N60478.AR.001426
NWS EARLE
5090.3a

SITE INVESTIGATION REPORT SUMMARY OF FINDINGS VOLUME 2 0F 4 NWS EARLE NJ
9/15/1994
ENVIRO-TECH, INC.

Item # (2)
Box 1

Closure Report for:

C-2	MPL-1	554	S-53
C-8	MPL-2	555	
464	GB-1	566/1	
589	MA-2	567	

(Laboratory Analytical Results)
Soil Sample Results C-2 & C-8
3/17/94

SITE INVESTIGATION REPORT
SUMMARY OF FINDINGS
for
UNITED STATES NAVAL WEAPONS STATION EARLE
Colts Neck, Monmouth County, New Jersey

September 15, 1994

VOLUME II

Prepared for:

Tom Dunn
ROICC
NWS Earle
Colts Neck, New Jersey 07722-5025

Prepared by:

Enviro-Tech, Inc.
247 Main Street
Matawan, New Jersey

APPENDIX VII

LABORATORY ANALYTICAL RESULTS

No. 1

March 17, 1994 Soil Samples
(USTs C-2 and C-8)

C-2 + C-8

veritech

Division of Hampton-Clarke, Inc.

environmental and analytical services

ENVIRO-TECH, INC.

NJDEPE REDUCED PKG

PROJECT: EARL AMMUNITION

LAB # AA22117-AA22125

NJDEPE Cert. #14622, CT Cert. #PH0671
PADER #68-463, MA Cert. #NJ386
NYDOH #11408

47 Carey Avenue • Butler, NJ 07405
Phone: (201) 492-8744 Fax: (201) 492-1815

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VERITECH LABORATORY RESULTS

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SAMPLE KEY

ENVIRO-TECH NO.	VERITECH NO.
C2-1	AA22117
C2-2	AA22118
C2-3	AA22119
C2-4	AA22120
C8-1	AA22121
C8-2	AA22122
C8-3	AA22123
C8-4	AA22124
FIELD BLANK	AA22125

Enviro-Tech Inc.

Page ___ of ___

CHAIN-OF-CUSTODY RECORD

SAMPLER: (Signature) [signature]
Phone 908-566-2277

Date Shipped _____ Carrier GDM
Airbill No. _____ Cooler No. _____

SHIP TO:

VERITECH

ATTENTION: _____

SEND RESULTS TO:

Client Name _____
Company ENVIRO-TECH INC
Address 247 MAIN STREET
MATAWAN NJ
Phone 908 566-2277

PROJECT NAME EARL AMMUNITION **PROJECT NO.** _____ **P.O. NO.** _____

Relinquished by: (Signature)	Received by: (Signature)	Date	Military Time
[signature]	[signature]	3/18/94	0945
Relinquished by: (Signature)	Received by: (Signature)	Date	Military Time
[signature]	[signature]	3/18/94	1120
Relinquished by: (Signature)	Received at lab by: (Signature)	Date	Military Time
Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Military Time

ANALYSIS REQUEST

Sample ID Number	Sample Description	Date/Time Sampled		Analysis Requested	Sample Condition Upon Receipt	
1-C2-1	Soil	3/17/94	16:53	*TPH, VOTIO Xylene	Cool	AA22117
1-C-2-2			17:05			22118
1-C2-3			17:08			22119
1-C2-4			17:15			22120
1-C8-1			15:10			22121
1-C8-2			15:20			22122
1-C8-3			15:28			22123
1-C8-4			15:30			22124
3-FIELD BLANK	AQUIOUS					22125

cooler temp = 12.8°C

Special Instructions/Comments:

PLEASE ANALYZE SAMPLE FOR TPH FIRST (WITH 24 HOUR TURNAROUND).
IF ANY RESULTS ARE GREATER THAN 1,000 PPM, PLEASE CALL ETI OFFICE FOR AUTHORIZATION OF ADDITIONAL PARAMETERS (VOTIO, XYLENE)
ALSO FIELD BLANK SAMPLE SHOULD BE RUN ONLY FOR REQUIRED PARAMETER (i.e. TPH FIRST IF VO'S ARE REQUIRED FOR SOIL, THAN VO'S ALSO)

NOTE: UNUSED PORTIONS OF NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Expected Analytical T.A.T.'s: _____ Immediate Attention (200% surcharge) _____ RUSH (50-100% surcharge) _____ Standard

002

GDM-010

Sample Custodians Chain of Custody

veritech

Division of Hampton-Clarke, Inc.

environmental and analytical services

INTERNAL CHAIN OF CUSTODY RECORD

REMOVED FROM

PARAMETER	SAMPLE NO.	COLDBOX NO.	DATE	TIME	SIGNATURE
TCLP	22102	3	3/18/94	2:15	Tracy Crane
ID - SI, Sn	22084-22092	3	3/18/94	2:30	S. Paramathan
TPH	22125	3	3/18	4:00	[illegible]
% solid	22103-05	3	3/18	4:18	[illegible]
TPH	22117-24	3	3/18	10:21	[illegible] X
TPH, % solid	22125	Sample frig	3/21	9:00	Dan Patelli
Sn solid	22126, 22129-31	Sample frig	3/21	9:01	Dan Patelli
BN	22097-98	3	3/21	9:15	Tracy Crane
Corrosivity	21965	3	3/21	15:45	[illegible]
% solid	22084-22096	3	3/21	11:00	Dan Patelli
VC/MS	22113-04.05	Sample frig.	3/21	11:40	[illegible]
"	22118-22131	3		11:41	[illegible]
BN	22113-16	3	3/21	2:10	Tracy Crane
RB	22138	Sample frig	3/21	5:20	[illegible]
PCB/PCS	22138	3	3/22	9:35	[illegible]
TCLP	22138	Sample frig	3/22/94	11:15	S. Paramanathan
BN	22113-16	3	3/22	1:35	Tracy Crane

RETURNED TO

PARAMETER	SAMPLE NO.	COLDBOX NO.	DATE	TIME	SIGNATURE
TCLP	22102	3	3/18/94	2:50	Tracy Crane
ID-SI, Sn	22084-22092	3	3/18/94	3:30	S. Paramathan
TPH	22125	Organics	3/18/94	4:45	[illegible]
TPH	22117-24	3	3/19/94	10:40	[illegible]
BN	22097-98	None	3/21		Tracy Crane
TPH, % solid	22125	3	3/21	10:30	Dan Patelli
Sn solid	22126, 22129-31	3	3/21	10:31	Dan Patelli
% solid	22084-22096	3	3/21	11:10	Dan Patelli
BN	22113-16	3	3/21	2:30	Tracy Crane
Corrosivity	21965	3	3/21	4:20	Dan Patelli
PCB	22138	Sample Frig	3/22	9:30	Tracy Crane
TCLP	22138	3	3/22/94	11:25	S. Paramanathan
BN	22113-16	3	3/22	1:50	Tracy Crane

47 Carey Avenue • Butler, NJ 07405
Phone: (201) 492-8744 Fax: (201) 492-1815

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-21-1994 Time: 10:51:23

Sample I.D. AA22117
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/17/94
Date submitted: 03/18/94
Due date: 03/31/94
Specification checking: off
Descript: C2-1 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	83	PERCENT	03/19/94	DB
TPH-SOIL	Not detected	mg/kg dry wt	03/19/94	DB
TPH EXTRACTION	Completed		03/19/94	DB

End of progress report on sample: AA22117

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-21-1994 Time: 10:34:37

Sample I.D. AA22118
Status: In invoice queue
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/17/94
Date submitted: 03/18/94
Due date: 03/31/94
Specification checking: off
Descript: C2-2 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	81	PERCENT	03/19/94	DB
TPH-SOIL	Not detected	mg/kg dry wt	03/19/94	DB
TPH EXTRACTION	Completed		03/19/94	DB

End of progress report on sample: AA22118

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-21-1994 Time: 10:34:38

Sample I.D. AA22119
Status: In invoice queue
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/17/94
Date submitted: 03/18/94
Due date: 03/31/94
Specification checking: off
Descript: C2-3 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	84	PERCENT	03/19/94	DB
TPH-SOIL	Not detected	mg/kg dry wt	03/19/94	DB
TPH EXTRACTION	Completed		03/19/94	DB

End of progress report on sample: AA22119

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-21-1994 Time: 10:34:39

Sample I.D. AA22120
Status: In invoice queue
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/17/94
Date submitted: 03/18/94
Due date: 03/31/94
Specification checking: off
Descript: C2-4 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	85	PERCENT	03/19/94	DB
TPH-SOIL	Not detected	mg/kg dry wt	03/19/94	DB
TPH EXTRACTION	Completed		03/19/94	DB

End of progress report on sample: AA22120

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-21-1994 Time: 10:34:40

Sample I.D. AA22121
Status: In invoice queue
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/17/94
Date submitted: 03/18/94
Due date: 03/31/94
Specification checking: off
Descript: C8-1 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	97	PERCENT	03/19/94	DB
TPH-SOIL	Not detected	mg/kg dry wt	03/19/94	DB
TPH EXTRACTION	Completed		03/19/94	DB

End of progress report on sample: AA22121

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-21-1994 Time: 10:34:41

Sample I.D. AA22122
Status: In invoice queue
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/17/94
Date submitted: 03/18/94
Due date: 03/31/94
Specification checking: off
Descript: C8-2 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	91	PERCENT	03/19/94	DB
TPH-SOIL	Not detected	mg/kg dry wt	03/19/94	DB
TPH EXTRACTION	Completed		03/19/94	DB

End of progress report on sample: AA22122

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-21-1994 Time: 10:34:42

Sample I.D. AA22123
Status: In invoice queue
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/17/94
Date submitted: 03/18/94
Due date: 03/31/94
Specification checking: off
Descript: C8-3 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	93	PERCENT	03/19/94	DB
TPH-SOIL	Not detected	mg/kg dry wt	03/19/94	DB
TPH EXTRACTION	Completed		03/19/94	DB

End of progress report on sample: AA22123

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-21-1994 Time: 10:34:42

Sample I.D. AA22124
Status: In invoice queue
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/17/94
Date submitted: 03/18/94
Due date: 03/31/94
Specification checking: off
Descript: C8-4 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	93	PERCENT	03/19/94	DB
TPH-SOIL	28	mg/kg dry wt	03/19/94	DB
TPH EXTRACTION	Completed		03/19/94	DB

End of progress report on sample: AA22124

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-21-1994 Time: 10:34:43

Sample I.D. AA22125
Status: In invoice queue
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 3

Date collected: 03/17/94
Date submitted: 03/18/94
Due date: 03/31/94
Specification checking: off
Descript: FIELD BLANK

MATRIX: WATER

Analysis	Result	Unit	Finished	Anl
TPH-WATER	Not detected	mg/L	03/19/94	DB
TPH EXTRACTION	Completed		03/19/94	DB

End of progress report on sample: AA22125

WET CHEMISTRY ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

		No	Yes
1.	Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank:	_X_	___
2.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)	___	_X_
3.	IR Spectra submitted for all standards, blanks, & samples	___	_X_
4.	Chromatograms submitted for all standards, blanks, & samples if GC fingerprinting was conducted	___	___
5.	Extraction Holding Time Met	___	_X_
	If not met, list number of days exceeded for each sample:		
6.	Analysis Holding Time Met	___	_X_
	If not met, list number of days exceeded for each sample:		

Additional Comments: _____

QA/QC Director: Deborah A. Keller Date: _3/21/94_____

METHOD REFERENCES

Volatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 8240.

Volatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 624.

TCLP Volatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8240.

Volatile Organics (Drinking Waters) - Methods for the Determination of Organic Compounds in Drinking Water, EPA/600/4-88/039, Revision 3, 1989, Method 524.2.

Semivolatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8270.

Semivolatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 625.

TCLP Semivolatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8270.

Pesticides (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

Pesticides (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 608.

TCLP Pesticides - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8080.

TCLP Herbicides (Waters) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8150.

PCB's (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

PCB's (Waters) - Federal Register, 40 CFR, Part 136, October 26, 1984, Method 608.

PCB's (Oils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3580 and 8080.

Total Metals (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition. Methods 3020 or 3050 are used for digestion. All ICP metals are analyzed using Method 6010. Antimony, arsenic, cadmium, molybdenum, selenium and thallium are analyzed by Methods 7041, 7060, 7131, 7481, 7740 and 7841 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

TCLP Metals - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 1311 followed by Method 3020 for digestion and the individual parameter methods listed above in the Total Metals (Soils) section.

ICP Metals (Waters) - Methods for the Determination of Metals in Environmental Samples, EPA/600/4-91/010, June 1991, Revision 3.3, Method 200.7.

GFAA Metals & Mercury (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983. Antimony, arsenic, cadmium, lead, molybdenum, selenium, thallium and tin are analyzed using Methods 204.2, 206.2, 213.2, 239.2, 246.2, 270.2, 279.2 and 282.2 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

Cyanide (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9010.

Cyanide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 335.2.

Phenols (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9065.

Phenols (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 420.1.

TPH (Soils & Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 418.1 for waters and modified 418.1 for soils using a soxhlet extraction with freon prior to analysis.

Hexavalent Chromium (Soils & Waters) - Test Methods for Evaluating Solid Waste, SW-846, Second and Third Editions, Methods 3060 and 7196A.

pH (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9040.

pH (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 150.1.

Reactive Cyanide - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Chapter Seven, Section 7.3, Reactivity.

Reactive Sulfide - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Chapter Seven, Section 7.3, Reactivity.

Ignitability - Test Methods for Evaluating Solid Waste, SW-848, Third Edition, Chapter Seven, Section 7.1, Ignitability.

Flashpoint - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 1010.

Conductance (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 120.1.

Residue, Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.1.

Residue, Non-Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.2.

Residue, Total (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.3.

Chloride (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 325.3.

Chloride (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9252.

Sulfide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 376.1.

Chemical Oxygen Demand (Waters) - Hach Chemical Company, Method 8000.

Oil & Grease (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 413.1.

TOX (Waters & Soils) - Refer to methods listed for volatile organics.

2,3,7,8 - TCDD/TCDF - Modified Contract Laboratory Program Statement of Work, November 1992.

VERITECH

47 CAREY AVE., BUTLER, NJ 07405
NJDEPE NO: 14622

REPORT OF ANALYSIS

TO: ENVIRO-TECH, INC.
247 MAIN ST.
MATAWAN, NJ 07747-3222
(908) 566-2277

Date Collected: 03/17/94
Date Submitted: 03/18/94
Date Reported: 03/21/94
Project: EARL

Sample I.D.		AA22117		AA22118	
Sample Description		C2-1 SOIL		C2-2 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	83	1.0	81
TPH-SOIL	mg/kg dry wt	24	Not detected	25	Not detected
TPH-WATER					

Sample I.D.		AA22119		AA22120	
Sample Description		C2-3 SOIL		C2-4 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	84	1.0	85
TPH-SOIL	mg/kg dry wt	24	Not detected	24	Not detected
TPH-WATER					

Sample I.D.		AA22121		AA22122	
Sample Description		C8-1 SOIL		C8-2 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	97	1.0	91
TPH-SOIL	mg/kg dry wt	21	Not detected	22	Not detected
TPH-WATER					

Sample I.D.		AA22123		AA22124	
Sample Description		C8-3 SOIL		C8-4 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	93	1.0	93
TPH-SOIL	mg/kg dry wt	22	Not detected	21	28
TPH-WATER					

Sample I.D.	**AA22125**
Sample Description	**FIELD BLANK**

Analyte	**Units**	**MDL**	**Result**
%SOLIDS			
TPH-SOIL			
TPH-WATER	mg/L	1.1	Not detected

This report is a true report of results obtained from our tests of this material. In lieu of a formal contract document, the total aggregate liability of Veritech to all parties shall not exceed Veritech's total fee for analytical services rendered.

Stanley Gilewicz - Laboratory Director

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22117
Sample Matrix: Soil
% Solids: 83

Date Received: 3/18/94
Date Extracted: 3/19/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	C2-1	ND	1.0	24	3/19/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22118
Sample Matrix: Soil
% Solids: 81

Date Received: 3/18/94
Date Extracted: 3/19/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	C2-2	ND	1.0	25	3/19/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22119
Sample Matrix: Soil
% Solids: 84

Date Received: 3/18/94
Date Extracted: 3/19/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	C2-3	ND	1.0	24	3/19/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22120
Sample Matrix: Soil
% Solids: 85

Date Received: 3/18/94
Date Extracted: 3/19/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	C2-4	ND	1.0	24	3/19/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22121
Sample Matrix: Soil
% Solids: 97

Date Received: 3/18/94
Date Extracted: 3/19/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	C8-1	ND	1.0	21	3/19/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22122
Sample Matrix: Soil
% Solids: 91

Date Received: 3/18/94
Date Extracted: 3/19/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	C8-2	ND	1.0	22	3/19/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22123
Sample Matrix: Soil
% Solids: 93

Date Received: 3/18/94
Date Extracted: 3/19/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	C8-3	ND	1.0	22	3/19/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22124
Sample Matrix: Soil
% Solids: 93

Date Received: 3/18/94
Date Extracted: 3/19/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	C8-4	28	1.0	22	3/19/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22125 Date Received: 3/18/94
Sample Matrix: Water Date Extracted: 3/18/94
% Solids: 0

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/L)	DILUTION FACTOR	MDL (mg/L)	DATE ANALYZED
TPH	FIELD BLANK	ND	1.0	1.1	3/19/94

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** Soil

Lab Code: 14622 **Units:** mg/kg

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	20	223S	ND

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** Water

Lab Code: 14622 **Units:** mg/L

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	1.0	045W	ND

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

AA22117 MS

Lab Name: Veritech **Sample Matrix:** Soil

Lab Code: 14622

% Solids for Sample: 83

Concentration Units (mg/L or mg/kg dry weight): _mg/kg__

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	703		24.1	U	772	90		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

AA22117 MSD

Lab Name: Veritech **Sample Matrix:** Soil

Lab Code: 14622

% Solids for Sample: 83

Concentration Units (mg/L or mg/kg dry weight): _mg/kg__

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	722		24.1	U	787	90		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC DUPLICATE SUMMARY

SAMPLE NO.
AA22117 DUP

Lab Name: Veritech **Sample Matrix:** Soil

Lab Code: 14622

% Solids for Sample: 83

Concentration Units (mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
TPH	+/-20%	24.1	U	24.1	U			C
Total CN	+/-20%							
Phenols	+/-20%							
Reac CN	+/-20%							
Reac HS	+/-20%							
Hex Cr	+/-20%							

FORM VI - IN ILM02.0

TPH LINEAR REGRESSION DATE 10-Mar-94
TPH_3S ANALYST Dan B

STDS (MG)	ABS.
0	0.0000
2.5	0.1225
5	0.2336
10	0.4616
15	0.6965
20	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1069

##

STDS (MG)	ABS.	PPM	DIFF
0	0.0000	-0.0326	0.0326
2.5	0.1225	2.6048	-0.1048
5	0.2336	4.9967	0.0033
10	0.4616	9.9054	0.0946
15	0.6965	14.9627	0.0373
20	0.9334	20.0630	-0.0630

##

BATCH 223

SAMPLE	ABS.	MG
10mg3-19	0.4727	10.1444
MBS	0.4681	10.0454
dup 22117	0.0107	0.1978
ms1 22117	0.4243	9.1024
ms2 22117	0.4276	9.1734
mb3-19	0.0089	0.1590
22117	0.0081	0.1418
22118	0.0090	0.1612
22119	0.0089	0.1590
22120	0.0099	0.1806
22121	0.0117	0.2193
22122	0.0072	0.1224
22123	0.0126	0.2387
22124	0.0207	0.4131

SL 3/19/94

√ data input
DB 3/19/94

ANALYSIS: TPH SOILS

BATCH 223

DATE: 19-Mar-94

ANALYST: DB

Q.C. DATA

	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.14	101%
MBS	666.7	669.69	100%
MS #1	772.32	702.99	90%
MS #2	787.46	722.37	90%
SAMPLE		11.02	RPD
SAMPLE DUP		15.37	0.00%

SAMPLE #	SOLIDS FACTOR	SAMPLE WEIGHT	MG FROM CURVE	CALC.	DILUT. FACTOR	TPH (PPM)	MDL DRY WT.
10mg3-19	1.00	1000	10.1444		1.0	10.14	
MBS	1.00	15.0	10.0454		1.0	669.69	20.00
dup 22117	0.83	15.5	0.1978		1.0	15.37	24.10
ms1 22117	0.83	15.6	9.1024		1.0	702.99	24.10
ms2 22117	0.83	15.3	9.1734		1.0	722.37	24.10
mb3-19	1.00	15.0	0.1590		1.0	10.60	20.00
22117	0.83	15.5	0.1418		1.0	11.02	24.10
22118	0.81	15.1	0.1612		1.0	13.18	24.69
22119	0.84	15.3	0.1590		1.0	12.37	23.81
22120	0.85	15.2	0.1806		1.0	13.98	23.53
22121	0.97	15.2	0.2193		1.0	14.87	20.62
22122	0.91	15.0	0.1224		1.0	8.97	21.98
22123	0.93	15.1	0.2387		1.0	17.00	21.51
22124	0.93	15.7	0.4131		1.0	28.291	21.51

√ data input

DB 3/19/94

TPH LINEAR REGRESSION

DATE 10-Mar-94
ANALYST Dan B

STDS (MG)	ABS.
0.0	0.0000
2.5	0.1225
5.0	0.2336
10.0	0.4616
15.0	0.6965
20.0	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1069

****

STDS (MG)	ABS.	PPM	DIFF
0.0	0.0000	-0.0326	0.0326
2.5	0.1225	2.6048	-0.1048
5.0	0.2336	4.9967	0.0033
10.0	0.4616	9.9054	0.0946
15.0	0.6965	14.9627	0.0373
20.0	0.9334	20.0630	-0.0630

****

BATCH 045

SAMPLE	ABS.	MG
10mg3-16	0.4684	10.0518
MBS	0.4455	9.5588
MBSD	0.4393	9.4253
mb3-16	0.0114	0.2129
22050	0.0087	0.1547
22048	0.0074	0.1267
22125	0.0056	0.0880
mb3-18	0.0057	0.0901
10mg3-19	0.4727	10.1444

SL 3/19/94

√ data input
DB 3/19/94

ANALYSIS: TPH WATERS

batch 045

DATE: 19-Mar-94

ANALYST: DB

Q.C. DATA

	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.052	101%
MBS	10	9.559	96%
MBS DUP	10	9.425	94%

RPD = 0.00%

SAMPLE NO.	SAMPLE VOLUME	MG CALC. FROM CURV	DILUT. FACTOR	TPH (PPM)	MDL (PPM)
10mg3-16	1000	10.0518	1.0	10.052	
MBS	1000	9.5588	1.0	9.559	
MBSD	1000	9.4253	1.0	9.425	
mb3-16	1000	0.2129	1.0	0.213	1.0
22050	970	0.1547	1.0	0.160	1.0
22048	970	0.1267	1.0	0.131	1.0
22125	930	0.0880	1.0	0.095	1.1
mb3-18	1000	0.0901	1.0	0.090	1.0
10mg3-19	1000	10.1444	1.0	10.144	1.0

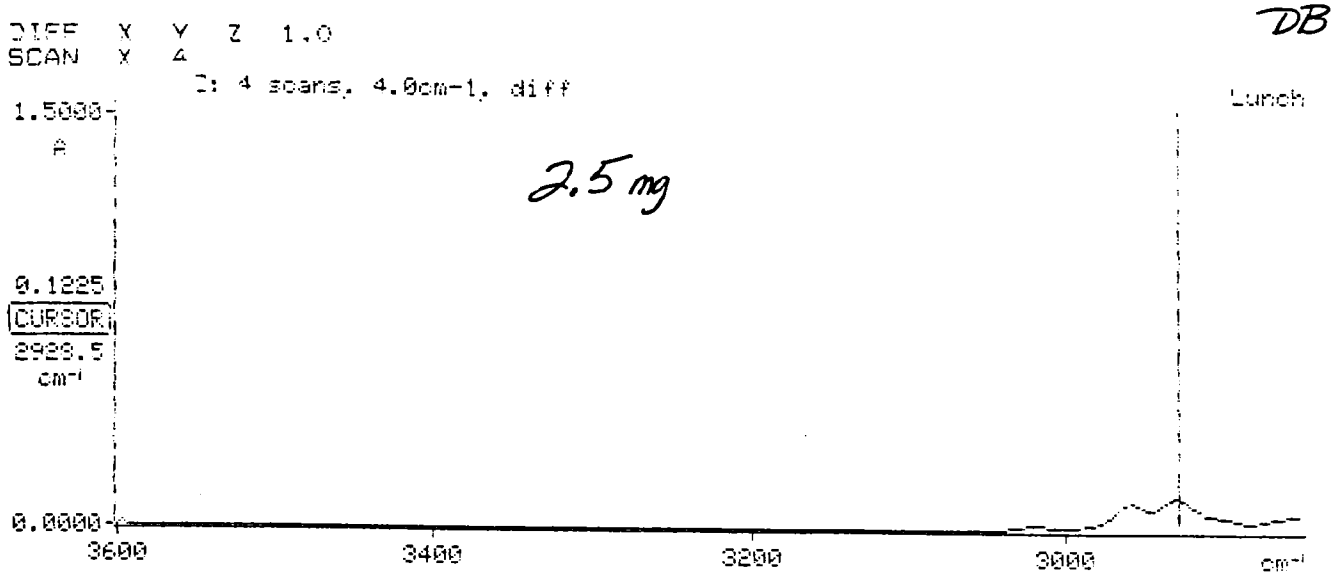
SL 3/19/94

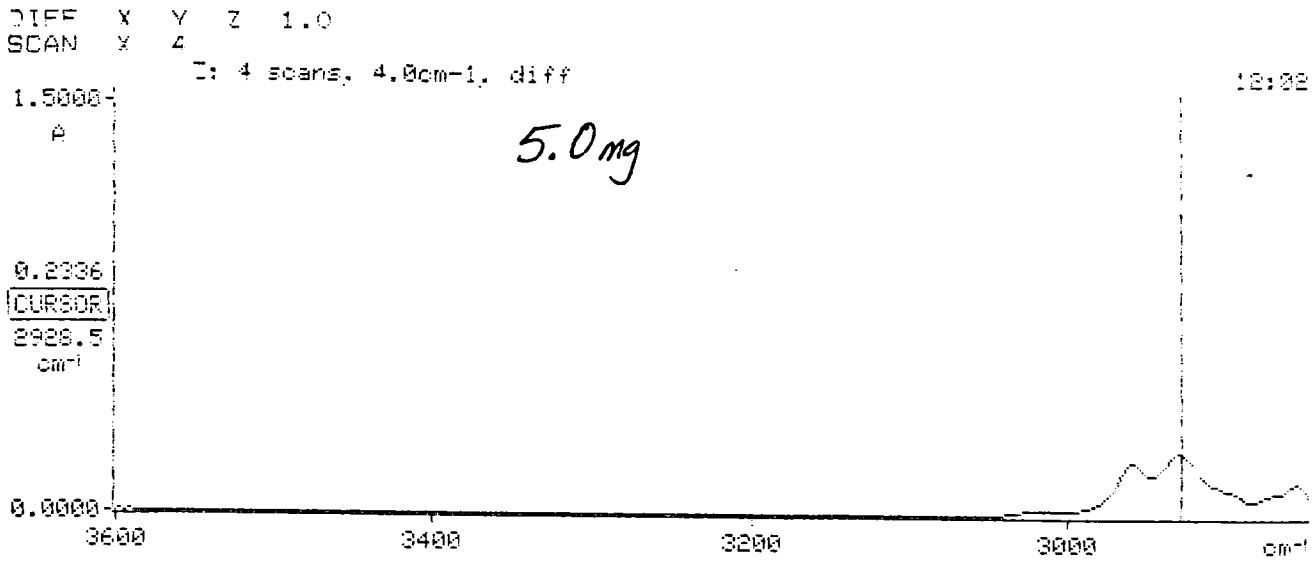
√ data input

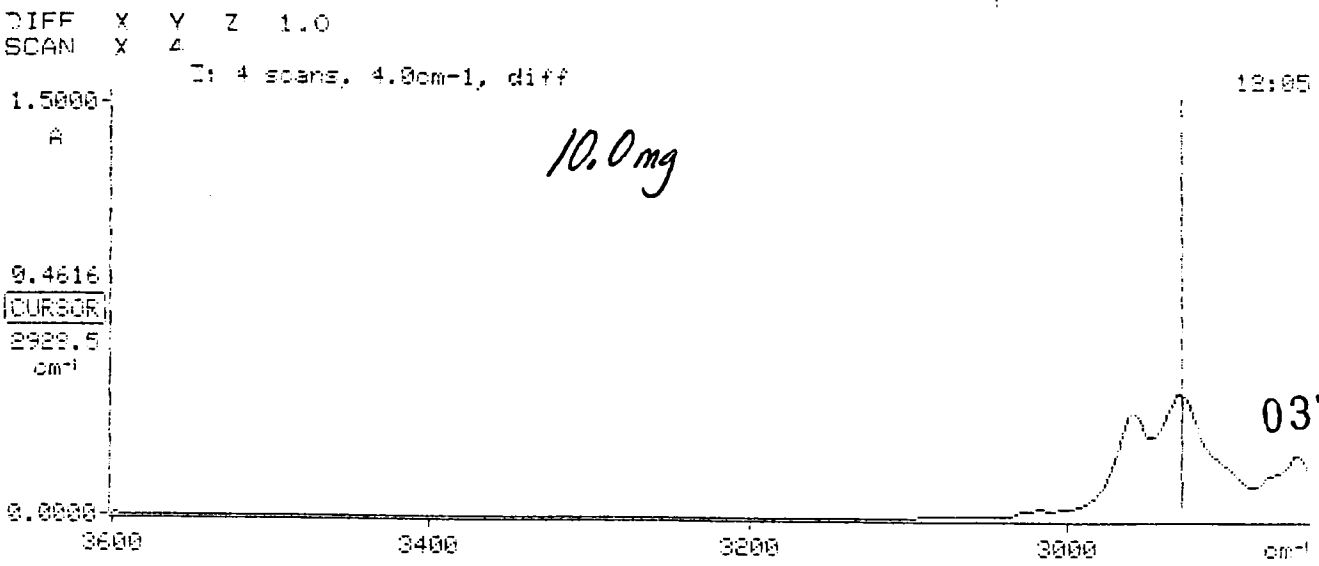
DB 3/19/94

TPH curve 3/10/9

DB

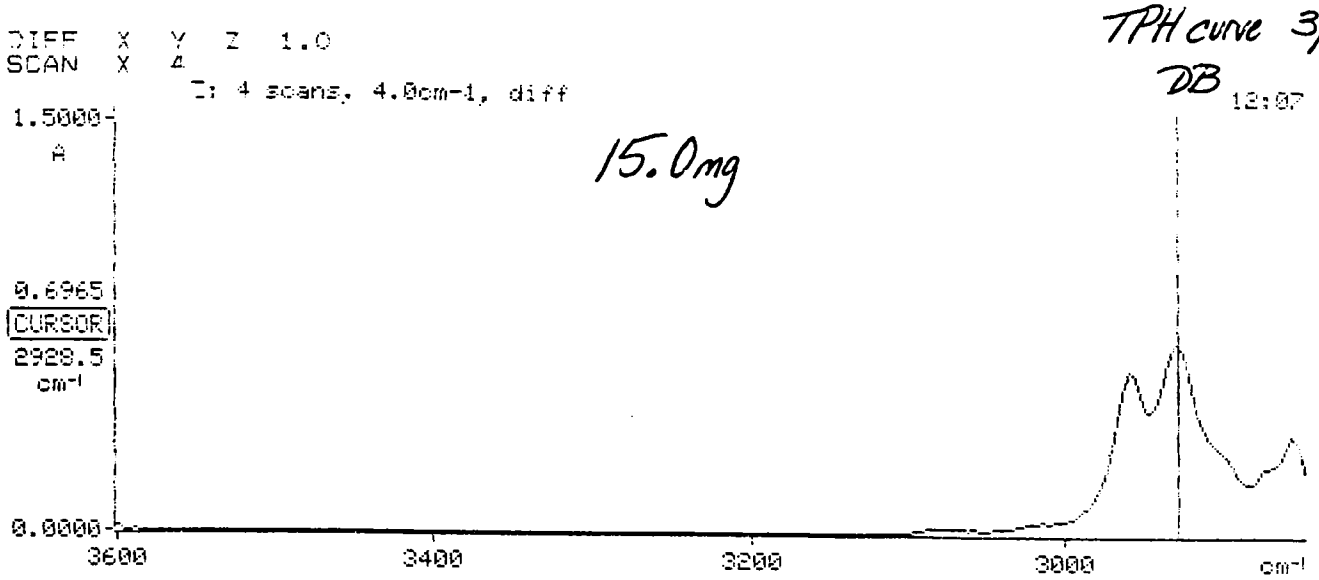


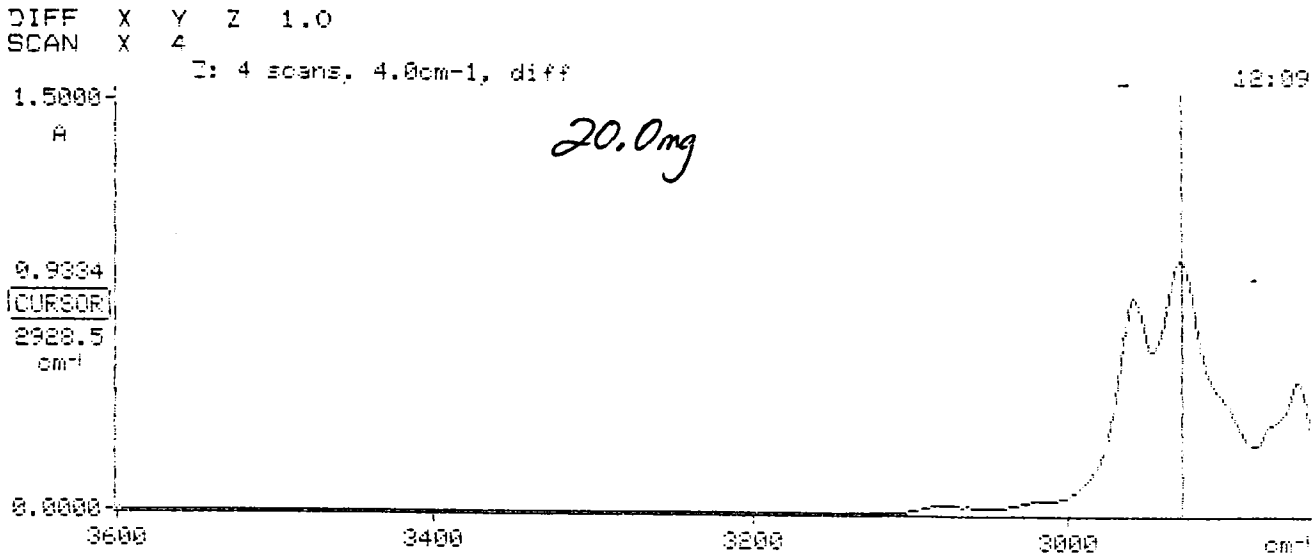


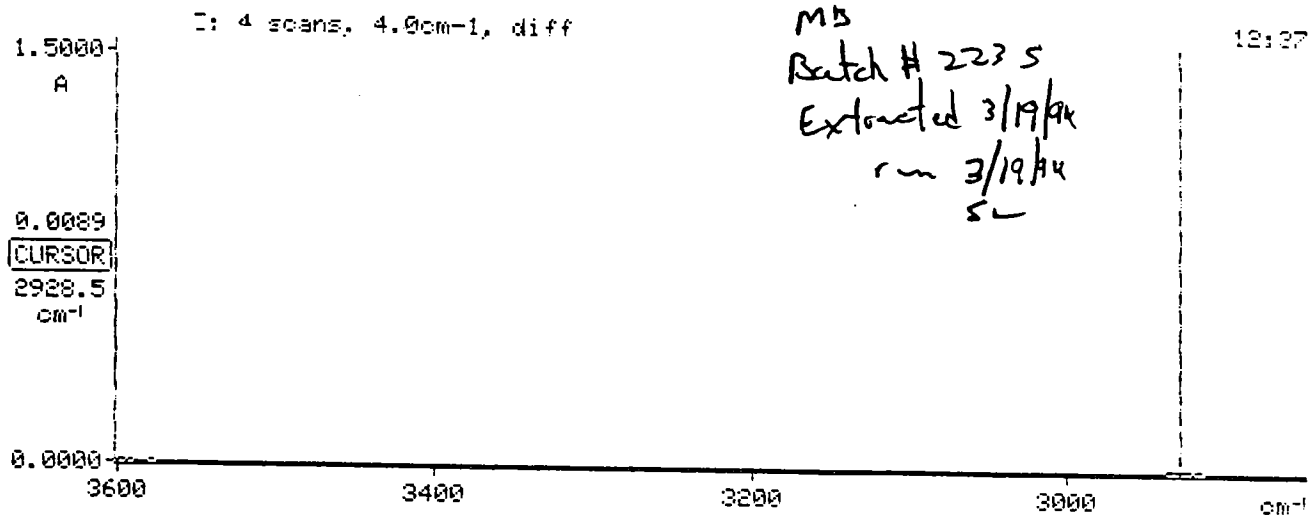


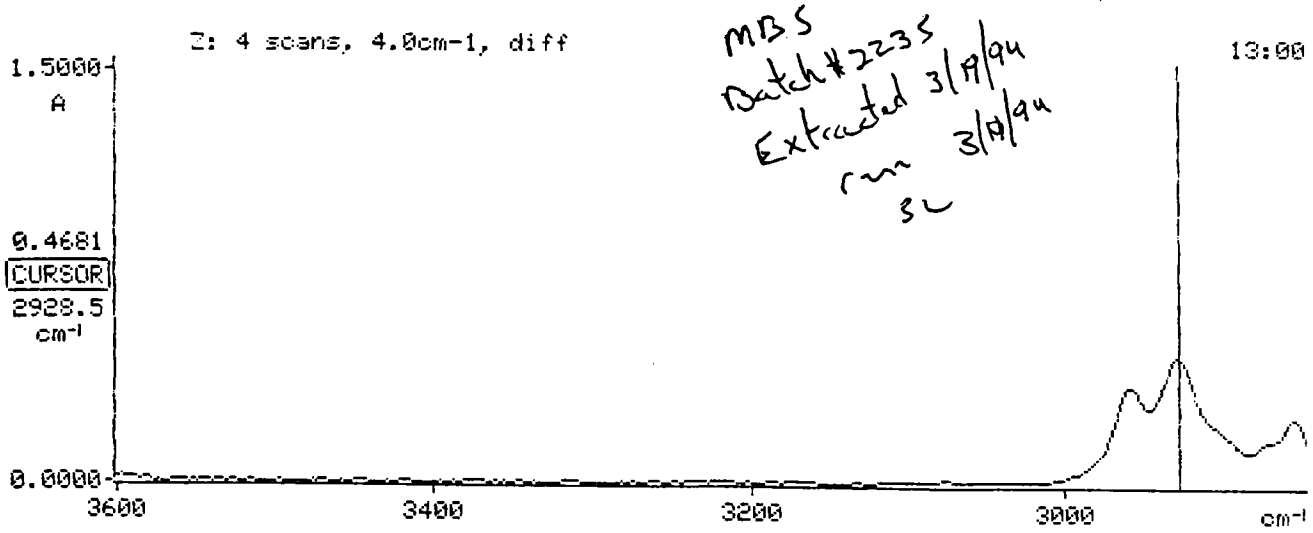
037

TPH curve 3/10/94
DB






I: 4 scans, 4.0cm-1, diff
MB
Batch # 2235
Extracted 3/19/94
run 3/19/94
SL
12:37
1.5000
A
0.0089
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1

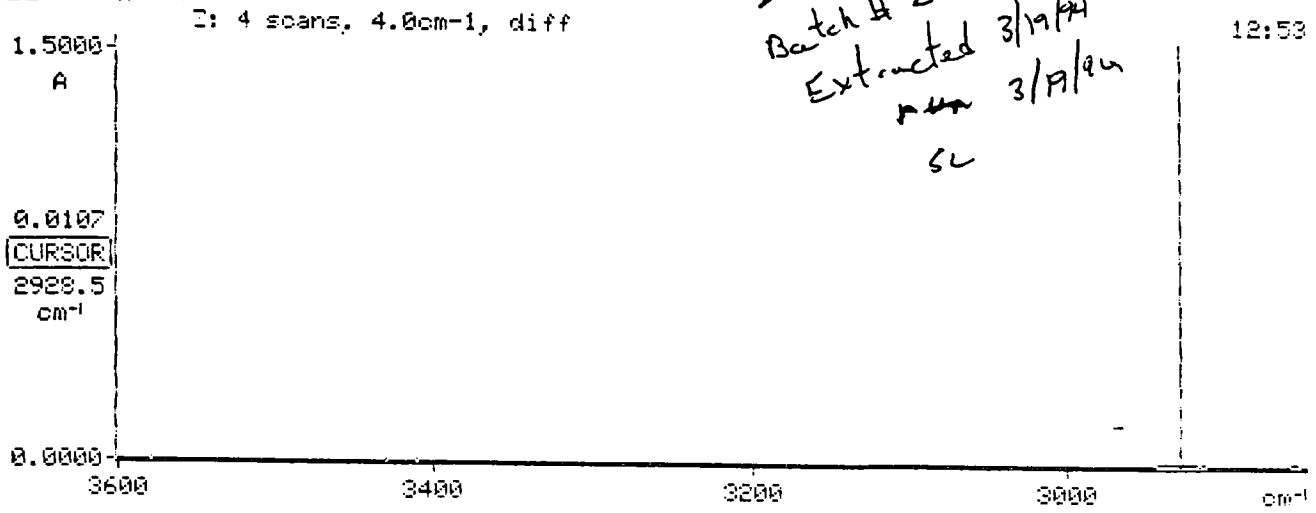


MBS
Batch #2235
Extracted 3/19/94
run 3/19/94
SL

040

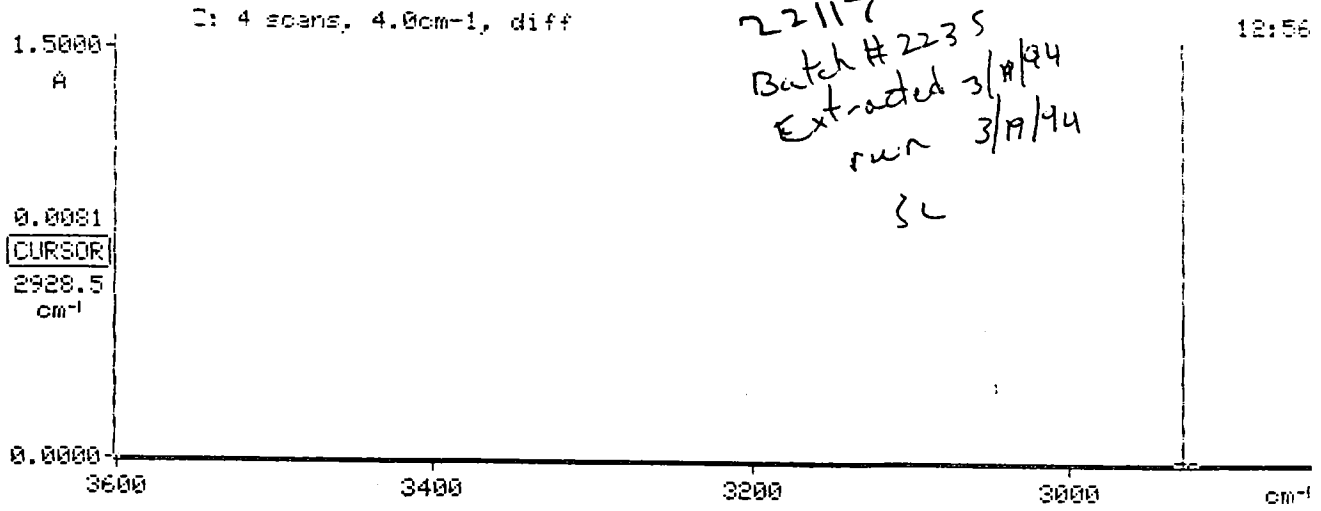
DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4

Dup
22117
Batch # 2235
Extracted 3/19/94
run 3/19/94
SL



DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4

22117
Batch # 2235
Extracted 3/19/94
run 3/19/94
SL



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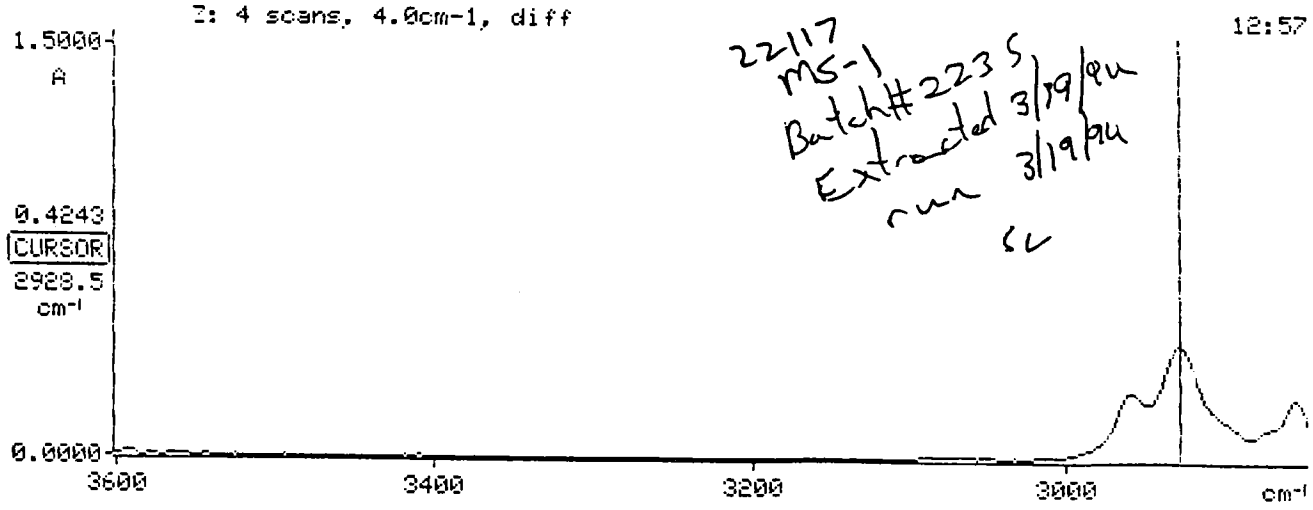
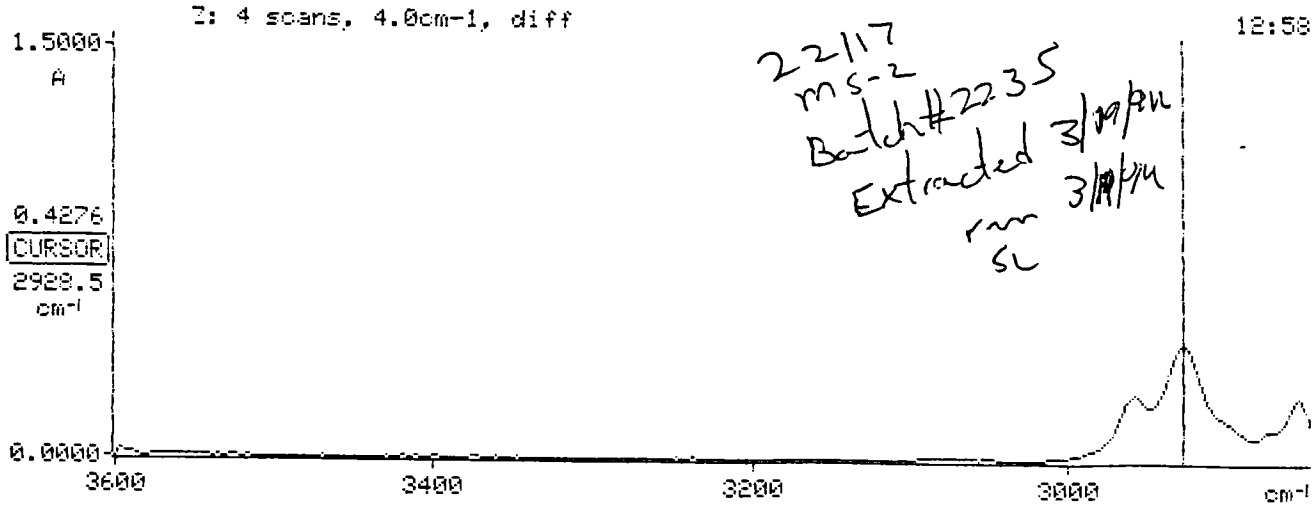
SCAN X 4

