Versar INC.
ENVIRONMENTAL RISK MANAGEMENT

ORIGINAL
(Red)

Versar INC.

441603

HERBICIDE ANALYSIS
ANALYTICAL DATA PACKAGE

CLIENT: VERSAR DIV.31
SITE: CDM
PROJECT: 420.1 B#4
CONTROL: 2565
DATE: 05/22/90

6850 VERSAR CENTER • P.O. BOX 1549 • SPRINGFIELD, VIRGINIA 22151 • TELEPHONE: (703) 750-3000

Versar INC.

ORIGINAL
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I. NARRATIVE

II. QC SUMMARY

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Versar INC.

Herbicide Analysis Narrative
Versar Project Number 420.1 B# 4; Control# 2565
Client: Versar Div. 31; Camp, Dresser, McGee
May 21, 1990

Please find enclosed the analytical data and calculated results for the analysis of the samples received at Versar on 23 April, 1990. The package includes calculated and summarized results, as well as any QC samples processed with the batch.

All standard and QC data would indicate that the analysis is valid and representative for the samples without further qualification.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Reza Karimi

Dr. Reza Karimi
Section Chief
Applied Chromatography
Laboratory Operations

Versar INC.

ORIGINAL (Red)

Herbicide Analysis Detail
Versar Project Number 420.1 B# 4; Control# 2565
Client: Versar Div. 31; Camp, Dresser, McGee
May 21, 1990

Please find enclosed the analytical data and calculated results for the analysis of the samples received at Versar on 23 April, 1990. The samples were requested for extraction and analysis of chlorinated phenoxy herbicides 2,4-D and silvex under TCLP protocol. The samples were extracted and analyzed within the holding times prescribed in the Method. The date of extraction was 4 May, 1990 for the enclosed samples.

SAMPLES

Field ID#	Lab ID#
11	16960

Sample was extracted with batch 2 for which an MS/MSD extraction was provided.

Laboratory IDs were used in tracking samples throughout extraction and analysis.

All criteria were adhered to during analysis. All calibration standard comparison results were acceptable where required. All data has been reviewed for completeness and validity. The sample does not contain either herbicides listed on Forms I above the reported limits. The reported limits are based on the ability of the instrumentation to detect minimum concentrations of 0.02ug/ml at injection. A detection limit standard was analyzed in the sequence and is included in the standard section of the report.

The sample extracts were analyzed on a 3%SP2100 packed column chromatographic systems. All analyses were performed under five point calibration for each of the analytes of interest. Five concentrations of calibration standards were analyzed in calibration, but only three of five concentrations were used in the curve evaluation.

Linearity was evaluated prior to injection of sample extracts, and none of the analytes of interest exceeded the acceptance limits. Again, while five concentrations were analyzed in calibration, only three were evaluated for linearity.

Standard comparison results were acceptable where required. In the final standards none of the analytes exceeded the limits for quantitation.

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Versar INC.

The sample preparation section of the report includes sample comments in which each sequence is further discussed. The comments address any difficulties encountered during extraction and analysis.

The QC section of the report includes surrogate, matrix spike and matrix spike duplicate recoveries, as well as method blank results. Overall, QC for the case demonstrates acceptable extraction efficiency, with acceptable surrogate recoveries for all extracts. Matrix spike and matrix spiked duplicate recoveries were good with none of the four greater then 104 or less then 99 percent. Precision, as measured by the relative percent difference (RPD), was good at 5 and 2 percent. No qualified identifications or significant interferents were observed in the laboratory blanks.

If you have any questions regarding the pesticide results detailed herein, please feel free to call me at your convenience.

Christopher E. Bunker
Data Quality Analyst
Applied Chromatography
Laboratory Operations

ORIGINAL (Red)

WATER PESTICIDE SURROGATE RECOVERY

Lab Name: VERSAR, INC Contract: _____

Lab Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: X4

	EPA SAMPLE NO.	S1 (DBC) #	OTHER
01	~~1~~	~~90~~	
02	~~1MS~~	~~94~~	
03	~~1MSD~~	~~91~~	
04	11	98	
05	PBLK27	97	
06	TCLPBLK1	91	
07	TCLPBLK2	91	
08			
09			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

CDB 5/22/90

ADVISORY QC LIMITS (24-154)

S1 (DBC) = Dibutylchlorendate

Column used to flag recovery values

* Values outside of QC limits

D Surrogates diluted out

FORM II PEST-1 1/87 Rev

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WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Versar Inc Contract: _____

Lab Code: Versar Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix Spike - EPA Sample No.: 1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC
Lindane PC 2,4D	5000	~~5197~~ 0	5197	104	56-1
Heptachlor SILVEX	5000	~~5173~~ 0	5173	103	40-1
Aldrin					40-1
Dieldrin					52-1
Endrin					56-1
4,4' DDT					38-1

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Lindane PC 2,4D	5000	4971	99	5	15	56-1
Heptachlor SILVEX	5000	5029	101	2	20	40-1
Aldrin					22	40-1
Dieldrin					18	52-1
Endrin					21	56-1
4,4' DDT					27	38-1

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: MS/MSD SAMPLE #1 IS R#2 (EXTRACTED WITH R#4) SAMPLES WITH R#8.

OSB 5/22/90

FORM III PEST-1 1/87 Rev

100006

ORIGINAL (Red)

PESTICIDE METHOD BLANK SUMMARY

Lab Name: VERSAR, INC Contract: -

Lab Code: VERSAR Case No.: R3-7 SAS No.: - SDG No.: 4

Lab Sample ID: RB 8027 Lab File ID: _____

Matrix: (soil/water) H2O Level: (low/med) Low

Date Extracted: 05-04-90 Extraction: (SepF/Cont/Sonc) SepF

Date Analyzed (1): 05-10-90 Date Analyzed (2): _____

Time Analyzed (1): 0720 Time Analyzed (2): _____

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

GC Column ID (1): 30mSP2100 GC Column ID (2): _____

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01		16418	05-10-90	
02	~~MS~~	~~16418MS~~		
03	~~MSD~~	~~16418MSD~~		
04	"	16960	05/10/90	
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

OB 5/22/90

COMMENTS: B#4 only. B#2 which ran with B#4 is marked out.

FORM IV PEST

1/87 Re

ORIGINAL
(Red)

Versar INC.

III. SAMPLE DATA PACKAGE

D 1D EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

ORIGINAL (Red) 11

Lab Name: VERSAR, INC. Contract:

Lab Code: VERSAR Case No.: R3-7 SAS No.: SDG No.: 4 CD 5/24/90

Matrix: (soil/water) WATER Lab Sample ID: 16960

Sample wt/vol: 10 (g/ml) ML Lab File ID:

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. dec. Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/10/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4 D	800	U
93-72-1	SILVEX	800	U

FORM I PEST 1/87 Rev.

D

100009

ORIGINAL
(Red)

CLIENT VERSCOM

CASE # R3-7 DATA REDUCTION FORM

ANALYSIS DATE 05/10/90
SAMPLE # 16960

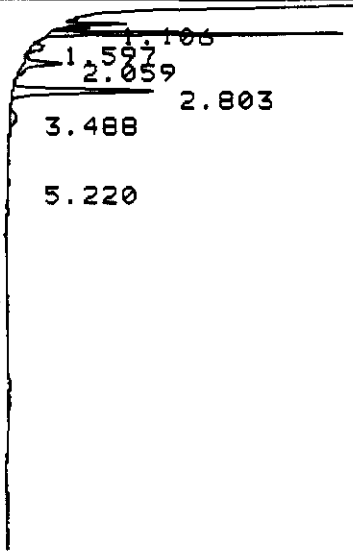
COMPOUND	RT WINDOW	SAMPLE RT	SAMPLE AREA	/ CALIB FACTOR =	NG INJECTED	/ INJECT VOLUME (uL)	= INJECT CONC (ug/ml)	X DF	= SAMPLE CONC (ug/L) OR (ug/Kg)	DETECTION LIMIT (ug/L) OR (ug/Kg)	
2,4-D	1.48 - 1.50	X	NA	23722.22	0.00	2.00	0.00	40000.00	0.00	400.00	
SILVEX	2.10 - 2.14	X	NA	110702	0.00	2.00	0.00	40000.00	0.00	400.00	
2,4-DB(SSS)	2.78 - 2.84	2.80	3651.00	14925.00	0.24	2.00	0.12	40000.00	4892.46	400.00	98
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00	

5-16-90

100010

ORIGINAL
(Red)

CHART SPEED 0.5 CM/MIN
ATTEN: 4 ZERO: 5%



INST NO. ~~B~~ C 2.0 ul
3% SP2100
DATE 05 / 10 / 90 TIME 0921
SAMPLE 16960

TITLE: CLP PESTICIDES 9:27 10 MAY 90

CHANNEL NO: 2 SAMPLE: 16960 METHOD: CLP-2A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		3732	1.251		3732	VB	3.75
2	G-BHC	1106	2.059	-0.101	1106	VB	6.15
3	2,4 DB	3651	2.803		3651	BB	7.45
TOTALS:		8489		-0.101	8489		

DETECTED PKS: 10 REJECTED PKS: 7

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 6.1 OFFSET: -16

RACK: 2 VIAL: 10 INJ: 1

NOTES:
INSTRUMENT ID: C
COLUMN: 3% SP2100
INJECTION VOLUME 2 UL
ORT= OUTSIDE RETENTION TIME WINDOW
GTIYORK 2454 EPTOX HERB
VERSCDM 2536,2565 TCLP HERB
TIYORK 2597 EPTOX HERB

varian /sunnyvale,calif.p/n 13-906362-00

D 1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ORIGINAL (Red)

TCLPBLANK1

Lab Name: VERSAR, INC. Contract: _____

Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) WATER Lab Sample ID: TCLPBLK1

Sample wt/vol: 10 (g/ml) ML Lab File ID: ____

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. _____ dec. _____ Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/10/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7--------	2,4 D	800	U
93-72-1--------	SILVEX	800	U

05-16-90

FORM I PEST 1/87 Rev.

D

100012

ORIGINAL
(Red)

CLIENT VERSCOM

CASE # R3-7 DATA REDUCTION FORM

ANALYSIS DATE 05/10/90
SAMPLE # TCLPBLK1

COMPOUND	RT WINDOW	SAMPLE RT	SAMPLE AREA	/ CALIB FACTOR =	NG INJECTED	/ INJECT VOLUME (uL)	= INJECT CONC (ug/ml)	X DF	= SAMPLE CONC (ug/L) OR (ug/Kg)	DETECTION LIMIT (ug/L) OR (ug/Kg)
2,4-D	1.48 - 1.50	X	NA	23722.22	0.00	2.00	0.00	40000.00	0.00	400.00
SILVEX	2.10 - 2.14	X	NA	110702	0.00	2.00	0.00	40000.00	0.00	400.00
2,4-DB(SSS)	2.78 - 2.84	2.80	3549.00	114925.00	0.24	2.00	0.12	40000.00	4755.78	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00

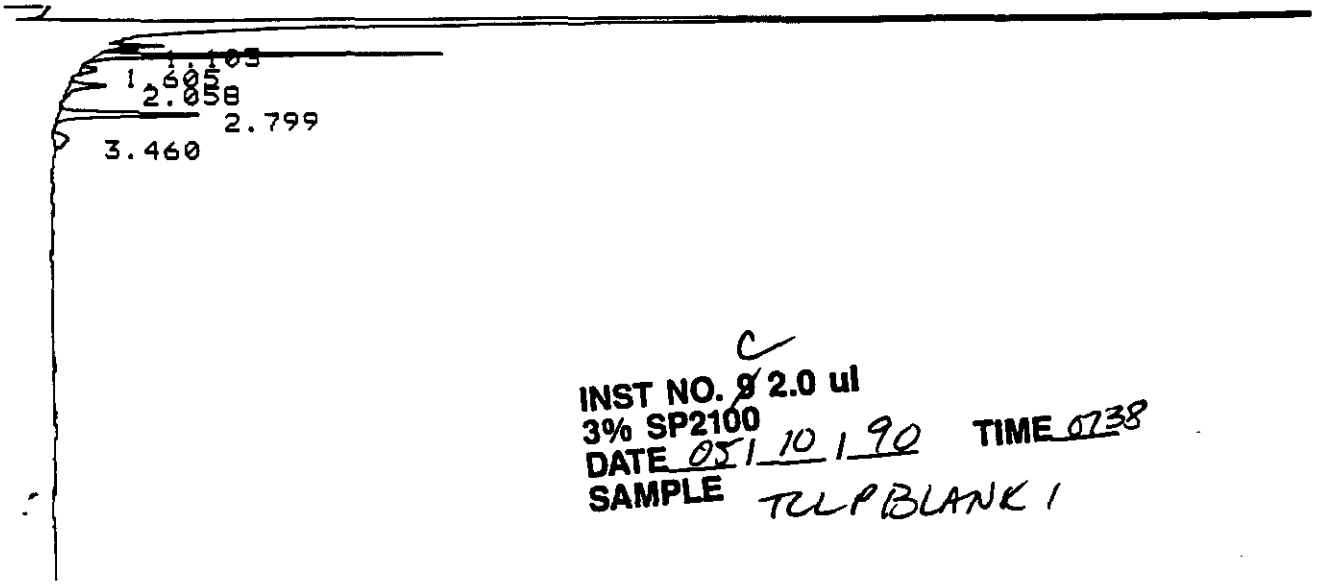
95

05-16-90

100013

ORIGINAL
(Red)

