IR145

MISC.

CORRESPONDENCE

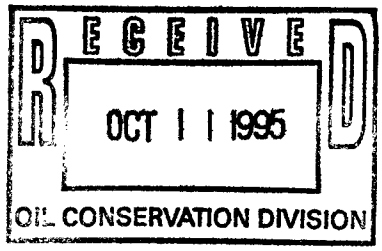
ENSR

Consulting • Engineering • Remediation

3000 Richmond Avenue
Houston, TX 77098

(713) 520-9900
FAX (713) 520-6802

October 5, 1995



Mr. William C. Olson
Hydrogeologist
Oil Conservation Division
Environmental Bureau

RE: Completion of Well Abandonment at the Former Exxon Service Facility
Located at 1715 Dal Paso Street in Hobbs, New Mexico

Dear Mr. Olson,

The monitor well located at the above referenced facility has been plugged and abandoned (P and A). The P and A activities were carried out under the direct supervision of ENSR Consulting and Engineering on EXXON's behalf. The plugging activities were performed on Tuesday, September 26, 1995 by Harrison Drilling and Environmental Services Inc. of Hobbs, New Mexico. The P and A process was carried out as a result of the New Mexico Oil Conservation Division's (OCD) written approval in their letter dated August 9, 1995. Approval to abandon the well was granted due to a lack of contaminant concentrations in excess of the New Mexico Water Quality Control Commission ground water standards. The procedures used to plug the well are discussed below.

The initial step in the P and A process was to remove the metal protective casing which surrounds the portion of the well pipe extending above ground and the concrete pad at the base of the well. This procedure was done by pulling out the metal casing with the use of a back hoe and chain. While removing the protective casing and pad, the top pvc well pipe broke off approximately 2.5 feet below ground surface.

Bentonite pellets were then placed into the well to fill the screen at the bottom of the well. The placement of bentonite continued in the well until the top of the bentonite was above the water table. This action was performed in order to avoid the possibility of contaminating the aquifer with the grout that was used to complete the plugging procedure.

A concrete slurry consisting of approximately 5% bentonite gel was then placed in the well. The slurry was brought to a level six inches above the top of the exposed well pipe, which put the top of the slurry at 2 feet below ground surface.

The remaining hole was then backfilled with local soil and compacted down by repeatedly crossing the area with the back hoe.

ENSR

EXXON/ENSR request's closure of this facility, as all monitoring activities have been succesfully concluded as per the OCD's requirements.

If you have any questions or concerns regarding the activities discussed in this letter please call me at (713) 520-9900 or Herman Brown of EXXON at (713) 425-1200.

Sincerely yours,

Shawn Eubanks
Project Manager/ Sr. Geologist

Gil Long
Department Manager

xc: Herman Brown, EXXON Chemical Americas
Wayne Price, OCD Hobbs District Office

NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 S. Pacheco
Santa Fe, New Mexico

Z 765 962 386

August 9, 1995

Receipt for Certified Mail
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CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-386

Mr. Herman Brown
Environmental Project Coordinator
Exxon Chemical Americas
P.O. Box 4004
Baytown, Texas 77522-4004

RE: MONITOR WELL ABANDONMENT
FORMER EXXON DAL PASO FACILITY

Dear Mr. Brown:

The New Mexico Oil Conservation Division (OCD) has completed a review of Exxon's June 28, 1995 "QUARTERLY SAMPLING, FORMER EXXON DAL PASO SERVICE FACILITY, HOBBS, NEW MEXICO". This document contains the results of Exxon's quarterly sampling of ground water related to remedial actions at Exxon's Dal Paso service facility in Hobbs, New Mexico. The document also requests approval of a work plan to plug and abandon (P&A) the site monitor well based upon a lack of contaminants in excess of New Mexico Water Quality Control Commission ground water standards.

The above P&A work plan is approved with the following conditions:

1. Exxon will provide the OCD with a final P&A report upon completion of the P&A actions.

2. All original documents submitted to the OCD for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Hobbs District Office.

Please be advised that OCD approval does not relieve Exxon of responsibility for compliance with any other federal, state or local laws and/or regulations. If you have any questions, please contact me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs District Office

EXXON CHEMICAL AMERICAS

EXXON CHEMICAL

Baytown Chemical Plant
Raymond C. Floyd
SITE MANAGER

June 28, 1995

Mr. William C. Olson
Hydrogeologist - Environmental Bureau
New Mexico Oil Conservation District
Post Office Box 2088
Santa Fe, New Mexico 87504

RE: Quarterly Sampling
Former Exxon Dal Paso Service Facility
Hobbs, New Mexico

Dear Mr. Olson:

ENSR Consulting and Engineering (ENSR), on behalf of Exxon Chemical Company (Exxon) has completed the fourth quarterly sampling event of monitor well DP-1 on Exxon's facility located at 1715 Dal Paso Street, in Hobbs, New Mexico. The sampling was performed in accordance with the New Mexico Oil Conservation Division (OCD) letter dated June 17, 1994. The OCD directed that the groundwater be sampled and analyzed on a quarterly basis for aromatic volatile organics, halogenated volatile organics, polynuclear aromatic hydrocarbons (PAHs), and manganese. The fourth quarterly sampling event was conducted on May 31, 1995.

Prior to collecting the groundwater samples, three well volumes were removed from the well using a PVC bailer. Groundwater was then retrieved with a disposable bailer and poured directly from the bailer into the appropriate sample containers. The samples were properly preserved, labeled, and placed on ice. Chain-of-custody documentation was filled out and sent with the samples to ENVIRON EXPRESS Laboratories in La Porte, Texas for analysis.