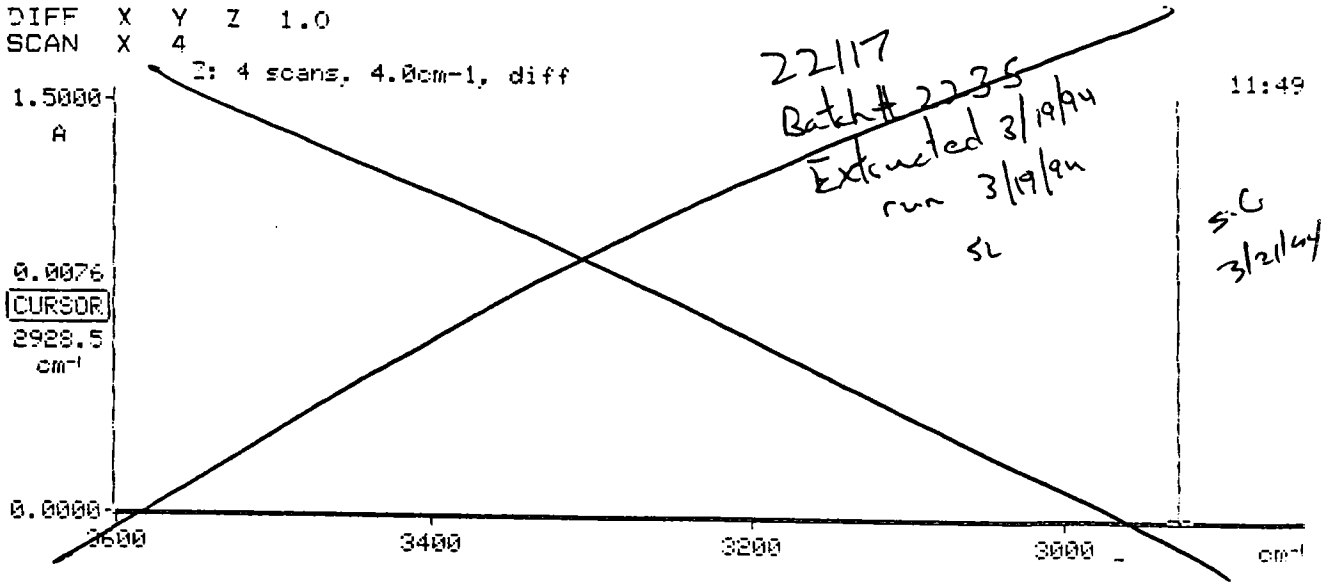


DIFF X Y Z 1.0
SCAN X 4



DIFF X Y Z 1.0
SCAN X 4

DIFF X Y Z 1.0
SCAN X 4



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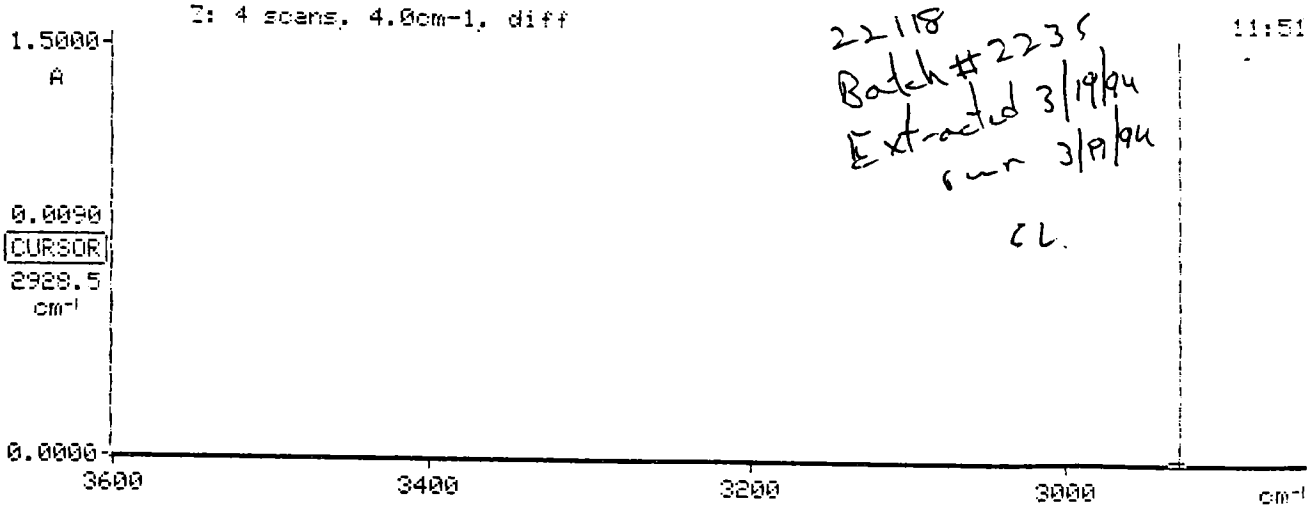
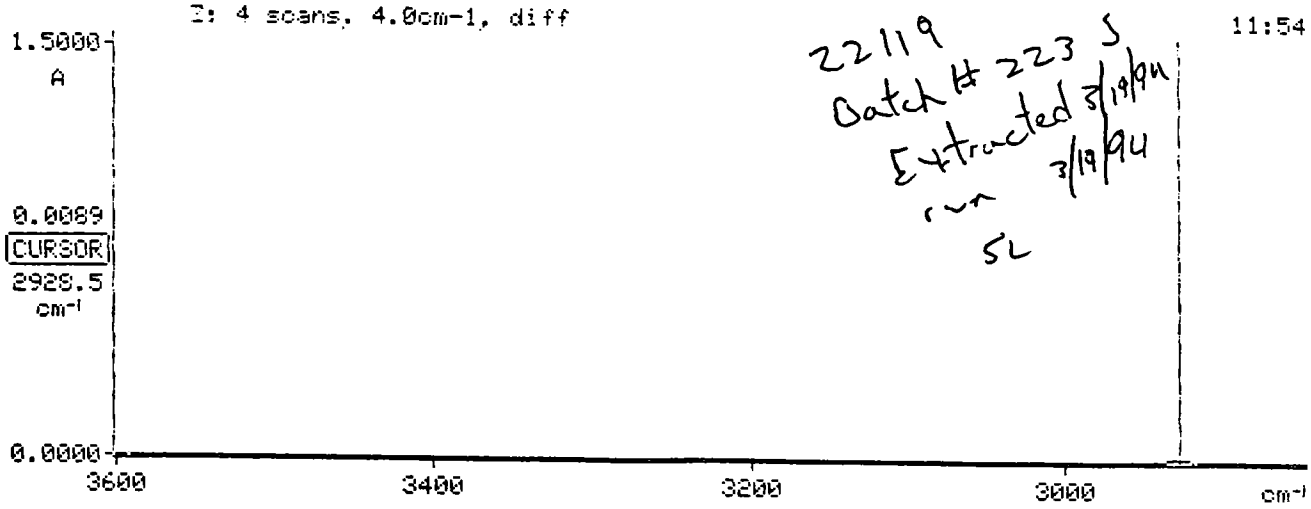
SCAN X 4



DIFF X Y Z 1.0
SCAN X 4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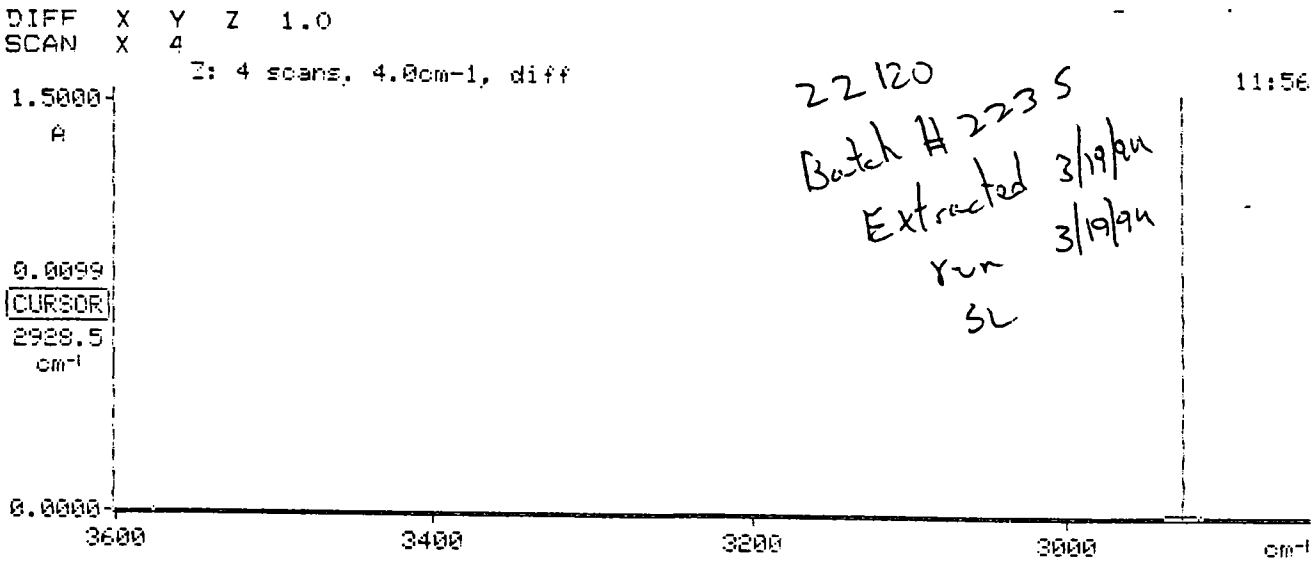
11:54
1.5000
A
0.0089
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22119
Batch # 223 S
Extracted 3/19/94
run 3/19/94
SL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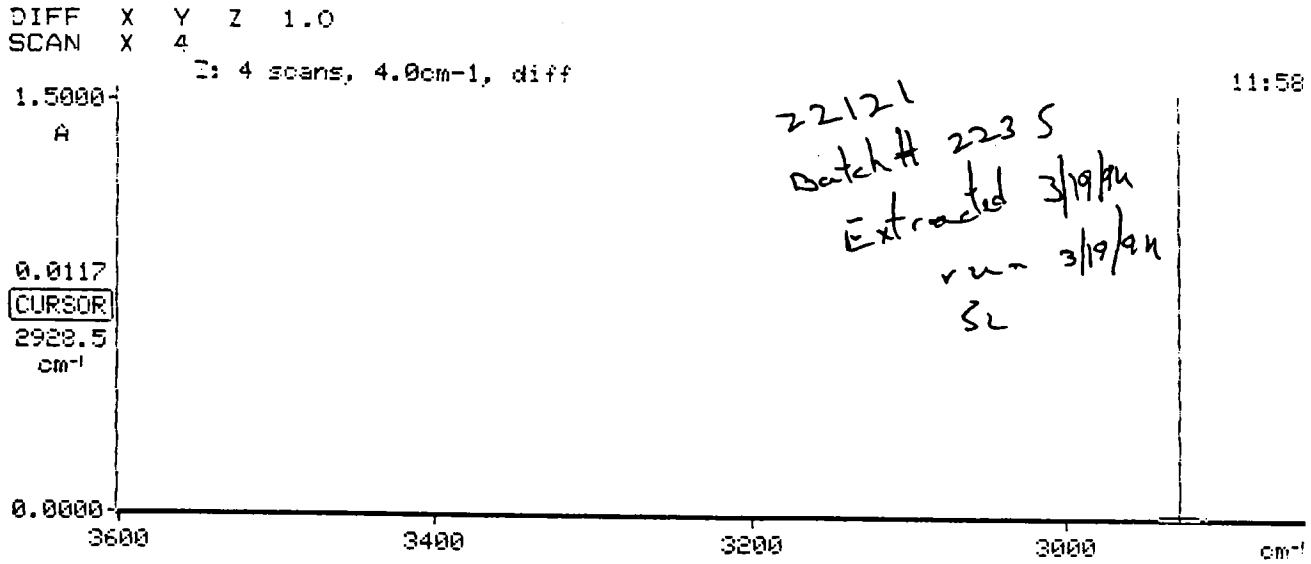
A
0.0099
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22120
Batch # 223 S
Extracted 3/19/94
run 3/19/94
SL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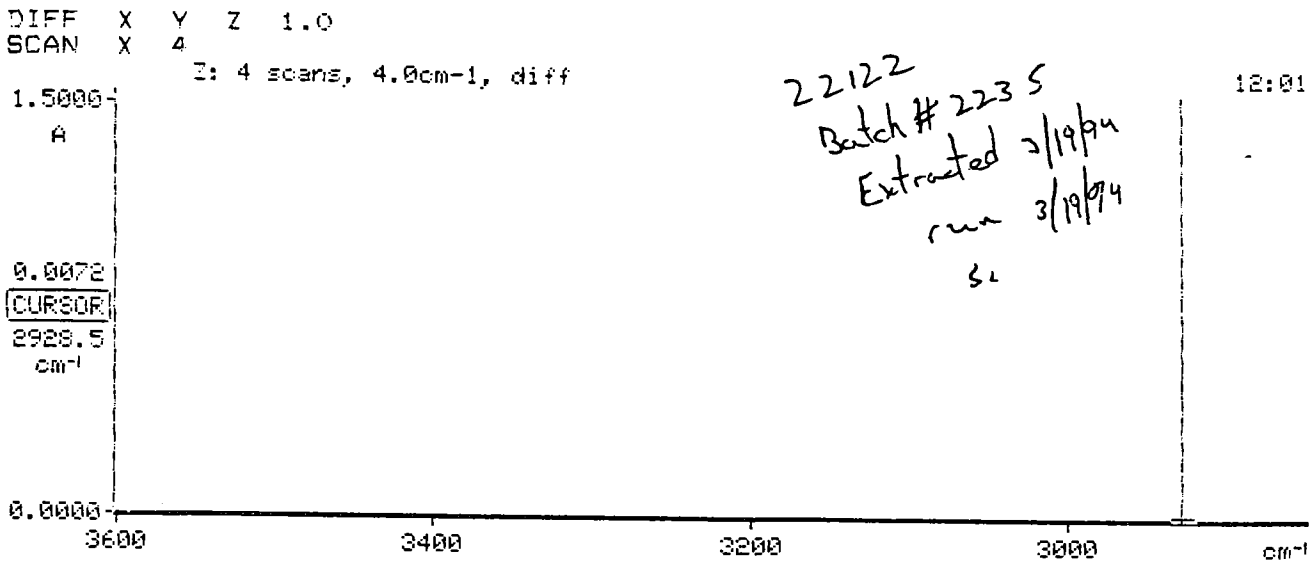
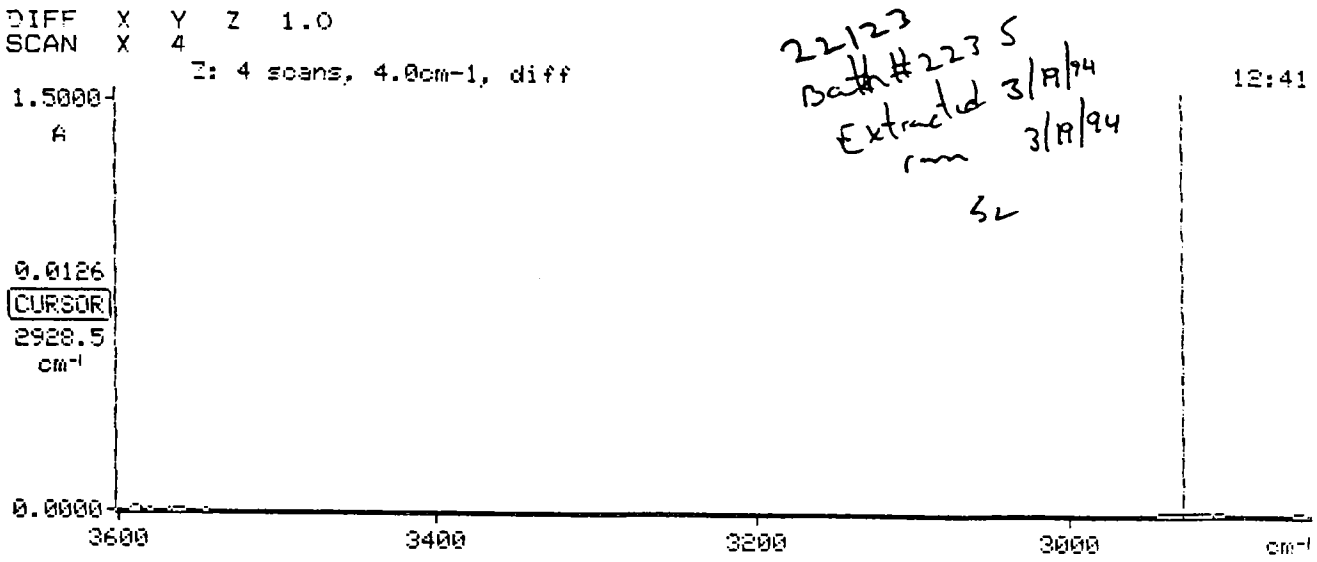
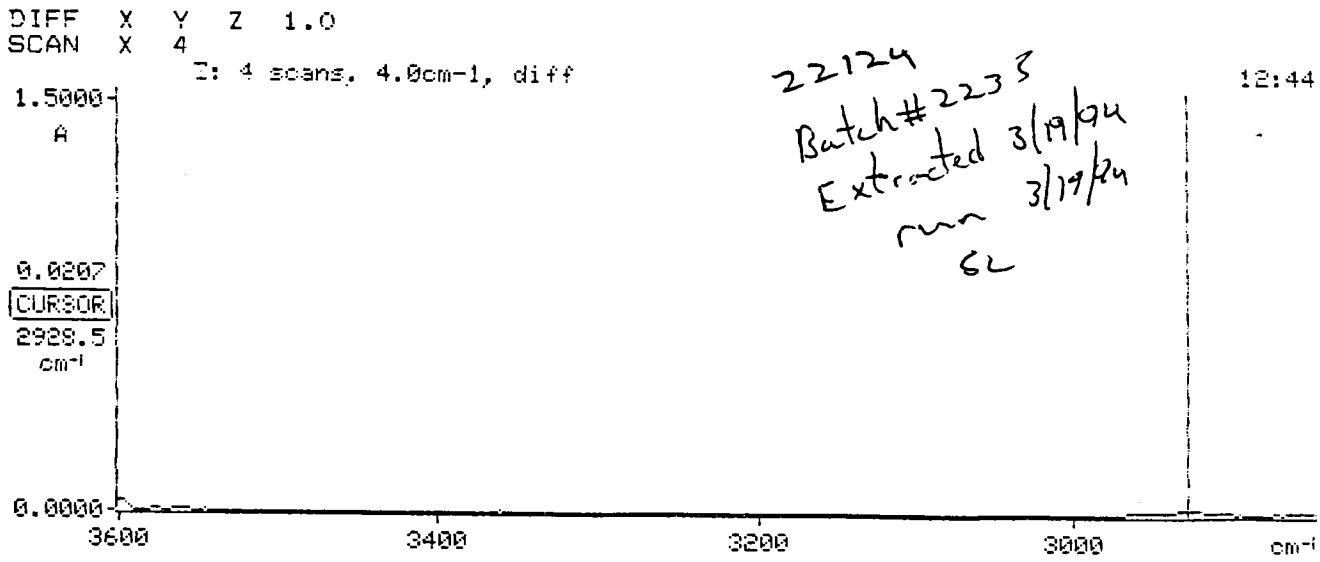
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
11:58
1.5000
A
0.0117
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22121
Batch # 2235
Extracted 3/19/94
run 3/19/94
SL


DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
12:01
1.5000
A
0.0072
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22122
Batch # 2235
Extracted 3/19/94
run 3/19/94
SL


DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
12:41
1.5000
A
0.0126
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22123
Batch#2235
Extracted 3/18/94
run 3/18/94
SL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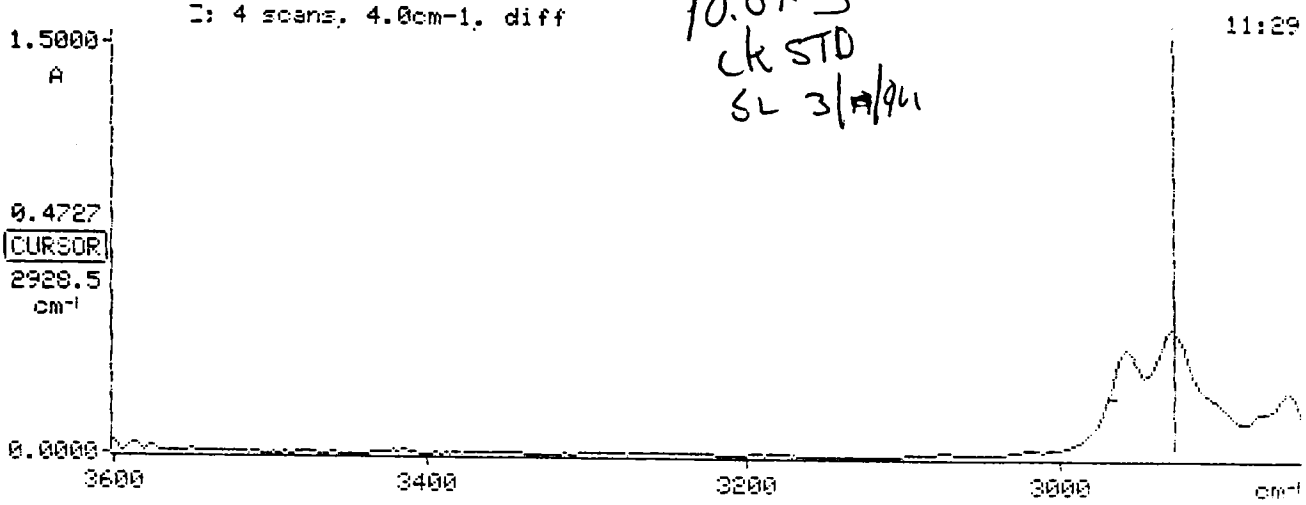
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
12:44
1.5000
A
0.0207
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22124
Batch#2235
Extracted 3/19/94
run 3/19/94
SL

```
SCAN  BACKG  4
SCAN  X  4
SCAN  Y  4
DIFF  X  Y  Z  1.0
SCAN  X  4
DIFF  X  Y  Z  1.0
SCAN  X  4
```

I: 4 scans, 4.0cm-1, diff

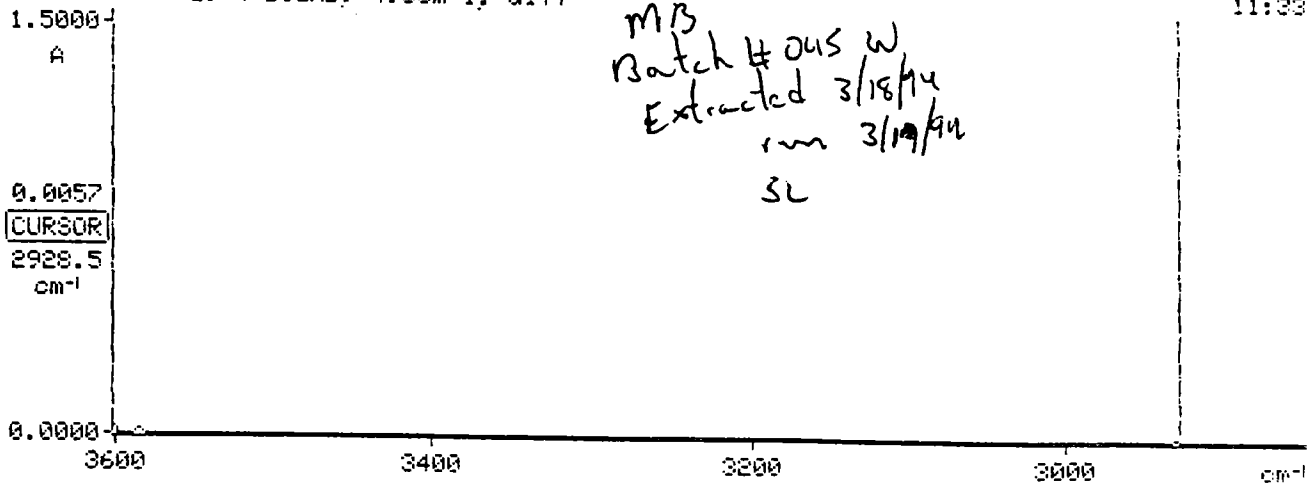
10.0 mg
CK STD
SL 3/19/94



DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff

11:33

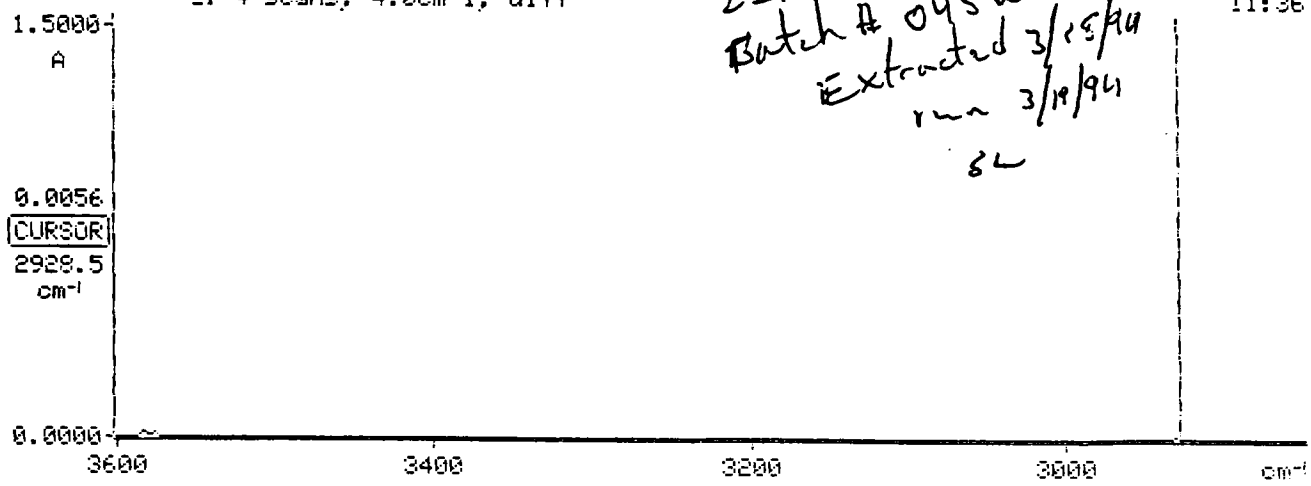
MB
Batch # 045 W
Extracted 3/18/94
run 3/19/94
SL



DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff

22125
Batch # 045W
Extracted 3/25/94
run 3/19/94
SL

11:36



No. 2

March 22, 1994 Soil Samples
(UST MPL-1)

MPL-1

veritech

Division of Hampton-Clarke, Inc.

environmental and analytical services

ENVIRO-TECH, INC.

NJDEPE REDUCED PKG

PROJECT: EARL AMMUNITION

LAB # AA22224-AA22229

NJDEPE Cert. #14622, CT Cert. #PH0671
PADER #68-463, MA Cert. #NJ386
NYDOH #11408

47 Carey Avenue • Butler, NJ 07405
Phone: (201) 492-8744 Fax: (201) 492-1815

TABLE OF CONTENTS

VERITECH LABORATORY RESULTS

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SAMPLE KEY

ENVIROTECH NO.	VERITECH NO.
MPL1-1	AA22224
MPL1-2	AA22225
MPL1-3	AA22226
MPL1-4	AA22227
FIELD BLANK	AA22228
MPL1-SP	AA22229

Enviro-Tech Inc.

Page ___ of ___

CHAIN-OF-CUSTODY RECORD

SAMPLER (Signature) [signature] Date Shipped _____ Carrier _____

Phone 908-566-2277 Airbill No. _____ Cooler No. _____

SHIP TO:

VERITECH

ATTENTION: _____

SEND RESULTS TO:

Client Name _____

Company ENVIRO-TECH, INC.

Address 247 MAIN ST. MATAWAN, NJ

Phone 908-566-2277

PROJECT NAME EARL AMMUNITION **PROJECT NO.** _____ **P.O. NO.** _____

Relinquished by: (Signature)	Received by: (Signature)	Date	Military Time
[signature]	[signature]	3/23/94	1045
Relinquished by: (Signature)	Received by: (Signature)	Date	Military Time
[signature]	[signature]	3/23/94	1230
Relinquished by: (Signature)	Received at lab by: (Signature)	Date	Military Time
Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Military Time

ANALYSIS REQUEST

	Sample ID Number	Sample Description	Date/Time Sampled		Analysis Requested	Sample Condition Upon Receipt	
1	MPLI-1	SOIL	3/22/94	13:53	*TPH, VOTIO, XYLENE	Cool	AA22224
1	MPLI-2			13:58			22225
1	MPLI-3			14:02			22226
1	MPLI-4			14:05			22227
3	FIELD BLANK	AQUEOUS		13:50			22228
3	MPLI-SP	SOIL		14:23	*TPH, BTEX, pH, Ignitibility, PCBs ~~and~~ TCLP METALS TOX, REACTIVITY and % MOISTURE, NICKLE COPPER, ZINC		

Special Instructions/Comments:

* PLEASE ANALYZE FOR TPH FIRST (WITH 24 HOUR TURNAROUND). IF TPH RESULTS ARE GREATER THAN 1,000 ppM, PLEASE CALL ETI OFFICE FOR AUTHORIZATION OF ADDITIONAL ANALYSES.

LF

Cooler temp. 4.0°C

NOTE: UNUSED PORTIONS OF NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Expected Analytical T.A.T.'s: _____ Immediate Attention (200% surcharge) _____ RUSH (50-100% surcharge) _____ Standard

GDM-010

Sample Custodians Chain of Custody

veritech
Division of Hampton-Clarke, Inc.
environmental and analytical services

INTERNAL CHAIN OF CUSTODY RECORD

REMOVED FROM

PARAMETER	SAMPLE NO.	COLDBOX NO.	DATE	TIME	SIGNATURE
% Solids	AA22147-67	sample Frig	3/23/94	10:39	[illegible]
TCLP Digestion	AA22168-22171, 22138	Metals Lab	3/23/94	10:40	[illegible]
TPH/Pb/Cd	Environmental 1-5 FB	Entry Cooler	3/23/94	1:00	[illegible]
PCB	22220-22 22229	3	3/24/94	9:00	[illegible]
VOCs/1,8/TPH	22215-19, 20-22	3	3/24	9:20	[illegible]
Reag. as 3/24/94					
TCLP	22220-22222	3	3/24/94	9:30	S. Paramantha
↓	22229, 22232	↓	↓	↓	↓
COD	22203-22204	sample frig	3/24	9:40	Dan Betelle
RCN/RS	22232	3	3/24	10:15	[illegible]
GC/MS	22223	3	"	2:50	[illegible]
Hg H_2O	22205-22214	3	3/24	3:10	[illegible]
Hg H_2O	21896	↓	↓	↓	↓

RETURNED TO

PARAMETER	SAMPLE NO.	COLDBOX NO.	DATE	TIME	SIGNATURE
TCLP Digest	22168-22171, 22138	3	3/23/94	11:30	S. Paramantha
% Solids	AA22147-67	Sample Frig	3/23/94	11:14	[illegible]
TPH	FB Environmental 5	sample preparation	3/23/94	3:12	[illegible]
PCB	22220-22 22229	3	3/24/94	9:25	[illegible]
TCLP	22220-22222	3	3/24/94	9:45	S. Paramantha
↓	22229, 22232	↓	↓	↓	↓
COD	22203-22204	Sample frig	3/24	11:00	Dan Betelle
% Solid/TPH	22215-19, 20-22	3	3/24	11:45	[illegible]
RCN/RS	22232	3	3/24	11:45	[illegible]
Hg-H_2O	22205-22214,	3	3/24	3:50	[illegible]
↓	21896	↓	↓	↓	↓

47 Carey Avenue • Butler, NJ 07405
Phone: (201) 492-8744 Fax: (201) 492-1815

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-24-1994 Time: 10:53:58

Sample I.D. AA22224
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/22/94
Date submitted: 03/23/94
Due date: 04/05/94
Specification checking: off
Descript: MPL1-1 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	92	PERCENT	03/23/94	SL
TPH-SOIL	41	mg/kg dry wt	03/23/94	DB
TPH EXTRACTION	Completed		03/23/94	SL

End of progress report on sample: AA22224

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-24-1994 Time: 10:53:59

Sample I.D. AA22225
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/22/94
Date submitted: 03/23/94
Due date: 04/05/94
Specification checking: off
Descript: MPL1-2 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	88	PERCENT	03/23/94	SL
TPH-SOIL	37	mg/kg dry wt	03/23/94	DB
TPH EXTRACTION	Completed		03/23/94	SL

End of progress report on sample: AA22225

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-24-1994 Time: 10:53:59

Sample I.D. AA22226
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/22/94
Date submitted: 03/23/94
Due date: 04/05/94
Specification checking: off
Descript: MPL1-3 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	83	PERCENT	03/23/94	SL
TPH-SOIL	25	mg/kg dry wt	03/23/94	DB
TPH EXTRACTION	Completed		03/23/94	SL

End of progress report on sample: AA22226

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-24-1994 Time: 10:54:00

Sample I.D. AA22227
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/22/94
Date submitted: 03/23/94
Due date: 04/05/94
Specification checking: off
Descript: MPL1-4 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	86	PERCENT	03/23/94	SL
TPH-SOIL	Not detected	mg/kg dry wt	03/23/94	DB
TPH EXTRACTION	Completed		03/23/94	SL

End of progress report on sample: AA22227

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-24-1994 Time: 10:54:01

Sample I.D. AA22228
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 3

Date collected: 03/22/94
Date submitted: 03/23/94
Due date: 04/05/94
Specification checking: off
Descript: FIELD BLANK

MATRIX: WATER

Analysis	Result	Unit	Finished	Anl
TPH-WATER	Not detected	mg/L	03/23/94	SL
TPH EXTRACTION	Completed		03/23/94	SL

End of progress report on sample: AA22228

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-24-1994 Time: 10:54:01

Sample I.D. AA22229
Status: Complete and inactive
Priority:
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 3

Date collected: 03/22/94
Date submitted: 03/23/94
Due date: 04/05/94
Specification checking: off
Descript: MPL1-SP SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	91	PERCENT	03/23/94	SL
TPH-SOIL	Not detected	mg/kg dry wt	03/23/94	DB
TPH EXTRACTION	Completed		03/23/94	SL

End of progress report on sample: AA22229

WET CHEMISTRY ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

		No	Yes
1.	Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank:	X	
2.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)		X
3.	IR Spectra submitted for all standards, blanks, & samples		X
4.	Chromatograms submitted for all standards, blanks, & samples if GC fingerprinting was conducted		
5.	Extraction Holding Time Met		X
	If not met, list number of days exceeded for each sample:		
6.	Analysis Holding Time Met		X
	If not met, list number of days exceeded for each sample:		

Additional Comments: _____

QA/QC Director: _____ Date: 3/24/94

METHOD REFERENCES

Volatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 8240.

Volatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 624.

TCLP Volatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8240.

Volatile Organics (Drinking Waters) - Methods for the Determination of Organic Compounds in Drinking Water, EPA/600/4-88/039, Revision 3, 1989, Method 524.2.

Semivolatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8270.

Semivolatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 625.

TCLP Semivolatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8270.

Pesticides (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

Pesticides (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 608.

TCLP Pesticides - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8080.

TCLP Herbicides (Waters) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8150.

PCB's (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

PCB's (Waters) - Federal Register, 40 CFR, Part 136, October 26, 1984, Method 608.

PCB's (Oils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3580 and 8080.

Total Metals (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition. Methods 3020 or 3050 are used for digestion. All ICP metals are analyzed using Method 6010. Antimony, arsenic, cadmium, molybdenum, selenium and thallium are analyzed by Methods 7041, 7060, 7131, 7481, 7740 and 7841 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

TCLP Metals - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 1311 followed by Method 3020 for digestion and the individual parameter methods listed above in the Total Metals (Soils) section.

ICP Metals (Waters) - Methods for the Determination of Metals in Environmental Samples, EPA/600/4-91/010, June 1991, Revision 3.3, Method 200.7.

GFAA Metals & Mercury (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983. Antimony, arsenic, cadmium, lead, molybdenum, selenium, thallium and tin are analyzed using Methods 204.2, 206.2, 213.2, 239.2, 246.2, 270.2, 279.2 and 282.2 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

Cyanide (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9010.

Cyanide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 335.2.

Phenols (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9065.

Phenols (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 420.1.

TPH (Soils & Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 418.1 for waters and modified 418.1 for soils using a soxhlet extraction with freon prior to analysis.

Hexavalent Chromium (Soils & Waters) - Test Methods for Evaluating Solid Waste, SW-846, Second and Third Editions, Methods 3060 and 7196A.

pH (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9040.

pH (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 150.1.

Reactive Cyanide - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Chapter Seven, Section 7.3, Reactivity.

Reactive Sulfide - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Chapter Seven, Section 7.3, Reactivity.

Ignitability - Test Methods for Evaluating Solid Waste, SW-848, Third Edition, Chapter Seven, Section 7.1, Ignitability.

Flashpoint - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 1010.

Conductance (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 120.1.

Residue, Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.1.

Residue, Non-Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.2.

Residue, Total (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.3.

Chloride (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 325.3.

Chloride (Soils) - Test Methods for Evaluating Solid-Waste, SW-846, Third Edition, Method 9252.

Sulfide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 376.1.

Chemical Oxygen Demand (Waters) - Hach Chemical Company, Method 8000.

Oil & Grease (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 413.1.

TOX (Waters & Soils) - Refer to methods listed for volatile organics.

2,3,7,8 - TCDD/TCDF - Modified Contract Laboratory Program Statement of Work, November 1992.

VERITECH

47 CAREY AVE., BUTLER, NJ 07405
NJDEPE NO: 14622

REPORT OF ANALYSIS

TO: **ENVIRO-TECH, INC.**
247 MAIN ST.
MATAWAN, NJ 07747-3222
(908) 566-2277

Date Collected: 03/22/94
Date Submitted: 03/23/94
Date Reported: 03/24/94
Project: EARL

Sample I.D.		**AA22224**		**AA22225**	
Sample Description		**MPL1-1 SOIL**		**MPL1-2 SOIL**	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	92	1.0	88
TPH-SOIL	mg/kg dry wt	22	41	23	37
TPH-WATER					

Sample I.D.		**AA22226**		**AA22227**	
Sample Description		**MPL1-3 SOIL**		**MPL1-4 SOIL**	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	83	1.0	86
TPH-SOIL	mg/kg dry wt	24	25	23	Not detected
TPH-WATER					

Sample I.D.		**AA22228**		**AA22229**	
Sample Description		**FIELD BLANK**		**MPL1-SP SOIL**	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT			1.0	91
TPH-SOIL	mg/kg dry wt			22	Not detected
TPH-WATER	mg/L	1.9	Not detected		

This report is a true report of results obtained from our tests of this material. In lieu of a formal contract document, the total aggregate liability of Veritech to all parties shall not exceed Veritech's total fee for analytical services rendered.

Stanley Gilewicz - Laboratory Director

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22224
Sample Matrix: Soil
% Solids: 92

Date Received: 3/23/94
Date Extracted: 3/23/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	MPL1-1	41	1.0	22	3/23/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22225
Sample Matrix: Soil
% Solids: 88

Date Received: 3/23/94
Date Extracted: 3/23/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	MPL1-2	37	1.0	23	3/23/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22226
Sample Matrix: Soil
% Solids: 83

Date Received: 3/23/94
Date Extracted: 3/23/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	MPL1-3	25	1.0	24	3/23/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22227
Sample Matrix: Soil
% Solids: 86

Date Received: 3/23/94
Date Extracted: 3/23/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	MPL1-4	ND	1.0	23	3/23/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22228
Sample Matrix: Soil
% Solids: ~~1.0~~ 0
dal 3-24-94

Date Received: 3/23/94
Date Extracted: 3/23/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/L)	DILUTION FACTOR	MDL (mg/L)	DATE ANALYZED
TPH	FIELD BLANK	ND	1.0	1.9	3/23/94

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** Soil

Lab Code: 14622 **Units:** mg/kg

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	20	223s	ND

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** WATER

Lab Code: 14622 **Units:** mg/L

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	1.0	045W	ND

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

AA22117 MS

Lab Name: Veritech **Sample Matrix:** Soil

Lab Code: 14622

% Solids for Sample: 83

Concentration Units (mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	703		24.1	U	772	90		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.
AA22117 MSD

Lab Name: Veritech **Sample Matrix:** Soil

Lab Code: 14622

% Solids for Sample: 83

Concentration Units (mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	722		24.1	U	787	90		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC DUPLICATE SUMMARY

SAMPLE NO.
AA22117 DUP

Lab Name: Veritech **Sample Matrix:** Soil

Lab Code: 14622

% Solids for Sample: 83

Concentration Units (mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
TPH	+/-20%	24.1	U	24.1	U			C
Total CN	+/-20%							
Phenols	+/-20%							
Reac CN	+/-20%							
Reac HS	+/-20%							
Hex Cr	+/-20%							

FORM VI - IN ILM02.0

TPH LINEAR REGRESSION DATE 10-Mar-94
TPH_3S ANALYST Dan B

STDS (MG)	ABS.
0	0.0000
2.5	0.1225
5	0.2336
10	0.4616
15	0.6965
20	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
I Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1069

****

STDS (MG)	ABS.	PPM	DIFF
0	0.0000	-0.0326	0.0326
2.5	0.1225	2.6048	-0.1048
5	0.2336	4.9967	0.0033
10	0.4616	9.9054	0.0946
15	0.6965	14.9627	0.0373
20	0.9334	20.0630	-0.0630

****

BATCH 223

SAMPLE	ABS.	MG	
10mg3-19	0.4727	10.1444	
MBS	0.4681	10.0454	
dup 22117	0.0107	0.1978	
ms1 22117	0.4243	9.1024	
ms2 22117	0.4276	9.1734	
mb3-19	0.0089	0.1590	
22117	0.0081	0.1418	
22118	0.0090	0.1612	
22119	0.0089	0.1590	
22120	0.0099	0.1806	
22121	0.0117	0.2193	
22122	0.0072	0.1224	
22123	0.0126	0.2387	
22124	0.0207	0.4131	
22128	0.0145	0.2796	
mb3-21	0.0129	0.2451	
10mg3-21	0.4754	10.2025	
22134	0.8532	18.3363	
22135	0.5476	11.7569	
22136	0.5082	10.9087	
22137	0.5980	12.8420	
22138	0.6815	14.6397	
mb3-22	0.0114	0.2129	
10mg3-22	0.4774	10.2456	
22224	0.0282	0.5745	
22225	0.0243	0.4906	99.837
22226	0.0162	0.3162	
22227	0.0138	0.2645	

JB 3/29

Jdata input
G.C 3-24-94

22229	0.0112 ✓	0.2085
10mg3-23	0.4673 ✓	10.0281
mb3-23	0.0132 ✓	0.2516

Data input
S.G 3-24-94

ANALYSIS: TPH SOILS

BATCH 223

DATE: 24-Mar-94

ANALYST: DB

Q.C. DATA

	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.14	101%
MBS	666.7	669.69	100%
MS #1	772.32	702.99	90%
MS #2	787.46	722.37	90%
SAMPLE		11.02	RPD
SAMPLE DUP		15.37	0.00%

SAMPLE #	SOLIDS FACTOR	SAMPLE WEIGHT	MG CALC. FROM CURVE	DILUT. FACTOR	TPH (PPM)	MDL DRY WT.
10mg3-19	1.00	1000	10.1444	1.0	10.14	
MBS	1.00	15.0	10.0454	1.0	669.69	20.00
dup 22117	0.83	15.5	0.1978	1.0	15.37	24.10
ms1 22117	0.83	15.6	9.1024	1.0	702.99	24.10
ms2 22117	0.83	15.3	9.1734	1.0	722.37	24.10
mb3-19	1.00	15.0	0.1590	1.0	10.60	20.00
22117	0.83	15.5	0.1418	1.0	11.02	24.10
22118	0.81	15.1	0.1612	1.0	13.18	24.69
22119	0.84	15.3	0.1590	1.0	12.37	23.81
22120	0.85	15.2	0.1806	1.0	13.98	23.53
22121	0.97	15.2	0.2193	1.0	14.87	20.62
22122	0.91	15.0	0.1224	1.0	8.97	21.98
22123	0.93	15.1	0.2387	1.0	17.00	21.51
22124	0.93	15.7	0.4131	1.0	28.291	21.51
22128	0.80	15.4	0.2796	1.0	22.694	25.00
mb3-21	1.00	15.0	0.2451	1.0	16.343	20.00
10mg3-21	1.00	1000.0	10.2025	1.0	10.203	20.00
22134	0.90	15.4	18.3363	2.0	2645.938	44.44
22135	0.91	15.0	11.7569	2.0	1722.630	43.96
22136	0.92	15.0	10.9087	2.0	1580.969	43.48
22137	0.84	15.0	12.8420	2.0	2038.418	47.62
22138	0.92	15.4	14.6397	2.0	2066.592	43.48
mb3-22	1.00	15.0	0.2129	1.0	14.190	20.00
10mg3-22	1.00	1000.0	10.2456	1.0	10.246	20.00
22224	0.92	15.2	0.5745	1.0	41.086	21.74
22225	0.88	15.0	0.4906	1.0	37.165	22.73
22226	0.83	15.0	0.3162	1.0	25.397	24.10
22227	0.86	15.1	0.2645	1.0	20.370	23.26
22229	0.91	15.2	0.2085	1.0	15.077	21.98
10mg3-23	1.00	1000.0	10.0281	1.0	10.028	20.00
mb3-23	1.00	15.0	0.2516	1.0	16.774	20.00

DB 3/24

J data input
S.C 3-24-94

TPH LINEAR REGRESSION

DATE 10-Mar-94
ANALYST Dan B

STDS (MG)	ABS.
0.0	0.0000
2.5	0.1225
5.0	0.2336
10.0	0.4616
15.0	0.6965
20.0	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1069

****

STDS (MG)	ABS.	PPM	DIFF
0.0	0.0000	-0.0326	0.0326
2.5	0.1225	2.6048	-0.1048
5.0	0.2336	4.9967	0.0033
10.0	0.4616	9.9054	0.0946
15.0	0.6965	14.9627	0.0373
20.0	0.9334	20.0630	-0.0630

****

BATCH 045

SAMPLE	ABS.	MG
10mg3-16	0.4684	10.0518
MBS	0.4455	9.5588
MBSD	0.4393	9.4253
mb3-16	0.0114	0.2129
22050	0.0087	0.1547
22048	0.0074	0.1267
22125	0.0056	0.0880
mb3-18	0.0057	0.0901
10mg3-19	0.4727	10.1444
22228	0.0062✓	0.1009
mb3-23	0.0074✓	0.1267
10mg3-23	0.4673✓	10.0281

DB 3/24

✓ data input
S.C 3/24/94

ANALYSIS: TPH WATERS
batch 045
DATE: 24-Mar-94
ANALYST: DB

Q.C. DATA

	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.052	101%
MBS	10	9.559	96%
MBS DUP	10	9.425	94%

RPD = 0.00%

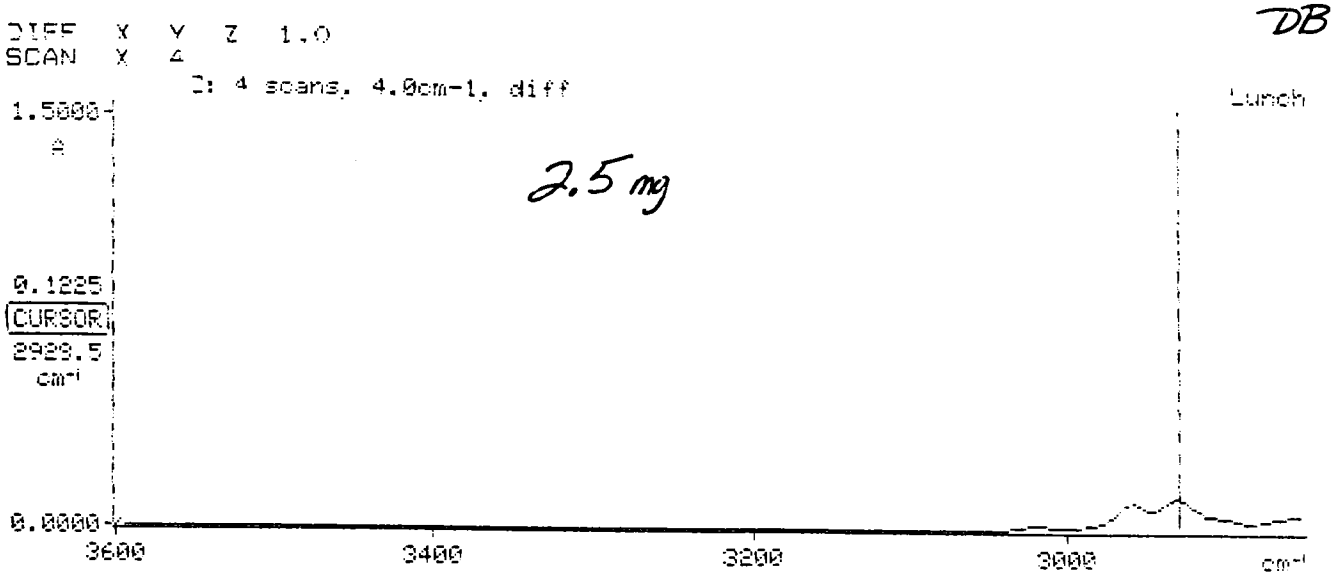
SAMPLE NO.	SAMPLE VOLUME	MG FROM CALC. CURV	DILUT. FACTOR	TPH (PPM)	MDL (PPM)
10mg3-16	1000	10.0518	1.0	10.052	
MBS	1000	9.5588	1.0	9.559	
MBSD	1000	9.4253	1.0	9.425	
mb3-16	1000	0.2129	1.0	0.213	1.0
22050	970	0.1547	1.0	0.160	1.0
22048	970	0.1267	1.0	0.131	1.0
22125	930	0.0880	1.0	0.095	1.1
mb3-18	1000	0.0901	1.0	0.090	1.0
10mg3-19	1000	10.1444	1.0	10.144	1.0
22228	530	0.1009	1.0	0.190	1.9
mb3-23	1000	0.1267	1.0	0.127	1.0
10mg3-23	1000	10.0281	1.0	10.029	1.0