CHART SPEED 0.5 CM/MIN
A: 4 ZERO: 5%



INST NO. C 2.0 ul
3% SP2100
DATE 05/10/90 TIME 0738
SAMPLE TCLPBLANK 1

TITLE: CLP PESTICIDES 7:38 10 MAY 90

CHANNEL NO: 2 SAMPLE: TCLPBLANK1 METHOD: CLP-2A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		4621	1.247		4621	VB	3.70
2	G-BHC	1130	2.058	-0.102	1130	VB	6.40
3	2,4-DB	3549	2.799		3549	BB	7.50
4	HEPTACHLOR	718	3.460	-0.040	718	BB	? 19.40
TOTALS:		10018		-0.142	10018		

DETECTED PKS: 8 REJECTED PKS: 4

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 6.1 OFFSET: -10

RACK: 2 VIAL: 1 INJ: 1

NOTES:
INSTRUMENT ID: C
COLUMN: 3% SP2100
INJECTION VOLUME 2 UL
ORT= OUTSIDE RETENTION TIME WINDOW
TIYORK 2454 EPTOX HERB
RSCDM 2536,2565 TCLP HERB
TIYORK 2597 EPTOX HERB

varian /sunnyvale calif n/a 03-906362-00

D 1D EPA SAMPLE NO

PESTICIDE ORGANICS ANALYSIS DATA SHEET

ORIGINAL (Red) TCLPBLANK2

Lab Name: VERSAR, INC. Contract: _____

Code: VERSAR Case No.: R3-7 SAS No.: _____ SDG No.: 4

Matrix: (soil/water) WATER Lab Sample ID: TCLPBLK2

Sample wt/vol: 10 (g/ml) ML Lab File ID: ____

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. _____ dec. _____ Date Extracted: 05/04/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/10/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4 D	800	U
93-72-1	SILVEX	800	U

05/16/90

FORM I PEST 1/87 Rev.

D

100015

ORIGINAL
(Red)

CLIENT _____ VERSCOM

CASE # _____ R3-7 DATA REDUCTION FORM

ANALYSIS DATE _____ 05/10/90
SAMPLE # TCLPBLK2

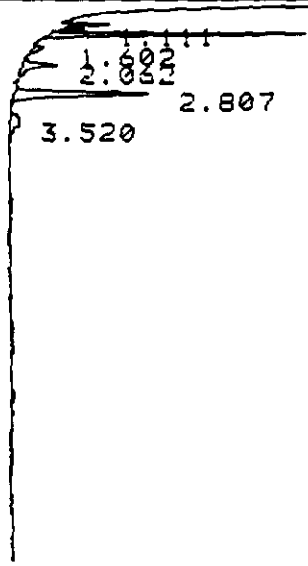
COMPOUND	RT WINDOW	SAMPLE RT	SAMPLE AREA	/ CALIB FACTOR =	NG INJECTED	/ INJECT VOLUME (uL)	= INJECT CONC (ug/ml)	X DF	= SAMPLE CONC (ug/L) OR (ug/Kg)	DETECTION LIMIT (ug/L) OR (ug/Kg)
2,4-D	1.48 - 1.50	X	NA	23722.22	0.00	2.00	0.00	40000.00	0.00	400.00
SILVEX	2.10 - 2.14	X	NA	110702	0.00	2.00	0.00	40000.00	0.00	400.00
2,4-DB(SSS)	2.78 - 2.84	2.81	3407.00	114925.00	0.23	2.00	0.11	40000.00	4565.49	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00

05-16-90

100016

ORIGINAL
(Red)

CH SPEED 0.5 CM/MIN
A 4 ZERO: 5%



INST NO. C 2.0 ul
3% SP2100
DATE 05/10/90 TIME 0756
SAMPLE TCLP BLANK2

TITLE: CLP PESTICIDES 7:56 10 MAY 90

CHANNEL NO: 2 SAMPLE: TCLPBLANK2 METHOD: CLP-2A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		3299	1.254		3299	VB	3.85
2	G-BHC	982	2.062	-0.098	982	VB	6.00
3	2,4-DB	3407	2.807		3407	BB	7.50
TOTALS:		7688		-0.098	7688		

DETECTED PKS: 7 REJECTED PKS: 4

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 6.1 OFFSET: -9

RACK: 2 VIAL: 2 INJ: 1

NOTES:
INSTRUMENT ID: C
COLUMN: 3% SP2100
INJECTION VOLUME 2 UL
ORT= OUTSIDE RETENTION TIME WINDOW
GTIYORK 2454 EPTOX HERB
'ERSCDM 2536,2565 TCLP HERB
GTIYORK 2597 EPTOX HERB

varian /sunnyvale, calif. p/n 03-906362-00

ORIGINAL
(Red)

IV. STANDARDS DATA

STANDARD CURVE DATA ENTRY FORM

ORIGINAL
(Red)

CURVE #_____1 INSTRUMENT ID _____C

CASE # _____R3-7 COLUMN _____3%SP2100

ANALYSIS DATE _____05/10/90 ANALYST _____TPH

CONTRACT #_____

INJECTION VOLUME = 2.00 ul

ANALYTE	STD #1 CONC = 0.05 ug/ml		STD #2 CONC = 0.10 ug/ml		STD #3 CONC = 0.15 ug/ml	
	RT	AREA	RT	AREA	RT	AREA
2,4-D	1.50	2235	1.49	4806	1.49	7436
SILVEX	2.13	10882	2.12	22101	2.12	33834
2,4-DB(SSS)	2.81	X	2.81	2985	2.81	X
	X	X	X	X	X	X
	X	X	X	X	X	X
	X	X	X	X	X	X
	X	X	X	X	X	X
	X	X	X	X	X	X
	X	X	X	X	X	X
	X	X	X	X	X	X
	X	X	X	X	X	X
	X	X	X	X	X	X
	X	X	X	X	X	X
	X	X	X	X	X	X
	X	X	X	X	X	X
	X	X	X	X	X	X
	X	X	X	X	X	X
	X	X	X	X	X	X
	X	X	X	X	X	X

100019

05-16-90

ORIGINAL
(Red)

STANDARD CURVE DATA SUMMARY FORM

CURVE # 1 INSTRUMENT ID C

CASE # R3-7 COLUMN 3%SP2100

ANALYSIS DATE 05/10/90 ANALYST TPH

CONTRACT #

INJECTION VOLUME = 2.00 ul

ANALYTE	STD #1 CALIBRATION FACTOR	STD #2 CALIBRATION FACTOR	STD #3 CALIBRATION FACTOR	AVERAGE CALIBRATION FACTOR	%RSD	RETENTION TIME WINDOW (min)
2,4-D	22350	24030	24787	23722	5	0.01
SILVEX	108820	110505	112780	110702	2	0.02
2,4-DB(SSS)	14925	14925	14925	14925	0	0.03
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00
	0	0	0	0	ERR	0.00

100020

JAH 05-10-90

DAILY STANDARD DATA ENTRY FORM

ORIGINAL
(Red)

CLIENT VERSCOM INSTRUMENT ID C

CASE # R3-7 COLUMN 3%SP2100

ANALYSIS DATE 05/10/90 ANALYST TPH

CONTRACT #

INJECTION VOLUME = 2.00 ul DAILY1

ANALYTE	STANDARD CONC (ug/ml)	BEGINNING STANDARD RT	BEGINNING STANDARD AREA	STANDARD CONC (ug/ml)	FINAL STANDARD RT	FINAL STANDARD AREA
2,4-D	0.10	1.49	4806	0.10	1.487	5622
SILVEX	0.10	2.12	22101	0.10	2.121	25492
2,4-DB(SSS)	0.10	2.81	2985	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X

05-16-90

100021

DAILY STANDARD SUMMARY FORM

ORIGINAL

CLIENT VERSCDM INSTRUMENT ID C

CASE # R3-7 COLUMN 3%SP2100

ANALYSIS DATE 05/10/90 ANALYST TPH

CONTRACT #

ANALYTE	BEGINNING RETENTION TIME	BEGINNING CAL FACTOR	FINAL RETENTION TIME	FINAL CAL FACTOR	%D RT	%D CAL FACTOR
2,4-D	1.49	24030	1.49	28110	0.1	17.0
SILVEX	2.12	110505	2.12	127460	0.0	15.3
2,4-DB(SSS)	2.81	14925	X	ERR	100.0	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR

05-16-90

100022

DAILY STANDARD COMPARISON TO CURVE

ORIGINAL

INSTRUMENT ID _____C ANALYST, STANDARD CUR TPH

COLUMN _____3%SP2100 ANALYST, DAILY STANDARD _____TPH

CURVE #——)
DATE——) 05/10/90 DAILY1

ANALYTE	AVERAGE RT FROM CURVE	CAL FACTOR FROM CURVE	RETENTION TIME, DAILY STANDARD	CAL FACTOR, DAILY STANDARD	%D RT	%D CAL FACTOR
2,4-D	1.49	23722	1.49	28110	-0	18
SICVEX	2.12	110702	2.12	127460	-0	15
2,4-DB(SSS)	2.81	14925	X	ERR	-100	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR

JAH 05-16-90

100023

DAILY STANDARD DATA ENTRY FORM

ORIGINAL

CLIENT VERSCDM INSTRUMENT ID C

CASE # R3-7 COLUMN 3%SP2100

ANALYSIS DATE 05/10/90 ANALYST TPH

CONTRACT #

INJECTION VOLUME = 2.00 ul DAILY2

ANALYTE	STANDARD CONC (ug/ml)	BEGINNING STANDARD RT	BEGINNING STANDARD AREA	STANDARD CONC (ug/ml)	FINAL STANDARD RT	FINAL STANDARD AREA
2,4-D	0.10	1.49	4806	0.10	1.489	5488
SILVEX	0.10	2.12	22101	0.10	2.124	25003
2,4-DB(SSS)	0.10	2.81	2985	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X
	0.00	X	X	0.00	X	X

05 16 90

100024

DAILY STANDARD SUMMARY FORM

ORIGINAL (Red)

CLIENT VERSCOM INSTRUMENT ID C

CASE # R3-7 COLUMN 3%SP2100

ANALYSIS DATE 05/10/90 ANALYST TPH

CONTRACT #

ANALYTE	BEGINNING RETENTION TIME	BEGINNING CAL FACTOR	FINAL RETENTION TIME	FINAL CAL FACTOR	%D RT	%D CAL FACTOR
2,4-D	1.49	24030	1.49	27440	-0.1	14.2
SILVEX	2.12	110505	2.12	125015	-0.1	13.1
2,4-DB(SSS)	2.81	14925	X	ERR	100.0	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR
	X	0	X	ERR	ERR	ERR

05-16-90

100025

DAILY STANDARD COMPARISON TO CURVE

ORIGINAL (Red)