As outlined in item 1 of the OCD letter, groundwater was analyzed for aromatic volatile organics, halogenated volatile organics, polynuclear aromatic hydrocarbons (PAHs), and manganese. The analytical results are summarized in Table 1. The complete laboratory report and chain-of-custody documentation for the fourth quarter event are provided as Attachment A.

TABLE 1. Groundwater Analytical Results
Fourth Sampling Event

Constituent	Analytical Results DP-1 (mg/L)	New Mexico Groundwater Standard (mg/L)
Manganese	0.24	0.2
Benzene	<0.005	0.01
Chloroform	0.013	0.1
1,1,-Dichloroethane	<0.005	0.025
Ethylbenzene	<0.005	0.75
Xylenes	<0.015	0.62

All these results are below the New Mexico Water Quality Control Commission ground water standards except for manganese, which appears to be asymptotically approaching the standard value of 0.20 mg/l.

This completes the requirements for quarterly monitoring as provided in the letter of June 17, 1994. The results of the monitoring are summarized as follows:

Table 2. Groundwater Analytical Results
Four Quarters Summary

Constituent	First Quarter Results (mg/L)	Second Quarter Results (mg/l)	Third Quarter Results (mg/l)	Fourth Quarter Results (mg/l)
Manganese	0.7	0.5	0.25	0.24
Benzene	0.005	0.005	<0.005	<0.005
Chloroform	0.009	0.012	0.016	0.013
1,1,-Dichloroethane	0.019	0.017	<0.005	<0.005
Ethylbenzene	0.008	0.010	<0.005	<0.005
Xylenes	0.065	0.029	<0.015	<0.015

Based on these results, Exxon proposes to plug and abandon Well DP-1 at the site in accordance with the following procedures:

- Remove the flush mount well protector.
- Grout the well from the bottom to the ground surface.
- Dispose of all waste material associated with well DP-1.

Before grouting the well, the flush mount well protector will be removed from the ground. The concrete surrounding the flush mount will be broken up using either a sledge hammer or other means of loosening the flush mount before it can be removed.

The well will then be grouted in place. Grouting will consist of pumping a bentonite/cement slurry into the well. The slurry will contain 5 to 10% bentomite mixed with Type 1 Portland cement and will be tremied from the bottom of the well up to the ground surface.

After completion of the well plugging activities, all soil cuttings and wastewater produced from the well installation and abandonment will be disposed of. Since the only compound detected at levels above the ground water st andards was manganese, we propose to dispose of the materials along the back of the property.

The New Mexico OCD will be notified at least 7 days prior to initiation of the P&A activities. Please notify me as soon as practical as to whether this plan is approved so that these activities can be scheduled.

I am transferring to another Exxon Chemical facility on July 1, 1995. Mr. Herman Brown will take over my role on this project. Mr. Brown's phone number is (713) 425-1200. If there are any questions or if further assistance is needed, please feel free to call Mr. Brown or Gil Long of ENSR at (713) 520-9900.

Sincerely,

Paul Reed
Environmental Projects Coordinator
(713) 425-1237

Attachment

cc: Wayne Price, OCD Hobbs District Office
Trish Carls, Brown McCarroll and Oaks Hartline
Gil Long, ENSR Consulting and Engineering
Master File

ATTACHMENT A

LABORATORY RESULTS

Express Laboratories, Inc.

401 North 11th • La Porte, Texas 77571

(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Environ ID: **36159**

Customer:	**ENSR C & E**	Attn:	**DAVID BAHNER**
Sample ID:	**MW-1**	Matrix:	**LIQUID**
Prj. Info:	**EXXON HOBBS HOBBS, NM**	Prj No:	**1009-006-105**
Sampled: **05-31-95**	Received: **06-01-95**	Reported:	**06-06-95**

Analysis Report

EPA SW846 3051/6010 (Total)	Results mg/l	Detection Limit mg/l	Date Analyzed
Dissolved Manganese (Mn)	0.24	0.02	06-02-95

John Keller

JOHN E. KELLER, Ph.D.
Laboratory Director

Express Laboratories, Inc.

401 North 11th • La Porte, Texas 77571

(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: ENSR Sample ID: MW - 1 Environ ID: 36159

Project: Exxon Hobbs, Hobbs NM, Proj. # 1009-006-105 Matrix: Liquid

Date Sampled: 5/31/95 Date Received: 6/1/95 Date/Time Analyzed: 6/2/95 17:05

EPA SW-846 Method 8240 - Total Volatiles

COMPOUNDS	CONCENTRATION (ug/l)	PQL (ug/l)	CAS #
Acetone	< 50	50	67-64-1
Benzene	< 5	5	71-43-2
Bromodichloromethane	< 5	5	75-27-4
Bromoform	< 5	5	75-25-2
Bromomethane	< 10	10	75-83-9
2-Butanone	< 50	50	78-93-3
Carbon disulfide	< 5	5	75-15-0
Carbon Tetrachloride	< 5	5	56-23-5
Chlorobenzene	< 5	5	108-90-7
Chloroethane	< 10	10	75-00-3
2-Chloroethyl vinyl ether	< 10	10	110-75-8
Chloroform	13	5	67-66-3
Chloromethane	< 10	10	74-87-3
Dibromochloromethane	< 5	5	124-48-1
1,1-Dichloroethane	< 5	5	75-34-3
1,2-Dichloroethane	< 5	5	107-06-2
1,1-Dichloroethene	< 5	5	75-35-4
1,2-Dichloroethene (total)	< 5	5	540-59-0
1,2-Dichloropropane	< 5	5	78-87-5
cis-1,3-Dichloropropene	< 5	5	10061-01-5
trans-1,3-Dichloropropene	< 5	5	10061-02-6
Ethylbenzene	< 5	5	100-41-4
2-Hexanone	< 25	25	591-78-6
4-Methyl-2-Pentanone	< 25	25	108-10-1
Methylene Chloride	< 10	10	75-09-2
Styrene	< 5	5	100-42-5
1,1,2,2-Tetrachloroethane	< 5	5	79-34-5
Tetrachloroethene	< 5	5	127-18-4
Toluene	< 5	5	108-88-3
1,1,1-Trichloroethane	< 5	5	71-55-6
1,1,2-Trichloroethane	< 5	5	79-00-5
Trichloroethene	< 5	5	79-01-6
Vinyl acetate	< 10	10	108-05-4
Vinyl chloride	< 10	10	75-01-4
m&p-Xylene	< 10	10	1330-20-7
o-Xylene	< 5	5	1330-20-7