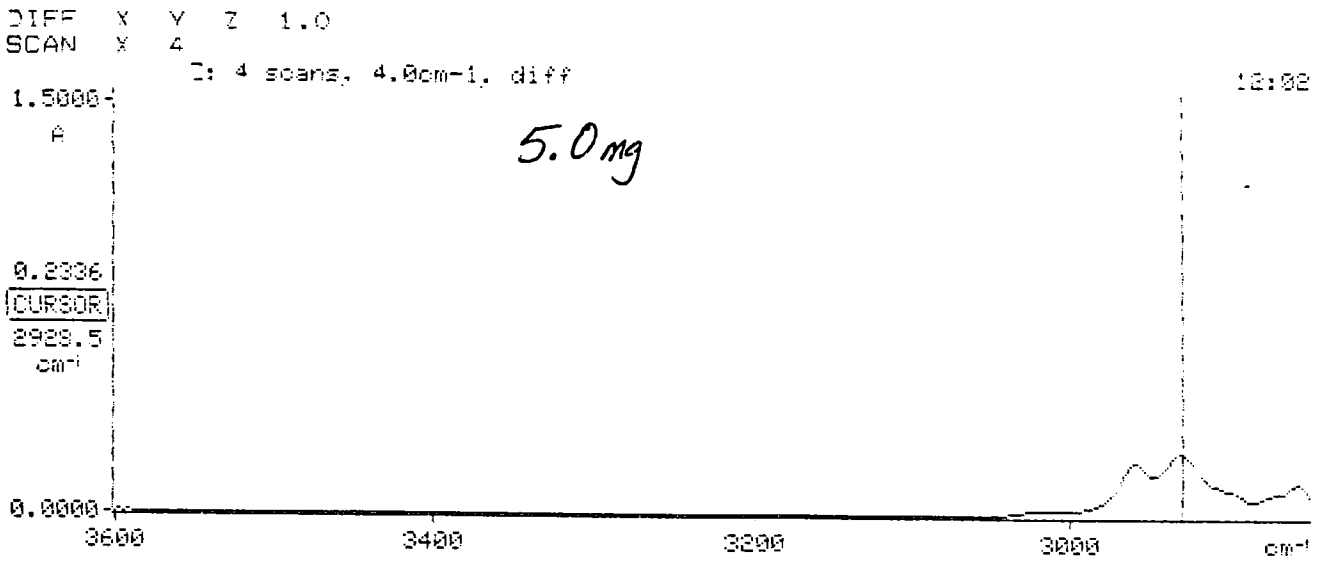
DB 3/24

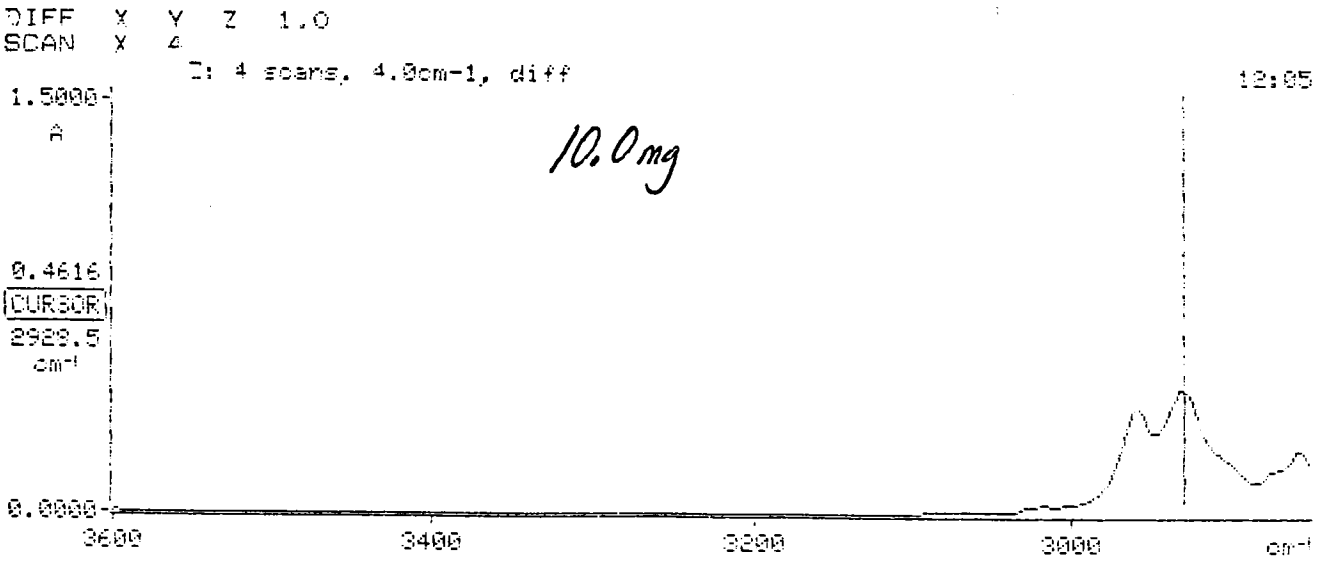
√ data input
S.C 3-24-94

TPH curve 3/10/9

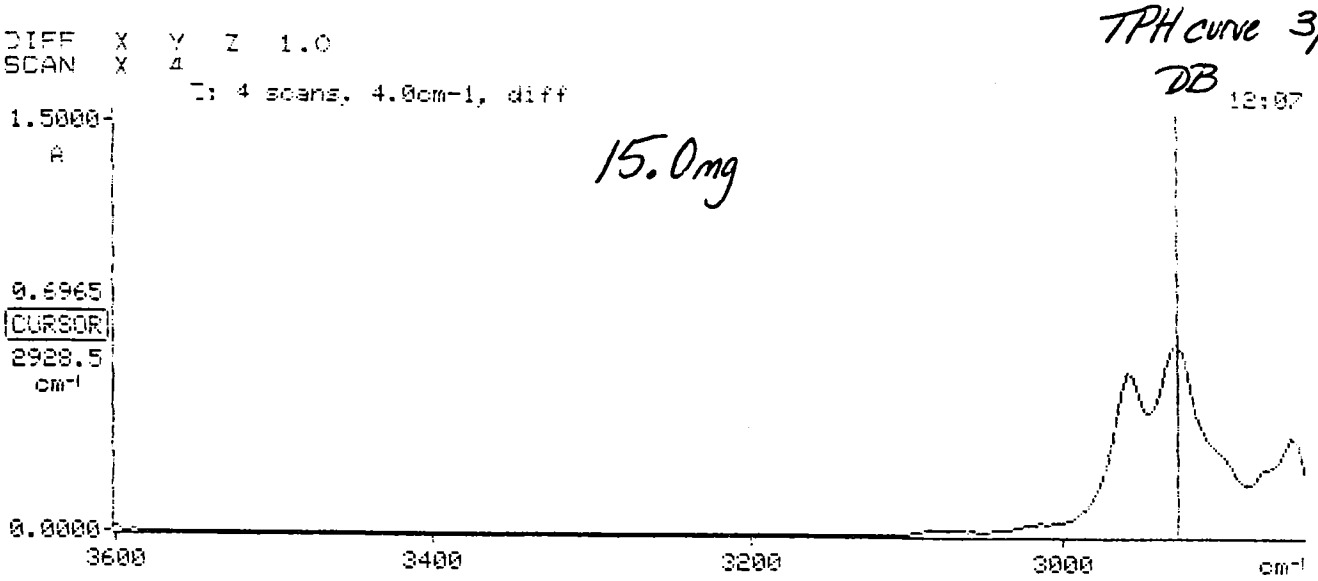
DB

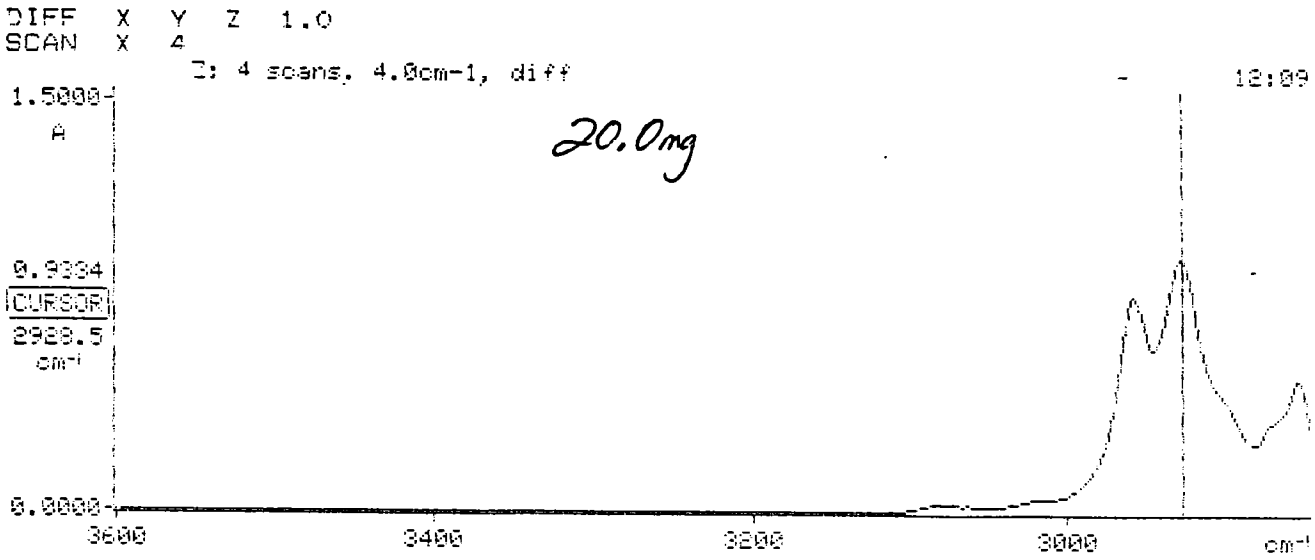






TPH curve 3/10/94
DB

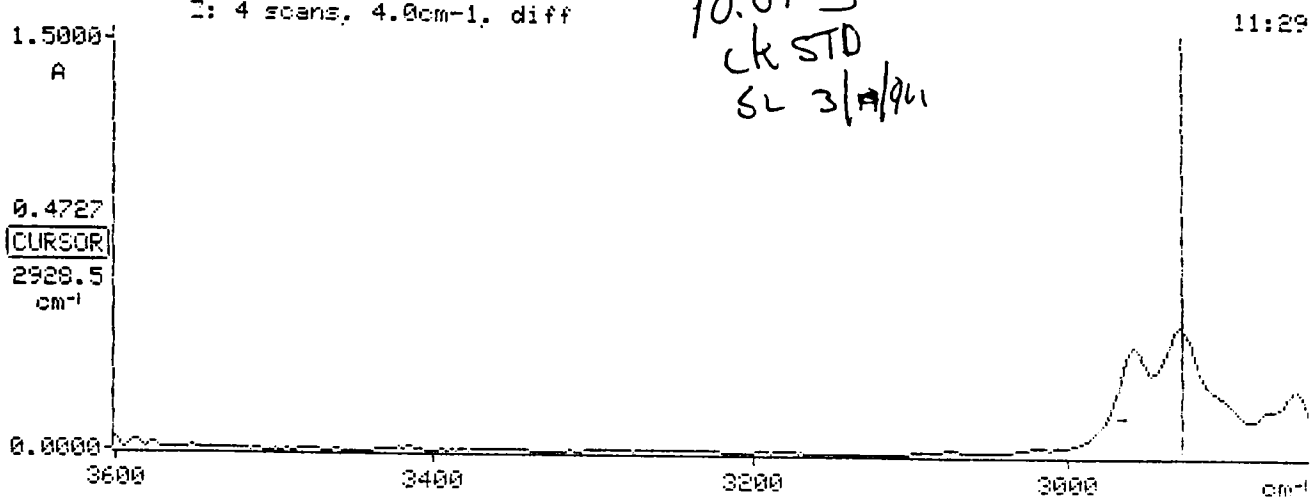


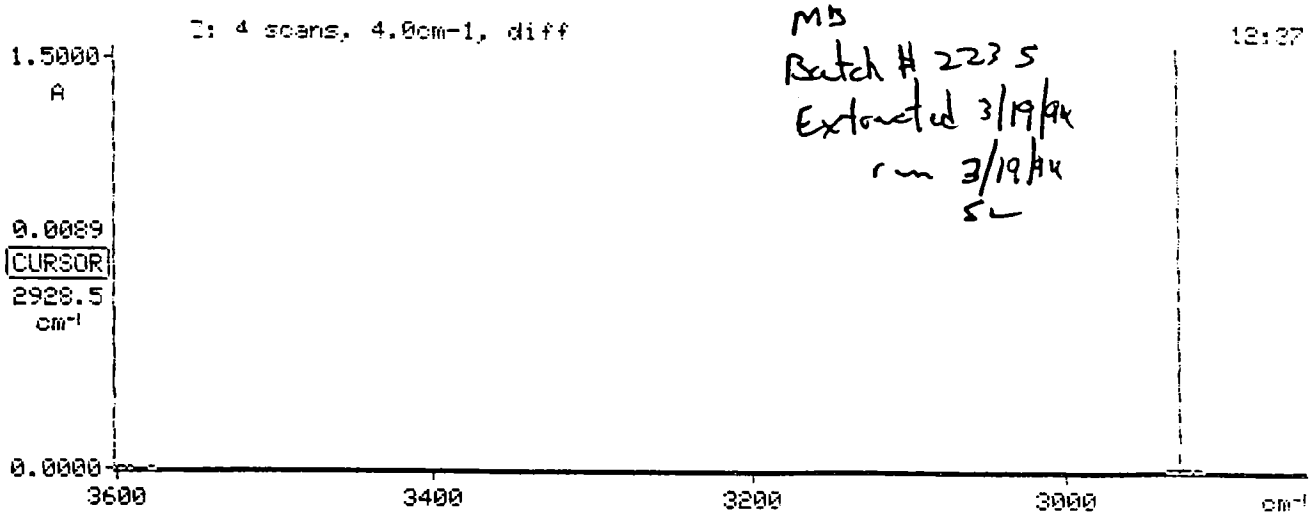


```
SCAN  BACKG  4
SCAN  X  4
SCAN  Y  4
DIFF  X  Y  Z  1.0
SCAN  X  4
DIFF  X  Y  Z  1.0
SCAN  X  4
```

Z: 4 scans, 4.0cm-1, diff

10.0 mg
ck STD
SL 3/8/94

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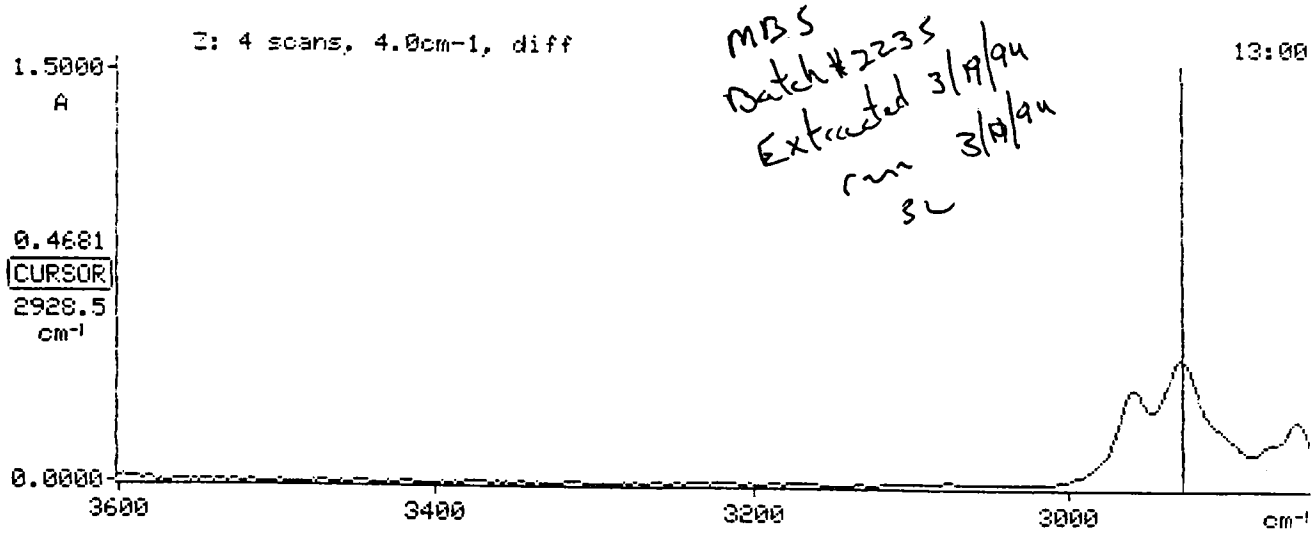
12:37
1.5000
A
0.0089
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
MB
Batch # 2235
Extracted 3/19/94
run 3/19/94
SL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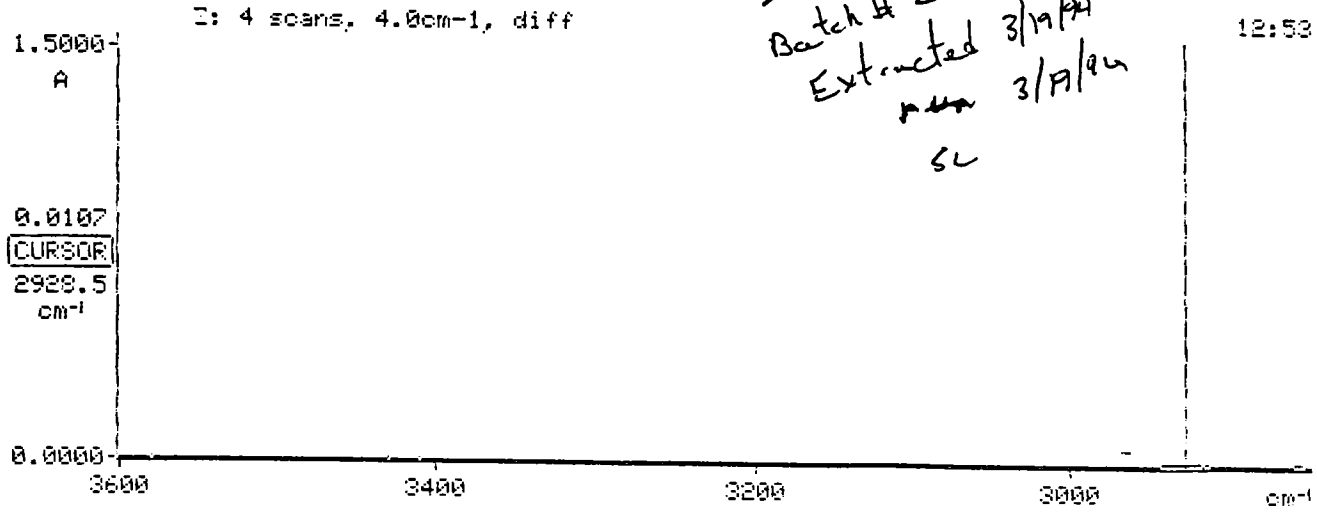
MBS
Batch #2235
Extracted 3/19/94
run 3/19/94
SL
13:00
1.5000
A
0.4681
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1

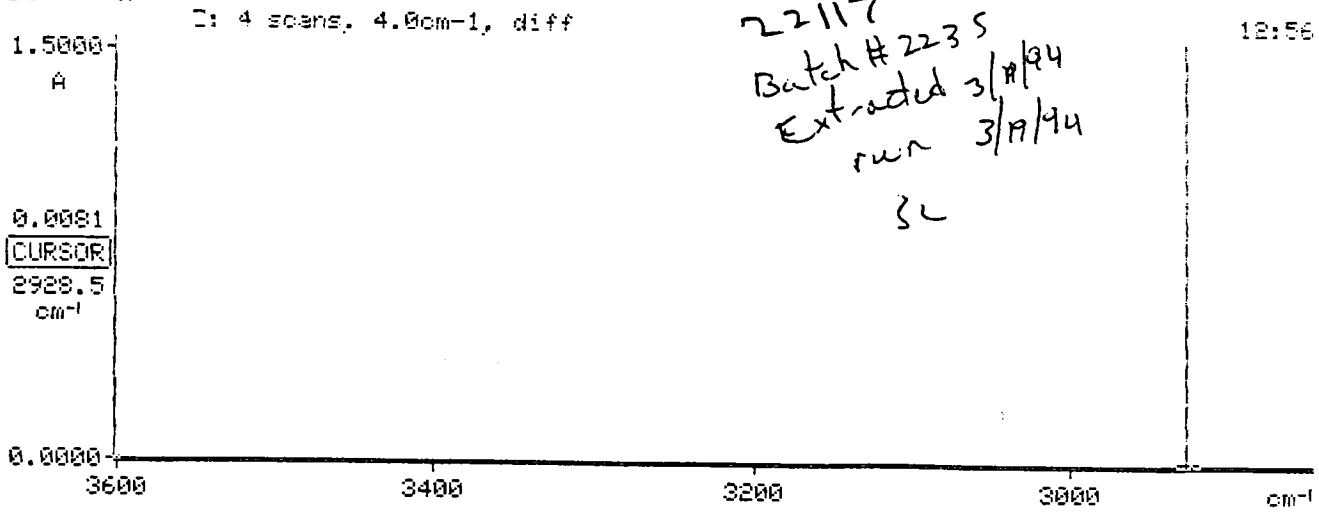
DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4

DwP
22117
Batch # 2235
Extracted 3/19/94
run 3/19/94
SL

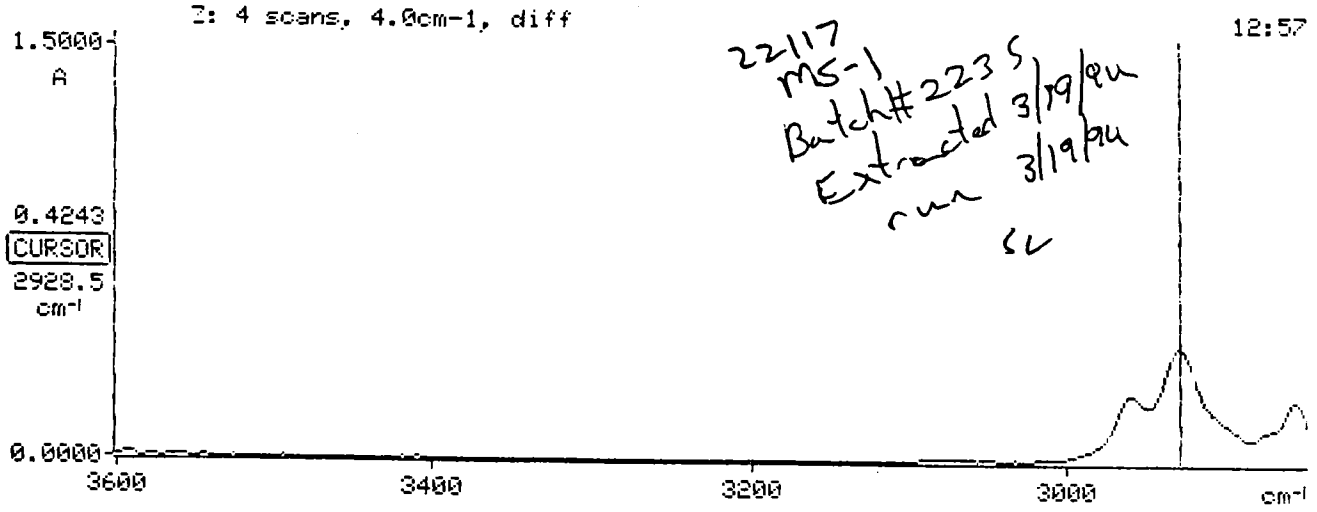


DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4

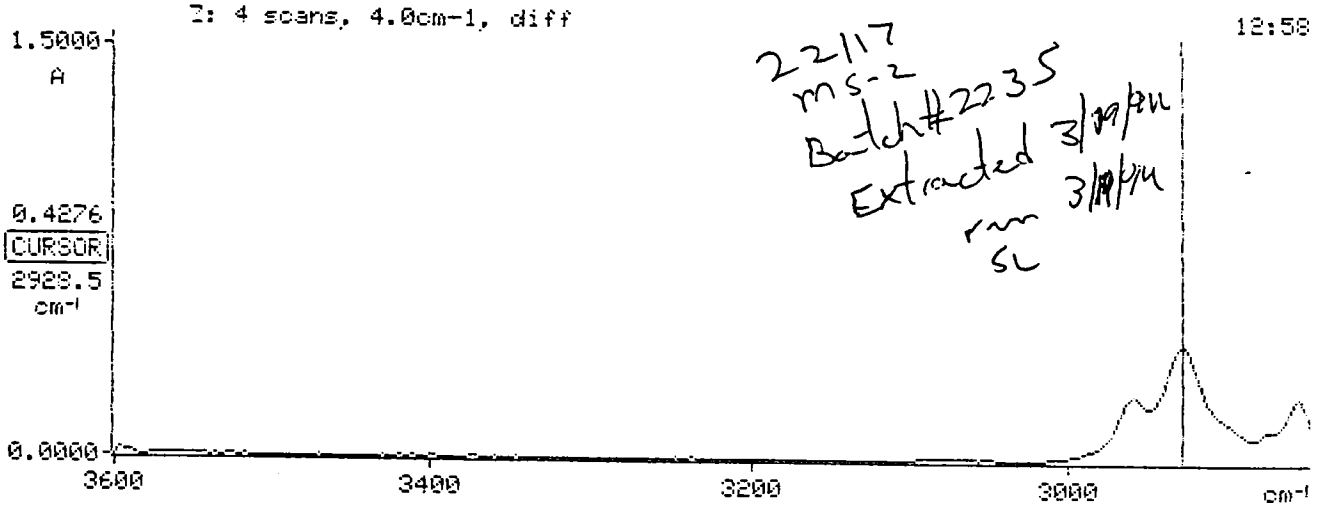
22117
Batch # 2235
Extracted 3/19/94
run 3/19/94
SL



