	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
28	DCC1-MIXB/10-1-242	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
29	96E081-13T 5X	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
30	96E081-16T 10X	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
31	DCC2-MIXA/10-1-242	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
32	DCC2-MIXB/10-1-242	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
33	DCC3-1660/10-1-302	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
34	CPE013SB	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
35	CPE013SL	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
36	CPE013SC	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
37	96E065-01	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
38	96E065-01M	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
39	96E065-01S	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
40	96E065-02	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
41	96E065-03	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
42	96E065-04	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
43	96E065-05	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
44	96E065-06T 10X	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
45	DCC4-1660/10-1-302	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
46	96E065-07	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000

INITIAL CALIBRATION
METHOD 8080

Lab Name : CKY Inc
Instrument ID : GC2
GC Columm : Rtx-35
Column size ID: .53mm
LFID & Datime: TE24-19 05-24-96 21:54:58 TE24-20 05-24-96 22:31:41
LFID & Datime: TE24-21 05-24-96 23:08:24 TE24-22 05-24-96 23:45:08
LFID & Datime: TE24-23 05-25-96 00:21:50 TE24-24 05-25-96 00:58:31
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LFID & Datime: TE24-27 05-25-96 02:48:44 TE24-28 05-25-96 03:25:29
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA/UNIT) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN	%RSD
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gamma-BHC	5.0	17612	19410	19738	19946	18668	19075	5
beta-BHC	5.0	6739	7026	7777	7996	7731	7454	7
Heptachlor	5.0	17693	17858	17225	16941	15567	17057	5
delta-BHC	5.0	11589	12737	15058	16159	17006	14510	16
Aldrin	5.0	18045	17786	18681	17927	17282	17944	3
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gamma-Chlordane	5.0	19619	18677	19081	18009	17106	18498	5
dosulfan I	5.0	17577	18227	17895	17535	16138	17474	5
pha-Chlordane	5.0	19235	18309	18529	17349	16511	17987	6
Dieldrin	10.0	17776	18480	17738	16977	15492	17293	7
DDE	10.0	14637	14751	15728	15085	14358	14912	4
Endrin	10.0	14416	14847	14283	13564	12212	13865	7
Endosulfan II	10.0	16430	15492	15357	13933	12725	14787	10
DDD	10.0	11133	12293	12243	12396	11543	11923	5
Endrin Aldehyde	10.0	13641	12639	12850	11593	10611	12267	10
DDT	10.0	12292	12971	12681	12553	11430	12385	5
Endosulfan Sulfate	10.0	15631	14752	14697	13372	12260	14142	9
Endrin Ketone	10.0	18397	17044	16317	14430	12971	15832	14
Methoxychlor	50.0	5407	5152	4729	4376	3878	4708	13
TCX	5.0	16170	15493	15351	14113	13031	14832	8
DCB	10.0	19012	16603	15132	13136	11773	15132	19

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 5/24/1996
Date of Cont. Calib: 5/31/1996
File Name: TE31-3/4

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	19791	21.28	6.4
gamma-BHC	20	19075	21.14	5.7
beta-BHC	20	7454	22.70	13.5
Heptachlor	20	17057	20.40	2.0
delta-BHC	20	14510	21.23	6.2
Aldrin	20	17944	21.31	6.6
Heptachlor Epoxide	20	17354	20.78	3.9
gamma-Chlordane	20	18498	20.77	3.9
Endosulfan I	20	17474	20.04	0.2
alpha-Chlordane	20	17987	20.73	3.7
Dieldrin	40	17293	40.13	0.3
DDE	40	14912	44.49	11.2
Endrin	40	13865	39.58	1.1
Endosulfan II	40	14787	41.89	4.7
DDD	40	11923	42.62	6.6
Endrin Aldehyde	40	12267	41.52	3.8
DDT	40	12385	41.41	3.5
Endosulfan Sulfate	40	14142	41.25	3.1
Endrin Ketone	40	15832	41.60	4.0
Methoxychlor	200	4708	206.92	3.5

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 5/24/1996
Date of Cont. Calib: 5/31/1996
File Name: TE31-10/11

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	19791	22.11	10.5
gamma-BHC	20	19075	21.93	9.7
beta-BHC	20	7454	21.22	6.1
Heptachlor	20	17057	21.97	9.8
delta-BHC	20	14510	22.95	14.7
Aldrin	20	17944	21.59	7.9
Heptachlor Epoxide	20	17354	21.03	5.2
gamma-Chlordane	20	18498	20.99	5.0
Endosulfan I	20	17474	20.48	2.4
alpha-Chlordane	20	17987	20.94	4.7
Dieldrin	40	17293	41.10	2.8
DDE	40	14912	44.94	12.3
Endrin	40	13865	42.10	5.3
Endosulfan II	40	14787	42.40	6.0
DDD	40	11923	44.46	11.2
Endrin Aldehyde	40	12267	42.36	5.9
DDT	40	12385	43.69	9.2
Endosulfan Sulfate	40	14142	41.96	4.9
Endrin Ketone	40	15832	42.42	6.1
Methoxychlor	200	4708	226.86	13.4

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 5/24/1996
Date of Cont. Calib: 6/1/1996
File Name: TE31-24/25

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	19791	22.26	11.3
gamma-BHC	20	19075	22.22	11.1
beta-BHC	20	7454	19.74	1.3
Heptachlor	20	17057	20.10	0.5
delta-BHC	20	14510	22.11	10.6
Aldrin	20	17944	21.81	9.0
Heptachlor Epoxide	20	17354	21.10	5.5
gamma-Chlordane	20	18498	21.32	6.6
Endosulfan I	20	17474	20.64	3.2
alpha-Chlordane	20	17987	21.21	6.0
Dieldrin	40	17293	41.51	3.8
DDE	40	14912	45.91	14.8
Endrin	40	13865	44.01	10.0
Endosulfan II	40	14787	42.91	7.3
DDD	40	11923	43.15	7.9
Endrin Aldehyde	40	12267	43.07	7.7
DDT	40	12385	45.57	13.9
Endosulfan Sulfate	40	14142	42.46	6.1
Endrin Ketone	40	15832	42.75	6.9
Methoxychlor	200	4708	228.62	14.3

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 5/24/1996
Date of Cont. Calib: 6/1/1996
File Name: TE31-36/37

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	19791	22.65	13.3
gamma-BHC	20	19075	22.67	13.3
beta-BHC	20	7454	19.44	2.8
Heptachlor	20	17057	21.90	9.5
delta-BHC	20	14510	22.40	12.0
Aldrin	20	17944	21.80	9.0
Heptachlor Epoxide	20	17354	21.40	7.0
gamma-Chlordane	20	18498	21.42	7.1
Endosulfan I	20	17474	21.07	5.3
alpha-Chlordane	20	17987	21.32	6.6
Dieldrin	40	17293	42.30	5.8
DDE	40	14912	44.96	12.4
Endrin	40	13865	45.13	12.8
Endosulfan II	40	14787	43.39	8.5
DDD	40	11923	45.14	12.8
Endrin Aldehyde	40	12267	43.58	8.9
DDT	40	12385	44.53	11.3
Endosulfan Sulfate	40	14142	43.13	7.8
Endrin Ketone	40	15832	42.99	7.5
Methoxychlor	200	4708	228.77	14.4

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 5/24/1996
Date of Cont. Calib: 6/2/1996
File Name: TF01-27/28

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	19791	22.54	12.7
gamma-BHC	20	19075	22.47	12.4
beta-BHC	20	7454	21.90	9.5
Heptachlor	20	17057	19.02	4.9
delta-BHC	20	14510	23.07	15.3
Aldrin	20	17944	21.36	6.8
Heptachlor Epoxide	20	17354	19.76	1.2
gamma-Chlordane	20	18498	20.80	4.0
Endosulfan I	20	17474	20.63	3.1
alpha-Chlordane	20	17987	20.61	3.0
Dieldrin	40	17293	41.70	4.2
DDE	40	14912	44.20	10.5
Endrin	40	13865	43.20	8.0
Endosulfan II	40	14787	40.41	1.0
DDD	40	11923	45.14	12.8
Endrin Aldehyde	40	12267	39.71	0.7
DDT	40	12385	42.71	6.8
Endosulfan Sulfate	40	14142	38.31	4.2
Endrin Ketone	40	15832	36.49	8.8
Methoxychlor	200	4708	228.73	14.4

PESTICIDE CONTINUING CALIBRATION

Instrument ID: GC2
GC Column: Rtx-35
Date of Initial Calib: 5/24/1996
Date of Cont. Calib: 6/2/1996
File Name: TF01-31/32

COMPOUND	EXP. CONC.(ppb)	Ave. CF	CONC.(ppb)	%D
alpha-BHC	20	19791	22.75	13.8
gamma-BHC	20	19075	22.55	12.8
beta-BHC	20	7454	22.64	13.2
Heptachlor	20	17057	21.79	8.9
delta-BHC	20	14510	22.78	13.9
Aldrin	20	17944	22.98	14.9
Heptachlor Epoxide	20	17354	21.78	8.9
gamma-Chlordane	20	18498	22.41	12.0
Endosulfan I	20	17474	21.64	8.2
alpha-Chlordane	20	17987	22.25	11.2
Dieldrin	40	17293	43.48	8.7
DDE	40	14912	45.24	13.1
Endrin	40	13865	45.26	13.1
Endosulfan II	40	14787	44.37	10.9
DDD	40	11923	44.63	11.6
Endrin Aldehyde	40	12267	44.62	11.6
DDT	40	12385	45.27	13.2
Endosulfan Sulfate	40	14142	43.34	8.3
Endrin Ketone	40	15832	41.10	2.8
Methoxychlor	200	4708	230.88	15.4

DDT/Endrin Breakdown

Instrument ID: GC-2

	File: SE31-2	File: TE31-2
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	0.4	0
Endrin	7.2	3.7

	File: SE31-23	File: TE31-23
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	1.4	0.5
Endrin	3.0	1.2

	File: SE31-35	File: TE31-35
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	0.4	0.7
Endrin	4.0	1.1

DDT/Endrin Breakdown

Instrument ID: GC-2

	File: SF01-26	File: TF01-26
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	1.4	0.7
Endrin	8.1	2.5

	File:	File:
	Col:	Col:
	%breakdown	%breakdown
DDT		
Endrin		

	File:	File:
	Col:	Col:
	%breakdown	%breakdown
DDT		
Endrin		

SEQUENCE FILE: SE31

	SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	IBLK/10C-1-34-1	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
2	PEM01/10C-1-20-2	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
3	DCC1-MIXA/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
4	DCC1-MIXB/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
5	CPE017S8	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
6	CPE017SL	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
7	96E082-01	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
8	96E082-01M	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
9	96E082-01S	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
10	DCC2-MIXA/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
11	DCC2-MIXB/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
12	96E081-01	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
13	96E081-02	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
14	96E081-03	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
15	96E081-04	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
16	96E081-05	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
17	96E081-06	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
18	96E081-07	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
19	96E081-08	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
20	96E081-09	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
21	96E081-09M	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
22	96E081-09S	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
23	PEM02/10-1-20-2	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
24	DCC2-MIXA/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
25	DCC2-MIXB/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
26	96E081-10	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
27	96E081-11	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
28	96E081-12	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
29	96E081-13	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
30	96E081-14	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
31	96E081-15	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
32	96E081-16	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
33	96E081-17	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
34	96E081-18	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
35	PEM03/10C-1-20-2	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
36	DCC3-MIXA/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000
37	DCC3-MIXB/10-1-242	PEST6	SE31-	1.0000	1.0000	1.0000	1.0000

SEQUENCE FILE: SF01

	SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	IBLK/10C-1-34-1	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
2	S1-1660/10-1-30-2	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
3	S2-1660/10-1-30-2	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
4	S3-1660/10-1-30-2	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
5	S4-1660/10-1-30-2	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
6	S5-1660/10-1-30-2	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
7	DCC1-1221/10-1-122	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
8	DCC1-1232/10-1-122	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
9	DCC1-1242/10-1-122	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
10	DCC1-1248/10-1-122	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
11	DCC1-1254/10-1-122	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
12	DCC1-TOX/10-1-33-1	PCB01	SF01-	1.0000	1.0000	1.0000	1.0000
13	CPE009SB	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
14	CPE009SL	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
15	CPE009SC	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
16	96E040-04T 20X	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
17	96E028-10M	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
18	96E028-10S	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
19	96E028-05	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
20	96E028-06	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
21	96E028-07	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
22	96E028-08	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
23	96E028-09	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
24	96E028-10	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
25	DCC1-1660/10-1-302	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
26	PEM01/10C-1-20-2	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
27	DCC1-MIXA/10-1-242	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
28	DCC1-MIXB/10-1-242	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
29	96E081-13T 5X	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
30	96E081-16T 10X	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
31	DCC2-MIXA/10-1-242	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
32	DCC2-MIXB/10-1-242	PEST6	SF01-	1.0000	1.0000	1.0000	1.0000
33	DCC3-1660/10-1-302	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
34	CPE013SB	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
35	CPE013SL	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
36	CPE013SC	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
37	96E065-01	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
38	96E065-01M	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
39	96E065-01S	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
40	96E065-02	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
41	96E065-03	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
42	96E065-04	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
43	96E065-05	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
44	96E065-06T 10X	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
45	DCC4-1660/10-1-302	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000
46	96E065-07	1660F01	SF01-	1.0000	1.0000	1.0000	1.0000

C K Y incorporated
Analytical Laboratories

Date: 06-05-1996
CKY Batch No.: 96F004

Attn: Ms. Missy Art

OHM
5335 Triangle Parkway Suite 450
Norcross, GA 30092

Subject: Laboratory Report
Project: 18319/CAMP LEJEUNE

Enclosed is the Laboratory report for samples received on 06/01/96. The samples were received in coolers with ice and intact; the chain-of-custody forms were properly filled out. The data reported include :

Sample ID	Control No.	Matrix	Analysis
CLJ100-CS-031	F004-01	Soil	EPA 8080
CLJ100-CS-032	F004-02	Soil	EPA 8080
CLJ100-CS-033	F004-03	Soil	EPA 8080
CLJ100-CS-034	F004-04	Soil	EPA 8080
CLJ100-CS-035	F004-05	Soil	EPA 8080
CLJ100-CS-036	F004-06	Soil	EPA 8080
CLJ100-CS-037	F004-07	Soil	EPA 8080
CLJ100-CS-038	F004-08	Soil	EPA 8080
CLJ100-CS-040	F004-10	Soil	EPA 8080
CLJ100-CS-040DP	F004-11	Soil	EPA 8080
CLJ100-CS-041	F004-12	Soil	EPA 8080
CLJ100-CS-042	F004-13	Soil	EPA 8080
CLJ100-CS-043	F004-14	Soil	EPA 8080
CLJ100-CS-044	F004-15	Soil	EPA 8080
CLJ100-CS-045	F004-16	Soil	EPA 8080
CLJ100-CS-046	F004-17	Soil	EPA 8080
CLJ100-CS-047	F004-18	Soil	EPA 8080
CLJ100-RB-531	F004-19	Water	EPA 608
CLJ100-FB-531	F004-20	Water	EPA 608

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

P.S. - All analyses requested for the above referenced project have been completed. Therefore, unless instructed, the remaining portions of the samples will be disposed after fifteen (15) days from the date of this report.

630 Maple Ave., Torrance, Calif. 90503 • Telephone 310-618-8889 • Fax: 310-618-0818

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

166577

96F004 D4

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune	Camp Lejeune, N.C.

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
319	Alan Whitt	(910) 451-2599

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
Yarle Marshburn	Jim Dunn / Alan Whitt

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): TCL Pesticides (8080)

T = 25 °F

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	TCL Pesticides (8080)							REMARKS
1	[illegible]-031	[illegible]	1047		X	Confirmation Sample from ADC 25-28 Sidewall	1-8oz	X							NEESA Level C
2	[illegible]-032	[illegible]	1051		X	Confirmation Sample from ADC 29-32 Sidewall	1-8oz	X							
3	[illegible]-033	[illegible]	1054		X	Confirmation Sample from ADC 29-32 Sidewall	1-8oz	X							
4	[illegible]-034	[illegible]	1057		X	Confirmation Sample from ADC 29-32 Sidewall	1-8oz	X							
5	[illegible]-035	[illegible]	1104		X	Confirmation Sample from ADC 29-32 Sidewall	1-8oz	X							
6	[illegible]-036	[illegible]	1108		X	Confirmation Sample from ADC 29-32 Sidewall	1-8oz	X							
7	[illegible]-037	[illegible]	1113		X	Confirmation Sample from ADC 29-32 Sidewall	1-8oz	X							
8	[illegible]-038	[illegible]	1117		X	Confirmation Sample from ADC 29-32 Base	1-8oz	X							
9	[illegible]-039	[illegible]	1122		X	Confirmation Sample from ADC 29-32 Base	1-8oz	X							
10	[illegible]-040	[illegible]	1125		X	Confirmation Sample from ADC 29-32 Base	1-8oz	X							

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME	REMARKS
						Sampler Set 7 [illegible]

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

Form 0015
Field Technical Services
Rev. 08/89

96F004 DH 166578

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME: Camp Lejeune	PROJECT LOCATION: Camp Lejeune NC.		
PROJ. NO.: 18319	PROJECT CONTACT: Alan White	PROJECT TELEPHONE NO.: (910) 451-2599	
CLIENT'S REPRESENTATIVE: Alan Marchbanks	PROJECT MANAGER/SUPERVISOR: Tim Dixon / Alan White		

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TCL Pesticides (8080)	REMARKS
1	[illegible]	9/4	1125		X	Aqueous Confirmation Sample from ADC 29-37 A65 Chem Rack	1-8oz	X	NFESA Level 3
2	[illegible]	9/4	1726		X	Confirmation Sample from ADC 13-16 Rack	1-8oz	X	
3	[illegible]	9/4	1139		X	Confirmation Sample from ADC 13-16 Shelf	1-8oz	X	
4	[illegible]	9/4	1142		X	Confirmation Sample from ADC 9-11 Shelf	1-8oz	X	
5	[illegible]	9/4	1145		X	Confirmation Sample from ADC 5-8 Shelf	1-8oz	X	
6	[illegible]	9/4	1148		X	Confirmation Sample from ADC 1-4 Shelf	1-8oz	X	
7	[illegible]	9/4	1250		X	Confirmation Sample from ADC 17-20 Rack	1-8oz	X	
8	[illegible]	9/4	1253		X	Confirmation Sample from ADC 17-20 Rack	1-8oz	X	
9	[illegible]	9/4	1331		X	Rinsate Blank	1-1L	X	
10	[illegible]	9/4	1206		X	Field Blank	1-1L	X	

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME	REMARKS
1	1-10	[illegible]	[illegible]			Samples sent to CLV
2						

CORRECTIVE ACTION FORM
(CKY Sample Receipt Discrepancy)

Client	OHM
CKY Batch No.	96F004
Control No.	
Method	8080
Matrix	soil

1) Nature of Discrepancy:

Sample 96F004-6 → bottle was received broken.

2) Corrective Action:

Informed Carl Pampel.

3) Result of Corrective Action:

Please analyze whatever was recuperated from this sample.

Approved by: [signature] Date: 6/3/96.

4) Further Corrective Action Taken? Yes ___ No ___ Date: ___

Analyze all samples in this SDG, except 96F004-9.
Results (verbal or written) for 96F004-1 are needed ASAP!

Approved by: [signature] Date: 6/3/96

6/4

srd.caf

6/4

LABORATORY REPORT FOR

OHM

18319/CAMP LEJEUNE

CHLORINATED PESTICIDES

SDG#: 96F004

JUNE 06, 1996

CASE NARRATIVE

CLIENT: OHM

PROJECT: 18319/CAMP LEJEUNE

SDG: 96F004

CHLORINATED PESTICIDES

Eighteen (18) soil and two (2) water samples were received on 06/01/96 for Pesticide analysis in accordance with SW846. Sample F004-06 container was broken upon receiving but the sample was requested for analysis. Sample F004-09 was canceled.

I. Holding Time

All samples were extracted and analyzed within the holding time criteria.

II. Blank

Both soil and water method blanks were free of contamination.

III. Matrix Spike/Matrix Spike Duplicate

All recoveries and RPDs for soil matrix were within the QC limits. There was no MS/MSD for water matrix, LCS/LCSD were analyzed as precision QC samples.

IV. Lab Control Sample/Lab Control Duplicate

All results were within the control limits.

V. Surrogate Recovery

All surrogate recoveries were within the control limits.

VI. Instrument Performance and Calibration

An initial calibration was five-point and all RSDs were within the QC limits. Rtx35 was a quantitation column. All continue calibrations in the quantitation column were checked at 12 hour interval and all recoveries were within the QC limits. All DDT and Endrin breakdown were within QC limits.

VII. Sample Analysis

All sample analyses met QC requirements. All results were confirmed by the second column Rtx5.

01

SAMPLE RESULTS

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-031	DATE ANALYZED:	06/04/96
CONTROL NO.:	F004-01	MATRIX:	SOIL
% MOISTURE:	8.8	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.6
alpha-BHC	ND	11
beta-BHC	ND	21.9
delta-BHC	ND	27.4
gamma-BHC (Lindane)	ND	18.6
alpha-Chlordane	ND	110
gamma-Chlordane	ND	110
4,4'-DDD	ND	110
4,4'-DDE	ND	110
4,4'-DDT	ND	110
Dieldrin	ND	21.9
Endosulfan I	ND	18.6
Endosulfan II	ND	219
Endosulfan Sulfate	ND	21.9
Endrin	ND	110
Endrin aldehyde	ND	11
Heptachlor	ND	219
Heptachlor Epoxide	ND	548
Methoxychlor	ND	1100
Toxaphene	ND	2190

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	99	20-150
Decachlorobiphenyl	94	20-150

RL: Reporting Limit

02

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM		
PROJECT:	18319/CAMP LEJEUNE	DATE COLLECTED:	05/31/96
BATCH NO.:	96F004	DATE RECEIVED:	06/01/96
SAMPLE ID:	CLJ100-CS-032	DATE EXTRACTED:	06/04/96
CONTROL NO.:	F004-02	DATE ANALYZED:	06/04/96
% MOISTURE:	7.0	MATRIX:	SOIL
		DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.3
alpha-BHC	ND	10.8
beta-BHC	ND	21.5
delta-BHC	ND	26.9
gamma-BHC (Lindane)	ND	18.3
alpha-Chlordane	ND	108
gamma-Chlordane	ND	108
4,4'-DDD	ND	108
4,4'-DDE	ND	108
4,4'-DDT	ND	108
Dieldrin	ND	21.5
Endosulfan I	ND	18.3
Endosulfan II	ND	215
Endosulfan Sulfate	ND	21.5
Endrin	ND	108
Endrin aldehyde	ND	10.8
Heptachlor	ND	215
Heptachlor Epoxide	ND	538
Methoxychlor	ND	1080
Toxaphene	ND	2150

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	101	20-150
Decachlorobiphenyl	96	20-150

RL: Reporting Limit

03

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-033	DATE ANALYZED:	06/04/96
CONTROL NO.:	F004-03	MATRIX:	SOIL
% MOISTURE:	9.3	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.7
alpha-BHC	ND	11
beta-BHC	ND	22.1
delta-BHC	ND	27.6
gamma-BHC (Lindane)	ND	18.7
alpha-Chlordane	ND	110
gamma-Chlordane	ND	110
4,4'-DDD	ND	110
4,4'-DDE	ND	110
4,4'-DDT	ND	110
Dieldrin	ND	22.1
Endosulfan I	ND	18.7
Endosulfan II	ND	221
Endosulfan Sulfate	ND	22.1
Endrin	ND	110
Endrin aldehyde	ND	11
Heptachlor	ND	221
Heptachlor Epoxide	ND	551
Methoxychlor	ND	1100
Toxaphene	ND	2210

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	105	20-150
Decachlorobiphenyl	101	20-150

RL: Reporting Limit

04

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-034	DATE ANALYZED:	06/04/96
CONTROL NO.:	F004-04	MATRIX:	SOIL
% MOISTURE:	6.6	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.2
alpha-BHC	ND	10.7
beta-BHC	ND	21.4
delta-BHC	ND	26.8
gamma-BHC (Lindane)	ND	18.2
alpha-Chlordane	ND	107
gamma-Chlordane	ND	107
4,4'-DDD	ND	107
4,4'-DDE	ND	107
4,4'-DDT	ND	107
Dieldrin	ND	21.4
Endosulfan I	ND	18.2
Endosulfan II	ND	214
Endosulfan Sulfate	ND	21.4
Endrin	ND	107
Endrin aldehyde	ND	10.7
Heptachlor	ND	214
Heptachlor Epoxide	ND	535
Methoxychlor	ND	1070
Toxaphene	ND	2140

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	95	20-150
Decachlorobiphenyl	96	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-035	DATE ANALYZED:	06/04/96
CONTROL NO.:	F004-05	MATRIX:	SOIL
% MOISTURE:	17.4	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	20.6
alpha-BHC	ND	12.1
beta-BHC	ND	24.2
delta-BHC	ND	30.3
gamma-BHC (Lindane)	ND	20.6
alpha-Chlordane	ND	121
gamma-Chlordane	ND	121
4,4'-DDD	ND	121
4,4'-DDE	ND	121
4,4'-DDT	ND	121
Dieldrin	ND	24.2
Endosulfan I	ND	20.6
Endosulfan II	ND	242
Endosulfan Sulfate	ND	24.2
Endrin	ND	121
Endrin aldehyde	ND	12.1
Heptachlor	ND	242
Heptachlor Epoxide	ND	605
Methoxychlor	ND	1210
Toxaphene	ND	2420

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	95	20-150
Decachlorobiphenyl	89	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-036	DATE ANALYZED:	06/04/96
CONTROL NO.:	F004-06	MATRIX:	SOIL
% MOISTURE:	11.4	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.2
alpha-BHC	ND	11.3
beta-BHC	ND	22.6
delta-BHC	ND	28.2
gamma-BHC (Lindane)	ND	19.2
alpha-Chlordane	ND	113
gamma-Chlordane	ND	113
4,4'-DDD	120	113
4,4'-DDE	950*	113
4,4'-DDT	ND	113
Dieldrin	110	22.6
Endosulfan I	ND	19.2
Endosulfan II	ND	226
Endosulfan Sulfate	ND	22.6
Endrin	ND	113
Endrin aldehyde	ND	11.3
Heptachlor	ND	226
Heptachlor Epoxide	ND	564
Methoxychlor	ND	1130
Toxaphene	ND	2260

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	98	20-150
Decachlorobiphenyl	98	20-150

RL: Reporting Limit
* : Was diluted at DF 10 and reanalyzed on 06/05/96 due to high concentration level.

07

EPA METHOD 8080
PESTICIDES

LIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-037	DATE ANALYZED:	06/04/96
CONTROL NO.:	F004-07	MATRIX:	SOIL
% MOISTURE:	12.3	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.4
alpha-BHC	ND	11.4
beta-BHC	ND	22.8
delta-BHC	ND	28.5
gamma-BHC (Lindane)	ND	19.4
alpha-Chlordane	ND	114
gamma-Chlordane	ND	114
4,4'-DDD	ND	114
4,4'-DDE	180	114
4,4'-DDT	ND	114
Dieldrin	30	22.8
Endosulfan I	ND	19.4
Endosulfan II	ND	228
Endosulfan Sulfate	ND	22.8
Endrin	ND	114
Endrin aldehyde	ND	11.4
Heptachlor	ND	228
Heptachlor Epoxide	ND	570
Methoxychlor	ND	1140
Toxaphene	ND	2280

URROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	93	20-150
Decachlorobiphenyl	91	20-150

RL: Reporting Limit

08

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-038	DATE ANALYZED:	06/04/96
CONTROL NO.:	F004-08	MATRIX:	SOIL
% MOISTURE:	6.3	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.1
alpha-BHC	ND	10.7
beta-BHC	ND	21.3
delta-BHC	ND	26.7
gamma-BHC (Lindane)	ND	18.1
alpha-Chlordane	ND	107
gamma-Chlordane	ND	107
4,4'-DDD	ND	107
4,4'-DDE	180	107
4,4'-DDT	ND	107
Dieldrin	60	21.3
Endosulfan I	ND	18.1
Endosulfan II	ND	213
Endosulfan Sulfate	ND	21.3
Endrin	ND	107
Endrin aldehyde	ND	10.7
Heptachlor	ND	213
Heptachlor Epoxide	ND	534
Methoxychlor	ND	1070
Toxaphene	ND	2130

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	100	20-150
Decachlorobiphenyl	95	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-040	DATE ANALYZED:	06/04/96
CONTROL NO.:	F004-10	MATRIX:	SOIL
% MOISTURE:	15.8	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	20.2
alpha-BHC	ND	11.9
beta-BHC	ND	23.8
delta-BHC	ND	29.7
gamma-BHC (Lindane)	ND	20.2
alpha-Chlordane	ND	119
gamma-Chlordane	ND	119
4,4'-DDD	170	119
4,4'-DDE	120	119
4,4'-DDT	ND	119
Dieldrin	43	23.8
Endosulfan I	ND	20.2
Endosulfan II	ND	238
Endosulfan Sulfate	ND	23.8
Endrin	ND	119
Endrin aldehyde	ND	11.9
Heptachlor	ND	238
Heptachlor Epoxide	ND	594
Methoxychlor	ND	1190
Toxaphene	ND	2380

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	99	20-150
Decachlorobiphenyl	96	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-040DP	DATE ANALYZED:	06/04/96
CONTROL NO.:	F004-11	MATRIX:	SOIL
% MOISTURE:	15.5	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	20.1
alpha-BHC	ND	11.8
beta-BHC	ND	23.7
delta-BHC	ND	29.6
gamma-BHC (Lindane)	ND	20.1
alpha-Chlordane	ND	118
gamma-Chlordane	ND	118
4,4'-DDD	ND	118
4,4'-DDE	ND	118
4,4'-DDT	ND	118
Dieldrin	31	23.7
Endosulfan I	ND	20.1
Endosulfan II	ND	237
Endosulfan Sulfate	ND	23.7
Endrin	ND	118
Endrin aldehyde	ND	11.8
Heptachlor	ND	237
Heptachlor Epoxide	ND	592
Methoxychlor	ND	1180
Toxaphene	ND	2370

URROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	97	20-150
Decachlorobiphenyl	90	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-041	DATE ANALYZED:	06/04/96
CONTROL NO.:	F004-12	MATRIX:	SOIL
% MOISTURE:	9.7	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.8
alpha-BHC	ND	11.1
beta-BHC	ND	22.1
delta-BHC	ND	27.7
gamma-BHC (Lindane)	ND	18.8
alpha-Chlordane	ND	111
gamma-Chlordane	ND	111
4,4'-DDD	ND	111
4,4'-DDE	ND	111
4,4'-DDT	ND	111
Dieldrin	ND	22.1
Endosulfan I	ND	18.8
Endosulfan II	ND	221
Endosulfan Sulfate	ND	22.1
Endrin	ND	111
Endrin aldehyde	ND	11.1
Heptachlor	ND	221
Heptachlor Epoxide	ND	554
Methoxychlor	ND	1110
Toxaphene	ND	2210

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	99	20-150
Decachlorobiphenyl	96	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-042	DATE ANALYZED:	06/04/96
CONTROL NO.:	F004-13	MATRIX:	SOIL
% MOISTURE:	8.3	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.5
alpha-BHC	ND	10.9
beta-BHC	ND	21.8
delta-BHC	ND	27.3
gamma-BHC (Lindane)	ND	18.5
alpha-Chlordane	ND	109
gamma-Chlordane	ND	109
4,4'-DDD	ND	109
4,4'-DDE	ND	109
4,4'-DDT	ND	109
Dieldrin	ND	21.8
Endosulfan I	ND	18.5
Endosulfan II	ND	218
Endosulfan Sulfate	ND	21.8
Endrin	ND	109
Endrin aldehyde	ND	10.9
Heptachlor	ND	218
Heptachlor Epoxide	ND	545
Methoxychlor	ND	1090
Toxaphene	ND	2180

JRROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	97	20-150
Decachlorobiphenyl	93	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-043	DATE ANALYZED:	06/04/96
CONTROL NO.:	F004-14	MATRIX:	SOIL
% MOISTURE:	12.2	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.4
alpha-BHC	ND	11.4
beta-BHC	ND	22.8
delta-BHC	ND	28.5
gamma-BHC (Lindane)	ND	19.4
alpha-Chlordane	ND	114
gamma-Chlordane	ND	114
4,4'-DDD	ND	114
4,4'-DDE	ND	114
4,4'-DDT	ND	114
Dieldrin	ND	22.8
Endosulfan I	ND	19.4
Endosulfan II	ND	228
Endosulfan Sulfate	ND	22.8
Endrin	ND	114
Endrin aldehyde	ND	11.4
Heptachlor	ND	228
Heptachlor Epoxide	ND	569
Methoxychlor	ND	1140
Toxaphene	ND	2280

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	99	20-150
Decachlorobiphenyl	98	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-044	DATE ANALYZED:	06/05/96
CONTROL NO.:	F004-15	MATRIX:	SOIL
% MOISTURE:	6.4	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.2
alpha-BHC	ND	10.7
beta-BHC	ND	21.4
delta-BHC	ND	26.7
gamma-BHC (Lindane)	ND	18.2
alpha-Chlordane	ND	107
gamma-Chlordane	ND	107
4,4'-DDD	ND	107
4,4'-DDE	ND	107
4,4'-DDT	ND	107
Dieldrin	38	21.4
Endosulfan I	ND	18.2
Endosulfan II	ND	214
Endosulfan Sulfate	ND	21.4
Endrin	ND	107
Endrin aldehyde	ND	10.7
Heptachlor	ND	214
Heptachlor Epoxide	ND	534
Methoxychlor	ND	1070
Toxaphene	ND	2140