SURROGATE RECOVERIES			
SURROGATE	CONCENTRATION	% RECOVERY	RANGE
1,2-Dichloroethane-d4 (surr)	46	92	76-114
Toluene-d8 (surr)	48	96	88-110
4-Bromofluorobenzene (surr)	46	92	86-115

Carl Degner, GC/MS Analyst

John Keller, Laboratory Director

Express Laboratories, Inc.

401 North 11th • La Porte, Texas 77571

(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: **ENSR** Sample ID: **MW - 1** Environ ID: **36159**

Project: **Exxon Hobbs, Hobbs NM, Proj. # 1009-006-105** Matrix: **Soil**

Date Sampled: **5/31/95** Date Received: **6/1/95** Date Extracted: **6/1/95**

Concentration Factor: **30/1** Date/Time Analyzed: **6/2/95 17:57**

EPA SW-846 Method 8270 - PAHs

COMPOUNDS	CONCENTRATION (ug/Kg)	PQL (ug/Kg)	CAS #
Acenaphthene	< 6.6	6.6	83-32-9
Acenaphthylene	< 6.6	6.6	208-96-8
Anthracene	< 6.6	6.6	120-12-7
Benzo(a)anthracene	< 6.6	6.6	56-55-3
Benzo(b)fluoranthene	< 6.6	6.6	205-99-2
Benzo(k)fluoranthene	< 6.6	6.6	207-08-9
Benzo(g,h,i)perylene	< 6.6	6.6	191-24-2
Benzo(a)pyrene	< 6.6	6.6	50-32-8
Chrysene	< 6.6	6.6	218-01-9
Dibenz(a,h)anthracene	< 6.6	6.6	53-70-3
Fluoranthene	< 6.6	6.6	206-44-0
Fluorene	< 6.6	6.6	86-73-7
Indeno(1,2,3-cd)pyrene	< 6.6	6.6	193-39-5
Naphthalene	< 6.6	6.6	91-20-3
Phenanthrene	< 6.6	6.6	85-01-8
Pyrene	< 6.6	6.6	129-00-0
	SURROGATE RECOVERIES		
SURROGATE	CONCENTRATION	% RECOVERY	RANGE
Nitrobenzene-d5	36	72	35-114
2-Fluorobiphenyl	41	82	43-116
Terphenyl-d14	42	84	33-141

Carl Degner, GC/MS Analyst

John Keller, Laboratory Director

ENVIRON EXPRESS QUALITY CONTROL REPORT

ANALYSIS: METALS - TOTAL	METHOD: EPA SW846 3015/6010/7470	MATRIX: LIQUID

ANALYSTS: A.R.	DATE: 06/02/95	UNITS: PPM (mg/l)	NO.SAMPLES: 7

SAMPLES: 36146 - 36151, 36159

MATRIX SPIKE & MATRIX SPIKE DUPLICATE ANALYSIS

SAMPLE 36151	SAMPLE RESULTS	SPIKE ADDED	SPIKE RESULTS	RECOVERY %	RECOVERY DUP. %	RELATIVE DIFF.	CONT. CALIB.	QC LIMITS	
								REC. RANGE	REL. DIF.
ARSENIC	0.00	5	5.44	109	112	3	102	75 - 125	20
BARIUM	0.00	5	4.91	98	100	2	102	75 - 125	20
CADMIUM	0.00	5	4.89	98	99	1	100	75 - 125	20
CHROMIUM	0.00	5	4.91	98	100	2	103	75 - 125	20
LEAD	0.00	5	4.81	96	98	2	101	75 - 125	20
MERCURY	0.000	0.200	0.19	94	94	0	94	75 - 125	20
SELENIUM	0.00	5	6.00	120	122	2	101	75 - 125	20
SILVER	0.00	5	4.53	91	92	2	96	75 - 125	20

John Keller

JOHN KELLER, Ph.D
Laboratory Director

CHAIN OF CUSTODY RECORD

ENVIRON EXPRESS LABORATORIES
401 North 11th, La Porte, Texas 77571
(713) 471-0951 / (800) 880-0156
Fax No. (713) 471-5821

Project No.	Project Name	Project Location	Turn Around Time: Check One
1009-006-105	Exxon Hobbs	Hobbs NM	☐ 1 day ☐ 2 days ☐ 3 days ☒ 5 days

Sampler's Affiliation: ENSR

Samper's Name (PRINT): David Bahner

Sampler's: (Signature) David A Baker

Results to: David Bahner phone 520-9900 fax 520-6802

Address: 3000 Richmond Ave

City: Houston TX 77098

Invoice to: David Bahner ENSR No. ( )

Sampler Remarks:

Lab Remarks:

LABORATORY ANALYSIS
Reference EPA Method #

Lab Number	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat,l)	Sample Type (Liquid, Sludge, Etc.)	Preser-vative	BTEX 8020	TPH 418.1	RCRA METALS	VOLATILES	SEMI-VOLATILES	TCLP METALS	TCLP VOLATILES	TCLP	SEMI-VOLATILES	Dissolved Manganese	PAHs
30159	MW-1	5-31-95 1230	X		2x40ml	Liquid	4°C HCL				X							
↓	MW-1	↓	↓		8oz Amb	↓	4°C										X	
↓	MW-1	↓	↓		32oz Amb	↓	4°C											X

Relinquished by: (Signature) David A Baker	Date: 5-31-95 Time: 2:45	Received By: (Signature) N. Thomm	Date: 6-1-95 Time: 9:45	Intact	YES 4°
Relinquished by: (Signature)	Date: Time:	Received By: (Signature)	Date: Time:	Intact	
Relinquished by: (Signature)	Date: Time:	Received By: (Signature)	Date: Time:	Intact	6-1-95 #7378

EXXON CHEMICAL AMERICAS

EXXON CHEMICAL

Baytown Chemical Plant
Raymond C. Floyd
SITE MANAGER

March 17, 1995

Mr. William C. Olson
Hydrogeologist - Environmental Bureau
New Mexicico Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico

RE: Quarterly Sampling
Former Exxon Service Facility - Dal Paso
Hobbs, New Mexico

Dear Mr. Olson:

ENSR Consulting and Engineering(ENSR), on behalf of Exxon Chemical Company (Exxon) has completed the third quarterly sampling event of monitor well DP-1 on Exxon's facilty located at 1715 Dal Paso Street in Hobbs, New Mexico. The sampling was performed in accordance with the The Mexico Oil Conservation Division (OCD) letter dated June 17, 1994. The OCD directed that the groundwater be sampled and analyzed on a quarterly basis for aromatic volatile organics, halogenated volatile organics, and polynuclear aromatic hydrocarbons (PAH), and dissolved manganese. The quarterly sampling event was conducted on March 1, 1995.

Proir to collecting the groundwater samples, three well volumes were removed from the well using a PVC bailer. Groundwater was then retrieved with a disposable bailer and poured directly from the bailer into the appropriate sample containers. The samples were properly preserved, labeled, and placed in a cooler of ice. Chain-of-custody documentation was filled out and sent with the samples to ENVIRON EXPRESS Laboratories in La Porte, Texas for analysis.

The analytical results are outlined in Table 1, and a complete laboratory report along with chain-of-custody documentation are provided as Attachment A.

All organic constituent concentrations are below the New Mexico Water Quality Standards. Dissolved manganese concentration is slightly above the standard at 0.025 mg/l.

TABLE 1. Groundwater Analytical Results

Constituent	Analytical Results DP-1 (mg/l)	New Mexico Groundwater Standard (mg/l)
Manganese	0.25	0.2
Benzene	< 0.005	0.01
Chloroform	0.016	0.1
1,1-Dichloroethane	< 0.005	0.025
Ethylbenzene	< 0.005	0.75
Xylenes	< 0.015	0.62

Quarterly sampling will continue as outlined in the OCD letter dated June 17, 1994.

If you have any questions or if I can be of further assistance, please call me at (713) 425-1237 or Shawn Eubanks of ENSR at (713) 520-9900.

Very Truly Yours,

Paul Reed /STE

Paul Reed
Environmental Projects Coordinator
Environmental Affairs Department

Attachment

xc: Wayne Price, OCD Hobbs District Office
Shawn Eubanks, ENSR Consulting and Engineering

ATTACHMENT A

Laboratory Report

ANALYTICAL RESULTS

PREPARED FOR:

SHAWN EUBANKS

OF

ENSR

3000 Richmond
Houston, Texas 77098

PRESENTED BY:

ENVIRON EXPRESS LABORATORIES
401 N. 11th ST.
LA PORTE, TEXAS 77571-3115

1-713-471-0951 1-800-880-0156 (FAX): 1-713-471-5821

2620-155-300
DP-1
PAGE 1 OF 1

Express Laboratories
401 North 11th • La Porte, Texas 77571
(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: ENSR Sample ID: DP-1 Attn: S. EUBANKS

Client: EXXON-DAL PASO Proj. No: 2620-155-300

Proj. Location: HOBBS, NM Environ ID: 34354

Sample Matrix: WATER Sample Depth: Sampled: 03/ 01 / 95

Received: 03/ 02 / 95 Reported: 03/ 08 / 95 Invoice No.: 6937

TOTAL PAH (EPA 8100)

Compounds	Results mg/l	Detection Limit mg/l
Acenaphthene	< 1.0	1.0
Acenaphthylene	< 1.0	1.0
Anthracene	< 1.0	1.0
Benzo(a)anthracene	< 1.0	1.0
Benzo(a)pyrene	< 1.0	1.0
Benzo(b)fluoranthene	< 1.0	1.0
Benzo(k)fluoranthene	< 1.0	1.0
Benzo(ghi)perylene	< 1.0	1.0
Chrysene	< 1.0	1.0
Dibenzo(a,h)anthracene	< 1.0	1.0
Fluoranthene	< 1.0	1.0
Fluorene	< 1.0	1.0
Indeno(1,2,3-cd)pyrene	< 1.0	1.0
Naphthalene	< 1.0	1.0
Phenanthrene	< 1.0	1.0
Pyrene	< 1.0	1.0

Analyst: J.M. Date Extracted: 03/02/95 Date Analyzed: 03/02/95 @ 13:50

John Keller

John E. Keller, Ph.D.