INSTRUMENT ID _____C ANALYST, STANDARD CUR TPH

COLUMN _____3%SP2100 ANALYST, DAILY STANDARD _____TPH

CURVE #---->
DATE----> 05/10/90 DAILY2

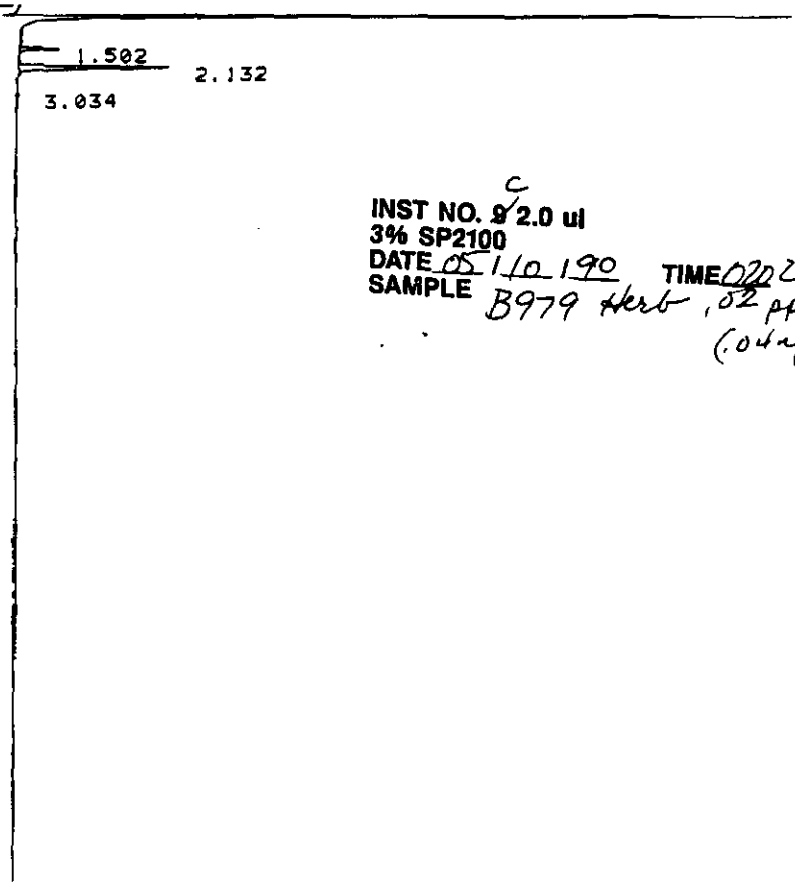
ANALYTE	AVERAGE RT FROM CURVE	CAL FACTOR FROM CURVE	RETENTION TIME, DAILY STANDARD	CAL FACTOR, DAILY STANDARD	%D RT	%D CAL FACTOR
2,4-D	1.49	23722	1.49	27440	-0	16
SILVEX	2.12	110702	2.12	125015	0	13
2,4-DB(SSS)	2.81	14925	X	ERR	-100	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR
	0.00	0	X	ERR	ERR	ERR

JAH 05-16-90

100026

ORIGINAL
(Red)

CHART SPEED 0.5 CM/MIN
ATTEN: 4 ZERO: 5%



INST NO. ~~B~~ C 2.0 ul
3% SP2100
DATE 05/10/90 TIME 0202
SAMPLE B979 Herb .02 ppm
(.04ng)

varian sunnyvale calif p/n 13-906362-00

TITLE: CLP PESTICIDES 2:02 10 MAY 90

~~CHANNEL NO: 2 SAMPLE: B979 HERB .02 METHOD: CLP-2H~~

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	~~DCB~~ 2,4-D	781	1.502		781	BB	4.55
2	~~G-BHC~~ Silvex	3828	2.132	-0.028	3828	BB	5.90
TOTALS:		4609		-0.028	4609		

DETECTED PKS: 4 REJECTED PKS: 2

DIVISOR: 1.00000 MULTIPLIER: 10000.0

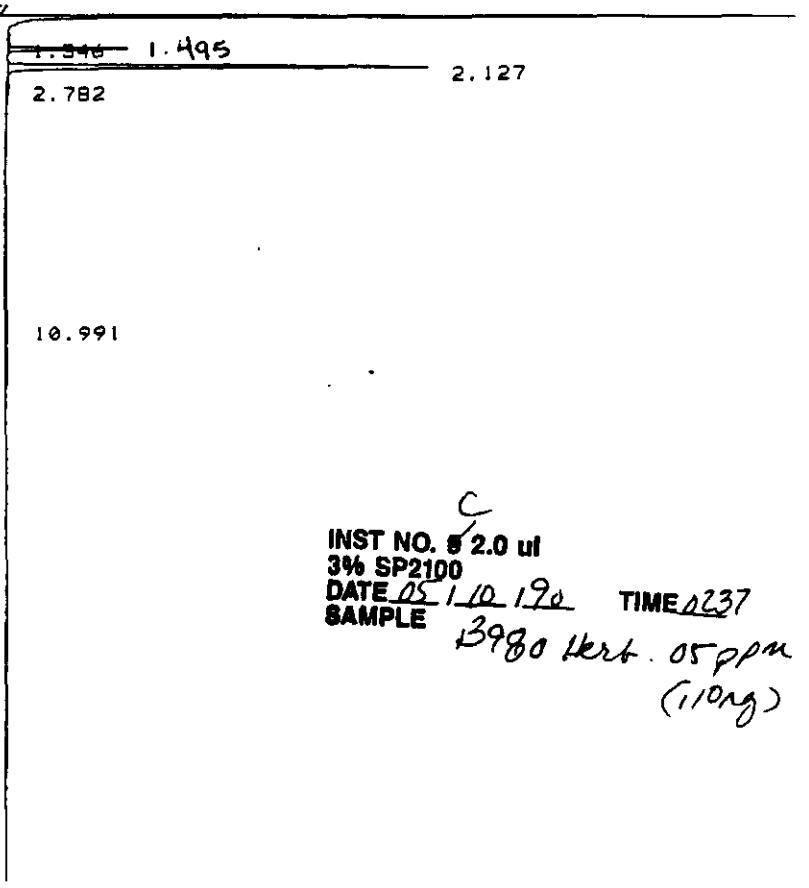
NOISE: 6.1 OFFSET: -7

RACK: 1 VIAL: 1 INJ: 1

NOTES:
INSTRUMENT ID: C
COLUMN: 3% SP2100
INJECTION VOLUME 2 UL
ORT= OUTSIDE RETENTION TIME WINDOW
GTIYORK 2454 EPTOX HERB
VERSCDM 2536,2565 TCLP HERB
GTIYORK 2597 EPTOX HERB

ORIGINAL
(Red)

CHART SPEED 0.5 CM/MIN
ATTEN: 4 ZERO: 5%



INST NO. ~~B~~ C 2.0 ul
3% SP2100
DATE 05/10/90 TIME 0237
SAMPLE B980 Herb. 05ppm
(110ng)

TITLE: CLP PESTICIDES 2:37 10 MAY 90

CHANNEL NO: 2 SAMPLE: B980 HERB.05 METHOD: CLP-2A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	2,4-D	2235	1.495		2235	VB	4.25
2	~~G-BHC~~ Silver	10882	2.127	-0.033	10882	BB	5.85
TOTALS:		13117		-0.033	13117		

DETECTED PKS: 7 REJECTED PKS: 5

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 6.1 OFFSET: -10

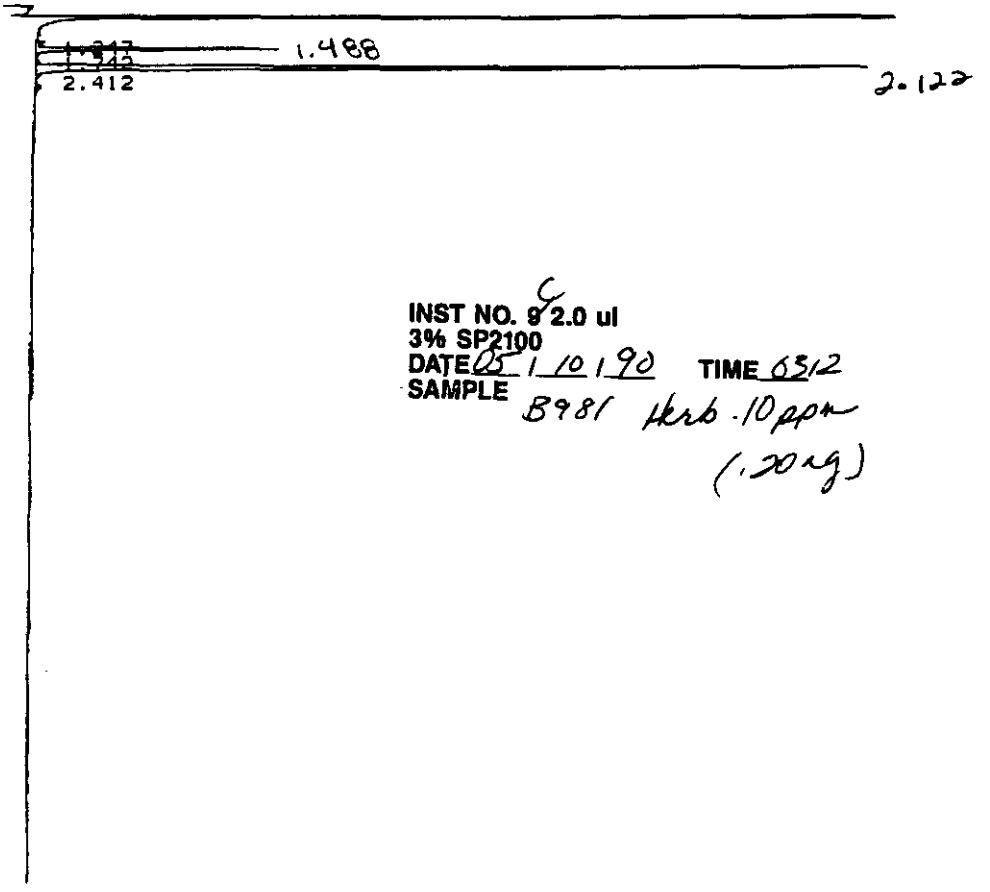
RACK: 1 VIAL: 2 INJ: 1

NOTES:
INSTRUMENT ID: C
COLUMN: 3% SP2100
INJECTION VOLUME 2 UL
ORT• OUTSIDE RETENTION TIME WINDOW
GTIYORK 2454 EPTOX HERB
VERSCDM 2536,2565 TCLP HERB
GTIYORK 2597 EPTOX HERB

13-906362-00

ORIGINAL
(Red)

CHART SPEED 0.5 CM/MIN
ATTEN: 4 ZERO: 5%



INST NO. C 2.0 ul
3% SP2100
DATE 05 / 10 / 90 TIME 0312
SAMPLE B981 Herb .10 ppm
(.20 ng)

TITLE: CLP PESTICIDES 3:12 10 MAY 90

CHANNEL NO: 2 SAMPLE: B981 HERB.10 METHOD: CLP-2A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	2,4-D	4806	1.488		4806	VV	4.30
2	~~G-BHC~~ Silvex	22101	2.122	-0.038	22101	VV	6.00
TOTALS:		26907		-0.038	26907		

DETECTED PKS: 9 REJECTED PKS: 7

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 6.1 OFFSET: -18

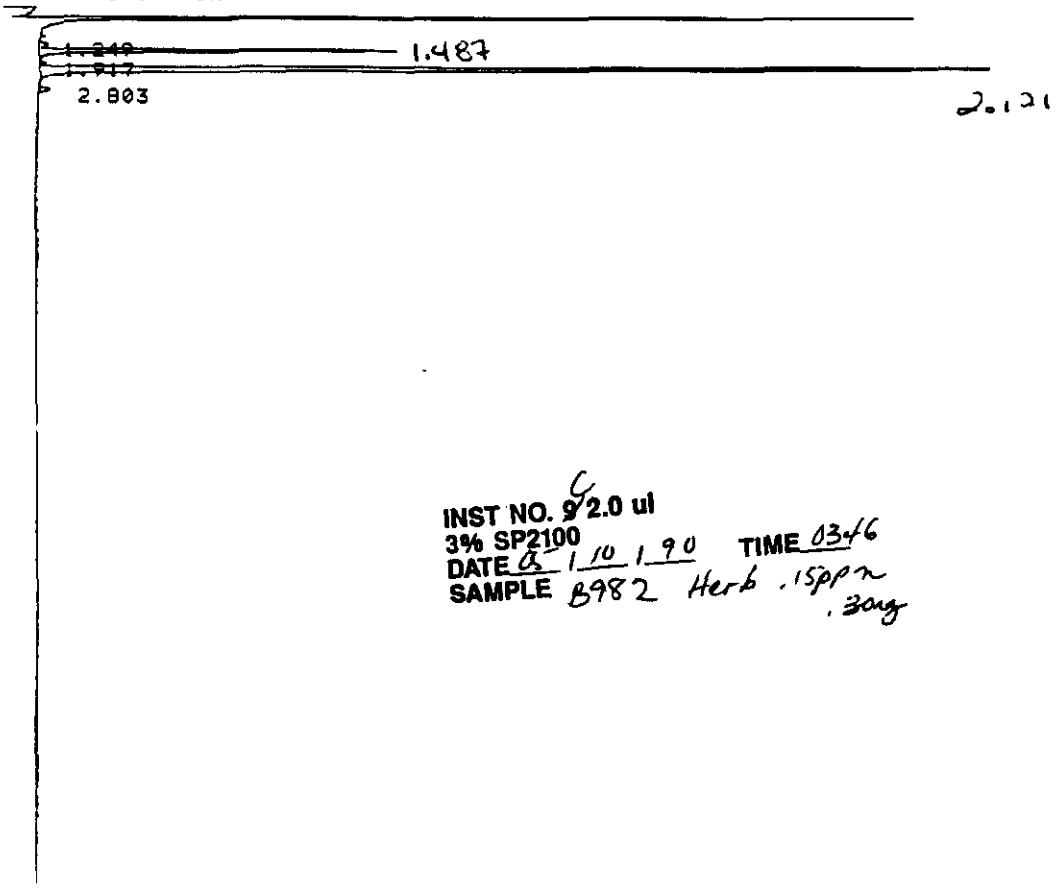
RACK: 1 VIAL: 4 INJ: 1

NOTES:
INSTRUMENT ID: C
COLUMN: 3% SP2100
INJECTION VOLUME 2 UL
ORT= OUTSIDE RETENTION TIME WINDOW
GTIYORK 2454 EPTOX HERB
VERSCDM 2536,2565 TCLP HERB
GTIYORK 2597 EPTOX HERB

varian 'sunnyvale calif p/n 13-906362-0

ORIGINAL
(Red)