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	95	20-150
Decachlorobiphenyl	97	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-045	DATE ANALYZED:	06/05/96
CONTROL NO.:	F004-16	MATRIX:	SOIL
% MOISTURE:	7.6	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.4
alpha-BHC	ND	10.8
beta-BHC	ND	21.6
delta-BHC	ND	27.1
gamma-BHC (Lindane)	ND	18.4
alpha-Chlordane	ND	108
gamma-Chlordane	ND	108
4,4'-DDD	ND	108
4,4'-DDE	ND	108
4,4'-DDT	ND	108
Dieldrin	ND	21.6
Endosulfan I	ND	18.4
Endosulfan II	ND	216
Endosulfan Sulfate	ND	21.6
Endrin	ND	108
Endrin aldehyde	ND	10.8
Heptachlor	ND	216
Heptachlor Epoxide	ND	541
Methoxychlor	ND	1080
Toxaphene	ND	2160

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	99	20-150
Decachlorobiphenyl	100	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

LIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-046	DATE ANALYZED:	06/05/96
CONTROL NO.:	F004-17	MATRIX:	SOIL
% MOISTURE:	6.9	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.3
alpha-BHC	ND	10.7
beta-BHC	ND	21.5
delta-BHC	ND	26.9
gamma-BHC (Lindane)	ND	18.3
alpha-Chlordane	ND	107
gamma-Chlordane	ND	107
4,4'-DDD	ND	107
4,4'-DDE	ND	107
4,4'-DDT	ND	107
Dieldrin	ND	21.5
Endosulfan I	ND	18.3
Endosulfan II	ND	215
Endosulfan Sulfate	ND	21.5
Endrin	ND	107
Endrin aldehyde	ND	10.7
Heptachlor	ND	215
Heptachlor Epoxide	ND	537
Methoxychlor	ND	1070
Toxaphene	ND	2150

JRROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	102	20-150
Decachlorobiphenyl	102	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-CS-047	DATE ANALYZED:	06/05/96
CONTROL NO.:	F004-18	MATRIX:	SOIL
% MOISTURE:	10.3	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19
alpha-BHC	ND	11.1
beta-BHC	ND	22.3
delta-BHC	ND	27.9
gamma-BHC (Lindane)	ND	19
alpha-Chlordane	ND	111
gamma-Chlordane	ND	111
4,4'-DDD	ND	111
4,4'-DDE	ND	111
4,4'-DDT	ND	111
Dieldrin	ND	22.3
Endosulfan I	ND	19
Endosulfan II	ND	223
Endosulfan Sulfate	ND	22.3
Endrin	ND	111
Endrin aldehyde	ND	11.1
Heptachlor	ND	223
Heptachlor Epoxide	ND	557
Methoxychlor	ND	1110
Toxaphene	ND	2230

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	96	20-150
Decachlorobiphenyl	96	20-150

RL: Reporting Limit

EPA METHOD 8080
EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	NA
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	NA
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	MBLK1S	DATE ANALYZED:	06/04/96
CONTROL NO.:	CPF004SQ	MATRIX:	SOIL
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17
alpha-BHC	ND	10
beta-BHC	ND	20
delta-BHC	ND	25
gamma-BHC (Lindane)	ND	17
alpha-Chlordane	ND	100
gamma-Chlordane	ND	100
4,4'-DDD	ND	100
4,4'-DDE	ND	100
4,4'-DDT	ND	100
Dieldrin	ND	20
Endosulfan I	ND	17
Endosulfan II	ND	200
Endosulfan Sulfate	ND	20
Endrin	ND	100
Endrin aldehyde	ND	10
Heptachlor	ND	200
Heptachlor Epoxide	ND	500
Methoxychlor	ND	1000
Toxaphene	ND	2000

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	93	20-150
Decachlorobiphenyl	90	20-150

RL: Reporting Limit

...TICAL LABORATORIES. 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-... Fax. 310) 618-0818

CKY QUALITY CONTROL DATA
MS/MSD ANALYSIS

C[illegible]: OHM
[illegible]: 18319/CAMP LEJEUNE
Me[illegible]: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96F004
SAMPLE ID: CLJ100-CS-041
CONTROL NO.: F004-12

DATE RECEIVED: 06/01/96
DATE EXTRACTED: 06/04/96
DATE ANALYZED: 06/05/96

ACCESSION: 96F004

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	167.00	187.00	112	167.00	195.00	117	4	20-170	50
alpha-Chlordane	ND	167.00	208.00	125	167.00	204.00	122	2	20-170	50
gamma-Chlordane	ND	167.00	179.00	107	167.00	189.00	113	5	20-170	50
4,4'-DDD	ND	333.00	333.00	100	333.00	400.00	120	18	20-170	50
4,4'-DDT	ND	333.00	349.00	105	333.00	415.00	125	17	20-170	50
Dieldrin	ND	333.00	285.00	86	333.00	330.00	99	15	20-170	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT %
Tetrachloro-m-xylene	400.00	383.00	96	400.00	416.00	104	28-137
Decachlorobiphenyl	667.00	619.00	93	667.00	659.00	99	51-153

CKY QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CL[illegible]: OHM
PR[illegible]: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96F004
SAMPLE ID: LCS1S/LCS1SD
CONTROL NO.: CPF004SL/C

DATE RECEIVED: NA
DATE EXTRACTED: 06/04/96
DATE ANALYZED: 06/04/96

ACCESSION: 96F004

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	167.00	177.00	106	167.00	178.00	107	1	47-116	75
alpha-Chlordane	ND	167.00	182.00	109	167.00	198.00	119	8	45-119	75
gamma-Chlordane	ND	167.00	174.00	104	167.00	176.00	105	1	45-119	75
4,4'-DDD	ND	333.00	364.00	109	333.00	360.00	108	1	48-136	75
4,4'-DDT	ND	333.00	386.00	116	333.00	378.00	114	2	34-143	75
Dieldrin	ND	333.00	312.00	94	333.00	307.00	92	2	42-132	75

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT %
Tetrachloro-m-xylene	400.00	405.00	101	400.00	397.00	99	28-137
Decachlorobiphenyl	667.00	608.00	91	667.00	612.00	92	51-153

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	05/31/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/01/96
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	CLJ100-RB-531	DATE ANALYZED:	06/05/96
CONTROL NO.:	F004-19	MATRIX:	WATER
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	RL (ug/L)
Aldrin	ND	.04
alpha-BHC	ND	.03
beta-BHC	ND	.05
delta-BHC	ND	.05
gamma-BHC (Lindane)	ND	.04
alpha-Chlordane	ND	.14
gamma-Chlordane	ND	.14
4,4'-DDD	ND	.04
4,4'-DDE	ND	.1
4,4'-DDT	ND	.02
Dieldrin	ND	.14
Endosulfan I	ND	.04
Endosulfan II	ND	.1
Endosulfan Sulfate	ND	.06
Endrin	ND	.1
Endrin aldehyde	ND	.03
Heptachlor	ND	.05
Heptachlor Epoxide	ND	.05
Methoxychlor	ND	.5
Toxaphene	ND	1

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	104	30-150
Decachlorobiphenyl	50	24-154

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

LIENT:	OHM		
ROJECT:	18319/CAMP LEJEUNE	DATE COLLECTED:	05/31/96
BATCH NO.:	96F004	DATE RECEIVED:	06/01/96
SAMPLE ID:	CLJ100-FB-531	DATE EXTRACTED:	06/04/96
CONTROL NO.:	F004-20	DATE ANALYZED:	06/05/96
% MOISTURE:	NA	MATRIX:	WATER
		DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	RL (ug/L)
Aldrin	ND	.04
alpha-BHC	ND	.03
beta-BHC	ND	.05
delta-BHC	ND	.05
gamma-BHC (Lindane)	ND	.04
alpha-Chlordane	ND	.14
gamma-Chlordane	ND	.14
4,4'-DDD	ND	.04
4,4'-DDE	ND	.1
4,4'-DDT	ND	.02
Dieldrin	ND	.14
Endosulfan I	ND	.04
Endosulfan II	ND	.1
Endosulfan Sulfate	ND	.06
Endrin	ND	.1
Endrin aldehyde	ND	.03
Heptachlor	ND	.05
Heptachlor Epoxide	ND	.05
Methoxychlor	ND	.5
Toxaphene	ND	1

JRROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	96	30-150
Decachlorobiphenyl	61	24-154

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	NA
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	NA
BATCH NO.:	96F004	DATE EXTRACTED:	06/04/96
SAMPLE ID:	MBLK1W	DATE ANALYZED:	06/05/96
CONTROL NO.:	CPF003WB	MATRIX:	WATER
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	RL (ug/L)
Aldrin	ND	.04
alpha-BHC	ND	.03
beta-BHC	ND	.05
delta-BHC	ND	.05
gamma-BHC (Lindane)	ND	.04
alpha-Chlordane	ND	.14
gamma-Chlordane	ND	.14
4,4'-DDD	ND	.04
4,4'-DDE	ND	.1
4,4'-DDT	ND	.02
Dieldrin	ND	.14
Endosulfan I	ND	.04
Endosulfan II	ND	.1
Endosulfan Sulfate	ND	.06
Endrin	ND	.1
Endrin aldehyde	ND	.03
Heptachlor	ND	.05
Heptachlor Epoxide	ND	.05
Methoxychlor	ND	.5
Toxaphene	ND	1

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	117	30-150
Decachlorobiphenyl	57	24-154

RL: Reporting Limit

CKY QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CL: OHM
PR : 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 96F004
SAMPLE ID: LCS1W/LCS1WD
CONTROL NO.: CPF003WL/C

DATE RECEIVED: NA
DATE EXTRACTED: 06/04/96
DATE ANALYZED: 06/05/96

ACCESSION: 96F004

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	.50	.49	98	.50	.52	104	6	47-116	50
alpha-Chlordane	ND	.50	.54	108	.50	.58	116	7	45-119	50
gamma-Chlordane	ND	.50	.50	100	.50	.53	106	6	45-119	50
4,4'-DDD	ND	1.00	1.09	109	1.00	1.13	113	4	48-136	50
4,4'-DDT	ND	1.00	1.14	114	1.00	1.15	115	1	34-143	50
Dieldrin	ND	1.00	.98	98	1.00	1.01	101	3	42-132	50

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT %
Tetrachloro-m-xylene	1.20	.92	77	1.20	1.01	84	23-141
Decachlorobiphenyl	2.00	1.70	85	2.00	1.75	88	32-195

CALIBRATION

INITIAL CALIBRATION
METHOD 8080

Name : CKY Inc
Instrument ID : GC2
GC Columm : Rtx-35
Column size ID: .53mm
LFID & Datime: TE24-19 05-24-96 21:54:58 TE24-20 05-24-96 22:31:41
LFID & Datime: TE24-21 05-24-96 23:08:24 TE24-22 05-24-96 23:45:08
LFID & Datime: TE24-23 05-25-96 00:21:50 TE24-24 05-25-96 00:58:31
LFID & Datime: TE24-25 05-25-96 01:35:14 TE24-26 05-25-96 02:11:59
LFID & Datime: TE24-27 05-25-96 02:48:44 TE24-28 05-25-96 03:25:29
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA/UNIT) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN	%RSD
alpha-BHC	5.0	17678	19650	20474	21133	20017	19791	7
gamma-BHC	5.0	17612	19410	19738	19946	18668	19075	5
beta-BHC	5.0	6739	7026	7777	7996	7731	7454	7
Heptachlor	5.0	17693	17858	17225	16941	15567	17057	5
delta-BHC	5.0	11589	12737	15058	16159	17006	14510	16
Aldrin	5.0	18045	17786	18681	17927	17282	17944	3
Heptachlor Epoxide	5.0	18274	17604	17968	16964	15962	17354	5
gamma-Chlordane	5.0	19619	18677	19081	18009	17106	18498	5
Endosulfan I	5.0	17577	18227	17895	17535	16138	17474	5
alpha-Chlordane	5.0	19235	18309	18529	17349	16511	17987	6
eldrin	10.0	17776	18480	17738	16977	15492	17293	7
E	10.0	14637	14751	15728	15085	14358	14912	4
Endrin	10.0	14416	14847	14283	13564	12212	13865	7
Endosulfan II	10.0	16430	15492	15357	13933	12725	14787	10
DDD	10.0	11133	12298	12243	12396	11543	11923	5
Endrin Aldehyde	10.0	13641	12639	12850	11593	10611	12267	10
DDT	10.0	12292	12971	12681	12553	11430	12385	5
Endosulfan Sulfate	10.0	15631	14752	14697	13372	12260	14142	9
Endrin Ketone	10.0	18397	17044	16317	14430	12971	15832	14
Methoxychlor	50.0	5407	5152	4729	4376	3878	4708	13
TCX	5.0	16170	15498	15351	14113	13031	14832	8
DCB	10.0	19012	16608	15132	13136	11773	15132	19

25A

INITIAL CALIBRATION
METHOD 8080

Lab Name : CKY Inc
Instrument ID : GC2
GC Column : Rtx-5
Column size ID: .53mm

LFID & Datime:	SE24-19	05-24-96	21:54:58	SE24-20	05-24-96	22:31:41
LFID & Datime:	SE24-21	05-24-96	23:08:24	SE24-22	05-24-96	23:45:08
LFID & Datime:	SE24-23	05-25-96	00:21:50	SE24-24	05-25-96	00:58:31
LFID & Datime:	SE24-25	05-25-96	01:35:14	SE24-26	05-25-96	02:11:59
LFID & Datime:	SE24-27	05-25-96	02:48:44	SE24-28	05-25-96	03:25:29

CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA/UNIT) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN	%RSD
alpha-BHC	5.0	41177	40213	36602	35330	37833	38231	6
gamma-BHC	5.0	39466	38125	34581	33179	32912	35653	8
beta-BHC	5.0	12873	12269	12313	11812	10785	12010	7
Heptachlor	5.0	38017	35794	31986	29595	27129	32504	14
delta-BHC	5.0	31204	29740	30810	28493	26524	29354	6
Aldrin	5.0	41336	36959	35395	31574	29036	34860	14
Heptachlor Epoxide	5.0	38270	34034	32210	28418	24971	31580	16
gamma-Chlordane	5.0	40880	36679	35288	31884	29581	34862	13
Endosulfan I	5.0	38762	36592	32704	30001	25870	32786	16
alpha-Chlordane	5.0	38568	34592	32931	29464	27174	32546	14
Dieldrin	10.0	37937	34760	30380	27539	25473	31218	16
[illegible]	10.0	34211	31081	29800	26624	26983	29740	11
Endrin	10.0	28592	25987	22718	20193	17321	22962	20
Endosulfan II	10.0	30975	27043	24766	21386	19291	24692	19
DDD	10.0	25089	24939	23337	22215	20797	23275	8
Endrin Aldehyde	10.0	22346	19674	19022	16709	14831	18516	16
DDT	10.0	25517	24813	23100	21951	21627	23402	7
Endosulfan Sulfate	10.0	27102	24039	22216	19235	17221	21963	18
Endrin Ketone	10.0	26944	23503	21553	18352	16370	21345	20
Methoxychlor	50.0	8087	7174	6044	5125	4086	6103	26
TCX	5.0	25345	23077	22221	19841	18204	21737	13
DCB	10.0	20292	18060	17138	15647	15126	17253	12

25B

CONTINUE CALIBRATION
METHOD 8080

La. Name	:	CKY Inc			
Instrument ID	:	GC2			
GC Columm	:	Rtx-5			
Column size ID	:	0.53mm			
Mid Con Init LFID & Datime:		SE24-23	05-25-96	00:21:50	SE24-24 0
Mid Con Cont LFID & Datime:		SF04-3	06-04-96	12:01:37	SF04-4 0
CONC UNIT	:	ppb			

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%RSD
alpha-BHC	20.0	38231	22.0	10
gamma-BHC	20.0	35653	22.5	12
beta-BHC	20.0	12010	36.3	82
Heptachlor	20.0	32504	23.5	17
delta-BHC	20.0	29354	37.0	85
Aldrin	20.0	34860	32.0	60
Heptachlor Epoxide	20.0	31580	30.9	54
gamma-Chlordane	20.0	34862	31.2	56
Endosulfan I	20.0	32786	21.4	7
alpha-Chlordane	20.0	32546	31.4	57
Dieldrin	40.0	31218	41.3	3
DDE	40.0	29740	63.4	59
Endrin	40.0	22962	53.2	33
sulfan II	40.0	24692	59.5	49
L	40.0	23275	39.9	0
Endrin Aldehyde	40.0	18516	59.9	50
DDT	40.0	23402	39.4	2
Endosulfan Sulfate	40.0	21963	57.3	43
Endrin Ketone	40.0	21345	59.8	49
Methoxychlor	200.0	6103	253.8	27
TCX	20.0	21737	34.4	72
DCB	40.0	17253	61.0	52

CONTINUE CALIBRATION
METHOD 8080

Lab Name	:	CKY Inc			
Instrument ID	:	GC2			
GC Columm	:	Rtx-35			
Column size ID	:	0.53mm			
Mid Con Init LFID & Datime:		TE24-23	05-25-96	00:21:50	TE24-24 0
Mid Con Cont LFID & Datime:		TF04-3	06-04-96	12:01:37	TF04-4 0
CONC UNIT	:	ppb			

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%RSD
alpha-BHC	20.0	19791	19.8	1
gamma-BHC	20.0	19075	19.4	3
beta-BHC	20.0	7454	21.4	7
Heptachlor	20.0	17057	21.0	5
delta-BHC	20.0	14510	21.5	7
Aldrin	20.0	17944	19.2	4
Heptachlor Epoxide	20.0	17354	18.3	9
gamma-Chlordane	20.0	18498	18.6	7
Endosulfan I	20.0	17474	18.1	10
alpha-Chlordane	20.0	17987	18.7	6
Dieldrin	40.0	17293	36.3	9
DDE	40.0	14912	40.0	0
Endrin	40.0	13865	38.7	3
sulfan II	40.0	14787	37.2	7
[illegible]	40.0	11923	39.2	2
Endrin Aldehyde	40.0	12267	37.2	7
DDT	40.0	12385	39.1	2
Endosulfan Sulfate	40.0	14142	36.4	9
Endrin Ketone	40.0	15832	36.5	9
Methoxychlor	200.0	4708	221.7	11
TCX	20.0	14832	19.4	3
DCB	40.0	15132	35.4	11

CONTINUE CALIBRATION
METHOD 8080

Lab Name	:	CKY Inc				
Instrument ID	:	GC2				
GC Columm	:	Rtx-5				
Column size ID	:	.53mm				
Mid Con Init LFID & Datime:		SE24-23	05-25-96	00:21:50	SE24-24	0
Mid Con Cont LFID & Datime:		SF04-22	06-04-96	23:48:37	SF04-23	0
CONC UNIT	:	ppb				

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%RSD
alpha-BHC	20.0	38231	29.3	46
gamma-BHC	20.0	35653	30.1	51
beta-BHC	20.0	12010	33.9	69
Heptachlor	20.0	32504	31.9	59
delta-BHC	20.0	29354	34.2	71
Aldrin	20.0	34860	30.9	54
Heptachlor Epoxide	20.0	31580	30.2	51
gamma-Chlordane	20.0	34862	30.9	55
Endosulfan I	20.0	32786	29.4	47
alpha-Chlordane	20.0	32546	31.4	57
Dieldrin	40.0	31218	57.3	43
DDE	40.0	29740	62.4	56
E in	40.0	22962	61.6	54
E. sulfan II	40.0	24692	59.5	49
DDD	40.0	23275	62.0	55
Endrin Aldehyde	40.0	18516	59.4	48
DDT	40.0	23402	61.6	54
Endosulfan Sulfate	40.0	21963	58.1	45
Endrin Ketone	40.0	21345	59.9	50
Methoxychlor	200.0	6103	323.1	62
TCX	20.0	21737	30.8	54
DCB	40.0	17253	52.4	31

CONTINUE CALIBRATION
METHOD 8080

La[illegible]ame	:	CKY Inc			
Instrument ID	:	GC2			
GC Columm	:	Rtx-35			
Column size ID	:	.53mm			
Mid Con Init LFID & Datime:		TE24-23	05-25-96	00:21:50	TE24-24 0
Mid Con Cont LFID & Datime:		TF04-22	06-04-96	23:48:37	TF04-23 0
CONC UNIT	:	ppb			

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%RSD
alpha-BHC	20.0	19791	21.6	8
gamma-BHC	20.0	19075	21.4	7
beta-BHC	20.0	7454	21.7	9
Heptachlor	20.0	17057	22.4	12
delta-BHC	20.0	14510	22.1	11
Aldrin	20.0	17944	20.5	2
Heptachlor Epoxide	20.0	17354	19.9	1
gamma-Chlordane	20.0	18498	20.0	0
Endosulfan I	20.0	17474	19.7	1
alpha-Chlordane	20.0	17987	20.0	0
Dieldrin	40.0	17293	39.2	2
DDE	40.0	14912	42.7	7
Endrin	40.0	13865	42.4	6
[illegible]sulfan II	40.0	14787	39.5	1
D[illegible]	40.0	11923	43.2	8
Endrin Aldehyde	40.0	12267	39.8	0
DDT	40.0	12385	43.8	10
Endosulfan Sulfate	40.0	14142	38.7	3
Endrin Ketone	40.0	15832	39.1	2
Methoxychlor	200.0	4708	228.0	14
TCX	20.0	14832	20.9	5
DCB	40.0	15132	37.3	7

CONTINUE CALIBRATION
METHOD 8080

L. Name	:	CKY Inc				
Instrument ID	:	GC2				
GC Columm	:	Rtx-5				
Column size ID	:	.53mm				
Mid Con Init LFID & Datime:		SE24-23	05-25-96	00:21:50	SE24-24	0
Mid Con Cont LFID & Datime:		SF04-41	06-05-96	11:27:08	SF04-42	0
CONC UNIT	:	ppb				

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%RSD
alpha-BHC	20.0	38231	31.3	56
gamma-BHC	20.0	35653	31.8	59
beta-BHC	20.0	12010	33.9	70
Heptachlor	20.0	32504	33.4	67
delta-BHC	20.0	29354	34.0	70
Aldrin	20.0	34860	30.9	54
Heptachlor Epoxide	20.0	31580	30.1	51
gamma-Chlordane	20.0	34862	30.7	54
Endosulfan I	20.0	32786	30.7	53
alpha-Chlordane	20.0	32546	31.0	55
Dieldrin	40.0	31218	59.4	49
DDE	40.0	29740	61.5	54
Endrin	40.0	22962	73.1	83
osulfan II	40.0	24692	58.6	46
	40.0	23275	63.3	58
Endrin Aldehyde	40.0	18516	57.7	44
DDT	40.0	23402	63.2	58
Endosulfan Sulfate	40.0	21963	56.8	42
Endrin Ketone	40.0	21345	58.8	47
Methoxychlor	200.0	6103	331.4	66
TCX	20.0	21737	31.3	56
DCB	40.0	17253	62.8	57

CONTINUE CALIBRATION
METHOD 8080

Lab Name	:	CKY Inc			
Instrument ID	:	GC2			
GC Columm	:	Rtx-35			
Column size ID	:	.53mm			
Mid Con Init LFID & Datime:		TE24-23	05-25-96	00:21:50	TE24-24 0
Mid Con Cont LFID & Datime:		TF04-41	06-05-96	11:27:08	TF04-42 0
CONC UNIT	:	ppb			

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%RSD
alpha-BHC	20.0	19791	21.4	7
gamma-BHC	20.0	19075	21.2	6
beta-BHC	20.0	7454	21.4	7
Heptachlor	20.0	17057	21.0	5
delta-BHC	20.0	14510	21.6	8
Aldrin	20.0	17944	19.4	3
Heptachlor Epoxide	20.0	17354	18.6	7
gamma-Chlordane	20.0	18498	18.8	6
Endosulfan I	20.0	17474	22.8	14
alpha-Chlordane	20.0	17987	18.9	6
Dieldrin	40.0	17293	39.1	2
DDE	40.0	14912	40.3	1
Endrin	40.0	13865	42.0	5
Endosulfan II	40.0	14787	37.2	7
[illegible]	40.0	11923	42.3	6
Endrin Aldehyde	40.0	12267	37.3	7
DDT	40.0	12385	41.4	4
Endosulfan Sulfate	40.0	14142	36.6	9
Endrin Ketone	40.0	15832	36.8	8
Methoxychlor	200.0	4708	211.2	6
TCX	20.0	14832	19.9	0
DCB	40.0	15132	35.7	11

25H

DDT/Endrin Breakdown

Instrument ID: GC-2

	File: SF04-2	File: TF04-2
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	0.4	0
Endrin	2.1	1.2

	File: SF04-21	File: TF04-21
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	1.8	0
Endrin	0.9	0

	File: SF04-4C	File: TF04-4C
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	1.3	6
Endrin	2.1	0

ANALYSIS SEQUENCE AND EXTRACTION LOG

CKY Analytical Laboratories
Sample Preparation Department

EXTRACTION LOG FOR PESTICIDES/PCBs

CKYT-E01-002

CLIENT: OHM
MATRIX: WATER
METHOD: 8080
PAGE #:
DATE EXTRACTED: 6/02/96 · 16:00
DATE COMPLETED: 6/03/96 16

LAB SAMPLE ID	SAMPLE AMOUNT (g/ml)	pH	EXTRACT VOLUME (ml)	CLEAN-UP (G/S/A/F)	NOTES
CPF003 - WB	1000		10		
WL	↓		↓		
NC					
E080 - 16					
17					
F004 - 19					
20					

CLEAN-UP	CODE
GPC	G
TBA	S
ACID	A
FLORISIL	F

REAGENT	LOT #
Na2SO4	954496
CH2CL2	MP ~~954496~~ 36082
HEXANE	962303

STANDARDS	ID	AMOUNT ADDED (ml)
SPIKE ID	SIOC-01.22-02	1.0
SURROGATE ID	SIOC-1.23-2	1.0

SDG #	EXTRACT LOCATION
	GC-11-C2

COMMENTS:

PREPARED BY: MP
STD's ADDED BY: MP / TOM
CHECKED BY: ML

Extracts Received By:

CKY Analytical Laboratories
Sample Preparation Department

EXTRACTION LOG FOR PESTICIDES/PCBs

CKYT-E01-002

CLIENT: OHM
MATRIX: SOIL
METHOD: 6080
DATE EXTRACTED: 6/03/96
PAGE #:
DATE COMPLETED: 06/04/96

LAB SAMPLE ID	SAMPLE AMOUNT (g/ml)	pH	EXTRACT VOLUME (ml)	CLEAN-UP (G/S/A/F)	NOTES
CPF004-SQ	-		10		
SZ	-				
SZ	-				
F004-01	3.0				
02					
03					
04					
05					
06					
07					
08					
10					
11					
12					
12M					
12S					
13					
14					
15					
16					
17					
18					

CLEAN-UP	CODE
GPC	G
TBA	S
ACID	A
FLORISIL	F

REAGENT	LOT #
Na2SO4	954496
CH2CL2	36082
HEXANE	962303

STANDARDS	ID	AMOUNT ADDED (ml)
SPIKE ID MIX A	S10C-01-0-34-02	0.40
SURROGATE ID	S10C-01-0-35-02	2.0
SPIKE MIX B	S10C-01-0-35-01	0.40

SDG #	EXTRACT LOCATION
	GC-RI-MOL-PCB

COMMENTS:
time started: 17:00
time completed: 10:30

PREPARED BY: MD/MC/FY
STD's ADDED BY: MD/MC
CHECKED BY:

Extracts Received By:

C K Y incorporated
Analytical Laboratories

Date: 06-08-1996
CKY Batch No.: 96F009

Attn: Ms. Missy Art

OHM
5335 Triangle Parkway Suite 450
Norcross, GA 30092

Subject: Laboratory Report
Project: 18319/CAMP LEJEUNE

Enclosed is the Laboratory report for samples received on 06/04/96. The samples were received in coolers with ice and intact; the chain-of-custody forms were properly filled out. The data reported include :

Sample ID	Control No.	Matrix	Analysis
CLJ100-CS-048	F009-01	Soil	EPA 8080
CLJ100-CS-049	F009-02	Soil	EPA 8080
CLJ100-CS-050	F009-03	Soil	EPA 8080
CLJ100-CS050DP	F009-04	Soil	EPA 8080
CLJ100-CS-051	F009-05	Soil	EPA 8080
CLJ100-CS-052	F009-06	Soil	EPA 8080
CLJ100-CS-053	F009-07	Soil	EPA 8080
CLJ100-CS-054	F009-08	Soil	EPA 8080
CLJ100-CS-055	F009-09	Soil	EPA 8080
CLJ100-CS-056	F009-10	Soil	EPA 8080
CLJ100-CS-057	F009-11	Soil	EPA 8080
CLJ100-CS-058	F009-12	Soil	EPA 8080
CLJ100-CS-059	F009-13	Soil	EPA 8080
CLJ100-CS-060	F009-14	Soil	EPA 8080
CLJ100-CS060DP	F009-15	Soil	EPA 8080
CLJ100-CS-061	F009-16	Soil	EPA 8080
CLJ100-CS-062	F009-17	Soil	EPA 8080
CLJ100-CS-063	F009-18	Soil	EPA 8080

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Pang

Kam Y. Pang, Ph.D.
Laboratory Director

P.S. - All analyses requested for the above referenced project have been completed. Therefore, unless instructed, the remaining portions of the samples will be disposed after fifteen (15) days from the date of this report.

630 Maple Ave., Torrance, Calif. 90503 • Telephone 310-618-8889 • Fax: 310-618-0818

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

96FC09 HS 166583

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune	Camp Lejeune, N.C.

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
[illegible]	Allen Watt	(419)423-2599

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
Ward Marshburn	Tim Dow / Allen Watt

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TCL Pesticides (8090)	REMARKS
1	[illegible]	6/3	0852		X	Surface Soil Sample from Loc. P-20 Sidewall	1-8oz	X	AFCEE Level C.
2	[illegible]	6/3	0855		X	Surface Soil Sample from Loc. 17-20 Sidewall	1-8oz	X	
3	[illegible]	6/3	0859		X	Surface Soil Sample from Loc. 17-20 Sidewall	1-8oz	X	
4	[illegible]	6/3	0859		X	Duplicate of Original Sample from Loc. 17-20 Sidewall	1-8oz	X	
5	[illegible]	6/3	0903		X	Surface Soil Sample from Loc. 17-20 Sidewall	1-8oz	X	
6	[illegible]	6/3	0915		X	Surface Soil Sample from Loc. 17-20 Sidewall	1-8oz	X	
7	[illegible]	6/3	0930		X	Surface Soil Sample from Loc. 17-20 Sidewall	1-8oz	X	
8	[illegible]	6/3	0953		X	Surface Soil Sample from Loc. 17-20 Sidewall	1-8oz	X	
9	[illegible]	6/3	0956		X	Surface Soil Sample from Loc. 17-20 Sidewall	1-8oz	X	
10	[illegible]	6/3	1007		X	Surface Soil Sample from Loc. 17-20 Sidewall	1-8oz	X	

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-10	[illegible]	FEDEX 772149131Z	6/3/96	
2			[illegible]	6/4/96	1030 hrs
3					
4					

REMARKS

Samples Sent To CKY Inc.
48 hour TAT. Please fax result
To (910) 451-1809. Thanks

Hold Samples untill we contact you.

SAMPLER'S SIGNATURE [illegible]

Oh[illegible]mediation Services Corp.

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

96F009 H3 166584

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune	Camp Lejeune, NC.

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
[illegible]319	Alan Whitt	(910)451-[illegible]599

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
[illegible]	[illegible] Alan Whitt

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): TCL Pesticides (8080); T[illegible]

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	TCL Pesticides (8080)								REMARKS
1	[illegible]-CS-057	5/1/96	0910		X	Confirmation Sample from AOC 1-12 Sidewall	1-8oz	X								NCSSA Level C
2	[illegible]-CS-058	[illegible]	0913		X	Confirmation Sample from AOC 1-12 Sidewall	1-8oz	X								
3	[illegible]-CS-059	[illegible]	0917		X	Confirmation Sample from AOC 1-12 Sidewall	1-8oz	X								
4	[illegible]-CS-060	[illegible]	0920		X	Confirmation Sample from AOC 1-12 Sidewall	1-8oz	X								
5	[illegible]-CS-060[illegible]	[illegible]	0920		X	Duplicate Confirmation Sample from AOC 1-12 Sidewall	1-8oz	X								
6	[illegible]-CS-061	[illegible]	0923		X	Confirmation Sample from AOC 1-12 Base	1-8oz	X								
7	[illegible]-CS-06[illegible]	[illegible]	0925		X	Confirmation Sample from AOC 1-12 Base	1-8oz	X								
8	[illegible]-CS-063	[illegible]	0927		X	Confirmation Sample from AOC 1-12 Base	1-8oz	X								
9	[illegible]-1-[illegible]	[illegible]	0932		X	Field Blank	1-1L	X								Do not Analyze
10	[illegible]-[illegible]	[illegible]	0937		X	Rinsate Blank	1-1L	X								Do not Analyze

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-10	[illegible]	FED EX 6921491312	6/3/96	
2			[illegible]	6/4/96	10:[illegible] AM
3					
4					

REMARKS

Samples Sent to CKY Inc. 48 hour T.A.T. Please fax result To (910) 451-1809. Thanks Donot run untill we contact you.