Express Laboratories
401 North 11th • La Porte, Texas 77571
(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: **ENSR** Sample ID: **DP-1** Environ ID: **34354**

Project: **Exxon - DAI PASO, Hobbs NM, Proj. # 2620-155-300** Matrix: **Liquid**

Date Sampled: **3/1/95** Date Received: **3/2/95** Date/Time Analyzed: **3/2/95 14:18**

EPA SW-846 Method 8240 - Total Volatiles

COMPOUNDS	CONCENTRATION (ug/l)	PQL (ug/l)	CAS #
Acetone	< 50	50	67-64-1
Benzene	< 5	5	71-43-2
Bromodichloromethane	< 5	5	75-27-4
Bromoform	< 5	5	75-25-2
Bromomethane	< 10	10	75-83-9
2-Butanone	< 50	50	78-93-3
Carbon disulfide	< 5	5	75-15-0
Carbon Tetrachloride	< 5	5	56-23-5
Chlorobenzene	< 5	5	108-90-7
Chloroethane	< 10	10	75-00-3
2-Chloroethyl vinyl ether	< 10	10	110-75-8
Chloroform	16	5	67-66-3
Chloromethane	< 10	10	74-87-3
Dibromochloromethane	< 5	5	124-48-1
1,1-Dichloroethane	< 5	5	75-34-3
1,2-Dichloroethane	< 5	5	107-06-2
1,1-Dichloroethene	< 5	5	75-35-4
1,2-Dichloroethene (total)	< 5	5	540-59-0
1,2-Dichloropropane	< 5	5	78-87-5
cis-1,3-Dichloropropene	< 5	5	10061-01-5
trans-1,3-Dichloropropene	< 5	5	10061-02-6
Ethylbenzene	< 5	5	100-41-4
2-Hexanone	< 25	25	591-78-6
4-Methyl-2-Pentanone	< 25	25	108-10-1
Methylene Chloride	< 5	5	75-09-2
Styrene	< 5	5	100-42-5
1,1,2,2-Tetrachloroethane	< 5	5	79-34-5
Tetrachloroethene	< 5	5	127-18-4
Toluene	< 5	5	108-88-3
1,1,1-Trichloroethane	< 5	5	71-55-6
1,1,2-Trichloroethane	< 5	5	79-00-5
Trichloroethene	< 5	5	79-01-6
Vinyl acetate	< 10	10	108-05-4
Vinyl chloride	< 10	10	75-01-4
m&p-Xylene	< 10	10	1330-20-7
o-Xylene	< 5	5	1330-20-7

SURROGATE RECOVERIES

SURROGATE	CONCENTRATION	% RECOVERY	RANGE
1,2-Dichloroethane-d4 (surr)	47	94	76-114
Toluene-d8 (surr)	47	94	88-110
4-Bromofluorobenzene (surr)	53	106	86-115

Carl Degner, GC/MS Analyst

John Keller, Laboratory Director

12620-155-300
DP-1
PAGE 1 OF 1

Express Laboratories

401 North 11th • La Porte, Texas 77571

(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: ENSR Sample ID: DP-1 Attn: S. EUBANKS

Client: EXXON - DAL PASO Proj. No: 12620155300

Proj. Location: HOBBS, NEW MEXICO Environ ID: 34354

Sample Matrix: LIQUID Sample Depth: Sampled: 03/ 01 / 95

Received: 03/ 02 / 95 Reported: 03/ 08 / 95 Invoice No.: 6937

TOTAL METALS (EPA SW846)

Metals Dissolved	Method 3015/	Results mg/l	Detection Limit mg/l
Manganese	6010	0.25	0.02

Analyst: A.R. Date Extracted: 03/03/95 Date Analyzed: 03/03/95 @ 13:20

John Keller

John E. Keller, Ph.D.

ENVIRON EXPRESS QUALITY CONTROL REPORT

ANALYSIS: METALS - TOTAL	METHOD: EPA SW846 3015/6010/7470	MATRIX: LIQUID

ANALYSTS: A.R./J.L.	DATE: 03/03/95	UNITS: PPM (mg/l)	NO.SAMPLES: 6

SAMPLES: 34338 - 34342, 34354

MATRIX SPIKE & MATRIX SPIKE DUPLICATE ANALYSIS

SAMPLE 34342	SAMPLE RESULTS	SPIKE ADDED	SPIKE RESULTS	RECOVERY %	RECOVERY DUP. %	RELATIVE DIFF.	CONT. CALIB.	QC LIMITS	
								REC. RANGE	REL. DIF.
ARSENIC	0.0	5	4.89	98	94	4	99	75 - 125	20
BARIUM	0.0	5	4.46	89	86	4	97	75 - 125	20
CADMIUM	0.0	5	4.44	89	85	4	97	75 - 125	20
CHROMIUM	0.0	5	4.49	90	86	4	96	75 - 125	20
LEAD	0.0	5	4.43	89	85	4	97	75 - 125	20
MERCURY	0.00	0.20	0.19	95	95	0	100	75 - 125	20
SELENIUM	0.0	5	5.33	107	103	3	98	75 - 125	20
SILVER	0.0	5	4.45	89	85	5	95	75 - 125	20

John Keller

JOHN KELLER, Ph.D
Laboratory Director

ENVIRON
Express Laboratories

CHAIN OF CUSTODY RECORD

ENVIRON EXPRESS LABORATORIES

401 North 11th, La Porte, Texas 77571
(713) 471-0951 / (800) 880-0156
Fax No. (713) 471-5821

Page 1 of 1

Project No.	Project Name	Project Location	Turn Around Time: Check One
22620-155-300	EXXON - DAI PASO	Hobbs, NM	☐ 1 day ☐ 2 days ☐ 3 days ☑ ~~5~~ days

Sampler's Affiliation: ENSR

Samper's Name (PRINT): SHAWN FILBANKS

Sampler's: (Signature) Shawn Filbanks

Results to: SHAWN FILBANKS phone 520-9900 fax 520-680~

Sampler Remarks: FILTER & PRESERVE METALS !