CHART SPEED 0.5 CM/MIN
ATTEN: 4 ZERO: 5%



INST NO. C 2.0 ul
3% SP2100
DATE 5/10/90 TIME 0346
SAMPLE B982 Herb .15ppm .30ug

TITLE: CLP PESTICIDES 3:46 10 MAY 90

CHANNEL NO: 2 SAMPLE: B982 HERB.15 METHOD: CLP-2A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	2,4-D	7436	1.487		7436	VV	4.65
2	~~C-BHC~~ silvex	33834	2.121	-0.039	33834	VB	6.25
TOTALS:		41270		-0.039	41270		

DETECTED PKS: 6 REJECTED PKS: 4

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 6.1 OFFSET: -12

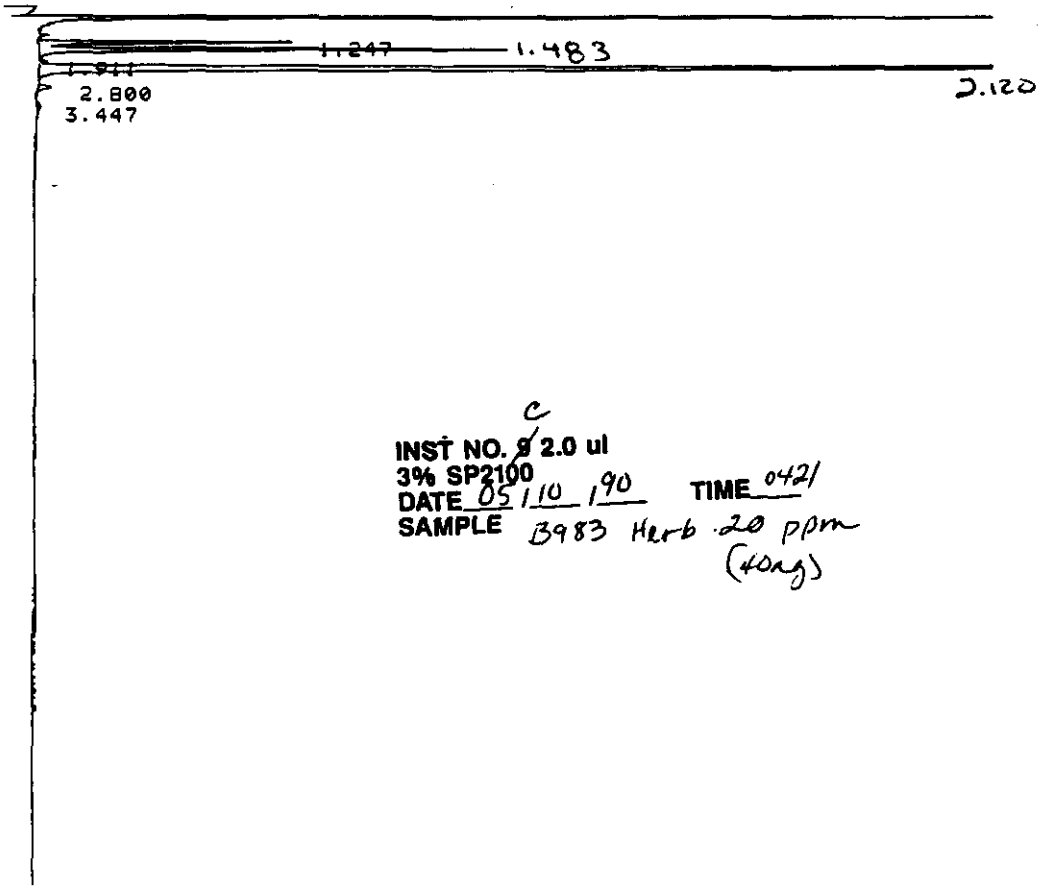
RACK: 1 VIAL: 5 INJ: 1

NOTES:
INSTRUMENT ID: C
COLUMN: 3% SP2100
INJECTION VOLUME 2 UL
ORT= OUTSIDE RETENTION TIME WINDOW
GTIYORK 2454 EPTOX HERB
VERSCDM 2536,2565 TCLP HERB
GTIYORK 2597 EPTOX HERB

varian 'summyvalk.calif.p/n 13-906362-00

ORIGINAL
(Red)

CHART SPEED 0.5 CM/MIN
ATTEN: 4 ZERO: 5%



INST NO. ~~8~~ C 2.0 ul
3% SP2100
DATE 05/10/90 TIME 0421
SAMPLE B983 Herb .20 ppm
(40ng)

varian sunnyvale, calif. p/n 13-906362-00

TITLE: CLP PESTICIDES 4:21 10 MAY 90

CHANNEL NO: 2 SAMPLE: B983 HERB.20 METHOD: CLP-2A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		4835	1.247		4835	BV	3.85
2	2,4-D	10092	1.483		10092	VV	4.65
3	~~G-BHC~~ Silver	44049	2.120	-0.040	44049	VB	6.45
TOTALS:		58976		-0.040	58976		

DETECTED PKS: 6 REJECTED PKS: 3

DIVISOR: 1.00000 MULTIPLIER: 10000.0

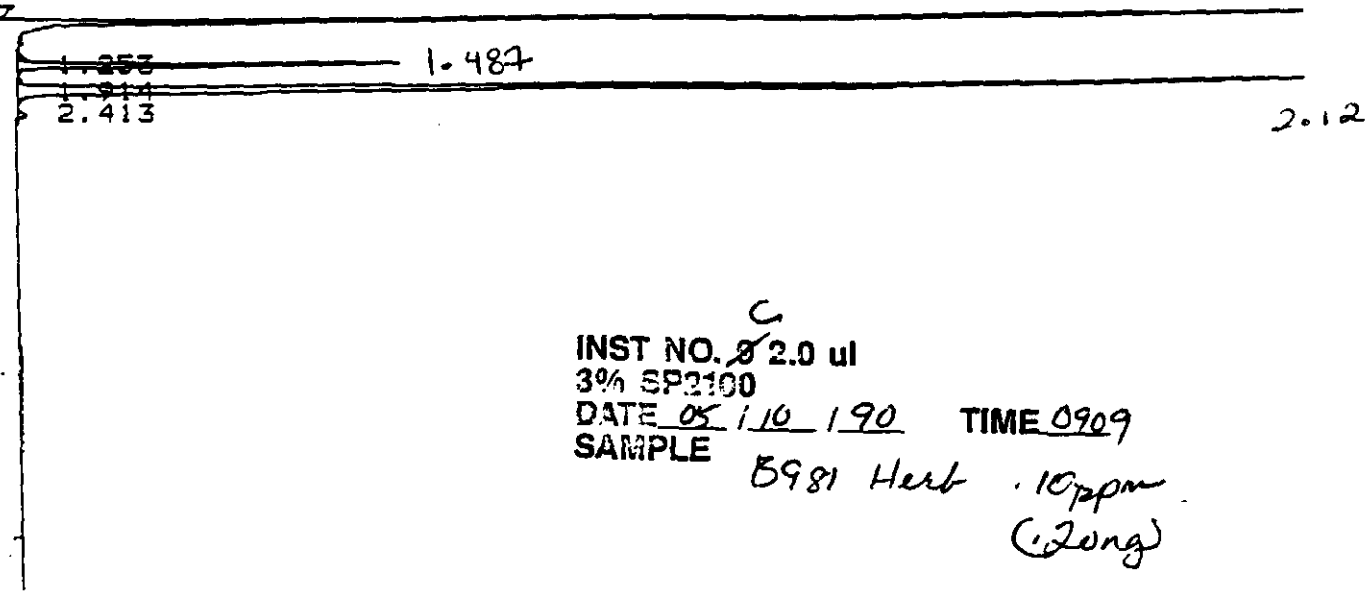
NOISE: 6.1 OFFSET: -14

RACK: 1 VIAL: 7 INJ: 1

NOTES:
INSTRUMENT ID: C
COLUMN: 3% SP2100
INJECTION VOLUME 2 UL
ORT= OUTSIDE RETENTION TIME WINDOW
GTIYORK 2454 EPTOX HERB
VERSCDM 2536.2565 TCLP HERB
GTIYORK 2597 EPTOX HERB

ORIGINAL

CHART SPEED 0.5 CM/MIN
ATTEN: 4 ZERO: 5%



INST NO. ~~B~~ C 2.0 ul
3% SP2100
DATE 05 / 10 / 90 TIME 0909
SAMPLE B981 Herb .10ppm (.20ng)

TITLE: CLP PESTICIDES 9:09 10 MAY 90

CHANNEL NO: 2 SAMPLE: B981 HERB.10 METHOD: CLP-2A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	2,4-D	5622	1.487		5622	VB	4.30
2	~~G-BHC~~ Silvex	25492	2.121	-0.039	25492	VV	6.00
TOTALS:		31114		-0.039	31114		

DETECTED PKS: 7 REJECTED PKS: 5

DIVISOR: 1.00000 MULTIPLIER: 10000.0

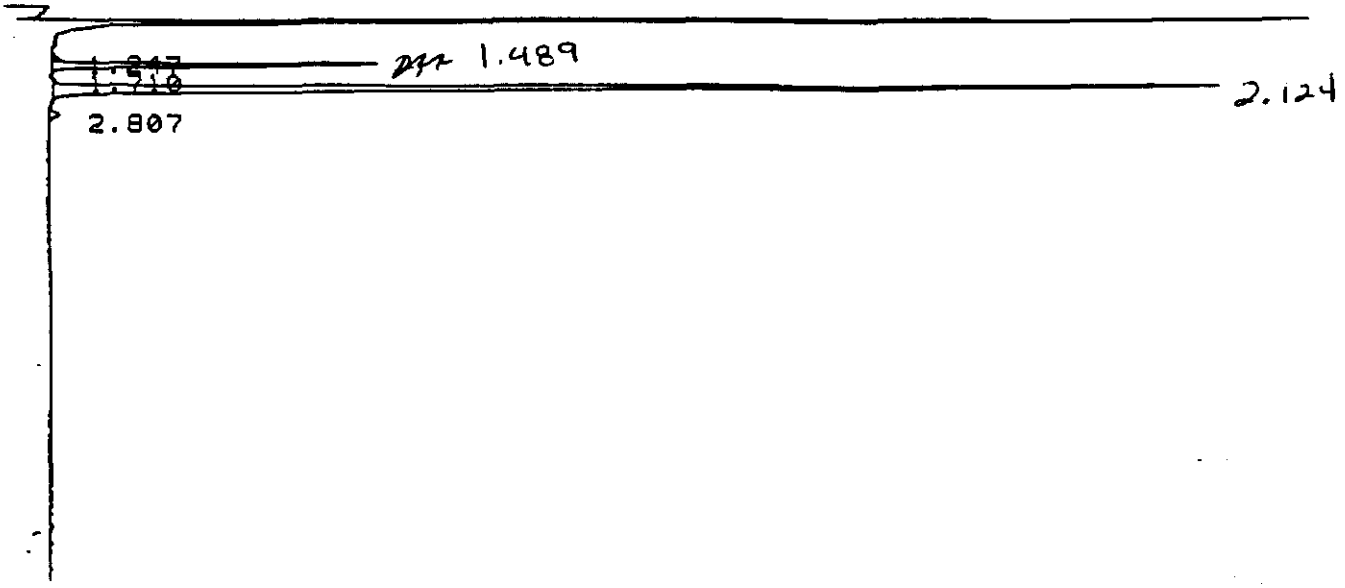
NOISE: 6.1 OFFSET: -16

RACK: 2 VIAL: 8 INJ: 1

NOTES:
INSTRUMENT ID: C
COLUMN: 3% SP2100
INJECTION VOLUME 2 UL
ORT= OUTSIDE RETENTION TIME WINDOW
GTIYORK 2454 EPTOX HERB
VERSCDM 2536,2565 TCLP HERB
GTIYORK 2597 EPTOX HERB