SAMPLER'S SIGNATURE: [illegible]

CKY Incorporated
Torrance - CA

ANALYSIS REQUEST FORM
(Additional)

CLIENT NAME: OHM - Camp Lejeune

CKY Control No.: 96F009

Date Requested: 6/5/96

Requested by:

CKY Control No.	Analysis Requested	Comments
	Analyze all	
	samples	

6/6
6/5

SAMPLE RECEIPT FORM

CONTROL NO.	96F009
CLIENT	OHM
PROJECT	CAMP LEJEUNE

DATE	06-04-96
TIME	10:00AM
RECIPIENT	I. PATEL

SAMPLE TRANSPORTATION TO CKY LABORATORY:	BY	ON(DATE)	AT(TIME)	FROM(SITE/CO.)	COMMENTS
PICKED-UP BY CKY COURIER					
DELIVERED BY CLIENT ✓					
SHIPPED/AIRBILL NO: FEDEX APTN: 692149131 2 SEE AIRBILL					

SAMPLE BATCH PACKAGING/SEALING UPON RECEIPT:	✓ INTACT	DAMAGED	✓ SEALED	NOT SEALED	NO CONTAINER

CONTAINER:	INSIDE TEMPERATURE: 2° C			CUSTODY SEAL		LOCATION	NUMBER
✓ COOLER	PACKAGING	TYPE	SUFFICIENCY	✓ INTACT	DAMAGED	FRONT CLOSURE	2
___ BOX	INSULATION:		OK	NAME:	SEE COC		
___ OTHER:	ICE/COOLANT:	REGULAR	↓	DATE:			
	PACKING MATERIAL:	BUBBLEPAK	↓	TIME:			

SAMPLE DOCUMENTATION/CHAIN-OF-CUSTODY(COC)	SEALED	✓ ENCLOSED	HANDCARRIED	FAXED	MAILED

SAMPLE LOG-IN:	CRITERIA	COMMENTS	DISCREPANCY
SAMPLE CUSTODY SEAL	EVERY SAMPLE	NONE	
CONTAINER TYPE/MATERIAL	APPROPRIATE	OK	
SAMPLE AMOUNT	ENOUGH	↓	
SAMPLE PRESERVATION/HOLDING TIME	SUFFICIENT	↓	
HEADSPACE/BUBBLES	ZERO/NONE	↓	
SAMPLE LABEL INFORMATION	SUFFICIENT	↓	
CHAIN-OF-CUSTODY INFORMATION	SUFFICIENT	SEE BELOW	

SAMPLE INFO.:	SAMPLE ID	DATE	TIME	SIGNATURE	ANALYSES	PRESERVATIVE	CONTAINER
INDIVIDUAL SAMPLE CONTAINER:		NONE	SEALED PLASTIC BAG		CAN	OTHER(SPECIFY):	

SAMPLE NUMBER	CLIENT ID	DISCREPANCY	ACTION
-20	CLJ100-RB-601	ID ON LABEL IS CLJ100-RB-601	should be RB for
		DATE & TIME IS OK	Rinsate.

CLIENT SERVICES COPY RECEIVED BY	6/4 cristina	DATE		TIME	

CKY ANALYTICAL LABORATORIES

FedEx

USE THIS AIRBILL FOR DANGEROUS GOODS SHIPMENTS ONLY WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL
PACKAGE
TRACKING NUMBER

6921491312

96F009
6-4-96
10:00 AM

6921491312

Date 6-3-96

RECIPIENT'S COPY

From (Your Name) Please Print

AARON R. GRAN

Your Phone Number (Very Important) (910) 451-2799

Company

Department/Floor No.

Street Address

City State ZIP Required

To (Recipient's Name) Please Print

KAM PONG

Recipient's Phone Number (Very Important) (310) 618-8889

Company CKY INC.

Department/Floor No.

Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.)

630 Maple Avenue

City TORRANCE State CA ZIP Required 90503

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.)

18319

H IF HOLD AT FEDEX LOCATION. Print FEDEX Address Here (Not available at all locations)

Street Address

City State ZIP Required

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card 5 [ ] Cash/Check

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning*)	Standard Overnight (Delivery by next business afternoon* Not Saturday Delivery)
1 [X]	51 [ ]
Economy Two-Day (Delivery by second business day*)	**Government Overnight** (Restricted for authorized users only)
30 [ ]	41 [ ]

Freight Service (for packages over 150 lbs.)

70 [ ] OVERNIGHT FREIGHT** (Delivery commitment may be later in some areas.)
80 [ ] TWO-DAY FREIGHT** (**Call for delivery schedule)

INSTRUCTIONS (Mark appropriate boxes)

- Dangerous Goods as per attached Shipper's Declaration [X]
- Dangerous Goods Shipper's Declaration not required [ ]
- Cargo Aircraft only [ ]

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service
1 [ ] HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
2 [X] DELIVER WEEKDAY

Saturday Service
31 [ ] HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
3 [ ] DELIVER SATURDAY (Extra charges) (Not available to all locations)
9 [ ] SATURDAY PICK-UP (Extra charge)

Special Handling
4 [X] DANGEROUS GOODS (Extra charge)
6 [ ] DRY ICE Dangerous Goods Shipper's Declaration not required
Dry Ice $\_\_\_$ kg 954
[ ]
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6 PACKAGES | WEIGHT in Pounds Only | YOUR DECLARED VALUE (See right)

1 | 34.9

Total | Total | Total

1 | 34.9

DIM SHIPMENT (Chargeable Weight) [ ] lbs.

L x W x H

Received At:
1 [ ] Regular Stop 3 [ ] Drop Box
2 [ ] On-Call Stop 4 [ ] B.S.C. 5 [ ] Station

Emp. No. Date

[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del. [ ] Chg. To Hold

Street Address

City State Zip

Received By: X

Date/Time Received FedEx Employee Number

SIGNATURE RELEASE UNAVAILABLE

Federal Express Use

Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 11.94
Part # 146187/146188
FORMAT #219 GBFE
219
© 1994 FEDEX PRINTED IN U.S.A.

6921491312 Page 1 of 1 Pages

Two completed and signed copies of this Declaration must be handed to the operator.

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non applicable)
PASSENGER AND CARGO AIRCRAFT / ~~CARGO AIRCRAFT ONLY~~

Airport of Departure

Airport of Destination:

Shipment type: (delete non-applicable)
NON-RADIOACTIVE / ~~RADIOACTIVE~~

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification: Proper Shipping Name	Class or Division	UN or ID No.	Packing Group	Subsidiary Risk	Quantity and type of packing	Packing Inst.	Authorization
Other Regulated Substances	9	ID 8027		n/a	1 Box Dry Ice 13 - 250ml plastic 2 - 1L plastic TOTAL	954	

Additional Handling Information

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labeled, and are in all respects in the proper condition for transport by air according to the applicable International and National Governmental Regulations.

Name/Title of Signatory

Place and Date

Signature (See warning above)

Emergency Telephone Number (Required for US Origin or Destination Shipments)

IF ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

LABORATORY REPORT FOR

OHM

18319/CAMP LEJEUNE

CHLORINATED PESTICIDES

SDG#: 96F009

JUNE 08, 1996

CASE NARRATIVE

CLIENT: OHM

PROJECT: 18319/CAMP LEJEUNE

SDG: 96F009

CHLORINATED PESTICIDES

Eighteen (18) soil samples were received on 06/04/96 for Pesticide analysis in accordance with SW846.

I. **Holding Time**

All samples were extracted and analyzed within the holding time criteria.

II. **Blank**

A method blank was free of contamination.

III. **Matrix Spike/Matrix Spike Duplicate**

All recoveries and RPDs were within the QC limits.

IV. **Lab Control Sample**

All results were within the control limits.

V. **Surrogate Recovery**

All surrogate recoveries were within the control limits.

VI. **Instrument Performance and Calibration**

An initial calibration was five-point and all RSDs were within the QC limits in a quantitation column. Rtx35 was used as the quantitation column. All continue calibrations were checked at 12 hour interval and all recoveries in the quantitation were within the QC limits. All DDT and Endrin breakdown were within QC limits.

VII. **Sample Analysis**

All sample analyses met the project specific QC requirements. All results were confirmed by the second column Rtx5.

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-048	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-01	MATRIX:	SOIL
% MOISTURE:	14.3	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.8
alpha-BHC	ND	11.7
beta-BHC	ND	23.3
delta-BHC	ND	29.2
gamma-BHC (Lindane)	ND	19.8
alpha-Chlordane	ND	117
gamma-Chlordane	ND	117
4,4'-DDD	ND	117
4,4'-DDE	ND	117
4,4'-DDT	ND	117
Dieldrin	ND	23.3
Endosulfan I	ND	19.8
Endosulfan II	ND	233
Endosulfan Sulfate	ND	23.3
Endrin	ND	117
Endrin aldehyde	ND	11.7
Heptachlor	ND	233
Heptachlor Epoxide	ND	583
Methoxychlor	ND	1170
Toxaphene	ND	2330

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	100	20-150
Decachlorobiphenyl	88	20-150

RL: Reporting Limit

02

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-049	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-02	MATRIX:	SOIL
% MOISTURE:	13.3	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.6
alpha-BHC	ND	11.5
beta-BHC	ND	23.1
delta-BHC	ND	28.8
gamma-BHC (Lindane)	ND	19.6
alpha-Chlordane	ND	115
gamma-Chlordane	ND	115
4,4'-DDD	ND	115
4,4'-DDE	ND	115
4,4'-DDT	ND	115
Dieldrin	ND	115
Endosulfan I	ND	23.1
Endosulfan II	ND	19.6
Endosulfan Sulfate	ND	231
Endrin	ND	23.1
Endrin aldehyde	ND	115
Heptachlor	ND	11.5
Heptachlor Epoxide	ND	231
Methoxychlor	ND	577
Toxaphene	ND	1150
	ND	2310

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	96	20-150
Decachlorobiphenyl	93	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-050	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-03	MATRIX:	SOIL
% MOISTURE:	6.8	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.2
alpha-BHC	ND	10.7
beta-BHC	ND	21.5
delta-BHC	ND	26.8
gamma-BHC (Lindane)	ND	18.2
alpha-Chlordane	ND	107
gamma-Chlordane	ND	107
4,4'-DDD	ND	107
4,4'-DDE	ND	107
4,4'-DDT	ND	107
Dieldrin	62	21.5
Endosulfan I	ND	18.2
Endosulfan II	ND	215
Endosulfan Sulfate	ND	21.5
Endrin	ND	107
Endrin aldehyde	ND	10.7
Heptachlor	ND	215
Heptachlor Epoxide	ND	536
Methoxychlor	ND	1070
Toxaphene	ND	2150

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	94	20-150
Decachlorobiphenyl	93	20-150

RL: Reporting Limit

04

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS050DP	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-04	MATRIX:	SOIL
% MOISTURE:	17.9	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	20.7
alpha-BHC	ND	12.2
beta-BHC	ND	24.4
delta-BHC	ND	30.5
gamma-BHC (Lindane)	ND	20.7
alpha-Chlordane	ND	122
gamma-Chlordane	ND	122
4,4'-DDD	ND	122
4,4'-DDE	ND	122
4,4'-DDT	ND	122
Dieldrin	100	24.4
Endosulfan I	ND	20.7
Endosulfan II	ND	244
Endosulfan Sulfate	ND	24.4
Endrin	ND	122
Endrin aldehyde	ND	12.2
Heptachlor	ND	244
Heptachlor Epoxide	ND	609
Methoxychlor	ND	1220
Toxaphene	ND	2440

URROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	76	20-150
Decachlorobiphenyl	76	20-150

RL: Reporting Limit

CHEMICAL ANALYTICAL LABORATORIES, 630 Maple Ave., Torrance, Calif. 90503 Tel: (310) [illegible] Fax: (310) 618-0818

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-051	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-05	MATRIX:	SOIL
% MOISTURE:	14.2	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.8
alpha-BHC	ND	11.7
beta-BHC	ND	23.3
delta-BHC	ND	29.1
gamma-BHC (Lindane)	ND	19.8
alpha-Chlordane	ND	117
gamma-Chlordane	ND	117
4,4'-DDD	ND	117
4,4'-DDE	ND	117
4,4'-DDT	ND	117
Dieldrin	ND	23.3
Endosulfan I	ND	19.8
Endosulfan II	ND	233
Endosulfan Sulfate	ND	23.3
Endrin	ND	117
Endrin aldehyde	ND	11.7
Heptachlor	ND	233
Heptachlor Epoxide	ND	583
Methoxychlor	ND	1170
Toxaphene	ND	2330

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	94	20-150
Decachlorobiphenyl	95	20-150

RL: Reporting Limit

06

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-052	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-06	MATRIX:	SOIL
% MOISTURE:	6.7	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.2
alpha-BHC	ND	10.7
beta-BHC	ND	21.4
delta-BHC	ND	26.8
gamma-BHC (Lindane)	ND	18.2
alpha-Chlordane	ND	107
gamma-Chlordane	ND	107
4,4'-DDD	ND	107
4,4'-DDE	ND	107
4,4'-DDT	ND	107
Dieldrin	ND	107
Endosulfan I	ND	21.4
Endosulfan II	ND	18.2
Endosulfan Sulfate	ND	214
Endrin	ND	21.4
Endrin aldehyde	ND	107
Heptachlor	ND	10.7
Heptachlor Epoxide	ND	214
Methoxychlor	ND	536
Toxaphene	ND	1070
		2140

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	97	20-150
Decachlorobiphenyl	93	20-150

RL: Reporting Limit

07

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-053	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-07	MATRIX:	SOIL
% MOISTURE:	5.1	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17.9
alpha-BHC	ND	10.5
beta-BHC	ND	21.1
delta-BHC	ND	26.3
gamma-BHC (Lindane)	ND	17.9
alpha-Chlordane	ND	105
gamma-Chlordane	ND	105
4,4'-DDD	ND	105
4,4'-DDE	ND	105
4,4'-DDT	ND	105
Dieldrin	ND	21.1
Endosulfan I	ND	17.9
Endosulfan II	ND	211
Endosulfan Sulfate	ND	21.1
Endrin	ND	105
Endrin aldehyde	ND	10.5
Heptachlor	ND	211
Heptachlor Epoxide	ND	527
Methoxychlor	ND	1050
Toxaphene	ND	2110

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	96	20-150
Decachlorobiphenyl	99	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-054	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-08	MATRIX:	SOIL
% MOISTURE:	7.7	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.4
alpha-BHC	ND	10.8
beta-BHC	ND	21.7
delta-BHC	ND	27.1
gamma-BHC (Lindane)	ND	18.4
alpha-Chlordane	ND	108
gamma-Chlordane	ND	108
4,4'-DDD	ND	108
4,4'-DDE	ND	108
4,4'-DDT	ND	108
Dieldrin	ND	21.7
Endosulfan I	ND	18.4
Endosulfan II	ND	217
Endosulfan Sulfate	ND	21.7
Endrin	ND	108
Endrin aldehyde	ND	10.8
Heptachlor	ND	217
Heptachlor Epoxide	ND	542
Methoxychlor	ND	1080
Toxaphene	ND	2170

URROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	97	20-150
Decachlorobiphenyl	95	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-055	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-09	MATRIX:	SOIL
% MOISTURE:	7.4	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.4
alpha-BHC	ND	10.8
beta-BHC	ND	21.6
delta-BHC	ND	27
gamma-BHC (Lindane)	ND	18.4
alpha-Chlordane	ND	108
gamma-Chlordane	ND	108
4,4'-DDD	ND	108
4,4'-DDE	ND	108
4,4'-DDT	ND	108
Dieldrin	ND	21.6
Endosulfan I	ND	18.4
Endosulfan II	ND	216
Endosulfan Sulfate	ND	21.6
Endrin	ND	108
Endrin aldehyde	ND	10.8
Heptachlor	ND	216
Heptachlor Epoxide	ND	540
Methoxychlor	ND	1080
Toxaphene	ND	2160

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	91	20-150
Decachlorobiphenyl	95	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

LIENT:	OHM		
PROJECT:	18319/CAMP LEJEUNE	DATE COLLECTED:	06/01/96
BATCH NO.:	96F009	DATE RECEIVED:	06/04/96
SAMPLE ID:	CLJ100-CS-056	DATE EXTRACTED:	06/05/96
CONTROL NO.:	F009-10	DATE ANALYZED:	06/06/96
% MOISTURE:	13.2	MATRIX:	SOIL
		DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.6
alpha-BHC	ND	11.5
beta-BHC	ND	23
delta-BHC	ND	28.8
gamma-BHC (Lindane)	ND	19.6
alpha-Chlordane	ND	115
gamma-Chlordane	ND	115
4,4'-DDD	ND	115
4,4'-DDE	ND	115
4,4'-DDT	ND	115
Dieldrin	ND	23
Endosulfan I	ND	19.6
Endosulfan II	ND	230
Endosulfan Sulfate	ND	23
Endrin	ND	115
Endrin aldehyde	ND	11.5
Heptachlor	ND	230
Heptachlor Epoxide	ND	576
Methoxychlor	ND	1150
Toxaphene	ND	2300

JRROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	102	20-150
Decachlorobiphenyl	101	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-057	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-11	MATRIX:	SOIL
% MOISTURE:	8.1	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.5
alpha-BHC	ND	10.9
beta-BHC	ND	21.8
delta-BHC	ND	27.2
gamma-BHC (Lindane)	ND	18.5
alpha-Chlordane	ND	109
gamma-Chlordane	ND	109
4,4'-DDD	ND	109
4,4'-DDE	ND	109
4,4'-DDT	ND	109
Dieldrin	ND	21.8
Endosulfan I	ND	18.5
Endosulfan II	ND	218
Endosulfan Sulfate	ND	21.8
Endrin	ND	109
Endrin aldehyde	ND	10.9
Heptachlor	ND	218
Heptachlor Epoxide	ND	544
Methoxychlor	ND	1090
Toxaphene	ND	2180

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	96	20-150
Decachlorobiphenyl	95	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM		
PROJECT:	18319/CAMP LEJEUNE	DATE COLLECTED:	06/01/96
BATCH NO.:	96F009	DATE RECEIVED:	06/04/96
SAMPLE ID:	CLJ100-CS-058	DATE EXTRACTED:	06/05/96
CONTROL NO.:	F009-12	DATE ANALYZED:	06/06/96
% MOISTURE:	4.6	MATRIX:	SOIL
		DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17.8
alpha-BHC	ND	10.5
beta-BHC	ND	21
delta-BHC	ND	26.2
gamma-BHC (Lindane)	ND	17.8
alpha-Chlordane	ND	105
gamma-Chlordane	ND	105
4,4'-DDD	ND	105
4,4'-DDE	ND	105
4,4'-DDT	ND	105
Dieldrin	ND	21
Endosulfan I	ND	17.8
Endosulfan II	ND	210
Endosulfan Sulfate	ND	21
Endrin	ND	105
Endrin aldehyde	ND	10.5
Heptachlor	ND	210
Heptachlor Epoxide	ND	524
Methoxychlor	ND	1050
Toxaphene	ND	2100

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	98	20-150
Decachlorobiphenyl	95	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-059	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-13	MATRIX:	SOIL
% MOISTURE:	4.6	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17.8
alpha-BHC	ND	10.5
beta-BHC	ND	21
delta-BHC	ND	26.2
gamma-BHC (Lindane)	ND	17.8
alpha-Chlordane	ND	105
gamma-Chlordane	ND	105
4,4'-DDD	ND	105
4,4'-DDE	ND	105
4,4'-DDT	ND	105
Dieldrin	ND	21
Endosulfan I	ND	17.8
Endosulfan II	ND	210
Endosulfan Sulfate	ND	21
Endrin	ND	105
Endrin aldehyde	ND	10.5
Heptachlor	ND	210
Heptachlor Epoxide	ND	524
Methoxychlor	ND	1050
Toxaphene	ND	2100

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	98	20-150
Decachlorobiphenyl	98	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-060	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-14	MATRIX:	SOIL
% MOISTURE:	10.4	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19
alpha-BHC	ND	11.2
beta-BHC	ND	22.3
delta-BHC	ND	27.9
gamma-BHC (Lindane)	ND	19
alpha-Chlordane	ND	112
gamma-Chlordane	ND	112
4,4'-DDD	ND	112
4,4'-DDE	ND	112
4,4'-DDT	ND	112
Dieldrin	ND	112
Endosulfan I	ND	22.3
Endosulfan II	ND	19
Endosulfan Sulfate	ND	223
Endrin	ND	22.3
Endrin aldehyde	ND	112
Heptachlor	ND	11.2
Heptachlor Epoxide	ND	223
Methoxychlor	ND	558
Toxaphene	ND	1120
		2230

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	97	20-150
Decachlorobiphenyl	95	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS060DP	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-15	MATRIX:	SOIL
% MOISTURE:	4.0	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17.7
alpha-BHC	ND	10.4
beta-BHC	ND	20.8
delta-BHC	ND	26
gamma-BHC (Lindane)	ND	17.7
alpha-Chlordane	ND	104
gamma-Chlordane	ND	104
4,4'-DDD	ND	104
4,4'-DDE	ND	104
4,4'-DDT	ND	104
Dieldrin	ND	20.8
Endosulfan I	ND	17.7
Endosulfan II	ND	208
Endosulfan Sulfate	ND	20.8
Endrin	ND	104
Endrin aldehyde	ND	10.4
Heptachlor	ND	208
Heptachlor Epoxide	ND	521
Methoxychlor	ND	1040
Toxaphene	ND	2080

URROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	96	20-150
Decachlorobiphenyl	94	20-150

RL: Reporting Limit

ANALYTICAL LABORATORIES 620 Maple Ave. Torrance, Calif. 90503 Tel (310) 618-8889 Fax (310) 618-0818

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-061	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-16	MATRIX:	SOIL
% MOISTURE:	6.7	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.2
alpha-BHC	ND	10.7
beta-BHC	ND	21.4
delta-BHC	ND	26.8
gamma-BHC (Lindane)	ND	18.2
alpha-Chlordane	ND	107
gamma-Chlordane	ND	107
4,4'-DDD	ND	107
4,4'-DDE	ND	107
4,4'-DDT	ND	107
Dieldrin	ND	21.4
Endosulfan I	ND	18.2
Endosulfan II	ND	214
Endosulfan Sulfate	ND	21.4
Endrin	ND	107
Endrin aldehyde	ND	10.7
Heptachlor	ND	214
Heptachlor Epoxide	ND	536
Methoxychlor	ND	1070
Toxaphene	ND	2140

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	89	20-150
Decachlorobiphenyl	93	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-062	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-17	MATRIX:	SOIL
% MOISTURE:	4.4	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17.8
alpha-BHC	ND	10.5
beta-BHC	ND	20.9
delta-BHC	ND	26.2
gamma-BHC (Lindane)	ND	17.8
alpha-Chlordane	ND	105
gamma-Chlordane	ND	105
4,4'-DDD	ND	105
4,4'-DDE	ND	105
4,4'-DDT	ND	105
Dieldrin	39	20.9
Endosulfan I	ND	17.8
Endosulfan II	ND	209
Endosulfan Sulfate	ND	20.9
Endrin	ND	105
Endrin aldehyde	ND	10.5
Heptachlor	ND	209
Heptachlor Epoxide	ND	523
Methoxychlor	ND	1050
Toxaphene	ND	2090

JRROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	96	20-150
Decachlorobiphenyl	101	20-150

RL: Reporting Limit

LABORATORIES 600 Maple Ave. Torrance, Calif. 90503 Tel. (310) 618-8889 Fax: (310) 618-0818

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/01/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/04/96
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-063	DATE ANALYZED:	06/06/96
CONTROL NO.:	F009-18	MATRIX:	SOIL
% MOISTURE:	12.1	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.3
alpha-BHC	ND	11.4
beta-BHC	ND	22.8
delta-BHC	ND	28.4
gamma-BHC (Lindane)	ND	19.3
alpha-Chlordane	ND	114
gamma-Chlordane	ND	114
4,4'-DDD	ND	114
4,4'-DDE	ND	114
4,4'-DDT	ND	114
Dieldrin	ND	114
Endosulfan I	ND	22.8
Endosulfan II	ND	19.3
Endosulfan Sulfate	ND	228
Endrin	ND	22.8
Endrin aldehyde	ND	114
Heptachlor	ND	11.4
Heptachlor Epoxide	ND	228
Methoxychlor	ND	569
Toxaphene	ND	1140
		2280

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	92	20-150
Decachlorobiphenyl	96	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	NA
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	NA
BATCH NO.:	96F009	DATE EXTRACTED:	06/05/96
SAMPLE ID:	MBLK1S	DATE ANALYZED:	06/06/96
CONTROL NO.:	CPF007SB	MATRIX:	SOIL
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17
alpha-BHC	ND	10
beta-BHC	ND	20
delta-BHC	ND	25
gamma-BHC (Lindane)	ND	17
alpha-Chlordane	ND	100
gamma-Chlordane	ND	100
4,4'-DDD	ND	100
4,4'-DDE	ND	100
4,4'-DDT	ND	100
Dieldrin	ND	20
Endosulfan I	ND	17
Endosulfan II	ND	200
Endosulfan Sulfate	ND	20
Endrin	ND	100
Endrin aldehyde	ND	10
Heptachlor	ND	200
Heptachlor Epoxide	ND	500
Methoxychlor	ND	1000
Toxaphene	ND	2000

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	103	20-150
Decachlorobiphenyl	77	20-150

RL: Reporting Limit

CKY QUALITY CONTROL DATA
LCS ANALYSIS

CLIENT: OHM
PROJECT: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96F009
SAMPLE ID: LCS1S
CONTROL NO.: CPF007SL

DATE RECEIVED: NA
DATE EXTRACTED: 06/05/96
DATE ANALYZED: 06/06/96

ACCESSION: 96F009

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	LCS RSLT (ug/kg)	LCS % REC	QC LIMIT (%)
Aldrin	ND	167.00	186.00	111	47-116
alpha-Chlordane	ND	167.00	189.00	113	45-119
gamma-Chlordane	ND	167.00	180.00	108	45-119
4,4'-DDD	ND	333.00	351.00	105	48-136
4,4'-DDT	ND	333.00	365.00	110	34-143
Dieldrin	ND	333.00	317.00	95	42-132

SURROGATE PARAMETER	SPIKE AMOUNT (ug/kg)	LCS RESULT (ug/kg)	LCS % REC	QC LIMIT %
Tetrachloro-m-xylene	400.00	402.00	100	20-150
Decachlorobiphenyl	667.00	528.00	79	20-150

CKY QUALITY CONTROL DATA
MS/MSD ANALYSIS

[redacted]: OHM
[redacted]: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: 14.3

BATCH NO.: 96F009
SAMPLE ID: CLJ100-CS-048
CONTROL NO.: F009-01

DATE RECEIVED: 06/04/96
DATE EXTRACTED: 06/05/96
DATE ANALYZED: 06/06/96

ACCESSION: 96F009

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	195.00	211.00	108	195.00	210.00	108	1	20-170	50
alpha-Chlordane	ND	195.00	244.00	125	195.00	247.00	127	1	20-170	50
gamma-Chlordane	ND	195.00	195.00	100	195.00	203.00	104	4	20-170	50
4,4'-DDD	ND	389.00	427.00	110	389.00	432.00	111	1	20-170	50
4,4'-DDT	ND	389.00	495.00	127	389.00	502.00	129	1	20-170	50
Dieldrin	ND	389.00	358.00	92	389.00	357.00	92	0	20-170	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT %
Tetrachloro-m-xylene	467.00	455.00	98	467.00	449.00	96	20-150
Decachlorobiphenyl	778.00	679.00	87	778.00	684.00	88	20-150

INITIAL CALIBRATION
METHOD 8080

Lab Name : CKY Inc
Instrument ID : GC2
GC Columm : Rtx-35
Column size ID: .53mm
LFID & Datime: TE24-19 05-24-96 21:54:58 TE24-20 05-24-96 22:31:41
LFID & Datime: TE24-21 05-24-96 23:08:24 TE24-22 05-24-96 23:45:08
LFID & Datime: TE24-23 05-25-96 00:21:50 TE24-24 05-25-96 00:58:31
LFID & Datime: TE24-25 05-25-96 01:35:14 TE24-26 05-25-96 02:11:59
LFID & Datime: TE24-27 05-25-96 02:48:44 TE24-28 05-25-96 03:25:29
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA/UNIT) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN	%RSD
alpha-BHC	5.0	17678	19650	20474	21133	20017	19791	7
gamma-BHC	5.0	17612	19410	19738	19946	18668	19075	5
beta-BHC	5.0	6739	7026	7777	7996	7731	7454	7
Heptachlor	5.0	17693	17858	17225	16941	15567	17057	5
delta-BHC	5.0	11589	12737	15058	16159	17006	14510	16
Aldrin	5.0	18045	17786	18681	17927	17282	17944	3
Heptachlor Epoxide	5.0	18274	17604	17968	16964	15962	17354	5
gamma-Chlordane	5.0	19619	18677	19081	18009	17106	18498	5
osulfan I	5.0	17577	18227	17895	17535	16138	17474	5
ha-Chlordane	5.0	19235	18309	18529	17349	16511	17987	6
Dieldrin	10.0	17776	18480	17738	16977	15492	17293	7
DDE	10.0	14637	14751	15728	15085	14358	14912	4
Endrin	10.0	14416	14847	14283	13564	12212	13865	7
Endosulfan II	10.0	16430	15492	15357	13933	12725	14787	10
DDD	10.0	11133	12298	12243	12396	11543	11923	5
Endrin Aldehyde	10.0	13641	12639	12850	11593	10611	12267	10
DDT	10.0	12292	12971	12681	12553	11430	12385	5
Endosulfan Sulfate	10.0	15631	14752	14697	13372	12260	14142	9
Endrin Ketone	10.0	18397	17044	16317	14430	12971	15832	14
Methoxychlor	50.0	5407	5152	4729	4376	3878	4708	13
TCX	5.0	16170	15495	15351	14113	13031	14832	8
DCB	10.0	19012	16608	15132	13136	11773	15132	19

DDT/Endrin Breakdown

Instrument ID: GC-2

	File: SFC4-59	File: TFC4-59
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	8.2	0
Endrin	6.7	0

	File: SFC4-78	File: TFC4-78
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	7.5	0
Endrin	2.4	0.9

	File: SFC4-95	File: TFC4-95
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	0.5	0
Endrin	5.5	1.2

CONTINUE CALIBRATION
METHOD 8080

La~ Name	:	CKY Inc				
Instrument ID	:	GC2				
GC Columm	:	Rtx-35				
Column size ID	:	.53mm				
Mid Con Init LFID & Datime:		TE24-23	05-25-96	00:21:50	TE24-24	0
Mid Con Cont LFID & Datime:		TF04-60	06-05-96	23:49:55	TF04-61	0
CONC UNIT	:	ppb				

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%RSD
alpha-BHC	20.0	19791	21.7	8
gamma-BHC	20.0	19075	21.4	7
beta-BHC	20.0	7454	22.5	13
Heptachlor	20.0	17057	20.9	4
delta-BHC	20.0	14510	22.9	14
Aldrin	20.0	17944	20.1	0
Heptachlor Epoxide	20.0	17354	19.3	3
gamma-Chlordane	20.0	18498	19.5	3
Endosulfan I	20.0	17474	19.6	2
alpha-Chlordane	20.0	17987	19.5	3
Dieldrin	40.0	17293	39.1	2
DDE	40.0	14912	41.8	4
E~drin	40.0	13865	42.0	5
:)sulfan II	40.0	14787	38.5	4
D~~	40.0	11923	42.4	6
Endrin Aldehyde	40.0	12267	38.3	4
DDT	40.0	12385	40.3	1
Endosulfan Sulfate	40.0	14142	37.9	5
Endrin Ketone	40.0	15832	37.7	6
Methoxychlor	200.0	4708	206.1	3
TCX	20.0	14832	20.5	3
DCB	40.0	15132	35.9	10

CONTINUE CALIBRATION
METHOD 8080

Lab Name : CKY Inc
Instrument ID : GC2
GC Columm : Rtx-35
Column size ID : .53mm
Mid Con Init LFID & Datime: TE24-23 05-25-96 00:21:50 TE24-24 0
Mid Con Cont LFID & Datime: TF04-79 06-06-96 11:26:47 TF04-80 0
CONC UNIT : ppb

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%RSD
alpha-BHC	20.0	19791	21.2	6
gamma-BHC	20.0	19075	21.1	6
beta-BHC	20.0	7454	22.8	14
Heptachlor	20.0	17057	21.8	9
delta-BHC	20.0	14510	21.5	8
Aldrin	20.0	17944	20.2	1
Heptachlor Epoxide	20.0	17354	19.6	2
gamma-Chlordane	20.0	18498	19.8	1
Endosulfan I	20.0	17474	19.5	2
alpha-Chlordane	20.0	17987	19.8	1
Dieldrin	40.0	17293	38.7	3
D[illegible]	40.0	14912	42.2	6
E[illegible]in	40.0	13865	41.7	4
Endosulfan II	40.0	14787	39.2	2
DDD	40.0	11923	42.5	6
Endrin Aldehyde	40.0	12267	38.9	3
DDT	40.0	12385	42.9	7
Endosulfan Sulfate	40.0	14142	38.6	4
Endrin Ketone	40.0	15832	38.1	5
Methoxychlor	200.0	4708	219.1	10
TCX	20.0	14832	20.9	4
DCB	40.0	15132	34.8	13

CONTINUE CALIBRATION
METHOD 8080

La ame : CKY Inc
Ins.rument ID : GC2
GC Columm : Rtx-35
Column size ID : .53mm
Mid Con Init LFID & Datime: TE24-23 05-25-96 00:21:50 TE24-24 0
Mid Con Cont LFID & Datime: TF04-99 06-06-96 23:41:37 TF04-100 0
CONC UNIT : ppb

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%RSD
alpha-BHC	20.0	19791	22.0	10
gamma-BHC	20.0	19075	21.9	9
beta-BHC	20.0	7454	22.9	15
Heptachlor	20.0	17057	22.0	10
delta-BHC	20.0	14510	22.1	11
Aldrin	20.0	17944	20.3	2
Heptachlor Epoxide	20.0	17354	19.5	2
gamma-Chlordane	20.0	18498	19.9	1
Endosulfan I	20.0	17474	20.1	0
alpha-Chlordane	20.0	17987	19.9	1
Dieldrin	40.0	17293	39.8	1
DDE	40.0	14912	42.1	5
E -in	40.0	13865	42.4	6
E sulfan II	40.0	14787	39.0	2
DDD	40.0	11923	43.3	8
Endrin Aldehyde	40.0	12267	38.3	4
DDT	40.0	12385	42.2	5
Endosulfan Sulfate	40.0	14142	38.3	4
Endrin Ketone	40.0	15832	38.2	4
Methoxychlor	200.0	4708	217.4	9
TCX	20.0	14832	21.1	6
DCB	40.0	15132	36.0	10

48	96E080-05	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
49	96E080-06	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
50	96E080-08	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
51	96E080-09	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
52	96E080-10	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
53	96E080-11	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
54	96E080-11T 5X	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
55	96E080-12	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
56	96E080-13	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
57	96E080-14	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
58	96E080-15	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
59	PEM04/10C-1-20-2	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
60	DCC4-MIXA/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
61	DCC4-MIXB/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
62	DCC1-1660/10-1-302	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
63	96E080-09T 5X	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
64	96E080-10T 10X	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
65	CPF006SB	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
66	CPF006SL	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
67	CPF006SC	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
68	96F013-12	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
69	96F013-12M	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
70	96F013-12S	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
71	CPF007SB	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
72	CPF007SL	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
73	CPF007SC	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
74	96F009-01	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
75	96F009-01M	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
76	96F009-01S	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
77	96F009-02	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
78	PEM05/10C-1-20-2	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
79	DCC5-MIXA/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
80	DCC5-MIXB/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
81	DCC2-1660/10-1-302	1660F01	SF04-	1.0000	1.0000	1.0000	1.0000
82	96F009-03	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
83	96F009-04	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
84	96F009-05	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
85	96F009-06	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
86	96F009-07	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
87	96F009-08	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
88	96F009-09	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
89	96F009-10	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
90	96F009-11	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
91	96F009-12	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
92	96F009-13	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
93	96F009-14	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
94	96F009-15	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
95	96F009-16	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
96	96F009-17	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
97	96F009-18	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
98	PEM06/10C-1-20-2	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
99	DCC6-MIXA/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000
100	DCC6-MIXB/10-1-242	PEST6	SF04-	1.0000	1.0000	1.0000	1.0000

CKY Analytical Laboratories
Sample Preparation Department

EXTRACTION LOG FOR PESTICIDES/PCBs

CKYT-E01-002

CLIENT: OHM / Camp Lejeune
MATRIX: SOIL
METHOD: 8080
PAGE #: 98
DATE EXTRACTED: 6/5/96 1030
DATE COMPLETED: 6/5/96 16 00

LAB SAMPLE ID	SAMPLE AMOUNT (g/ml)	pH	EXTRACT VOLUME (ml)	CLEAN-UP (G/S/A/F)	NOTES
CPF007-SB			10		
SL					
SC					
F009-01	3.0				
1M					
1S					
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					

CLEAN-UP	CODE
GPC	G
TBA	S
ACID	A
FLORISIL	F

REAGENT	LOT #
Na2SO4	~~MD 4524-96~~ 954496
CH2CL2	36079
HEXANE	96230

STANDARDS	ID	AMOUNT ADDED (ml)
SPIKE ID MIX A	S10C-01-0-34-02	0.40
SURROGATE ID	S10C-01-0-35-02	2.0
Spike Mix B	S10C-01-0-35 01	0.40

SDG #	EXTRACT LOCATION

COMMENTS:

PREPARED BY: MD
STD's ADDED BY: MD / ML
CHECKED BY: ML

Extracts Received By:

C K Y incorporated
Analytical Laboratories

Date: 06-08-1996
CKY Batch No.: 96F014

Attn: Ms. Missy Art

OHM
5335 Triangle Parkway Suite 450
Norcross, GA 30092

Subject: Laboratory Report
Project: 18319/CAMP LEJEUNE

Enclosed is the Laboratory report for samples received on 06/05/96. The samples were received in coolers with ice and intact; the chain-of-custody forms were properly filled out. The data reported include :

Sample ID	Control No.	Matrix	Analysis
CLJ100-CS-064	F014-01	Soil	EPA 8080
CLJ100-CS-065	F014-02	Soil	EPA 8080
CLJ100-CS-066	F014-03	Soil	EPA 8080
CLJ100-CS-068	F014-05	Soil	EPA 8080
CLJ100-CS-069	F014-06	Soil	EPA 8080
CLJ100-CS-071	F014-09	Soil	EPA 8080
CLJ100-CS-073	F014-11	Soil	EPA 8080
CLJ100-CS-074	F014-12	Soil	EPA 8080
CLJ100-CS-075	F014-13	Soil	EPA 8080
CLJ100-CS-077	F014-15	Soil	EPA 8080
CLJ100-CS-078	F014-16	Soil	EPA 8080
CLJ100-CS-079	F014-17	Soil	EPA 8080
CLJ100-FB-604	F014-18	Water	EPA 8080
CLJ100-RB-604	F014-19	Water	EPA 8080

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Pang

Kam Y. Pang, Ph.D.
Laboratory Director

P.S. - All analyses requested for the above referenced project have been completed. Therefore, unless instructed, the remaining portions of the samples will be disposed after fifteen (15) days from the date of this report.