Address:

City:

Lab Remarks:

Invoice to: No. ( )

LABORATORY ANALYSIS
Reference EPA Method #

Lab Number	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat,l)	Sample Type (Liquid, Sludge, Etc.)	Preservative	BTEX 8020	TPH 418.1	RCRA METALS	VOLATILES	SEMI-VOLATILES	TCLP METALS	TCLP VOLATILES	TCLP	SEMI-VOLATILES	PAHS	Dissolved MN
34354	DP-1	3-1-95 12:00	✓		40ml x2	liquid					↓							
	DP-1	↓	✓		32oz	↓											✓	
↓	DP-1	↓	✓		8oz	↓												✓

Relinquished by: (Signature) Shawn Filbanks	Date: 3-1-95 Time: 3:00	Received By: (Signature) K. Thamm	Date: 3-2-95 Time: 1300	Intact YES 4°
Relinquished by: (Signature)	Date: Time:	Received By: (Signature)	Date: Time:	Intact
Relinquished by: (Signature)	Date: Time:	Received By: (Signature)	Date: Time:	Intact 3.8°C #6937

EXXON CHEMICAL AMERICAS

EXXON CHEMICAL

Baytown Chemical Plant
Raymond C. Floyd
SITE MANAGER

December 19, 1994

Mr. William C. Olson
Hydrogeologist - Environmental Bureau
New Mexico Oil Conservation District
Post Office Box 2088
Santa Fe, New Mexico 87504

RE: Quarterly Sampling
Former Exxon Dal Paso Service Facility
Hobbs, New Mexico

Dear Mr. Olson:

ENSR Consulting and Engineering (ENSR), on behalf of Exxon Chemical Company (Exxon) has completed the second quarterly sampling event of monitor well DP-1 on Exxon's facility located at 1715 Dal Paso Street, in Hobbs, New Mexico. The sampling was performed in accordance with the New Mexico Oil Conservation Division (OCD) letter dated June 17, 1994. The OCD directed that the groundwater be sampled and analyzed on a quarterly basis for aromatic volatile organics, halogenated volatile organics, polynuclear aromatic hydrocarbons (PAHs), and manganese. The quarterly sampling event was conducted on November 23, 1994.

Prior to collecting the groundwater samples, three well volumes were removed from the well using a PVC bailer. Groundwater was then retrieved with a disposable bailer and poured directly from the bailer into the appropriate sample containers. The samples were properly preserved, labeled, and placed on ice. Chain-of-custody documentation was filled out and sent with the samples to ENVIRON EXPRESS Laboratories in La Porte, Texas for analysis.

As outlined in item 1 of the OCD letter, groundwater was analyzed for aromatic volatile organics, halogenated volatile organics, polynuclear aromatic hydrocarbons (PAHs), and manganese. The analytical results are summarized in Table 1. The complete laboratory report and chain-of-custody documentation are provided as Attachment A.

All of the results are below the New Mexico Water Quality Control Commission ground water standards except for manganese.

TABLE 1. Groundwater Analytical Results

Constituent	Analytical Results DP-1 (mg/L)	New Mexico Groundwater Standard (mg/L)
Manganese	0.5	0.2
Benzene	0.005	0.01
Chloroform	0.012	0.1
1,1,-Dichloroethane	0.017	0.025
Ethylbenzene	0.010	0.75
Xylenes	0.029	0.62

Quarterly sampling will continue as outlined in the OCD letter dated June 17, 1994.

If there are any questions or if I can be of further assistance, please feel free to call me at (713) 425-1237 or Gil Long of ENSR at (713) 520-9900.

Sincerely,

Paul Reed

Paul Reed
Environmental Projects Coordinator
Environmental Affairs Department

PR:gml

Attachment

cc: Wayne Price, OCD Hobbs District Office
Trish Carls, Brown McCarroll and Oaks Hartline
Gil Long, ENSR Consulting and Engineering
Master File

ATTACHMENT A

LABORATORY RESULTS

Express Laboratories

401 North 11th • La Porte, Texas 77571

(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: ENSR Sample ID: DP-1 Attn: S. EUBANKS

Client: EXXON - HOBBS Proj. No: 1009005105

Proj. Location: HOBBS, NEW MEXICO Environ ID: 31919

Sample Matrix: LIQUID Sample Depth: _____ Sampled: 11/ 23 / 94

Received: 11/ 28 / 94 Reported: 12/ 02 / 94 Invoice No.: 6378

TOTAL METALS (EPA SW846)

Metals Dissolved	Method 3015/	Results mg/l	Detection Limit mg/l
Manganese	6010	0.5	0.1

Analyst: A.R. Date Extracted: 11/30/94 Date Analyzed: 11/30/94 @ 10:20

John E. Keller

John E. Keller, Ph.D.