DIFF X Y Z 1.0
SCAN X 4

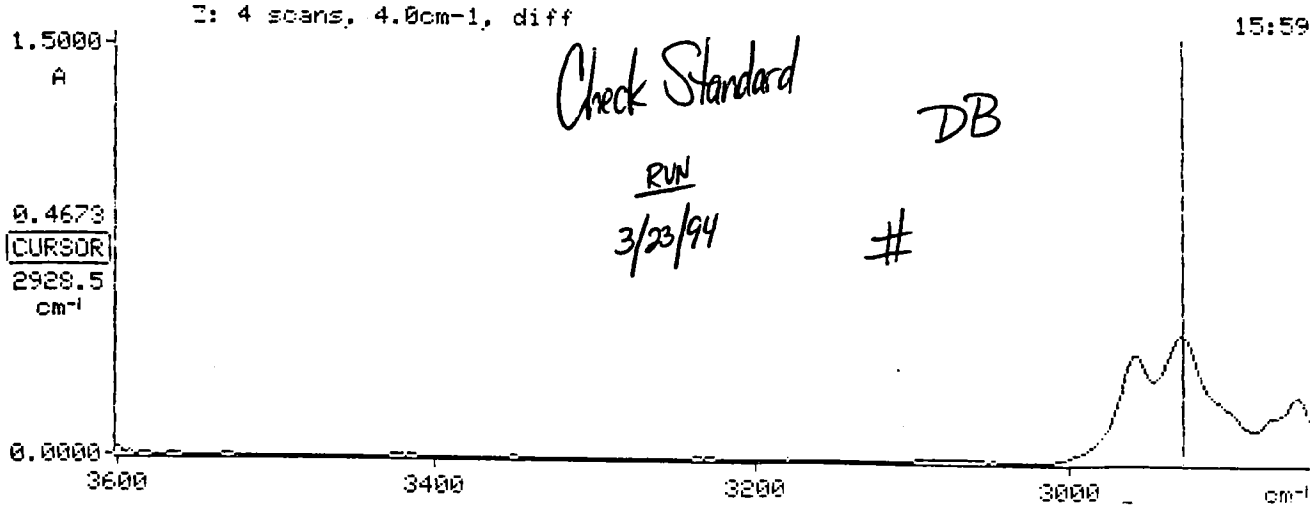


DIFF X Y Z 1.0
SCAN X 4



DIFF X Y Z 1.0
SCAN X 4

DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4



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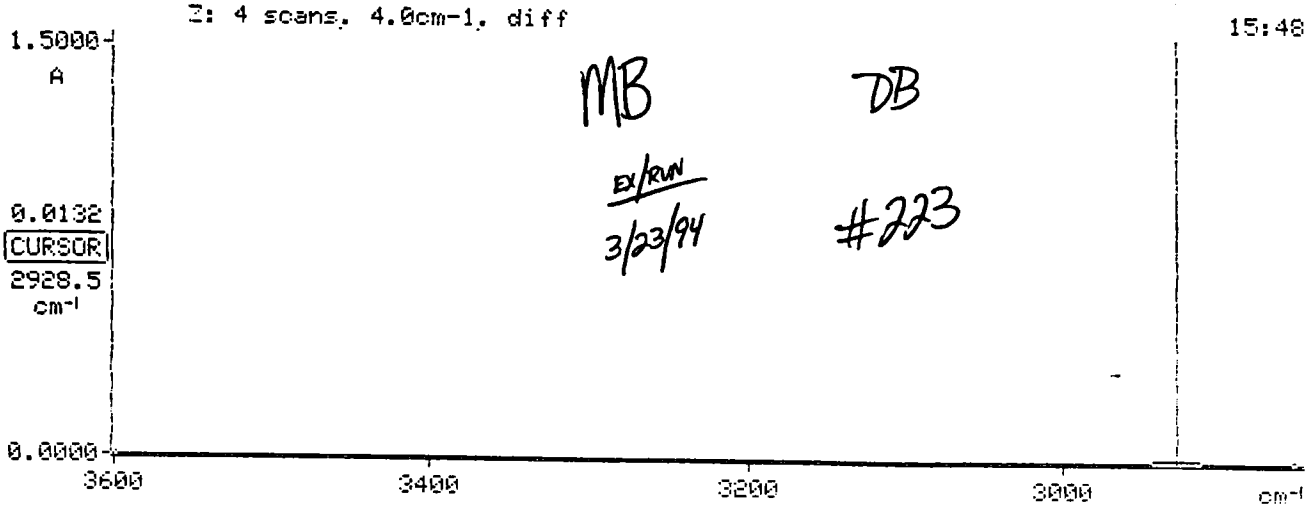
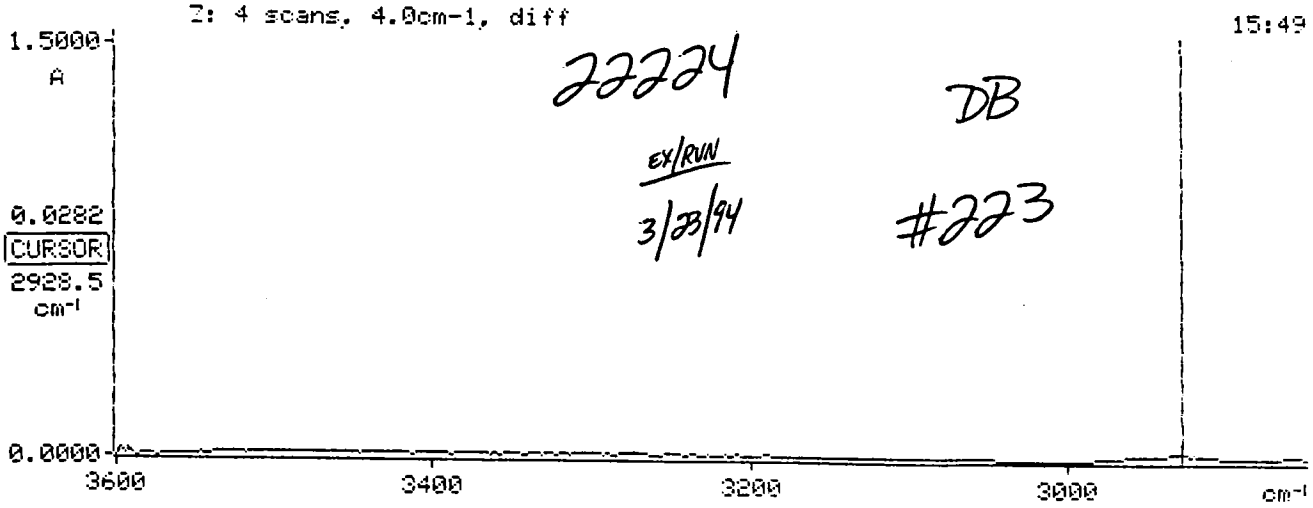
SCAN   X   4
DIFF   X   Y   Z   1.0
SCAN   X   4
DIFF   X   Y   Z   1.0
SCAN   Y   4
DIFF   X   Y   Z   1.0
SCAN   X   4
DIFF   X   Y   Z   1.0
SCAN   X   4
```

Z: 4 scans, 4.0cm-1, diff

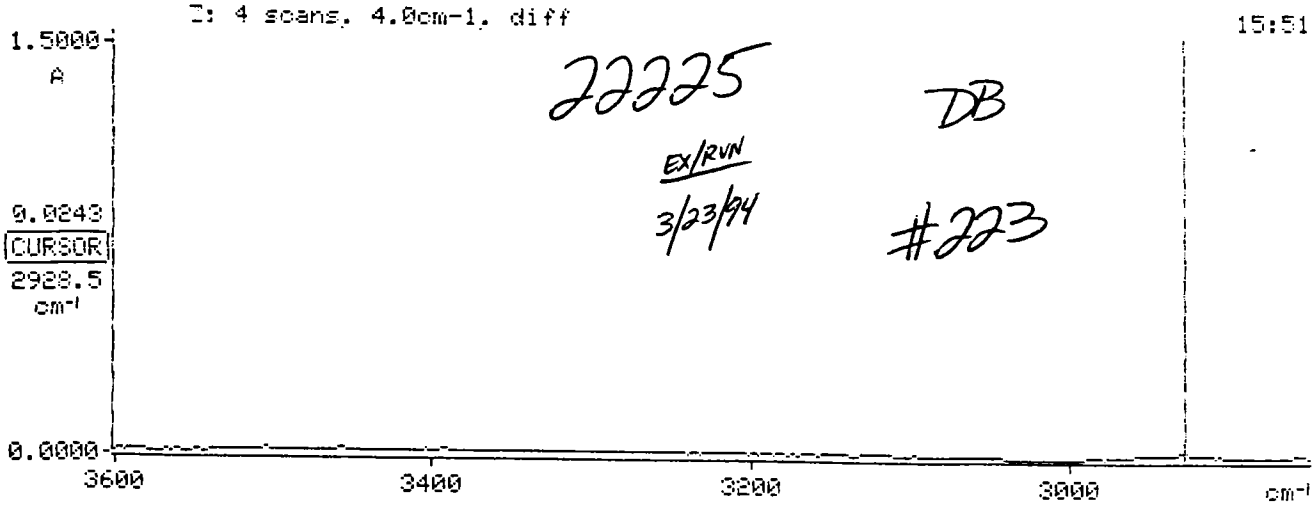
15:48



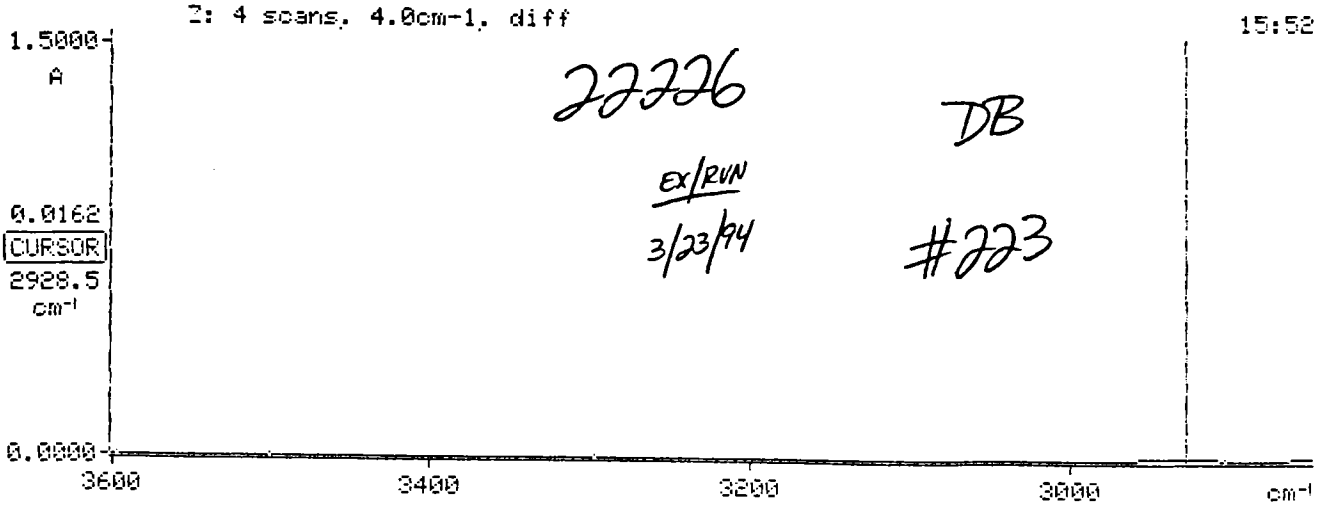
DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff

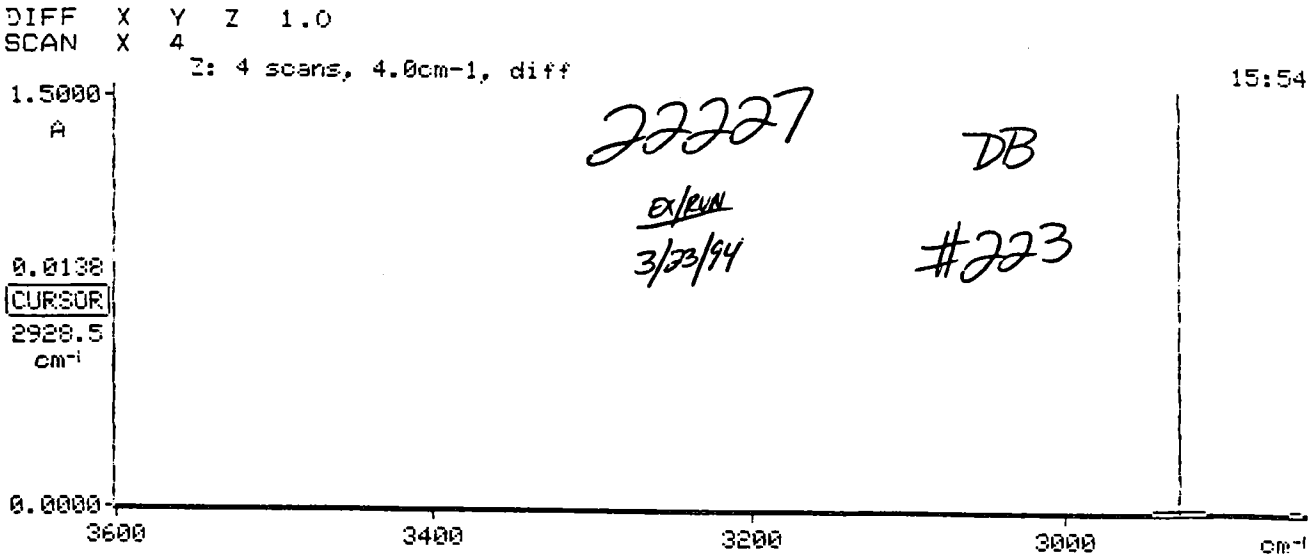


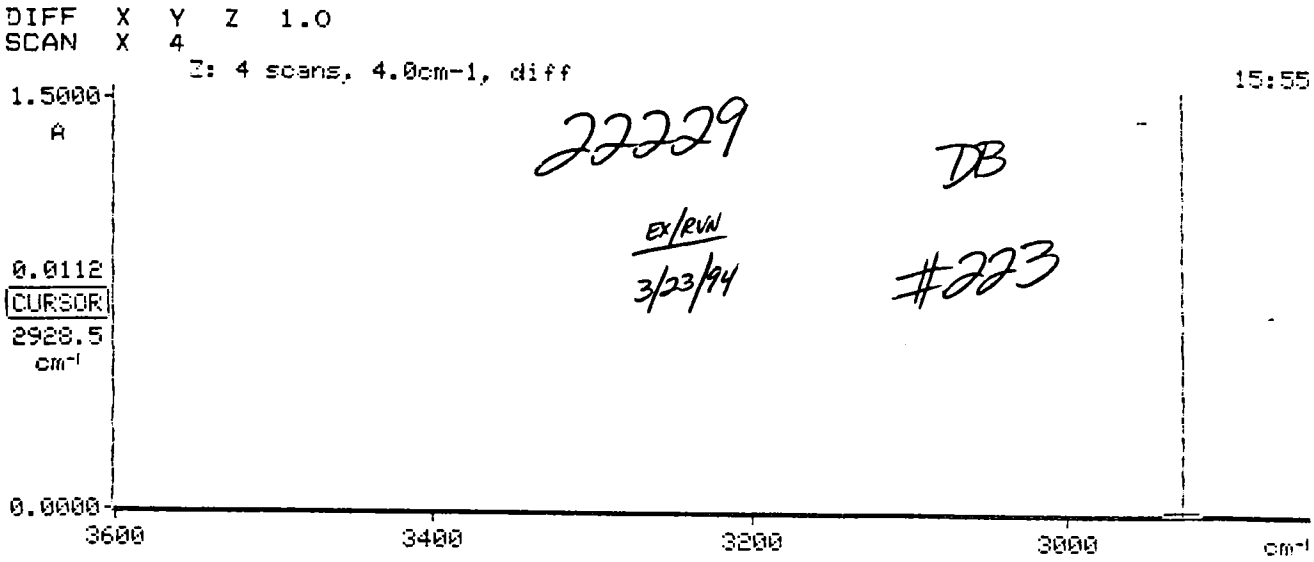
DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff



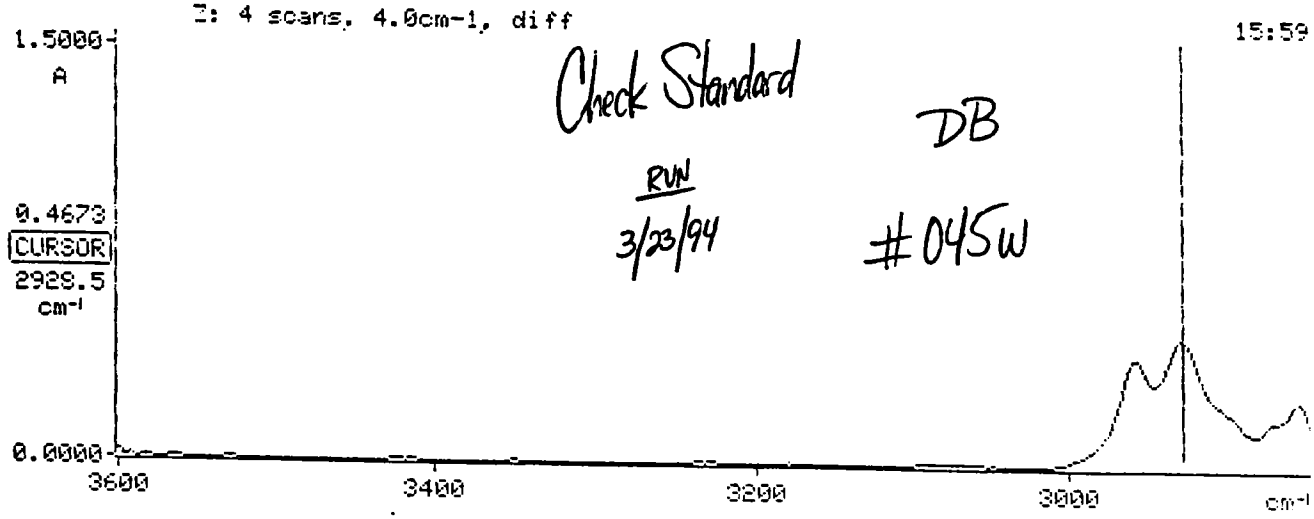
DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff



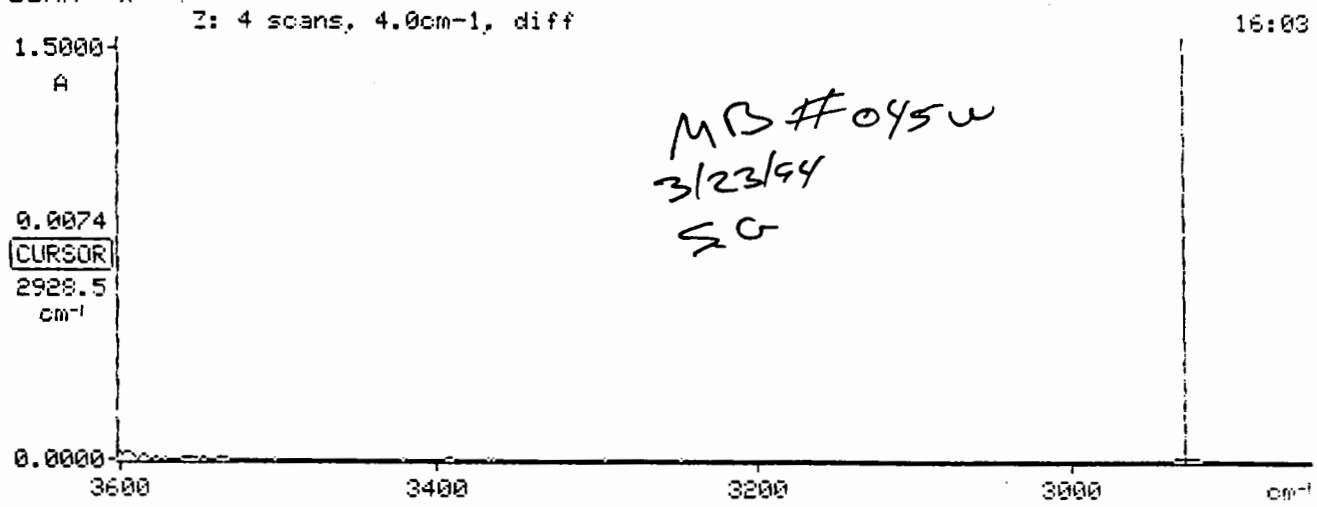

DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
15:54
1.5000
A
0.0138
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22227
DB
EX/RVW
3/23/94
#223


DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
15:55
1.5000
A
0.0112
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22229
DB
EX/RVW
3/23/94
#223

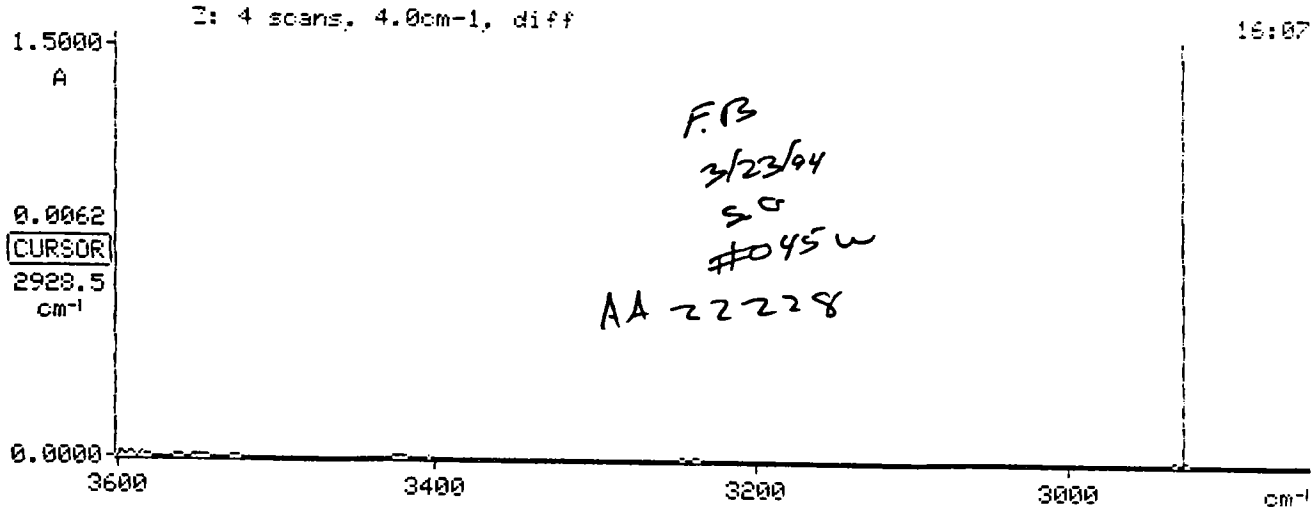
DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4



DIFF X Y Z 1.0
SCAN X 4



DIFF X Y Z 1.0
SCAN X 4


I: 4 scans, 4.0cm-1, diff
16:07
1.5000
A
0.0062
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
F.B
3/23/04
so
#045 w
AA 22228

No. 3

March 23, 1994 Soil Samples
(USTs MPL-2 and UST C-2 and C-8 Soil Pile Samples)

MPL-2

veritech

Division of Hampton-Clarke, Inc.

environmental and analytical services

ENVIRO-TECH, INC.

NJDEPE REDUCED PKG

PROJECT: EARL AMMUNITION

LAB # AA22233-AA22240

NJDEPE Cert. #14622, CT Cert. #PH0671
PADER #68-463, MA Cert. #NJ386
NYDOH #11408

47 Carey Avenue • Butler, NJ 07405
Phone: (201) 492-8744 Fax: (201) 492-1815

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VERITECH LABORATORY RESULTS

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SAMPLE KEY

ENVIRO-TECH NO.	VERITECH NO.
MPL2-1	AA22233
MPL2-2	AA22234
MPL2-3	AA22235
MPL2-4	AA22236
MPL2-SP	AA22237
C2-SP	AA22238
C8-SP	AA22239

Enviro-Tech Inc.

Page ___ of ___

CHAIN-OF-CUSTODY RECORD

SAMPLER: (Signature) [signature]
Phone 908-566-2277
Date Shipped
Airbill No.
Carrier GDM
Cooler No.

SHIP TO:

VERITECH

ATTENTION:

SEND RESULTS TO:

Client Name
Company ENVIRO-TECH, INC.
Address 247 MAIN ST
MATAWAN, NEW JERSEY
Phone 908-566-2277

PROJECT NAME EARL AMMUNITION **PROJECT NO.** **P.O. NO.**

Relinquished by: (Signature)	Received by: (Signature)	Date	Military Time
[signature]	Gerard D. Mizo	3/24/94	0955 HRS.
Gerard D. Mizo	[signature]	3/24/94	1115 HRS
Relinquished by: (Signature)	Received at lab by: (Signature)	Date	Military Time

Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Military Time

ANALYSIS REQUEST

Sample ID Number	Sample Description	Date/Time Sampled		Analysis Requested	Sample Condition Upon Receipt
1- MPL2-1	Soil	3/23/94	12:52	* TPH, VOHO, XYLENE	Cool AA22233
1- MPL2-2			13:15		22234
1- MPL2-3			13:11		22235
1- MPL2-4			13:06		22236
1- MPL2-SP			13:28		22237
1- C2-SP			13:45		22238
1- C8-SP			13:50		22239
(3) FIELD BLANK	AQUOUS		12:50		22240

Special Instructions/Comments:

* Please analyze samples for TPH 1st (24 HOUR TURNAROUND). IF RESULTS OF TPH ANALYSES SHOW CONCENTRATION GREATER THAN 1000 ppm, PLEASE CALL ETI OFFICE FOR AUTHORIZATION OF ADDITIONAL ANALYSES.

LS

Cooler temp 0.7°C

NOTE: UNUSED PORTIONS OF NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Expected Analytical T.A.T.'s: ____ Immediate Attention (200% surcharge) ____ RUSH (50-100% surcharge) ____ Standard

002

GDM-010

Sample Custodians Chain of Custody

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-28-1994 Time: 14:43:10

Sample I.D. AA22233
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/23/94
Date submitted: 03/24/94
Due date: 04/06/94
Specification checking: off
Descript: MPL2-1 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
TPH-SOIL	Not detected	mg/kg dry wt	03/24/94	DB
TPH EXTRACTION	Completed		03/24/94	DB
%SOLIDS	95	PERCENT	03/24/94	DB

End of progress report on sample: AA22233

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-28-1994 Time: 14:43:10

Sample I.D. AA22234
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/23/94
Date submitted: 03/24/94
Due date: 04/06/94
Specification checking: off
Descript: MPL2-2 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
TPH-SOIL	Not detected	mg/kg dry wt	03/24/94	DB
TPH EXTRACTION	Completed		03/24/94	DB
%SOLIDS	88	PERCENT	03/24/94	DB

End of progress report on sample: AA22234

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-28-1994 Time: 14:43:11

Sample I.D. AA22235
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/23/94
Date submitted: 03/24/94
Due date: 04/06/94
Specification checking: off
Descript: MPL2-3 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
TPH-SOIL	Not detected	mg/kg dry wt	03/24/94	DB
TPH EXTRACTION	Completed		03/24/94	DB
%SOLIDS	90	PERCENT	03/24/94	DB

End of progress report on sample: AA22235

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-28-1994 Time: 14:43:12

Sample I.D. AA22236
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/23/94
Date submitted: 03/24/94
Due date: 04/06/94
Specification checking: off
Descript: MPL2-4 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
TPH-SOIL	5800	mg/kg dry wt	03/24/94	DB
TPH EXTRACTION	Completed		03/24/94	DB
%SOLIDS	93	PERCENT	03/24/94	DB

End of progress report on sample: AA22236

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-28-1994 Time: 14:43:12

Sample I.D. AA22237
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/23/94
Date submitted: 03/24/94
Due date: 04/06/94
Specification checking: off
Descript: MPL2-SP SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
TPH-SOIL	180	mg/kg dry wt	03/24/94	DB
TPH EXTRACTION	Completed		03/24/94	DB
%SOLIDS	96	PERCENT	03/24/94	DB

End of progress report on sample: AA22237

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-28-1994 Time: 14:43:13

Sample I.D. AA22238
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/23/94
Date submitted: 03/24/94
Due date: 04/06/94
Specification checking: off
Descript: C2-SP SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
TPH-SOIL	93	mg/kg dry wt	03/24/94	DB
TPH EXTRACTION	Completed		03/24/94	DB
%SOLIDS	88	PERCENT	03/24/94	DB

End of progress report on sample: AA22238

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-28-1994 Time: 14:43:14

Sample I.D. AA22239
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/23/94
Date submitted: 03/24/94
Due date: 04/06/94
Specification checking: off
Descript: C8-SP SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
TPH-SOIL	45	mg/kg dry wt	03/24/94	DB
TPH EXTRACTION	Completed		03/24/94	DB
%SOLIDS	83	PERCENT	03/24/94	DB

End of progress report on sample: AA22239

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 03-28-1994 Time: 14:43:14

Sample I.D. AA22240
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 3

Date collected: 03/23/94
Date submitted: 03/24/94
Due date: 04/06/94
Specification checking: off
Descript: FIELD BLANK

MATRIX: WATER

Analysis	Result	Unit	Finished	Anl
TPH-WATER	Not detected	mg/L	03/24/94	SG
TPH EXTRACTION	Completed		03/24/94	SG

End of progress report on sample: AA22240

WET CHEMISTRY ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

		No	Yes
1.	Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank:	_X_	___
2.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)	___	_X_
3.	IR Spectra submitted for all standards, blanks, & samples	___	_X_
4.	Chromatograms submitted for all standards, blanks, & samples if GC fingerprinting was conducted	___	___
5.	Extraction Holding Time Met	___	_X_
	If not met, list number of days exceeded for each sample:		
6.	Analysis Holding Time Met	___	_X_
	If not met, list number of days exceeded for each sample:		

Additional Comments: _____

QA/QC Director: Deborah A. Keller Date: 3/24/94

METHOD REFERENCES

Volatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 8240.

Volatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 624.

TCLP Volatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8240.

Volatile Organics (Drinking Waters) - Methods for the Determination of Organic Compounds in Drinking Water, EPA/600/4-88/039, Revision 3, 1989, Method 524.2.

Semivolatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8270.

Semivolatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 625.

TCLP Semivolatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8270.

Pesticides (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

Pesticides (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 608.

TCLP Pesticides - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8080.

TCLP Herbicides (Waters) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8150.

PCB's (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

PCB's (Waters) - Federal Register, 40 CFR, Part 136, October 26, 1984, Method 608.

PCB's (Oils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3580 and 8080.

Total Metals (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition. Methods 3020 or 3050 are used for digestion. All ICP metals are analyzed using Method 6010. Antimony, arsenic, cadmium, molybdenum, selenium and thallium are analyzed by Methods 7041, 7060, 7131, 7481, 7740 and 7841 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

TCLP Metals - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 1311 followed by Method 3020 for digestion and the individual parameter methods listed above in the Total Metals (Soils) section.

ICP Metals (Waters) - Methods for the Determination of Metals in Environmental Samples, EPA/600/4-91/010, June 1991, Revision 3.3, Method 200.7.

GFAA Metals & Mercury (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983. Antimony, arsenic, cadmium, lead, molybdenum, selenium, thallium and tin are analyzed using Methods 204.2, 206.2, 213.2, 239.2, 246.2, 270.2, 279.2 and 282.2 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

Cyanide (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9010.

Cyanide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 335.2.

Phenols (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9065.

Phenols (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 420.1.

TPH (Soils & Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 418.1 for waters and modified 418.1 for soils using a soxhlet extraction with freon prior to analysis.

Hexavalent Chromium (Soils & Waters) - Test Methods for Evaluating Solid Waste, SW-846, Second and Third Editions, Methods 3060 and 7196A.

pH (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9040.

pH (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 150.1.

Reactive Cyanide - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Chapter Seven, Section 7.3, Reactivity.

Reactive Sulfide - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Chapter Seven, Section 7.3, Reactivity.

Ignitability - Test Methods for Evaluating Solid Waste, SW-848, Third Edition, Chapter Seven, Section 7.1, Ignitability.

Flashpoint - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 1010.

Conductance (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 120.1.

Residue, Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.1.

Residue, Non-Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.2.

Residue, Total (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.3.

Chloride (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 325.3.

Chloride (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9252.

Sulfide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 376.1.

Chemical Oxygen Demand (Waters) - Hach Chemical Company, Method 8000.

Oil & Grease (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 413.1.

TOX (Waters & Soils) - Refer to methods listed for volatile organics.

2,3,7,8 - TCDD/TCDF - Modified Contract Laboratory Program Statement of Work, November 1992.

VERITECH

47 CAREY AVE., BUTLER, NJ 07405
NJDEPE NO: 14622

REPORT OF ANALYSIS

TO: ENVIRO-TECH, INC.
247 MAIN ST.
MATAWAN, NJ 07747-3222
(908) 566-2277

Date Collected: 03/23/94
Date Submitted: 03/24/94
Date Reported: 03/28/94
Project: EARL

Sample I.D.		**AA22233**		**AA22234**	
Sample Description		**MPL2-1 SOIL**		**MPL2-2 SOIL**	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	95	1.0	88
TPH-SOIL	mg/kg dry wt	21	Not detected	23	Not detected
TPH-WATER					

Sample I.D.		**AA22235**		**AA22236**	
Sample Description		**MPL2-3 SOIL**		**MPL2-4 SOIL**	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	90	1.0	93
TPH-SOIL	mg/kg dry wt	22	Not detected	110	5800
TPH-WATER					

Sample I.D.		**AA22237**		**AA22238**	
Sample Description		**MPL2-SP SOIL**		**C2-SP SOIL**	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	96	1.0	88
TPH-SOIL	mg/kg dry wt	21	180	23	93
TPH-WATER					

Sample I.D.		**AA22239**		**AA22240**	
Sample Description		**C8-SP SOIL**		**FIELD BLANK**	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	83		
TPH-SOIL	mg/kg dry wt	24	45		
TPH-WATER	mg/L			2.0	Not detected

This report is a true report of results obtained from our tests of this material. In lieu of a formal contract document, the total aggregate liability of Veritech to all parties shall not exceed Veritech's total fee for analytical services rendered.

Stanley Gilewicz - Laboratory Director

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22233
Sample Matrix: Soil
% Solids: 95

Date Received: 3/24/94
Date Extracted: 3/24/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	MPL2-1	ND	1.0	21	3/24/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22234
Sample Matrix: Soil
% Solids: 88

Date Received: 3/24/94
Date Extracted: 3/24/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	MPL2-2	ND	1.0	23	3/24/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22235
Sample Matrix: Soil
% Solids: 90

Date Received: 3/24/94
Date Extracted: 3/24/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	MPL2-3	ND	1.0	22	3/24/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22236
Sample Matrix: Soil
% Solids: 93

Date Received: 3/24/94
Date Extracted: 3/24/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	MPL2-4	5800	5.0	110	3/24/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22237
Sample Matrix: Soil
% Solids: 96

Date Received: 3/24/94
Date Extracted: 3/24/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	MPL2-SP	180	1.0	21	3/24/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22238
Sample Matrix: Soil
% Solids: 88

Date Received: 3/24/94
Date Extracted: 3/24/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	C2-SP	93	1.0	23	3/24/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22239
Sample Matrix: Soil
% Solids: 83

Date Received: 3/24/94
Date Extracted: 3/24/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	C8-SP	45	1.0	24	3/24/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22240
Sample Matrix: Soil
% Solids: 100
Jeh 3-24-94

Date Received: 3/24/94
Date Extracted: 3/24/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	FIELD BLANK	ND	1.0	2.0	3/24/94

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** SOIL

Lab Code: 14622 **Units:** mg/kg

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	20	225S	ND

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** WATER

Lab Code: 14622 **Units:** mg/L

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	1.0	045W	ND

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

AA22233 MS

Lab Name: Veritech **Sample Matrix:** SOIL

Lab Code: 14622

% Solids for Sample: 95

Concentration Units (mg/L or mg/kg dry weight): _mg/kg__

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	657		21.1	U	697	92		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

| AA22233 MSD |

Lab Name: Veritech **Sample Matrix:** SOIL

Lab Code: 14622

% Solids for Sample: 95

Concentration Units (mg/L or mg/kg dry weight): _mg/kg__

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	662		21.1	U	693	94		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC DUPLICATE SUMMARY

SAMPLE NO.
AA22233 DUP

Lab Name: Veritech **Sample Matrix:** SOIL

Lab Code: 14622

% Solids for Sample: 95

Concentration Units (mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
TPH	+/-20%	21.1	U	21.1	U			C
Total CN	+/-20%							
Phenols	+/-20%							
Reac CN	+/-20%							
Reac HS	+/-20%							
Hex Cr	+/-20%							

FORM VI - IN ILM02.0

TPH LINEAR REGRESSIOON

TPH 1S

DATE 10-Mar-94

ANALYST Dan B

STDS (MG)	ABS.
0	0.0000
2.5	0.1225
5	0.2336
10	0.4616
15	0.6965
20	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1069

****

STDS (MG)	ABS.	PPM	DIFF
0	0.0000	-0.0326	0.0326
2.5	0.1225	2.6048	-0.1048
5	0.2336	4.9967	0.0033
10	0.4616	9.9054	0.0946
15	0.6965	14.9627	0.0373
20	0.9334	20.0630	-0.0630

****

BATCH 225

SAMPLE	ABS.	MG
10mg3-24	0.4766	10.2284
MBS	0.4801	10.3037
dup 22233	0.0094	0.1698
ms1 22233	0.4391	9.4210
ms2 22233	0.4456	9.5609
mb3-24	0.0089	0.1590
22233	0.01	0.1827
22234	0.0104	0.1913
22235	0.0124	0.2344
22236	0.7836 ✓	16.8379
22237	0.1253 ✓	2.6651
22238	0.0607 ✓	1.2743
22239	0.0286 ✓	0.5832

LO 3/24/94

✓ data input

DB 3/24/94

ANALYSIS: TPH SOILS

BATCH 225

DATE: 24-Mar-94

ANALYST: DB

Q.C. DATA

	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.23	102%
MBS	666.7	686.91	103%
MS #1	697.11	656.74	92%
MS #2	692.52	662.12	94%
SAMPLE		12.25	RPD
SAMPLE DUP		11.68	0.00%

SAMPLE #	SOLIDS FACTOR	SAMPLE WEIGHT	MG FROM CURVE	CALC.	DILUT. FACTOR	TPH (PPM)	MDL DRY WT.
10mg3-24	1.00	1000	10.2284		1.0	10.23	
MBS	1.00	15.0	10.3037		1.0	686.91	20.00
dup 22233	0.95	15.3	0.1698		1.0	11.68	21.05
ms1 22233	0.95	15.1	9.4210		1.0	656.74	21.05
ms2 22233	0.95	15.2	9.5609		1.0	662.12	21.05
mb3-24	1.00	15.0	0.1590		1.0	10.60	20.00
22233	0.95	15.7	0.1827		1.0	12.25	21.05
22234	0.88	15.6	0.1913		1.0	13.94	22.73
22235	0.90	15.4	0.2344		1.0	16.91	22.22
22236	0.93	15.5	16.8379		5.0 ✓	5840.41	107.53
22237	0.96	15.2	2.6651		1.0 ✓	182.64	20.83
22238	0.88	15.6	1.2743		1.0 ✓	92.82	22.73
22239	0.83	15.6	0.5832		1.0 ✓	45.04	24.10

5.0
3/24/94

√ data input
DB 3/24/94

TPH LINEAR REGRESSION

DATE 10-Mar-94
ANALYST Dan B

STDS (MG)	ABS.
0.0	0.0000
2.5	0.1225
5.0	0.2336
10.0	0.4616
15.0	0.6965
20.0	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1063

****

STDS (MG)	ABS.	PPM	DIFF
0.0	0.0000	-0.0325	0.0325
2.5	0.1225	2.6048	-0.1048
5.0	0.2336	4.9967	0.0033
10.0	0.4616	9.9054	0.0946
15.0	0.6965	14.9627	0.0373
20.0	0.9334	20.0630	-0.0630

****

BATCH 045

SAMPLE	ABS.	MG
10mg3-16	0.4684	10.0518
MBS	0.4455	9.5588
MBSD	0.4393	9.4253
mb3-16	0.0114	0.2129
22050	0.0087	0.1547
22048	0.0074	0.1267
22125	0.0056	0.0880
mb3-18	0.0057	0.0901
10mg3-19	0.4727	10.1444
22228	0.0062	0.1009
mb3-23	0.0074	0.1267
10mg3-23	0.4673 ✓	10.0281
22240	0.0072 ✓	0.1224
mb3-24	0.0048 ✓	0.0708
10mg3-24	0.4766 ✓	10.2284

GC 3/24/94

✓ data input
DB 3/24/94

ANALYSIS: TPH WATERS
batch 045
DATE: 24-Mar-94
ANALYST: DB

Q.C. DATA

	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.052	101%
MBS	10	9.559	96%
MBS DUP	10	9.425	94%

RPD = 0.00%

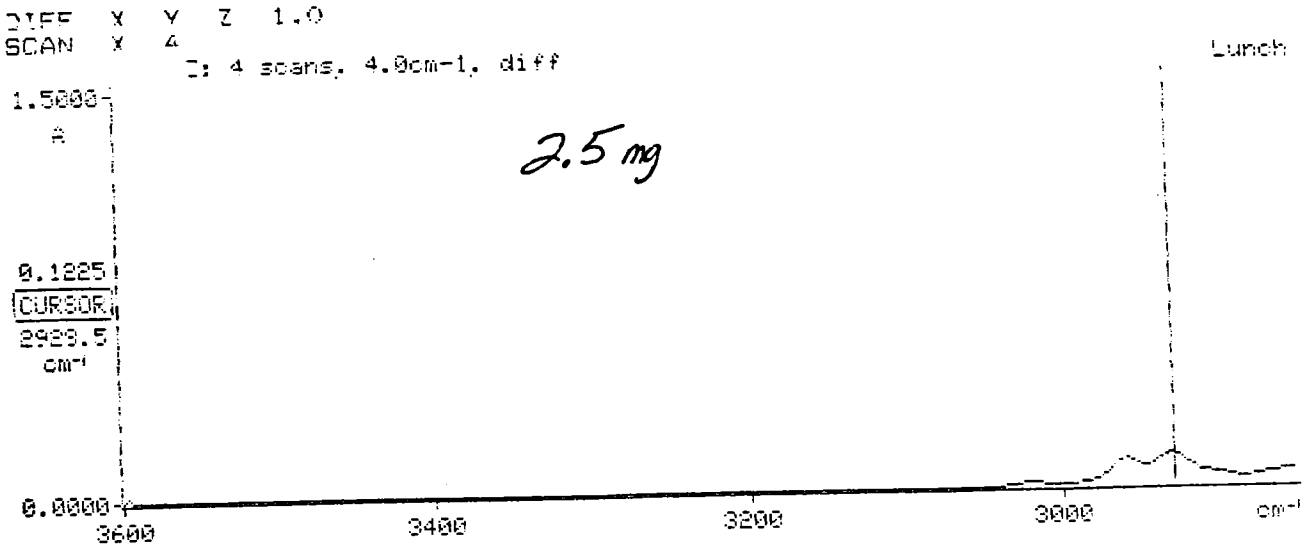
SAMPLE NO.	SAMPLE VOLUME	MG FROM CALC. CURV	DILUT. FACTOR	TPH (PPM)	MDL (PPM)
10mg3-16	1000	10.0518	1.0	10.052	
MBS	1000	9.5588	1.0	9.559	
MBSD	1000	9.4253	1.0	9.425	
mb3-16	1000	0.2129	1.0	0.213	1.0
22050	970	0.1547	1.0	0.160	1.0
22048	970	0.1267	1.0	0.131	1.0
22123	930	0.0880	1.0	0.095	1.1
mb3-18	1000	0.0901	1.0	0.090	1.0
10mg3-19	1000	10.1444	1.0	10.144	1.0
22228	530	0.1009	1.0	0.190	1.9
mb3-23	1000	0.1267	1.0	0.127	1.0
10mg3-23	1000	10.0281	1.0 ✓	10.028	1.0
22240	500	0.1224	1.0 ✓	0.245	2.0
mb3-24	1000	0.0708	1.0 ✓	0.071	1.0
10mg3-24	1000	10.2284	1.0 ✓	10.228	1.0

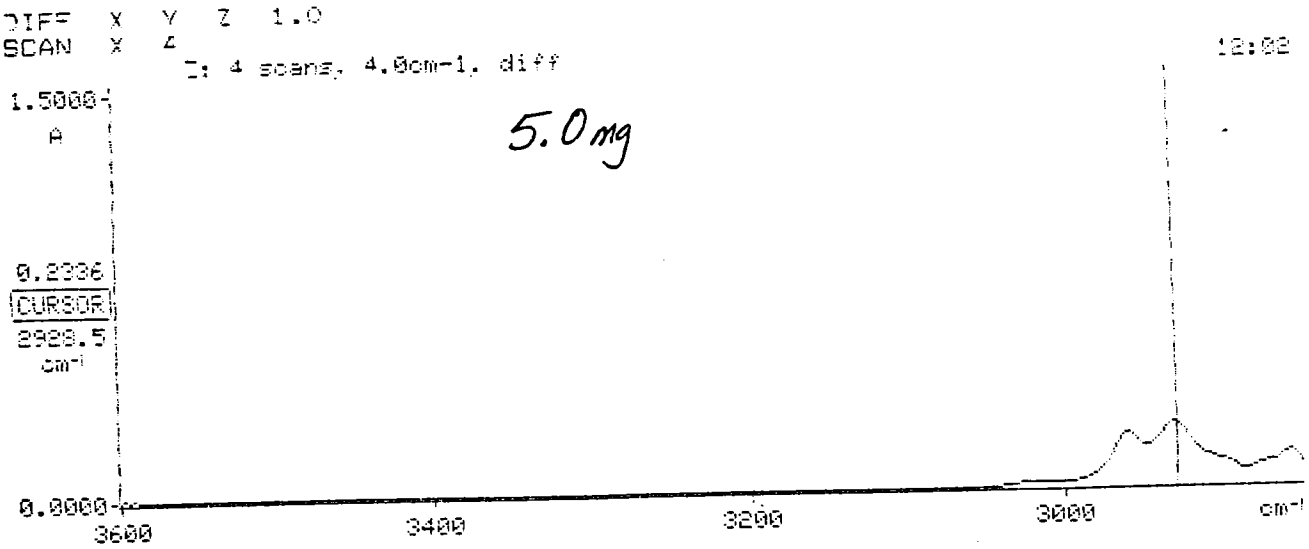
3/24/94

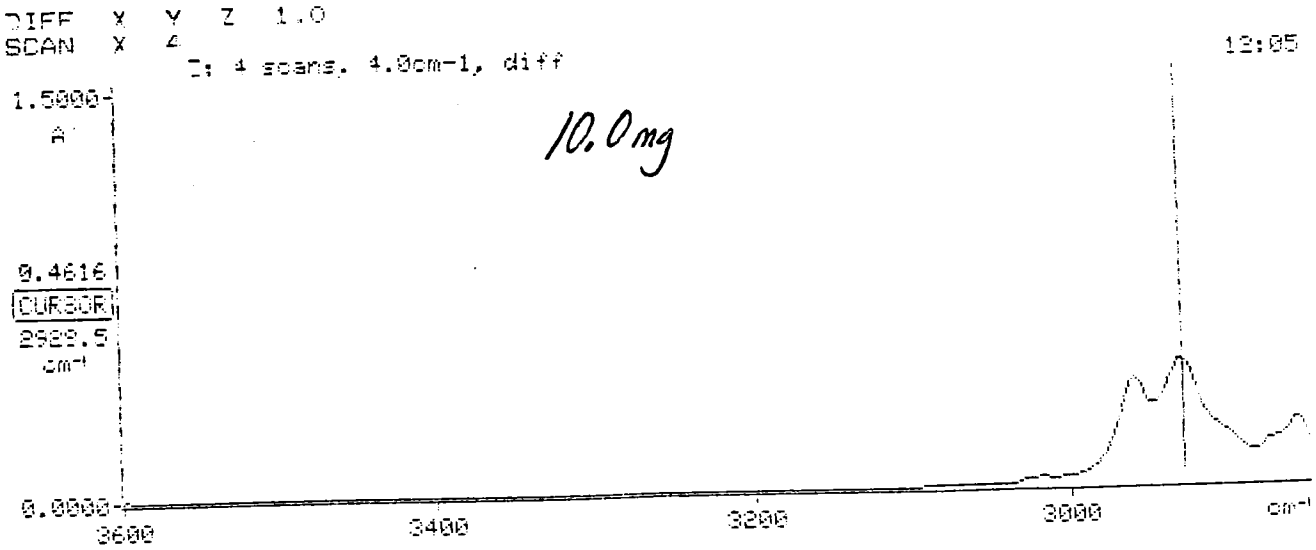
✓ data input
DB 3/24/94

TPH curve 3/10/9

DB

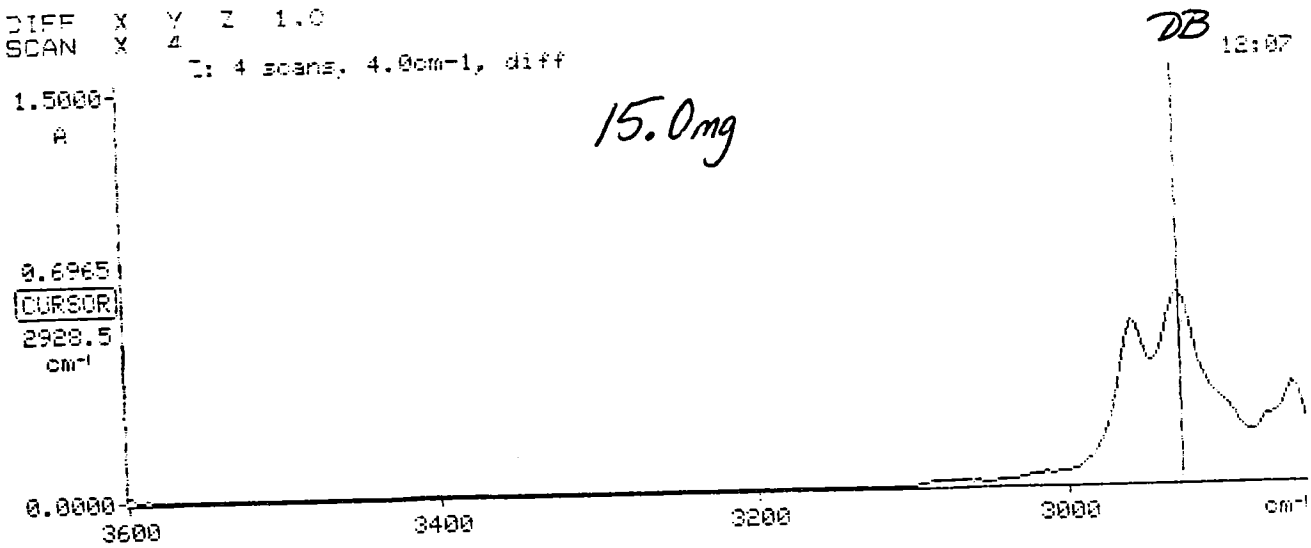


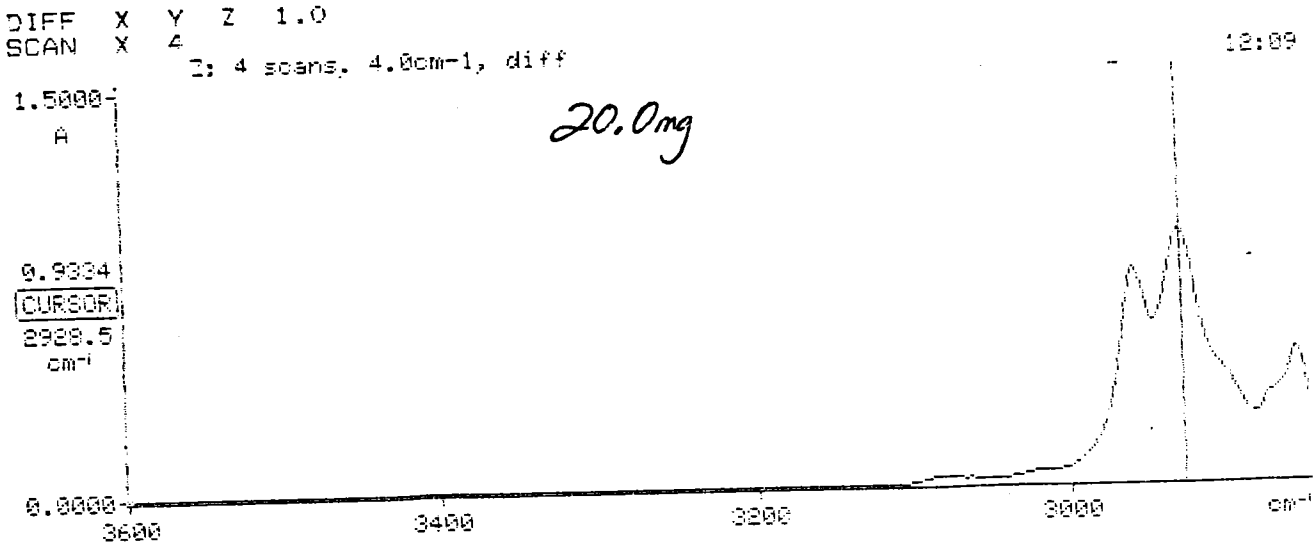




034

TPH curve 3/10/94
DB





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DIFF  X  Y  Z  1.0
SCAN  X  4
DIFF  X  Y  Z  1.0
SCAN  Y  4
DIFF  X  Y  Z  1.0
SCAN  X  4
DIFF  X  Y  Z  1.0
SCAN  X  4
```
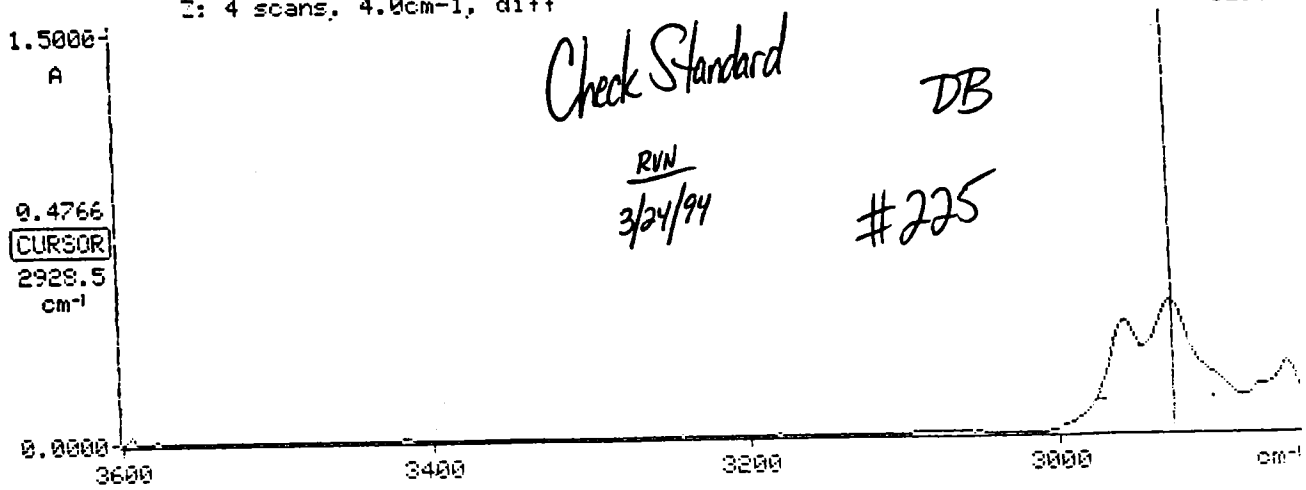

Z: 4 scans, 4.0cm-1, diff

12:15



Check Standard

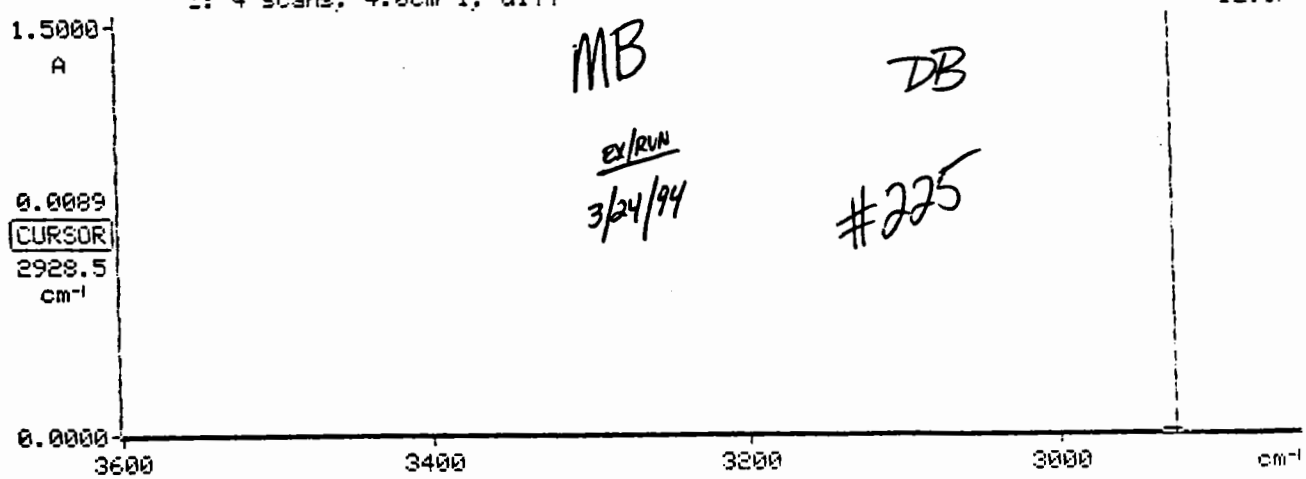
DB

RVN
3/24/94

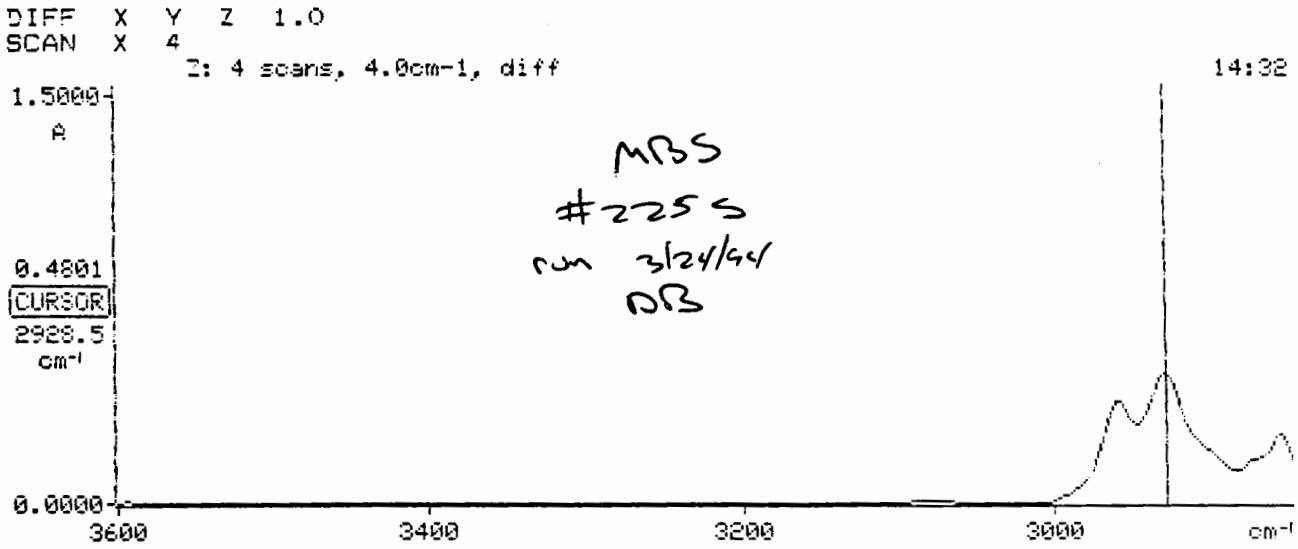
#225

DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff

12:17



037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SCAN X 4
I: 4 scans, 4.0cm-1, diff
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CURSOR
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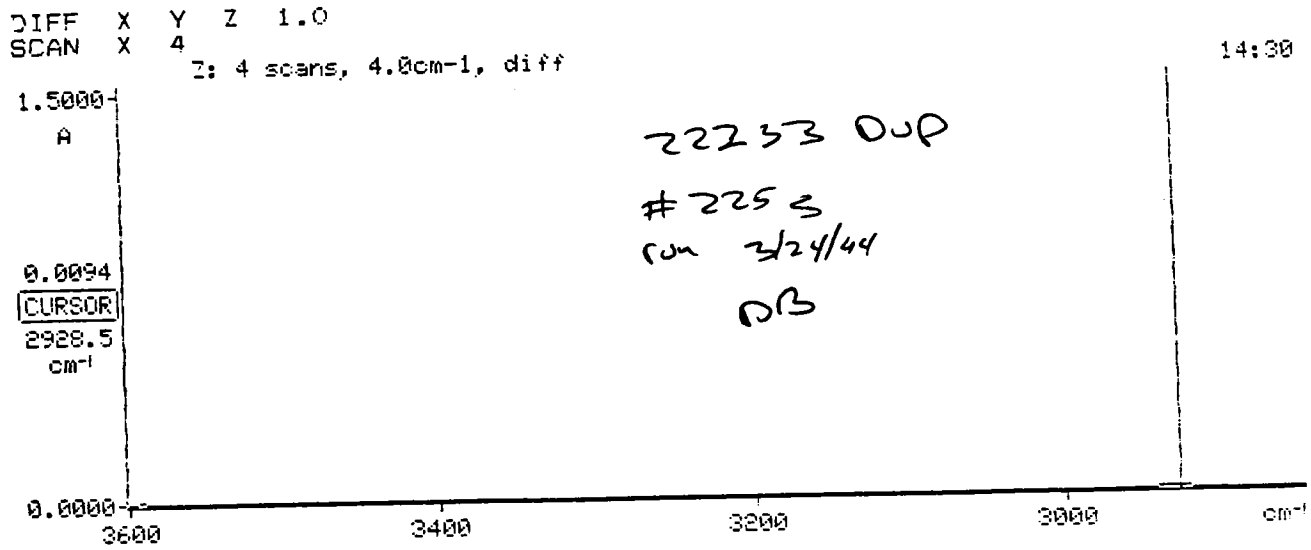
3400
3200
3000
cm-1
MBS
#225 S
run 3/24/94
DB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SCAN X 4
Z: 4 scans, 4.0cm-1, diff
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0.0094
CURSOR
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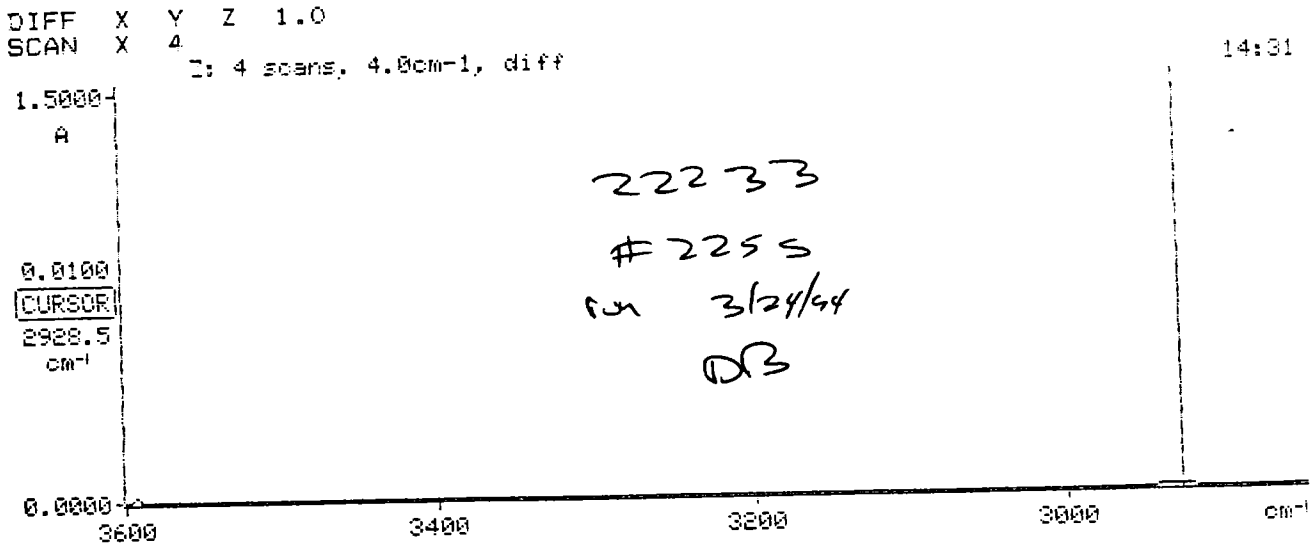
0.0000
3600
3400
3200
3000
cm-1
22233 DUP
#225 S
run 3/24/94
DB


DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
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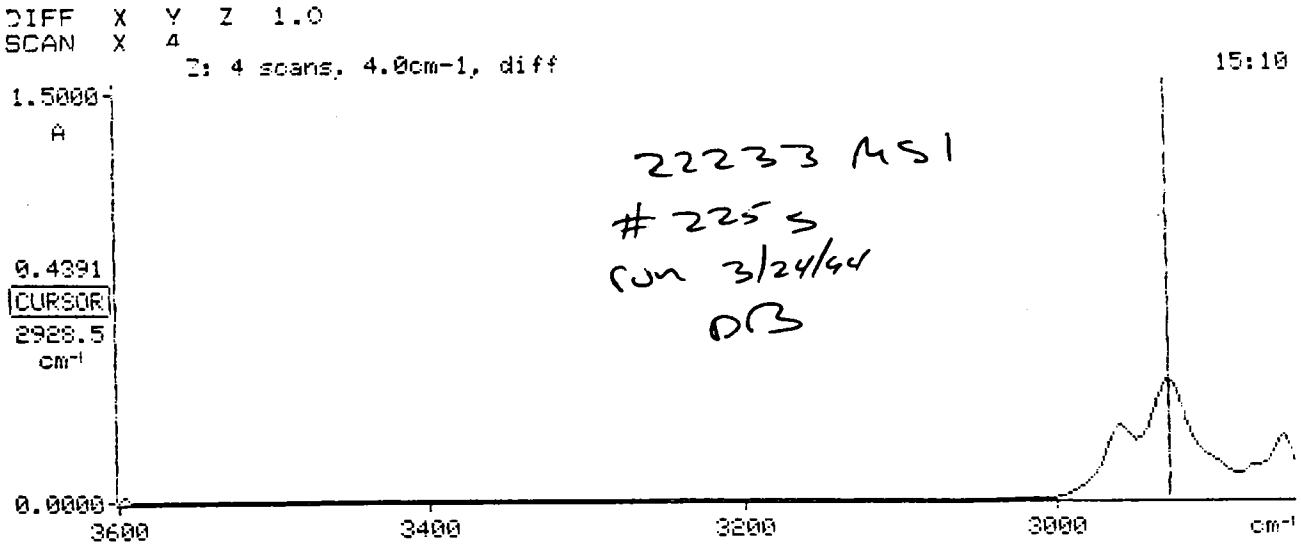
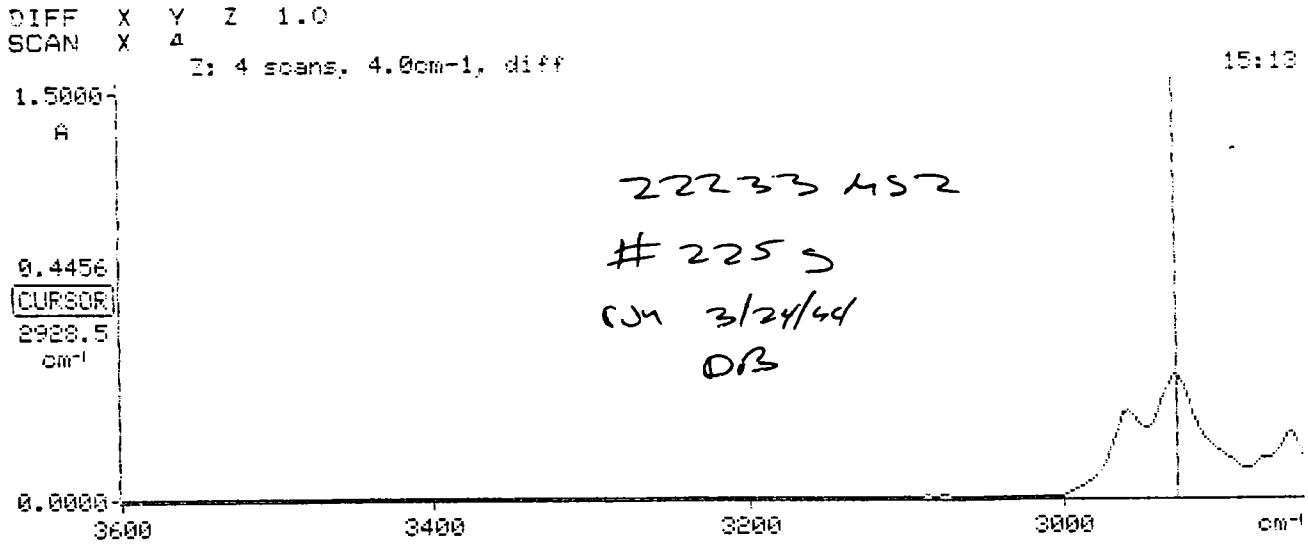
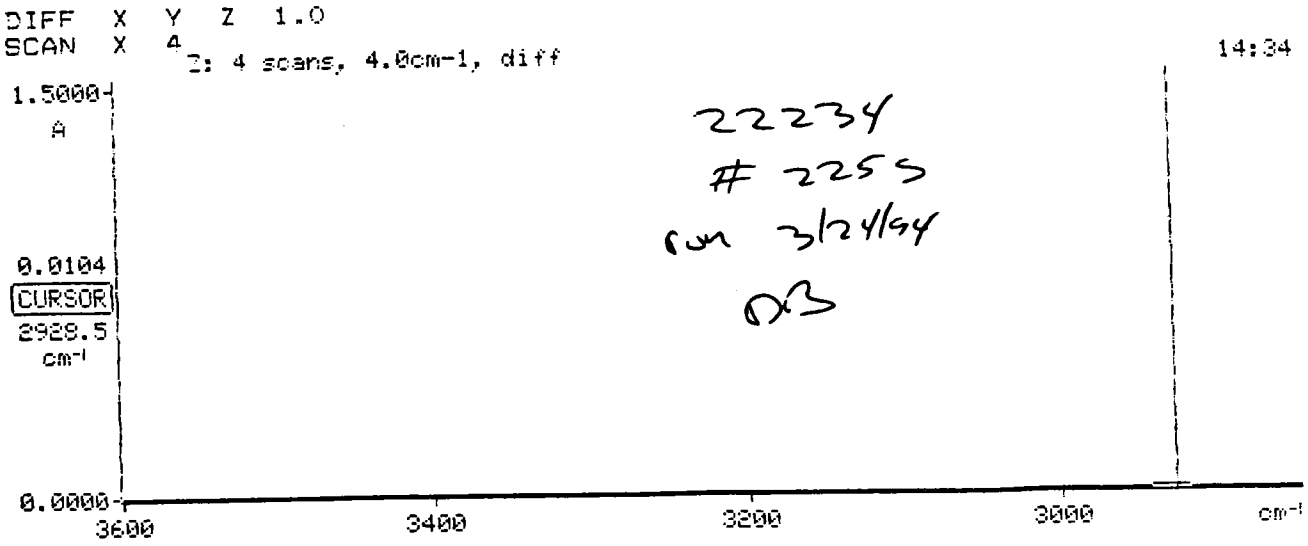
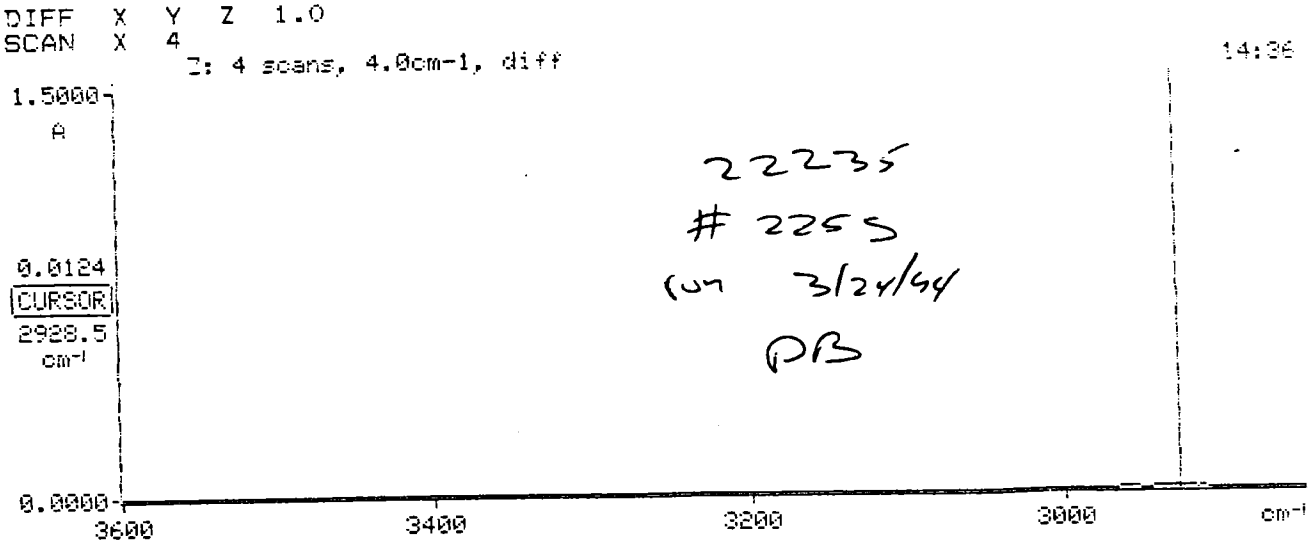
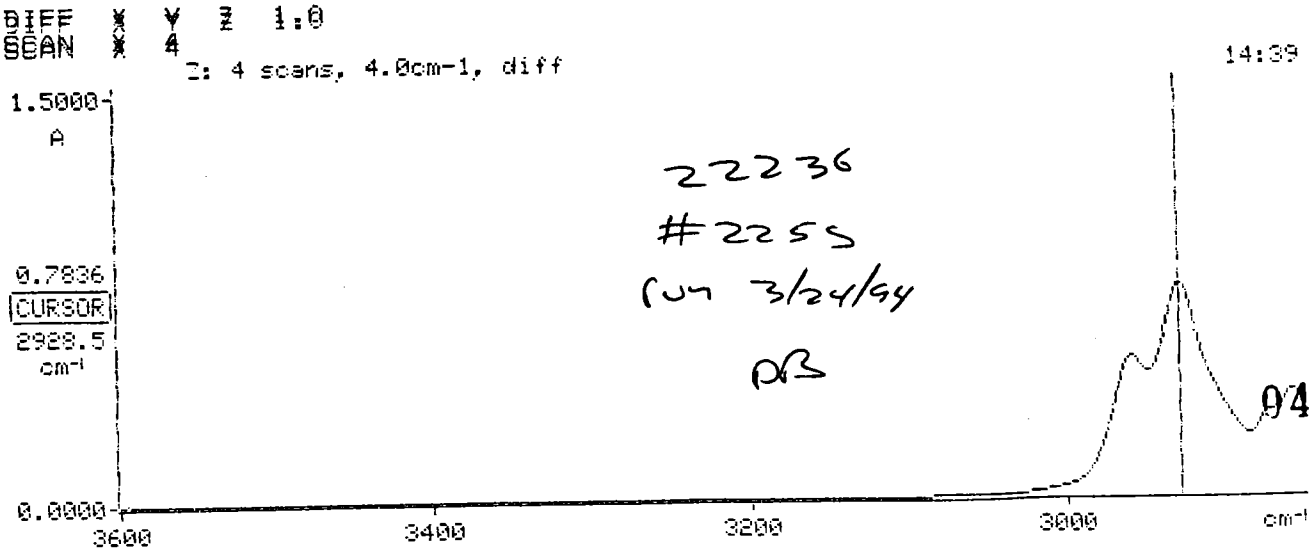
1.5000
A
0.0100
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22233
#225 S
run 3/24/94
DB

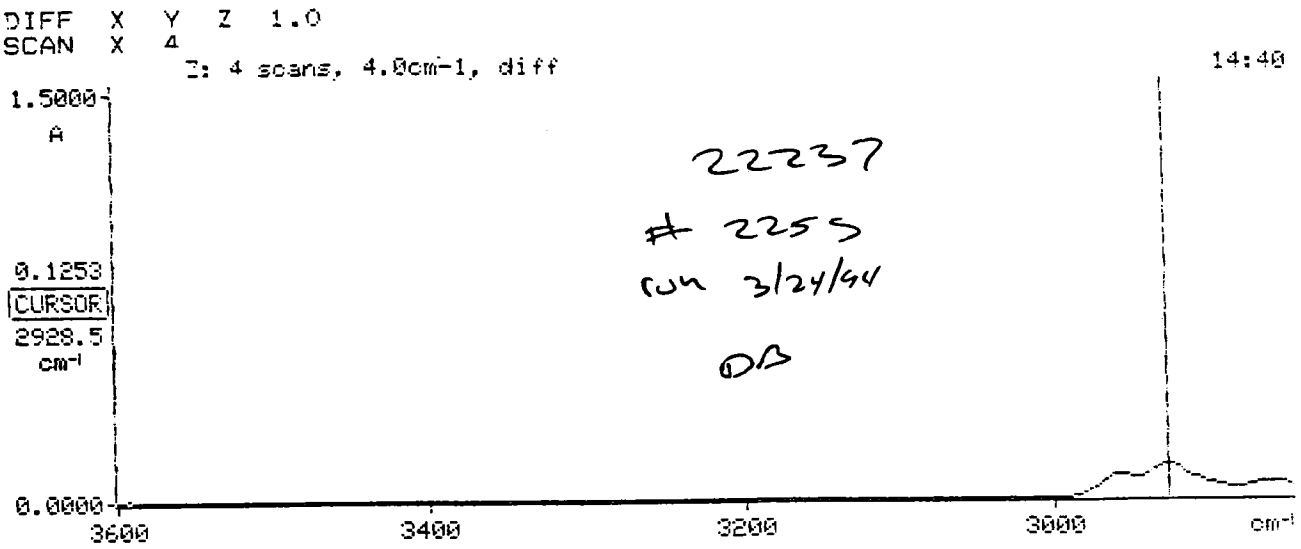

DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
15:10
1.5000
A
0.4391
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22233 MS1
#225 S
run 3/24/44
DB

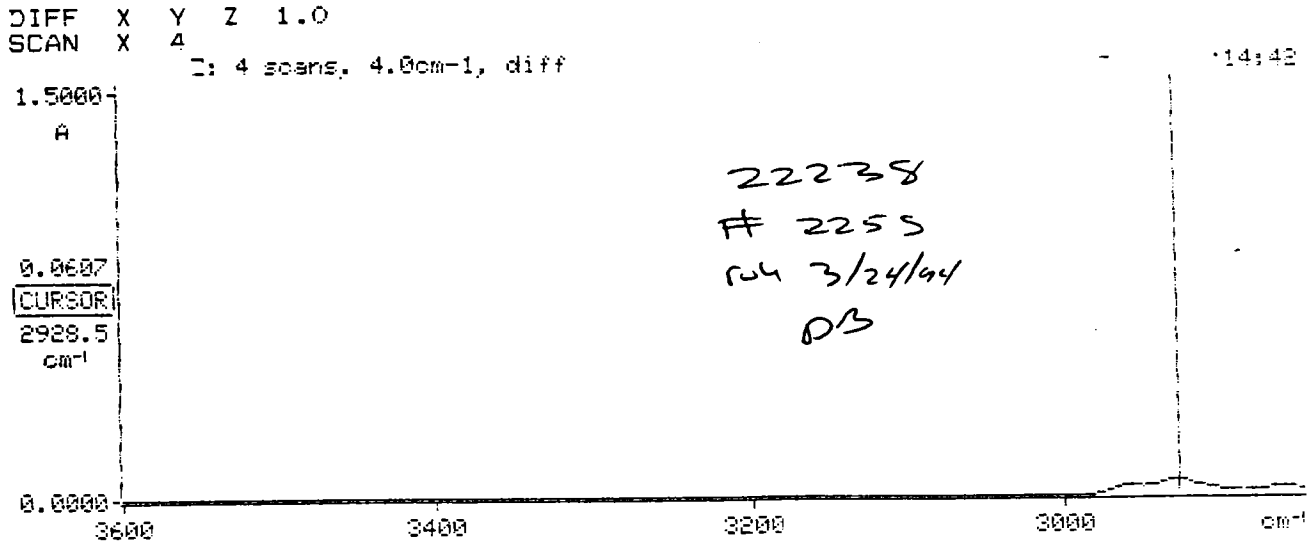

DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
15:13
1.5000
A
0.4456
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22233 MS2
#225 S
run 3/24/44
DB

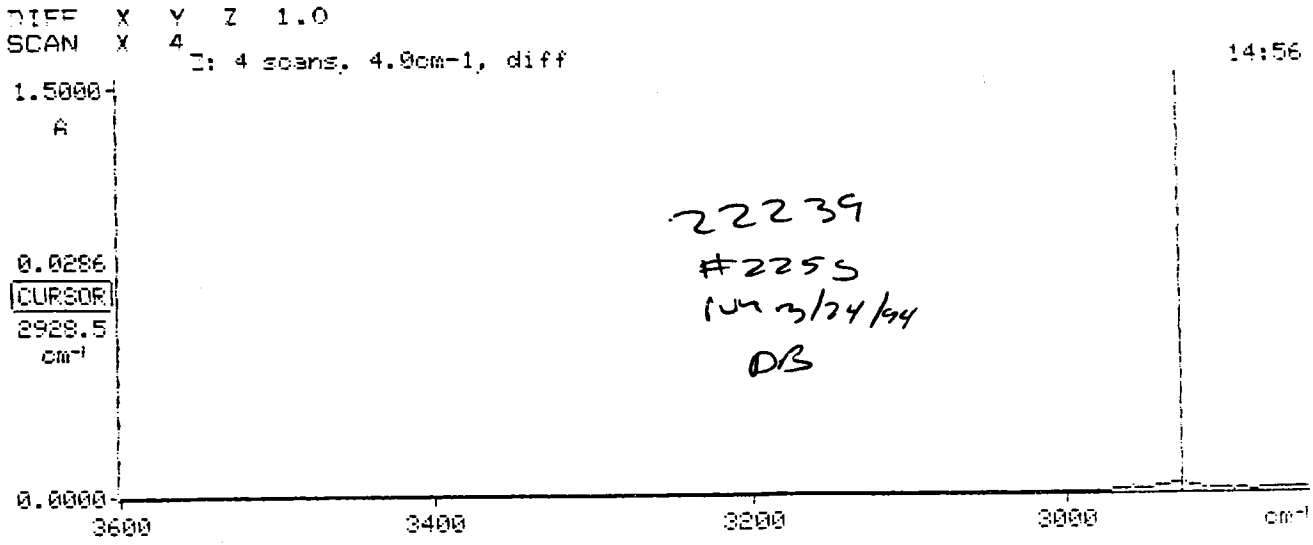

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
14:34
1.5000
A
0.0104
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22234
225S
run 3/24/94
DB


DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
14:36
1.5000
A
0.0124
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22235
225S
run 3/24/94
DB


DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
14:39
1.5000
A
0.7836
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22236
#225S
run 3/24/94
DB

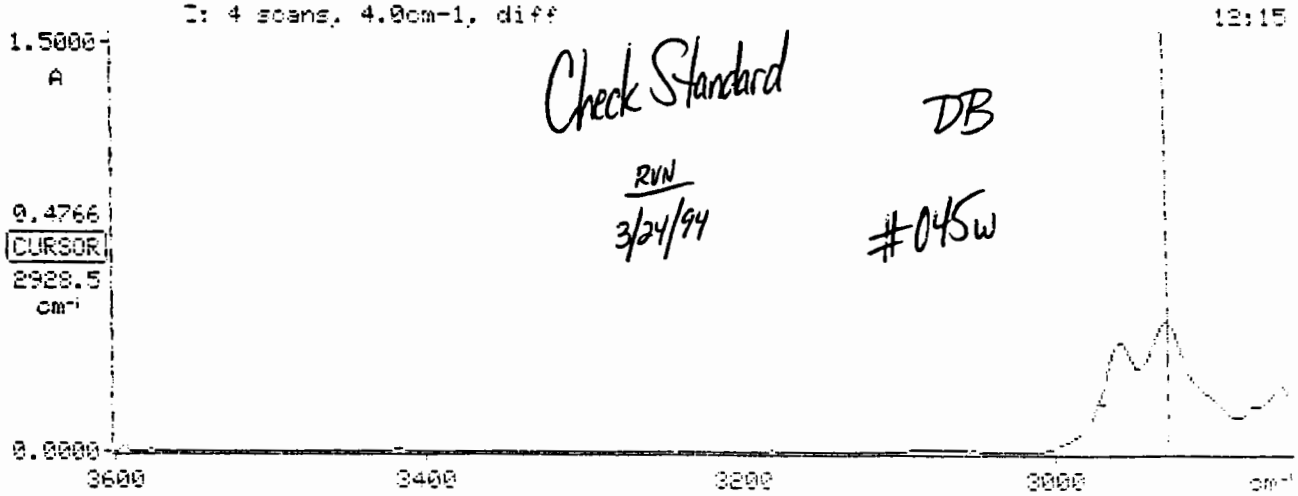

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
14:40
1.5000
A
0.1253
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22237
2255
run 3/24/94
DB


DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
14:42
1.5000
A
0.0607
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22238
2255
run 3/24/94
DB


DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
14:56
1.5000
A
0.0286
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22239
#2255
run 3/24/94
DB

```
DIFF  X  Y  Z  1.0
SCAN  X  4
DIFF  X  Y  Z  1.0
SCAN  X  4
DIFF  X  Y  Z  1.0
SCAN  X  4
DIFF  X  Y  Z  1.0
SCAN  X  4
```

I: 4 scans, 4.0cm-1, diff 12:15



Check Standard

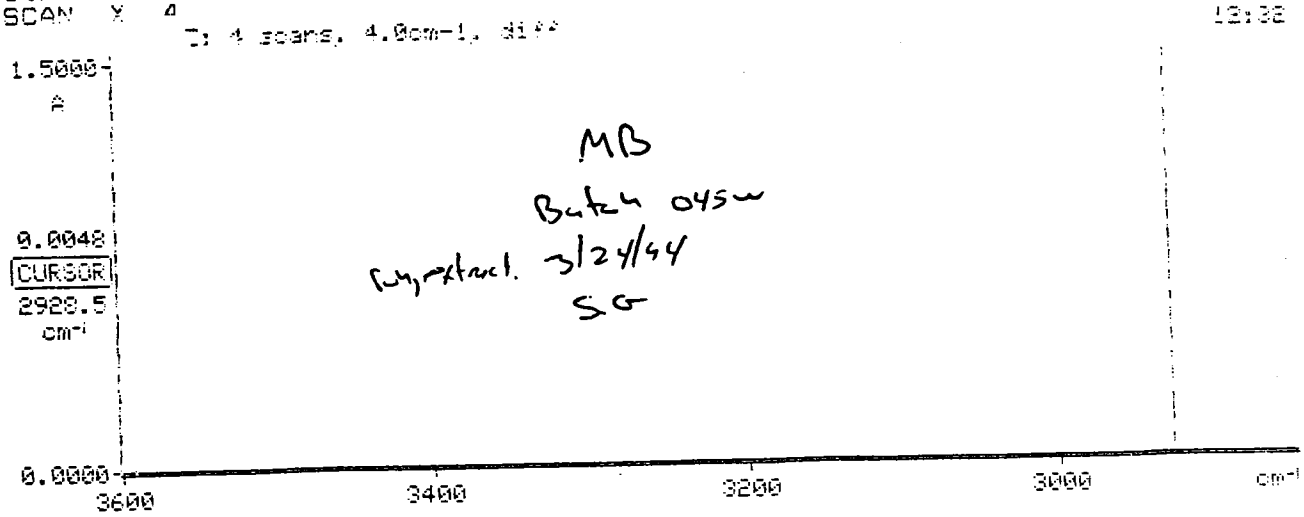
RVN
3/24/94

DB

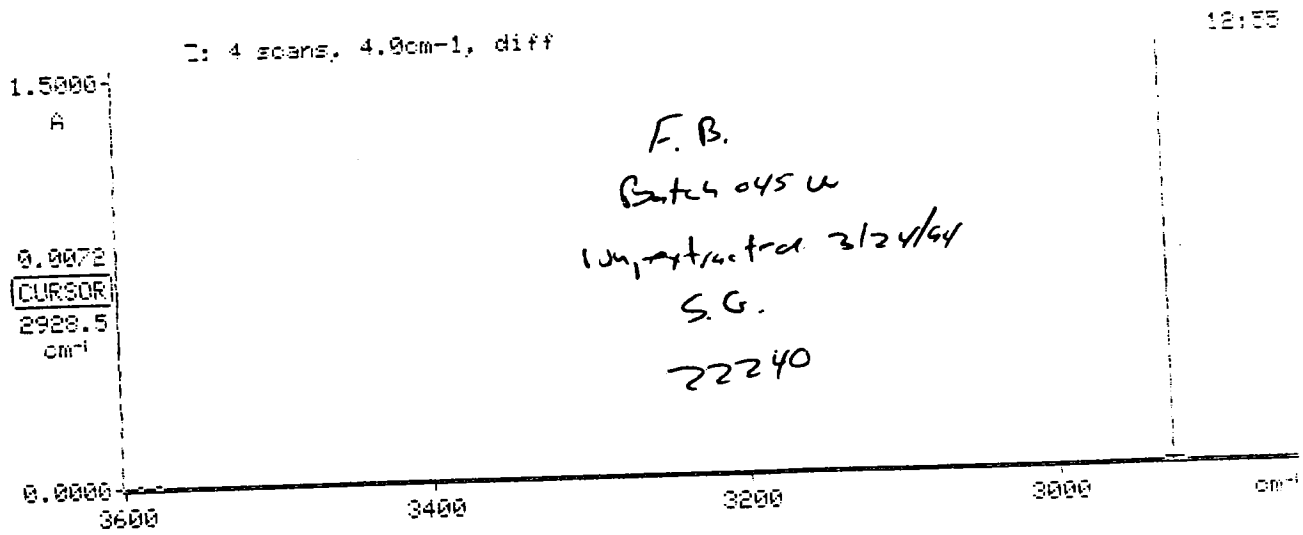
#045w

DIFF X Y Z 1.0
SCAN X Δ

13:32



DIFF X Y Z 1.0
SCAN X Δ


12:55
I: 4 scans, 4.0cm-1, diff
1.5000
A
0.0072
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
F. B.
Batch 045 W
Impregnated 3/24/64
S.G.
22240

No. 4

March 29, 1994 Soil Samples
(UST 555 and Sample MPL2-4A)

555
AND MPLZ-4A
VOS

veritech
Division of Hampton-Clarke, Inc.
environmental and analytical services

ENVIRO-TECH, INC.
NJDEPE REDUCED PKG

PROJECT: EARL AMMUNITION

LAB # AA22400-AA22405

NJDEPE Cert. #14622, CT Cert. #PH0671
PADER #68-463, MA Cert. #NJ386
NYDOH #11408

47 Carey Avenue • Butler, NJ 07405
Phone: (201) 492-8744 Fax: (201) 492-1815

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SAMPLE KEY

ENVIRO-TECH NO.	VERITECH NO.
555-1	AA22400
555-2	AA22401
555-3	AA22402
555-4	AA22403
MPL2-4A	AA22404
555-SP	AA22405
FIELD BLANK	AA22406

Enviro-Tech Inc.

Page ___ of ___

CHAIN-OF-CUSTODY RECORD

SAMPLER (Signature) [signature] Date Shipped _____ Carrier GDM

Phone 908-566-2277 Airbill No. _____ Cooler No. _____

SHIP TO:

VERITECH

ATTENTION: _____

SEND RESULTS TO:

Client Name _____

Company ENVIRO-TECH, INC

Address 247 MAIN STREET
MATAWAN, NJ

Phone 908-566-2277

PROJECT NAME EARL AMMUNITION **PROJECT NO.** _____ **P.O. NO.** _____

Relinquished by: (Signature)	Received by: (Signature)	Date	Military Time
[signature]	[signature]	3/31/94	1000 HRS
Relinquished by: (Signature)	Received by: (Signature)	Date	Military Time
[signature]	[signature]	3/31/94	1130 HRS.
Relinquished by: (Signature)	Received at lab by: (Signature)	Date	Military Time
Rabo			
Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Military Time

ANALYSIS REQUEST

	Sample ID Number	Sample Description	Date/Time Sampled		Analysis Requested	Sample Condition Upon Receipt
1	555-1	SOIL	3/29/94	14:10	TPH*, VOTIO, XYLENE	AA22400
1	555-2	↓	↓	13:50	↓	22401
1	555-3	↓	↓	13:56	↓	22402
1	555-4	↓	↓	14:02	↓	22403
1	MPL2-4A	↓	↓	14:15	↓	22404
1	555-5P	↓	↓	14:30	↓	22405
3	FIELD BLANK	AQUEOUS	↓	13:45	↓	22406

Special Instructions/Comments:

PLEASE ANALYZE FOR TPH 1ST (24 HOUR TURNAROUND). IF RESULTS SHOW TPH CONCENTRATION GREATER THAN 1,000 PPM, PLEASE CALL ENVIRO-TECH OFFICE FOR AUTHORIZATION OF FURTHER ANALYSES.

[signature]

NOTE: UNUSED PORTIONS OF NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Expected Analytical T.A.T.'s: _____ Immediate Attention (200% surcharge) _____ RUSH (50-100% surcharge) _____ Standard

002

GDM 010

Sample Custodians Chain of Custody

veritech

Division of Hampton-Clarke, Inc.

environmental and analytical services

INTERNAL CHAIN OF CUSTODY RECORD

REMOVED FROM

PARAMETER	SAMPLE NO.	COLDBOX NO.	DATE	TIME	SIGNATURE
% solid, TPH	22357-61, 22400-06	3	3/31	11:15	Don Bertelli
PH, RCN, RS	22354	3	3/31	11:53	[illegible]
GC/MS	[illegible]	3	"	[illegible]	[illegible]
"	[illegible]	wet lab	"	12:55	[illegible]
BN	22353 to 22271	3	4/1	10:00	Mary Crone
"	[illegible]				
GC/MS	[illegible]	3	4/01	2:19	[illegible]
Hg H_2O	22428, 29	3	4/1/94	2:22	Don Bertelli
	22417-22427	3	↓		
	[illegible]	3	"	3:00	[illegible]
"	[illegible]	3	"	[illegible]	[illegible]
	[illegible]				
% solid, TPH, pH, RS	22357-65	3	4/4	10:00	Don Bertelli
% solid, RCN	22396, 99	3	4/4	10:00	Don Bertelli
~~[illegible]~~	~~[illegible]~~	~~3~~	~~4/4/94~~	~~10:10~~	~~[illegible]~~
TCLP	22004, 22397, 98	3	4/4	1:00	Mary Crone
TCLP, TD WG	22165, 22169	3	4/4/94	1:40	S Farrington
TPH-GC	[illegible]	3	4/4/94	1:40	Margaret Vlanc
TPH-GC	22396	wet lab	4/4/94	1:43	[illegible]
VOC+10	22138	3	4/4/94	1:50	[illegible]
TCLP	22396	3	4/4/94	2:45	S Farrington

RETURNED TO

PARAMETER	SAMPLE NO.	COLDBOX NO.	DATE	TIME	SIGNATURE
BN	22353 to 22271	3	4/1	[illegible]	Mary Crone
Hg H_2O	22428-29	3	4/1/94	6:20	Don Bertelli
↓	22417-22427	3	↓	↓	
GC/MS	[illegible]	3	"	3:49	[illegible]
TPH-GC	[illegible]	3	4/4/94	2:00	Margaret Vlanc
TCLP, TD WG	22165, 22169	3	4/4/94	2:30	S Farrington
TCLP	22004, 22397, 98	3	4/4	2:40	Mary Crone
PCB	22271	3	4/4	3:15	Mary Crone
TCLP	22316, 22353	3	4/4/94	3:20	S Farrington
% solid, TPH, pH, RCN	22357-65	3	4/4	4:35	Don Bertelli
% solid, RS, RCN	22396, 99	"	"	"	"

003

47 Carey Avenue • Butler, NJ 07405

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VERITECH INTERNAL CHAIN OF CUSTODY RECORD
REFRIGERATOR NO 2

PARAMETER & FROM/TO REFRIG	SAMPLE NUMBER	DATE OUT	TIME OUT	DATE IN *	TIME IN *	SIGNATURE
GC/MS	AA 22161, 22162, 22165~22167, 22223	3/04/94	6:03	3/04/94	6:20	[illegible]
"	22165, ~~22151~22155~~ 22154~22155	3/05/94	3:03	3/05/94	3:21	[illegible]
"	22172, 22150	"	4:07			[illegible]
"	22256 ~22263 22133	"	5:21	3/05/94	5:50	[illegible]
"	22256, 22131	"	5:56			[illegible]
Wet lab	~~22252~~ - 22268, 22251	3/28	1:15	3/28	2:00	D. Battle
GC/MS	22273	"	1:36			[illegible]
"	22264~22268, 22276	"	2:23	3/29/94	2:40	[illegible]
"	22275, 22230, 22231	"	2:57			[illegible]
"	22261, 22262, 22277~22281	"	5:13	3/29/94	5:33	[illegible]
"	22265	"	5:40	"	5:44	[illegible]
"	22300~22303, 22271	3/31/94	12:17	3/31/94	12:24	[illegible]
"	22276~22281	"	2:49	"	2:59	[illegible]
"	22357, 22360	"	4:36	"	4:34	[illegible]
"	22357~22359	"	5:50	"	6:07	[illegible]
"	22335~22337	"	6:11	"	6:19	[illegible]
GC/MS	22335, 22359, 22340, 22361	4/01/94	4:10	4/01/94	4:22	[illegible]
"	22336, 22339, 22340~22344	"	6:05	"	6:20	[illegible]
"	22361, 22359	"	6:29	"	6:41	[illegible]
"	22353, 22364	4/03/94	3:50	4/03/94	4:02	[illegible]
"	22366~22374, 22354	"	4:30	"	4:55	[illegible]
TCLP (MEGAN)	22353	4/4/94	2:50			S. Parsons
GC/MS	22138, 22365	"	2:58	4/04/94	3:07	[illegible]
"	22383, 22386	"	4:02	"	4:07	[illegible]
"	22396, 22378, 22324~22388	"	4:31	"	4:49	[illegible]
"	22378, 22386	"	5:20	"	5:27	[illegible]
"	AA 22436, 22407~22416, 22510	"	6:05			[illegible]
"	AA 22415, 22413, 22408, 22407, 22450	4/05/94	10:30			[illegible]
"	AA 22004, 22397, 22398	"	2:50			[illegible]
"	AA 22407, 431~433, 22424, 22410	"	4:09			[illegible]
"	AA 22895	"	5:50	4/05/94	5:57	[illegible]
9-TD-51	AA 22447-67	4/6/94	11:45			[illegible]
PCB	AA 22396	4/6/94	12:00			Tracy Evans
GC/MS	22363, 22404, 22455	"	3:11	4/6/94	3:22	[illegible]
"	22406, ~~22395~~ 22397, 22004	"	5:09			[illegible]
"	22404, 22439~22446, 22363	"	5:33	4/6/94	5:50	[illegible]
"	22363	"	6:33	"	6:40	[illegible]
"	22445~22449	4/07/94	2:28	4/07/94	2:36	[illegible]
"	22469~22472	"	4:11			[illegible]
"	22476~22480.	"	5:35	4/07/94	5:49	[illegible]

COMMENTS: * Aqueous samples are not logged back into the refrigerator

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-19-1994 Time: 14:56:05

Sample I.D. AA22400
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/29/94
Date submitted: 04/01/94
Due date: 04/12/94
Specification checking: off
Descript: 555-1 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	88	PERCENT	03/31/94	DB
TPH-SOIL	Not detected	mg/kg dry wt	03/31/94	DB
TPH EXTRACTION	Completed		03/31/94	DB

End of progress report on sample: AA22400

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-19-1994 Time: 14:56:06

Sample I.D. AA22401
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/29/94
Date submitted: 04/01/94
Due date: 04/12/94
Specification checking: off
Descript: 555-2 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	91	PERCENT	03/31/94	DB
TPH-SOIL	Not detected	mg/kg dry wt	03/31/94	DB
TPH EXTRACTION	Completed		03/31/94	DB

End of progress report on sample: AA22401

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-19-1994 Time: 14:56:07

Sample I.D. AA22402
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/29/94
Date submitted: 04/01/94
Due date: 04/12/94
Specification checking: off
Descript: 555-3 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	87	PERCENT	03/31/94	DB
TPH-SOIL	26	mg/kg dry wt	03/31/94	DB
TPH EXTRACTION	Completed		03/31/94	DB

End of progress report on sample: AA22402

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-19-1994 Time: 14:56:07

Sample I.D. AA22403
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/29/94
Date submitted: 04/01/94
Due date: 04/12/94
Specification checking: off
Descript: 555-4 SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	89	PERCENT	03/31/94	DB
TPH-SOIL	24	mg/kg dry wt	03/31/94	DB
TPH EXTRACTION	Completed		03/31/94	DB

End of progress report on sample: AA22403

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-19-1994 Time: 14:56:08

Sample I.D. AA22404
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/29/94
Date submitted: 04/01/94
Due date: 04/12/94
Specification checking: off
Descript: MPL2-4A SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	86	PERCENT	03/31/94	DB
TPH-SOIL	1100	mg/kg dry wt	03/31/94	DB
TPH EXTRACTION	Completed		03/31/94	DB
VOLATILES + 10	Completed	ATTACHED	04/06/94	YS

End of progress report on sample: AA22404

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-19-1994 Time: 14:56:09

Sample I.D. AA22405
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 1

Date collected: 03/29/94
Date submitted: 04/01/94
Due date: 04/12/94
Specification checking: off
Descript: 555-SP SOIL

MATRIX: SOIL

Analysis	Result	Unit	Finished	Anl
%SOLIDS	88	PERCENT	03/31/94	DB
TPH-SOIL	37	mg/kg dry wt	03/31/94	DB
TPH EXTRACTION	Completed		03/31/94	DB

End of progress report on sample: AA22405

SAMPLE PROGRESS REPORT

Veritech (Hampton Clarke)
Date: 04-19-1994 Time: 14:56:10

Sample I.D. AA22406
Status: Complete and inactive
Priority: 24 HR TA
Deliverables: REDUCED
Client ID: ENVIRO
Project Account Code: EARL
CONTAIN: 3

Date collected: 03/29/94
Date submitted: 04/01/94
Due date: 04/12/94
Specification checking: off
Descript: FIELD BLANK

MATRIX: WATER

Analysis	Result	Unit	Finished	Anl
TPH-WATER	Not detected	mg/L	03/31/94	SG
TPH EXTRACTION	Completed		03/31/94	SG
VOLATILES + 10	Completed	ATTACHED	04/06/94	YS

End of progress report on sample: AA22406

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

CLIENT: ENVIRO PROJECT: EARL
ANALYSIS: VOLATILE

	NO	YES
1. GC/MS Tune Specifications		
a. BFB passed	___	_X_
b. DFTPP passed	___	___
2. GC/MS Tuning Frequency - performed every 12 hours	___	_X_
3. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 12 hours before sample analysis.	___	_X_
4. GC/MS Calibration Requirements		
a. Calibration Check Compounds	___	_X_
b. System Performance Check Compounds	___	_X_
5. Blank Contamination - List compounds for each fraction		
a. VOA Fraction See Form 1.		
b. B/N Fraction		
c. Acid Fraction		
6. Surrogate Recoveries Meet Criteria (If not met; list those compounds and their recoveries which fall outside the acceptable range)	___	_X_
a. VOA Fraction		
b. B/N Fraction		
c. Acid Fraction		
7. Extraction Holding Time Met	___	___
Comments:		
8. Analysis Holding Time Met	___	_X_
Comments:		

Additional Comments: _____

Organics Director _____ Date: 04/15/94

WET CHEMISTRY ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

		No	Yes
1.	Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank:	_X_	___
2.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list the sample and corresponding recovery which falls outside the acceptable range)	___	_X_
3.	IR Spectra submitted for all standards, blanks, & samples	___	_X_
4.	Chromatograms submitted for all standards, blanks, & samples if GC fingerprinting was conducted	___	___
5.	Extraction Holding Time Met	___	_X_
	If not met, list number of days exceeded for each sample:		
6.	Analysis Holding Time Met	___	_X_
	If not met, list number of days exceeded for each sample:		

Additional Comments: _____

QA/QC Director: _____ Date: ___4/4/94_____

METHOD REFERENCES

Volatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 8240.

Volatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 624.

TCLP Volatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8240.

Volatile Organics (Drinking Waters) - Methods for the Determination of Organic Compounds in Drinking Water, EPA/600/4-88/039, Revision 3, 1989, Method 524.2.

Semivolatile Organics (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8270.

Semivolatile Organics (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 625.

TCLP Semivolatile Organics - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8270.

Pesticides (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

Pesticides (Waters) - Federal Register, 40 CFR Part 136, October 26, 1984, Method 608.

TCLP Pesticides - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311, 3510 and 8080.

TCLP Herbicides (Waters) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 1311 and 8150.

PCB's (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3550 and 8080.

PCB's (Waters) - Federal Register, 40 CFR, Part 136, October 26, 1984, Method 608.

PCB's (Oils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Methods 3580 and 8080.

Total Metals (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition. Methods 3020 or 3050 are used for digestion. All ICP metals are analyzed using Method 6010. Antimony, arsenic, cadmium, molybdenum, selenium and thallium are analyzed by Methods 7041, 7060, 7131, 7481, 7740 and 7841 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

TCLP Metals - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 1311 followed by Method 3020 for digestion and the individual parameter methods listed above in the Total Metals (Soils) section.

ICP Metals (Waters) - Methods for the Determination of Metals in Environmental Samples, EPA/600/4-91/010, June 1991, Revision 3.3, Method 200.7.

GFAA Metals & Mercury (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983. Antimony, arsenic, cadmium, lead, molybdenum, selenium, thallium and tin are analyzed using Methods 204.2, 206.2, 213.2, 239.2, 246.2, 270.2, 279.2 and 282.2 respectively. Mercury is analyzed using the Inorganic Statement of Work, Contract Laboratory Program, Revision 2.1.

Cyanide (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9010.

Cyanide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 335.2.

Phenols (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9065.

Phenols (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 420.1.

TPH (Soils & Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 418.1 for waters and modified 418.1 for soils using a soxhlet extraction with freon prior to analysis.

Hexavalent Chromium (Soils & Waters) - Test Methods for Evaluating Solid Waste, SW-846, Second and Third Editions, Methods 3060 and 7196A.

pH (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9040.

pH (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 150.1.

Reactive Cyanide - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Chapter Seven, Section 7.3, Reactivity.

Reactive Sulfide - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Chapter Seven, Section 7.3, Reactivity.

Ignitability - Test Methods for Evaluating Solid Waste, SW-848, Third Edition, Chapter Seven, Section 7.1, Ignitability.

Flashpoint - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 1010.

Conductance (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 120.1.

Residue, Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.1.

Residue, Non-Filterable (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.2.

Residue, Total (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 160.3.

Chloride (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 325.3.

Chloride (Soils) - Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Method 9252.

Sulfide (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 376.1.

Chemical Oxygen Demand (Waters) - Hach Chemical Company, Method 8000.

Oil & Grease (Waters) - Methods for the Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983, Method 413.1.

TOX (Waters & Soils) - Refer to methods listed for volatile organics.

2,3,7,8 - TCDD/TCDF - Modified Contract Laboratory Program Statement of Work, November 1992.

VERITECH

47 CAREY AVE., BUTLER, NJ 07405

CT. NO: PH-0671
MADEP NO: NJ386
PADER NO: 68-463
NJDEPE NO: 14622
NYDOH NO: 11408

REPORT OF ANALYSIS

TO: ENVIRO-TECH, INC.
247 MAIN ST.
MATAWAN, NJ 07747-3222
(908) 566-2277

Date Collected: 03/29/94
Date Submitted: 04/01/94
Date Reported: 04/19/94
Project: EARL

Sample I.D.		AA22400		AA22401	
Sample Description		555-1 SOIL		555-2 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	88	1.0	91
TPH-SOIL	mg/kg dry wt	23	Not detected	22	Not detected
TPH-WATER					
VOLATILES + 10					

Sample I.D.		AA22402		AA22403	
Sample Description		555-3 SOIL		555-4 SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	87	1.0	89
TPH-SOIL	mg/kg dry wt	23	26	22	24
TPH-WATER					
VOLATILES + 10					

Sample I.D.		AA22404		AA22405	
Sample Description		MPL2-4A SOIL		555-SP SOIL	
Analyte	**Units**	**MDL**	**Result**	**MDL**	**Result**
%SOLIDS	PERCENT	1.0	86	1.0	88
TPH-SOIL	mg/kg dry wt	23	1100	23	37
TPH-WATER					
VOLATILES + 10	ATTACHED		Completed		

Sample I.D.		AA22406	
Sample Description		FIELD BLANK	
Analyte	**Units**	**MDL**	**Result**
%SOLIDS			
TPH-SOIL			
TPH-WATER	mg/L	4.0	Not detected

Sample I.D.	**AA22406**
Sample Description	**FIELD BLANK**

Analyte	**Units**	**MDL**	**Result**
%SOLIDS			
TPH-SOIL			
VOLATILES + 10	ATTACHED		Completed

This report is a true report of results obtained from our tests of this material. In lieu of a formal contract document, the total aggregate liability of Veritech to all parties shall not exceed Veritech's total fee for analytical services rendered.

Stanley Gilewicz - Laboratory Director

HAMPTON-CLARKE/VERITECH
VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID :
Date Rcvd/Extd:
Sample Matrix : Water
Percent Solid : 0
Column : J&W DB-624 75M .53mm ID column

Lab Sample No. : DAILY BL
Lab File ID : >C9876
Date Analyzed : 04/06/94
Dilution Factor: 1
Sample Wt/Vol : 5.0ml

CONCENTRATION UNITS: UG/L (PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
74873	Chloromethane	10	U	124481	Dibromochloromethane	5	U
74839	Bromomethane	10	U	79005	1,1,2-Trichloroethane	3	U
75014	Vinyl Chloride	5	U	71432	Benzene	1	U
75003	Chloroethane	10	U	10061026	Trans-1,3-Dichloropropene	5	U
75092	Methylene Chloride	2	U	110758	2-Chloroethylvinylether	10	U
67641	Acetone	20	U	75252	Bromoform	4	U
75150	Carbon Disulfide	5	U	108101	4-Methyl-2-Pentanone	25	U
75694	Trichlorofluoromethane	5	U	591786	2-Hexanone	20	U
75354	1,1-Dichloroethene	2	U	127184	Tetrachloroethene	1	U
75343	1,1-Dichloroethane	5	U	79345	1,1,2,2-Tetrachloroethane	2	U
156605	Trans-1,2-Dichloroethene	5	U	108883	Toluene	5	U
67663	Chloroform	5	U	108907	Chlorobenzene	4	U
107062	1,2-Dichloroethane	2	U	100414	Ethylbenzene	5	U
78933	2-Butanone	25	U	100425	Styrene	5	U
71556	1,1,1-Trichloroethane	5	U	108383	m&p-Xylenes	5	U
56235	Carbon Tetrachloride	2	U	95476	o-Xylene	5	U
108054	Vinyl Acetate	10	U	541731	1,3-Dichlorobenzene	5	U
75274	Bromodichloromethane	1	U	95501	1,2-Dichlorobenzene	5	U
78875	1,2-Dichloropropane	1	U	106467	1,4-Dichlorobenzene	5	U
10061015	cis-1,3-Dichloropropene	5	U	1634044	Methyl-t-butyl ether	5	U
79016	Trichloroethene	1	U	108203	Di-isopropyl-ether	5	U
				75650	t-Butyl Alcohol	100	U

TARGET COMPOUND SUMMARY: 0

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

LAB SAMPLE NO.
DAILY BLK(A

Lab Name: VERITECH, NJDEPE CERT.# 14622 Contract:-------

Lab Code: GC/MS Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: WATER

Lab Sample ID: DAILY BLK(A

Sample wt/vol: 5.0 (g/ml) ml

Lab File ID: >C9876

Level: (low/med) LOW

Date Received:

% Solid: 0

Date Analyzed: 04/06/94

Column: CAP

Dilution Factor: 1

Number of TICs found: 0

CONCENTRATION UNITS:
ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Tentative Compound Summary: 0

FORM I VOA-TIC 1/87 Rev

QUANT REPORT

Operator ID: LIN
Output File: ^C9876::D2
Data File: >C9876::D2
Name: DAILY BLK(A)
Misc: A,FOR WATER

Quant Rev: 7
Quant Time: 940406 14:28
Injected at: 940406 14:03
Dilution Factor: 1.00000
Instrument ID: MSD_1

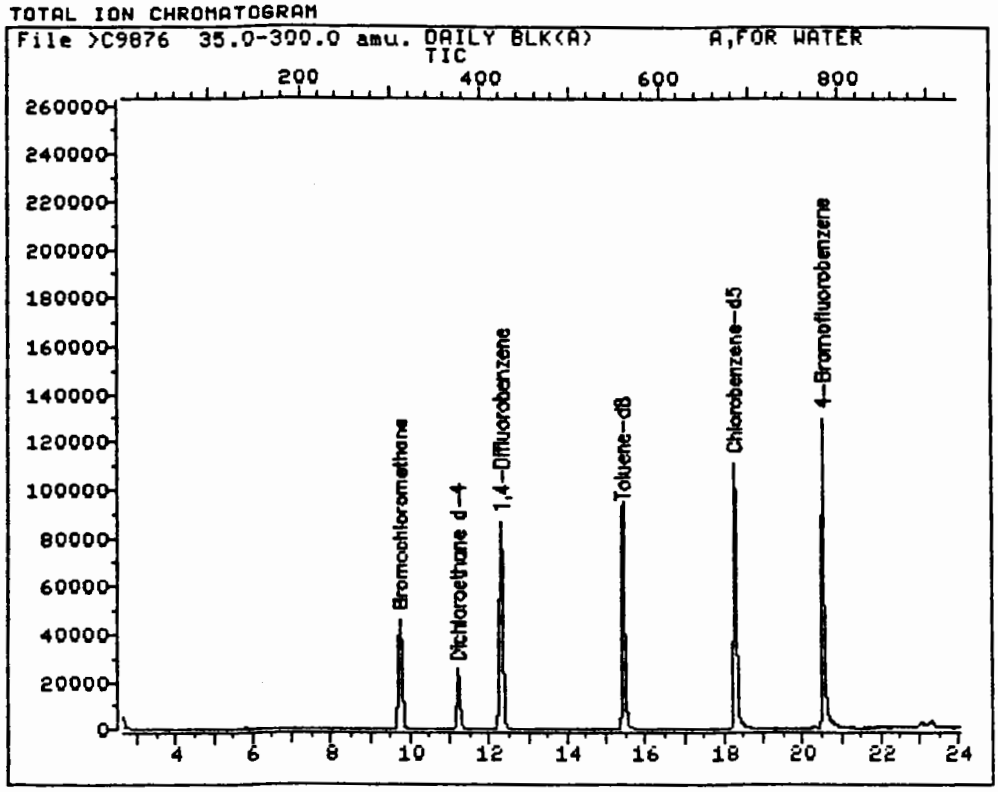
ID File: IDWV01::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940314 14:53
Last Qcal Time: 940406 12:59

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.73	311	38037	50.00	ug/L	97
19)	1,2-Dichloroethane-d4	11.20	375	10791	45.38	ug/L	95
28)	*1,4-Difluorobenzene	12.31	423	183072	50.00	ug/L	96
39)	*Chlorobenzene-d5	18.28	683	162880	50.00	ug/L	94
46)	Toluene d-8	15.43	559	173997	53.70	ug/L	94
53)	Bromofluorobenzene	20.55	782	144040	53.55	ug/L	96

* Compound is ISTD

YU 04/15

TOTAL ION CHROMATOGRAM



Data File: >C9876::D2 Quant Output File: ^C9876::D2
Name: DAILY BLK(A) Instrument ID: MSD_1
Misc: A,FOR WATER

Id File: IDWV01::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940314 14:53 Last Qcal Time: 940406 12:59

Operator ID: LIN
Quant Time : 940406 14:28
Injected at: 940406 14:03

HAMPTON-CLARKE/VERITECH
VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID :
Date Rcvd/Extd:
Sample Matrix : Soil
Percent Solid : 100
Column : J&W DB-624 75M .53mm ID column

Lab Sample No. : DAILY BL
Lab File ID : >C9878
Date Analyzed : 04/06/94
Dilution Factor: 1
Sample Wt/Vol : 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
74873	Chloromethane	10	U	124481	Dibromochloromethane	5	U
74839	Bromomethane	10	U	79005	1,1,2-Trichloroethane	3	U
75014	Vinyl Chloride	5	U	71432	Benzene	1	U
75003	Chloroethane	10	U	10061026	Trans-1,3-Dichloropropene	5	U
75092	Methylene Chloride	2	U	110758	2-Chloroethylvinylether	10	U
67641	Acetone	20	U	75252	Bromoform	4	U
75150	Carbon Disulfide	5	U	108101	4-Methyl-2-Pentanone	25	U
75694	Trichlorofluoromethane	5	U	591786	2-Hexanone	20	U
75354	1,1-Dichloroethene	2	U	127184	Tetrachloroethene	1	U
75343	1,1-Dichloroethane	5	U	79345	1,1,2,2-Tetrachloroethane	2	U
156605	Trans-1,2-Dichloroethene	5	U	108883	Toluene	5	U
67663	Chloroform	5	U	108907	Chlorobenzene	4	U
107062	1,2-Dichloroethane	2	U	100414	Ethylbenzene	5	U
78933	2-Butanone	25	U	100425	Styrene	5	U
71556	1,1,1-Trichloroethane	5	U	108383	m&p-Xylenes	5	U
56235	Carbon Tetrachloride	2	U	95476	o-Xylene	5	U
108054	Vinyl Acetate	10	U	541731	1,3-Dichlorobenzene	5	U
75274	Bromodichloromethane	1	U	95501	1,2-Dichlorobenzene	5	U
78875	1,2-Dichloropropane	1	U	106467	1,4-Dichlorobenzene	5	U
10061015	cis-1,3-Dichloropropene	5	U	1634044	Methyl-t-butyl ether	5	U
79016	Trichloroethene	1	U	108203	Di-isopropyl-ether	5	U
				75650	t-Butyl Alcohol	100	U