ORIGINAL
(Red)

CHART SPEED 0.5 CM/MIN
ATTEN: 4 ZERO: 5%



T. E: CLP PESTICIDES 11:16 10 MAY 90

CHANNEL NO: 2 SAMPLE: B981 HERB.10 METHOD: CLP-2A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1	2,4-D	5488	1.489		5488	VV	5.10
2	~~G-BHC~~ Silvex	25003	2.124	-0.036	25003	VB	6.50
TOTALS:		30491		-0.036	30491		

DETECTED PKS: 7 REJECTED PKS: 5

DIVISOR: 1.00000 MULTIPLIER: 10000.0

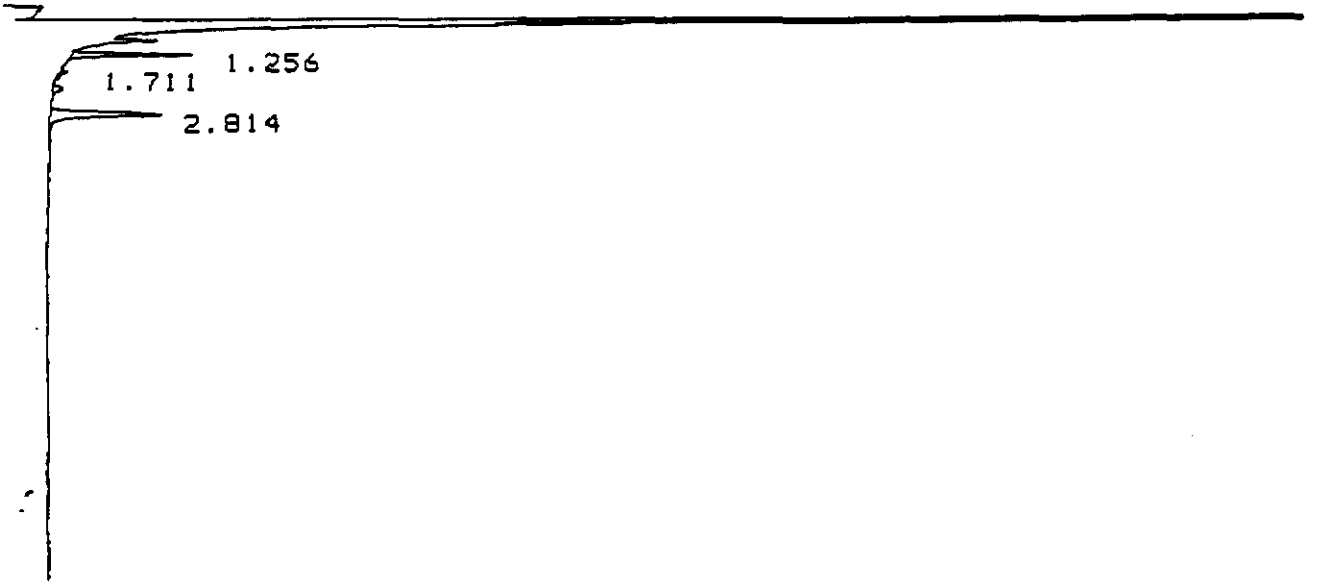
NOISE: 6.1 OFFSET: -14

RACK: 3 VIAL: 4 INJ: 1

NOTES:
INSTRUMENT ID: C
COLUMN: 3% SP2100
INJECTION VOLUME 2 UL
ORT= OUTSIDE RETENTION TIME WINDOW
GTIYORK 2454 EPTOX HERB
VERSCDM 2536,2565 TCLP HERB
GTIYORK 2597 EPTOX HERB

ORIGINAL
(Red)

CHART SPEED 0.5 CM/MIN
A[illegible]: 4 ZERO: 5%



TITLE: CLP PESTICIDES 11:35 10 MAY 90

CHANNEL NO: 2 SAMPLE: 2,4 DB (SSS) METHOD: CLP-2A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		1690	1.256		1690	BB	4.45
2	2,4-DB	2985	2.814		2985	BB	7.85
TOTALS:		4675			4675		

DETECTED PKS: 4 REJECTED PKS: 2

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 6.1 OFFSET: -16

RACK: 3 VIAL: 5 INJ: 1

NOTES:
INSTRUMENT ID: C
COLUMN: 3% SP2100
INJECTION VOLUME 2 UL
ORT= OUTSIDE RETENTION TIME WINDOW
GTIYORK 2454 EPTOX HERB
VERSCDM 2536,2565 TCLP HERB
GTIYORK 2597 EPTOX HERB

ORIGINAL
(Red)

Versar INC.

REAGENT BLANK DATA

D 1D EPA SAMPLE N

PESTICIDE ORGANICS ANALYSIS DATA SHEET

ORIGINAL (Red)

PBLK27

Lab Name: VERSAR, INC. Contract:

D Code: VERSAR Case No.: R3-7 SAS No.: SDG No.: 4

Matrix: (soil/water) WATER Lab Sample ID: RB8027

Sample wt/vol: 10 (g/ml) ML Lab File ID:

Level: (low/med) LOW Date Received: 04/23/90

% Moisture: not dec. dec. Date Extracted: 03/04/90

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 03/10/90

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
94-75-7	2,4 D	800	U
93-72-1	SILVEX	800	U

05-16-90

ORIGINAL
(Red)

CLIENT VERSCOM

Line # R3-7

DATA REDUCTION FORM

ANALYSIS DATE 05/10/90
SAMPLE # RB8027

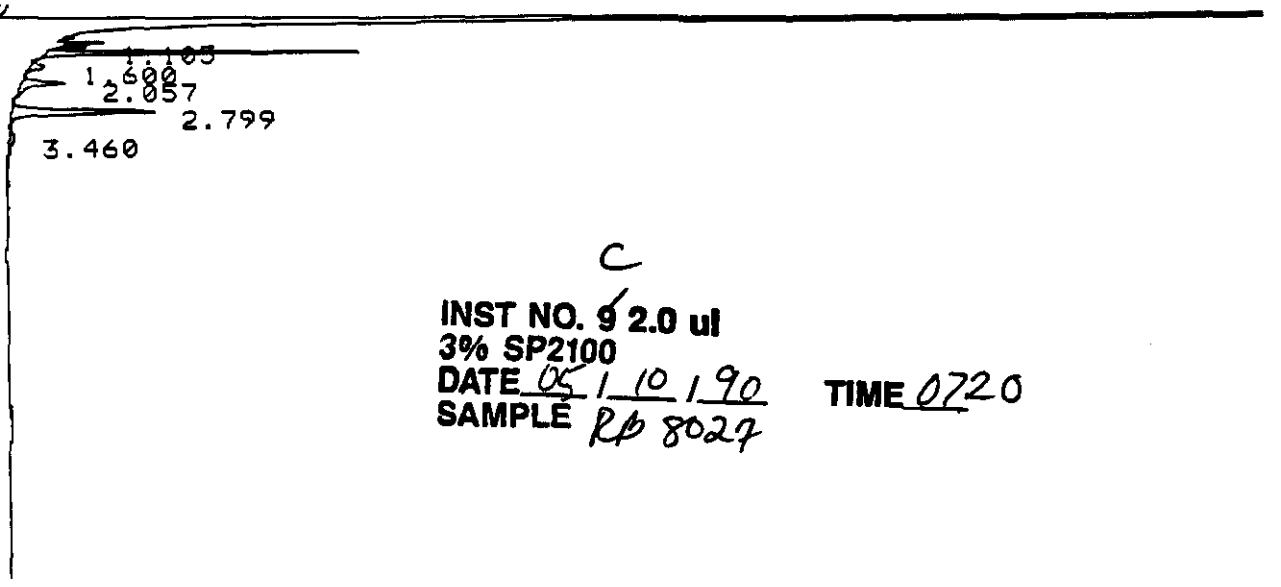
COMPOUND	RT WINDOW	SAMPLE RT	SAMPLE AREA	/ CALIB FACTOR =	NG INJECTED	/ INJECT VOLUME (uL)	= INJECT CONC (ug/ml)	X DF	= SAMPLE CONC (ug/L) OR (ug/Kg)	DETECTION LIMIT (ug/L) OR (ug/Kg)
2,4-D	1.48 - 1.50	X	NA	23722.22	0.00	2.00	0.00	40000.00	0.00	400.00
SILVEX	2.10 - 2.14	X	NA	110702	0.00	2.00	0.00	40000.00	0.00	400.00
2,4-DB(SSS)	2.78 - 2.84	2.80	3617.00	14925.00	0.24	2.00	0.12	40000.00	4846.90	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00

05/16/9

100037

ORIGINAL
(Red)

CHART SPEED 0.5 CM/MIN
ATTEN: 4 ZERO: 5%



C

INST NO. 9 2.0 ul
3% SP2100
DATE 05/10/90 TIME 0720
SAMPLE RB 8027

TITLE: CLP PESTICIDES 7:20 10 MAY 90

CHANNEL NO: 2 SAMPLE: RB8027 METHOD: CLP-2A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		4023	1.248		4023	VB	3.65
2	G-BHC	1274	2.057	-0.103	1274	BB	6.35
3		3617	2.799		3617	BB	7.50
TOTALS:		8914		-0.103	8914		

DETECTED PKS: 7 REJECTED PKS: 4

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 6.1 OFFSET: -8

RACK: 1 VIAL: 14 INJ: 1

NOTES:
INSTRUMENT ID: C
COLUMN: 3% SP2100
JECTION VOLUME 2 UL
T= OUTSIDE RETENTION TIME WINDOW
GTIYORK 2454 EPTOX HERB
VERSCDM 2536,2565 TCLP HERB
GTIYORK 2597 EPTOX HERB

(NA) verlan /sunnyvale,calif p/n 03-906362-00

Versar INC.

ORIGINAL
(Red)

VI. SAMPLE PREPARATION PACKAGE

1. Parameter Request Sheet
2. Screening Data Summary (soils only)
3. Comments
   a. Extraction
   b. Volatiles
   c. Semivolatiles
   d. Pesticides
4. Extraction Worksheets
   a. Chronicle
   b. Dry Weight Factor (soils only)
   c. Dilution Factor (B) Worksheets
5. Injection Sequence Logs
6. Chain of Custody

VERSAR LIMS

Revised

ORIGINAL (Red) 04/26/90

VERSAR LABORATORY OPERATIONS
PARAMETER REQUEST SHEET

Deliver To: 46

Control: 2565
Code: VERSCDM
Batch: 4
Job Number: 420.1.0

Case: R3-7
SDG: 4
Quote: 9000194 - 90
Charge:

Manager: BECKMAN
Company: VERSAR DIV 31

Site: CDM

Received: 23-APR-90
Due: [redacted]-90

Sampled: [redacted]-APR-90
Report: [redacted]-MAY-90
Disposal: 30-AUG-90

QC Level:
Deliver:

Rep Type:
Required: 1 Full, 1 Summary

Comments: Protocols - See VERSCDM-2(2536); Do 1 set of water QC for METALS ONLY. No sample QC for soils.