Express Laboratories

401 North 11th • La Porte, Texas 77571

(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: ENSR Sample ID: DP-1 Attn: S. EUBANKS

Client: EXXON-HOBBS Proj. No: 1009005105

Proj. Location: HOBBS, NEW MEXICO Environ ID: 31919

Sample Matrix: SOIL Sample Depth: Sampled: 11/ 23 / 94

Received: 11/ 28 / 94 Reported: 12/ 02 / 94 Invoice No.: 6378

TOTAL PAH (EPA 8100)

Compounds	Results mg/kg	Detection Limit mg/kg
Acenaphthene	< 1.0	1.0
Acenaphthylene	< 1.0	1.0
Anthracene	< 1.0	1.0
Benzo(a)anthracene	< 1.0	1.0
Benzo(a)pyrene	< 1.0	1.0
Benzo(b)fluoranthene	< 1.0	1.0
Benzo(k)fluoranthene	< 1.0	1.0
Benzo(ghi)perylene	< 1.0	1.0
Chrysene	< 1.0	1.0
Dibenzo(a,h)anthracene	< 1.0	1.0
Fluoranthene	< 1.0	1.0
Fluorene	< 1.0	1.0
Indeno(1,2,3-cd)pyrene	< 1.0	1.0
Naphthalene	< 1.0	1.0
Phenanthrene	< 1.0	1.0
Pyrene	< 1.0	1.0

Analyst: J.K. Date Extracted: 12/02/94 Date Analyzed: 12/02/94 @ 05:23

John E. Keller

John E. Keller, Ph.D.

Express Laboratories
401 North 11th • La Porte, Texas 77571
(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: **ENSR** Sample ID: **DP-1** Environ ID: **31919**

Project: **Exxon, Hobbs, New Mexico, Proj. # 1009-005-105** Matrix: **Liquid**

Date Sampled: **11/23/94** Date Received: **11/28/94** Date/Time Analyzed: **11/29/94 4:46**

EPA SW-846 Method 8240 - Total Volatiles

COMPOUNDS	CONCENTRATION (ug/l)	PQL (ug/l)	CAS #
Acetone	< 25	25	67-64-1
Benzene	5	5	71-43-2
Bromodichloromethane	< 5	5	75-27-4
Bromoform	< 5	5	75-25-2
Bromomethane	< 10	10	75-83-9
2-Butanone	< 10	10	78-93-3
Carbon disulfide	< 5	5	75-15-0
Carbon Tetrachloride	< 5	5	56-23-5
Chlorobenzene	< 5	5	108-90-7
Chloroethane	< 10	10	75-00-3
2-Chloroethyl vinyl ether	< 10	10	110-75-8
Chloroform	12	5	67-66-3
Chloromethane	< 10	10	74-87-3
Dibromochloromethane	< 5	5	124-48-1
1,1-Dichloroethane	17	5	75-34-3
1,2-Dichloroethane	< 5	5	107-06-2
1,1-Dichloroethene	< 5	5	75-35-4
1,2-Dichloroethene (total)	< 5	5	540-59-0
1,2-Dichloropropane	< 5	5	78-87-5
cis-1,3-Dichloropropene	< 5	5	10061-01-5
trans-1,3-Dichloropropene	< 5	5	10061-02-6
Ethylbenzene	10	5	100-41-4
2-Hexanone	< 10	10	591-78-6
4-Methyl-2-Pentanone	< 10	10	108-10-1
Methylene Chloride	< 5	5	75-09-2
Styrene	< 5	5	100-42-5
1,1,2,2-Tetrachloroethane	< 5	5	79-34-5
Tetrachloroethene	< 5	5	127-18-4
Toluene	< 5	5	108-88-3
1,1,1-Trichloroethane	< 5	5	71-55-6
1,1,2-Trichloroethane	< 5	5	79-00-5
Trichloroethene	< 5	5	79-01-6
Vinyl acetate	< 10	10	108-05-4
Vinyl chloride	< 10	10	75-01-4
m&p-Xylene	10	10	1330-20-7
o-Xylene	19	5	1330-20-7

SURROGATE RECOVERIES

SURROGATE	CONCENTRATION	% RECOVERY	RANGE
1,2-Dichloroethane-d4 (surr)	51	102	70-121
Toluene-d8 (surr)	51	102	81-117
4-Bromofluorobenzene (surr)	53	106	74-121

Carl Degner, GC/MS Analyst

John E. Keller

John Keller, Laboratory Director

ENVIRON EXPRESS QUALITY CONTROL REPORT

ANALYSIS: METALS - TOTAL	METHOD: EPA SW846 3015/6010/7470	MATRIX: LIQUID

ANALYSTS: A.R./J.L.	DATE: 11/30/94	UNITS: PPM (mg/l)	NO.SAMPLES: 6

SAMPLES: 31919 - 31924, 31952

MATRIX SPIKE & MATRIX SPIKE DUPLICATE ANALYSIS

SAMPLE MATRIX	SAMPLE RESULTS	SPIKE ADDED	SPIKE RESULTS	RECOVERY %	RECOVERY DUP. %	RELATIVE DIFF.	CONT. CALIB.	QC LIMITS	
								REC. RANGE	REL. DIF.
ARSENIC	0.0	5	5.0	100	101	1	102	80 - 120	20
BARIUM	0.0	5	5.0	101	102	1	98	80 - 120	20
CADMIUM	0.0	5	5.1	101	102	1	98	80 - 120	20
CHROMIUM	0.0	5	5.1	102	103	1	99	80 - 120	20
LEAD	0.0	5	5.1	102	101	1	99	80 - 120	20
MERCURY	0.00	0.10	0.10	100	90	11	90	80 - 120	20
SELENIUM	0.0	5	5.2	103	102	1	102	80 - 120	20
SILVER	0.0	5	4.9	98	101	3	95	80 - 120	20