630 Maple Ave., Torrance, Calif. 90503 • Telephone 310-618-8889 • Fax: 310-618-0818

O.H. Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

TRANSFER 2

Form 0019
Field Technical Services
Rev. 08/89

96F014 H4 166587

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune	Camp Lejeune, N.C.

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
18319	Alan Whitt	(910) 451-2599

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
Vann Marshburn	Jim Dunn / Alan Whitt

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): TCL Pesticides (8080)

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	TCL Pesticides (8080)	REMARKS
1	[illegible]-CS-064	6/4/96	0729		X	Confirmation Sample from AOC 1-12 Base	1-8oz	X	NEESA Level "C"
2	[illegible]-CS-065	6/4/96	0624		X	Confirmation Sample from AOC 39-42 Base	1-8oz	X	
3	[illegible]-CS-066	6/4/96	0628		X	Confirmation Sample from AOC 39-42 Sidewall	1-8oz	X	
4	[illegible]-CS-067	6/4/96	0633		X	Confirmation Sample from AOC 33-38 Base	1-8oz	X	
5	[illegible]-CS-068	6/4/96	0637		X	Confirmation Sample from AOC 33-38 Base	1-8oz	X	
6	[illegible]-CS-069	6/4/96	0643		X	Confirmation Sample from AOC 33-38 Base	1-8oz	X	
7	[illegible]-CS-070	6/4/96	0651		X	Confirmation Sample from AOC 33-38 Sidewall	1-8oz	X	
8	[illegible]-CS-070[illegible]	6/4/96	0651		X	Duplicate Confirmation Sample from AOC 33-38 Sidewall	1-8oz	X	
9	[illegible]-CS-071	6/4/96	0655		X	Confirmation Sample from AOC 33-38 Sidewall	1-8oz	X	
10	[illegible]-CS-072	6/4/96	0701		X	Confirmation Sample from AOC 33-38 Sidewall	1-8oz	X	

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-10	[illegible]	FED-EX 6921491334	6/4/96	1700
2			[illegible]	6/5/96	10:00 am
3					
4					

REMARKS

Samples Sent To CKY Inc. 48 hour TAT. Please fax results To (910) 451-1809. Thanks

Hold samples untill we contact you.

SAMPLER'S SIGNATURE [illegible]

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

Form 0019
Field Technical Services
Rev. 08/89

96 F014 H4 166588

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune	Camp Lejeune, N.C.

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
8319	Alan Whitt	910) 451-2599

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
Vann Marshburn	Jim Dunn / Alan Whitt

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): TCL Pesticides (8080)

T=2°C

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	TCL Pesticides (8080)								REMARKS
1	[illegible]-CS-073	6/4/96	0707		X	Confirmation Sample from AOC 33-38 Sidewall	1-8oz	X								NEESA Level C
2	[illegible]-CS-074	6/4/96	0712		X	Confirmation Sample from AOC 29-32 Base	1-8oz	X								
3	[illegible]-CS-075	6/4/96	0733		X	Confirmation Sample from AOC 1-12 Base	1-8oz	X								
4	[illegible]-CS-076	6/4/96	0738		X	Confirmation Sample from AOC 1-12 Base	1-8oz	X								
5	[illegible]-CS-077	6/4/96	0742		X	Confirmation Sample from AOC 1-12 Base	1-8oz	X								
6	[illegible]-CS-078	6/4/96	0746		X	Confirmation Sample from AOC 1-12 Base	1-8oz	X								
7	[illegible]-CS-079	6/4/96	0749		X	Confirmation Sample from AOC 1-12 Base	1-8oz	X								
8	[illegible]-FB-609	6/4/96	0754		X	Field Blank	1-8oz	X								
9	[illegible]-KB-609	6/4/96	0759		X	Rinsate Blank	1-8oz	X								
10																

CORRECTIVE ACTION FORM
(CKY Sample Receipt Discrepancy)

Client	OHM - Camp Lejeune
CKY Batch No.	96F014
Control No.	
Method	8080
Matrix	Dn

1) Nature of Discrepancy:

Modify COC per Carl Pampel.

2) Corrective Action:

Do not analyze the following F014-4, F014-7 F014-8, F014-10, F014-14

3) Result of Corrective Action:

Plse. route to chemists.

Approved by: [signature] Date: 6/5/96.

4) Further Corrective Action Taken? Yes ___ No ___ Date: _____

[initials] 6/5
[initials] 6/5

Approved by: _____ Date: _____ [initials] 6/5

erq.cat

SAMPLE RE IPT FORM

CONTROL NO.	96F014
CLIENT	OHM
PROJECT	CAMP LEJEUNE

DATE	06-05-96
TIME	10:00 AM
RECIPIENT	F. PATEL

SAMPLE TRANSPORTATION TO CKY LABORATORY:		BY	ON(DATE)	AT(TIME)	FROM(SITE/CO.)	COMMENTS
PICKED-UP BY CKY COURIER						
DELIVERED BY CLIENT	✓					
SHIPPED/AIRBILL NO	FEDEX APTN: 8921491334	SEE AIRBILL				

SAMPLE BATCH PACKAGING/SEALING UPON RECEIPT:			✓ INTACT	DAMAGED	✓ SEALED	NOT SEALED	NO CONTAINER
CONTAINER:	INSIDE TEMPERATURE:		2° C	CUSTODY SEAL		LOCATION	NUMBER
✓ COOLER	PACKAGING	TYPE	SUFFICIENCY	✓ INTACT	DAMAGED	FRONT CLOSURE	2
___ BOX	INSULATION:		OK	NAME:	SEE COC		
___ OTHER:	ICE/COOLANT:	REGULAR		DATE:			
	PACKING MATERIAL:	BUBBLEPAK		TIME:			

SAMPLE DOCUMENTATION/CHAIN-OF-CUSTODY(COC)	SEALED	✓ ENCLOSED	HANDCARRIED	FAXED	MAILED

SAMPLE LOG-IN:	CRITERIA	COMMENTS	DISCREPANCY
SAMPLE CUSTODY SEAL	EVERY SAMPLE	NONE	
CONTAINER TYPE/MATERIAL	APPROPRIATE	OK	
SAMPLE AMOUNT	ENOUGH		
SAMPLE PRESERVATION/HOLDING TIME	SUFFICIENT		
HEADSPACE/BUBBLES	ZERO/NONE		
SAMPLE LABEL INFORMATION	SUFFICIENT		
CHAIN-OF-CUSTODY INFORMATION	SUFFICIENT		

SAMPLE INFO.:	SAMPLE ID ✓	DATE ✓	TIME ✓	SIGNATURE ✓	ANALYSES ✓	PRESERVATIVE + CONTAINER
INDIVIDUAL SAMPLE CONTAINER:		NONE	SEALED PLASTIC BAG		CAN	OTHER(SPECIFY): BUBBLEPAK

SAMPLE NUMBER	CLIENT ID	DISCREPANCY	ACTION
-18	FIELD BLANK	REGD LL GLASS BOTTLE (WATER)	
-19	RINSATE BLANK	" " " " (WATER)	

CLIENT SERVICES COPY RECEIVED BY		DATE		TIME	

CKY INC ANALYTICAL LABORATORIES

FedEx

USE THIS AIRBILL FOR DANGEROUS GOODS SHIPMENTS ONLY WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 6921491334

96 F014
6-5-96
10:00 AM Y

6921491334

Date 6-4-96

RECIPIENT'S COPY

1 From (Your Name) Please Print: AARON R GRAN
Your Phone Number (Very Important): (910) 451-2599
Company: CHM REMEDIATION SERVICES
Department/Floor No.:
Street Address: CAMP LEJEUNE/ MARINE BLVD
City: JACKSONVILLE State: NC ZIP Required: 2 8 5 4 2

2 To (Recipient's Name) Please Print: Kam Pang
Recipient's Phone Number (Very Important): (310) 618-8889
Company: CKY INC
Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 630 Maple Avenue
City: Torrance State: CA ZIP Required: 90503

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 18319

H IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here (Not available at all locations)
Street Address:
City: State: ZIP Required:

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card
5 [ ] Cash/Check

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning.)†	Standard Overnight (Delivery by next business afternoon. No Saturday Delivery.)
1 [X]	51 [ ]
Economy Two-Day (Delivery by second business day.†)	**Government Overnight** (Restricted for authorized users only)
30 [ ]	41 [ ]

Freight Service (for packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT** (Commitment reservation required) 80 [ ] TWO-DAY FREIGHT**
†Delivery commitment may be later in some areas. **Call for delivery schedule.

INSTRUCTIONS (Mark appropriate boxes)
- Dangerous Goods as per attached Shipper's Declaration [X]
- Dangerous Goods Shipper's Declaration not required [ ]
- Cargo Aircraft only [ ]

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service
1 [ ] HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
2 [X] DELIVER WEEKDAY

Saturday Service
31 [ ] HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
3 [ ] DELIVER SATURDAY (Extra charge) (Not available to all locations)
9 [ ] SATURDAY PICK-UP (Extra charge)

Special Handling
4 [X] DANGEROUS GOODS (Extra charge)
6 [ ] DRY ICE Dangerous Goods Shipper's Declaration not required
Dry Ice, 9, UN 1845, ____ X ____ kg, 904
12 [ ] HOLIDAY DELIVERY (Not offered) (Extra charges)

6

PACKAGES	WEIGHT in Pounds Only	YOUR DECLARED VALUE (See rates)
1	55	
Total	Total	Total
1	55	

DIM SHIPMENT (Chargeable Weight)
[ ] _____ lbs.
L x W x H

Received At
1 [ ] Regular Stop 3 [ ] Drop Box
2 [ ] On-Call Stop 4 [ ] S.S.C. 5 [ ] Station

Emp. No. Date
[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. To Del. [ ] Chg. To Hold
Street Address
City State Zip
Received By: X
Date/Time Received FedEx Employee Number

SIGNATURE RELEASE UNAVAILABLE

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 11/94
Part # 146187/146188
FORMAT #219 GBFE
219
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6921491334 Page 1 of 1 Pages

Two completed and signed copies of this Declaration must be handed to the operator.

WARNING

Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

TRANSPORT DETAILS

This shipment is within the limitations prescribed for: (delete non applicable)
PASSENGER AND CARGO AIRCRAFT / ~~CARGO AIRCRAFT ONLY~~

Airport of Departure:

Airport of Destination:

Shipment type: (delete non-applicable)
NON-RADIOACTIVE / ~~RADIOACTIVE~~

NATURE AND QUANTITY OF DANGEROUS GOODS

Dangerous Goods Identification: Proper Shipping Name	Class or Division	UN or ID No.	Packing Group	Subsidiary Risk	Quantity and type of packing	Packing Inst.	Authorization
Other Regulated Substances	class 9	ID 9027		N/A	1 plastic container w/ 17 - 250 mL glass Jars 2 - 1L glass Jars 6.25 L Total	906	

Additional Handling Information

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labeled, and are in all respects in the proper condition for transport by air according to the applicable International and National Governmental Regulations.

Name/Title of Signatory: A. GRAN / Project Tech
Place and Date:
Signature (see warning above):

Emergency Telephone Number (Required for US Origin or Destination Shipments): 1-800-[illegible]

IF ACCEPTABLE FOR PASSENGER AIRCRAFT, THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL

LABORATORY REPORT FOR

OHM

18319/CAMP LEJEUNE

CHLORINATED PESTICIDES

SDG#: 96F014

JUNE 08, 1996

CASE NARRATIVE

CLIENT: OHM

PROJECT: 18319/CAMP LEJEUNE

SDG: 96F014

CHLORINATED PESTICIDES

Eighteen (18) soil and one (1) water samples were received on 06/05/96 for Pesticide analysis in accordance with SW846. Samples CLJ100-CS-067, -070, -070DP, -072, -076, and CLJ-FB-604 were canceled.

I. **Holding Time**

All samples were extracted and analyzed within the holding time criteria.

II. **Blank**

Both soil and water method blanks were free of contamination.

III. **Matrix Spike/Matrix Spike Duplicate**

All recoveries and RPDs for soil matrix were within the QC limits. There was no MS/MSD for water matrix, LCS/LCSD were analyzed as precision QC samples.

IV. **Lab Control Sample/Lab Control Duplicate**

All results were within the control limits.

V. **Surrogate Recovery**

All surrogate recoveries were within the control limits.

VI. **Instrument Performance and Calibration**

An initial calibration was five-point and all RSDs were within the QC limits. Rtx35 was a quantitation column. All continue calibrations in the quantitation column were checked at 12 hour interval and all recoveries were within the QC limits. All DDT and Endrin breakdown were within QC limits.

VII. **Sample Analysis**

All sample analyses met QC requirements. All results were confirmed by the second column Rtx5.

SAMPLE RESULTS

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/04/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/05/96
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-064	DATE ANALYZED:	06/07/96
CONTROL NO.:	F014-01	MATRIX:	SOIL
% MOISTURE:	3.4	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17.6
alpha-BHC	ND	10.4
beta-BHC	ND	20.7
delta-BHC	ND	25.9
gamma-BHC (Lindane)	ND	17.6
alpha-Chlordane	ND	104
gamma-Chlordane	ND	104
4,4'-DDD	ND	104
4,4'-DDE	ND	104
4,4'-DDT	ND	104
Dieldrin	ND	104
Endosulfan I	ND	20.7
Endosulfan II	ND	17.6
Endosulfan Sulfate	ND	207
Endrin	ND	20.7
Endrin aldehyde	ND	104
Heptachlor	ND	10.4
Heptachlor Epoxide	ND	207
Methoxychlor	ND	518
Toxaphene	ND	1040
		2070

RROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	87	20-150
Decachlorobiphenyl	85	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/04/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/05/96
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-065	DATE ANALYZED:	06/07/96
CONTROL NO.:	F014-02	MATRIX:	SOIL
% MOISTURE:	13.9	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.7
alpha-BHC	ND	11.6
beta-BHC	ND	23.2
delta-BHC	ND	29
gamma-BHC (Lindane)	ND	19.7
alpha-Chlordane	ND	116
gamma-Chlordane	ND	116
4,4'-DDD	ND	116
4,4'-DDE	ND	116
4,4'-DDT	ND	116
Dieldrin	ND	23.2
Endosulfan I	ND	19.7
Endosulfan II	ND	232
Endosulfan Sulfate	ND	23.2
Endrin	ND	116
Endrin aldehyde	ND	11.6
Heptachlor	ND	232
Heptachlor Epoxide	ND	581
Methoxychlor	ND	1160
Toxaphene	ND	2320

URROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	92	20-150
Decachlorobiphenyl	85	20-150

RL: Reporting Limit

CKY INC., ANALYTICAL LABORATORIES, 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-8888 Fax (310) 618-0818

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/04/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/05/96
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-066	DATE ANALYZED:	06/07/96
CONTROL NO.:	F014-03	MATRIX:	SOIL
% MOISTURE:	13.5	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.7
alpha-BHC	ND	11.6
beta-BHC	ND	23.1
delta-BHC	ND	28.9
gamma-BHC (Lindane)	ND	19.7
alpha-Chlordane	220	116
gamma-Chlordane	230	116
4,4'-DDD	ND	116
4,4'-DDE	ND	116
4,4'-DDT	ND	116
Dieldrin	ND	23.1
Endosulfan I	ND	19.7
Endosulfan II	ND	231
Endosulfan Sulfate	ND	23.1
Endrin	ND	116
Endrin aldehyde	ND	11.6
Heptachlor	ND	231
Heptachlor Epoxide	ND	578
Methoxychlor	ND	1160
Toxaphene	ND	2310

URROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	89	20-150
Decachlorobiphenyl	89	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/04/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/05/96
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-068	DATE ANALYZED:	06/07/96
CONTROL NO.:	F014-05	MATRIX:	SOIL
% MOISTURE:	14.3	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.8
alpha-BHC	ND	11.7
beta-BHC	ND	23.3
delta-BHC	ND	29.2
gamma-BHC (Lindane)	ND	19.8
alpha-Chlordane	ND	117
gamma-Chlordane	ND	117
4,4'-DDD	ND	117
4,4'-DDE	ND	117
4,4'-DDT	ND	117
Dieldrin	ND	23.3
Endosulfan I	ND	19.8
Endosulfan II	ND	233
Endosulfan Sulfate	ND	23.3
Endrin	ND	117
Endrin aldehyde	ND	11.7
Heptachlor	ND	233
Heptachlor Epoxide	ND	583
Methoxychlor	ND	1170
Toxaphene	ND	2330

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	85	20-150
Decachlorobiphenyl	90	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/04/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/05/96
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-069	DATE ANALYZED:	06/07/96
CONTROL NO.:	F014-06	MATRIX:	SOIL
% MOISTURE:	12.6	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	35	19.5
alpha-BHC	ND	11.4
beta-BHC	ND	22.9
delta-BHC	ND	28.6
gamma-BHC (Lindane)	ND	19.5
alpha-Chlordane	ND	114
gamma-Chlordane	ND	114
4,4'-DDD	180	114
4,4'-DDE	210	114
4,4'-DDT	ND	114
Dieldrin	58	22.9
Endosulfan I	ND	19.5
Endosulfan II	ND	229
Endosulfan Sulfate	ND	22.9
Endrin	ND	114
Endrin aldehyde	ND	11.4
Heptachlor	ND	229
Heptachlor Epoxide	ND	572
Methoxychlor	ND	1140
Toxaphene	ND	2290

URROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	91	20-150
Decachlorobiphenyl	91	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/04/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/05/96
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-071	DATE ANALYZED:	06/07/96
CONTROL NO.:	F014-09	MATRIX:	SOIL
% MOISTURE:	11.9	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.3
alpha-BHC	ND	11.4
beta-BHC	ND	22.7
delta-BHC	ND	28.4
gamma-BHC (Lindane)	ND	19.3
alpha-Chlordane	ND	114
gamma-Chlordane	ND	114
4,4'-DDD	ND	114
4,4'-DDE	ND	114
4,4'-DDT	ND	114
Dieldrin	ND	22.7
Endosulfan I	ND	19.3
Endosulfan II	ND	227
Endosulfan Sulfate	ND	22.7
Endrin	ND	114
Endrin aldehyde	ND	11.4
Heptachlor	ND	227
Heptachlor Epoxide	ND	568
Methoxychlor	ND	1140
Toxaphene	ND	2270

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	83	20-150
Decachlorobiphenyl	88	20-150

RL: Reporting Limit

CK INC., ANALYTICAL LABORATORIES, 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-8889 Fax (310) 618-0818

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/04/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/05/96
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-073	DATE ANALYZED:	06/07/96
CONTROL NO.:	F014-11	MATRIX:	SOIL
% MOISTURE:	14.1	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.8
alpha-BHC	ND	11.6
beta-BHC	ND	23.3
delta-BHC	ND	29.1
gamma-BHC (Lindane)	ND	19.8
alpha-Chlordane	ND	116
gamma-Chlordane	ND	116
4,4'-DDD	ND	116
4,4'-DDE	ND	116
4,4'-DDT	ND	116
Dieldrin	ND	23.3
Endosulfan I	ND	19.8
Endosulfan II	ND	233
Endosulfan Sulfate	ND	23.3
Endrin	ND	116
Endrin aldehyde	ND	11.6
Heptachlor	ND	233
Heptachlor Epoxide	ND	582
Methoxychlor	ND	1160
Toxaphene	ND	2330

JRROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	86	20-150
Decachlorobiphenyl	88	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/04/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/05/96
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-074	DATE ANALYZED:	06/07/96
CONTROL NO.:	F014-12	MATRIX:	SOIL
% MOISTURE:	15.3	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	20.1
alpha-BHC	ND	11.8
beta-BHC	ND	23.6
delta-BHC	ND	29.5
gamma-BHC (Lindane)	ND	20.1
alpha-Chlordane	ND	118
gamma-Chlordane	ND	118
4,4'-DDD	ND	118
4,4'-DDE	ND	118
4,4'-DDT	ND	118
Dieldrin	ND	23.6
Endosulfan I	ND	20.1
Endosulfan II	ND	236
Endosulfan Sulfate	ND	23.6
Endrin	ND	118
Endrin aldehyde	ND	11.8
Heptachlor	ND	236
Heptachlor Epoxide	ND	590
Methoxychlor	ND	1180
Toxaphene	ND	2360

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	88	20-150
Decachlorobiphenyl	92	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/04/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/05/96
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-075	DATE ANALYZED:	06/07/96
CONTROL NO.:	F014-13	MATRIX:	SOIL
% MOISTURE:	12.0	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.3
alpha-BHC	ND	11.4
beta-BHC	ND	22.7
delta-BHC	ND	28.4
gamma-BHC (Lindane)	ND	19.3
alpha-Chlordane	ND	114
gamma-Chlordane	ND	114
4,4'-DDD	590*	114
4,4'-DDE	ND	114
4,4'-DDT	160	114
Dieldrin	ND	22.7
Endosulfan I	ND	19.3
Endosulfan II	ND	227
Endosulfan Sulfate	ND	22.7
Endrin	ND	114
Endrin aldehyde	ND	11.4
Heptachlor	ND	227
Heptachlor Epoxide	ND	568
Methoxychlor	ND	1140
Toxaphene	ND	2270

URROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	88	20-150
Decachlorobiphenyl	88	20-150

RL: Reporting Limit
* : Analyzed at DF=5 due to high concentration level

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/04/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/05/96
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-077	DATE ANALYZED:	06/07/96
CONTROL NO.:	F014-15	MATRIX:	SOIL
% MOISTURE:	9.5	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.8
alpha-BHC	ND	11
beta-BHC	ND	22.1
delta-BHC	ND	27.6
gamma-BHC (Lindane)	ND	18.8
alpha-Chlordane	ND	110
gamma-Chlordane	ND	110
4,4'-DDD	ND	110
4,4'-DDE	ND	110
4,4'-DDT	ND	110
Dieldrin	ND	22.1
Endosulfan I	ND	18.8
Endosulfan II	ND	221
Endosulfan Sulfate	ND	22.1
Endrin	ND	110
Endrin aldehyde	ND	11
Heptachlor	ND	221
Heptachlor Epoxide	ND	552
Methoxychlor	ND	1100
Toxaphene	ND	2210

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	91	20-150
Decachlorobiphenyl	91	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/04/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/05/96
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-078	DATE ANALYZED:	06/07/96
CONTROL NO.:	F014-16	MATRIX:	SOIL
% MOISTURE:	9.4	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.8
alpha-BHC	ND	11
beta-BHC	ND	22.1
delta-BHC	ND	27.6
gamma-BHC (Lindane)	ND	18.8
alpha-Chlordane	ND	110
gamma-Chlordane	ND	110
4,4'-DDD	ND	110
4,4'-DDE	ND	110
4,4'-DDT	ND	110
Dieldrin	ND	22.1
Endosulfan I	ND	18.8
Endosulfan II	ND	221
Endosulfan Sulfate	ND	22.1
Endrin	ND	110
Endrin aldehyde	ND	11
Heptachlor	ND	221
Heptachlor Epoxide	ND	552
Methoxychlor	ND	1100
Toxaphene	ND	2210

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	80	20-150
Decachlorobiphenyl	89	20-150

RL: Reporting Limit

CKY, INC., ANALYTICAL LABORATORIES 630 Maple Ave. Torrance, Calif. 90503 Tel. (310) 618-8889 Fax (310) 618-0818

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/04/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/05/96
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-CS-079	DATE ANALYZED:	06/07/96
CONTROL NO.:	F014-17	MATRIX:	SOIL
% MOISTURE:	10.1	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.9
alpha-BHC	ND	11.1
beta-BHC	ND	22.2
delta-BHC	ND	27.8
gamma-BHC (Lindane)	ND	18.9
alpha-Chlordane	ND	111
gamma-Chlordane	ND	111
4,4'-DDD	ND	111
4,4'-DDE	ND	111
4,4'-DDT	ND	111
Dieldrin	ND	22.2
Endosulfan I	ND	18.9
Endosulfan II	ND	222
Endosulfan Sulfate	ND	22.2
Endrin	ND	111
Endrin aldehyde	ND	11.1
Heptachlor	ND	222
Heptachlor Epoxide	ND	556
Methoxychlor	ND	1110
Toxaphene	ND	2220

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	86	20-150
Decachlorobiphenyl	89	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

LIENT:	OHM	DATE COLLECTED:	NA
ROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	NA
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	MBLK1S	DATE ANALYZED:	06/07/96
CONTROL NO.:	CPF009SB	MATRIX:	SOIL
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17
alpha-BHC	ND	10
beta-BHC	ND	20
delta-BHC	ND	25
gamma-BHC (Lindane)	ND	17
alpha-Chlordane	ND	100
gamma-Chlordane	ND	100
4,4'-DDD	ND	100
4,4'-DDE	ND	100
4,4'-DDT	ND	100
Dieldrin	ND	20
Endosulfan I	ND	17
Endosulfan II	ND	200
Endosulfan Sulfate	ND	20
Endrin	ND	100
Endrin aldehyde	ND	10
Heptachlor	ND	200
Heptachlor Epoxide	ND	500
Methoxychlor	ND	1000
Toxaphene	ND	2000

JRROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	84	20-150
Decachlorobiphenyl	83	20-150

RL: Reporting Limit

CKY QUALITY CONTROL DATA
MS/MSD ANALYSIS

CL OHM
PR 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: 3.4

BATCH NO.: 96F014
SAMPLE ID: CLJ100-CS-064
CONTROL NO.: F014-01

DATE RECEIVED: 06/05/96
DATE EXTRACTED: 06/05/96
DATE ANALYZED: 06/07/96

ACCESSION: 96F014

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	173.00	186.00	108	173.00	169.00	98	10	20-170	50
alpha-Chlordane	ND	173.00	206.00	119	173.00	185.00	107	11	20-170	50
gamma-Chlordane	ND	173.00	185.00	107	173.00	170.00	99	8	20-170	50
4,4'-DDD	ND	345.00	378.00	110	345.00	353.00	102	7	20-170	50
4,4'-DDT	ND	345.00	402.00	117	345.00	375.00	109	7	20-170	50
Dieldrin	ND	345.00	328.00	95	345.00	301.00	87	8	20-170	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT %
Tetrachloro-m-xylene	414.00	374.00	90	414.00	342.00	83	20-150
Decachlorobiphenyl	690.00	659.00	95	690.00	636.00	92	20-150

CKY QUALITY CONTROL DATA
LCS/LCD ANALYSIS

Cl OHM
PR . : 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96F014
SAMPLE ID: LCS1S/LCS1SD
CONTROL NO.: CPF009SL/C

DATE RECEIVED: NA
DATE EXTRACTED: 06/05/96
DATE ANALYZED: 06/07/96

ACCESSION: 96F014

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	167.00	175.00	105	167.00	175.00	105	0	47-116	75
alpha-Chlordane	ND	167.00	189.00	113	167.00	191.00	114	1	45-119	75
gamma-Chlordane	ND	167.00	176.00	105	167.00	176.00	106	1	45-119	75
4,4'-DDD	ND	333.00	353.00	106	333.00	353.00	106	0	48-136	75
4,4'-DDT	ND	333.00	371.00	112	333.00	374.00	112	0	34-143	75
Dieldrin	ND	333.00	303.00	91	333.00	303.00	91	0	42-132	75

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT %
Tetrachloro-m-xylene	400.00	370.00	92	400.00	367.00	92	20-150
Decachlorobiphenyl	667.00	613.00	92	667.00	617.00	92	20-150

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/04/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/05/96
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-FB-604	DATE ANALYZED:	06/07/96
CONTROL NO.:	F014-18	MATRIX:	WATER
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	RL (ug/L)
Aldrin	ND	.04
alpha-BHC	ND	.03
beta-BHC	ND	.05
delta-BHC	ND	.05
gamma-BHC (Lindane)	ND	.04
alpha-Chlordane	ND	.14
gamma-Chlordane	ND	.14
4,4'-DDD	ND	.04
4,4'-DDE	ND	.1
4,4'-DDT	ND	.02
Dieldrin	ND	.14
Endosulfan I	ND	.04
Endosulfan II	ND	.1
Endosulfan Sulfate	ND	.06
Endrin	ND	.1
Endrin aldehyde	ND	.03
Heptachlor	ND	.05
Heptachlor Epoxide	ND	.05
Methoxychlor	ND	.5
Toxaphene	ND	1

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	90	30-150
Decachlorobiphenyl	71	24-154

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/04/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/05/96
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	CLJ100-RB-604	DATE ANALYZED:	06/07/96
CONTROL NO.:	F014-19	MATRIX:	WATER
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	RL (ug/L)
Aldrin	ND	.04
alpha-BHC	ND	.03
beta-BHC	ND	.05
delta-BHC	ND	.05
gamma-BHC (Lindane)	ND	.04
alpha-Chlordane	ND	.14
gamma-Chlordane	ND	.14
4,4'-DDD	ND	.04
4,4'-DDE	ND	.1
4,4'-DDT	ND	.02
Dieldrin	ND	.14
Endosulfan I	ND	.04
Endosulfan II	ND	.1
Endosulfan Sulfate	ND	.06
Endrin	ND	.1
Endrin aldehyde	ND	.03
Heptachlor	ND	.05
Heptachlor Epoxide	ND	.05
Methoxychlor	ND	.5
Toxaphene	ND	1

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	93	30-150
Decachlorobiphenyl	59	24-154

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	NA
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	NA
BATCH NO.:	96F014	DATE EXTRACTED:	06/05/96
SAMPLE ID:	MBLK1W	DATE ANALYZED:	06/07/96
CONTROL NO.:	CPF008WB	MATRIX:	WATER
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	RL (ug/L)
Aldrin	ND	.04
alpha-BHC	ND	.03
beta-BHC	ND	.05
delta-BHC	ND	.05
gamma-BHC (Lindane)	ND	.04
alpha-Chlordane	ND	.14
gamma-Chlordane	ND	.14
4,4'-DDD	ND	.04
4,4'-DDE	ND	.1
4,4'-DDT	ND	.02
Dieldrin	ND	.14
Endosulfan I	ND	.04
Endosulfan II	ND	.1
Endosulfan Sulfate	ND	.06
Endrin	ND	.1
Endrin aldehyde	ND	.03
Heptachlor	ND	.05
Heptachlor Epoxide	ND	.05
Methoxychlor	ND	.5
Toxaphene	ND	1

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	100	30-150
Decachlorobiphenyl	57	24-154

RL: Reporting Limit

CKY QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CI: OHM
PR. .: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 96F014
SAMPLE ID: LCS1W/LCS1WD
CONTROL NO.: CPF008WL/C

DATE RECEIVED: NA
DATE EXTRACTED: 06/05/96
DATE ANALYZED: 06/07/96

ACCESSION: 96F014

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	.50	.57	114	.50	.56	112	2	47-116	50
alpha-Chlordane	ND	.50	.56	112	.50	.56	112	0	45-119	50
gamma-Chlordane	ND	.50	.55	110	.50	.55	110	0	45-119	50
4,4'-DDD	ND	1.00	1.04	104	1.00	1.12	112	7	48-136	50
4,4'-DDT	ND	1.00	1.07	107	1.00	1.10	110	3	34-143	50
Dieldrin	ND	1.00	.90	90	1.00	.94	94	4	42-132	50

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT %
Tetrachloro-m-xylene	1.20	.99	82	1.20	1.02	85	30-150
Decachlorobiphenyl	2.00	1.65	82	2.00	1.70	85	24-154

CKY INC. ANALYTICAL LABORATORIES 600 Max Ave. Tex... Tel (318) 640-0200 F...