TARGET COMPOUND SUMMARY: 0

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

LAB SAMPLE NO.
DAILY BLK(S

Lab Name: VERITECH, NJDEPE CERT.# 14622 Contract:-------

Lab Code: GC/MS Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: SOIL

Lab Sample ID: DAILY BLK(S

Sample wt/vol: 5.0(g/ml) g

Lab File ID: >C9878

Level: (low/med) LOW

Date Received:

% Solid: 100

Date Analyzed: 04/06/94

Column: CAP

Dilution Factor: 1

Number of TICs found: 1

CONCENTRATION UNITS:
ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
11 112403	Dodecane	23.77	9	

Tentative Compound Summary: 9

FORM I VOA-TIC 1/87 Rev

QUANT REPORT

Operator ID: LIN
Output File: ^C9878::D2
Data File: >C9878::D2
Name: DAILY BLK(S)
Misc: A,FOR SOIL

Quant Rev: 7
Quant Time: 940406 15:27
Injected at: 940406 15:03
Dilution Factor: 1.00000
Instrument ID: MSD_1

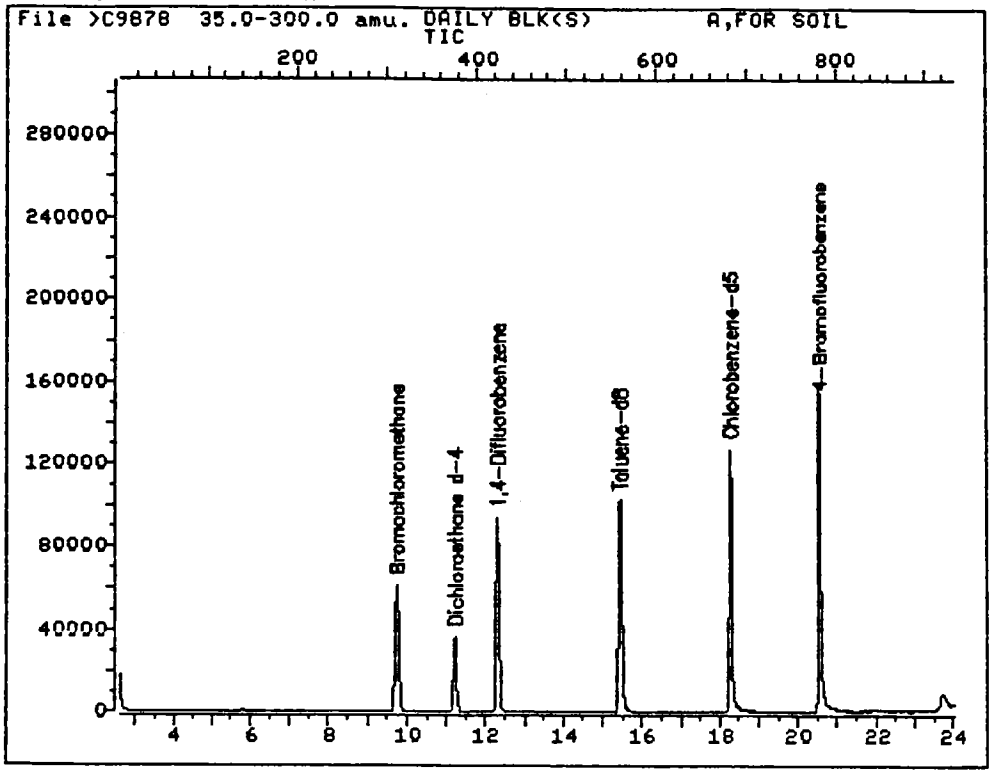
ID File: IDSV01::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940314 17:30
Last Qcal Time: 940406 13:33

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.73	311	50039	50.00	ug/L	93
19)	1,2-Dichloroethane-d4	11.23	376	15319	49.53	ug/L	93
28)	*1,4-Difluorobenzene	12.31	423	200586	50.00	ug/L	95
39)	*Chlorobenzene-d5	18.28	683	185459	50.00	ug/L	95
46)	Toluene d-8	15.43	559	192904	50.66	ug/L	98
53)	Bromofluorobenzene	20.55	782	168481	51.48	ug/L	91

* Compound is ISTD

YU 04/15/94

TOTAL ION CHROMATOGRAM



Data File: >C9878::D2 Quant Output File: ^C9878::D2
Name: DAILY BLK(S) Instrument ID: MSD_1
Misc: A,FOR SOIL

Id File: IDSV01::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940314 17:30 Last Qcal Time: 940406 13:33

Operator ID: LIN
Quant Time : 940406 15:27
Injected at: 940406 15:03

HAMPTON-CLARKE/VERITECH
VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : MPL2-4A SOIL
Date Rcvd/Extd: 04/04/94
Sample Matrix : Soil
Percent Solid : 86
Column : J&W DB-624 75M .53mm ID column

Lab Sample No. : AA22404
Lab File ID : >C9883
Date Analyzed : 04/06/94
Dilution Factor: 1
Sample Wt/Vol : 5.0g

CONCENTRATION UNITS: UG/KG(PPB)

CAS No.	COMPOUND	PQL	CONC	CAS NO.	COMPOUND	PQL	CONC
74873	Chloromethane	12	U	124481	Dibromochloromethane	6	U
74839	Bromomethane	12	U	79005	1,1,2-Trichloroethane	3	U
75014	Vinyl Chloride	6	U	71432	Benzene	1	U
75003	Chloroethane	12	U	10061026	Trans-1,3-Dichloropropene	6	U
75092	Methylene Chloride	2	6	110758	2-Chloroethylvinylether	12	U
67641	Acetone	23	U	75252	Bromoform	5	U
75150	Carbon Disulfide	6	U	108101	4-Methyl-2-Pentanone	29	U
75694	Trichlorofluoromethane	6	U	591786	2-Hexanone	23	U
75354	1,1-Dichloroethene	2	U	127184	Tetrachloroethene	1	1
75343	1,1-Dichloroethane	6	U	79345	1,1,2,2-Tetrachloroethane	2	U
156605	Trans-1,2-Dichloroethene	6	U	108883	Toluene	6	U
67663	Chloroform	6	U	108907	Chlorobenzene	5	U
107062	1,2-Dichloroethane	2	U	100414	Ethylbenzene	6	U
78933	2-Butanone	29	U	100425	Styrene	6	U
71556	1,1,1-Trichloroethane	6	U	108383	m&p-Xylenes	6	U
56235	Carbon Tetrachloride	2	U	95476	o-Xylene	6	U
108054	Vinyl Acetate	12	U	541731	1,3-Dichlorobenzene	6	U
75274	Bromodichloromethane	1	U	95501	1,2-Dichlorobenzene	6	U
78875	1,2-Dichloropropane	1	U	106467	1,4-Dichlorobenzene	6	U
10061015	cis-1,3-Dichloropropene	6	U	1634044	Methyl-t-butyl ether	6	U
79016	Trichloroethene	1	8	108203	Di-isopropyl-ether	6	U
				75650	t-Butyl Alcohol	120	U

TARGET COMPOUND SUMMARY: 15

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

LAB SAMPLE NO.
AA22404

Lab Name: VERITECH, NJDEPE CERT.# 14622 Contract:-------

Lab Code: GC/MS Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: SOIL

Lab Sample ID: AA22404

Sample wt/vol: 5.0(g/ml) g

Lab File ID: >C9883

Level: (low/med) LOW

Date Received:

% Solid: 86

Date Analyzed: 04/06/94

Column: CAP

Dilution Factor: 1

Number of TICs found: 10

CONCENTRATION UNITS:
ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1		Unknown	20.07	18	
2		Unknown	21.25	10	
3		Unknown	21.43	27	
4		Unknown	22.05	32	
5		Unknown	22.40	47	
6		Unknown	22.58	9	
7	81983713	Cyclohexane, 1,1-dimethyl-2-	23.02	27	
8		Unknown	23.27	27	
9		Unknown	23.43	52	
10	61141795	Cyclohexane, 1,2-diethyl-1-m	23.76	98	

Tentative Compound Summary: 347

FORM I VOA-TIC 1/87 Rev

QUANT REPORT

Operator ID: LIN
Quant Rev: 7
Quant Time: 940406 18:17
Output File: ^C9883::D2
Injected at: 940406 17:47
Data File: >C9883::D2
Dilution Factor: 1.00000
Name: AA22404
Instrument ID: MSD_1
Misc: S,5g

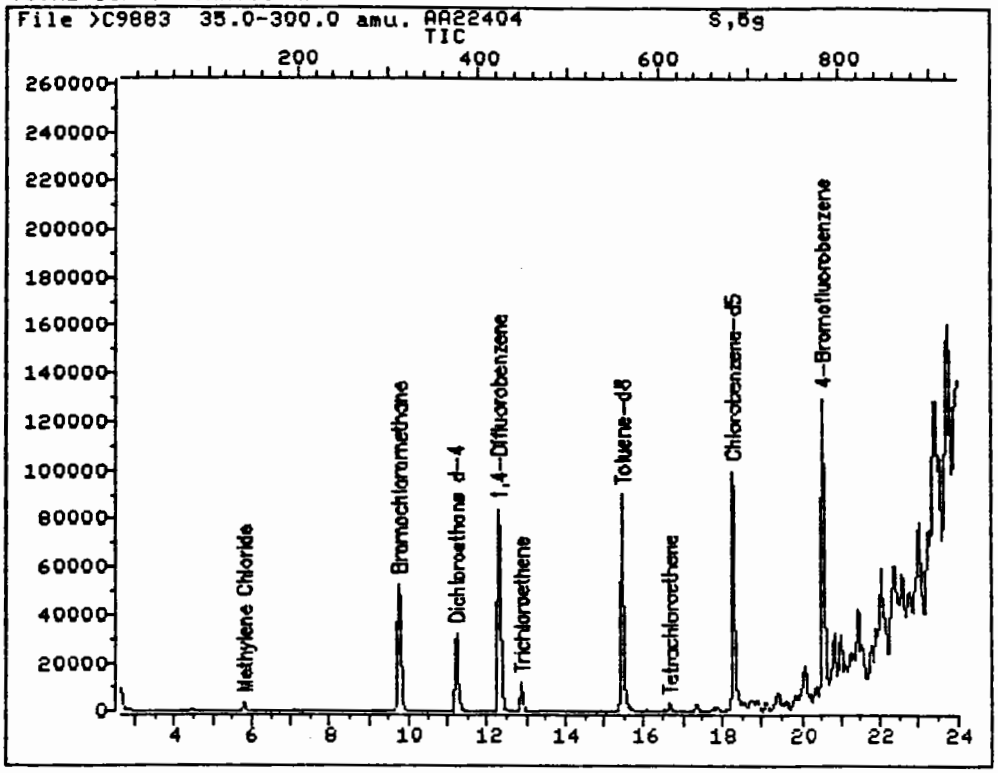
ID File: IDSV01::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940314 17:30
Last Qcal Time: 940406 13:33

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.76	312	44212	50.00	ug/L	97
9)	Methylene Chloride	5.81	140	3789	5.04	ug/L	94
19)	1,2-Dichloroethane-d4	11.23	376	13043	47.73	ug/L	95
28)	*1,4-Difluorobenzene	12.31	423	179830	50.00	ug/L	96
32)	Trichloroethene	12.86	447	12184	6.48	ug/L	94
39)	*Chlorobenzene-d5	18.28	683	157780	50.00	ug/L	94
43)	Tetrachloroethene	16.67	613	2059	1.14	ug/L	96
46)	Toluene d-8	15.46	560	162708	50.22	ug/L	95
53)	Bromofluorobenzene	20.56	782	141613	50.86	ug/L	94

* Compound is ISTD

YU 04/15

TOTAL ION CHROMATOGRAM



Data File: >C9883::D2
Name: AA22404
Misc: S,5g

Quant Output File: ^C9883::D2
Instrument ID: MSD_1

Id File: IDSV01::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940314 17:30
Last Qcal Time: 940406 13:33

Operator ID: LIN
Quant Time : 940406 18:17
Injected at: 940406 17:47

HAMPTON-CLARKE/VERITECH
VOLATILE ORGANICS ANALYSIS DATA SHEET

Client ID : FIELD BLANK
Date Rcvd/Extd: 04/04/94
Sample Matrix : Water
Percent Solid : 0
Column : J&W DB-624 75M .53mm ID column

Lab Sample No. : AA22406
Lab File ID : >C9882
Date Analyzed : 04/06/94
Dilution Factor: 1
Sample Wt/Vol : 5.0ml

CONCENTRATION UNITS: UG/L (PPB)

CAS No.	COMPOUND	PQL	CONC
74873	Chloromethane	10	U
74839	Bromomethane	10	U
75014	Vinyl Chloride	5	U
75003	Chloroethane	10	U
75092	Methylene Chloride	2	4
67641	Acetone	20	28
75150	Carbon Disulfide	5	U
75694	Trichlorofluoromethane	5	U
75354	1,1-Dichloroethene	2	U
75343	1,1-Dichloroethane	5	U
156605	Trans-1,2-Dichloroethene	5	U
67663	Chloroform	5	U
107062	1,2-Dichloroethane	2	U
78933	2-Butanone	25	U
71556	1,1,1-Trichloroethane	5	U
56235	Carbon Tetrachloride	2	U
108054	Vinyl Acetate	10	U
75274	Bromodichloromethane	1	U
78875	1,2-Dichloropropane	1	U
10061015	cis-1,3-Dichloropropene	5	U
79016	Trichloroethene	1	U

CAS NO.	COMPOUND	PQL	CONC
124481	Dibromochloromethane	5	U
79005	1,1,2-Trichloroethane	3	U
71432	Benzene	1	U
10061026	Trans-1,3-Dichloropropene	5	U
110758	2-Chloroethylvinylether	10	U
75252	Bromoform	4	U
108101	4-Methyl-2-Pentanone	25	U
591786	2-Hexanone	20	U
127184	Tetrachloroethene	1	U
79345	1,1,2,2-Tetrachloroethane	2	U
108883	Toluene	5	U
108907	Chlorobenzene	4	U
100414	Ethylbenzene	5	U
100425	Styrene	5	U
108383	m&p-Xylenes	5	U
95476	o-Xylene	5	U
541731	1,3-Dichlorobenzene	5	U
95501	1,2-Dichlorobenzene	5	U
106467	1,4-Dichlorobenzene	5	U
1634044	Methyl-t-butyl ether	5	U
108203	Di-isopropyl-ether	5	U
75650	t-Butyl Alcohol	100	U

TARGET COMPOUND SUMMARY: 32

DATA REPORTING QUALIFIERS

U - Indicates the compound was analyzed for but not detected.
J - Indicates an estimated value used when a compound is detected at less than the specified detection limit.
B - Indicates the analyte was found in the blank as well as in the sample.
E - Indicates the analyte concentration exceeds the calibration range of the GC/MS instrument for that specific analyte.

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

LAB SAMPLE NO.
AA22406

Lab Name: VERITECH, NJDEPE CERT.# 14622 Contract:-------

Lab Code: GC/MS Case No.: ----- SAS No.: ----- SDG No.: -----

Matrix: WATER

Lab Sample ID: AA22406

Sample wt/vol: 5.0 (g/ml) ml

Lab File ID: >C9882

Level: (low/med) LOW

Date Received:

% Solid: 0

Date Analyzed: 04/06/94

Column: CAP

Dilution Factor: 1

Number of TICs found: 0

CONCENTRATION UNITS:
ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

Tentative Compound Summary: 0

FORM I VOA-TIC 1/87 Rev

QUANT REPORT

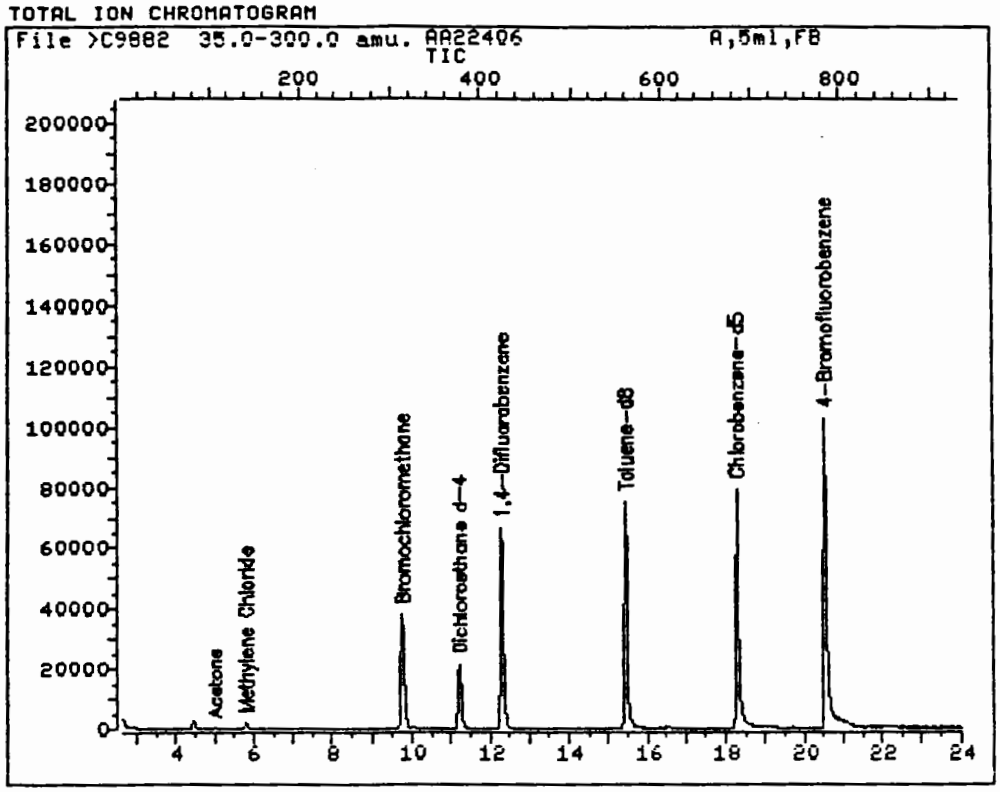
Operator ID: LIN
Quant Rev: 7
Quant Time: 940406 17:43
Output File: ^C9882::D2
Injected at: 940406 17:18
Data File: >C9882::D2
Dilution Factor: 1.00000
Name: AA22406
Instrument ID: MSD_1
Misc: A,5ml,FB

ID File: IDWV01::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940314 14:53
Last Qcal Time: 940406 12:59

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*Bromochloromethane	9.76	312	31980	50.00	ug/L	97
9)	Methylene Chloride	5.81	140	2407	4.32	ug/L	96
10)	Acetone	5.00	105	2203	27.65	ug/L	88
19)	1,2-Dichloroethane-d4	11.23	376	9551	47.77	ug/L	96
28)	*1,4-Difluorobenzene	12.31	423	147765	50.00	ug/L	96
39)	*Chlorobenzene-d5	18.28	683	132101	50.00	ug/L	95
46)	Toluene d-8	15.45	560	140034	53.28	ug/L	94
53)	Bromofluorobenzene	20.55	782	122934	56.35	ug/L	98

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >C9882::D2 Quant Output File: ^C9882::D2
Name: AA22406 Instrument ID: MSD_1
Misc: A,5ml,FB

Id File: IDWV01::A3
Title: J&W DB-624 75M .53mm ID column
Last Calibration: 940314 14:53 Last Qcal Time: 940406 12:59

Operator ID: LIN
Quant Time : 940406 17:43
Injected at: 940406 17:18

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22400
Sample Matrix: Soil
% Solids: 88

Date Received: 3/31/94
Date Extracted: 3/31/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	555-1	ND	1.0	23	3/31/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22401
Sample Matrix: Soil
% Solids: 91

Date Received: 3/31/94
Date Extracted: 3/31/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	555-2	ND	1.0	22	3/31/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22402
Sample Matrix: Soil
% Solids: 87

Date Received: 3/31/94
Date Extracted: 3/31/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	555-3	26	1.0	23	3/31/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22403
Sample Matrix: Soil
% Solids: 89

Date Received: 3/31/94
Date Extracted: 3/31/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	555-4	24	1.0	22	3/31/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22404
Sample Matrix: Soil
% Solids: 86

Date Received: 3/31/94
Date Extracted: 3/31/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	MPL2-4A	1100	1.0	23	3/31/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22405
Sample Matrix: Soil
% Solids: 88

Date Received: 3/31/94
Date Extracted: 3/31/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	555-SP	37	1.0	23	3/31/94

INORGANIC ANALYTICAL RESULTS SUMMARY

Lab ID No.: AA22406
Sample Matrix: WATER
% Solids: 1.0

Date Received: 3/31/94
Date Extracted: 3/31/94

PARAMETER	FIELD SAMPLE NO.	SAMPLE CONCEN. (mg/kg)	DILUTION FACTOR	MDL (mg/kg)	DATE ANALYZED
TPH	FIELD BLANK	ND	1.0	4.0	3/31/94

2A
VOLATILE SURROGATE RECOVERIES

Lab Name: Veritech NJDEPE CERT.# 14622

Lab Code: 020406 Case No.:---- SAS No.:---- SDG No.:----

Dates Analyzed: 04/01/94 thru 04/02/94

LAB SAMP NO.	($)	S1 (DCE)#	S2 (TOL)#	S3 (BFB)#	FILE	TOT OUT
DAILY BLK(	S	97	100	103	^C9806	0
AA22335	S	95	105	101	^C9807	0
AA22359	S	98	99	104	^C9808	0
DAILY BLK(	W	95	103	103	^C9809	0
DAILY BLK(	W	93	103	101	^C9810	0
AA22345	W	89	103	105	^C9811	0
AA22336	S	100	101	106	^C9812	0
AA22339	S	101	97	102	^C9813	0
AA22340	S	98	98	104	^C9814	0
AA22341	S	98	97	103	^C9815	0
AA22342	S	99	95	100	^C9816	0
AA22343	S	100	95	101	^C9817	0
AA22344	S	99	91	101	^C9818	0
AA22346	S	99	100	104	^C9819	0
AA22361	W	93	102	105	^C9820	0
AA22359MS	S	102	100	99	^C9821	0
AA22359MSD	S	101	103	100	^C9822	0
MB-SPK(S)	S	102	99	99	^C9823	0

EPA CLP QC Limits For:	Soil	Water	Sur Conc(ug/L) Water	Sur Conc(ug/L) Soil
S1 (DCE) = 1,2-Dichloroethane-d4	70-121	76-114	50	50
S2 (TOL) = Toluene d-8	81-117	88-110	50	50
S3 (BFB) = Bromofluorobenzene	74-121	86-115	50	50

$ Column indicating Soil or Water matrix
# Column to be used to flag recovery values
* Values outside of CLP QC limits

2A
VOLATILE SURROGATE RECOVERIES

Lab Name: Veritech NJDEPE CERT.# 14622

Lab Code: 020406 Case No.:---- SAS No.:---- SDG No.:----

Dates Analyzed: 04/06/94 thru 04/07/94

LAB SAMP NO.	($)	S1 (DCE)#	S2 (TOL)#	S3 (BFB)#	FILE	TOT OUT
DAILY BLK(	W	91	107	107	^C9876	0
DAILY BLK(	W	95	107	109	^C9877	0
DAILY BLK(	S	99	101	103	^C9878	0
AA22363	S	85	100	102	^C9879	0
AA22455	S	100	101	103	^C9880	0
AA22404	S	102	101	95	^C9881	0
AA22406	W	96	107	113	^C9882	0
AA22404	S	95	100	102	^C9883	0
AA22395	W	93	103	108	^C9884	0
AA22397-SP	W	98	106	105	^C9885	0
AA22004-SP	W	97	105	106	^C9886	0
BLANK	W	0*	0*	0*	^C9887	3
AA22439	S	101	99	103	^C9888	0
AA22440	S	103	99	99	^C9889	0
AA22441	S	102	98	101	^C9890	0
AA22442	S	103	98	102	^C9891	0
AA22443	S	101	107	97	^C9892	0
AA22444	S	103	106	97	^C9893	0
AA22363	S	101	103	97	^C9894	0

EPA CLP QC Limits For:	Soil	Water	Sur Conc(ug/L) Water	Sur Conc(ug/L) Soil
S1 (DCE) = 1,2-Dichloroethane-d4	70-121	76-114	50	50
S2 (TOL) = Toluene d-8	81-117	88-110	50	50
S3 (BFB) = Bromofluorobenzene	74-121	86-115	50	50

$ Column indicating Soil or Water matrix
# Column to be used to flag recovery values
* Values outside of CLP QC limits

FORM 3

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: VERITECH, NJDEPE CERT.# 14622

Matrix Spike - Lab sample No.: AA22359

Non spiked file: ^C9808 Spiked file: ^C9821 Spike dup file: ^C9822

Compound	Spike Added (ug/Kg)	Sample Conc (ug/Kg)	MS Conc (ug/Kg)	MSD Conc (ug/Kg)	MS % Rec#	MSD % Rec#	% Rpd#	QC Limits Rpd	QC Limits Rec
1,1-Dichloroethene	50	0	49	50	98	100	2	22	59-172
Trichloroethene	50	0	49	49	98	98	0	24	62-137
Benzene	50	3	54	53	102	100	2	21	66-142
Toluene	50	0	49	51	98	102	4	21	59-139
Chlorobenzene	50	0	49	49	98	98	0	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 of 10 outside of limits

Comments:

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622,

Lab file ID: >C9806 Lab Sample ID: DAILY BLK(S

Date Analyzed: 04/01/94 Time Analyzed: 16:06

Matrix: Water

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

LAB FILE NO.	LAB SAMPLE ID	TIME ANALYZED
>C9807	AA22335	16:35
>C9808	AA22359	17:10
>C9812	AA22336	19:21
>C9813	AA22339	19:57
>C9814	AA22340	20:33
>C9815	AA22341	21:09
>C9816	AA22342	21:45
>C9817	AA22343	22:20
>C9818	AA22344	22:56
>C9819	AA22346	23:32
>C9821	AA22359MS	00:44
>C9822	AA22359MSD	01:19
>C9823	MB-SPK(S)	01:55

Comments:

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622,

Lab file ID: >C9876 Lab Sample ID: DAILY BLK(A

Date Analyzed: 04/06/94 Time Analyzed: 14:03

Matrix: Water

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

LAB FILE NO.	LAB SAMPLE ID	TIME ANALYZED
>C9882	AA22406	17:18
>C9885	AA22397-SPK	18:58
>C9886	AA22004-SPK	19:34

Comments:

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622,

Lab file ID: >C9878 Lab Sample ID: DAILY BLK(S

Date Analyzed: 04/06/94 Time Analyzed: 15:03

Matrix: Water

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

LAB FILE NO.	LAB SAMPLE ID	TIME ANALYZED
>C9879	AA22363	15:32
>C9880	AA22455	16:08
>C9881	AA22404	16:43
>C9883	AA22404	17:47
>C9888	AA22439	20:46
>C9889	AA22440	21:22
>C9890	AA22441	21:58
>C9891	AA22442	22:34
>C9892	AA22443	23:10
>C9893	AA22444	23:46
>C9894	AA22363	00:22

Comments:

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: VERITECH Contract: -----

Lab File ID: >C9613 BFB Injection date: 3/14/94

Instrument ID: MSD_1 BFB Injection time: 11:29

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15-40% of mass 95	22.2
75	30-60% of mass 95	46.1
95	Base peak, 100% relative abundance	100.
96	5.0 - 9.0% of mass 95	7.5
173	Less than 2.0% of mass 174	-0.0(0.0)1
174	Greater than 50.0% of mass 95	66.7
175	5.0 - 9.0% of mass 174	5.2(7.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	66.7(99.9)1
177	5.0 - 9.0% of mass 176	3.8(5.7)2

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

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

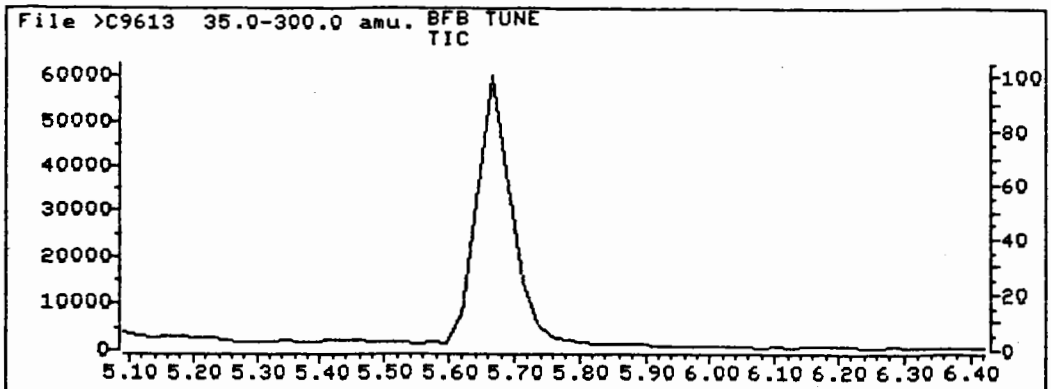
	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	----------	10PPB STD	>C9614	3/14/94	12:22
2	----------	20PPB STD	>C9615	3/14/94	12:52
3	----------	50PPB STD	>C9616	3/14/94	13:21
4	----------	100PPB STD	>C9617	3/14/94	13:54
5	----------	200PPB STD	>C9618	3/14/94	14:24
6	----------	10PPB STD	>C9619	3/14/94	14:57
7	----------	20PPB STD	>C9620	3/14/94	15:26
8	----------	50PPB STD	>C9621	3/14/94	15:56
9	----------	100PPB STD	>C9622	3/14/94	16:25
10	----------	200PPB STD	>C9623	3/14/94	16:55
11	----------	BLANK	>C9624	3/14/94	17:24
12	----------	DAILY BLK(S)	>C9625	3/14/94	17:55
13	----------	DAILY BLK(ME	>C9626	3/14/94	18:30
14	----------	AA22000	>C9627	3/14/94	19:05
15	----------	BLANK	>C9628	3/14/94	19:41
16	----------	AA21997	>C9629	3/14/94	20:16
17	----------	AA21998	>C9630	3/14/94	20:51
18	----------	AA21999	>C9631	3/14/94	21:27
19					
20					
21					
22					

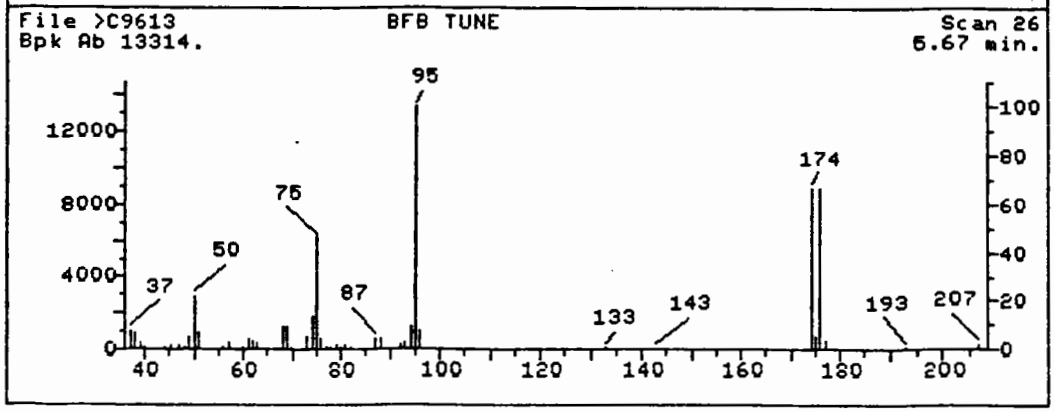
GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	22.19	22.19	Ok
75	30-60% of mass 95	46.12	46.12	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.52	7.52	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	66.70	66.70	Ok
175	5-9% of mass 174	5.19	7.78	Ok
176	95-101% of mass 174	66.65	99.92	Ok
177	5-9% of mass 176	3.83	5.75	Ok

Injection Date: 03/14/94
Injection Time: 11:29
Data File: >C9613
Scan: 26





YU 04/15/94

>C9613 BFB TUNE
26

File: >C9613 Scan #: 26 Retn. time: 5.67

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	192.0	50.10	2954.0	69.95	120.0	80.85	279.0	133.05	90.0
37.10	1039.0	51.10	874.0	71.95	71.0	81.95	112.0	142.85	78.0
38.10	875.0	56.05	192.0	73.05	645.0	86.95	641.0	174.00	8881.0
39.10	329.0	56.95	353.0	74.05	1774.0	87.95	619.0	175.00	691.0
39.90	101.0	60.05	104.0	75.05	6140.0	92.05	260.0	176.00	8874.0
44.00	147.0	61.05	577.0	76.05	557.0	93.05	417.0	176.90	510.0
45.10	205.0	62.05	498.0	76.95	162.0	94.05	1217.0	193.00	107.0
47.10	229.0	62.95	379.0	78.05	149.0	95.05	13314.0	207.00	299.0
48.00	98.0	67.95	1268.0	78.95	253.0	96.05	1001.0	209.00	84.0
49.00	706.0	68.95	1263.0	79.95	124.0				

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: VERITECH Contract: -----

Lab File ID: >C9803 BFB Injection date: 4/01/94

Instrument ID: MSD_1 BFB Injection time: 14:36

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15-40% of mass 95	23.9
75	30-60% of mass 95	47.4
95	Base peak, 100% relative abundance	100.
96	5.0 - 9.0% of mass 95	6.4
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	67.7
175	5.0 - 9.0% of mass 174	4.9(7.3)1
176	Greater than 95.0%, but less than 101.0% of mass 174	66.0(97.6)1
177	5.0 - 9.0% of mass 176	4.3(6.5)2

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

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

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	----------	DAILY CAL(A)	>C9804	4/01/94	15:06
2	----------	DAILY CAL(S)	>C9805	4/01/94	15:35
3	----------	DAILY BLK(S)	>C9806	4/01/94	16:06
4	----------	AA22335	>C9807	4/01/94	16:35
5	----------	AA22359	>C9808	4/01/94	17:10
6	----------	DAILY BLK(A)	>C9809	4/01/94	17:46
7	----------	DAILY BLK(ME	>C9810	4/01/94	18:15
8	----------	AA22345	>C9811	4/01/94	18:45
9	----------	AA22336	>C9812	4/01/94	19:21
10	----------	AA22339	>C9813	4/01/94	19:57
11	----------	AA22340	>C9814	4/01/94	20:33
12	----------	AA22341	>C9815	4/01/94	21:09
13	----------	AA22342	>C9816	4/01/94	21:45
14	----------	AA22343	>C9817	4/01/94	22:20
15	----------	AA22344	>C9818	4/01/94	22:56
16	----------	AA22346	>C9819	4/01/94	23:32
17	----------	AA22361	>C9820	4/02/94	0:08
18	----------	AA22359MS	>C9821	4/02/94	0:44
19	----------	AA22359MSD	>C9822	4/02/94	1:19
20	----------	MB-SPK(S)	>C9823	4/02/94	1:55
21					
22					

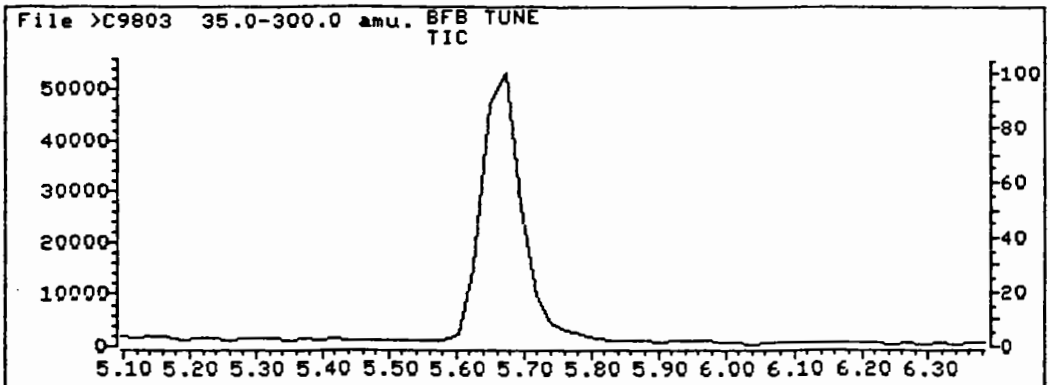
FORM V VOA

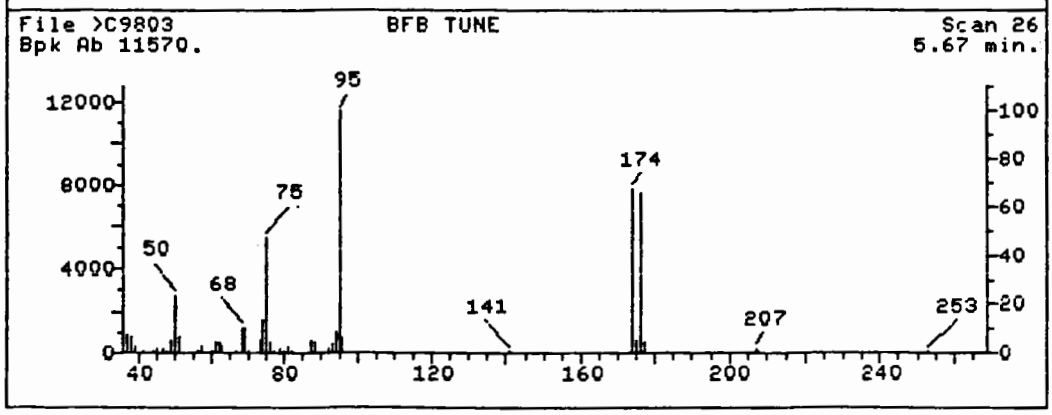
GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
50	15-40% of mass 95	23.93	23.93	Ok
75	30-60% of mass 95	47.36	47.36	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.44	6.44	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	67.68	67.68	Ok
175	5-9% of mass 174	4.94	7.29	Ok
176	95-101% of mass 174	66.03	97.57	Ok
177	5-9% of mass 176	4.30	6.51	Ok

Injection Date: 04/01/94
Injection Time: 14:36
Data File: >C9803
Scan: 26





>C9803 BFB TUNE
26

File: >C9803 Scan #: 26 Retn. time: 5.67

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	177.0	50.10	2769.0	69.05	1168.0	80.95	276.0	141.05	88.0
37.00	917.0	51.00	843.0	69.85	86.0	81.95	97.0	174.00	7830.0
38.10	779.0	55.95	157.0	71.95	62.0	86.95	568.0	175.00	571.0
39.10	355.0	57.05	293.0	73.05	596.0	87.95	545.0	176.00	7640.0
41.10	84.0	60.05	100.0	74.05	1610.0	92.05	228.0	177.00	497.0
44.00	161.0	60.95	505.0	75.05	5479.0	93.05	379.0	207.10	252.0
45.10	179.0	62.05	515.0	76.05	466.0	94.05	1041.0	208.10	81.0
47.10	259.0	63.05	359.0	76.95	131.0	95.05	11570.0	253.10	93.0
48.00	111.0	66.85	79.0	78.95	266.0	96.05	745.0	269.10	198.0
49.10	607.0	68.05	1191.0	79.95	76.0	96.95	64.0		

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name:VERITECH Contract: -----

Lab File ID: >C9873 BFB Injection date: 4/06/94

Instrument ID: MSD_1 BFB Injection time: 12:33

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15-40% of mass 95	23.0
75	30-60% of mass 95	44.9
95	Base peak, 100% relative abundance	100.
96	5.0 - 9.0% of mass 95	6.8
173	Less than 2.0% of mass 174	0.0(0.0)1
174	Greater than 50.0% of mass 95	70.6
175	5.0 - 9.0% of mass 174	5.0(7.1)1
176	Greater than 95.0%, but less than 101.0% of mass 174	70.6(100.1)1
177	5.0 - 9.0% of mass 176	5.2(7.3)2

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

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

	EPA SAMPLE NO	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
1	----------	DAILY CAL(A)	>C9874	4/06/94	12:59
2	----------	DAILY CAL(S)	>C9875	4/06/94	13:33
3	----------	DAILY BLK(A)	>C9876	4/06/94	14:03
4	----------	DAILY BLK(ME	>C9877	4/06/94	14:33
5	----------	DAILY BLK(S)	>C9878	4/06/94	15:03
6	----------	AA22363	>C9879	4/06/94	15:32
7	----------	AA22455	>C9880	4/06/94	16:08
8	----------	AA22404	>C9881	4/06/94	16:43
9	----------	AA22406	>C9882	4/06/94	17:18
10	----------	AA22404	>C9883	4/06/94	17:47
11	----------	AA22395	>C9884	4/06/94	18:22
12	----------	AA22397-SPK	>C9885	4/06/94	18:58
13	----------	AA22004-SPK	>C9886	4/06/94	19:34
14	----------	BLANK	>C9887	4/06/94	20:10
15	----------	AA22439	>C9888	4/06/94	20:46
16	----------	AA22440	>C9889	4/06/94	21:22
17	----------	AA22441	>C9890	4/06/94	21:58
18	----------	AA22442	>C9891	4/06/94	22:34
19	----------	AA22443	>C9892	4/06/94	23:10
20	----------	AA22444	>C9893	4/06/94	23:46
21	----------	AA22363	>C9894	4/07/94	0:22
22					

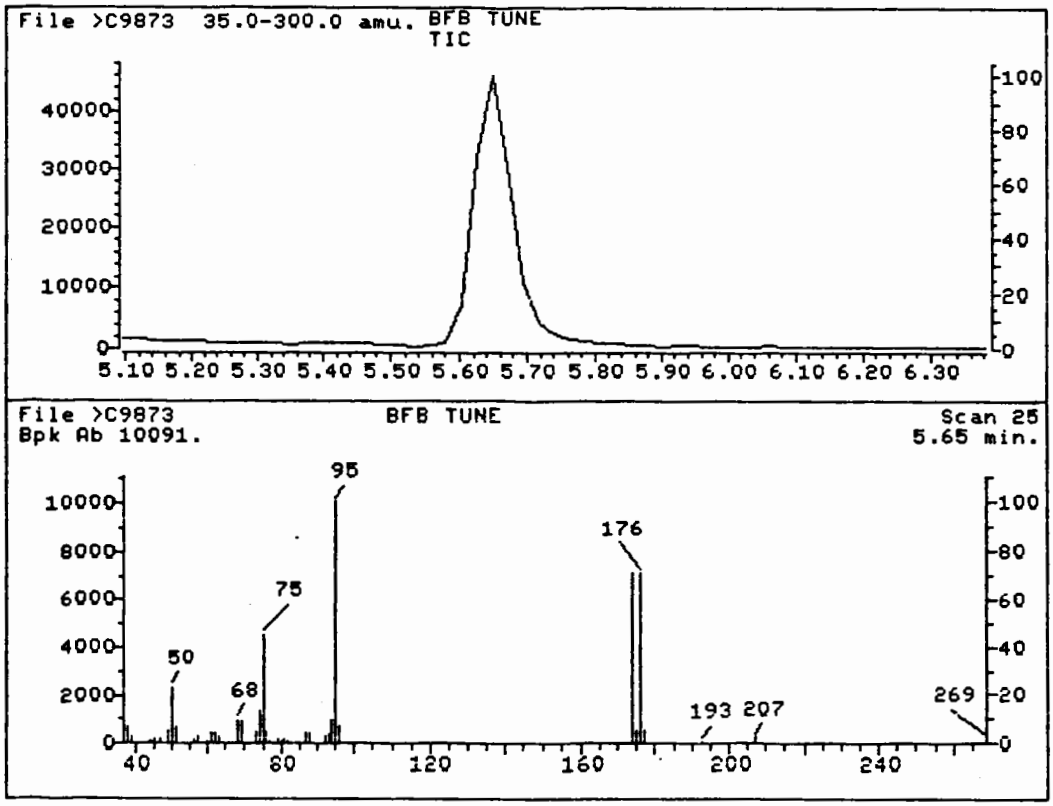
FORM V VOA

GC/MS PERFORMANCE STANDARD

Bromofluorobenzene (BFB)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
50	15-40% of mass 95	22.98	22.98	Ok
75	30-60% of mass 95	44.87	44.87	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.83	6.83	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	70.58	70.58	Ok
175	5-9% of mass 174	5.04	7.15	Ok
176	95-101% of mass 174	70.65	100.10	Ok
177	5-9% of mass 176	5.15	7.29	Ok

Injection Date: 04/06/94
Injection Time: 12:33
Data File: >C9873
Scan: 25



>C9873 BFB TUNE
25

File: >C9873 Scan #: 25 Retn. time: 5.65

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.10	749.0	55.95	152.0	72.05	60.0	80.85	213.0	96.05	689.0
38.00	711.0	57.05	265.0	72.95	433.0	81.95	83.0	174.00	7122.0
39.10	310.0	59.95	100.0	74.05	1323.0	86.95	457.0	175.00	509.0
44.00	126.0	61.05	432.0	75.05	4528.0	87.95	476.0	176.00	7129.0
45.10	188.0	62.05	486.0	76.05	413.0	91.95	233.0	177.00	520.0
47.00	184.0	63.05	303.0	77.05	102.0	93.05	336.0	193.00	94.0
49.10	529.0	68.05	985.0	78.85	222.0	94.05	947.0	207.10	234.0
50.10	2319.0	69.05	933.0	79.95	80.0	95.05	10091.0	269.10	113.0
51.10	708.0								

Initial Calibration Data

Lab: Veritech
Cal Type: CAL FOR WATER

Instrument ID: MSD_1
Calibration Date: 03/14/94

Minimum Avg RF for SPCC is: .300

Maximum %RSD for CCC is: 30

Laboratory ID:	>C9614	>C9615	>C9616	>C9617	>C9618					
Compound	RF 10.0	RF 20.0	RF 50.0	RF 100.0	RF 200.0	$RT	$RF	$RSD	*/**	Optional Cal Curve
Chloromethane	1.281	1.328	1.299	1.223	1.043	2.991	1.234	9.233	**	
Bromomethane	.5185	.6555	.6379	.6154	.8296	3.630	.6514	17.32		
Vinyl Chloride	1.132	1.301	1.266	1.259	1.138	3.125	1.219	6.419	*	
Chloroethane	.1318	.2838	.3708	.3497	.4691	3.589	.3210	38.91		
Trichlorofluoromethane	1.488	1.709	1.726	1.716	1.740	3.979	1.676	6.300		
t-Butyl Alcohol	.0400	.0348	.0332	.0341	.0260	6.240	.0336	14.90		(50.0,100.,250.,500.,1000)
Methyl-t-butyl ether	1.449	1.293	1.323	1.285	1.272	6.479	1.324	5.442		
Methylene Chloride	1.053	.9886	.8911	.8630	.8546	5.794	.9301	9.357		
Acrolein	--	--	--	--	.0029	4.737	.0029	--		
Acrylonitrile	.0542	.0737	.1049	.1041	.1090	6.391	.0892	27.03		
Acetone	.2046	.1732	.1129	.1149	.1081	5.013	.1427	30.56		
Carbon Disulfide	2.775	2.852	2.921	2.939	2.988	5.243	2.895	2.866		
1,1-Dichloroethene	.7959	.7916	.8097	.8142	.8153	4.852	.8054	1.352	*	
Di-isopropyl-ether	4.940	4.746	4.833	4.787	4.764	7.760	4.814	1.611		
1,1-Dichloroethane	2.428	2.482	2.501	2.522	2.550	7.443	2.497	1.842	**	
Trans-1,2-Dichloroethene	.7993	.8258	.8769	.8515	.8402	6.387	.8388	3.446		
Chloroform	2.935	2.980	3.030	3.045	3.028	10.01	3.004	1.508	*	
1,2-Dichloroethane-d4	.2800	.2828	.2888	.2935	.2853	11.22	.2861	1.833		(50.0,50.0,50.0,50.0,50.0)
1,2-Dichloroethane	1.447	1.499	1.557	1.562	1.588	11.42	1.531	3.713		
2-Butanone	.3870	.3412	.3354	.3448	.3244	9.272	.3465	6.891		
1,1,1-Trichloroethane	2.261	2.370	2.431	2.468	2.440	10.41	2.394	3.442		
Carbon Tetrachloride	2.491	2.562	2.647	2.699	2.668	10.82	2.614	3.265		
Vinyl Acetate	3.898	3.049	3.702	4.161	3.202	7.719	3.602	12.99		
Bromodichloromethane	2.623	2.802	2.954	3.062	3.090	13.97	2.906	6.693		
1,2-Dichloropropane	.3922	.3686	.3868	.3805	.3848	13.35	.3826	2.320	*	
Trans-1,3-Dichloropropene	.2767	.3287	.3704	.3820	.3867	16.08	.3489	13.30		
Trichloroethene	.4741	.4571	.4717	.4539	.4442	12.85	.4602	2.726		
Dibromochloromethane	.4162	.4321	.4722	.4698	.4732	17.18	.4527	5.903		
1,1,2-Trichloroethane	.2723	.2552	.2786	.2713	.2642	16.42	.2683	3.327		
Benzene	.8324	.8186	.8431	.8122	.8081	11.33	.8229	1.774		
cis-1,3-Dichloropropene	.4996	.5098	.5569	.5683	.5742	14.93	.5418	6.379		
2-Chloroethylvinylether	.1056	.1106	.1432	.1514	.1538	14.69	.1329	17.37		
Bromoform	.4045	.4067	.4651	.4774	.4863	19.92	.4480	8.795	**	
2-Hexanone	.1799	.1389	.2065	.2266	.2343	15.30	.1972	19.68		
4-Methyl-2-Pentanone	--	.0545	.1124	.1509	.1562	17.06	.1185	39.61		
Tetrachloroethene	.5286	.5490	.5644	.5381	.5150	16.66	.5390	3.508		
1,1,2,2-Tetrachloroethane	.4780	.4986	.5080	.4976	.4931	20.84	.4950	2.214	**	
Toluene	.6067	.6354	.6295	.6297	.6191	15.58	.6241	1.821	*	
Toluene d-8	1.043	1.100	1.091	1.132	1.113	15.44	1.096	3.051		(50.0,50.0,50.0,50.0,50.0)
Chlorobenzene	.9730	.9645	.9759	.9479	.9363	18.34	.9595	1.765	**	