Test	Sample	X	C	Field Number	Matrix	Location	Other Tests
BNAL - 48							
	16909	A		4	SOIL	A-34	XBNA
	16910	A		8	SOIL	A-34	XBNA
	16911	A		9	SOIL	A-34	XBNA
Bar gals	16912	A		10	SOIL	A-34	XBNA
	16913	A		11	SOIL	A-34	XBNA
	16914	A		12	SOIL	A-34	XBNA
	16915	A		13	SOIL	A-34	XBNA
	16916	A		14	SOIL	A-34	XBNA
	16917	A		15	SOIL	A-34	XBNA
	16918	A		GW-1	HOH	A-34	XACD XBN PEST XPES
CLPM - 43							
	16928	A		4	SOIL	A-34	
	16929	A		8	SOIL	A-34	
	16930	A		9	SOIL	A-34	
	16931	A		10	SOIL	A-34	
	16932	A		11	SOIL	A-34	
	16933	A		12	SOIL	A-34	
	16934	A		13	SOIL	A-34	
	16935	A		14	SOIL	A-34	
	16936	A		15	SOIL	A-34	
	16937	A		GW-1	HOH	A-34	
	16948	A		GW-1	DHOH	A-34	
CNM - 44							
	16938	A		4	SOIL	A-34	TS
	16939	A		8	SOIL	A-34	TS
	16940	A		9	SOIL	A-34	TS
	16941	A		10	SOIL	A-34	TS
	16942	A		11	SOIL	A-34	TS
	16943	A		12	SOIL	A-34	TS
	16944	A		13	SOIL	A-34	TS
	16945	A		14	SOIL	A-34	TS
	16946	A		15	SOIL	A-34	TS

Continued ->

100040

ORIGINAL
(Red)

Control #: 2565

Test	Sample	X	C	Field Number	Matrix	Location	Other Tests		
	16947	A		GW-1	HOH	A-34			
PEST - 47									
	16918	A		GW-1	HOH	A-34	XACD	XBN	XPES
							BNAL		
	16919	A		4	SOIL	A-34	XPES		
	16920	A		8	SOIL	A-34	XPES		
	16921	A		9	SOIL	A-34	XPES		
	16922	A		10	SOIL	A-34	XPES		
	16923	A		11	SOIL	A-34	XPES		
	16924	A		12	SOIL	A-34	XPES		
	16925	A		13	SOIL	A-34	XPES		
	16926	A		14	SOIL	A-34	XPES		
	16927	A		15	SOIL	A-34	XPES		
TCBN - 48									
	16960	B		11	SOIL	A-34	TCLX	TCLM	XTCB
							TCPS	XTCP	TCHB
							XTCH		
TCHB - 47									
	16960	B		11	SOIL	A-34	TCLX	TCLM	TCBN
							XTCB	TCPS	XTCP
							XTCH		
TCLM - 43									
	16960	B		11	SOIL	A-34	TCLX	TCBN	XTCB
							TCPS	XTCP	TCHB
							XTCH		
[redacted]									
	[redacted]	B		11	SOIL	GC/MS	ZHE		
TCLX - 43									
	16960	B		11	SOIL	A-34	TCLM	TCBN	XTCB
							TCPS	XTCP	TCHB
							XTCH		
TCPS - 47									
	16960	B		11	SOIL	A-34	TCLX	TCLM	TCBN
							XTCB	XTCP	TCHB
							XTCH		
TS - 44									
	16938	A		4	SOIL	A-34	CNM		
	16939	A		8	SOIL	A-34	CNM		
	16940	A		9	SOIL	A-34	CNM		
	16941	A		10	SOIL	A-34	CNM		
	16942	A		11	SOIL	A-34	CNM		
	16943	A		12	SOIL	A-34	CNM		
	16944	A		13	SOIL	A-34	CNM		
	16945	A		14	SOIL	A-34	CNM		
	16946	A		15	SOIL	A-34	CNM		
	16949	B		4	SOIL	GC/MS	VOAL		
	16950	B		8	SOIL	GC/MS	VOAL		
	16951	B		9	SOIL	GC/MS	VOAL		
	16952	B		10	SOIL	GC/MS	VOAL		
	16953	B		11	SOIL	GC/MS	VOAL		
	16954	B		12	SOIL	GC/MS	VOAL		
	16955	B		13	SOIL	GC/MS	VOAL		
	16956	B		14	SOIL	GC/MS	VOAL		
	16957	B		15	SOIL	GC/MS	VOAL		
VOAL - 48									
	16949	B		4	SOIL	GC/MS	TS		

Continued ->

VERSAR LIMS

ORIGINAL (Red)

04/24/90

VERSAR LABORATORY OPERATIONS
PARAMETER REQUEST SHEET

Deliver To: 46

Control: 2565
Code: VERSCDM
Batch: 4
Job Number: 420.1.0

Case: R3-7
SDG: 4
Quote: 9000194 - 90
Charge:

Manager: BECKMAN
Company: VERSAR DIV 31

Site: CDM

Received: 23-APR-90
Due: 23-MAY-90

Sampled: 23-APR-90
Report: 23-MAY-90
Disposal: 23-AUG-90

QC Level:
Deliver:

Rep Type:
Required: 1 Full, 1 Summary

Comments: Protocols - See VERSCDM-2(2536); Do 1 set of water QC for METALS ONLY. No sample QC for soils.

Test	Sample	X	C	Field Number	Matrix	Location	Other Tests		
BNAL - 48									
	16909	A		4	SOIL	A-34	XBNA		
	16910	A		8	SOIL	A-34	XBNA		
	16911	A		9	SOIL	A-34	XBNA		
	16912	A		10	SOIL	A-34	XBNA		
	16913	A		11	SOIL	A-34	XBNA		
	16914	A		12	SOIL	A-34	XBNA		
	16915	A		13	SOIL	A-34	XBNA		
	16916	A		14	SOIL	A-34	XBNA		
	16917	A		15	SOIL	A-34	XBNA		
	16918	A		GW-1	HOH	A-34	XACD XPES	XBN	PEST
CLPM - 43									
	16928	A		4	SOIL	A-34			
	16929	A		8	SOIL	A-34			
	16930	A		9	SOIL	A-34			
	16931	A		10	SOIL	A-34			
	16932	A		11	SOIL	A-34			
	16933	A		12	SOIL	A-34			
	16934	A		13	SOIL	A-34			
	16935	A		14	SOIL	A-34			
	16936	A		15	SOIL	A-34			
	16937	A		GW-1	HOH	A-34			
	16948	A		GW-1	DHOH	A-34			
CNM - 44									
	16938	A		4	SOIL	A-34	TS		
	16939	A		8	SOIL	A-34	TS		
	16940	A		9	SOIL	A-34	TS		
	16941	A		10	SOIL	A-34	TS		
	16942	A		11	SOIL	A-34	TS		
	16943	A		12	SOIL	A-34	TS		
	16944	A		13	SOIL	A-34	TS		
	16945	A		14	SOIL	A-34	TS		
	16946	A		15	SOIL	A-34	TS		

Continued ->

100042

ORIGINAL
(Red)

Control #: 2565

Test	Sample	X	C	Field Number	Matrix	Location	Other Tests
	16947	A		GW-1	HOH	A-34	
PEST - 47							
	16918	A		GW-1	HOH	A-34	XACD XBN XPES BNAL
	16919	A		4	SOIL	A-34	XPES
	16920	A		8	SOIL	A-34	XPES
	16921	A		9	SOIL	A-34	XPES
	16922	A		10	SOIL	A-34	XPES
	16923	A		11	SOIL	A-34	XPES
	16924	A		12	SOIL	A-34	XPES
	16925	A		13	SOIL	A-34	XPES
	16926	A		14	SOIL	A-34	XPES
	16927	A		15	SOIL	A-34	XPES
TCBN - 48							
	16960	B		11	SOIL	A-34	ZHE TCLX TCL TCLV XTCB TCP XTCP TCHB XTCH
TCHB - 47							
	16960	B		11	SOIL	A-34	ZHE TCLX TCL TCLV TCBN XTC TCPS XTCP XTCH
TCLM - 43							
	16960	B		11	SOIL	A-34	ZHE TCLX TCL TCBN XTCB TCP XTCP TCHB XTCH
TCLV - 48							
	16960	B		11	SOIL	A-34	ZHE TCLX TCL TCBN XTCB TCP XTCP TCHB XTCH
TCLX - 43							
	16960	B		11	SOIL	A-34	ZHE TCLM TCL TCBN XTCB TCP XTCP TCHB XTCH
TCPS - 47							
	16960	B		11	SOIL	A-34	ZHE TCLX TCL TCLV TCBN XTC XTCP TCHB XTCH
TS - 44							
	16938	A		4	SOIL	A-34	CNM
	16939	A		8	SOIL	A-34	CNM
	16940	A		9	SOIL	A-34	CNM
	16941	A		10	SOIL	A-34	CNM
	16942	A		11	SOIL	A-34	CNM
	16943	A		12	SOIL	A-34	CNM
	16944	A		13	SOIL	A-34	CNM
	16945	A		14	SOIL	A-34	CNM
	16946	A		15	SOIL	A-34	CNM
	16949	B		4	SOIL	GC/MS	VOAL
	16950	B		8	SOIL	GC/MS	VOAL
	16951	B		9	SOIL	GC/MS	VOAL
	16952	B		10	SOIL	GC/MS	VOAL
	16953	B		11	SOIL	GC/MS	VOAL
	16954	B		12	SOIL	GC/MS	VOAL
	16955	B		13	SOIL	GC/MS	VOAL
	16956	B		14	SOIL	GC/MS	VOAL
	16957	B		15	SOIL	GC/MS	VOAL

Continued ->

ORIGINAL
(Red)

Control #: 2565

Test	Sample	X	C	Field Number	Matrix	Location	Other Tests
VOAL - 48							
	16949	B		4	SOIL	GC/MS	TS
	16950	B		8	SOIL	GC/MS	TS
	16951	B		9	SOIL	GC/MS	TS
	16952	B		10	SOIL	GC/MS	TS
	16953	B		11	SOIL	GC/MS	TS
	16954	B		12	SOIL	GC/MS	TS
	16955	B		13	SOIL	GC/MS	TS
	16956	B		14	SOIL	GC/MS	TS
	16957	B		15	SOIL	GC/MS	TS
	16958	B		GW-1	HOH	GC/MS	
	16959	B		TB-2	HOH	GC/MS	
XACD - 46							
	16918	A		GW-1	HOH	A-34	XBN PEST XPES BNAL
XBN - 46							
	16918	A		GW-1	HOH	A-34	XACD PEST XPES BNAL
XBNA - 46							
	16909	A		4	SOIL	A-34	BNAL
	16910	A		8	SOIL	A-34	BNAL
	16911	A		9	SOIL	A-34	BNAL
	16912	A		10	SOIL	A-34	BNAL
	16913	A		11	SOIL	A-34	BNAL
	16914	A		12	SOIL	A-34	BNAL
	16915	A		13	SOIL	A-34	BNAL
	16916	A		14	SOIL	A-34	BNAL
	16917	A		15	SOIL	A-34	BNAL
XPES - 46							
	16918	A		GW-1	HOH	A-34	XACD XBN PEST BNAL
	16919	A		4	SOIL	A-34	PEST
	16920	A		8	SOIL	A-34	PEST
	16921	A		9	SOIL	A-34	PEST
	16922	A		10	SOIL	A-34	PEST
	16923	A		11	SOIL	A-34	PEST
	16924	A		12	SOIL	A-34	PEST
	16925	A		13	SOIL	A-34	PEST
	16926	A		14	SOIL	A-34	PEST
	16927	A		15	SOIL	A-34	PEST
XTCB - 46							
	16960	B		11	SOIL	A-34	ZHE TCLX TCLM TCLV TCBN TCPS XTCP TCHB XTCH
XTCH - 46							
	16960	B		11	SOIL	A-34	ZHE TCLX TCLM TCLV TCBN XTCB TCPS XTCP TCHB
XTCP - 46							
	16960	B		11	SOIL	A-34	ZHE TCLX TCLM TCLV TCBN XTCB TCPS TCHB XTCH
ZHE - 43							
	16960	B		11	SOIL	A-34	TCLX TCLM TCLV TCBN XTCB TCPS

Continued ->

Control #: 2565

ORIGINAL
(Red)

Test	Sample	X	C	Field Number	Matrix	Location	Other Tests
							XTCP TCHB XTCH

ORIGINAL
(Red)

2536 5/17
2565 5/21

EXTRACTS READY FOR ANALYSIS

DATE 5-4-90

CODE VERSCDM BATCH 2,4 CONTROL # 2536, 2565

DATE RECEIVED 4-19, 23-90 DATE EXTRACTED 5-4-90

OF EXTRACT 9 # OF SAMPLES 2

MATRIX HON PARAMETER TCHB LOCATION 5

IS THIS A RE-EXTRACTION? NO

COMMENTS WS 1, Blank 1, Blank 2, 16418, 16418MS, 16418MSD, 16960, RB8027, MSTD 3073

TECHNICIAN SIGNATURE M. Iden

==========

SUPERVISOR USE ONLY

PROVIDE AN EXPLANATION IF ANSWER IS NO

Was the extraction holding time met?	☑ YES	☐ NO
Was proper QC performed with the extraction?	☑ YES	☐ NO
Are all columns complete, initialed, and dated?	☑ YES	☐ NO
Is column information accurate?	☑ YES	☐ NO
Is header information complete and accurate?	☑ YES	☐ NO
Were the correct standards used in the extraction?	☑ YES	☐ NO
Are final volumes correct?	☑ YES	☐ NO
Are sample comments included, initialed and dated?	☑ YES	☐ NO
Are dry weights included with the data package?	☐ YES	☑ NO Coachmark
Are dry weights correct?	☐ YES	☑ NO

What clean-up procedure was used? None

SUPERVISOR _____ SECTION CHIEF J. Lingl

100040

VERSAR INC.