CALIBRATION

INITIAL CALIBRATION
METHOD 8080

) Name :	CKY Inc					
Instrument ID :	GC2					
GC Columm :	Rtx-35					
Column size ID:	.53mm					
LFID & Datime:	TE24-19	05-24-96	21:54:58	TE24-20	05-24-96	22:31:41
LFID & Datime:	TE24-21	05-24-96	23:08:24	TE24-22	05-24-96	23:45:08
LFID & Datime:	TE24-23	05-25-96	00:21:50	TE24-24	05-25-96	00:58:31
LFID & Datime:	TE24-25	05-25-96	01:35:14	TE24-26	05-25-96	02:11:59
LFID & Datime:	TE24-27	05-25-96	02:48:44	TE24-28	05-25-96	03:25:29
CONC UNIT:	ppb					

COMPOUND	CONC X	CALIBRATION FACTORS (AREA/UNIT) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN	%RSD
alpha-BHC	5.0	17678	19650	20474	21133	20017	19791	7
gamma-BHC	5.0	17612	19410	19738	19946	18668	19075	5
beta-BHC	5.0	6739	7026	7777	7996	7731	7454	7
Heptachlor	5.0	17693	17858	17225	16941	15567	17057	5
delta-BHC	5.0	11589	12737	15058	16159	17006	14510	16
Aldrin	5.0	18045	17786	18681	17927	17282	17944	3
Heptachlor Epoxide	5.0	18274	17604	17968	16964	15962	17354	5
gamma-Chlordane	5.0	19619	18677	19081	18009	17106	18498	5
Endosulfan I	5.0	17577	18227	17895	17535	16138	17474	5
`pha-Chlordane	5.0	19235	18309	18529	17349	16511	17987	6
.eldrin	10.0	17776	18480	17738	16977	15492	17293	7
DDE	10.0	14637	14751	15728	15085	14358	14912	4
Endrin	10.0	14416	14847	14283	13564	12212	13865	7
Endosulfan II	10.0	16430	15492	15357	13933	12725	14787	10
DDD	10.0	11133	12298	12243	12396	11543	11923	5
Endrin Aldehyde	10.0	13641	12639	12850	11593	10611	12267	10
DDT	10.0	12292	12971	12681	12553	11430	12385	5
Endosulfan Sulfate	10.0	15631	14752	14697	13372	12260	14142	9
Endrin Ketone	10.0	18397	17044	16317	14430	12971	15832	14
Methoxychlor	50.0	5407	5152	4729	4376	3878	4708	13
TCX	5.0	16170	15495	15351	14113	13031	14832	8
DCB	10.0	19012	16608	15132	13136	11773	15132	19

CONTINUE CALIBRATION
METHOD 8080

L[illegible]Name : CKY Inc
Instrument ID : GC2
GC Columm : Rtx-35
Column size ID : .53mm
Mid Con Init LFID & Datime: TE24-23 05-25-96 00:21:50 TE24-24 0
Mid Con Cont LFID & Datime: TF07-3 06-07-96 12:03:58 TF07-4 0
CONC UNIT : ppb

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%D
alpha-BHC	20.0	19791	18.2	9
gamma-BHC	20.0	19075	17.9	10
beta-BHC	20.0	7454	19.5	3
Heptachlor	20.0	17057	19.1	5
delta-BHC	20.0	14510	19.7	1
Aldrin	20.0	17944	17.4	13
Heptachlor Epoxide	20.0	17354	17.4	13
gamma-Chlordane	20.0	18498	17.1	15
Endosulfan I	20.0	17474	17.4	13
alpha-Chlordane	20.0	17987	16.9	15
Dieldrin	40.0	17293	34.5	14
DDE	40.0	14912	36.7	8
Endrin	40.0	13865	34.8	13
[illegible]dosulfan II	40.0	14787	34.7	13
[illegible]	40.0	11923	34.5	14
[illegible]rin Aldehyde	40.0	12267	34.2	14
DDT	40.0	12385	35.0	13
Endosulfan Sulfate	40.0	14142	34.5	14
Endrin Ketone	40.0	15832	33.8	15
Methoxychlor	200.0	4708	198.9	1
TCX	20.0	14832	18.2	9
DCB	40.0	15132	31.2	22

CONTINUE CALIBRATION
METHOD 8080

I Name : CKY Inc
Instrument ID : GC2
GC Columm : Rtx-35
Column size ID : .53mm
Mid Con Init LFID & Datime: TE24-23 05-25-96 00:21:50 TE24-24 0
Mid Con Cont LFID & Datime: TF07-24 06-08-96 00:06:00 TF07-25 0
CONC UNIT : ppb

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT CONC	%D
alpha-BHC	20.0	19791	19.9	1
gamma-BHC	20.0	19075	19.9	1
beta-BHC	20.0	7454	21.4	7
Heptachlor	20.0	17057	20.9	5
delta-BHC	20.0	14510	21.7	8
Aldrin	20.0	17944	19.5	2
Heptachlor Epoxide	20.0	17354	19.4	3
gamma-Chlordane	20.0	18498	19.2	4
Endosulfan I	20.0	17474	19.0	5
alpha-Chlordane	20.0	17987	19.2	4
Dieldrin	40.0	17293	38.2	5
DDE	40.0	14912	41.3	3
Endrin	40.0	13865	40.2	1
Endosulfan II	40.0	14787	39.8	0
	40.0	11923	41.4	4
Endrin Aldehyde	40.0	12267	40.1	0
DDT	40.0	12385	42.0	5
Endosulfan Sulfate	40.0	14142	39.4	1
Endrin Ketone	40.0	15832	40.1	0
Methoxychlor	200.0	4708	224.6	12
TCX	20.0	14832	19.9	0
DCB	40.0	15132	37.7	6

DDT/Endrin Breakdown

Instrument ID: GC-2

	File: SF07-2	File: TF07-2
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	2.0	0
Endrin	1.3	1.5

	File: SF07-23	File: TF07-23
	Col: Rtx-5	Col: Rtx-35
	%breakdown	%breakdown
DDT	7.0	0
Endrin	4.2	2.1

	File:	File:
	Col:	Col:
	%breakdown	%breakdown
DDT		
Endrin		

ANALYSIS SEQUENCE AND EXTRACTION LOG

Areas, times, and heights stored in: E:QF07-10.AT8
SEQUENCE RECORDED IN F:\SF07.SEQ

SEQUENCE FILE: F:\SF07.SEQ

	SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	IBLK/10C-1-34-1	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
2	PEM01/10C-1-20-2	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
3	DCC1-MIXA/10-1-242	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
4	DCC1-MIXB/10-1-242	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
5	CPF0095S	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
6	96F014-01	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
7	96F014-02	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
8	96F014-03	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
9	96F014-05	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
10	96F014-06	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
11	96F014-09	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
12	96F014-11	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
13	96F014-12	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
14	96F014-13	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
15	96F014-15	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
16	96F014-16	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
17	96F014-17	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
18	CPF009SL	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
19	CPF009SC	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
20	96F014-01M	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
21	96F014-01S	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
22	96F014-13T 5X	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
23	PEM02/10C-1-20-2	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
24	DCC2-MIXA/10-1-242	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000
25	DCC2-MIXB/10-1-242	PEST6	SF07-	1.0000	1.0000	1.0000	1.0000

CKY Analytical Laboratories
Sample Preparation Department

EXTRACTION LOG FOR PESTICIDES/PCBs

CKYT-E01-002

CLIENT: OHM / Camp Lejeune — METHOD: 8080 — PAGE #: 100

MATRIX: soil — DATE EXTRACTED: 6/5/96 — DATE COMPLETED: 6/06/96

LAB SAMPLE ID	SAMPLE AMOUNT (g/ml)	pH	EXTRACT VOLUME (ml)	CLEAN-UP (G/S/A/F)	NOTES
CP F009-SB	—		10		
-SL	—				
-SC	—				
96F014-01	3.0				
-01M					
-01S					
-02					
-03					
-05					
-06					
-09					
-11					
-12					
-13					
-15					
-16					
-17					

CLEAN-UP	CODE
GPC	G
TBA	S
ACID	A
FLORISIL	F

REAGENT	LOT #
Na2SO4	954496
CH2Cl2	36079
HEXANE	962303

STANDARDS	ID	AMOUNT ADDED (ml)
SPIKE ID Mix A	S10C-01-0-34-02	0.40
SURROGATE ID	S10C-01-0-35-02	2.0
Spike mix B	S10C-01-0-35-a	0.40

SDG #	EXTRACT LOCATION

COMMENTS:

PREPARED BY: ML

STD's ADDED BY: ML/TA

CHECKED BY: FY

Extracts Received By:

D29

030

CKY Analytical Laboratories
Sample Preparation Department

EXTRACTION LOG FOR PESTICIDES/PCBs

CKYT–E01–002

99

CLIENT: OHM / Camp Lejeune
MATRIX: WATER
METHOD: 8080
PAGE #
DATE EXTRACTED: 6/5/96 · 17:TDATE COMPLETED: 6/06/96 10

LAB SAMPLE ID	SAMPLE AMOUNT (g/ml)	pH	EXTRACT VOLUME (ml)	CLEAN-UP (G/S/A/F)	NOTES
CPF008 - WB	1000		10		
WL	↓		↓		
WC					
F014 - 18					
19					

CLEAN-UP	CODE
GPC	G
TBA	S
ACID	A
FLORISIL	F

REAGENT	LOT #
Na2SO4	954496
CH2CL2	36079
HEXANE	962303

STANDARDS	ID	AMOUNT ADDED (u
SPIKE ID Mix A	S10C-01-0-34-02	0.40
SURROGATE ID	S10C-01-0-35-02	1.0
Spike Mix B	S10C-01-0-33-01	0.40

SDG #	EXTRACT LOCATION

COMMENTS:

PREPARED BY: ML/MD
STD's ADDED BY: MD/FY
CHECKED BY: FY

Extracts Received By:

C K Y incorporated
Analytical Laboratories

Date: 06-10-1996
CKY Batch No.: 96F019

Attn: Missy Art

OHM
5335 Triangle Parkway, Suite 450
Norcross, GA 30092

Subject: Laboratory Report
Project: 18319/CAMP LEJEUNE

Enclosed is the Laboratory report for samples received on 06/06/96. The samples were received in coolers with ice and intact; the chain-of-custody forms were properly filled out. The data reported include :

Sample ID	Control No.	Matrix	Analysis
CLJ100-CS-080	F019-01	Soil	EPA 8080
CLJ100-CS-080DP	F019-02	Soil	EPA 8080
CLJ100-CS-081	F019-03	Soil	EPA 8080
CLJ100-CS-082	F019-04	Soil	EPA 8080
CLJ100-CS-083	F019-05	Soil	EPA 8080
CLJ100-CS-084	F019-06	Soil	EPA 8080
CLJ100-CS-085	F019-07	Soil	EPA 8080
CLJ100-CS-086	F019-08	Soil	EPA 8080
CLJ100-CS-087	F019-09	Soil	EPA 8080
CLJ100-CS-088	F019-10	Soil	EPA 8080
CLJ100-CS-089	F019-11	Soil	EPA 8080
CLJ100-CS-090	F019-12	Soil	EPA 8080
CLJ100-CS-090DP	F019-13	Soil	EPA 8080
CLJ100-CS-091	F019-14	Soil	EPA 8080
CLJ100-CS-092	F019-15	Soil	EPA 8080
CLJ100-CS-093	F019-16	Soil	EPA 8080
CLJ100-CS-094	F019-17	Soil	EPA 8080
CLJ100-CS-095	F019-18	Soil	EPA 8080

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

P.S. - All analyses requested for the above referenced project have been completed. Therefore, unless instructed, the remaining portions of the samples will be disposed after fifteen (15) days from the date of this report.

OHM Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

TRANSFER 1

Form 0019
Field Technical Services
Rev. 08/89

96F019

166591

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551, • 419-423-3526

PROJECT NAME	PROJECT LOCATION
	, NC.

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
19		910/451-2999

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS) TCL	REMARKS
1					X		1-8	X	
2			0913		X	Duplicate	1-8	X	
3			812		X		1-8	X	
4			820		X		1-8	X	
5			0926		X		1-8	X	
6			932		X		1-8	X	
7			940		X		1-8	X	
8			945		X		1-8	X	
9			955		X		1-8	X	
10			958		X		1-8	X	

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-10		FEDEX 6912491323	9/ /91	1700
2				/ /	
3					
4					

REMARKS

Samples sent To CKY Inc.
1/4 hour T.A.T. Please fax C.O.C.
To 910/451-1909.
Hold Samples until we contact you.

SAMPLER'S SIGNATURE

Ohm Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

TRANSFER 1

Form 0019
Field Technical Services
Rev. 08/89

96F019 166592

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune	Camp Lejeune, NC

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
[illegible]	Alan White	[illegible] 451-2599

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
[illegible]	Tim Dunn Alan White

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): TCL Pesticides (8080)

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	TCL Pesticides (8080)	REMARKS
1	[illegible]	[illegible]	[illegible]		X	[illegible] from [illegible]	1-8oz	X	Area level "C"
2	[illegible]	[illegible]	[illegible]		X	[illegible] from [illegible]	1-8oz	X	
3	[illegible]	[illegible]	[illegible]		X	[illegible] Sample [illegible]	1-8oz	X	
4	[illegible]	[illegible]	1-16		X	[illegible] from [illegible]	1-8oz	X	
5	[illegible]	[illegible]	1319		X	[illegible] Sample from [illegible]	1-8oz	X	
6	[illegible]	[illegible]	[illegible]		X	[illegible] from [illegible]	1-8oz	X	
7	[illegible]	[illegible]	[illegible]		X	[illegible] from [illegible]	1-8oz	X	
8	[illegible]	[illegible]	[illegible]		X	[illegible] Sample from [illegible]	1-8oz	X	
9	[illegible]	[illegible]	[illegible]		X	[illegible]	1-1L	X	Do not Run
10	[illegible]	[illegible]	[illegible]		X	[illegible] Blank	1-1L	X	Do not Run

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-10	[illegible]	FEDEX [illegible]	6/[illegible]/96	1700
2					
3					
4					

REMARKS

Samples sent to CKY Inc.
48 hour TAT. Please Fax Results
To (90) 451-8[illegible].

Hold Samples until we contact you.

SAMPLER'S SIGNATURE [illegible]

CORRECTIVE ACTION FORM
(CKY Sample Receipt Discrepancy)

Client	OHM
CKY Batch No.	96F019
Control No.	96F019-1 through 96F019-18
Method	8080
Matrix	Soil

1) Nature of Discrepancy:

Revise COC 96F019.

2) Corrective Action:

Analyze all soil samples 96F019-1 through 96F019-18

3) Result of Corrective Action:

Route to chemists.

Approved by: Cecilia Abo Date: 6/6/96

4) Further Corrective Action Taken? Yes ___ No ___ Date: ___

6/6

6/6

6-6

Approved by: ___ Date: ___

srd.cal

SAMPLE RECEIPT FORM

CONTROL NO.	96F019
CLIENT	OHM
PROJECT	CAMP LEJEUNE

DATE	06-06-96
TIME	10:15 AM
RECIPIENT	I. PATEL

SAMPLE TRANSPORTATION TO CKY LABORATORY:	BY	ON(DATE)	AT(TIME)	FROM(SITE/CO.)	COMMENTS
PICKED-UP BY CKY COURIER					
DELIVERED BY CLIENT ✓					
SHIPPED/AIRBILL NO: FEDEX APTN: 692149132 3 SEE AIRBILL					

SAMPLE BATCH PACKAGING/SEALING UPON RECEIPT:	✓ INTACT	DAMAGED	✓ SEALED	NOT SEALED	NO CONTAINER

CONTAINER:	INSIDE TEMPERATURE: 20 C			CUSTODY SEAL		LOCATION	NUMBER
✓ COOLER	PACKAGING	TYPE	SUFFICIENCY	✓ INTACT	DAMAGED	FRONT CLOSURE	2
___ BOX	INSULATION:		Ok	NAME:	SEE COC		
___ OTHER:	ICE/COOLANT:	REGULAR	↓	DATE:			
	PACKING MATERIAL:	BUBBLEPAK	↓	TIME:			

SAMPLE DOCUMENTATION/CHAIN-OF-CUSTODY(COC)	SEALED	✓ ENCLOSED	HANDCARRIED	FAXED	MAILED

SAMPLE LOG-IN:	CRITERIA	COMMENTS	DISCREPANCY
SAMPLE CUSTODY SEAL	EVERY SAMPLE	NONE	
CONTAINER TYPE/MATERIAL	APPROPRIATE	Ok	
SAMPLE AMOUNT	ENOUGH	↓	
SAMPLE PRESERVATION/HOLDING TIME	SUFFICIENT		
HEADSPACE/BUBBLES	ZERO/NONE		
SAMPLE LABEL INFORMATION	SUFFICIENT		
CHAIN-OF-CUSTODY INFORMATION	SUFFICIENT	↓	

SAMPLE INFO.:	SAMPLE ID	DATE	TIME	SIGNATURE	ANALYSES	PRESERVATIVE	CONTAINER
INDIVIDUAL SAMPLE CONTAINER:	NONE		✓ SEALED PLASTIC BAG		CAN	OTHER(SPECIFY): BUBBLEPAK	

SAMPLE NUMBER	CLIENT ID	DISCREPANCY	ACTION
		NO DATE OF RELINQUISHED OF COC	

CLIENT SERVICES COPY RECEIVED BY		DATE		TIME	

FedEx

USE THIS AIRBILL FOR DANGEROUS GOODS SHIPMENTS ONLY WITHIN THE CONTINENTAL U.S.A., ALASKA AND HAWAII.
USE THE INTERNATIONAL AIR WAYBILL FOR SHIPMENTS TO PUERTO RICO AND ALL NON U.S. LOCATIONS.
QUESTIONS? CALL 800-238-5355 TOLL FREE.

AIRBILL PACKAGE TRACKING NUMBER 6921491323

6921491323

96F019
8/6/96
10:15 AM

96F019

RECIPIENT'S COPY

1 Date 8-5-96

From (Your Name) Please Print: [illegible]
Your Phone Number (Very Important): (310) 451-2599
Company: [illegible]
Department/Floor No.:
Street Address: [illegible]
City: [illegible] State: [illegible] ZIP Required:

2 To (Recipient's Name) Please Print: KAM PENG
Recipient's Phone Number (Very Important): (310) 618-8889
Company: CKY INC.
Department/Floor No.:
Exact Street Address (We Cannot Deliver to P.O. Boxes or P.O. Zip Codes.): 630 maple Avenue
City: Torrance State: CA ZIP Required: 90503

YOUR INTERNAL BILLING REFERENCE INFORMATION (optional) (First 24 characters will appear on invoice.): 98319

H IF HOLD AT FEDEX LOCATION, Print FEDEX Address Here (Not available at all locations)
Street Address:
City: State: ZIP Required:

3 PAYMENT 1 [X] Bill Sender 2 [ ] Bill Recipient's FedEx Acct. No. 3 [ ] Bill 3rd Party FedEx Acct. No. 4 [ ] Bill Credit Card 5 [ ] Cash/Check

4 SERVICES (Check only one box)

Priority Overnight (Delivery by next business morning) 1 [X]	Standard Overnight (Delivery by next business afternoon. Not Saturday Delivery) 51 [ ]
Economy Two-Day (Delivery by second business day) 30 [ ]	Government Overnight (Restricted for authorized users only) 41 [ ]

Freight Service (for packages over 150 lbs.)
70 [ ] OVERNIGHT FREIGHT** (Declared value required) 80 [ ] TWO-DAY FREIGHT**
† Delivery commitment may be later in some areas. **Call for delivery schedule.

INSTRUCTIONS (Mark appropriate boxes)
- Dangerous Goods as per attached Shipper's Declaration [X]
- Dangerous Goods Shipper's Declaration not required [ ]
- Cargo Aircraft only [ ]

5 DELIVERY AND SPECIAL HANDLING (Check services required)

Weekday Service
1 [ ] HOLD AT FEDEX LOCATION WEEKDAY (Fill in Section H)
2 [X] DELIVER WEEKDAY

Saturday Service
31 [ ] HOLD AT FEDEX LOCATION SATURDAY (Fill in Section H)
3 [ ] DELIVER SATURDAY (Extra charge) (Not Available to all locations)
9 [ ] SATURDAY PICK-UP (Extra charge)

Special Handling
4 [X] DANGEROUS GOODS (Extra charge)
6 [ ] DRY ICE Dangerous Goods Shipper's Declaration not required
Dry Ice UN1845, 9 ..... X ..... kg 904
12 [ ] HOLIDAY DELIVERY (If offered) (Extra charge)

6

PACKAGES	WEIGHT in Pounds Only	YOUR DECLARED VALUE (See right)
1	56	
Total 1	Total 56	Total

DIM SHIPMENT (Chargeable Weight)
[ ] _____ lbs.
L x W x H

Released At
1 [ ] Regular Stop 3 [ ] Drop Box
2 [ ] On-Call Stop 4 [ ] B.S.C.
5 [ ] Station

Emp. No. Date
[ ] Cash Received
[ ] Return Shipment
[ ] Third Party [ ] Chg. to Dst. [ ] Chg. to Hold
Street Address
City State Zip
Received By: X
Date/Time Received FedEx Employee Number

SIGNATURE RELEASE UNAVAILABLE

Federal Express Use
Base Charges
Declared Value Charge
Other 1
Other 2
Total Charges

REVISION DATE 11/94
Part # 146187/146188
FORMAT #219 GBFE
219

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LABORATORY REPORT FOR

OHM

18319/CAMP LEJEUNE

CHLORINATED PESTICIDES

SDG#: 96F019

JUNE 10, 1996

CASE NARRATIVE

CLIENT: OHM

PROJECT: 18319/CAMP LEJEUNE

SDG: 96F019

CHLORINATED PESTICIDES

Eighteen (18) soil samples were received on 06/06/96 to be analyzed for Pesticide analysis in accordance with SW846.

I. Holding Time

All samples were extracted and analyzed within the holding time criteria.

II. Blank

A method blank was free of contamination.

III. Matrix Spike/Matrix Spike Duplicate

All recoveries and RPDs were within the QC limits.

IV. Lab Control Sample

All results were within the control limits.

V. Surrogate Recovery

All surrogate recoveries were within the control limits.

VI. Instrument Performance and Calibration

An initial calibration was five-point and all RSDs were within the QC limits in a quantitation column. DB608 was used as the quantitation column. All continue calibrations were checked at 12 hour interval and all recoveries in the quantitation were within the QC limits. All DDT and Endrin breakdown were within QC limits. Only recovery of Heptachlor in last calibration check in the sequence run was within the QC limits. However, according to the method there was no corrective actions required for recovery out of control in the last calibration check on the sequence run.

VII. Sample Analysis

All sample analyses met the project specific QC requirements. All results were confirmed by the second column DB1701.

SAMPLE RESULTS

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-080	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-01	MATRIX:	SOIL
% MOISTURE:	7.6	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.4
alpha-BHC	ND	10.8
beta-BHC	ND	21.6
delta-BHC	ND	27.1
gamma-BHC (Lindane)	ND	18.4
alpha-Chlordane	ND	108
gamma-Chlordane	ND	108
4,4'-DDD	ND	108
4,4'-DDE	ND	108
4,4'-DDT	ND	108
Dieldrin	ND	21.6
Endosulfan I	ND	18.4
Endosulfan II	ND	216
Endosulfan Sulfate	ND	21.6
Endrin	ND	108
Endrin aldehyde	ND	10.8
Heptachlor	ND	216
Heptachlor Epoxide	ND	541
Methoxychlor	ND	1080
Toxaphene	ND	2160

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	83	20-150
Decachlorobiphenyl	105	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-080DP	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-02	MATRIX:	SOIL
% MOISTURE:	7.3	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.3
alpha-BHC	ND	10.8
beta-BHC	ND	21.6
delta-BHC	ND	27
gamma-BHC (Lindane)	ND	18.3
alpha-Chlordane	ND	108
gamma-Chlordane	ND	108
4,4'-DDD	ND	108
4,4'-DDE	ND	108
4,4'-DDT	ND	108
Dieldrin	ND	21.6
Endosulfan I	ND	18.3
Endosulfan II	ND	216
Endosulfan Sulfate	ND	21.6
Endrin	ND	108
Endrin aldehyde	ND	10.8
Heptachlor	ND	216
Heptachlor Epoxide	ND	539
Methoxychlor	ND	1080
Toxaphene	ND	2160

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	86	20-150
Decachlorobiphenyl	104	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-081	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-03	MATRIX:	SOIL
% MOISTURE:	9.0	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.7
alpha-BHC	ND	11
beta-BHC	ND	22
delta-BHC	ND	27.5
gamma-BHC (Lindane)	ND	18.7
alpha-Chlordane	ND	110
gamma-Chlordane	ND	110
4,4'-DDD	ND	110
4,4'-DDE	ND	110
4,4'-DDT	ND	110
Dieldrin	ND	22
Endosulfan I	ND	18.7
Endosulfan II	ND	220
Endosulfan Sulfate	ND	22
Endrin	ND	110
Endrin aldehyde	ND	11
Heptachlor	ND	220
Heptachlor Epoxide	ND	549
Methoxychlor	ND	1100
Toxaphene	ND	2200

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	86	20-150
Decachlorobiphenyl	108	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-082	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-04	MATRIX:	SOIL
% MOISTURE:	6.8	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.2
alpha-BHC	ND	10.7
beta-BHC	ND	21.5
delta-BHC	ND	26.8
gamma-BHC (Lindane)	ND	18.2
alpha-Chlordane	ND	107
gamma-Chlordane	ND	107
4,4'-DDD	ND	107
4,4'-DDE	ND	107
4,4'-DDT	ND	107
Dieldrin	ND	21.5
Endosulfan I	ND	18.2
Endosulfan II	ND	215
Endosulfan Sulfate	ND	21.5
Endrin	ND	107
Endrin aldehyde	ND	10.7
Heptachlor	ND	215
Heptachlor Epoxide	ND	536
Methoxychlor	ND	1070
Toxaphene	ND	2150

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	86	20-150
Decachlorobiphenyl	106	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-083	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-05	MATRIX:	SOIL
% MOISTURE:	8.0	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.5
alpha-BHC	ND	10.9
beta-BHC	ND	21.7
delta-BHC	ND	27.2
gamma-BHC (Lindane)	ND	18.5
alpha-Chlordane	ND	109
gamma-Chlordane	ND	109
4,4'-DDD	ND	109
4,4'-DDE	ND	109
4,4'-DDT	ND	109
Dieldrin	ND	21.7
Endosulfan I	ND	18.5
Endosulfan II	ND	217
Endosulfan Sulfate	ND	21.7
Endrin	ND	109
Endrin aldehyde	ND	10.9
Heptachlor	ND	217
Heptachlor Epoxide	ND	543
Methoxychlor	ND	1090
Toxaphene	ND	2170

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	86	20-150
Decachlorobiphenyl	104	20-150

RL: Reporting Limit

07

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-084	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-06	MATRIX:	SOIL
% MOISTURE:	8.5	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.6
alpha-BHC	ND	10.9
beta-BHC	ND	21.9
delta-BHC	ND	27.3
gamma-BHC (Lindane)	ND	18.6
alpha-Chlordane	ND	109
gamma-Chlordane	ND	109
4,4'-DDD	ND	109
4,4'-DDE	ND	109
4,4'-DDT	ND	109
Dieldrin	ND	21.9
Endosulfan I	ND	18.6
Endosulfan II	ND	219
Endosulfan Sulfate	ND	21.9
Endrin	ND	109
Endrin aldehyde	ND	10.9
Heptachlor	ND	219
Heptachlor Epoxide	ND	546
Methoxychlor	ND	1090
Toxaphene	ND	2190

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	82	20-150
Decachlorobiphenyl	105	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-085	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-07	MATRIX:	SOIL
% MOISTURE:	11.1	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.1
alpha-BHC	ND	11.2
beta-BHC	ND	22.5
delta-BHC	ND	28.1
gamma-BHC (Lindane)	ND	19.1
alpha-Chlordane	ND	112
gamma-Chlordane	ND	112
4,4'-DDD	ND	112
4,4'-DDE	ND	112
4,4'-DDT	ND	112
Dieldrin	180	22.5
Endosulfan I	ND	19.1
Endosulfan II	ND	225
Endosulfan Sulfate	ND	22.5
Endrin	ND	112
Endrin aldehyde	ND	11.2
Heptachlor	ND	225
Heptachlor Epoxide	ND	562
Methoxychlor	ND	1120
Toxaphene	ND	2250

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	89	20-150
Decachlorobiphenyl	105	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-086	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-08	MATRIX:	SOIL
% MOISTURE:	6.8	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.2
alpha-BHC	ND	10.7
beta-BHC	ND	21.5
delta-BHC	ND	26.8
gamma-BHC (Lindane)	ND	18.2
alpha-Chlordane	ND	107
gamma-Chlordane	ND	107
4,4'-DDD	ND	107
4,4'-DDE	ND	107
4,4'-DDT	ND	107
Dieldrin	ND	21.5
Endosulfan I	ND	18.2
Endosulfan II	ND	215
Endosulfan Sulfate	ND	21.5
Endrin	ND	107
Endrin aldehyde	ND	10.7
Heptachlor	ND	215
Heptachlor Epoxide	ND	536
Methoxychlor	ND	1070
Toxaphene	ND	2150

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	90	20-150
Decachlorobiphenyl	110	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-087	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-09	MATRIX:	SOIL
% MOISTURE:	5.2	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17.9
alpha-BHC	ND	10.5
beta-BHC	ND	21.1
delta-BHC	ND	26.4
gamma-BHC (Lindane)	ND	17.9
alpha-Chlordane	ND	105
gamma-Chlordane	ND	105
4,4'-DDD	ND	105
4,4'-DDE	ND	105
4,4'-DDT	ND	105
Dieldrin	ND	21.1
Endosulfan I	ND	17.9
Endosulfan II	ND	211
Endosulfan Sulfate	ND	21.1
Endrin	ND	105
Endrin aldehyde	ND	10.5
Heptachlor	ND	211
Heptachlor Epoxide	ND	527
Methoxychlor	ND	1050
Toxaphene	ND	2110

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	91	20-150
Decachlorobiphenyl	106	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-088	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-10	MATRIX:	SOIL
% MOISTURE:	6.9	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.3
alpha-BHC	ND	10.7
beta-BHC	ND	21.5
delta-BHC	ND	26.9
gamma-BHC (Lindane)	ND	18.3
alpha-Chlordane	ND	107
gamma-Chlordane	ND	107
4,4'-DDD	ND	107
4,4'-DDE	ND	107
4,4'-DDT	ND	107
Dieldrin	ND	21.5
Endosulfan I	ND	18.3
Endosulfan II	ND	215
Endosulfan Sulfate	ND	21.5
Endrin	ND	107
Endrin aldehyde	ND	10.7
Heptachlor	ND	215
Heptachlor Epoxide	ND	537
Methoxychlor	ND	1070
Toxaphene	ND	2150

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	95	20-150
Decachlorobiphenyl	108	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-089	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-11	MATRIX:	SOIL
% MOISTURE:	5.1	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17.9
alpha-BHC	ND	10.5
beta-BHC	ND	21.1
delta-BHC	ND	26.3
gamma-BHC (Lindane)	ND	17.9
alpha-Chlordane	ND	105
gamma-Chlordane	ND	105
4,4'-DDD	ND	105
4,4'-DDE	ND	105
4,4'-DDT	ND	105
Dieldrin	ND	21.1
Endosulfan I	ND	17.9
Endosulfan II	ND	211
Endosulfan Sulfate	ND	21.1
Endrin	ND	105
Endrin aldehyde	ND	10.5
Heptachlor	ND	211
Heptachlor Epoxide	ND	527
Methoxychlor	ND	1050
Toxaphene	ND	2110

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	91	20-150
Decachlorobiphenyl	109	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-090	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-12	MATRIX:	SOIL
% MOISTURE:	6.6	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.2
alpha-BHC	ND	10.7
beta-BHC	ND	21.4
delta-BHC	ND	26.8
gamma-BHC (Lindane)	ND	18.2
alpha-Chlordane	ND	107
gamma-Chlordane	ND	107
4,4'-DDD	ND	107
4,4'-DDE	ND	107
4,4'-DDT	ND	107
Dieldrin	ND	21.4
Endosulfan I	ND	18.2
Endosulfan II	ND	214
Endosulfan Sulfate	ND	21.4
Endrin	ND	107
Endrin aldehyde	ND	10.7
Heptachlor	ND	214
Heptachlor Epoxide	ND	535
Methoxychlor	ND	1070
Toxaphene	ND	2140

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	83	20-150
Decachlorobiphenyl	103	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-090DP	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-13	MATRIX:	SOIL
% MOISTURE:	6.9	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	18.3
alpha-BHC	ND	10.7
beta-BHC	ND	21.5
delta-BHC	ND	26.9
gamma-BHC (Lindane)	ND	18.3
alpha-Chlordane	ND	107
gamma-Chlordane	ND	107
4,4'-DDD	ND	107
4,4'-DDE	ND	107
4,4'-DDT	ND	107
Dieldrin	ND	21.5
Endosulfan I	ND	18.3
Endosulfan II	ND	215
Endosulfan Sulfate	ND	21.5
Endrin	ND	107
Endrin aldehyde	ND	10.7
Heptachlor	ND	215
Heptachlor Epoxide	ND	537
Methoxychlor	ND	1070
Toxaphene	ND	2150