* - Indicates CCC Compound ** - Indicates SPCC Compound Units in ug/L
$RT - Avg Retention Times $RF - Avg Response Factor $RSD- Relative Standard Deviation

Initial Calibration Data

Lab: Veritech
Cal Type: CAL FOR WATER

Instrument ID: MSD_1
Calibration Date: 03/14/94

Minimum Avg RF for SPCC is: .300

Maximum %RSD for CCC is: 30

Laboratory ID:	>C9614	>C9615	>C9616	>C9617	>C9618					
	RF	RF	RF	RF	RF					
Compound	10.0	20.0	50.0	100.0	200.0	$RT	$RF	$RSD	*/**	Optional Cal Curve
Ethylbenzene	1.309	1.346	1.374	1.371	1.386	18.57	1.357	2.252	*	
Styrene	.7523	.8739	.8994	.8955	.8527	19.58	.8548	7.048		
m&p-Xylenes	.5082	.5177	.5144	.4958	.4668	18.80	.5006	4.123		(20.0,40.0,100.,200.,400.)
o-Xylene	1.204	1.291	1.298	1.247	1.177	19.55	1.244	4.273		
Bromofluorobenzene	.8019	.8268	.8385	.8623	.8817	20.54	.8422	3.679		(50.0,50.0,50.0,50.0,50.0)
1,3-Dichlorobenzene	.9377	.9629	1.003	1.005	.9579	22.59	.9734	3.056		
1,4-Dichlorobenzene	1.129	1.069	1.086	1.049	1.005	22.76	1.067	4.275		
1,2-Dichlorobenzene	.9409	.9161	.9513	.9022	.8663	23.46	.9154	3.675		

* - Indicates CCC Compound
** - Indicates SPCC Compound
Units in ug/L
$RT - Avg Retention Times
$RF - Avg Response Factor
$RSD- Relative Standard Deviation

FORM6 (Page 2 of 2)

Initial Calibration Data

Lab: Veritech
Cal Type: CAL FOR SOIL

Instrument ID: MSD_1
Calibration Date: 03/14/94

Minimum Avg RF for SPCC is: .300

Maximum %RSD for CCC is: 30

Laboratory ID:	>C9619	>C9620	>C9621	>C9622	>C9623					
Compound	RF 10.0	RF 20.0	RF 50.0	RF 100.0	RF 200.0	$RT	$RF	$RSD	*/**	Optional Cal Curve
Chloromethane	1.017	.8831	.9496	.8930	.8603	2.998	.9206	6.853	**	
Bromomethane	.3490	.3588	.3474	.3743	.4014	3.518	.3662	6.122		
Vinyl Chloride	1.142	1.020	1.037	1.007	1.015	3.127	1.044	5.337	*	
Chloroethane	.0979	.1913	.1884	.2183	.2499	3.582	.1892	29.97		
Trichlorofluoromethane	1.181	1.116	1.123	1.159	1.124	3.936	1.141	2.482		
t-Butyl Alcohol	.0972	.0853	.0916	.0833	.0842	6.302	.0883	6.727		(50.0,100.,250.,500.,1000)
Methyl-t-butyl ether	1.530	1.520	1.506	1.469	1.565	6.468	1.518	2.320		
Methylene Chloride	.9316	.8786	.8046	.7670	.7969	5.774	.8357	8.079		
Acrolein	--	--	--	.0093	.0081	4.710	.0087	10.08		
Acrylonitrile	.1499	.1593	.1569	.1660	.1807	6.385	.1626	7.178		
Acetone	.2695	.2301	.2034	.1829	.1943	5.025	.2160	16.02		
Carbon Disulfide	2.266	2.318	2.398	2.369	2.521	5.209	2.375	4.053		
1,1-Dichloroethene	.6635	.6803	.6816	.6624	.6870	4.818	.6750	1.670	*	
Di-isopropyl-ether	4.229	4.304	4.342	4.270	4.593	7.763	4.348	3.297		
1,1-Dichloroethane	2.089	2.166	2.191	2.175	2.317	7.428	2.188	3.763	**	
Trans-1,2-Dichloroethene	.7129	.7407	.7276	.7203	.7355	6.366	.7274	1.543		
Chloroform	2.628	2.730	2.718	2.677	2.829	10.01	2.716	2.733	*	
1,2-Dichloroethane-d4	.3063	.3005	.3033	.2882	.2960	11.22	.2989	2.364		(50.0,50.0,50.0,50.0,50.0)
1,2-Dichloroethane	1.622	1.708	1.720	1.679	1.776	11.40	1.701	3.311		
2-Butanone	.6950	.7237	.6429	.6179	.6722	9.275	.6703	6.227		
1,1,1-Trichloroethane	2.026	2.147	2.161	2.146	2.243	10.41	2.145	3.606		
Carbon Tetrachloride	2.198	2.323	2.372	2.358	2.463	10.81	2.343	4.103		
Vinyl Acetate	2.991	2.141	2.200	4.533	3.293	7.727	3.031	32.19		
Bromodichloromethane	2.550	2.720	2.851	2.845	3.068	13.97	2.807	6.783		
1,2-Dichloropropane	.3814	.3922	.3953	.3911	.4183	13.35	.3956	3.464	*	
Trans-1,3-Dichloropropene	.3944	.4158	.4525	.4631	.4962	16.07	.4444	9.012		
Trichloroethene	.4496	.4736	.4783	.4626	.4908	12.85	.4710	3.320		
Dibromochloromethane	.5036	.5583	.5906	.5888	.6214	17.17	.5725	7.779		
1,1,2-Trichloroethane	.3321	.3563	.3670	.3595	.3818	16.42	.3593	5.043		
Benzene	.7884	.8162	.8182	.8095	.8586	11.32	.8182	3.115		
cis-1,3-Dichloropropene	.5541	.5822	.6129	.6283	.6615	14.92	.6078	6.815		
2-Chloroethylvinylether	.1694	.2014	.2150	.2243	.2578	14.68	.2136	15.12		
Bromoform	.6177	.6684	.7202	.7277	.7676	19.92	.7003	8.298	**	
2-Hexanone	.3511	.3703	.4769	.4615	.5545	15.29	.4429	18.77		
4-Methyl-2-Pentanone	--	.2298	.3115	.3376	.4121	16.98	.3228	23.31		
Tetrachloroethene	.5278	.5406	.5528	.5394	.5419	16.66	.5405	1.645		
1,1,2,2-Tetrachloroethane	.7111	.7352	.7557	.7757	.8093	20.84	.7574	4.970	**	
Toluene	.5857	.6044	.6113	.6085	.6397	15.58	.6099	3.185	*	
Toluene d-8	1.064	1.067	1.074	1.076	1.098	15.44	1.076	1.248		(50.0,50.0,50.0,50.0,50.0)
Chlorobenzene	.8948	.9406	.9455	.9409	.9943	18.34	.9432	3.740	**	

* - Indicates CCC Compound ** - Indicates SPCC Compound Units in ug/L
$RT - Avg Retention Times $RF - Avg Response Factor $RSD- Relative Standard Deviation

Initial Calibration Data

Lab: Veritech
Cal Type: CAL FOR SOIL

Instrument ID: MSD_1
Calibration Date: 03/14/94

Minimum Avg RF for SPCC is: .300

Maximum %RSD for CCC is: 30

Laboratory ID:	>C9619	>C9620	>C9621	>C9622	>C9623					
Compound	RF 10.0	RF 20.0	RF 50.0	RF 100.0	RF 200.0	$RT	$RF	$RSD	*/**	Optional Cal Curve
Ethylbenzene	1.198	1.278	1.323	1.327	1.429	18.57	1.311	6.398	*	
Styrene	.8077	.8788	.9037	.9104	.9050	19.58	.8811	4.859		
m&p-Xylenes	.4801	.5009	.5019	.4862	.4743	18.80	.4887	2.531		(20.0,40.0,100.,200.,400.)
o-Xylene	1.188	1.248	1.271	1.232	1.237	19.55	1.235	2.461		
Bromofluorobenzene	.8680	.8693	.8832	.9105	.9284	20.55	.8919	2.986		(50.0,50.0,50.0,50.0,50.0)
1,3-Dichlorobenzene	.9572	.9787	1.035	1.037	1.020	22.60	1.006	3.555		
1,4-Dichlorobenzene	1.185	1.148	1.126	1.136	1.087	22.76	1.137	3.138		
1,2-Dichlorobenzene	1.005	1.029	.9974	.9983	.9802	23.46	1.002	1.768		

* - Indicates CCC Compound
** - Indicates SPCC Compound
Units in ug/L
$RT - Avg Retention Times
$RF - Avg Response Factor
$RSD- Relative Standard Deviation

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veritech

Division of Hampton-Clarke, Inc.

environmental and analytical services

ENVIRO-TECH, INC.

NJDEPE REDUCED PKG

PROJECT: EARL AMMUNITION

LAB # AA22511-AA22516

NJDEPE Cert. #14622, CT Cert. #PH0671
PADER #68-463, MA Cert. #NJ386
NYDOH #11408

47 Carey Avenue • Butler, NJ 07405
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INORGANIC DUPLICATE SAMPLE DATA	25
INORGANIC LOTUS SPREADSHEETS	26-29
TPH IR SPECTRA	30-44

SAMPLE KEY

ENVIRO-TECH NO.	VERITECH NO.
567-1	AA22511
567-2	AA22512
567-3	AA22513
567-4	AA22514
567-SP	AA22515
FIELD BLANK	AA22516

Enviro-Tech Inc.

Page ___ of ___

CHAIN-OF-CUSTODY RECORD

SAMPLER: (Signature) [signature]
Phone 908-566-2277
Date Shipped 4/7/94
Airbill No.
Carrier GDM
Cooler No.

SHIP TO:

VERITECH

ATTENTION:

SEND RESULTS TO:

Client Name
Company ENVIRO-TECH, INC
Address 247 MAIN ST.
MATAWAN, NJ
Phone 908-566-2277

PROJECT NAME EARL AMMUNITION **PROJECT NO.** **P.O. NO.**

Relinquished by: (Signature)	Received by: (Signature)	Date	Military Time
D. Miller	Gerard D. Mejia	4/8/94	0850
Gerard D. Mejia	[signature]	4/8/94	1210
Relinquished by: (Signature)	Received at lab by: (Signature)	Date	Military Time

Relinquished from lab by: (Signature)	Received by: (Signature)	Date	Military Time

ANALYSIS REQUEST

	Sample ID Number	Sample Description	Date/Time Sampled		Analysis Requested	Sample Condition Upon Receipt	
1	567-1	Soil	4/6/94	15:55	TPH*, VOT10, Xylene	Cool	AA2251
1	567-2			15:59			2251
1	567-3			16:20			2251
1	567-4			16:25			2251
1	567-SP			16:45			2251
3	FIELD BLANK	AQUIOUS		15:50			2251

cooler temp 0.6°C

Special Instructions/Comments:

24 Hr. TAT.

* please analyze for TPH 1st. If the results show a concentration greater than 1,000 ppm, please call ETI's office for authorization of additional analyses.

NOTE: UNUSED PORTIONS OF NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Expected Analytical T.A.T.'s: ____ Immediate Attention (200% surcharge) ____ RUSH (50-100% surcharge) ____ Standard

002

GDM-010

Sample Custodians Chain of Custody

veritech

Division of Hampton-Clarke, Inc.

environmental and analytical services

INTERNAL CHAIN OF CUSTODY RECORD

REMOVED FROM

PARAMETER	SAMPLE NO.	COLDBOX NO.	DATE	TIME	SIGNATURE
% solid, TPH	22481-92, 22496-22501	sample frig.	4/7	9:30	Dan Batelli
% solid	22465-68, 73, 76-80	sample frig.	4/7	9:31	Dan Batelli
Herb	22004 [illegible]	3	4/7	11:30	Margaret Anne
VO	22004, 22397, 98	3	4/7	1:00	Tracy Crane
TCLP	22303-05	3 spl tbl	4/7	4:02	Pete Johnson
GC/MS	22465 ~ 467	3		5:10	
	22476 ~ 22479				
	~ 22495			5:13	
Herb	22383-88	3	4/8	11:10	Tracy Crane
% solid, TPH	22508-28506, 11-15	3	4/8	11:15	Dan Batelle
GC/MS	22436, 22454			1:15	
TD-SI	22467	3	4/8	1:26	Pete Johnson
GC/MS	22505	wet lab		1:30	
[illegible]	22473-75 22455	sample frig	4/8	1:34	[illegible]
BN PCTCLP	22[illegible] 223[illegible]	3	4/8	1:50	Tracy Crane
TPH	22[illegible]	sample frig	4/8	[illegible]	[illegible]
TCLP	22506-10	spl tbl	4/8	11:13	Pete Johnson
BN	22432	3	4/9	1:40	Tracy Crane
GC/MS	22521 ~ 22527	sample frig	4/9	2:50	[illegible]
TCLP FAT	22[illegible]-05	3	4/11	10:25	Pete Johnson
TCP	22501, 22527	sample frig	4/11	10:30	[illegible]
TCLP phenol	22[illegible] 22[illegible]	3	4/11	10:35	[illegible]
% solid, TPH	22517-27, 32-37, 41-61	sample frig	4/11	10:40	Dan Batelli

RETURNED TO

PARAMETER	SAMPLE NO.	COLDBOX NO.	DATE	TIME	SIGNATURE
Herb	22004, 22383-88	samples depleted	4/7	11:45	Margaret Anne
% solid, TPH	22481-92, 22496-22501	3	4/7	4:20	Dan Batelli
% solid	22465-68, 73, 76-80	3	4/7	4:20	Dan Batelli
TCLP	22303-05	spl tbl	4/7	4:24	Pete Johnson
VO	22004, 22397, 98	3	4/7	4:30	Tracy Crane
Herb	22383-88	3	4/8	11:3[illegible]	[illegible]
BN for TCLP	22509	3	4/8	1:55	[illegible]
TPH 7.2.1	22514, 22517	sample frig	4/8	4:20	[illegible]
TD-SI	22467	3	4/8	4:27	Pete Johnson
[illegible]	22473, 75, 22455				
TCLP	22506-10	spl tbl	4/8	4:23	Pete Johnson
TCLP FAT	22303-05	3	4/8	4:25	Pete Johnson
TPH, solid 7	22503-6, 11-15	sample frig	4/9	4:20	[illegible]
BN	22426	3	4/9	9:50	Tracy Crane
[illegible]					

X

003

47 Carey Avenue • Butler, NJ 07405

Phone: (201) 492-8744 Fax: (201) 492-1815

Continuing Calibration Data

Lab : Veritech
Cal Type : CAL FOR SOIL
File name: ^C9805

Instrument ID : MSD_1
Calibration Date: 04/01/94
Injection Time : 1535

Minimum RF for SPCC is: .300 Maximum % Diff for CCC is: 25

Compound	$RF	RF	RT	$DIF	*/**	
Chloromethane	.9206	.9406	2.986	2.18	**	
Bromomethane	.3662	.3427	3.514	6.42		
Vinyl Chloride	1.044	1.029	3.123	1.40	*	
Chloroethane	.1892	.1809	3.583	4.35		
Trichlorofluoromethane	1.141	1.154	3.927	1.18		
t-Butyl Alcohol	.0883	.0833	6.316	5.73		(Conc=250)
Methyl-t-butyl ether	1.518	1.557	6.477	2.59		
Methylene Chloride	.8357	.7600	5.765	9.06		
Acrolein	.0087	.0129	4.708	48.87		
Acrylonitrile	.1626	.1508	6.385	7.24		
Acetone	.2160	.1718	5.030	20.46		
Carbon Disulfide	2.375	2.276	5.191	4.15		
1,1-Dichloroethene	.6750	.6450	4.800	4.45	*	
Di-isopropyl-ether	4.348	4.404	7.764	1.30		
1,1-Dichloroethane	2.188	2.180	7.419	.34	**	
Trans-1,2-Dichloroethene	.7274	.7190	6.362	1.16		
Chloroform	2.716	2.756	9.992	1.46	*	
1,2-Dichloroethane-d4	.2989	.2972	11.21	.56		
1,2-Dichloroethane	1.701	1.657	11.39	2.59		
2-Butanone	.6703	.6459	9.280	3.64		
1,1,1-Trichloroethane	2.145	2.198	10.41	2.50		
Carbon Tetrachloride	2.343	2.407	10.80	2.77		
Vinyl Acetate	3.031	4.463	7.672	47.23		
Bromodichloromethane	2.807	2.882	13.97	2.68		
1,2-Dichloropropane	.3956	.3934	13.35	.57	*	
Trans-1,3-Dichloropropene	.4444	.4493	16.08	1.11		
Trichloroethene	.4710	.4789	12.84	1.68		
Dibromochloromethane	.5725	.5966	17.16	4.20		
1,1,2-Trichloroethane	.3593	.3629	16.40	.99		
Benzene	.8182	.8208	11.32	.32		
cis-1,3-Dichloropropene	.6078	.6125	14.91	.78		
2-Chloroethylvinylether	.2136	.2000	14.68	6.38		
Bromoform	.7003	.7173	19.92	2.43	**	
2-Hexanone	.4429	.4032	15.30	8.96		
4-Methyl-2-Pentanone	.3228	.2579	16.98	20.11		
Tetrachloroethene	.5405	.5656	16.66	4.64		
1,1,2,2-Tetrachloroethane	.7574	.7483	20.84	1.20	**	
Toluene	.6099	.6071	15.58	.46	*	
Toluene d-8	1.076	1.053	15.44	2.10		
Chlorobenzene	.9432	.9549	18.33	1.23	**	

* - Indicates CCC compound
** - Indicates SPCC compound
RT - Cont Cal Retention Times
RF - Response Factor from daily cal @ 50.00 ug/L
$DIFF- %Difference from average RF
$RF - Avg Response Factor from initial cal
@ - Indicates compound failed specified criteria

Continuing Calibration Data

Lab : Veritech
Cal Type : CAL FOR SOIL
File name: ^C9805

Instrument ID : MSD_1
Calibration Date: 04/01/94
Injection Time : 1535

Minimum RF for SPCC is: .300 Maximum % Diff for CCC is: 25

Compound	$RF	RF	RT	$DIF	*/**	
Ethylbenzene	1.311	1.324	18.56	.99	*	
Styrene	.8811	.9124	19.57	3.55		
m&p-Xylenes	.4887	.4993	18.79	2.17		(Conc=100)
o-Xylene	1.235	1.272	19.55	2.94		
Bromofluorobenzene	.8919	.8754	20.54	1.84		
1,3-Dichlorobenzene	1.006	1.039	22.59	3.29		
1,4-Dichlorobenzene	1.137	1.140	22.77	.30		
1,2-Dichlorobenzene	1.002	.9877	23.46	1.43		

* - Indicates CCC compound
** - Indicates SPCC compound
RT - Cont Cal Retention Times
RF - Response Factor from daily cal @ 50.00 ug/L
$DIFF- %Difference from average RF
$RF - Avg Response Factor from initial cal
@ - Indicates compound failed specified criteria

FORM7 (Page 2 of 2)

Continuing Calibration Data

Lab : Veritech
Cal Type : CAL FOR WATER
File name: ^C9874

Instrument ID : MSD_1
Calibration Date: 04/06/94
Injection Time : 1259

Minimum RF for SPCC is: .300 Maximum % Diff for CCC is: 25

Compound	$RF	RF	RT	$DIF	*/**	
Chloromethane	1.234	.8903	2.982	27.88	**	
Bromomethane	.6514	.5132	3.671	21.21		
Vinyl Chloride	1.219	.9992	3.120	18.05	*	
Chloroethane	.3210	.3108	3.579	3.20		
Trichlorofluoromethane	1.676	1.531	3.970	8.67		
t-Butyl Alcohol	.0336	.0441	6.221	31.13		(Conc=250)
Methyl-t-butyl ether	1.324	1.259	6.451	4.95		
Methylene Chloride	.9301	.8718	5.784	6.27		
Acrolein	--	--	--	--		
Acrylonitrile	.0892	.1054	6.382	18.22		
Acetone	.1427	.1246	5.003	12.73		
Carbon Disulfide	2.895	2.591	5.233	10.49		
1,1-Dichloroethene	.8054	.7799	4.843	3.16	*	
Di-isopropyl-ether	4.814	5.241	7.737	8.87		
1,1-Dichloroethane	2.497	2.574	7.438	3.09	**	
Trans-1,2-Dichloroethene	.8388	.8221	6.382	1.99		
Chloroform	3.004	3.205	9.988	6.71	*	
1,2-Dichloroethane-d4	.2861	.3126	11.21	9.26		
1,2-Dichloroethane	1.531	1.574	11.39	2.82		
2-Butanone	.3465	.3802	9.276	9.71		
1,1,1-Trichloroethane	2.394	2.570	10.40	7.37		
Carbon Tetrachloride	2.614	2.858	10.82	9.34		
Vinyl Acetate	3.602	4.423	7.691	22.79		
Bromodichloromethane	2.906	3.327	13.96	14.46		
1,2-Dichloropropane	.3826	.3951	13.34	3.27	*	
Trans-1,3-Dichloropropene	.3489	.3831	16.08	9.80		
Trichloroethene	.4602	.4936	12.84	7.27		
Dibromochloromethane	.4527	.5272	17.18	16.46		
1,1,2-Trichloroethane	.2683	.2979	16.42	11.01		
Benzene	.8229	.8359	11.32	1.59		
cis-1,3-Dichloropropene	.5418	.5946	14.93	9.76		
2-Chloroethylvinylether	.1329	.1591	14.68	19.68		
Bromoform	.4480	.5478	19.92	22.27	**	
2-Hexanone	.1972	.2059	15.30	4.40		
4-Methyl-2-Pentanone	.1185	.1130	17.00	4.63		
Tetrachloroethene	.5390	.5587	16.65	3.65		
1,1,2,2-Tetrachloroethane	.4950	.5255	20.83	6.16	**	
Toluene	.6241	.6001	15.57	3.84	*	
Toluene d-8	1.096	.9947	15.43	9.22		
Chlorobenzene	.9595	.9638	18.33	.45	**	

* - Indicates CCC compound ** - Indicates SPCC compound
RT - Cont Cal Retention Times RF - Response Factor from daily cal @ 50.00 ug/L
$DIFF- %Difference from average RF $RF - Avg Response Factor from initial cal
@ - Indicates compound failed specified criteria

Continuing Calibration Data

Lab : Veritech
Cal Type : CAL FOR WATER
File name: ^C9874

Instrument ID : MSD_1
Calibration Date: 04/06/94
Injection Time : 1259

Minimum RF for SPCC is: .300 Maximum % Diff for CCC is: 25

Compound	$RF	RF	RT	$DIF	*/**	
Ethylbenzene	1.357	1.322	18.56	2.59	*	
Styrene	.8548	.9006	19.57	5.36		
m&p-Xylenes	.5006	.5182	18.79	3.52		(Conc=100)
o-Xylene	1.244	1.230	19.55	1.13		
Bromofluorobenzene	.8422	.8257	20.54	1.97		
1,3-Dichlorobenzene	.9734	1.027	22.58	5.55		
1,4-Dichlorobenzene	1.067	1.128	22.76	5.63		
1,2-Dichlorobenzene	.9154	.9402	23.45	2.71		

* - Indicates CCC compound
** - Indicates SPCC compound
RT - Cont Cal Retention Times
RF - Response Factor from daily cal @ 50.00 ug/L
$DIFF- %Difference from average RF
$RF - Avg Response Factor from initial cal
@ - Indicates compound failed specified criteria

FORM7 (Page 2 of 2)

Continuing Calibration Data

Lab : Veritech
Cal Type : CAL FOR SOIL
File name: ^C9875

Instrument ID : MSD_1
Calibration Date: 04/06/94
Injection Time : 1333

Minimum RF for SPCC is: .300 Maximum % Diff for CCC is: 25

Compound	$RF	RF	RT	$DIF	*/**	
Chloromethane	.9206	.8336	2.985	9.45	**	
Bromomethane	.3662	.4148	3.536	13.28		
Vinyl Chloride	1.044	1.101	3.123	5.46	*	
Chloroethane	.1892	.2626	3.582	38.82		
Trichlorofluoromethane	1.141	1.338	3.927	17.35		
t-Butyl Alcohol	.0883	.1078	6.316	22.07		(Conc=250)
Methyl-t-butyl ether	1.518	1.614	6.453	6.32		
Methylene Chloride	.8357	.8501	5.764	1.72		
Acrolein	--	--	--	--		
Acrylonitrile	.1626	.1973	6.385	21.39		
Acetone	.2160	.3451	5.029	59.72		
Carbon Disulfide	2.375	2.343	5.190	1.35		
1,1-Dichloroethene	.6750	.6717	4.799	.49	*	
Di-isopropyl-ether	4.348	4.995	7.740	14.89		
1,1-Dichloroethane	2.188	2.355	7.418	7.65	**	
Trans-1,2-Dichloroethene	.7274	.7639	6.362	5.01		
Chloroform	2.716	2.979	9.991	9.67	*	
1,2-Dichloroethane-d4	.2989	.3091	11.21	3.41		
1,2-Dichloroethane	1.701	1.794	11.39	5.45		
2-Butanone	.6703	.8300	9.256	23.82		
1,1,1-Trichloroethane	2.145	2.329	10.38	8.61		
Carbon Tetrachloride	2.343	2.541	10.80	8.48		
Vinyl Acetate	3.031	4.505	7.671	48.61		
Bromodichloromethane	2.807	3.177	13.97	13.19		
1,2-Dichloropropane	.3956	.4439	13.32	12.20	*	
Trans-1,3-Dichloropropene	.4444	.5028	16.06	13.13		
Trichloroethene	.4710	.5226	12.84	10.97		
Dibromochloromethane	.5725	.6720	17.16	17.38		
1,1,2-Trichloroethane	.3593	.4191	16.40	16.64		
Benzene	.8182	.9092	11.32	11.12		
cis-1,3-Dichloropropene	.6078	.6917	14.91	13.81		
2-Chloroethylvinylether	.2136	.2655	14.68	24.31		
Bromoform	.7003	.8293	19.92	18.42	**	
2-Hexanone	.4429	.5224	15.28	17.97		
4-Methyl-2-Pentanone	.3228	.3840	16.98	18.97		
Tetrachloroethene	.5405	.5715	16.66	5.73		
1,1,2,2-Tetrachloroethane	.7574	.8774	20.84	15.84	**	
Toluene	.6099	.6509	15.57	6.72	*	
Toluene d-8	1.076	1.027	15.44	4.59		
Chlorobenzene	.9432	1.007	18.33	6.79	**	

* - Indicates CCC compound
** - Indicates SPCC compound
RT - Cont Cal Retention Times
RF - Response Factor from daily cal @ 50.00 ug/L
$DIFF- %Difference from average RF
$RF - Avg Response Factor from initial cal
@ - Indicates compound failed specified criteria

Continuing Calibration Data

Lab : Veritech
Cal Type : CAL FOR SOIL
File name: ^C9875

Instrument ID : MSD_1
Calibration Date: 04/06/94
Injection Time : 1333

Minimum RF for SPCC is: .300 Maximum % Diff for CCC is: 25

Compound	$RF	RF	RT	$DIF	*/**	
Ethylbenzene	1.311	1.384	18.56	5.59	*	
Styrene	.8811	.9635	19.57	9.35		
m&p-Xylenes	.4887	.5298	18.79	8.41		(Conc=100)
o-Xylene	1.235	1.327	19.55	7.43		
Bromofluorobenzene	.8919	.8823	20.54	1.07		
1,3-Dichlorobenzene	1.006	1.082	22.58	7.60		
1,4-Dichlorobenzene	1.137	1.223	22.77	7.62		
1,2-Dichlorobenzene	1.002	1.061	23.46	5.89		

* - Indicates CCC compound
** - Indicates SPCC compound
RT - Cont Cal Retention Times
RF - Response Factor from daily cal @ 50.00 ug/L
$DIFF- %Difference from average RF
$RF - Avg Response Factor from initial cal
@ - Indicates compound failed specified criteria

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8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622

Lab file ID: >C9616 Lab Sample ID: 50PPB STD

Date Analyzed: 03/14/94 Time Analyzed: 13:21

	IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
12 HOUR STD	33006	9.74	145421	12.31	127389	18.29
UPPER LIMIT	66012		290842		254778	
LOWER LIMIT	16503		72710		63695	
LAB SAMPLE #						
10PPB STD	26372	9.74	115846	12.31	104302	18.28
20PPB STD	30547	9.75	135651	12.30	116644	18.29
100PPB STD	35970	9.74	163536	12.31	143382	18.28
200PPB STD	38846	9.74	175935	12.32	154255	18.29
DAILY BLK(	44701	9.73	196441	12.31	169034	18.28
AA22000	40099	9.73	178030	12.31	153457	18.28

IS1 (BCM) = Bromochlormethane @ 50ppb
IS2 (DFB) = 1,4-Difluorobenzene @ 50ppb
IS3 (CBZ) = Chlorobenzene-d5 @ 50ppb

UPPER LIMIT = + 100% of internal standard area
LOWER LIMIT = -50% of internal standard area.

Column used to flag internal standard are values with an asterisk

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622

Lab file ID: >C9621 Lab Sample ID: 50PPB STD

Date Analyzed: 03/14/94 Time Analyzed: 15:56

	IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
12 HOUR STD	50896	9.74	197272	12.31	175790	18.29
UPPER LIMIT	101792		394544		351580	
LOWER LIMIT	25448		98636		87895	
LAB SAMPLE #						
10PPB STD	45286	9.72	177259	12.29	159857	18.29
20PPB STD	47275	9.73	183477	12.30	164863	18.28
100PPB STD	51045	9.74	197367	12.29	175226	18.27
200PPB STD	51245	9.74	198116	12.32	176107	18.27
DAILY BLK(	52679	9.76	204754	12.31	178256	18.28
AA21997	42822	9.76	165230	12.31	145781	18.30
AA21998	43688	9.76	166624	12.31	139745	18.30
AA21999	46916	9.76	173289	12.31	140727	18.28

IS1 (BCM) = Bromochlormethane @ 50ppb
IS2 (DFB) = 1,4-Difluorobenzene @ 50ppb
IS3 (CBZ) = Chlorobenzene-d5 @ 50ppb

UPPER LIMIT = + 100% of internal standard area
LOWER LIMIT = -50% of internal standard area.

Column used to flag internal standard are values with an asterisk

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622

Lab file ID: >C9805 Lab Sample ID: DAILY CAL(S

Date Analyzed: 04/01/94 Time Analyzed: 15:35

	IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
12 HOUR STD	51788	9.74	204714	12.29	184829	18.29
UPPER LIMIT	103576		409428		369658	
LOWER LIMIT	25894		102357		92415	
LAB SAMPLE #						
DAILY BLK(	52987	9.74	205729	12.31	183601	18.28
AA22335	49043	9.76	184140	12.31	146570	18.28
AA22359	43882	9.74	169031	12.31	150617	18.29
AA22336	56984	9.75	216014	12.30	183892	18.29
AA22339	51589	9.74	195577	12.31	157745	18.28
AA22340	49969	9.76	187625	12.31	164235	18.28
AA22341	47556	9.74	185573	12.31	156994	18.28
AA22342	50960	9.74	195531	12.31	172155	18.28
AA22344	47604	9.73	182678	12.31	161187	18.28
AA22344	47604	9.73	182678	12.31	161187	18.28
AA22346	49135	9.76	192828	12.31	166422	18.28
AA22359MS	49968	9.74	192509	12.29	177623	18.28
AA22359MSD	49760	9.74	197879	12.31	178444	18.28
MB-SPK(S)	44203	9.74	169947	12.31	157181	18.28

IS1 (BCM) = Bromochlormethane @ 50ppb
IS2 (DFB) = 1,4-Difluorobenzene @ 50ppb
IS3 (CBZ) = Chlorobenzene-d5 @ 50ppb

UPPER LIMIT = + 100% of internal standard area
LOWER LIMIT = -50% of internal standard area.

Column used to flag internal standard are values with an asterisk

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622

Lab file ID: >C9874 Lab Sample ID: DAILY CAL(A

Date Analyzed: 04/06/94 Time Analyzed: 12:59

	IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
12 HOUR STD	34333	9.74	165444	12.31	162681	18.28
UPPER LIMIT	68666		330888		325362	
LOWER LIMIT	17166		82722		81340	
LAB SAMPLE #						
DAILY BLK(	38037	9.73	183072	12.31	162880	18.28
DAILY BLK(	42433	9.72	195084	12.29	175358	18.28
AA22406	31980	9.76	147765	12.31	132101	18.28
AA22395	41426	9.74	192668	12.31	175270	18.28
AA22397-SP	42071	9.74	195022	12.31	181873	18.28
AA22004-SP	41800	9.74	195085	12.31	181669	18.29

IS1 (BCM) = Bromochlormethane @ 50ppb
IS2 (DFB) = 1,4-Difluorobenzene @ 50ppb
IS3 (CBZ) = Chlorobenzene-d5 @ 50ppb

UPPER LIMIT = + 100% of internal standard area
LOWER LIMIT = -50% of internal standard area.

Column used to flag internal standard are values with an asterisk

8A
VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: VERITECH, NJDEPE CERT.# 14622

Lab file ID: >C9875 Lab Sample ID: DAILY CAL(S

Date Analyzed: 04/06/94 Time Analyzed: 13:33

	IS1(BCM) AREA #	RT	IS2(DFB) AREA #	RT	IS3(CBZ) AREA #	RT
12 HOUR STD	38594	9.72	154331	12.29	149368	18.29
UPPER LIMIT	77188		308662		298736	
LOWER LIMIT	19297		77165		74684	
LAB SAMPLE #						
DAILY BLK(	50039	9.73	200586	12.31	185459	18.28
AA22363	14139*	9.75	51279*	12.30	43173*	18.30
AA22455	44788	9.74	181998	12.31	152528	18.28
AA22404	41259	9.74	170848	12.31	151619	18.28
AA22404	44212	9.76	179830	12.31	157780	18.28
AA22439	40795	9.76	168360	12.31	155633	18.28
AA22440	38876	9.76	154749	12.31	139643	18.28
AA22441	39588	9.76	156505	12.31	146659	18.28
AA22442	44084	9.74	173595	12.31	162206	18.28
AA22443	40680	9.76	154942	12.31	131280	18.28
AA22444	37164	9.76	145062	12.31	126573	18.28
AA22363	46276	9.76	181351	12.31	153380	18.28

IS1 (BCM) = Bromochlormethane @ 50ppb
IS2 (DFB) = 1,4-Difluorobenzene @ 50ppb
IS3 (CBZ) = Chlorobenzene-d5 @ 50ppb

UPPER LIMIT = + 100% of internal standard area
LOWER LIMIT = -50% of internal standard area.

Column used to flag internal standard are values with an asterisk

1|3|94

METHOD DETECTION LIMTS FOR MSD#1

All the followin analytes were injected at 10 ppb with the exeception of TBA and M&P-Xylene which were injected at 20 and 50 ppb respectively.

FILE ==========>	^C90081	^C90091	^C90101	^C90111	^C90121	^C90131	^C90141	AVG	STDDEV	MDL
Chloromethane	7.47	8.22	7.27	6.88	6.16	6.27	5.74	6.86	.86	2.71
Bromomethane	7.50	7.93	7.04	7.27	7.33	7.75	7.71	7.51	.31	.98
Vinyl Chloride	8.60	8.82	7.99	7.86	7.21	7.01	6.76	7.75	.79	2.49
Chloroethane	4.93	4.81	3.97	4.61	4.75	4.06	5.95	4.73	.66	2.06
Trichlorofluoromethl	9.98	10.36	9.88	9.63	8.89	10.33	10.81	9.99	.62	1.94
t-Butyl Alcohol	73.64	63.64	75.78	62.38	67.24	70.21	74.03	69.56	5.29	16.62
Methyl-t-butyl ethel	11.32	10.70	10.88	11.27	11.20	11.31	11.38	11.15	.26	.81
Methylene Chloride	11.30	11.76	11.94	12.58	11.31	11.60	11.42	11.70	.46	1.43
Acetone	10.25	13.83	14.34	16.42	10.25	14.85	14.83	13.54	2.38	7.48
Carbon Disulfide	9.68	9.50	9.80	9.75	9.42	9.35	9.31	9.54	.20	.63
Di-isopropyl-ether	9.47	8.78	9.06	9.09	8.70	8.58	8.46	8.88	.35	1.10
1,1-Dichloroethene	10.18	10.06	9.95	10.77	10.38	10.72	10.41	10.35	.32	1.00
1,1-Dichloroethane	10.24	9.84	9.97	10.40	10.01	10.05	10.03	10.08	.19	.58
Trans-1,2-Dichloroe	10.03	9.65	9.70	9.76	9.31	9.53	9.54	9.65	.22	.70
Chloroform	10.45	10.25	10.86	11.02	10.90	10.98	10.99	10.78	.30	.96
1,2-Dichloroethane	11.06	10.75	11.86	12.26	12.14	12.55	12.54	11.88	.71	2.24
2-Butanone	11.17	11.03	12.21	12.28	11.74	10.39	12.41	11.60	.76	2.40
1,1,1-Trichloroetha	10.68	10.48	11.09	11.44	11.19	11.37	11.48	11.10	.39	1.22
Carbon Tetrachlorid	10.39	10.26	10.67	11.08	10.84	11.03	11.04	10.76	.33	1.04
Vinyl Acetate	8.72	7.83	7.29	6.88	6.09	6.40	5.14	6.91	1.18	3.70
Bromodichloromethan	9.54	9.48	9.91	9.91	10.21	9.82	10.15	9.86	.28	.87
1,2-Dichloropropane	9.22	8.91	9.54	9.40	8.93	9.26	9.30	9.22	.23	.73
cis-1,3-Dichloropro	9.09	8.62	9.20	9.11	9.14	9.08	8.88	9.02	.20	.64
Trichloroethene	9.74	9.28	9.71	9.97	9.79	9.64	9.70	9.69	.21	.66
Dibromochloromethan	9.11	8.68	9.53	9.57	9.55	9.38	9.38	9.31	.32	1.00
1,1,2-Trichloroetha	9.01	9.54	9.49	9.75	9.73	9.61	9.46	9.51	.25	.78
Benzene	9.99	9.69	9.83	10.08	9.66	9.81	9.67	9.82	.16	.51
Trans-1,3-Dichlorop	8.69	7.83	8.56	8.60	8.97	8.50	8.56	8.52	.34	1.06
2-Chloroethylvinyle	5.63	6.05	6.71	7.08	6.48	6.62	6.39	6.42	.47	1.48
Bromoform	8.83	8.30	9.25	9.24	9.42	9.05	8.76	8.98	.38	1.19
2-Hexanone	6.24	4.40	7.81	5.13	7.54	7.24	5.38	6.25	1.32	4.16
4-Methyl-2-Pentanon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tetrachloroethene	9.81	9.68	9.55	9.87	10.00	9.68	10.04	9.81	.18	.56
1,1,2,2-Tetrachloro	9.86	9.65	9.81	9.77	10.54	10.26	9.30	9.89	.40	1.27
Toluene	10.16	9.49	9.37	9.12	9.75	9.56	9.76	9.60	.33	1.05
Chlorobenzene	9.94	9.33	9.56	9.84	9.97	9.61	9.77	9.72	.23	.73
Ethylbenzene	9.64	9.24	9.53	9.58	9.65	9.68	9.74	9.58	.16	.51
Styrene	8.83	8.70	8.93	8.79	8.71	8.78	8.66	8.77	.09	.29
m&p-Xylenes	19.66	19.40	19.28	19.28	19.74	19.36	19.75	19.50	.21	.67
o-Xylene	10.53	10.06	10.29	10.57	10.77	10.76	10.83	10.54	.28	.89
1,3-Dichlorobenzene	9.73	8.84	9.39	9.13	9.57	9.61	9.56	9.41	.32	.99
1,4-Dichlorobenzene	10.52	10.07	10.27	10.28	10.67	10.10	10.50	10.34	.23	.71
1,2-Dichlorobenzene	10.30	9.71	10.17	10.18	10.49	10.31	10.14	10.19	.24	.76

The following analyte was injected at 50 ppb.

FILE ==========>	^c90181	^c90191	^c90201	^c90211	^c90221	^c90231	^c90241	AVG	STDDEV	MDL
4-Methyl-2-Pentanon	61.85	64.11	61.15	59.98	60.27	61.37	65.21	61.99	1.96	6.15

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** SOIL

Lab Code: 14622 **Units:** mg/kg

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	20.0	228S	ND

INORGANIC METHOD BLANK SUMMARY

Lab Name: Veritech **Blank Matrix:** WATER

Lab Code: 14622 **Units:** mg/L

Analyte	Practical Quant Limit	Batch Number	Method Blank Result
TPH	1.0	046W	ND

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

AA22400 MS

Lab Name: Veritech **Sample Matrix:** SOIL

Lab Code: 14622

% Solids for Sample: 88

Concentration Units (mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	660		22.7	U	733	88		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC SPIKE SAMPLE RECOVERY

SAMPLE NO.