SAMPLE PREPARATION COMMENT SHEET

PROJECT Verscon BATCH 2, 4 CASE R3-7

ORIGINAL (Red)

CONTROL 2536, 2565

MATRIX HOH PREPARATION PARAMETER TCHB

VERSAR SAMPLE NUMBER 16418	Clear Liquid Sample, MH 5-4-90
FIELD SAMPLE NUMBER 1	
SOIL SAMPLE pH	
VERSAR SAMPLE NUMBER 16960	Clear Liquid Sample MH 5-4-90
FIELD SAMPLE NUMBER 11	
SOIL SAMPLE pH	
VERSAR SAMPLE NUMBER	
FIELD SAMPLE NUMBER	
SOIL SAMPLE pH	

Versar INC.

ORIGINAL
(Red)

SAMPLE COMMENTS (PESTICIDES)
VERSCOM 2536, 2565 TCLP Herb
CASE GTI YORK 2454, 2697 EPTOX Herb

Primary Analysis, Inst C, 5/9

EPA #	COMMENTS
	Set-up Herb Analysis. Put on Am at 2 o'clock.
	Curve ~~Validity~~ needs to be checked. Used Herb 0.10
	as continuing check. JA 5/9/90
	Please check GTI YORK 2454 - in Prep Data
	Sample is 14620 but vial is labelled 14590. JA 5/9k
	linearity for 3 point curve .05, .10, .15
	which % RSD all in criteria < 10%.
	Daily standard checked and % D < 25%
	2,4 DB (SSS) was ~~on~~ PC run at the end
	of analysis and used to quantitate for
	% Recovery of surrogate.
	Sample 14620 was mislabeled as 14590 which
	~~already~~ PC already checked with Prep. Technicians
	PC 5/10/90.

Signature

VERSAR INC. HERBICIDE WATER SAMPLE PREPARATION SHEET

PROJECT Versar
CASE R3-7
BATCH 2,4
DATE 5-4-90

EXTRACTION PARAMETER TCHB
EXTRACTION START DATE 5-4-90
DATE EXTRACTION COMPLETE 5-4-90
ESTERIFICATION METHOD DIAZOMETHANE

MATRIX SPIKE SOLUTION B589
SURROGATE SOLUTION B587

WORKING STANDARD
SPIKE # B445
CONC. 10ppm
VOL. USED 1mL

100049

ORIGINAL (Red)

VERSAR SAMPLE NUMBER	FIELD SAMPLE NUMBER	SAMPLE VOLUME IN ML.	SPIKE SURR.	SPIKE MS	DATE RECOVERED	DATE CONCENTRN	FINAL UNCLEANED VOLUME	VOLUME TO BE CLEANED	FINAL CLEANED VOLUME	GENERAL SAMPLE COMMENTS
WS 1	NA	NA	NA	NA	NA	NA	1mL	1mL	10mL	No cleanup; extracts diluted
TCLP Blank 1	+ MH	10mL	50µl	—	5-4-90	NO	40mL			
TCLP Blank 2	—	10mL	50µl	—						
16418	1	10mL	50µl	—						
16418MS	1	10mL	50µl	50µl						
16418MSD	1	10mL	50µl	50µl						
16960	11	10mL	50µl	—						
RB8027	PBLK27	10mL	50µl	—						
NSTD3073	—	10mL	50µl	50µl						
MH 5-4-90		MH 5-4-90			MH 5-4-90		MH 5-4-90			5-7-90

MH

ORIGINAL
(Ped)

' NT_____VERSCOM DILUTION FACTOR TABLE

CASE # _____R3-7

EXTRACTION DATE ___05/04/90 EXTRACTED BY ____MH

	SOIL (S) OR WATER (W)	SAMPLE #	WT (g) OR VOL (ml) OF SAMPLE	% MOISTURE (SOILS ONLY) ("0" FOR WATERS)	INITIAL EXTRACT FINAL VOL (ML)	ALIQUOT TO PEST (ML)	FINAL PEST VOL (ML)	DILUTION AT INSTRUMEN	DILUTION FACTOR (DF) (ml/Kg)
1	WATER (W)	TCLPBLK1	10	X	40	1	10	1	40000.00
2	WATER (W)	TCLPBLK2	10	X	40	1	10	1	40000.00
3	WATER (W)	16418	10	X	40	1	10	1	40000.00
4	WATER (W)	16418MS	10	X	40	1	10	1	40000.00
5	WATER (W)	16418MSD	10	X	40	1	10	1	40000.00
6	WATER (W)	16960	10	X	40	1	10	1	40000.00
7	WATER (W)	RB8027	10	X	40	1	10	1	40000.00
8	WATER (W)	MSTD3073	10	X	40	1	10	1	40000.00
9	WATER (W)	WS1	10	X	1	1	10	1	1000.00
10	X	X	X	X	40	1	10	1	ERR
11	X	X	X	X	40	1	10	1	ERR
12	X	X	X	X	40	1	10	1	ERR
13	X	X	X	X	40	1	10	1	ERR
14	X	X	X	X	40	1	10	1	ERR
15	X	X	X	X	40	1	10	1	ERR
16	X	X	X	X	40	1	10	1	ERR
17	X	X	X	X	40	1	10	1	ERR
18	X	X	X	X	40	1	10	1	ERR
19	X	X	X	X	40	1	10	1	ERR
20	X	X	X	X	40	1	10	1	ERR
21	X	X	X	X	40	1	10	1	ERR
22	X	X	X	X	40	1	10	1	ERR
23	X	X	X	X	40	1	10	1	ERR
24	X	X	X	X	40	1	10	1	ERR
25	X	X	X	X	40	1	10	1	ERR
26	X	X	X	X	40	1	10	1	ERR
27	X	X	X	X	40	1	10	1	ERR
28	X	X	X	X	40	1	10	1	ERR
29	X	X	X	X	40	1	10	1	ERR
30	X	X	X	X	40	1	10	1	ERR

SDH 05-16-90

100050

DATE 05-09-90 SUBJECT Inj Log C PROJECT NO.

ORIGINAL (Red)

Changed septum, Pulled col & TPE, Baked septum 2a

Oper. Judy Amador Date 5-9-90

Detec. ECD Temp. 300

Column 6' x 2mm Type 3% SP2100

Carrier Gas Ar/CH4 at ____ ml/min

Oven 190 °C for 115 min 210

for ____ min at ____ °C/min

Inst. ID C

Project 6T19BLK2454 Parameter Alk-2↑4

2597 EP Herb / VERSCOM 2536, 2565 TCLP Herb

SAMP#	RACK/VIAL	TYPE	SAMPLE ID
1	1/ 1		B979 HERB.02
2	1/ 2		B980 HERB.05
3	1/ 4		B981 HERB.10
4	1/ 5		B982 HERB.15
5	1/ 7		B983 HERB.20
6	1/ 8		RB7903
7	1/10		EPBLK 2454
8	1/11		14620
9	1/13		MSTD3030
10	1/14		RB8027
11	2/ 1		TCLPBLANK1
12	2/ 2		TCLPBLANK2
13	2/ 4		16418
14	2/ 5		16418MS
15	2/ 7		16418MSD
16	2/ 8		B981 HERB.10
17	2/10		16960
18	2/11		MSTD3073
19	2/13		RB8028
20	2/14		EPBLK 2597
21	3/ 1		17641
22	3/ 2		MSTD3074
23	3/ 4		B981 HERB.10
24	3/ 5		WS VERSCOM
25	3/ 7		WS 2597

Inserted B999 2.4 DB .10 pp

PC 5/10/90

Judy Amador

WITNESSED AND UNDERSTOOD

SIGNED DATE SIGNED Judy Amador

100051

PAGE 5
CHART SPEED
PAGES OR CM/MIN: C
INIT VALUE: 0.5

PAGE 6
PLOT ATTEN
INIT PLOT ATTEN: 4

ORIGINAL (Red)

SECTION 2: TIME EVENTS
PAGE 1

LINE#	TIME	EVENT	VALUE
1	0.00	PR	700
2	0.00	SN	2
3	0.00	T%	5.0
4	0.00	WI	4
5	0.00	II	1.00

SECTION 3: PEAK TABLE
PAGE 1
STD PK#: 0
RELATIVE RETEN PK#: 0
RESOLUTION PK#: 0
RESOLUTION MINIMUM: 0.0
FACT%: 5.0
IDENTIFICATION TIME WINDOWS +/-
REF
%: 10
MIN: 0.00
NON REF
%: 5
MIN: 0.00

PAGE 2

PK#	TIME	NAME	FACTOR	AMOUNT REF	GR#	MUST LO	MUST HI
1	1.83	A-BHC	1.000000	1.000000		0.000000	0.000000
2	1.96	B-BHC	1.000000	1.000000		0.000000	0.000000
3	2.16	G-BHC	1.000000	1.000000		0.000000	0.000000
4	2.22	D-BHC	1.000000	1.000000		0.000000	0.000000
5	3.50	HEPTACHLOR	1.000000	1.000000		0.000000	0.000000
6	4.34	ALDRIN	1.000000	1.000000		0.000000	0.000000
7	5.31	HEPT EPOX	1.000000	1.000000		0.000000	0.000000
8	6.09	G-CHLORDAN	1.000000	1.000000		0.000000	0.000000
9	6.63	A-ENDOSULF	1.000000	1.000000		0.000000	0.000000
10	6.76	A-CHLORDAN	1.000000	1.000000		0.000000	0.000000
11	7.77	DDE/DIELD.	1.000000	1.000000		0.000000	0.000000
12	8.68	ENDRIN	1.000000	1.000000		0.000000	0.000000
13	8.89	B-ENDOSULF	1.000000	1.000000		0.000000	0.000000
14	9.79	DDD	1.000000	1.000000		0.000000	0.000000
15	9.84	ENDRIN ALD	1.000000	1.000000		0.000000	0.000000
16	11.45	ESS	1.000000	1.000000		0.000000	0.000000
17	12.86	DDT	1.000000	1.000000		0.000000	0.000000
18	14.73	END KETONE	1.000000	1.000000		0.000000	0.000000
19	19.29	METHOXYCHL	1.000000	1.000000		0.000000	0.000000
20	26.53	DBC	1.000000	1.000000		0.000000	0.000000

SECTION 4: GC INSTRUMENT CONTROL
PAGE 1
COL TEMP
ISO/INIT COL TEMP: 190
INIT HOLD TIME: 15.00

PAGE 2
DETECTORS
DET A TYPE: ECD
DET B TYPE:

LN#	TIME	SIDE	ATTN	RANGE	ZERO
1	0.00	A	4	10	Y
2	0.00	B			Y

PAGE 3
TEMP/FLOW
INJ A TEMP: 245
INJ B TEMP: 245
ION TEMP: 300
TCD TEMP:
TCD FIL TEMP:

INST NO. 9 2.0 ul
3% SP2100
DATE___/___/___ TIME___
SAMPLE Method

varian /sunnyvale, calif. p/n 13-906362-00

ORIGINAL
(Red)

SINGLE CHANNEL METHOD: CLP-2A 6:55 10 MAY 90

ECTION 1: BASIC
PAGE 1
ANALYSIS PARAMETERS
CHANNEL: 2
CALCULATION: ES
AREA/HT: A
STOP TIME: 15.00
NUMB EXPECTED PKS: 100
EQUILIBRATION TIME: 8
UNRETAINED PK TIME: 0.00
UNIDENT PK FACTOR: 1.000000
SLICE WIDTH: 10

PAGE 2
SAMPLE PARAMETERS
RUN TYPE: A
SAMPLE ID: MSTD3030
DIVISOR: 1.000000
AMT STD: 1.000000
MLTPLR: 10000.00

PAGE 3
REPORT INSTRUCTIONS
WHERE TO REPORT: L
COPIES: 1
TITLE: CLP PESTICIDES
FORMAT: E
ECIMAL PLACE: 0
ESULT UNITS: AREA
EPORT UNIDENT PKS: Y
REPORT INSTRUMENT CONDITIONS: N

INST NO. 9 2.0 ul
3% SP2100
DATE
SAMPLE method
TIME

PAGE 4
PLOT INSTRUCTIONS
PLOT: N
ZERO OFFSET: 5
ANNOTATION
RETENTION TIME: Y
PLOT CONTROL: N
TIME TICKS: N

100053

COL A FLOW:
COL B FLOW:

PAGE 4

SECTION 7: POST RUN
PAGE 1
FILE NAME:
SAVE INSTRUCTIONS
TYPE:
WHERE TO SAVE: M
TRANSMIT/REPLOT INSTRUCTIONS
TRANSMIT RAW DATA: N
REPLOT WITH BASELINES: Y
RAW DATA LOCATION: U
TRANSMIT REPORT: N

PAGE 2
METHOD LINKING INSTRUCTIONS
METHOD:
LINK CALC RESULTS: N
PROGRAM EXECUTION
PROGRAM:
PARAMETERS:
RESERVE PRINTER: N

SECTION 9: SAMPLE LIST+A/S CONTROL
PAGE 1
AUTOSAMPLER CONTROL
INJECT/CALIBRATION: 1
INJECT/ANALYSIS: 1
SAMP VOLUME: 1
VISTA AUTOSAMPLER ONLY
A/S MODE: MR
PURGE PULSES: 2
INJECT TIME: 0.03

PAGE 2

SAMP#	RACK/VIAL	TYPE	SAMPLE ID	DIVISOR	AMT STD	MLTPLR
1	1/ 1		B979 HERB.02			
2	1/ 2		B980 HERB.05			
3	1/ 4		B981 HERB.10			
4	1/ 5		B982 HERB.15			
5	1/ 7		B983 HERB.20			
6	1/ 8		RB7903			
7	1/10		EPBLK 2454			
8	1/11		14620			
9	1/13		MSTD3030			
10	1/14		RB8027			
11	2/ 1		TCLPBLANK1			
12	2/ 2		TCLPBLANK2			
13	2/ 4		16418			
14	2/ 5		16418MS			
15	2/ 7		16418MSD			
16	2/ 8		B981 HERB.10			
17	2/10		16960			
18	2/11		MSTD3073			
19	2/13		RB8028			
20	2/14		EPBLK 2597			
21	3/ 1		17641			
22	3/ 2		MSTD3074			
23	3/ 4		B981 HERB.10			
24	3/ 5		2,4 DB (SSS)			
25	3/ 7		WS VERCDM			
26	3/ 8		WS2597			

INST NO. 9 2.0 ul
3% SP2100
DATE ___/___/___ TIME ___
SAMPLE Method

SECTION 10: NOTE PAD
PAGE 1

LINE#	VALUE
1	INSTRUMENT ID: C
2	COLUMN: 3% SP2100
3	INJECTION VOLUME 2 UL
4	ORT= OUTSIDE RETENTION TIME WINDOW
5	GTIYORK 2454 EPTOX HERB
6	VERSCDM 2536,2565 TCLP HERB
7	GTIYORK 2597 EPTOX HERB

HP verlan /sunnyvale, calif. p/n 03-906362-00

ORIGINAL
(Red)

IENT VERSCOM

CASE # R3-7 DATA REDUCTION FORM

ANALYSIS DATE 05/10/90
SAMPLE # MSTD3073

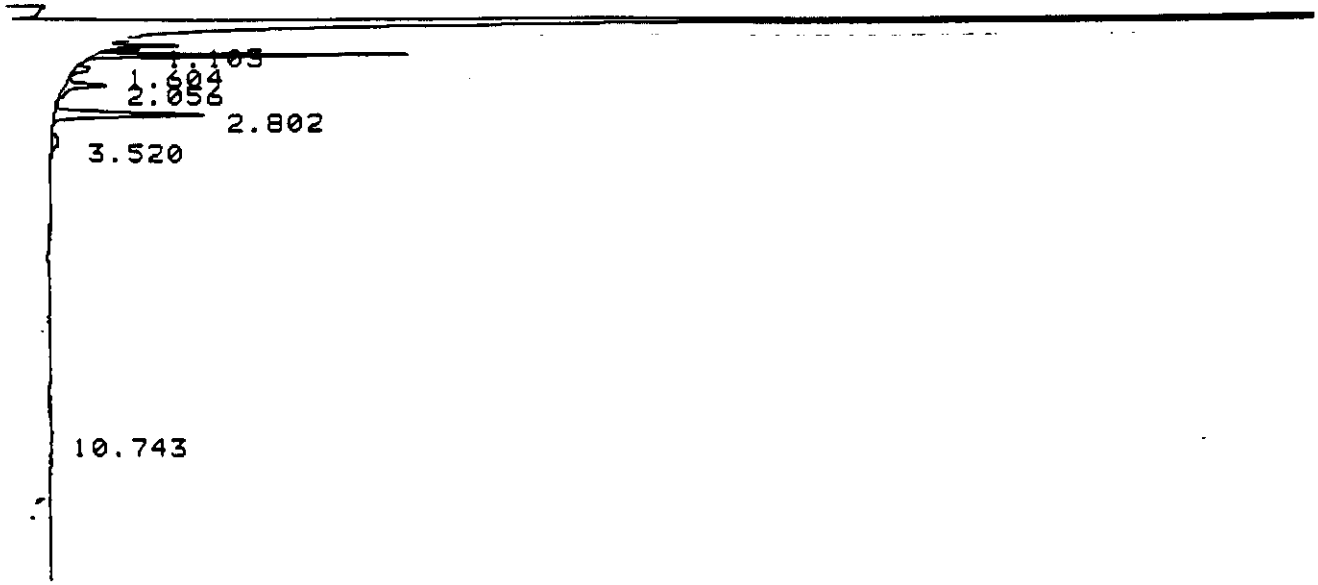
COMPOUND	RT WINDOW	SAMPLE RT	SAMPLE AREA	/ CALIB FACTOR =	NG INJECTED	/ INJECT VOLUME (uL)	= INJECT CONC (ug/ml)	X DF	= SAMPLE CONC (ug/L) OR (ug/Kg)	DETECTION LIMIT (ug/L) OR (ug/Kg)
2,4-D	1.48 - 1.58	X	NA	123722.22	0.00	2.00	0.00	40000.00	0.00	400.00
SILVEX	2.10 - 2.14	X	NA	110702	0.00	2.00	0.00	40000.00	0.00	400.00
2,4-DB(SSS)	2.78 - 2.84	2.80	3749.00	114925.00	0.25	2.00	0.13	40000.00	5823.79	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	40000.00	ERR	400.00

100

05-10-90

100055

CHART SPEED 0.5 CM/MIN
AT : 4 ZERO: 5%



TITLE: CLP PESTICIDES 9:45 10 MAY 90

CHANNEL NO: 2 SAMPLE: MSTD3073 METHOD: CLP-2A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		3830	1.247		3830	VB	3.60
2	G-BHC	1001	2.056	-0.104	1001	VB	6.00
3		3749	2.802		3749	BB	7.50
TOTALS:		8580		-0.104	8580		

DETECTED PKS: 8 REJECTED PKS: 5

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 6.1 OFFSET: -17

RACK: 2 VIAL: 11 INJ: 1

NOTES:
INSTRUMENT ID: C
COLUMN: 3% SP2100
INJECTION VOLUME 2 UL
ORT= OUTSIDE RETENTION TIME WINDOW
GTIYORK 2454 EPTOX HERB
RSCDM 2536,2565 TCLP HERB
YORK 2597 EPTOX HERB

varian /sunnyvale, calif. p/n 03-906362-00

ORIGINAL

CLIENT VERSCOM

LINE # R3-7 DATA REDUCTION FORM

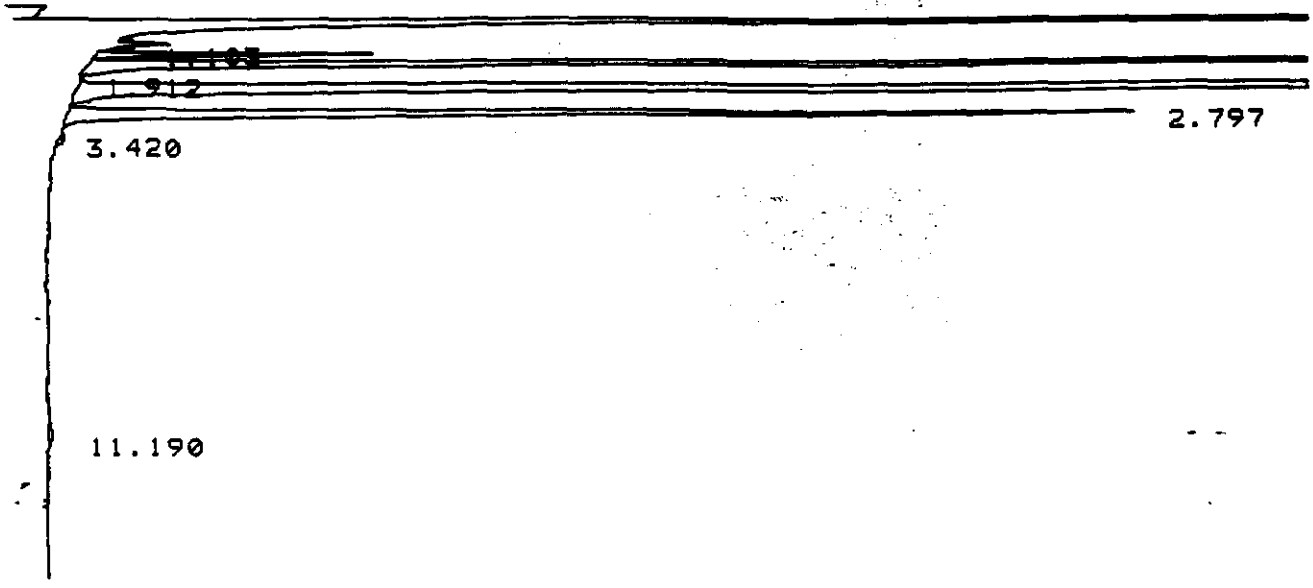
ANALYSIS DATE 05/10/90
SAMPLE # WS1

COMPOUND	RT WINDOW	SAMPLE RT	SAMPLE AREA	/ CALIB FACTOR =	NG INJECTED	/ INJECT VOLUME (uL)	= INJECT CONC (ug/ml)	X DF	= SAMPLE CONC (ug/L) OR (ug/Kg)	DETECTION LIMIT (ug/L) OR (ug/Kg)	
2,4-D	1.48 - 1.58	1.48	145842.00	23722.22	1.93	2.00	0.97	1000.00	966.22	10.00	97
SILVEX	2.10 - 2.14	2.12	115575	110702	1.04	2.00	0.52	1000.00	522.01	10.00	52
2,4-DB(SSS)	2.78 - 2.84	2.80	128388.00	114925.00	1.90	2.00	0.95	1000.00	948.34	10.00	95
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	
	0.00 - 0.00	X	NA	0.00	ERR	2.00	ERR	1000.00	ERR	10.00	

05-16-90

100057

SPEED 0.5 CM/MIN
: 4 ZERO: 5%



TITLE: CLP PESTICIDES 11:53 10 MAY 90

CHANNEL NO: 2 SAMPLE: WS VERCDM METHOD: CLP-2A

PEAK NO	PEAK NAME	RESULT AREA	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		3642	1.249		3642	VV	3.80
2	2,4-D	45842	1.482		45842	VB	4.80
3	~~a-BHC~~ Silvex	115575	2.122	-0.038	115575	VV	6.60
4	2,4 DB	28308	2.797		28308	VB	7.85
TOTALS:		193367		-0.038	193367		

DETECTED PKS: 10 REJECTED PKS: 6

DIVISOR: 1.00000 MULTIPLIER: 10000.0

NOISE: 6.1 OFFSET: -15

RACK: 3 VIAL: 7 INJ: 1

NOTES:
INSTRUMENT ID: C
COLUMN: 3% SP2100
INJECTION VOLUME 2 UL
ORT= OUTSIDE RETENTION TIME WINDOW
TIYORK 2454 EPTOX HERB
ERSCDM 2536,2565 TCLP HERB
GTIYORK 2597 EPTOX HERB

varian /sunnyvale calif p/n 03-906362-00

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

2560

REGION 3
Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

CHAIN OF CUSTODY RECORD

PROJ. NO.: R3-7
PROJECT NAME: R3-7
SAMPLERS: (Signature) Sharon E. Schaeffer

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TCLP VOA	TCLP BNA/Metals					REMARKS Tag #s.
11	4/19/90	0940		X	Location 11	4	2	2					3-106 8466, 67, 68, 69

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Sharon E. Schaeffer	4/20/90 1200				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
		Donald A Sage	4/23/90 13.30	Shipped via Federal Express Airbill No. 4026936060	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files