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	85	20-150
Decachlorobiphenyl	111	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-091	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-14	MATRIX:	SOIL
% MOISTURE:	13.4	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.6
alpha-BHC	ND	11.5
beta-BHC	ND	23.1
delta-BHC	ND	28.9
gamma-BHC (Lindane)	ND	19.6
alpha-Chlordane	ND	115
gamma-Chlordane	ND	115
4,4'-DDD	ND	115
4,4'-DDE	260	115
4,4'-DDT	160	115
Dieldrin	180	23.1
Endosulfan I	ND	19.6
Endosulfan II	ND	231
Endosulfan Sulfate	ND	23.1
Endrin	ND	115
Endrin aldehyde	ND	11.5
Heptachlor	ND	231
Heptachlor Epoxide	ND	577
Methoxychlor	ND	1150
Toxaphene	ND	2310

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	87	20-150
Decachlorobiphenyl	110	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-092	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-15	MATRIX:	SOIL
% MOISTURE:	12.0	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.3
alpha-BHC	ND	11.4
beta-BHC	70	22.7
delta-BHC	ND	28.4
gamma-BHC (Lindane)	ND	19.3
alpha-Chlordane	ND	114
gamma-Chlordane	ND	114
4,4'-DDD	ND	114
4,4'-DDE	140	114
4,4'-DDT	ND	114
Dieldrin	ND	22.7
Endosulfan I	ND	19.3
Endosulfan II	ND	227
Endosulfan Sulfate	ND	22.7
Endrin	ND	114
Endrin aldehyde	ND	11.4
Heptachlor	ND	227
Heptachlor Epoxide	ND	568
Methoxychlor	ND	1140
Toxaphene	ND	2270

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	105	20-150
Decachlorobiphenyl	125	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-093	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-16	MATRIX:	SOIL
% MOISTURE:	17.7	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	20.7
alpha-BHC	ND	12.2
beta-BHC	ND	24.3
delta-BHC	ND	30.4
gamma-BHC (Lindane)	ND	20.7
alpha-Chlordane	ND	122
gamma-Chlordane	ND	122
4,4'-DDD	ND	122
4,4'-DDE	ND	122
4,4'-DDT	ND	122
Dieldrin	ND	24.3
Endosulfan I	ND	20.7
Endosulfan II	ND	243
Endosulfan Sulfate	ND	24.3
Endrin	ND	122
Endrin aldehyde	ND	12.2
Heptachlor	ND	243
Heptachlor Epoxide	ND	608
Methoxychlor	ND	1220
Toxaphene	ND	2430

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	81	20-150
Decachlorobiphenyl	108	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-094	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-17	MATRIX:	SOIL
% MOISTURE:	13.5	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.7
alpha-BHC	ND	11.6
beta-BHC	ND	23.1
delta-BHC	ND	28.9
gamma-BHC (Lindane)	ND	19.7
alpha-Chlordane	ND	116
gamma-Chlordane	ND	116
4,4'-DDD	ND	116
4,4'-DDE	ND	116
4,4'-DDT	ND	116
Dieldrin	ND	23.1
Endosulfan I	ND	19.7
Endosulfan II	ND	231
Endosulfan Sulfate	ND	23.1
Endrin	ND	116
Endrin aldehyde	ND	11.6
Heptachlor	ND	231
Heptachlor Epoxide	ND	578
Methoxychlor	ND	1160
Toxaphene	ND	2310

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	88	20-150
Decachlorobiphenyl	110	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/05/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/06/96
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	CLJ100-CS-095	DATE ANALYZED:	06/08/96
CONTROL NO.:	F019-18	MATRIX:	SOIL
% MOISTURE:	16.3	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	20.3
alpha-BHC	ND	11.9
beta-BHC	ND	23.9
delta-BHC	ND	29.9
gamma-BHC (Lindane)	ND	20.3
alpha-Chlordane	ND	119
gamma-Chlordane	ND	119
4,4'-DDD	ND	119
4,4'-DDE	ND	119
4,4'-DDT	ND	119
Dieldrin	ND	23.9
Endosulfan I	ND	20.3
Endosulfan II	ND	239
Endosulfan Sulfate	ND	23.9
Endrin	ND	119
Endrin aldehyde	ND	11.9
Heptachlor	ND	239
Heptachlor Epoxide	ND	597
Methoxychlor	ND	1190
Toxaphene	ND	2390

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	110	20-150
Decachlorobiphenyl	108	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	NA
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	NA
BATCH NO.:	96F019	DATE EXTRACTED:	06/06/96
SAMPLE ID:	MBLK1S	DATE ANALYZED:	06/07/96
CONTROL NO.:	CPF010SB	MATRIX:	SOIL
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17
alpha-BHC	ND	10
beta-BHC	ND	20
delta-BHC	ND	25
gamma-BHC (Lindane)	ND	17
alpha-Chlordane	ND	100
gamma-Chlordane	ND	100
4,4'-DDD	ND	100
4,4'-DDE	ND	100
4,4'-DDT	ND	100
Dieldrin	ND	20
Endosulfan I	ND	17
Endosulfan II	ND	200
Endosulfan Sulfate	ND	20
Endrin	ND	100
Endrin aldehyde	ND	10
Heptachlor	ND	200
Heptachlor Epoxide	ND	500
Methoxychlor	ND	1000
Toxaphene	ND	2000

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	91	20-150
Decachlorobiphenyl	103	20-150

RL: Reporting Limit

CKY QUALITY CONTROL DATA
MS/MSD ANALYSIS

CL: OHM
PROJECT: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: 12.2

BATCH NO.: 96F019
SAMPLE ID: MAFB-1305-SE02
CONTROL NO.: F013-02

DATE RECEIVED: NA
DATE EXTRACTED: 06/06/96
DATE ANALYZED: 06/08/96

ACCESSION: 96F013 96F019

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	173.00	170.00	98	173.00	169.00	97	1	20-170	50
alpha-Chlordane	ND	173.00	169.00	97	173.00	165.00	95	2	20-170	50
gamma-Chlordane	ND	173.00	142.00	82	173.00	144.00	83	1	20-170	50
4,4'-DDD	ND	345.00	303.00	88	345.00	294.00	85	3	20-170	50
4,4'-DDT	ND	345.00	339.00	98	345.00	333.00	96	2	20-170	50
Dieldrin	ND	345.00	290.00	84	345.00	288.00	83	1	20-170	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT %
Tetrachloro-m-xylene	151.00	123.00	81	151.00	126.00	83	20-150
Decachlorobiphenyl	151.00	149.00	98	151.00	151.00	100	20-150

CKY QUALITY CONTROL DATA
LCS ANALYSIS

CL T: OHM
PR..CT: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96F019
SAMPLE ID: LCS1S
CONTROL NO.: CPF010SL

DATE RECEIVED: NA
DATE EXTRACTED: 06/06/96
DATE ANALYZED: 06/08/96

ACCESSION: 96F013 96F019

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	LCS RSLT (ug/kg)	LCS % REC	QC LIMIT (%)
Aldrin	ND	167.00	161.00	96	47-116
alpha-Chlordane	ND	167.00	157.00	94	45-119
gamma-Chlordane	ND	167.00	138.00	83	45-119
4,4'-DDD	ND	333.00	291.00	87	48-136
4,4'-DDT	ND	333.00	322.00	97	34-143
Dieldrin	ND	333.00	275.00	83	42-132

SURROGATE PARAMETER	SPIKE AMOUNT (ug/kg)	LCS RESULT (ug/kg)	LCS % REC	QC LIMIT %
Tetrachloro-m-xylene	133.00	113.00	85	20-150
Decachlorobiphenyl	133.00	132.00	99	20-150

CALIBRATION

INITIAL CALIBRATION
METHOD 8080

Name	:	CKY Inc						
Instrument ID	:	GC3						
GC Columm	:	DB608						
Column size ID:		0.32 (mm)						
LFID & Datime:		PF07-3	06-07-96	13:44:42	PF07-4	0	06-07-96	14:20:21
LFID & Datime:		PF07-5	06-07-96	14:56:00	PF07-6	0	06-07-96	15:31:41
LFID & Datime:		PF07-7	06-07-96	16:07:20	PF07-8	0	06-07-96	16:42:58
LFID & Datime:		PF07-9	06-07-96	17:18:36	PF07-10	0	06-07-96	17:54:16
LFID & Datime:		PF07-11	06-07-96	18:29:56	PF07-12	0	06-07-96	19:05:49
CONC UNIT:		ppb						

COMPOUND	CONC X	CALIBRATION FACTORS (AREA/UNIT) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN	%RSD
alpha-BHC	5.0	12937	12542	11926	11862	10930	12040	6
gamma-BHC	5.0	11827	11233	10481	10244	9267	10611	9
beta-BHC	5.0	5460	5141	4815	4599	4018	4807	11
Heptachlor	5.0	11231	10380	9353	8818	7705	9497	14
delta-BHC	5.0	10929	10422	10089	10039	9310	10158	6
Aldrin	5.0	11564	10815	10274	9914	9031	10320	9
Heptachlor Epoxide	5.0	10732	9815	9053	8310	7429	9068	14
gamma-Chlordane	5.0	11302	10358	9655	9002	8247	9713	12
Endosulfan I	5.0	10920	10092	9180	8703	7606	9300	14
alpha-Chlordane	5.0	11273	10421	9761	9095	8367	9783	12
[illegible]eldrin	10.0	9615	8922	8148	7792	6834	8262	13
E	10.0	11053	10465	10138	9805	9036	10100	7
Endrin	10.0	7179	6577	5906	5522	4827	6002	15
Endosulfan II	10.0	8586	7719	7030	6256	5598	7038	17
DDD	10.0	6714	6196	5675	5420	4716	5744	13
Endrin Aldehyde	10.0	6754	6107	5610	4993	4616	5616	15
DDT	10.0	6639	6218	5683	5437	4779	5751	12
Endosulfan Sulfate	10.0	7810	6922	6324	5647	5088	6358	17
Endrin Ketone	10.0	7096	6418	5844	5209	4576	5828	17
Methoxychlor	50.0	2339	2150	1854	1687	1389	1884	20
TCX	5.0	14220	13263	12586	11824	10820	12542	10
DCB	10.0	9305	8572	8121	7303	6770	8014	13

INITIAL CALIBRATION
METHOD 8080

Name : CKY Inc
Instrument ID : GC3
GC Columm : DB608
Column size ID: 0.32 (mn)

LFID & Datime:	PF07-3	06-07-96	13:44:42	PF07-4	0
LFID & Datime:	PF07-5	06-07-96	14:56:00	PF07-6	0
LFID & Datime:	PF07-7	06-07-96	16:07:20	PF07-8	0
LFID & Datime:	PF07-9	06-07-96	17:18:36	PF07-10	0
LFID & Datime:	PF07-11	06-07-96	18:29:56	PF07-12	0

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	8.28	8.28	8.27	8.28	8.28	8.28	8.23	8.33
gamma-BHC	9.75	9.74	9.74	9.74	9.75	9.74	9.69	9.79
beta-BHC	10.04	10.04	10.04	10.04	10.05	10.04	9.99	10.09
Heptachlor	10.96	10.96	10.96	10.96	10.96	10.96	10.91	11.01
delta-BHC	11.44	11.44	11.44	11.44	11.44	11.44	11.39	11.49
Aldrin	12.21	12.21	12.21	12.21	12.21	12.21	12.16	12.26
Heptachlor Epoxide	14.43	14.43	14.43	14.43	14.45	14.43	14.38	14.48
gamma-Chlordane	15.08	15.06	15.06	15.08	15.08	15.07	14.97	15.17
Endosulfan I	15.80	15.80	15.80	15.80	15.80	15.80	15.70	15.90
alpha-Chlordane	15.71	15.71	15.71	15.71	15.73	15.72	15.62	15.82
Dieldrin	17.02	17.02	17.00	17.02	17.02	17.01	16.91	17.11
DDE	16.80	16.78	16.78	16.80	16.80	16.79	16.69	16.89
rin	18.45	18.44	18.44	18.44	18.45	18.44	18.34	18.54
osulfan II	19.17	19.17	19.17	19.17	19.19	19.17	19.07	19.27
DDD	18.99	18.99	18.99	18.99	18.99	18.99	18.89	19.09
Endrin Aldehyde	20.47	20.47	20.47	20.47	20.49	20.48	20.38	20.58
DDT	20.16	20.14	20.14	20.16	20.16	20.15	20.05	20.25
Endosulfan Sulfate	20.96	20.96	20.96	20.96	20.98	20.96	20.86	21.06
Endrin Ketone	23.93	23.93	23.93	23.95	23.95	23.94	23.84	24.04
Methoxychlor	23.60	23.60	23.60	23.60	23.60	23.60	23.50	23.70
TCX	5.86	5.86	5.86	5.86	5.88	5.87	5.77	5.97
DCB	28.32	28.32	28.32	28.32	28.34	28.33	28.23	28.43

CONTINUE CALIBRATION
METHOD 8080

La. Name	:	CKY Inc			
Instrument ID	:	GC-3 HP-5890			
GC Columm	:	DB608			
Column size ID	:	0.32MM X 30M			
Mid Con Init LFID & Datime:		PF07-7	06-07-96	16:07:20	PF07-8 0
Mid Con Cont LFID & Datime:		PF07-15	06-07-96	20:59:25	PF07-16 0
CONC UNIT	:	ppb			

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT AREA	RESULT CONC	%D %RSD
alpha-BHC	20.0	12040	0	20.6	3
gamma-BHC	20.0	10611	0	20.4	2
beta-BHC	20.0	4807	98175	20.4	2
Heptachlor	20.0	9497	0	20.0	0
delta-BHC	20.0	10158	204869	20.2	1
Aldrin	20.0	10320	208240	20.2	1
Heptachlor Epoxide	20.0	9068	183715	20.3	1
gamma-Chlordane	20.0	9713	194123	20.0	-0
Endosulfan I	20.0	9300	0	20.3	1
alpha-Chlordane	20.0	9783	196697	20.1	1
Dieldrin	40.0	8262	0	40.7	2
DDE	40.0	10100	405936	40.2	0
Endrin	40.0	6002	0	39.9	-0
F sulfan II	40.0	7038	281293	40.0	-0
L	40.0	5744	0	40.0	0
Endrin Aldehyde	40.0	5616	225215	40.1	0
DDT	40.0	5751	0	39.7	-1
Endosulfan Sulfate	40.0	6358	252527	39.7	-1
Endrin Ketone	40.0	5828	232977	40.0	-0
Methoxychlor	200.0	1884	0	200.9	0
TCX	20.0	12542	252601	20.1	1
DCB	40.0	8014	318506	39.7	-1

Note : Ignored the area

CONTINUE CALIBRATION
METHOD 8080

L Name : CKY Inc
Instrument ID : GC-3 HP-5890
GC Columm : DB608
Column size ID : 0.32MM X 30M
Mid Con Init LFID & Datime: PF07-7 06-07-96 16:07:20 PF07-8 0
Mid Con Cont LFID & Datime: PF07-37 06-08-96 10:03:35 PF07-38 0
CONC UNIT : ppb

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT AREA	RESULT CONC	%D ~~%RSD~~
alpha-BHC	20.0	12040	0	22.6	13
gamma-BHC	20.0	10611	0	22.2	11
beta-BHC	20.0	4807	106974	22.3	11
Heptachlor	20.0	9497	0	21.2	6
delta-BHC	20.0	10158	222879	21.9	10
Aldrin	20.0	10320	228024	22.1	10
Heptachlor Epoxide	20.0	9068	195815	21.6	8
gamma-Chlordane	20.0	9713	210189	21.6	8
Endosulfan I	20.0	9300	0	22.2	11
alpha-Chlordane	20.0	9783	212389	21.7	9
Dieldrin	40.0	8262	0	44.7	12
DDE	40.0	10100	448039	44.4	11
Endrin	40.0	6002	0	43.3	8
osulfan II	40.0	7038	305611	43.4	9
	40.0	5744	0	44.1	10
Endrin Aldehyde	40.0	5616	243719	43.4	8
DDT	40.0	5751	0	42.4	6
Endosulfan Sulfate	40.0	6358	271677	42.7	7
Endrin Ketone	40.0	5828	247412	42.4	6
Methoxychlor	200.0	1884	0	215.6	8
TCX	20.0	12542	253515	20.2	1
DCB	40.0	8014	342318	42.7	7

Note : Ignored the area

CONTINUE CALIBRATION
METHOD 8080

La. Name	:	CKY Inc			
Instrument ID	:	GC-3 HP-5890			
GC Columm	:	DB608			
Column size ID	:	0.32MM X 30M			
Mid Con Init LFID & Datime:		PF07-7	06-07-96	16:07:20	PF07-8 0
Mid Con Cont LFID & Datime:		PF07-46	06-08-96	15:24:21	PF07-47 0
CONC UNIT	:	ppb			

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT AREA	RESULT CONC	%D ~~%RSD~~
alpha-BHC	20.0	12040	0	24.4	22
gamma-BHC	20.0	10611	0	23.9	20
beta-BHC	20.0	4807	116557	24.2	21
Heptachlor	20.0	9497	0	22.6	13
delta-BHC	20.0	10158	243161	23.9	20
Aldrin	20.0	10320	249518	24.2	21
Heptachlor Epoxide	20.0	9068	213174	23.5	18
gamma-Chlordane	20.0	9713	229811	23.7	18
Endosulfan I	20.0	9300	0	23.8	19
alpha-Chlordane	20.0	9783	231152	23.6	18
Dieldrin	40.0	8262	0	48.3	21
DDE	40.0	10100	478323	47.4	18
Endrin	40.0	6002	0	47.4	19
F sulfan II	40.0	7038	332079	47.2	18
L	40.0	5744	0	47.2	18
Endrin Aldehyde	40.0	5616	264135	47.0	18
DDT	40.0	5751	0	45.2	13
Endosulfan Sulfate	40.0	6358	294108	46.3	16
Endrin Ketone	40.0	5828	268072	46.0	15
Methoxychlor	200.0	1884	0	231.2	16
TCX	20.0	12542	266008	21.2	6
DCB	40.0	8014	366656	45.8	14

Note : Ignored the area. This was the last DCC on the sequence, so no corrective of action for %D out of control of +/-15%.

DDT/Endrin Breakdown

Instrument ID: GC#3

	File: PF07-2	File: QF07-2
	Col: DB608	Col: DB1701
	%breakdown	%breakdown
DDT	5	2
Endrin	11	8

	File: PF07-17	File: QF07-17
	Col: DB608	Col: DB1701
	%breakdown	%breakdown
DDT	5	2
Endrin	13	10

	File: PF07-34	File: QF07-34
	Col: DB608	Col: DB1701
	%breakdown	%breakdown
DDT	5	2
Endrin	14	10

ANALYSIS SEQUENCE AND EXTRACTION LOG

SEQUENCE FILE: PF07

	SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	PIBLK	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
2	PEM01	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
3	MIXA 16X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
4	MIXB 16X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
5	MIXA 8X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
6	MIXB 8X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
7	MIXA 4X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
8	MIXB 4X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
9	MIXA 2X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
10	MIXB 2X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
11	MIXA 1X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
12	MIXB 1X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
13	AR1660	PCB	PF07-	1.0000	1.0000	1.0000	1.0000
14	PIBLK02	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
15	DCC01 MIXA 4X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
16	DCC01 MIXB 4X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
17	PEM02	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
18	CPF010SB	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
19	CPF010SL	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
20	96F013-02	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
21	96F013-02M	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
22	96F013-02S	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
23	96F019-01	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
24	96F019-02	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
25	96F019-03	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
26	96F019-04	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
27	96F019-05	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
28	96F019-06	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
29	96F019-07	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
30	96F019-08	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
31	96F019-09	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
32	96F019-10	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
33	96F019-11	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
34	96F019-12	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
35	96F019-13	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
36	PIBLK03	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
37	DCC02 MIXA 4X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
38	DCC02 MIXB 4X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
39	PEM03	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
40	96F019-14	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
41	96F019-15	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
42	96F019-16	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
43	96F019-17	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
44	96F019-18	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
45	PIBLK04	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
46	DCC03 MIXA 4X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
47	DCC03 MIXB 4X	SW1	PF07-	1.0000	1.0000	1.0000	1.0000
48	PEM04	SW1	PF07-	1.0000	1.0000	1.0000	1.0000

CKY Analytical Laboratories
Sample Preparation Department

EXTRACTION LOG FOR PESTICIDES/PCBs

CKYT-E01-002

CLIENT: CKY / OHM
METHOD: 8080
PAGE #:
MATRIX: SOIL
DATE EXTRACTED: 6/06/96
DATE COMPLETED: 6/06/96

LAB SAMPLE ID (CP F010)	SAMPLE AMOUNT (g/ml)	pH	EXTRACT VOLUME (ml)	CLEAN-UP (G/S/A/F)	NOTES
~~CF000~~ -SB	~		10.0		
SL	~				
96F013 -02	30.0				
2M					
2S					
03					
96F019 -01	3.0				
02					
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					

CLEAN-UP	CODE
GPC	G
TBA	S
ACID	A
FLORISIL	F

REAGENT	LOT #
Na2SO4	954496
CH2CL2	36079
HEXANE	962303

STANDARDS	ID	AMOUNT ADDED (ml)
SPIKE ID	S10C-01-0-26-02	0.5
SURROGATE ID	S10C-01-0-35-02	2.0

SDG #	EXTRACT LOCATION
	GC-R1-C3

COMMENTS:

PREPARED BY: MMS / MC
STD's ADDED BY: MMD / YF
CHECKED BY:

Extracts Received By:

C K Y incorporated
Analytical Laboratories

Date: 06-20-1996
CKY Batch No.: 96F022

Attn: Missy Art

OHM
5335 TRIANGLE PARKWAY SUITE 450
NORCROSS GA 30092

Subject: Laboratory Report
Project: 18319/CAMP LEJEUNE

Enclosed is the Laboratory report for samples received on 06/07/96. The samples were received in coolers with ice and intact; the chain-of-custody forms were properly filled out. The data reported include :

Sample ID	Control No.	Matrix	Analysis
CLJ100-CS-096	F022-01	Soil	EPA 8080
CLJ100-CS-097	F022-02	Soil	EPA 8080
CLJ100-CS-099	F022-04	Soil	EPA 8080
CLJ100-RB-606	F022-05	Water	EPA 8080
CLJ100-FB-606	F022-06	Water	EPA 8080
CLJ100-CS-100	F022-07	Soil	EPA 8080
CLJ100-CS-100DP	F022-08	Soil	EPA 8080

The results are summarized on the following pages.

Please feel free to call if you have any questions concerning these results.

Sincerely yours,

Kam Y. Pang, Ph.D.
Laboratory Director

P.S. - All analyses requested for the above referenced project have been completed. Therefore, unless instructed, the remaining portions of the samples will be disposed after fifteen (15) days from the date of this report.

630 Maple Ave., Torrance, Calif. 90503 • Telephone 310-618-8889 • Fax: 310-618-0818

Ohio Remediation Services Corp.

CHAIN-OF-CUSTODY RECORD

TRANSFER 1

Form 0019
Field Technical Services
Rev. 08/89

96F022 11 166598

O.H. MATERIALS CORP. • P.O. BOX 551 • FINDLAY, OH 45839-0551 • 419-423-3526

PROJECT NAME	PROJECT LOCATION
Camp Lejeune	Camp Lejeune, N.C.

PROJ. NO.	PROJECT CONTACT	PROJECT TELEPHONE NO.
[illegible]519	Alan Whitt	(910) 451-2599

CLIENT'S REPRESENTATIVE	PROJECT MANAGER/SUPERVISOR
VAdm Marsh/[illegible]	Jim Dunn / Alan Whitt

ANALYSIS DESIRED (INDICATE SEPARATE CONTAINERS): TCL Pesticides (8080)

ITEM NO.	SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SAMPLE DESCRIPTION (INCLUDE MATRIX AND POINT OF SAMPLE)	NUMBER OF CONTAINERS	TCL Pesticides (8080)								REMARKS
1	[illegible]-CS-016	[illegible]	1037		X	Confirmation Sample from AOC 1-12 [illegible]	1-8oz	X								NEESA Level [illegible]
2	[illegible]-CS-097	[illegible]	1043		X	Confirmation Sample from AOC [illegible]	1-8oz	X								
3	[illegible]-CS-098	[illegible]	[illegible]46		X	Confirmation Sample from AOC [illegible]	1-8oz	X								
4	[illegible]-CS-099	[illegible]	1051		X	Confirmation Sample from AOC [illegible]	1-8oz	X								
5	[illegible]-RB-[illegible]	[illegible]	1057		X	[illegible] Blank	1-1L	X								
6	[illegible]-RB-[illegible]	[illegible]	1103		X	[illegible] Blank	1-1L	X								
7	[illegible]-C-100	[illegible]	[illegible]		X	[illegible] Sample from AOC [illegible]	1-8oz	X								
8	[illegible]-CS-[illegible]	[illegible]	[illegible]29		X	[illegible] Sample from AOC [illegible]	1-8oz	X								
9																
10																

TRANSFER NUMBER	ITEM NUMBER	TRANSFERS RELINQUISHED BY	TRANSFERS ACCEPTED BY	DATE	TIME
1	1-8	[illegible]	FED-EX 1207377850	6/6/96	1700
2			[illegible]	[illegible]	[illegible]
3					
4					

REMARKS

Samples Sent To CLY Inc. 48 hour TAT. Please Fax Results To (910) 451-1809. Thanks

Hold samples until [illegible]

SAMPLER'S SIGNATURE [illegible]

SAMPLE RE[illegible]IPT FORM

CONTROL NO.	96F022
CLIENT	OHM
PROJECT	CAMP LE JEUNE

DATE	06-07-96
TIME	9:30 AM
RECIPIENT	F. PATEL

SAMPLE TRANSPORTATION TO CKY LABORATORY:	BY	ON(DATE)	AT(TIME)	FROM(SITE/CO.)	COMMENTS
PICKED-UP BY CKY COURIER					
DELIVERED BY CLIENT ✓					
SHIPPED/AIRBILL NO FEDEX APTN: 1207377850	SEE AIRBILL				

SAMPLE BATCH PACKAGING/SEALING UPON RECEIPT:	✓ INTACT	DAMAGED	✓ SEALED	NOT SEALED	NO CONTAINER

CONTAINER:	INSIDE TEMPERATURE:		3° C	CUSTODY SEAL		LOCATION	NUMBER
✓ COOLER	PACKAGING	TYPE	SUFFICIENCY	✓ INTACT	DAMAGED	FRONT CLOSURE	2
BOX	INSULATION:		OK	NAME:	SEE COC		
OTHER:	ICE/COOLANT:	REGULAR	↓	DATE:			
	PACKING MATERIAL:	BUBBLEPAK	↓	TIME:			

SAMPLE DOCUMENTATION/CHAIN-OF-CUSTODY(COC)	SEALED	✓ ENCLOSED	HANDCARRIED	FAXED	MAILED

SAMPLE LOG-IN:	CRITERIA	COMMENTS	DISCREPANCY
SAMPLE CUSTODY SEAL	EVERY SAMPLE	NONE	
CONTAINER TYPE/MATERIAL	APPROPRIATE	OK	
SAMPLE AMOUNT	ENOUGH	↓	
SAMPLE PRESERVATION/HOLDING TIME	SUFFICIENT	↓	
HEADSPACE/BUBBLES	ZERO/NONE	↓	
SAMPLE LABEL INFORMATION	SUFFICIENT	SEE BELOW	
CHAIN-OF-CUSTODY INFORMATION	SUFFICIENT	SEE BELOW	

SAMPLE INFO.:	SAMPLE ID	DATE	TIME	SIGNATURE	ANALYSES	PRESERVATIVE	CONTAINER
INDIVIDUAL SAMPLE CONTAINER:	NONE	✓ SEALED PLASTIC BAG			CAN	OTHER(SPECIFY): BUBBLEPAK	

SAMPLE NUMBER	CLIENT ID	DISCREPANCY	ACTION
-5	CLJ100-RB-606	REC'D W/S. TIME 1103 ON LABEL	
-6	CLJ100-FB-606	REC'D W/S. TIME 1057 ON LABEL	

CLIENT SERVICES COPY RECEIVED BY	[illegible] 6/7	DATE		TIME	

CKY

CKY INC. ANALYTICAL LABORATORIES

CORRECTIVE ACTION FORM
(CKY Sample Receipt Discrepancy)

Client	OHM - Camp Lejeune
CKY Batch No.	96F022
Control No.	
Method	8080
Matrix	oil + water

1) Nature of Discrepancy:

Release of COC 166598

2) Corrective Action:

3) Result of Corrective Action:

- Plse. analyze all samples for 8080, except 96F022-3.
- TAT: 48 Hrs.

Approved by: Cecilia Chan Date: 6/11/96.

4) Further Corrective Action Taken? Yes ___ No ___ Date: 6/11/96

6/11/96

6/11/96

Approved by: _____ Date: _____

srd.caf

LABORATORY REPORT FOR

OHM

18319/CAMP LEJEUNE

EPA 8080
PESTICIDES

SDG#: 96F022

JUNE 20, 1996

CASE NARRATIVE

CLIENT: OHM

PROJECT: 18319/CAMP LEJEUNE

SDG: 96F022

CHLORINATED PESTICIDES

Six (6) soil and two (2) water samples were received on 06/07/96 to be analyzed for Pesticide analysis in accordance with SW846.

I. **Holding Time**

All samples were extracted and analyzed within the holding time criteria.

II. **Blank**

All method blanks were free of contamination.

III. **Matrix Spike/Matrix Spike Duplicate**

All recoveries and RPDs of soil matrix were within the QC limits except RPD of 4,4-DDD. No corrective action since RPD of 4,4-DDD in LCS/LCSD was within limit. No MS/MSD required for rinsate and field blank samples.

IV. **Lab Control Sample/Lab Control Duplicate**

All results were within the control limits.

V. **Surrogate Recovery**

All surrogate recoveries were within the control limits.

VI. **Instrument Performance and Calibration**

An initial calibration was five-point and all RSDs were within the QC limits in a quantitation column. DB608 was used as the quantitation column. All continue calibrations were checked at 12 hour interval and all recoveries in the quantitation were within the QC limits. All DDT and Endrin breakdown were within QC limits. Only recovery of Heptachlor, DDT, and Methoxychlor in last calibration check for DB608 column in the sequence run were within the QC limits. However, according to the method there was no corrective actions required for recovery out of control in the last calibration check on the sequence run.

VII. Sample Analysis

All sample analyses met the project specific QC requirements. All results were confirmed by the second column DB1701.