AA22400 MSD

Lab Name: Veritech **Sample Matrix:** SOIL

Lab Code: 14622

% Solids for Sample: 88

Concentration Units (mg/L or mg/kg dry weight): _mg/kg__

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
TPHC	75-125	708		22.7	U	748	93		C
Total CN	75-125								
Phenols	75-125								
Reac CN	75-125								
Reac HS	75-125								
Hex Cr	75-125								

Comments:

FORM V (PART 1) - IN ILM02.0

INORGANIC DUPLICATE SUMMARY

SAMPLE NO.
AA22400 DUP

Lab Name: Veritech **Sample Matrix:** SOIL

Lab Code: 14622

% Solids for Sample: 88

Concentration Units (mg/L or mg/kg dry weight): mg/kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
TPH	+/-20%	22.7	U	22.7	U			C
Total CN	+/-20%							
Phenols	+/-20%							
Reac CN	+/-20%							
Reac HS	+/-20%							
Hex Cr	+/-20%							

FORM VI - IN ILM02.0

TPH LINEAR REGRESSIOON DATE 10-Mar-94
TPH 1S ANALYST Dan B

STDS (MG)	ABS.
0	0.0000
2.5	0.1225
5	0.2336
10	0.4616
15	0.6965
20	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1069

****

STDS (MG)	ABS.	PPM	DIFF
0	0.0000	-0.0326	0.0326
2.5	0.1225	2.6048	-0.1048
5	0.2336	4.9967	0.0033
10	0.4616	9.9054	0.0946
15	0.6965	14.9627	0.0373
20	0.9334	20.0630	-0.0630

****

BATCH 228

SAMPLE	ABS.	MG
10mg3-31	0.4853	10.4157
MBS	0.4701	10.0984
dup 22400	0.0128	0.2430
ms1 22400	0.4194	8.9969
ms2 22400	0.4414	9.4705
mb3-31	0.0088	0.1569
22400	0.0095	0.1719
22401	0.0120	0.2258
22402	0.0175 ✓	0.3442
22403	0.0169 ✓	0.3313
22404	0.6612 ✓	14.2027
22405	0.0252 ✓	0.5100

JB 4/4

✓ data input
SC 4-4-94

ANALYSIS: TPH SOILS
BATCH 228
DATE: 04-Apr-94
ANALYST: DB

Q.C. DATA

	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.42	104%
MBS	666.7	672.56	101%
MS #1	733.14	659.59	88%
MS #2	747.61	708.02	93%
SAMPLE		12.94	RPD
SAMPLE DUP		18.05	0.00%

SAMPLE #	SOLIDS FACTOR	SAMPLE WEIGHT	MG FROM CURVE	CALC.	DILUT. FACTOR	TPH (PPM)	MDL DRY WT.
10mg3-31	1.00	1000		10.4157	1.0	10.42	
MBS	1.00	15.0		10.0884	1.0	672.56	20.00
dup 22400	0.88	15.3		0.2430	1.0	18.05	22.73
ms1 22400	0.88	15.5		8.9969	1.0	659.59	22.73
ms2 22400	0.88	15.2		9.4705	1.0	708.02	22.73
mb3-31	1.00	15.0		0.1569	1.0	10.46	20.00
22400	0.88	15.1		0.1719	1.0	12.94	22.73
22401	0.91	15.5		0.2258	1.0	16.01	21.98
22402	0.87	15.1 ✓		0.3442	1.0	26.20	22.99
22403	0.89	15.6 ✓		0.3313	1.0	23.86	22.47
22404	0.86	15.3 ✓		14.2027	1.0	1079.40	23.26
22405	0.88	15.5 ✓		0.5100	1.0	37.39	22.73

DB 4/4

Initial inject
SC 4-4-94

TPH LINEAR REGRESSION

DATE 10-Mar-94
ANALYST Dan B

STDS (MG)	ABS.
0.0	0.0000
2.5	0.1225
5.0	0.2336
10.0	0.4616
15.0	0.6965
20.0	0.9334

Regression Output:

Constant	0.001513
Std Err of Y Est	0.003770
R Squared	0.999911
No. of Observations	6
Degrees of Freedom	4
X Coefficient(s)	0.046448
Std Err of Coef.	0.000218

Lot # W-94-TPH-1069

****

STDS (MG)	ABS.	PPM	DIFF
0.0	0.0000	-0.0326	0.0326
2.5	0.1225	2.6048	-0.1048
5.0	0.2336	4.9967	0.0033
10.0	0.4616	9.9054	0.0946
15.0	0.6965	14.9627	0.0373
20.0	0.9334	20.0630	-0.0630

****

BATCH 046w

SAMPLE	ABS.	MG
10mg3-31	0.4853	10.4157
MBS	0.4005 ✓	8.5900
MBSD	0.3998 ✓	8.5749
mb3-31	0.0052 ✓	0.0794
22406	0.0073 ✓	0.1246

DB 4/4

Data input
S.C. 4-4-94

ANALYSIS: TPH WATERS

batch 046w

DATE: 04-Apr-94

ANALYST: sg

Q.C. DATA

	THEORETICAL VALUE PPM	RESULT PPM	% REC.
CK STD	10	10.416	104%
MBS	10	8.59	86%
MBS DUP	10	8.575	86%

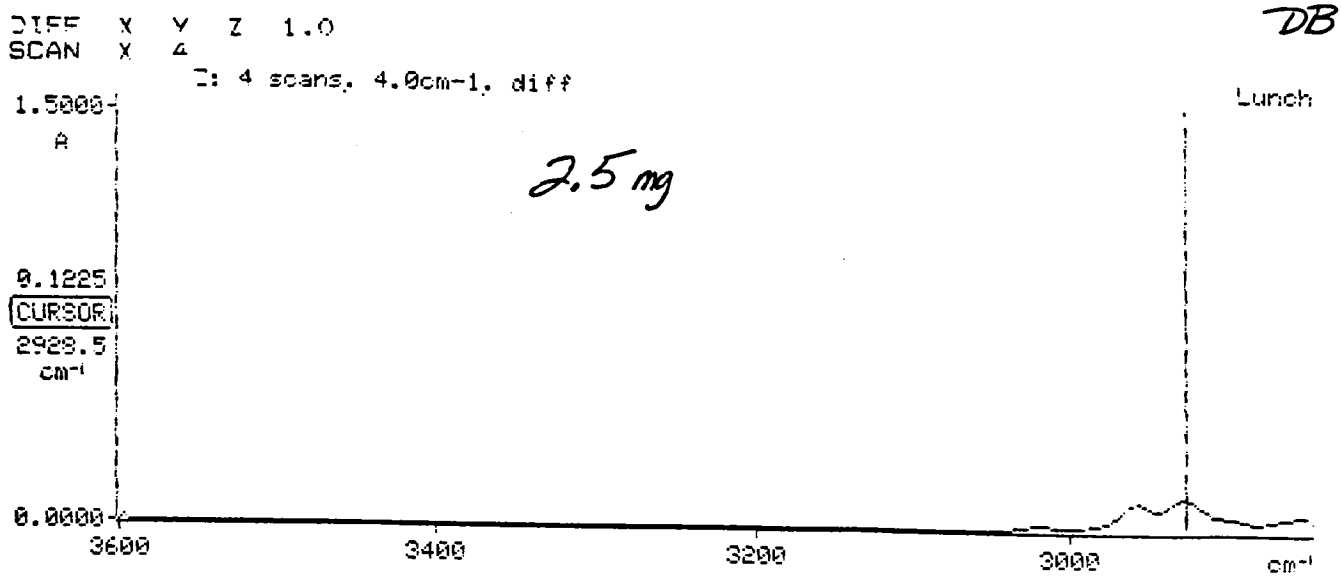
RPD = 0.00%

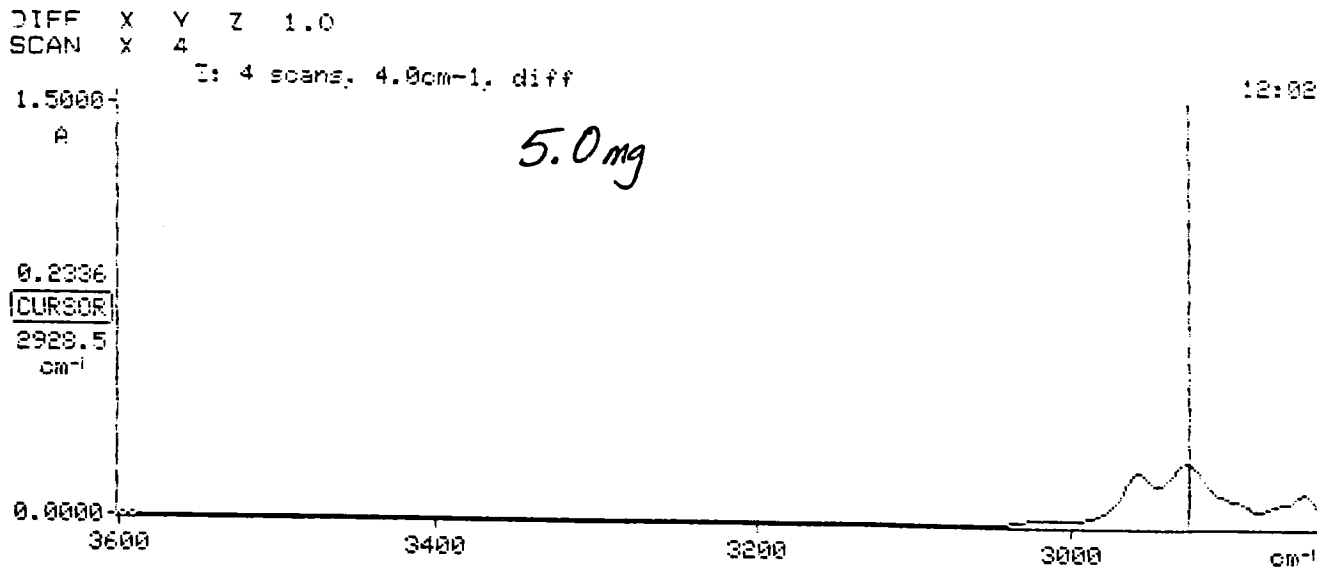
SAMPLE NO.	SAMPLE VOLUME	MG FROM CURV	CALC.	DILUT. FACTOR	TPH (PPM)	MDL (PPM)
10mg3-31	1000	10.4157		1.0	10.416	
MBS	1000	8.5900		1.0	8.590	
MBSD	1000	8.5749		1.0	8.575	
mb3-31	1000	0.0794		1.0	0.079	1.0
22406	250	0.1246		1.0	0.498	4.0

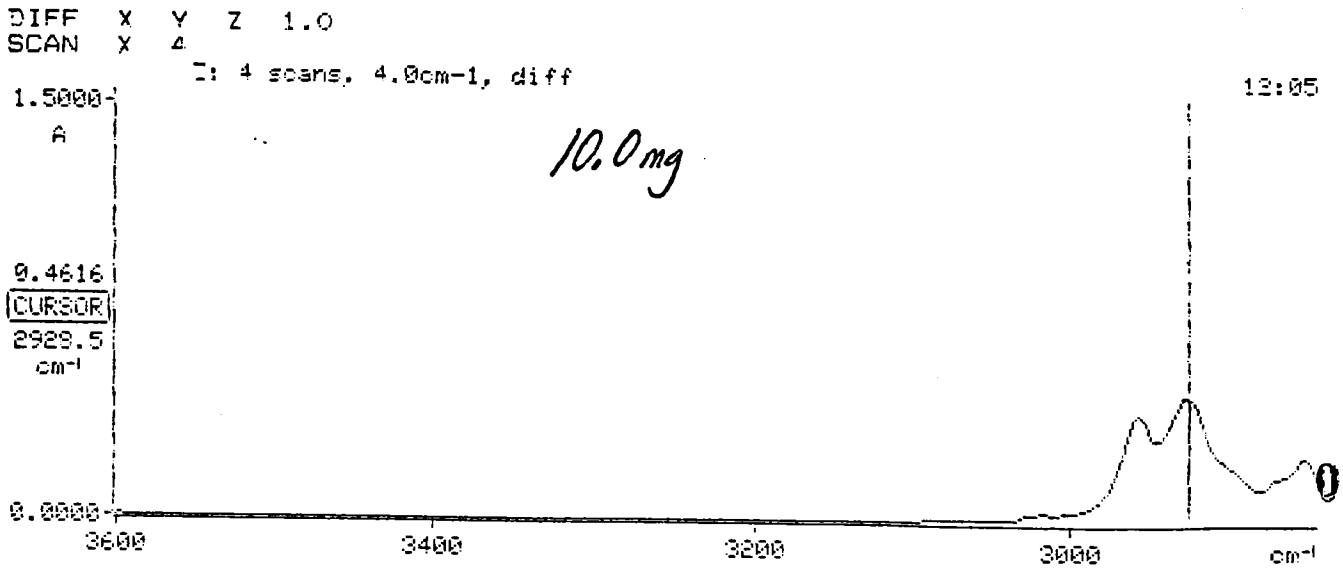
DB 4/4

Jdata input
S.G 4-4-94

TPH curve 3/10/9
DB

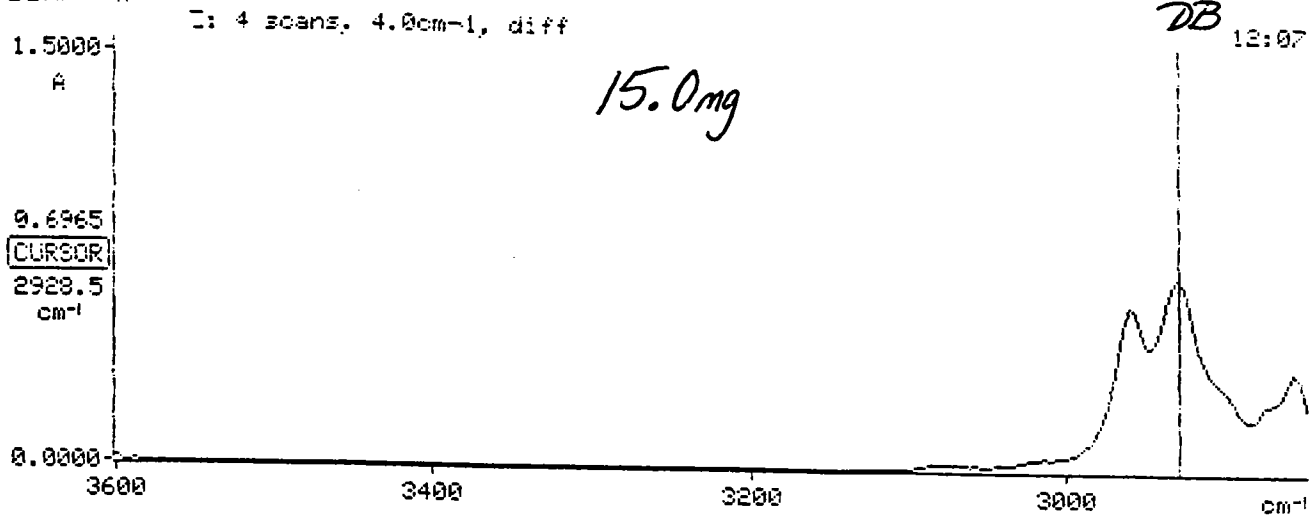


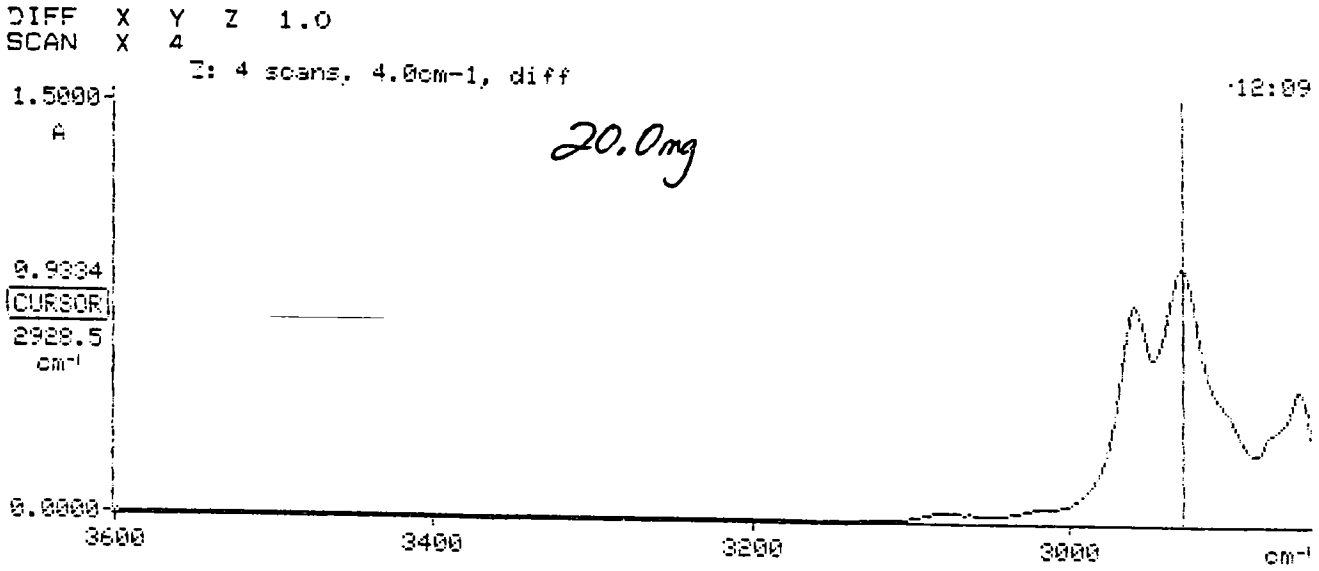




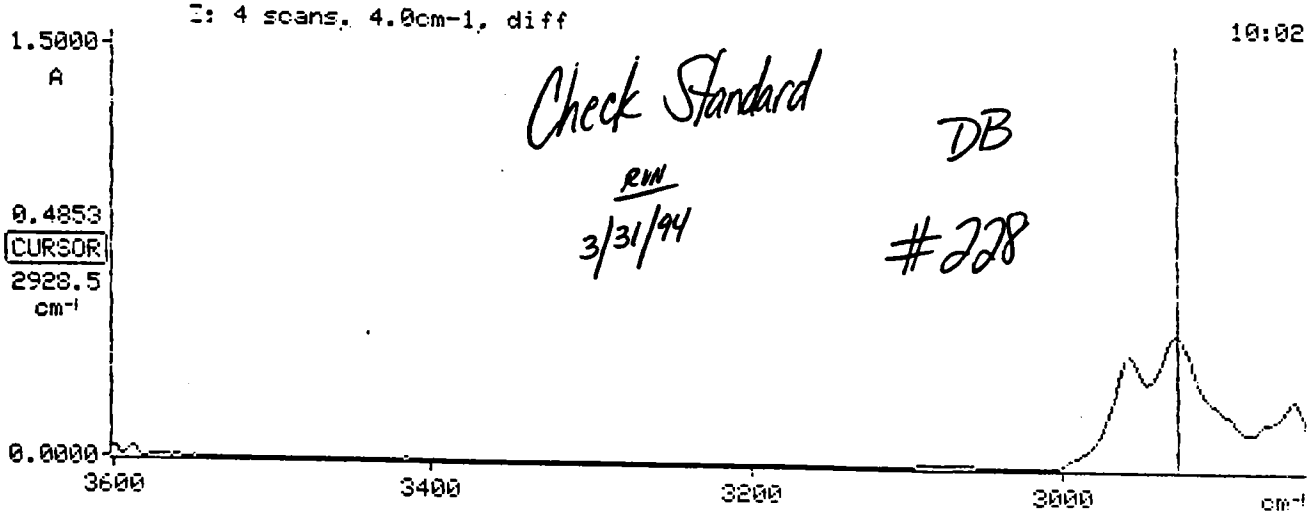
082

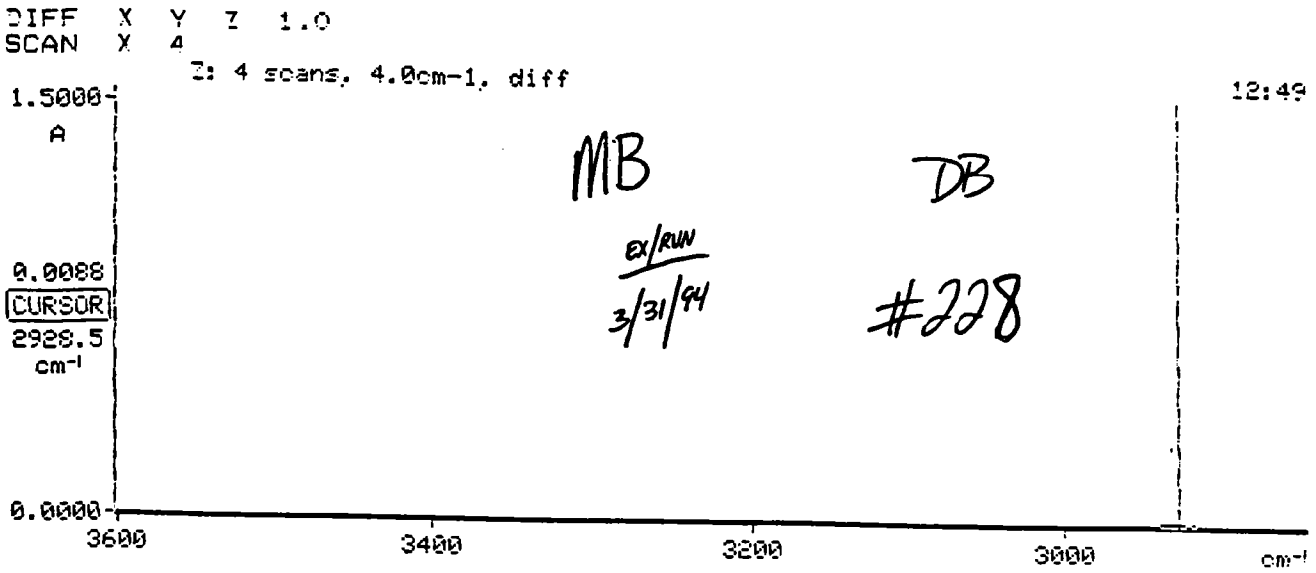
TPH curve 3/10/94
DB





DIFF X Y Z 1.0
SCAN X 4
DIFF X Y Z 1.0
SCAN X 4

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SCAN X 4
Z: 4 scans, 4.0cm-1, diff
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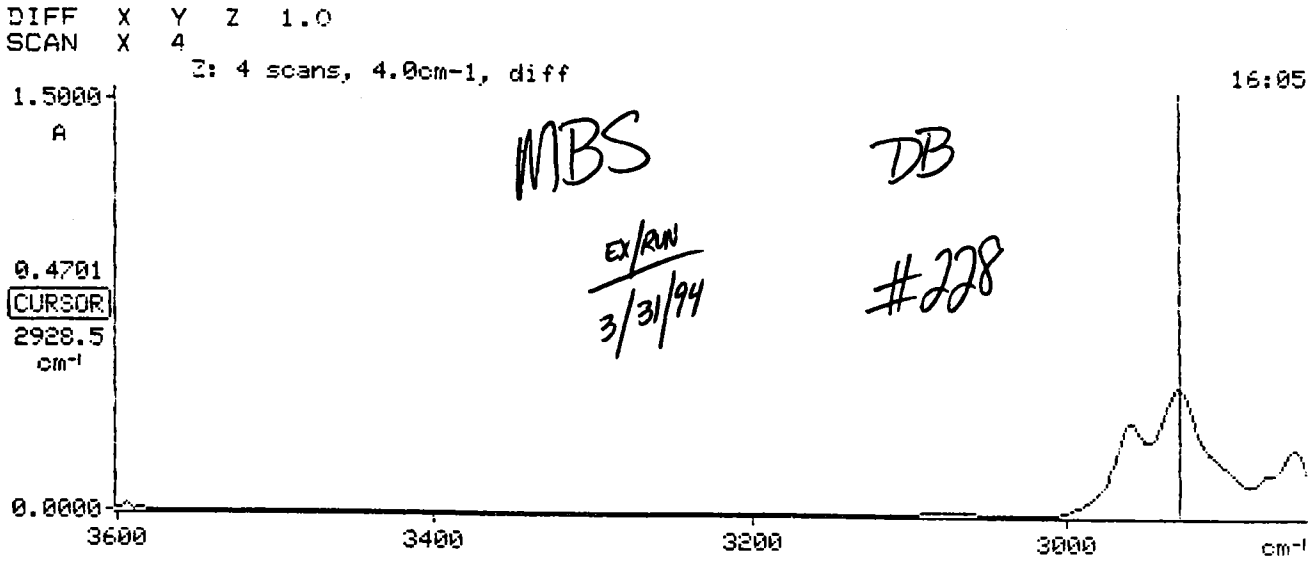
A
0.0088
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
MB
DB
EX/RUN
3/31/94
#228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SCAN X 4
Z: 4 scans, 4.0cm-1, diff
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1.5000
A
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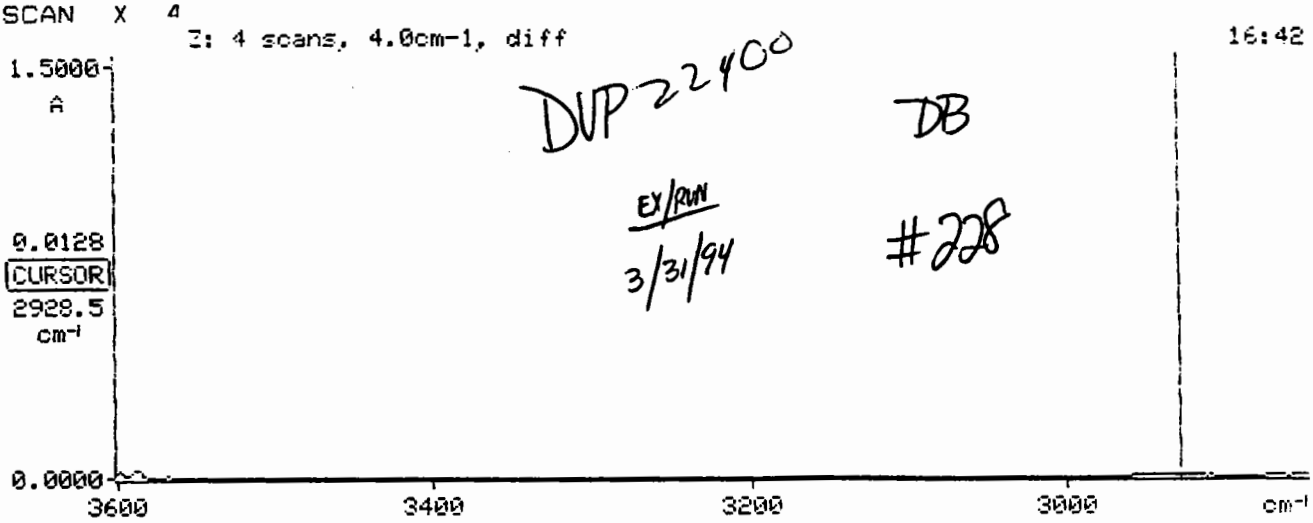
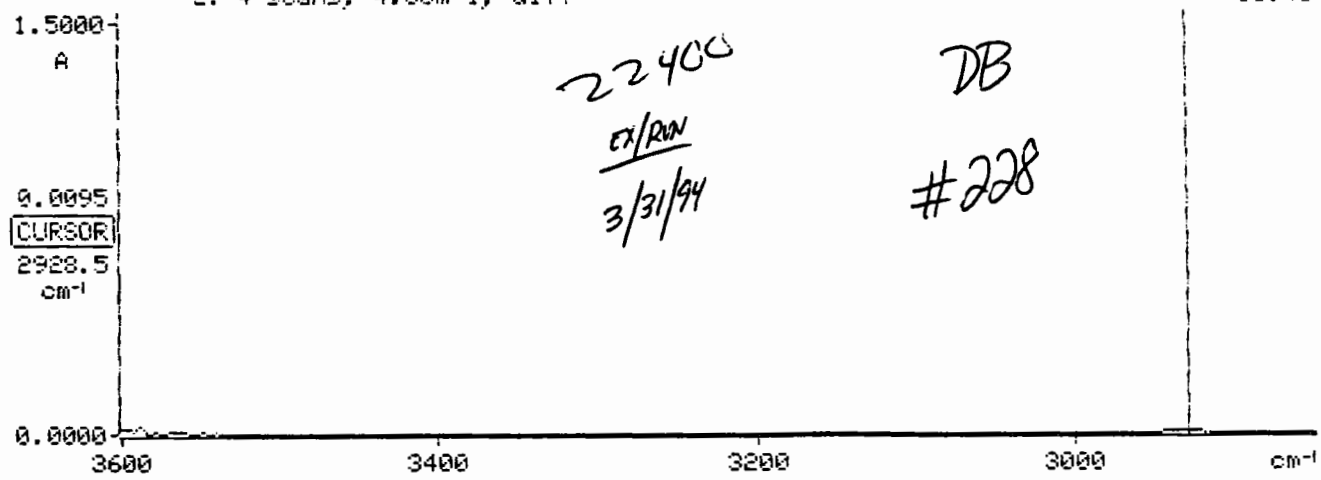
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
MBS
DB
EX/RUN
3/31/94
#228

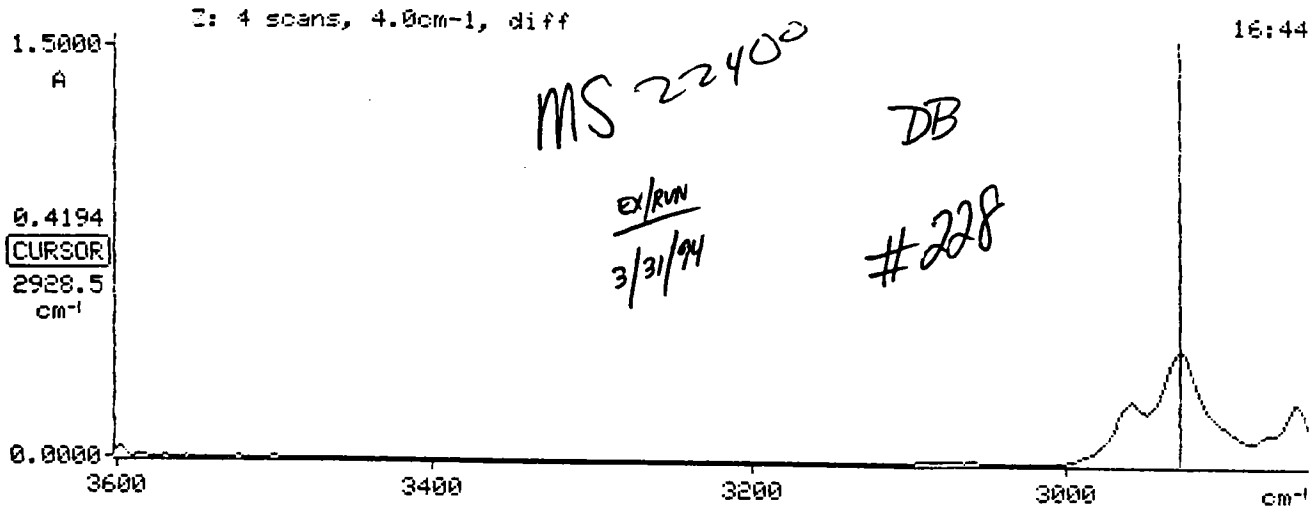
DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff 16:42



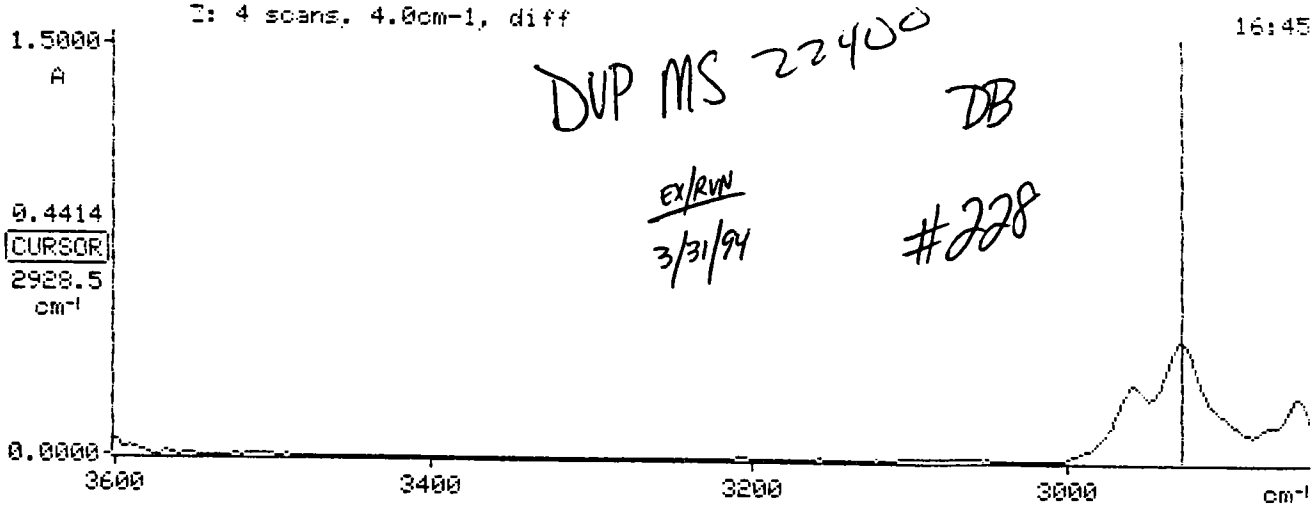
DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff 16:43

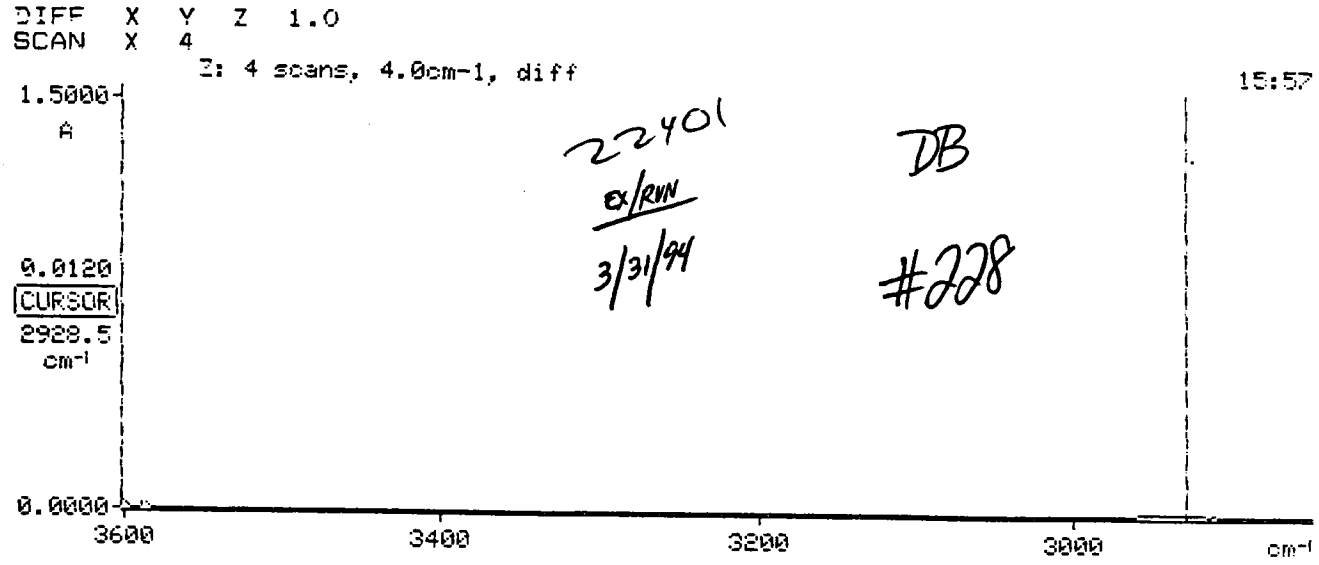


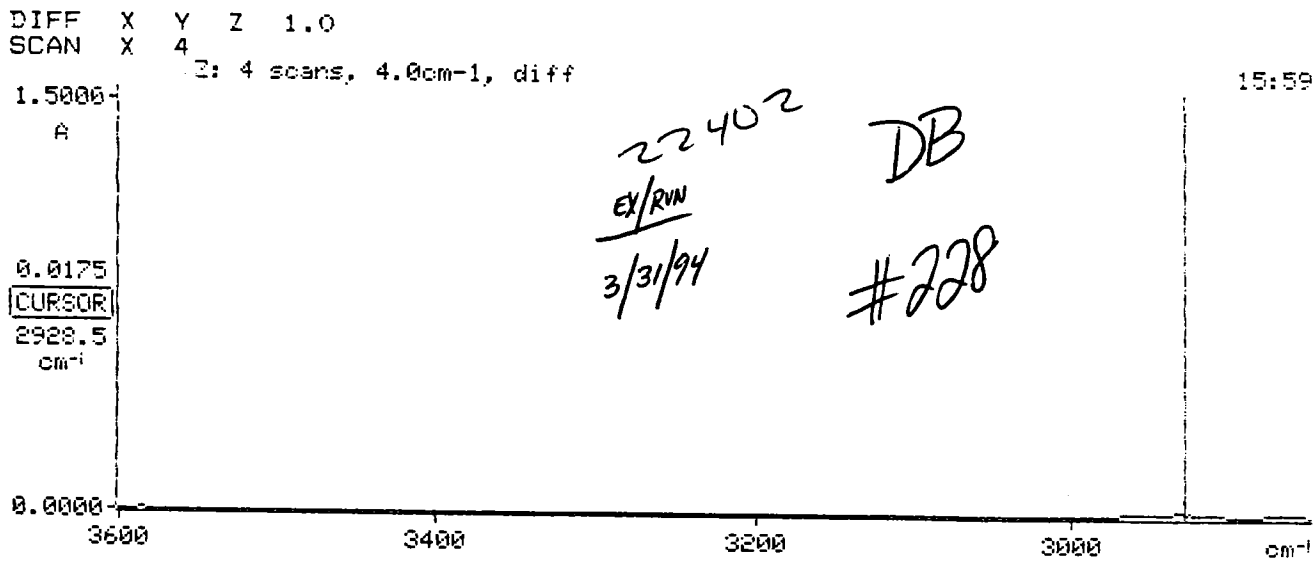
DIFF X Y Z 1.0
SCAN X 4

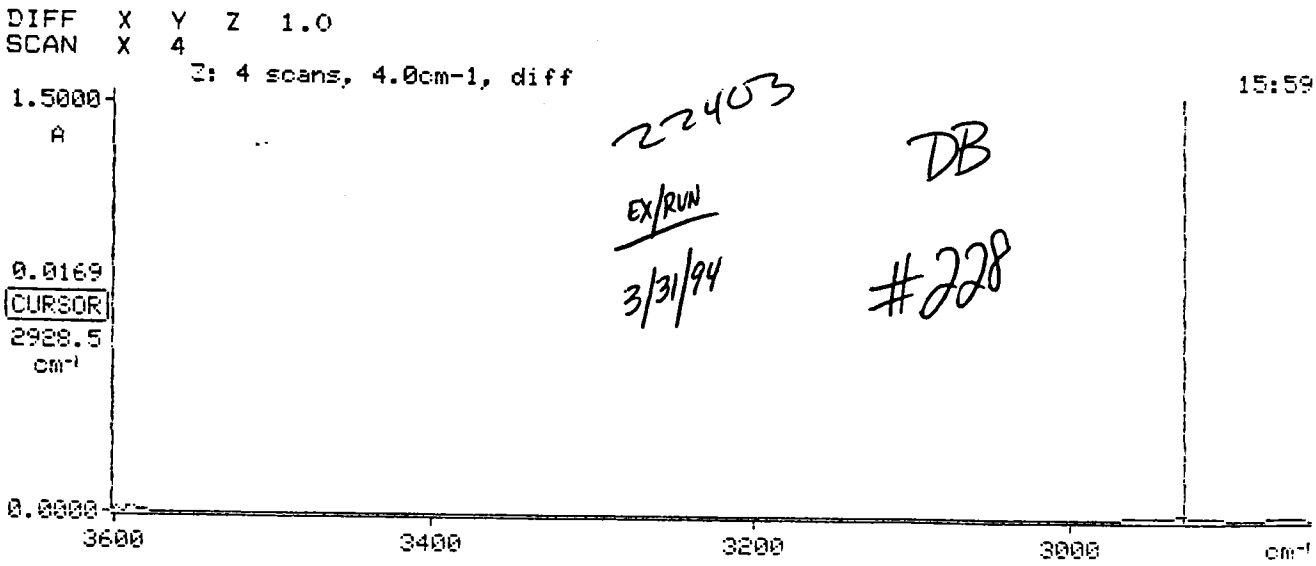


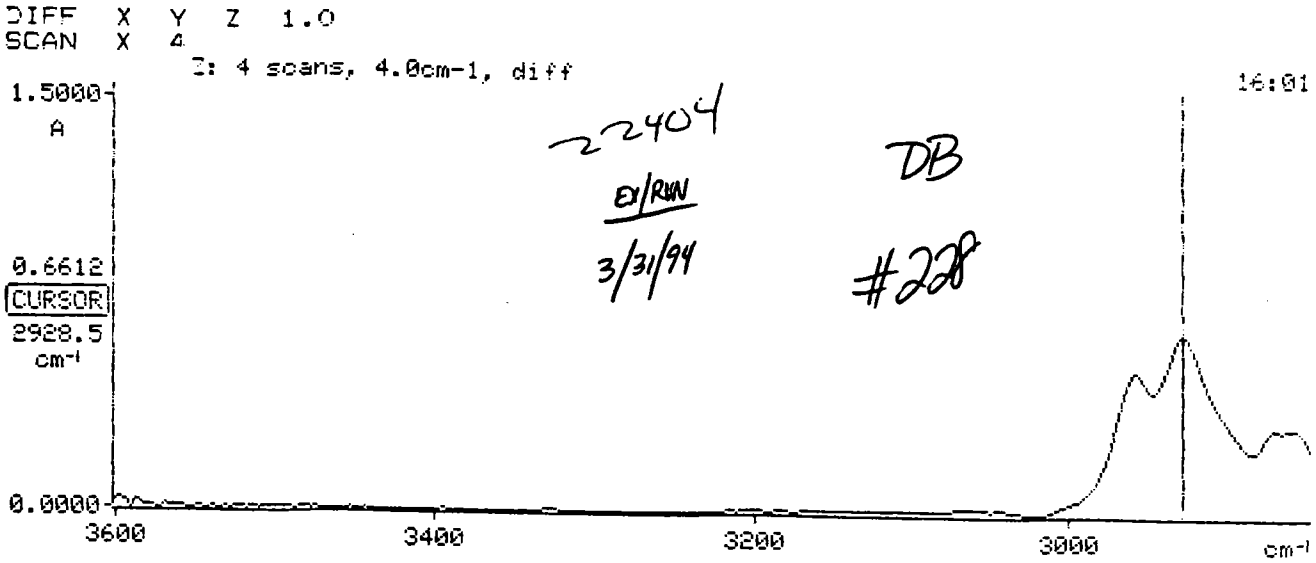
DIFF X Y Z 1.0
SCAN X 4

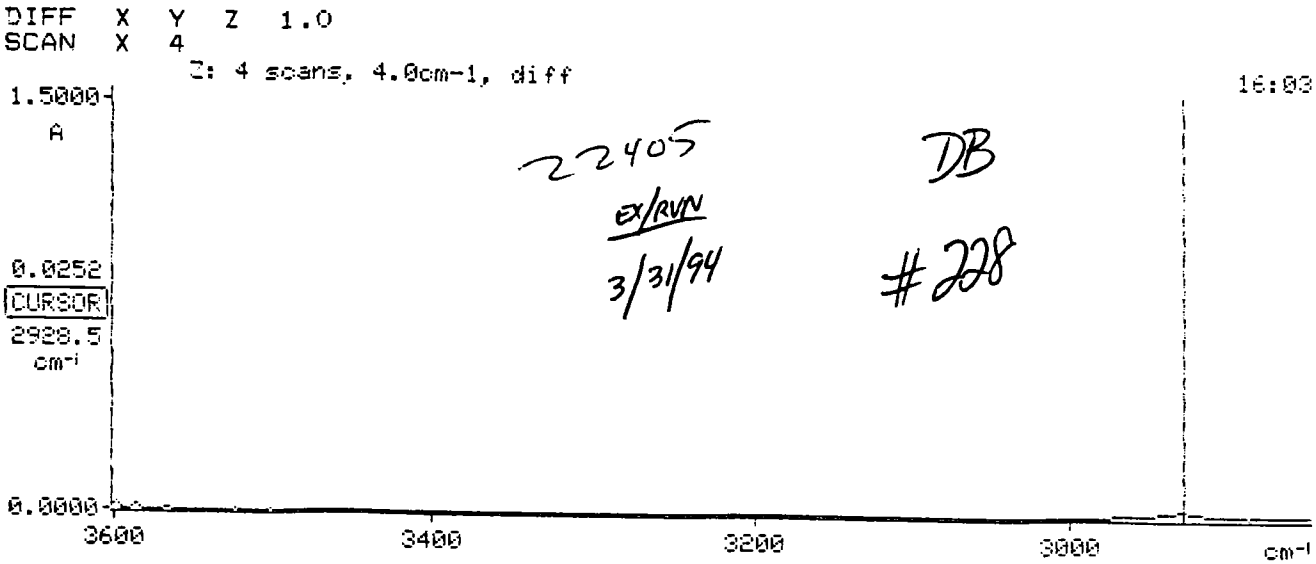



DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
15:57
1.5000
A
0.0120
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22401
EX/RVN
3/31/94
DB
#228

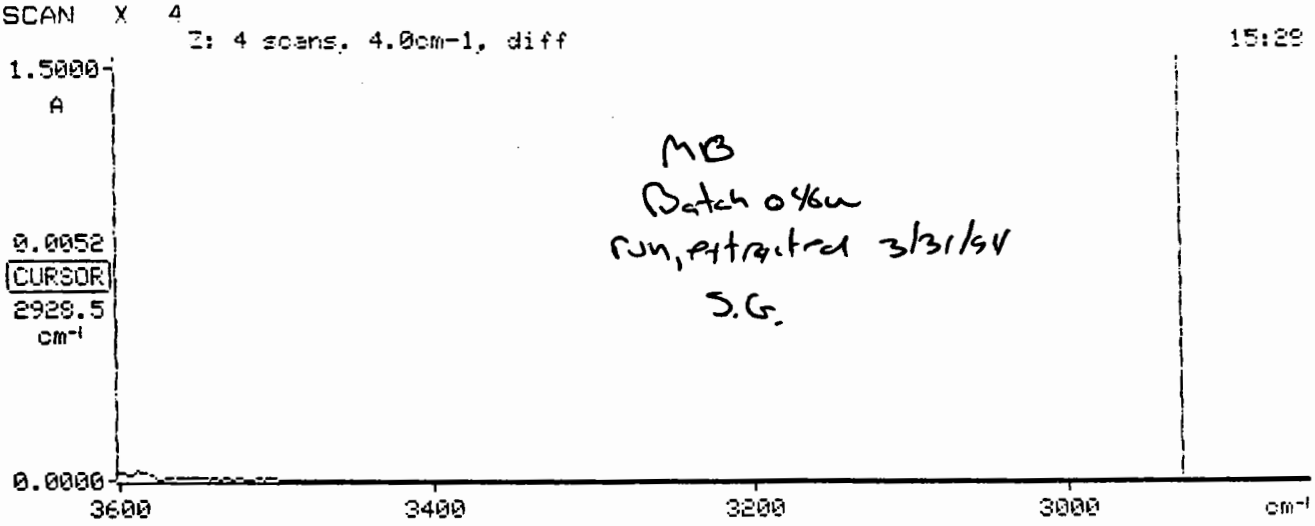

DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
15:59
1.5000
A
0.0175
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22402
EX/RVN
3/31/94
DB
#228


DIFF X Y Z 1.0
SCAN X 4
Z: 4 scans, 4.0cm-1, diff
15:59
1.5000
A
0.0169
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22403
EX/RVN
3/31/94
DB
#228

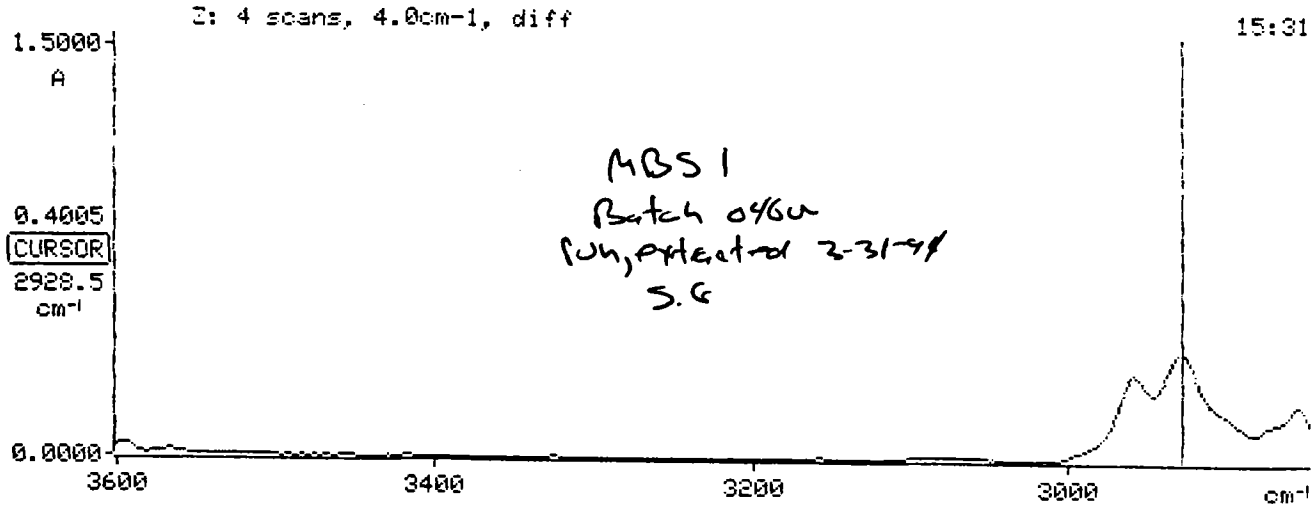

DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
16:01
1.5000
A
0.6612
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22404
EX/RUN
3/31/94
DB
#228


DIFF X Y Z 1.0
SCAN X 4
I: 4 scans, 4.0cm-1, diff
16:03
1.5000
A
0.0252
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
22405
EX/RUN
3/31/94
DB
#228

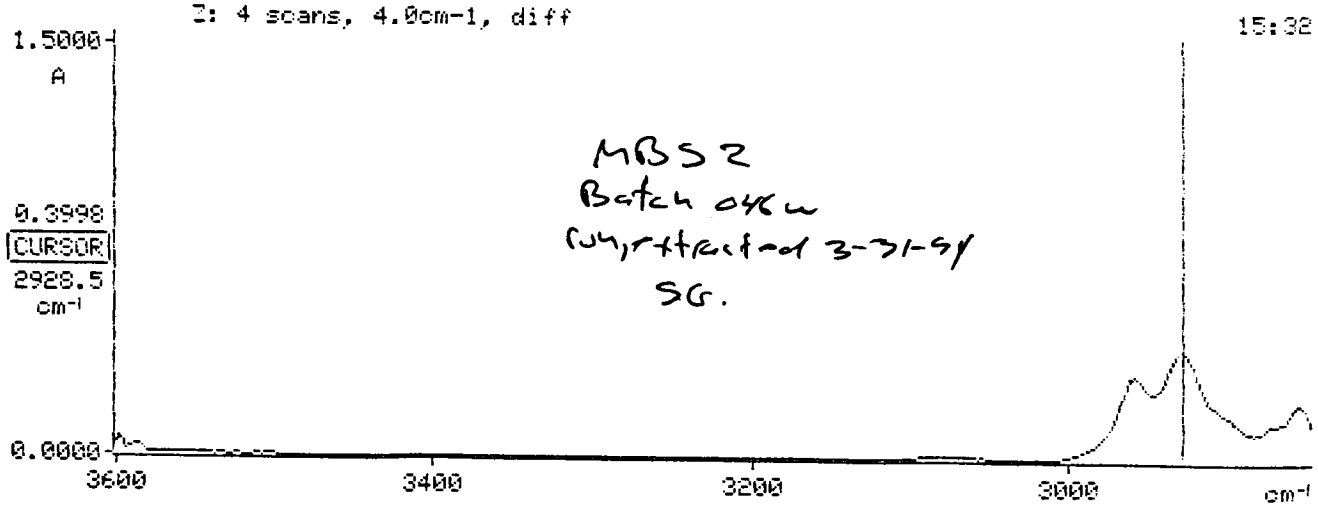
DIFF X Y Z 1.0
SCAN X 4



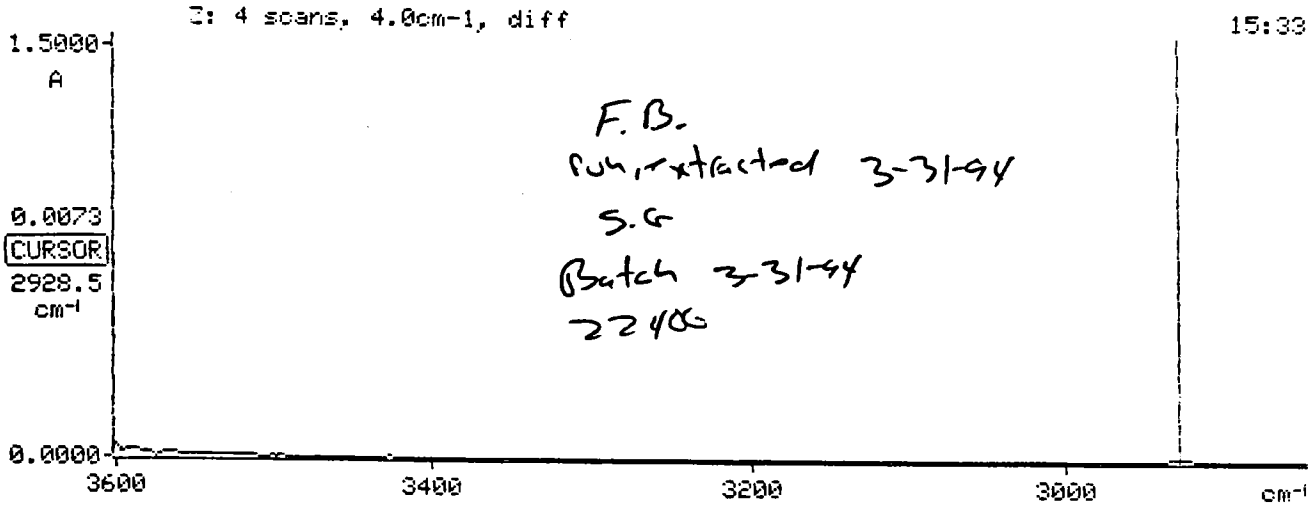
DIFF X Y Z 1.0
SCAN X 4



DIFF X Y Z 1.0
SCAN X 4



DIFF X Y Z 1.0
SCAN X 4


I: 4 scans, 4.0cm-1, diff
15:33
1.5000
A
0.0073
CURSOR
2928.5
cm-1
0.0000
3600
3400
3200
3000
cm-1
F.B.
run, extracted 3-31-94
S.G
Batch 3-31-94
22400