SAMPLE RESULTS

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/06/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/07/96
BATCH NO.:	96F022	DATE EXTRACTED:	06/09/96
SAMPLE ID:	CLJ100-CS-096	DATE ANALYZED:	06/10/96
CONTROL NO.:	F022-01	MATRIX:	SOIL
% MOISTURE:	11.7	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.3
alpha-BHC	ND	11.3
beta-BHC	ND	22.7
delta-BHC	ND	28.3
gamma-BHC (Lindane)	ND	19.3
alpha-Chlordane	ND	113
gamma-Chlordane	ND	113
4,4'-DDD	ND	113
4,4'-DDE	ND	113
4,4'-DDT	ND	113
Dieldrin	ND	22.7
Endosulfan I	ND	19.3
Endosulfan II	ND	227
Endosulfan Sulfate	ND	22.7
Endrin	ND	113
Endrin aldehyde	ND	11.3
Heptachlor	ND	227
Heptachlor Epoxide	ND	566
Methoxychlor	ND	1130
Toxaphene	ND	2270

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	86	20-150
Decachlorobiphenyl	98	20-150

RL: Reporting Limit

CKY INC., ANALYTICAL LABORATORIES, 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-8889 Fax: (310) 618-0818

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/06/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/07/96
BATCH NO.:	96F022	DATE EXTRACTED:	06/09/96
SAMPLE ID:	CLJ100-CS-097	DATE ANALYZED:	06/10/96
CONTROL NO.:	F022-02	MATRIX:	SOIL
% MOISTURE:	12.4	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.4
alpha-BHC	ND	11.4
beta-BHC	ND	22.8
delta-BHC	ND	28.5
gamma-BHC (Lindane)	ND	19.4
alpha-Chlordane	ND	114
gamma-Chlordane	ND	114
4,4'-DDD	ND	114
4,4'-DDE	ND	114
4,4'-DDT	ND	114
Dieldrin	ND	22.8
Endosulfan I	ND	19.4
Endosulfan II	ND	228
Endosulfan Sulfate	ND	22.8
Endrin	ND	114
Endrin aldehyde	ND	11.4
Heptachlor	ND	228
Heptachlor Epoxide	ND	571
Methoxychlor	ND	1140
Toxaphene	ND	2280

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	88	20-150
Decachlorobiphenyl	103	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/06/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/07/96
BATCH NO.:	96F022	DATE EXTRACTED:	06/09/96
SAMPLE ID:	CLJ100-CS-099	DATE ANALYZED:	06/10/96
CONTROL NO.:	F022-04	MATRIX:	SOIL
% MOISTURE:	12.3	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	19.4
alpha-BHC	ND	11.4
beta-BHC	ND	22.8
delta-BHC	ND	28.5
gamma-BHC (Lindane)	ND	19.4
alpha-Chlordane	ND	114
gamma-Chlordane	ND	114
4,4'-DDD	ND	114
4,4'-DDE	ND	114
4,4'-DDT	ND	114
Dieldrin	ND	22.8
Endosulfan I	ND	19.4
Endosulfan II	ND	228
Endosulfan Sulfate	ND	22.8
Endrin	ND	114
Endrin aldehyde	ND	11.4
Heptachlor	ND	228
Heptachlor Epoxide	ND	570
Methoxychlor	ND	1140
Toxaphene	ND	2280

URROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	84	20-150
Decachlorobiphenyl	107	20-150

RL: Reporting Limit

CKY INC., ANALYTICAL LABORATORIES, 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-8889 Fax: (310) 618-0818

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/06/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/07/96
BATCH NO.:	96F022	DATE EXTRACTED:	06/09/96
SAMPLE ID:	CLJ100-CS-100	DATE ANALYZED:	06/10/96
CONTROL NO.:	F022-07	MATRIX:	SOIL
% MOISTURE:	14.8	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	31	20
alpha-BHC	ND	11.7
beta-BHC	ND	23.5
delta-BHC	ND	29.3
gamma-BHC (Lindane)	ND	20
alpha-Chlordane	ND	117
gamma-Chlordane	ND	117
4,4'-DDD	ND	117
4,4'-DDE	ND	117
4,4'-DDT	ND	117
Dieldrin	ND	23.5
Endosulfan I	ND	20
Endosulfan II	ND	235
Endosulfan Sulfate	ND	23.5
Endrin	ND	117
Endrin aldehyde	ND	11.7
Heptachlor	ND	235
Heptachlor Epoxide	ND	587
Methoxychlor	ND	1170
Toxaphene	ND	2350

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	94	20-150
Decachlorobiphenyl	105	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/06/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/07/96
BATCH NO.:	96F022	DATE EXTRACTED:	06/09/96
SAMPLE ID:	CLJ100-CS-100DP	DATE ANALYZED:	06/10/96
CONTROL NO.:	F022-08	MATRIX:	SOIL
% MOISTURE:	14.9	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	20
alpha-BHC	ND	11.8
beta-BHC	ND	23.5
delta-BHC	ND	29.4
gamma-BHC (Lindane)	ND	20
alpha-Chlordane	ND	118
gamma-Chlordane	ND	118
4,4'-DDD	ND	118
4,4'-DDE	ND	118
4,4'-DDT	ND	118
Dieldrin	ND	23.5
Endosulfan I	ND	20
Endosulfan II	ND	235
Endosulfan Sulfate	ND	23.5
Endrin	ND	118
Endrin aldehyde	ND	11.8
Heptachlor	ND	235
Heptachlor Epoxide	ND	588
Methoxychlor	ND	1180
Toxaphene	ND	2350

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	82	20-150
Decachlorobiphenyl	104	20-150

RL: Reporting Limit

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	NA
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	NA
BATCH NO.:	96F022	DATE EXTRACTED:	06/09/96
SAMPLE ID:	MBLK1S	DATE ANALYZED:	06/10/96
CONTROL NO.:	CPF011SB	MATRIX:	SOIL
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/kg)	RL (ug/kg)
Aldrin	ND	17
alpha-BHC	ND	10
beta-BHC	ND	20
delta-BHC	ND	25
gamma-BHC (Lindane)	ND	17
alpha-Chlordane	ND	100
gamma-Chlordane	ND	100
4,4'-DDD	ND	100
4,4'-DDE	ND	100
4,4'-DDT	ND	100
Dieldrin	ND	20
Endosulfan I	ND	17
Endosulfan II	ND	200
Endosulfan Sulfate	ND	20
Endrin	ND	100
Endrin aldehyde	ND	10
Heptachlor	ND	200
Heptachlor Epoxide	ND	500
Methoxychlor	ND	1000
Toxaphene	ND	2000

JRROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	86	20-150
Decachlorobiphenyl	100	20-150

RL: Reporting Limit

CKY INC., ANALYTICAL LABORATORIES, 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-8889 Fax: (310) 618-0818

CKY QUALITY CONTROL DATA
MS/MSD ANALYSIS

C: OHM
P: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: 11.7

BATCH NO.: 96F022
SAMPLE ID: CLJ100-CS-096
CONTROL NO.: F022-01

DATE RECEIVED: 06/07/96
DATE EXTRACTED: 06/09/96
DATE ANALYZED: 06/10/96

ACCESSION: 96F022

PARAMETER	SMPL RSLT (ug/kg)	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	189.00	157.00	83	189.00	189.00	100	18	20-170	50
alpha-Chlordane	ND	189.00	224.00	119	189.00	178.00	94	23	20-170	50
gamma-Chlordane	ND	189.00	225.00	119	189.00	157.00	83	35	20-170	50
4,4'-DDD	ND	377.00	600.00	159	377.00	316.00	84	62*	20-170	50
4,4'-DDT	ND	377.00	448.00	119	377.00	381.00	101	16	20-170	50
Dieldrin	ND	377.00	389.00	103	377.00	327.00	87	18	20-170	50

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	MS RSLT (ug/kg)	MS % REC	SPIKE AMT (ug/kg)	MSD RSLT (ug/kg)	MSD % REC	QC LIMIT %
Tetrachloro-m-xylene	151.00	143.00	95	151.00	128.00	85	20-150
Decachlorobiphenyl	151.00	153.00	102	151.00	147.00	98	20-150

* Out of QC limit.

CKY QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CLI: OHM
PRC: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: SOIL
% MOISTURE: NA

BATCH NO.: 96F022
SAMPLE ID: LCS1S/LCS1SD
CONTROL NO.: CPF011SL/C

DATE RECEIVED: NA
DATE EXTRACTED: 06/09/96
DATE ANALYZED: 06/10/96

ACCESSION: 96F022

PARAMETER	BLNK RSLT (ug/kg)	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	167.00	155.00	93	167.00	160.00	96	3	47-116	75
alpha-Chlordane	ND	167.00	150.00	90	167.00	149.00	89	1	45-119	75
gamma-Chlordane	ND	167.00	125.00	75	167.00	129.00	77	3	45-119	75
4,4'-DDD	ND	333.00	259.00	78	333.00	261.00	78	1	48-136	75
4,4'-DDT	ND	333.00	309.00	93	333.00	311.00	93	1	34-143	75
Dieldrin	ND	333.00	262.00	79	333.00	267.00	80	2	42-132	75

SURROGATE PARAMETER	SPIKE AMT (ug/kg)	BS RSLT (ug/kg)	BS % REC	SPIKE AMT (ug/kg)	BSD RSLT (ug/kg)	BSD % REC	QC LIMIT %
Tetrachloro-m-xylene	133.00	111.00	83	133.00	110.00	83	20-150
Decachlorobiphenyl	133.00	133.00	100	133.00	127.00	96	20-150

CKY INC. ANALYTICAL LABORATORIES 630 Maple Ave. Torrance, Calif. 90503 Tel. (310) 618-8889 Fax: (310) 618-0813

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/06/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/07/96
BATCH NO.:	96F022	DATE EXTRACTED:	06/11/96
SAMPLE ID:	CLJ100-RB-606	DATE ANALYZED:	06/12/96
CONTROL NO.:	F022-05	MATRIX:	WATER
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	RL (ug/L)
Aldrin	ND	.04
alpha-BHC	ND	.03
beta-BHC	ND	.05
delta-BHC	ND	.05
gamma-BHC (Lindane)	ND	.04
alpha-Chlordane	ND	.14
gamma-Chlordane	ND	.14
4,4'-DDD	ND	.04
4,4'-DDE	ND	.1
4,4'-DDT	ND	.02
Dieldrin	ND	.14
Endosulfan I	ND	.04
Endosulfan II	ND	.1
Endosulfan Sulfate	ND	.06
Endrin	ND	.1
Endrin aldehyde	ND	.03
Heptachlor	ND	.05
Heptachlor Epoxide	ND	.05
Methoxychlor	ND	.5
Toxaphene	ND	1

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	83	30-150
Decachlorobiphenyl	106	24-154

RL: Reporting Limit

CK ANALYTICAL LABORATORIES (310) 618-8889 Fax: (310) 618-0818

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	06/06/96
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	06/07/96
BATCH NO.:	96F022	DATE EXTRACTED:	06/11/96
SAMPLE ID:	CLJ100-FB-606	DATE ANALYZED:	06/12/96
CONTROL NO.:	F022-06	MATRIX:	WATER
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	RL (ug/L)
Aldrin	ND	.04
alpha-BHC	ND	.03
beta-BHC	ND	.05
delta-BHC	ND	.05
gamma-BHC (Lindane)	ND	.04
alpha-Chlordane	ND	.14
gamma-Chlordane	ND	.14
4,4'-DDD	ND	.04
4,4'-DDE	ND	.1
4,4'-DDT	ND	.02
Dieldrin	ND	.14
Endosulfan I	ND	.04
Endosulfan II	ND	.1
Endosulfan Sulfate	ND	.06
Endrin	ND	.1
Endrin aldehyde	ND	.03
Heptachlor	ND	.05
Heptachlor Epoxide	ND	.05
Methoxychlor	ND	.5
Toxaphene	ND	1

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	100	30-150
Decachlorobiphenyl	109	24-154

RL: Reporting Limit

CKY INC., ANALYTICAL LABORATORIES, 630 Mapie Ave., Torrance, Calif. 90503 Tel. (310) 618-8889 Fax: (310) 618-0818

EPA METHOD 8080
PESTICIDES

CLIENT:	OHM	DATE COLLECTED:	NA
PROJECT:	18319/CAMP LEJEUNE	DATE RECEIVED:	NA
BATCH NO.:	96F022	DATE EXTRACTED:	06/11/96
SAMPLE ID:	MBLK1W	DATE ANALYZED:	06/12/96
CONTROL NO.:	CPF012WB	MATRIX:	WATER
% MOISTURE:	NA	DILUTION FACTOR:	1

PARAMETERS	RESULTS (ug/L)	RL (ug/L)
Aldrin	ND	.04
alpha-BHC	ND	.03
beta-BHC	ND	.05
delta-BHC	ND	.05
gamma-BHC (Lindane)	ND	.04
alpha-Chlordane	ND	.14
gamma-Chlordane	ND	.14
4,4'-DDD	ND	.04
4,4'-DDE	ND	.1
4,4'-DDT	ND	.02
Dieldrin	ND	.14
Endosulfan I	ND	.04
Endosulfan II	ND	.1
Endosulfan Sulfate	ND	.06
Endrin	ND	.1
Endrin aldehyde	ND	.03
Heptachlor	ND	.05
Heptachlor Epoxide	ND	.05
Methoxychlor	ND	.5
Toxaphene	ND	1

SURROGATE PARAMETER	% RECOVERY	QC LIMIT
Tetrachloro-m-xylene	94	30-150
Decachlorobiphenyl	116	24-154

RL: Reporting Limit

CKY INC., ANALYTICAL LABORATORIES, 630 Maple Ave., Torrance, Calif. 90503 Tel. (310) 618-8889 Fax: (310) 618-0818

CKY QUALITY CONTROL DATA
LCS/LCD ANALYSIS

CL: OHM
PR: 18319/CAMP LEJEUNE
METHOD: EPA 8080
MATRIX: WATER
% MOISTURE: NA

BATCH NO.: 96F022
SAMPLE ID: LCS1W/LCS1WD
CONTROL NO.: CPF012WL/C

DATE RECEIVED: NA
DATE EXTRACTED: 06/11/96
DATE ANALYZED: 06/12/96

ACCESSION: 96F022

PARAMETER	BLNK RSLT (ug/L)	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	RPD %	QC LIMIT %	RPD LIMIT %
Aldrin	ND	.50	.55	110	.50	.57	114	4	47-116	50
alpha-Chlordane	ND	.50	.564	113	.50	.55	110	3	45-119	50
gamma-Chlordane	ND	.50	.525	105	.50	.50	100	5	45-119	50
4,4'-DDD	ND	1.00	1.09	109	1.00	1.03	103	6	48-136	50
4,4'-DDT	ND	1.00	1.16	116	1.00	1.09	109	6	34-143	50
Dieldrin	ND	1.00	1.00	100	1.00	.98	98	2	42-132	50

SURROGATE PARAMETER	SPIKE AMT (ug/L)	BS RSLT (ug/L)	BS % REC	SPIKE AMT (ug/L)	BSD RSLT (ug/L)	BSD % REC	QC LIMIT %
Tetrachloro-m-xylene	.20	.175	88	.20	.189	94	30-150
Decachlorobiphenyl	.20	.219	110	.20	.221	110	24-154

CALIBRATION

INITIAL CALIBRATION
METHOD 8080

Name	:	CKY Inc						
Instrument ID	:	GC3						
GC Columm	:	DB608						
Column size ID:		0.32 (mm)						
LFID & Datime:		PF07-3	06-07-96	13:44:42	PF07-4	0	06-07-96	14:20:21
LFID & Datime:		PF07-5	06-07-96	14:56:00	PF07-6	0	06-07-96	15:31:41
LFID & Datime:		PF07-7	06-07-96	16:07:20	PF07-8	0	06-07-96	16:42:58
LFID & Datime:		PF07-9	06-07-96	17:18:36	PF07-10	0	06-07-96	17:54:16
LFID & Datime:		PF07-11	06-07-96	18:29:56	PF07-12	0	06-07-96	19:05:49
CONC UNIT:		ppb						

COMPOUND	CONC X	CALIBRATION FACTORS (AREA/UNIT) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN	%RSD
alpha-BHC	5.0	12937	12542	11926	11862	10930	12040	6
gamma-BHC	5.0	11827	11233	10481	10244	9267	10611	9
beta-BHC	5.0	5460	5141	4815	4599	4018	4807	11
Heptachlor	5.0	11231	10380	9353	8818	7705	9497	14
delta-BHC	5.0	10929	10422	10089	10039	9310	10158	6
Aldrin	5.0	11564	10815	10274	9914	9031	10320	9
Heptachlor Epoxide	5.0	10732	9815	9053	8310	7429	9068	14
gamma-Chlordane	5.0	11302	10358	9655	9002	8247	9713	12
Endosulfan I	5.0	10920	10092	9180	8703	7606	9300	14
alpha-Chlordane	5.0	11273	10421	9761	9095	8367	9783	12
Dieldrin	10.0	9615	8922	8148	7792	6834	8262	13
[illegible]	10.0	11053	10465	10138	9805	9036	10100	7
[illegible]rin	10.0	7179	6577	5906	5522	4827	6002	15
Endosulfan II	10.0	8586	7719	7030	6256	5598	7038	17
DDD	10.0	6714	6196	5675	5420	4716	5744	13
Endrin Aldehyde	10.0	6754	6107	5610	4993	4616	5616	15
DDT	10.0	6639	6218	5683	5437	4779	5751	12
Endosulfan Sulfate	10.0	7810	6922	6324	5647	5088	6358	17
Endrin Ketone	10.0	7096	6418	5844	5209	4576	5828	17
Methoxychlor	50.0	2339	2150	1854	1687	1389	1884	20
TCX	5.0	14220	13263	12586	11824	10820	12542	10
DCB	10.0	9305	8572	8121	7303	6770	8014	13

INITIAL CALIBRATION
METHOD 8080

Lab Name : CKY Inc
Instrument ID : GC3
GC Columm : DB608
Column size ID: 0.32 (mm)

LFID & Datime:	PF07-3	06-07-96	13:44:42	PF07-4	0
LFID & Datime:	PF07-5	06-07-96	14:56:00	PF07-6	0
LFID & Datime:	PF07-7	06-07-96	16:07:20	PF07-8	0
LFID & Datime:	PF07-9	06-07-96	17:18:36	PF07-10	0
LFID & Datime:	PF07-11	06-07-96	18:29:56	PF07-12	0

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	8.28	8.28	8.27	8.28	8.28	8.28	8.23	8.33
gamma-BHC	9.75	9.74	9.74	9.74	9.75	9.74	9.69	9.79
beta-BHC	10.04	10.04	10.04	10.04	10.05	10.04	9.99	10.09
Heptachlor	10.96	10.96	10.96	10.96	10.96	10.96	10.91	11.01
delta-BHC	11.44	11.44	11.44	11.44	11.44	11.44	11.39	11.49
Aldrin	12.21	12.21	12.21	12.21	12.21	12.21	12.16	12.26
Heptachlor Epoxide	14.43	14.43	14.43	14.43	14.45	14.43	14.38	14.48
gamma-Chlordane	15.08	15.06	15.06	15.08	15.08	15.07	14.97	15.17
Endosulfan I	15.80	15.80	15.80	15.80	15.80	15.80	15.70	15.90
alpha-Chlordane	15.71	15.71	15.71	15.71	15.73	15.72	15.62	15.82
Dieldrin	17.02	17.02	17.00	17.02	17.02	17.01	16.91	17.11
DDE	16.80	16.78	16.78	16.80	16.80	16.79	16.69	16.89
Endrin	18.45	18.44	18.44	18.44	18.45	18.44	18.34	18.54
Endosulfan II	19.17	19.17	19.17	19.17	19.19	19.17	19.07	19.27
DDD	18.99	18.99	18.99	18.99	18.99	18.99	18.89	19.09
Endrin Aldehyde	20.47	20.47	20.47	20.47	20.49	20.48	20.38	20.58
DDT	20.16	20.14	20.14	20.16	20.16	20.15	20.05	20.25
Endosulfan Sulfate	20.96	20.96	20.96	20.96	20.98	20.96	20.86	21.06
Endrin Ketone	23.93	23.93	23.93	23.95	23.95	23.94	23.84	24.04
Methoxychlor	23.60	23.60	23.60	23.60	23.60	23.60	23.50	23.70
TCX	5.86	5.86	5.86	5.86	5.88	5.87	5.77	5.97
DCB	28.32	28.32	28.32	28.32	28.34	28.33	28.23	28.43

INITIAL CALIBRATION
METHOD 8080

L. Name : CKY Inc
Instrument ID : GC3
GC Columm : DB1701
Column size ID: 0.32 (mm)
LFID & Datime: QF07-3 06-07-96 13:44:42 QF07-4 0 06-07-96 14:20:21
LFID & Datime: QF07-5 06-07-96 14:56:00 QF07-6 0 06-07-96 15:31:41
LFID & Datime: QF07-7 06-07-96 16:07:20 QF07-8 0 06-07-96 16:42:58
LFID & Datime: QF07-9 06-07-96 17:18:36 QF07-10 0 06-07-96 17:54:16
LFID & Datime: QF07-11 06-07-96 18:29:56 QF07-12 0 06-07-96 19:05:49
CONC UNIT: ppb

COMPOUND	CONC X	CALIBRATION FACTORS (AREA/UNIT) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN	%RSD
alpha-BHC	5.0	8766	8869	9008	9576	9298	9103	4
gamma-BHC	5.0	8416	8444	8444	8832	8387	8505	2
beta-BHC	5.0	4290	4133	4014	4056	3622	4023	6
Heptachlor	5.0	7842	7550	7147	7086	6429	7211	7
delta-BHC	5.0	7281	7248	7448	7805	7624	7481	3
Aldrin	5.0	8578	8338	8409	8797	8364	8497	2
Heptachlor Epoxide	5.0	8164	7770	7592	7567	6964	7611	6
gamma-Chlordane	5.0	8521	8105	7975	8025	7480	8021	5
Endosulfan I	5.0	8179	7903	7589	7665	7081	7683	5
alpha-Chlordane	5.0	8449	8050	7939	7924	7496	7972	4
ldrin	10.0	7719	7654	7500	7598	6928	7480	4
	10.0	7847	7819	8114	8248	7986	8003	2
Endrin	10.0	5850	5736	5503	5562	5085	5547	5
Endosulfan II	10.0	6618	6291	6090	5822	5348	6034	8
DDD	10.0	5412	5327	5214	5338	4824	5223	4
Endrin Aldehyde	10.0	4476	4585	4864	5054	5011	4798	5
DDT	10.0	4724	4693	4547	4617	4183	4553	5
Endosulfan Sulfate	10.0	6013	5670	5443	5157	4793	5415	9
Endrin Ketone	10.0	5979	5690	5452	5083	4595	5360	10
Methoxychlor	50.0	2100	2004	1833	1741	1533	1842	12
TCX	5.0	9368	9242	9354	9085	8658	9141	3
DCB	10.0	7106	6788	6687	6286	6103	6594	6

INITIAL CALIBRATION
METHOD 8080

Lab Name : CKY Inc
Instrument ID : GC3
GC Columm : DB1701
Column size ID: 0.32 (mm)

LFID & Datime:	QF07-3	06-07-96	13:44:42	QF07-4	0
LFID & Datime:	QF07-5	06-07-96	14:56:00	QF07-6	0
LFID & Datime:	QF07-7	06-07-96	16:07:20	QF07-8	0
LFID & Datime:	QF07-9	06-07-96	17:18:36	QF07-10	0
LFID & Datime:	QF07-11	06-07-96	18:29:56	QF07-12	0

COMPOUND	RT OF STANDARDS (MIN) 1.0X	2.0X	4.0X	8.0X	16.0X	MEAN RT	RT WINDOW FROM	TO
alpha-BHC	4.88	4.88	4.86	4.88	4.88	4.87	4.82	4.92
gamma-BHC	5.91	5.90	5.90	5.90	5.90	5.90	5.85	5.95
beta-BHC	8.17	8.17	8.17	8.17	8.17	8.17	8.12	8.22
Heptachlor	6.46	6.46	6.45	6.46	6.46	6.46	6.41	6.51
delta-BHC	8.80	8.80	8.80	8.80	8.80	8.80	8.75	8.85
Aldrin	7.20	7.18	7.18	7.20	7.20	7.19	7.14	7.24
Heptachlor Epoxide	9.35	9.34	9.34	9.35	9.35	9.35	9.30	9.40
gamma-Chlordane	10.39	10.39	10.39	10.39	10.39	10.39	10.29	10.49
Endosulfan I	10.15	10.15	10.14	10.15	10.15	10.15	10.05	10.25
alpha-Chlordane	10.65	10.65	10.65	10.65	10.65	10.65	10.55	10.75
Dieldrin	11.37	11.36	11.36	11.36	11.36	11.36	11.26	11.46
DDE	11.02	11.02	11.02	11.02	11.04	11.03	10.93	11.13
Endrin	12.02	12.01	12.01	12.01	12.01	12.01	11.91	12.11
Endosulfan II	13.68	13.68	13.68	13.68	13.68	13.68	13.58	13.78
DDD	13.68	13.66	13.66	13.66	13.66	13.66	13.56	13.76
Endrin Aldehyde	15.06	15.06	15.06	15.06	15.06	15.06	14.96	15.16
DDT	14.23	14.23	14.23	14.23	14.23	14.23	14.13	14.33
Endosulfan Sulfate	16.18	16.18	16.18	16.18	16.20	16.19	16.09	16.29
Endrin Ketone	17.40	17.40	17.40	17.40	17.40	17.40	17.30	17.50
Methoxychlor	16.57	16.55	16.55	16.55	16.55	16.55	16.45	16.65
TCX	3.01	3.01	3.01	3.01	3.01	3.01	2.91	3.11
DCB	20.88	20.88	20.88	20.88	20.88	20.88	20.77	20.98

DDT/ENDRIN BREAKDOWN

INSTRUMENT ID: GC-3

	File: PF10-4	File: QF10-4
	Col.: DB608	Col.: DB1701
	% Breakdown	**% Breakdown**
DDT	5	4
Endrin	12	9

	File: PF12-4	File: QF12-4
	Col.: DB608	Col.: DB1701
	% Breakdown	**% Breakdown**
DDT	8	2
Endrin	14.9	12

CKY INC. ANALYTICAL LABORATORIES 630 Maple Ave. Torrance, Calif. 90503 Tel. (310) 618-8889 Fax: (310) 618-0818

CONTINUE CALIBRATION
METHOD 8080

I[illegible]ame	:	CKY Inc				
Instrument ID	:	GC-3 HP-5890				
GC Columm	:	DB608/~~DB1701~~				
Column size ID	:	0.32MM X 30M				
Mid Con Init LFID & Datime:		PF07-7	06-07-96	16:07:20	PF07-8	0
Mid Con Cont LFID & Datime:		PF10-2	06-10-96	12:07:47	PF10-3	0
CONC UNIT	:	ppb				

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT AREA	RESULT CONC	%D
alpha-BHC	20.0	12040	0	20.0	-0
gamma-BHC	20.0	10611	0	19.7	-2
beta-BHC	20.0	4807	97818	20.4	2
Heptachlor	20.0	9497	0	20.2	1
delta-BHC	20.0	10158	192263	18.9	-5
Aldrin	20.0	10320	234721	22.7	14
Heptachlor Epoxide	20.0	9068	199140	22.0	10
gamma-Chlordane	20.0	9713	206513	21.3	6
Endosulfan I	20.0	9300	0	19.9	-1
alpha-Chlordane	20.0	9783	219508	22.4	12
Dieldrin	40.0	8262	0	39.3	-2
DDE	40.0	10100	451148	44.7	12
Endrin	40.0	6002	0	39.9	-0
Endosulfan II	40.0	7038	291460	41.4	4
[illegible]	40.0	5744	0	40.1	0
[illegible]rin Aldehyde	40.0	5616	226961	40.4	1
DDT	40.0	5751	0	39.8	-1
Endosulfan Sulfate	40.0	6358	255229	40.1	0
Endrin Ketone	40.0	5828	236656	40.6	2
Methoxychlor	200.0	1884	0	196.5	-2
TCX	20.0	12542	254147	20.3	1
DCB	40.0	8014	324843	40.5	1

Note : Ignored the area

CONTINUE CALIBRATION
METHOD 8080

L Name : CKY Inc
Instrument ID : GC-3 HP-5890
GC Columm : DB608/~~DB1701~~
Column size ID : 0.32MM X 30M
Mid Con Init LFID & Datime: PF07-7 06-07-96 16:07:20 PF07-8 0
Mid Con Cont LFID & Datime: PF10-17 06-10-96 21:03:16 PF10-18 0
CONC UNIT : ppb

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT AREA	RESULT CONC	%D %RSD
alpha-BHC	20.0	12040	0	24.5	22
gamma-BHC	20.0	10611	0	24.2	21
beta-BHC	20.0	4807	118458	24.6	23
Heptachlor	20.0	9497	0	21.6	8
delta-BHC	20.0	10158	245817	24.2	21
Aldrin	20.0	10320	251830	24.4	22
Heptachlor Epoxide	20.0	9068	214048	23.6	18
gamma-Chlordane	20.0	9713	233815	24.1	20
Endosulfan I	20.0	9300	0	23.9	20
alpha-Chlordane	20.0	9783	232567	23.8	19
Dieldrin	40.0	8262	0	47.6	19
DDE	40.0	10100	458326	45.4	13
Endrin	40.0	6002	0	47.3	18
Endosulfan II	40.0	7038	338534	48.1	20
	40.0	5744	0	46.5	16
[illegible]rin Aldehyde	40.0	5616	268840	47.9	20
DDT	40.0	5751	0	42.0	5
Endosulfan Sulfate	40.0	6358	293996	46.2	16
Endrin Ketone	40.0	5828	264837	45.4	14
Methoxychlor	200.0	1884	0	211.2	6
TCX	20.0	12542	258226	20.6	3
DCB	40.0	8014	339242	42.3	6

Note : Ignored the area. This was the last DCC on the sequence, so no corrective of action for %D out of control of +/- 15%.

CONTINUE CALIBRATION
METHOD 8080

La[illegible]Name	:	CKY Inc			
Instrument ID	:	GC-3 HP-5890			
GC Columm	:	DB608			
Column size ID	:	0.32MM X 30M			
Mid Con Init LFID & Datime:		PF07-7	06-07-96	16:07:20	PF07-8 0
Mid Con Cont LFID & Datime:		PF12-2	06-12-96	11:18:00	PF12-3 0
CONC UNIT	:	ppb			

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT AREA	RESULT CONC	%D
alpha-BHC	20.0	12040	0	20.9	4
gamma-BHC	20.0	10611	0	20.4	2
beta-BHC	20.0	4807	100593	20.9	5
Heptachlor	20.0	9497	0	20.3	1
delta-BHC	20.0	10158	209619	20.6	3
Aldrin	20.0	10320	221180	21.4	7
Heptachlor Epoxide	20.0	9068	187819	20.7	4
gamma-Chlordane	20.0	9713	207550	21.4	7
Endosulfan I	20.0	9300	0	21.4	7
alpha-Chlordane	20.0	9783	210468	21.5	8
Dieldrin	40.0	8262	0	40.7	2
DDE	40.0	10100	415962	41.2	3
Endrin	40.0	6002	0	39.4	-2
[illegible] sulfan II	40.0	7038	289327	41.1	3
[illegible]	40.0	5744	11165	42.7	7
Endrin Aldehyde	40.0	5616	219943	39.2	-2
DDT	40.0	5751	0	36.5	-9
Endosulfan Sulfate	40.0	6358	257286	40.5	1
Endrin Ketone	40.0	5828	226470	38.9	-3
Methoxychlor	200.0	1884	0	176.2	-12
TCX	20.0	12542	257018	20.5	2
DCB	40.0	8014	314044	39.2	-2

Note : Ignored the area.

CONTINUE CALIBRATION
METHOD 8080

L Name : CKY Inc
Instrument ID : GC3
GC Columm : DB608
Column size ID : 0.32 (MM)
Mid Con Init LFID & Datime: PF07-7 06-07-96 16:07:20 PF07-8 0
Mid Con Cont LFID & Datime: PF12-20 06-12-96 22:00:05 PF12-21 0
CONC UNIT : ppb

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT AREA	RESULT CONC	%RSD
alpha-BHC	20.0	12040	0	24.8	24
gamma-BHC	20.0	10611	0	24.3	21
beta-BHC	20.0	4807	118264	24.6	23
Heptachlor	20.0	9497	0	22.7	13
delta-BHC	20.0	10158	245792	24.2	21
Aldrin	20.0	10320	251921	24.4	22
Heptachlor Epoxide	20.0	9068	215771	23.8	19
gamma-Chlordane	20.0	9713	240736	24.8	24
Endosulfan I	20.0	9300	241687	25.3	27
alpha-Chlordane					
Dieldrin	40.0	8262	0	48.8	22
DDE	40.0	10100	462042	45.7	14
Endrin	40.0	6002	0	48.1	20
Endosulfan II	40.0	7038	338498	48.1	20
	40.0	5744	12911	49.2	23
Endrin Aldehyde	40.0	5616	263514	46.9	17
DDT	40.0	5751	0	42.7	7
Endosulfan Sulfate	40.0	6358	298026	46.9	17
Endrin Ketone	40.0	5828	263575	45.2	13
Methoxychlor	200.0	1884	0	211.5	6
TCX	20.0	12542	259501	20.7	3
DCB	40.0	8014	337843	42.2	5

Note : Ignored the area. This was the last DDC on the sequence, so no corrective of action for %D out of control of +/- 15%.

CONTINUE CALIBRATION
METHOD 8080

Name : CKY Inc
Instrument ID : GC-3 HP-5890
GC Columm : ~~DB608~~/DB1701
Column size ID : 0.32MM X 30M
Mid Con Init LFID & Datime: QF07-7 06-07-96 16:07:20 QF07-8 0
Mid Con Cont LFID & Datime: QF10-2 06-10-96 12:07:47 QF10-3 0
CONC UNIT : ppb

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT AREA	RESULT CONC	%D
alpha-BHC	20.0	9103	0	19.4	-3
gamma-BHC	20.0	8505	0	19.3	-4
beta-BHC	20.0	4023	80544	20.0	0
Heptachlor	20.0	7211	0	19.9	-0
delta-BHC	20.0	7481	147856	19.8	-1
Aldrin	20.0	8497	173463	20.4	2
Heptachlor Epoxide	20.0	7611	153231	20.1	1
gamma-Chlordane	20.0	8021	160653	20.0	0
Endosulfan I	20.0	7683	0	19.3	-3
alpha-Chlordane	20.0	7972	161313	20.2	1
Dieldrin	40.0	7480	0	39.3	-2
DDE	40.0	8003	347092	43.4	8
Endrin	40.0	5547	0	38.9	-3
Endosulfan II	40.0	6034	254313	42.1	5
	40.0	5223	0	39.8	-0
rin Aldehyde	40.0	4798	211075	44.0	10
DDT	40.0	4553	0	39.3	-2
Endosulfan Sulfate	40.0	5415	233557	43.1	8
Endrin Ketone	40.0	5360	220515	41.1	3
Methoxychlor	200.0	1842	0	191.3	-4
TCX	20.0	9141	187572	20.5	3
DCB	40.0	6594	268601	40.7	2

Note : Ignored the area.

CONTINUE CALIBRATION
METHOD 8080

L Name : CKY Inc
Instrument ID : GC-3 HP-5890
GC Columm : ~~DB608~~/DB1701
Column size ID : 0.32MM X 30M
Mid Con Init LFID & Datime: QF07-7 06-07-96 16:07:20 QF07-8 0
Mid Con Cont LFID & Datime: QF10-17 06-10-96 21:03:16 QF10-18 0
CONC UNIT : ppb

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT AREA	RESULT CONC	%D %RSD
alpha-BHC	20.0	9103	0	22.5	12
gamma-BHC	20.0	8505	0	22.8	14
beta-BHC	20.0	4023	92051	22.9	14
Heptachlor	20.0	7211	0	22.5	12
delta-BHC	20.0	7481	173130	23.1	16
Aldrin	20.0	8497	190709	22.4	12
Heptachlor Epoxide	20.0	7611	172426	22.7	13
gamma-Chlordane	20.0	8021	182145	22.7	14
Endosulfan I	20.0	7683	0	22.3	12
alpha-Chlordane	20.0	7972	179119	22.5	12
Dieldrin	40.0	7480	0	45.8	15
DDE	40.0	8003	354292	44.3	11
Endrin	40.0	5547	0	47.0	17
Endosulfan II	40.0	6034	279532	46.3	16
[illegible]	40.0	5223	0	47.1	18
[illegible]drin Aldehyde	40.0	4798	230172	48.0	20
DDT	40.0	4553	0	43.3	8
Endosulfan Sulfate	40.0	5415	248305	45.9	15
Endrin Ketone	40.0	5360	248349	46.3	16
Methoxychlor	200.0	1842	0	221.1	11
TCX	20.0	9141	190935	20.9	4
DCB	40.0	6594	276158	41.9	5

Note : Ignored the area. This was the last DCC on the sequence, so no corrective of action for %D out of control of +/- 15%.

CONTINUE CALIBRATION
METHOD 8080

Lab Name	:	CKY Inc				
Instrument ID	:	GC-3 HP-5890				
GC Columm	:	DB1701				
Column size ID	:	0.32MM X 30M				
Mid Con Init LFID & Datime:		QF07-7	06-07-96	16:07:20	QF07-8	0
Mid Con Cont LFID & Datime:		QF12-2	06-12-96	11:18:00	QF12-3	0
CONC UNIT	:	ppb				

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT AREA	RESULT CONC	%RSD
alpha-BHC	20.0	9103	0	19.5	-2
gamma-BHC	20.0	8505	0	19.2	-4
beta-BHC	20.0	4023	80163	19.9	-0
Heptachlor	20.0	7211	0	19.0	-5
delta-BHC	20.0	7481	144762	19.3	-3
Aldrin	20.0	8497	179451	21.1	6
Heptachlor Epoxide	20.0	7611	154514	20.3	2
gamma-Chlordane	20.0	8021	169753	21.2	6
Endosulfan I	20.0	7683	0	19.5	-3
alpha-Chlordane	20.0	7972	171165	21.5	7
Dieldrin	40.0	7480	0	39.9	-0
DDE	40.0	8003	338375	42.3	6
Endrin	40.0	5547	0	36.5	-9
sulfan II	40.0	6034	241464	40.0	0
L	40.0	5223	0	41.8	4
Endrin Aldehyde	40.0	4798	191524	39.9	-0
DDT	40.0	4553	0	35.3	-12
Endosulfan Sulfate	40.0	5415	212514	39.2	-2
Endrin Ketone	40.0	5360	197892	36.9	-8
Methoxychlor	200.0	1842	0	164.1	-18 *
TCX	20.0	9141	192736	21.1	5
DCB	40.0	6594	261250	39.6	-1

* Out of control limit of +/- 15%

Note : Ignored the area.

CONTINUE CALIBRATION
METHOD 8080

Lab Name : CKY Inc
Instrument ID : GC3
GC Columm : DB1701
Column size ID : 0.32 (MM)
Mid Con Init LFID & Datime: QF07-7 06-07-96 16:07:20 QF07-8 0
Mid Con Cont LFID & Datime: QF12-20 06-12-96 22:00:05 QF12-21 0
CONC UNIT : ppb

COMPOUND	CONC 4.0X	AVERAGE CF	RESULT AREA	RESULT CONC	%D
alpha-BHC	20.0	9103	0	23.5	17
gamma-BHC	20.0	8505	0	23.6	18
beta-BHC	20.0	4023	93682	23.3	16
Heptachlor	20.0	7211	0	23.1	16
delta-BHC	20.0	7481	175689	23.5	17
Aldrin	20.0	8497	195464	23.0	15
Heptachlor Epoxide	20.0	7611	176656	23.2	16
gamma-Chlordane	20.0	8021	190655	23.8	19
Endosulfan I	20.0	7683	0	23.3	17
alpha-Chlordane	20.0	7972	188499	23.6	18
Dieldrin	40.0	7480	0	48.1	20
DDE	40.0	8003	359075	44.9	12
Endrin	40.0	5547	0	48.3	21
osulfan II	40.0	6034	290469	48.1	20
	40.0	5223	0	50.5	26
Endrin Aldehyde	40.0	4798	231892	48.3	21
DDT	40.0	4553	0	43.4	9
Endosulfan Sulfate	40.0	5415	250941	46.3	16
Endrin Ketone	40.0	5360	244781	45.7	14
Methoxychlor	200.0	1842	0	217.6	9
TCX	20.0	9141	193742	21.2	6
DCB	40.0	6594	277947	42.2	5

Note : Ignored the area. This was the last DDC on the sequence, so no corrective of action for %D out of control of +/- 15%.

ANALYSIS SEQUENCE AND EXTRACTION LOG

Areas, times, and heights stored in: E:QF10-17.ATB
SEQUENCE RECORDED IN F:\PF10.SEQ

SEQUENCE FILE: F:\PF10.SEQ

	SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	PIBLK01	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
2	DCC01 MIXA 4X	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
3	DCC01 MIXB 4X	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
4	PEM01	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
5	CPF011SB	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
6	CPF011SL	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
7	CPF011SC	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
8	96F022-01	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
9	96F022-01M	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
10	96F022-01S	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
11	96F022-02	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
12	96F022-03	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
13	96F022-04	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
14	96F022-07	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
15	96F022-08	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
16	PIBLK02	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
17	DCC02 MIXA 4X	SW1	PF10-	1.0000	1.0000	1.0000	1.0000
18	DCC02 MIXB 4X	SW1	PF10-	1.0000	1.0000	1.0000	1.0000

CKY Analytic[illegible]boratories
Sample Preparation Department

EXTRACTION LOG FOR PESTICIDES/PCBs

CKYT-E01-002

CLIENT: OHM
MATRIX: SOIL
METHOD: 8080
DATE EXTRACTED: 6/9/96
PAGE #: 104
DATE COMPLETED: 6/9/96

LAB SAMPLE ID	SAMPLE AMOUNT (g/ml)	pH	EXTRACT VOLUME (ml)	CLEAN-UP (G/S/A/F)	NOTES
CBF011 SB			10		
SL					
SC					
96F022-01	3.0				
1M					
1S					
2					
3					
4					
7					
8					

CLEAN-UP	CODE
GPC	G
TBA	S
ACID	A
FLORISIL	F

REAGENT	LOT #
Na2SO4	954496
CH2CL2	36079
HEXANE	962303

STANDARDS	ID	AMOUNT ADDED (ml)
SPIKE ID	S10C-01-0-26,27	0.5
SURROGATE ID	S10C-01-0-35-01	2.0

SDG #	EXTRACT LOCATION
	GC-RY-13

COMMENTS:

PREPARED BY: MM
STD's ADDED BY: MM/TOM
CHECKED BY: FY

Extracts Received By:

SEQUENCE RECORDED IN F:\PF12.SEQ

SEQUENCE FILE: F:\PF12.SEQ

	SAMPLE NAME	METHOD NAME	DATA FILE	AMOUNT INJECTED	INT.STD. AMOUNT	DILUTION FACTOR	SAMPLE WEIGHT
1	PIBLK01	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
2	DCC01 MIXA	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
3	DCC01 MIXB	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
4	PEM01	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
5	CPF013SB	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
6	CPF013SL	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
7	96F013-02	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
8	96F013-02M	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
9	96F013-02S	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
10	96F013-03	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
11	96F013-07	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
12	96F013-08	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
13	96F013-09	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
14	CPF012WB	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
15	CPF012WL	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
16	CPF012WC	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
17	96F022-05	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
18	96F022-06	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
19	PIBLK02	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
20	DCC02 MIXA	SW1	PF12-	1.0000	1.0000	1.0000	1.0000
21	DCC02 MIXB	SW1	PF12-	1.0000	1.0000	1.0000	1.0000

CKY Analytical Laboratories
Sample Preparation Department

EXTRACTION LOG FOR PESTICIDES/PCBs

CKYT–E01–002

CLIENT: OHM / CAMP LEJEUNE

MATRIX: WATER

METHOD: 8080

DATE EXTRACTED: 6/11/96 11:00

DATE COMPLETED: 6/12/96 9:00

LAB SAMPLE ID	SAMPLE AMOUNT (g/ml)	pH	EXTRACT VOLUME (ml)	CLEAN-UP (G/S/A/F)	NOTES
CP F012 WB	1000		10		
WL	↓		↓		
WC	↓		↓		
F022 -05	↓		↓		
-06	↓		↓		

CLEAN-UP	CODE
GPC	G
TBA	S
ACID	A
FLORISIL	F

REAGENT	LOT #
Na2SO4	954496
CH2CL2	36079
HEXANE	962303

STANDARDS	ID	AMOUNT ADDED (ml)
SPIKE ID	510C-01-0-26-02	0.5
SURROGATE ID	510C-01-0-35-02	1.0

SDG #	EXTRACT LOCATION
	GC-R1-E

COMMENTS:

PREPARED BY: TA

STD's ADDED BY: TA / MD

CHECKED BY: KY

Extracts Received By:

Appendix I

Well Abandonment Information

1531-112 MW-03

North Carolina
Department of Natural Resources and Community Development
Division of Environmental Management
P.O. Box 27687 - Raleigh, N.C. 27611

WELL ABANDOMENT RECORD

CONTRACTOR Groundwater Protection Inc. REG. NO. 1105

1. WELL LOCATION: (Show a sketch of the location on back of form.)
   Nearest Town: Jacksonville County Onslow
   _____ Quadrangle No. _____
   (Road, Community, Subdivision, Lot No.)
2. OWNER: Camp LeJune
3. ADDRESS: Jacksonville N. C.
4. TOPOGRAPHY: draw, slope, hilltop, valley, flat
5. USE OF WELL: Monitoring DATE: _____
6. TOTAL DEPTH: 35' DIAMETER: _____
7. CASING REMOVED:

feet	diameter

8. SEALING MATERIAL:

Neat cement	Sand cement
bags of cement 2	bags of cement ___
gals. of water 14	yds. of sand ___
	gals. of water ___

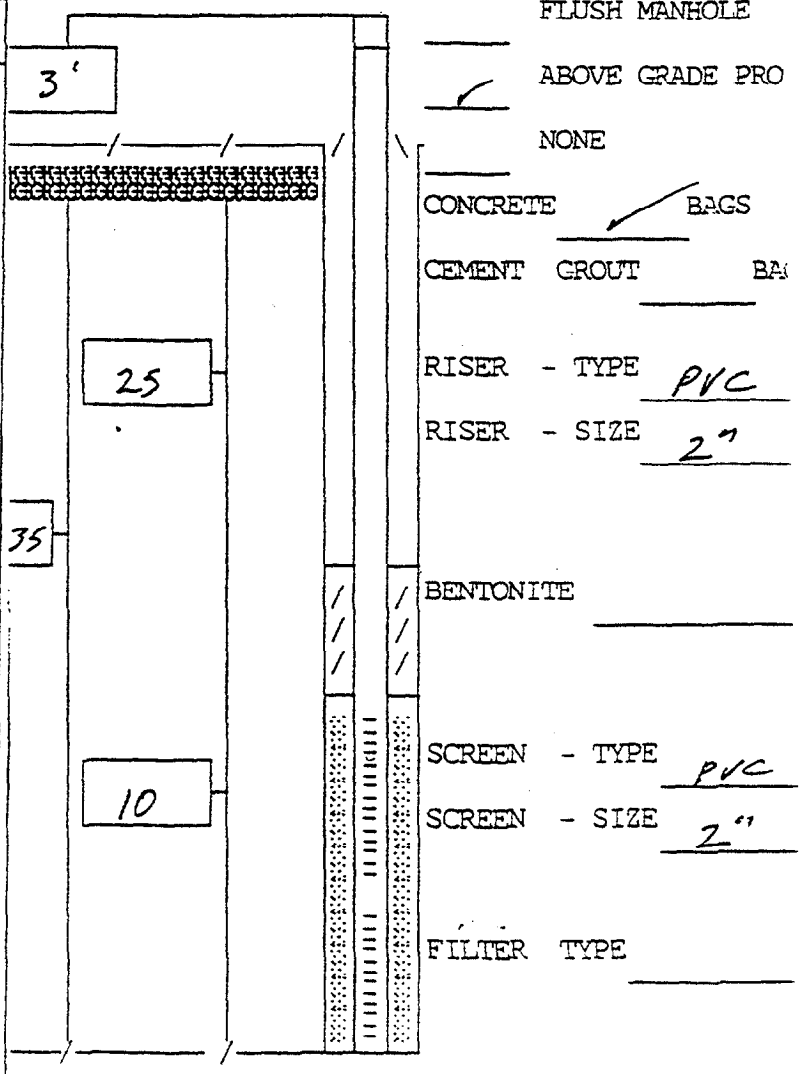
Other
Type material PVC Well
Amount _____

9. EXPLAIN METHOD OF EMPLACEMENT OF MATERIAL

I do hereby certify that this well abandonment record is true and exact.

Curt A. Benson
Signature of Contractor or Agent Date

WELL DIAGRAM: Draw a detailed sketch of the well showing total depth, depth and diameter of screens remaining in the well, gravel interval, intervals of casing perforations, and depths and types of fill material used.



Submit original to the Division of Environmental Management, one copy to the Driller, and one copy to the Owner.

Appendix J

Daily Safety Meeting Logs

4-17-96 Job # 18319

0900 - Health and safety meeting for start-up of site. Discuss level for sampling and biological Hazards and sign plan.

0930 - Start pitting in stakes for grids (sampling areas). Head to office because of pager from office. Head To Geiger for roll off pick-up.

1100 - Meet S.L. Pierce surveyors and locate all the points for griding Areas.

1130 - Grid one Area (AOC 39-42)

1215 - Break for lunch.

1245 - Begin setting Grids for AOC 21-24, AOC 25-28, and AOC 29-32.

1330 - Head To office. To converse with A. Whitt.

1400 - Begin filling out C.O.C.'s and maps with sample points for Field screening tomorrow.

1700 - Leave site

DAILY SAFETY MEETING LOG

Date: 4-18-96 Class: LAND DIV

Specific Location: CAMP LeJeune Job No. 16022, 15226, 183.1

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
Steven H. Diller	[signature]
James Letson	[signature]
Jerrod Shirts	[signature]
Randy Smith #3835	[signature]
Ann Whitt 9940	[signature]
Steve GRANT 8063	Steve Grant
AARON GRAN 4730	[signature]
STEPHEN M. PYLE 9821	[signature]
KRIS PHILLIPS	

April 18th, 1996

Safety & Operations meeting A. Wiltfit & R. Smith Discuss tasks for the day which includes Driller, Bio-cell work, and sampling site 80.

- Shift complete with no accidents or injuries

DAILY SAFETY MEETING LOG

Date: 4-19-96 Client: LANT DIV

Specific Location: CAMP LeJeune Job No. 16022, 15226, 18317

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
Steven H. Diller	[signature]
James Letson	[signature]
Jerrod Shirts	[signature]
Randy Smith #3835	[signature]
Ann Whitt 9940	[signature]
Steve GRANT 8063	Steve GRANT
AARON GRAN 4730	[signature]
STEPHEN M. PYLE 9821	[signature]
KRIS PHILLIPS	

April 19th, 1996

Safety & operations meeting R. Smith & Alan with it discuss task for the day which includes Bio-cell, Drilling, and sampling at site 80.

DAILY SAFETY MEETING LOG

Date: 4-22-96 Client: LAND DIV

Specific Location: CAMP LEJEUNE Job No. 16022 18319

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
Steven H. Diller	[signature]
James Letson	[signature]
Jerrod Shirts	[signature]
Randy Smith #3835	[signature]
Ann Watt 9940	[signature]
Steve GRANT 8063	Steve Grant
AARON GRAN 4730	[signature]
STEPHEN M. PYLE 9821	[signature]
KRIS PHILLIPS	

April 22nd

Safety operations meeting
A. Whit discusses task for
the day which includes
sampling at site 80, working
on Electrical conduct line,
And water line.
- Stress to crew About trenching
safety procedures
- All crews Following All of the
Heath & Safety plan.
- Shift complete with no Accidents
or Injuries.

Job #18319 Aaron R. Starr 4-23-96 Tuesday

0700- Health and safety meeting.
- Informed Allen yesterday afternoon that when I and S. Grant sampled on 4-18-96. AOC maps 21-24, AOC 25-28, and AOC 29-32 were turned 180° from the actual position. The problem has been corrected to indicate the correct location for each sample point. New COCs were made to coresponed with new map locations. The same sample number and time remains ~~the same~~ #6, only location changes.

0800- Gave Claudine new coc's to change locations in Data base to coresponed to actual locations for samples collected.

0830- Helped Claudine change Data base to coresponed to actual locations for the samples collected in AOC's 21-24, AOC 25-28, and AOC 29-32.

0900- start printing reports of updated Data base and fax to Jim Dunn

4-23-96

CAMP LEJEUNE

LAND DIV

Job No. 16032 18319

Steven A. Diller	
James Letson	
Jerrold Sheets	
Randy Smith #3535	
Sam Wyatt 9540	
Steve GRANT 8063	
Aaron GRANT 4730	
Stephen M. Pyle 9821	
Chris Phillips	

April 23rd, 19

SAFETY & OPERATIONS meeting
A. Wiltit discuss TASK FOR the
day which includes Electrical
conduct line, WATER line, And
sampling ATSite &
• shift complete with no
accidents or injury

DAILY SAFETY MEETING LOG

Date: 4-2496 Client: LANT DIV

Specific Location: CAMP LEJEUNE Job No. 16032 18319

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
Steven H. Diller	[signature]
James Letson	[signature]
Jerrod Shirts	[signature]
Randy Smith #3835	[signature]
Ann Wlitt 9940	[signature]
Steve GRANT 8063	Steve Grant
AARON GRAN 4730	[signature]
STEPHEN M. PYLE 9821	[signature]
KRIS PHILLIPS	

April 24th, 1996

Safety & operations meeting
A. whit discuss task for the
day which includes Electrical
conduct line, water line, Drillers,
and sampling site 80.
• Shift complete No Accidents
or Injuries.

DAILY SAFETY MEETING LOG

Date: 4-25-96 Client: LANT DIV

Specific Location: CAMP LEJEUNE Job No. 16022 (18319)

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
Steven H. Diller	[signature]
James Letson	[signature]
Jerrod Shirts	[signature]
Randy Smith #3835	[signature]
Ann Whitt 9940	[signature]
Steve GRANT 8063	Steve Grant
AARON GRAN 4730	[signature]
STEPHEN M. PYLE 9821	[signature]
KRIS PHILLIPS	

April 25th,

safety operations meeting
OHM crew will Be working
on Electrical conduette line,
water line, Drillers Are on
site, And sampling site 80.
- shift complete & with no
Accidents or Injuries.

DAILY SAFETY MEETING LOG

Date: 4-26-96 Client: LAND DIV

Specific Location: CAMP LeTourne Job No. 16022, 18319

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
Steven H. Diller	[signature]
James Letson	[signature]
Jerrod Shirts	[signature]
Randy Smith #3835	[signature]
Ann Whitt 9940	[signature]
Steve GRANT 8063	Steve Grant
AARON GRAN 4730	[signature]
STEPHEN M. PYLE 9821	[signature]
KRIS PHILLIPS	

April 26th, F

Safety operations meeting
A. with discuss TASK FOR the
day which includes Electrical
Conduette line, water, And site
80.
- Shift complete with NO
Accidents or Injuries

DAILY SAFETY MEETING LOG

Date: 4-29-96 Client: LANT DIV

Specific Location: CAMP LEJEUNE Job No. 16032 (18319)

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
Steven H. Diller	[signature]
James Letson	[signature]
Jerrod Shirts	[signature]
Randy Smith #3835	[signature]
Ann Watt 9940	[signature]
Steve GRANT 8063	Steve Grant
AARON GRAN 4730	[signature]
STEPHEN M. PYLE 9821	[signature]
KRIS PHILLIPS	

April 29

Safety operations meeting
A. Whit discuss task for
the day which includes
~~[illegible]~~ S.G water line, Electrical
conduette line, and sampling
at site 80.
Shift complete with
no injuries or accidents

[illegible]

Date: 4-30-96 Class: LAND DIV

Specific Location: CAMP LEJEUNE Job No. 16022 18319

SAFETY TOPIC PRESENTED:

ATTENDEES:

Name Printed	Signature
Steven H. Diller	[signature]
James Letson	[signature]
Jerrod Shirts	[signature]
Randy Smith #3835	[signature]
Ann Whitt 9940	[signature]
Steve GRANT 8063	Steve Grant
AARON GRAN 4730	[signature]
STEPHEN M. PYLE 9821	[signature]
KRIS PHILLIPS	

April 30th, 199

SAFety operations meeting
A. Whitt & Rismith discuss
task for the day which
includes waterline, Eletrical
conduite line, And sampling
At site 80
shift complete with
no Accidents or Injuries

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: 5-01-96

Client: LANTDIV

Specific Location: Camp LeJeune

Job No. 16032 (18319)

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed:	Signature:
Kenny Glover	Kenny Glover
AARON R. GRAN	Aaron R. Gran
Jerrad Shiets	J Shiets
Steven A. Diller	Steven A. Diller
Kris Phillips	Kris Phillips
Steven K. Grant	Steven K. Grant
Randy Smith	[illegible]

5-1-96

SAFety & operations meeting A. Whit & R. Smith discussed task for the day which includes Laying the Electrical conduct line And working on the water line.

- All crews stressed to to Follow All trenching SAFety procedures such AS keep two oFF EDGes & trenches can Be 5Ft or 4Ft with An oBstruction.
- All crews ARe Following the site Health & SAFety plAn procedures.
- Crews Begin to Breakdown, police, And secure All sites
- Shift complete with no Accidents or Injuries.

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: 5-2-96 Client: LANTDIV

Specific Location: Camp LeJeune Job No. 11.032 (18319)

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed:	Signature:
Kenny Glover	Kenny Glover
AARON R. GRAN	Aaron R. Gran
Jerrad Shiets	J Shiets
Steven A. Diller	Steven A. Diller
Kris Phillips	Kris Phillips
Steven K. Grant	Steven K. Grant
Rand Smith	[illegible]

5-2-96

SAFETY And operations meeting A. Whit & R. Smith ~~And~~ discuss TASKS For the day which includes laying Electrical conduit Line ~~Flood~~ Grouting manways, And sampling At Site 80.

- All crew Are talked to About Heat stress.
- All crews ARE ~~a~~ are aware of the At stress AND Are intaking plenty of Fluids
- crews Begin to Breakdown, police And secure All sites
- Site Secured
- Shift complete no Accidents or Injuries.

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: 5-03-96 Client: LANTDIV

Specific Location: CAMP LEJEUNE Job No. 11,032 / 12219

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed:	Signature:
Kenny Glover	Kenny Glover
AARON R. GRAN	Aaron R. Gran
Jerrad Shiets	J Shiets
Steven A. Diller	[illegible]
Kris Phillips	Kris Phillips
Randy Smith #5805	Randy Smith
Steven Kurst	Steven K. Kurst

5-3-96

SAFETY & OPERATION ~~SAFETY~~ meeting A. WHITT & R. SMITH discuss TASK FOR the day which includes laying Electrical conduette line, Grouting manhole, and sampling At site 80.

- stressed to crews About Biological HAZARDS such AS Bees, Tics And poison Ivey & Sumac.
- All crews Are Following All site Health & SAFety procedures AS per the site Health & SAFety plan.
- crews Begin to Breakdown, police, And secure All sites.
- shift complete with no Accidents OR Injuries.

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: 5-28-96 Client: LAND DIV

Specific Location: Camp LeJeune Job No. 16032 (18279)

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
Kenny Glover #4346	Kenny Glover
Jerrad Smith 9950	
Stephen Pyle 9821	
Chris Phillips 3044	
AARON R. GRAY	

5-28-96

Safety & operations meeting A. Whitt & R. Smith discuss task for the day which includes load out of contaminated soil from site 80, and ft/50 placing ladders in manholes.

- no Readings are noticed up while doing instrument readings
- All crew following All site Health And Safety procedures As per the site plan
- Shift complete with no Accidents or ~~Fatalities~~ Injuries

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: 5-29-96

Client: IANT DIV

Specific Location: Camp Lejeune

Job No. 16032 A319

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed:	Signature:
Kenny Glover #4346	Kenny Glover
Jerrad Shirts 9952	[illegible]
STEPHEN RULE 9821	[illegible]
Kris Phillips 3044	[illegible]
AARON R. GRAN 4720	Aaron R. Gran

5-29-96

Safety And operations meeting R. Smith & A. Whitt discuss TASK For the day which includes the Loadout of pesticide contaminated soil.

- All crews Are stressed to drink plenty of Fluids.
- No spikes are pickedup with the PID at site 80.
- Crews Following All site SAFETY procedures AS per site SAFETY plan
- Electricians Are on site pulling wire the Electrical conduet line.
- Crews Beg in to Breakdown, police, And secure site
- Shift complete with no Accidents or Injuries.

5-30-96

SAFety & opeeations meeting R. Smith discuss TASK FOR the day which includes the loading out of pesticide contaminated soil FOR OFF SITE disposal. Bolting ladders into manholes

- no spikes OR contaminates ARE recorded while doing AIR monitoring Readings.
- Stressed to load out crew ABOUT to keep proper comunication with truckdrivers to insure no Accidents.
- SHIFT complete with no Injuries OR Accidents

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: 5-31-96

Client: LANT DIV

Specific Location: Camp Le Jeune

Job No. 16032 + 181310

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
Kenny Glover #4346	Kenny Glover
Jerrad Shirts 9950	[illegible]
STEPHEN RULE 9521	[illegible]
Kris Phillips 7044	[illegible]
AARON R. GRAN 4720	Aaron R. Gran

5-31-96

Safety & operations meeting R. Smith discuss TASK FOR the day which includes Electricians on site, and load out At site 80.

- stressed to crew About Biological HAZARDS
- NO CONTAMINATES ARE picked up during Air MONITORING.
- crew ARE All Following The site Health & SAFety plan.
- SHIFT complete with no Accidents OR INJURIES

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date 6-3-96 — LANTDIV

Specific Location Camp LeJeune — Job No. 78319 16032

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed		Signature
AARON R. GRAN	4720	Aaron R. Gran
Kenny Glover	4346	Kenny Glover
Jerad Shivers	7952	J Shivers
STEPHEN M. RYLE	9821	

June 3RD, 1

SAFety & operations meeting R. Smith discuss TASK FOR the dAY wHicH iNcludes stockpileing soil AT site 80.

Bolting down well House & A/30 some sampling At site 80 (Level C) FoR sampling.

- All crews Following the site Health & SAFety plAn per site plAn
- crews Begin to Break down, police And secure All sites
- Sites Are secured

-SHIFt complete with no Accidents or INJuries.

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: 6-04-96 Client: LANTDIV

Specific Location: Camp LeJeune Job No. 18317, 16032

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed		Signature
AARON R. GRAN	4720	Aaron R. Gran
Kenny Glover	4346	Kenny Glover
Jerrod Shirts	9952	J Shirts
STEPHEN M. RYLE	9821	[illegible]
FRED PARKER		[illegible]

June 4th, 199

Safety & operations meeting Rismith discussed tasks for the day which includes load out of trucks (Pesticide contaminated soil) from site 80. Electricians on site for pulling wire through Electrical conduct line. Sampling at site 80 (Level C).

- Site 80 crew were made aware traffic hazards, and to set up communication with the truck drivers so to insure no accidents, because of communication.
- All crews are following all site health & safety procedures per the site plan.
- Crews begin to break down, police, and secure sites
- Site is secured.

Shift is complete with no Accidents or Injuries.

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: 6-5-96 Client: LAN TDIV

Specific Location: Camp LeLeJeune Job No. 16032 (18319)

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
Kenny Glover 4346	Kenny Glover
STEPHEN PYLE 9821	[illegible]
AARON R GRAJ 4720	[illegible]
Jerrad Shiets 9932	[illegible]
GARY WRIGHT ON SITE	Gary Wright

June 5th, 199

SAFety & OPERATIONS meeting

R. smith discussed TASKS FOR the day includes loading out TRUCKS FROM site 80, ELECTRICIA... will BE pulling ELECTRICAL WIRE THROUGH the ELECTRICAL CONDUET LINE

- ALL CREWS FOLLOWING ALL SITE SAFETY PROCEDURES AS PER the SITE HEALTH & SAFETY PLAN.
- CREWS BEGIN TO BREAKDOWN, POLICE, AND SECURE ALL SITES
- SHIFT COMPLETE WITH NO INJURIES OR ACCIDENTS.

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: 6-6-96 Client: LANT DIV

Specific Location: CAMP LEJEUNE Job No. 16032 (18219)

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed:	Signature:
GARY WRIGHT	
Kenny Glover	Kenny Glover
AARON R. GRAY	Aaron R Gray
Jerrad Shields	Shields
STEPHEN M. RYLE 9821	

June 6th, 19

Safety & operations meeting R. Smith & A. Whit discuss task for the day which includes welding pipe for well Houses, Load out of ~~possible~~ 56 Pesticide contaminated soil for off site disposal, And Electricians on site to Pull wire through Electrical conduct line.

All crews are Following All site safety procedures.

- Stressed to crew to drink plenty of Fluids For Heat stress prevention.
- Crews Begin to Breakdown, Police, And secure sites.
- Sites ~~are~~ secured
- Shift complete with no Accidents or Injuries.

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: 6-7-96 Client: LANTDIV

Specific Location: CAMP LEJEUNE Job No. 16032 18839

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed		Signature
STEPHEN M. PYLE	9821	[signature]
Kenneth Glover	4346	[signature]
GARY GIBIONI	OFF SITE	[signature]
HAROLD R GRAN	4720	[signature]

June 7

Safety + operations meeting A. Whitt
And R. Smith discuss task for 5.6
for the day which includes
Load of pesticide contaminated
soil, ~~Electricians~~ are on site
to pull wire and to set up Ele-
~~ctrical~~ Electrical conduct line.
Don Hatcher of Hatcher construction
on site for welding pipe
for the well houses
- Crews begin to break
down, police, and secure
all sites.
- Site secured
- Shift complete with no
accidents or injuries

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: 6/10/96 Client: LANTDIV

Specific Location: Camp LeJeune Job No. 16032 (18319)

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed		Signature
Kenny Glover	#4346	Kenny Glover
Jetrod Shirts	4950	[illegible]
GARY WRIGHT	ONSITE	[illegible]
AARON R. GRAN	4720	Aaron R. Gran

June 10th, 1996

SAFety & operations meeting R. Smith & A. whit discuss task For the day which includes loading out OF two trucks OF Pesticide contaminated soil For OFF site disposal. Electricians will Be on site to pull wire through the Electrical conduct line. Hatcher construction welder will Be on site to weld in And around pump Houses. crew Also working on Placing pumps & well Houses.

- crews ARe stressed to About drinking ~~Healthy~~ Plenty OF Fluids so to Prevent Heat stress.
- All crews ARe Following the SAFety procedures As Per the site Health & SAFety plan.

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: 6-11-96 Client: LANTDIV

Specific Location: Camp Le Jeune Job No. 16032, 12319

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
STEPHEN M. PYLE 9821	[signature]
Kenny D. Glover 4346	Kenny Glover
GARY WRIGHT ON SITE	[signature]
Randy Smith 2835	[signature]

June 11th, 1996

Safety & operations meeting
R. Smith & A. Whit discuss task which includes Backfill operations At site 80 (the Gulf Course). stress to site 80 crew About vehicle HAZARDS, Set up A comunication system with truck driver to insure no Accidents or Injuries.

- Electricians on site to Pull wire through the Electrical conduct line.
- welder Also on site to work on welding piping.
- All crews Are Following All site Health safety procedures As Per site safety plan
- Crews Begin to Breakdown, police, And secure site.
- site secured

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: June 12th, 1996 Class: LANTDIV

Specific Location: Camp LeJeune Job No. 16032, 18379

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
GARY WRIGHT	[signature]
Kenny Glover 4346	[signature]
Jerrod Shiets	[signature]
AARON R. GRAN 4720	[signature]

June 12th, 1996

SAFety & operations meeting
R. smith & A. wiltit discuss
task for the day which
includes BACKFILL operations
At site 80, stress to HAVE
A communication system
to insure no Accidents OR
INJuries.

- welder on site
- crew placing pumps And
  well Houses.
- Electricians Are pulling
  wire through ELECTRICAL conduct
  line.
- crews Begin to Breakdown, police
  & secure sites.
- sites Are secured
- SHIFTS ARE complete. ALL
  complete with no Accidents
  OR INJuries.

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date 6/13/96 Co. LANDAIR

Specific Location camp LeJeune Job No. 16032, 83109

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed		Signature
Kenny Glover	#4346	Kenny Glover
Jefrod Shirley	9952	J O Shirley
GARY WRIGHT	ONSITE	Gary Wright
AARON R. GRAY	4720	Aaron R. Gray

June 13th, 1996

safety & operations meeting
A. Whit discuss task for the day which includes BACKFILL operations at site 80, crew will be placing pumps and well houses. welder is onsite to work on welding piping. Electricians are pulling wire through Electrical conduct line.

shift complete with no injuries or accidents

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: June 14th, 1996 Client: LANTDIV

Specific Location: Camp LeJeune Job No. 16032, 18319

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
GARY WRIGHT	[signature]
Kenny Glover 4346.	[signature]
Jerred Shiets	[signature]
AARON R. GRAN 4720	[signature]

June 14th, 1996

Safety & operations meeting
A. Whit discuss tasks for the
day which includes Backfill operations
At site 80, Electricians pulling wire
through Electrical conduct line,
welder on site welding pipe
for Pump Houses.
shift complete with no Injuries
or Accidents.

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: 6/18/96 Client: LANTDIV

Specific Location: Camp LeJeune Job No. 16033 18319

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
Kenny Glover #4346	Kenny Glover
Jefrod Shirts 4950	[illegible]
GARY WRIGHT ONSITE	[illegible]
AARON R. GRAN 4720	Aaron R. Gran

June 18th, 1996

safety & operations A. white & R. smith discuss task for the day which includes welder on site and electricians are also on site

- All crews following all site health & safety procedures per the site health & safety plan
- crews begins to begin to breakdown police, and secure the sites.
- crew also worked on site restoration at site 806

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: June 19th

Client: LANTDIV

Specific Location: Camp LeJeune

Job No. 16032, 18319

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
GARY WRIGHT	
Kenny Graves 4346	
Jarrod Shivers	
AARON R. GRAN 4720	

June 19th, 1996

Safety & operations meeting
welders & ~~[illegible]~~ Electricians
Are on site.
- Crews are All Following All
site Safety procedures per the
site Health & Safety plan.
- Electricians working in well
Houses
- Shift complete with no Accident or
Injurics.
* crew Also worked on site
Restoration At site 80

DAILY SAFETY MEETING LOG
(CONTINUATION PAGE)

Date: June 17th — Crew: LANTDIV

Specific Location: Camp LeJeune — Job No. 16032 98319

SAFETY TOPICS PRESENTED:

ATTENDEES:

Name Printed	Signature
GARY WRIGHT	
Jerrold Shiets	
Kenny Glover	

Jarrett, Monday

- Safety & operations meeting A. Whit & R. Smith discuss JSA for the day which includes welders on site & Electricians A130 on site
- Crew is seeding & site Restoration at site 80.
- All crews are following all site Health & Safety plans ✓
- Shift complete with no injuries or accidents ✓