John E. Keller

JOHN KELLER, Ph.D
Laboratory Director

ENVIRON
Express Laboratories

ENVIRON EXPRESS LABORATORIES

401 North 11th, La Porte, Texas 77571
(713) 471-0951 / (800) 880-0156
Fax No. (713) 471-5821

Project No.	Project Name	Project Location	Turn Around Time: Check One
1009-005-105	EXXON-16665	Hobbs, New Mexico	☐ 1 day ☐ 2 days ☑ 3 days ☐ 5 days

Sampler's Affiliation: ENSR

Samper's Name (PRINT):

Sampler's: (Signature)

Results to: SHAWN GUBANICS phone 520-9900 fax 520-6702

Sampler Remarks: FILTER METALS

Address: 3000 RICHMOND AVE

AND PRESERVE W/ HCL

City: HOUSTON, TX

Lab Remarks:

Invoice to: No. ( )

LABORATORY ANALYSIS
Reference EPA Method #

Lab Number	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat.l)	Sample Type (Liquid, Sludge, Etc.)	Preservative	BTEX 8020	TPH 418.1	RCRA METALS	VOLATILES	SEMI-VOLATILES	TCLP METALS	TCLP VOLATILES	TCLP	SEMI-VOLATILES	DISSOLVED MN	PAH'S
31914	DP-1	11-23-94 3:30			40ML VOA'S	LIQUID	4°C				✓							
	DP-1	↓			16 OZ AMBER GM	↓	↓										✓	
↓	DP-1	↓			32 OZ AMBER	↓	↓											✓

Relinquished by: (Signature)		Date: 11-28-94 Time: 0900	Received By: (Signature)		Date: 11-28-94 Time: 1040	Intact	11-30-94 #16378
Relinquished by: (Signature)		Date: 11-28-94 Time: 1350	Received By: (Signature)		Date: 11-28-94 Time: 1350	Intact	
Relinquished by: (Signature)		Date: Time:	Received By: (Signature)		Date: Time:	Intact	

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

NMOCD Inter-Correspondence

To: Bill Olson-Hydrogeologist Environmental Bureau

From: Wayne Price-Environmental Engineer District I

Date: November 23, 1994

Reference: Former Exxon Dal Paso Service Facility

Subject: Quarterly Sampling of Monitor Well

Comments:

Dear Bill,

On November 23, 1994, I witnessed the sampling of the monitor well at the facility listed above in Hobbs, NM. Shawn Eubanks of the ENSR Co. performed the sampling. Please note there is a considerable difference in the olfactory smells of the monitor well this time than from last time. Mr. Eubanks also noticed a change. The water has a significate increased hydrocarbon smell. I checked it using a 40ml vol headspace method above the liquid level with my PID. The PID read over 150 ppm of volatiles. The water has about .5 % of solids or less. The solids will settle out after a period of time. From a field observation it appears that the hydrocarbon is attached more so to the solids than in the water phase, which might effect the results if only the water phase is tested.

I recommend that if the analytical results do not reflect an increase in volatiles, then we should ask for a spilt sample next time to verify the results.

If you need any further information please don't hesitate to call or write.

Thanks!

cc: Jerry Sexton-District I Supervisor
Roger Anderson-Environmental Bureau Chief

EXXON CHEMICAL AMERICAS

EXXON CHEMICAL

Baytown Chemical Plant
Raymond C. Floyd
SITE MANAGER

September 27, 1994

Mr. William C. Olson
Hydrogeologist - Environmental Bureau
New Mexico Oil Conservation District
Post Office Box 2088
Santa Fe, New Mexico 87504

RE: Quarterly Sampling
Former Exxon Dal Paso Service Facility
Hobbs, New Mexico

Dear Mr. Olson:

ENSR Consulting and Engineering (ENSR), on behalf of Exxon Chemical Company (Exxon) has completed the first quarterly sampling event of monitor well DP-1 on Exxon's facility located at 1715 Dal Paso Street, in Hobbs, New Mexico. The sampling was performed in accordance with the New Mexico Oil Conservation Division (OCD) letter dated June 17, 1994. The OCD directed that the groundwater be sampled and analyzed on a quarterly basis for aromatic volatile organics, halogenated volatile organics, polynuclear aromatic hydrocarbons (PAHs), and manganese. The first quarterly sampling event was conducted on August 30, 1994.

Prior to collecting the groundwater samples, three well volumes were removed from the well using a PVC bailer. Groundwater was then retrieved with a disposable bailer and poured directly from the bailer into the appropriate sample containers. The samples were properly preserved, labeled, and placed on ice. Chain-of-custody documentation was filled out and sent with the samples to ENVIRON EXPRESS Laboratories in La Porte, Texas for analysis.

As outlined in item 1 of the OCD letter, groundwater was analyzed for aromatic volatile organics, halogenated volatile organics, polynuclear aromatic hydrocarbons (PAHs), and manganese. The analytical results are summarized in Table 1. The complete laboratory report and chain-of-custody documentation are provided as Attachment A.

1009L005.01

TABLE 1. Groundwater Analytical Results

Constituent	Analytical Results DP-1 (mg/L)	New Mexico Groundwater Standard (mg/L)
Manganese	0.7	0.2
Benzene	0.005	0.01
Chloroform	0.009	0.1
1,1,-Dichloroethane	0.019	0.025
Ethylbenzene	0.008	0.75
Xylenes	0.065	0.62

All these results are below the New Mexico Water Quality Control Commission ground water standards except for manganese.

Quarterly sampling will continue as outlined in the OCD letter dated June 17, 1994.

If there are any questions or if I can be of further assistance, please feel free to call me or Jay Swindle of ENSR at (713) 520-9900.

Sincerely,

Paul Reed/wah

Paul Reed
Environmental Projects Coordinator
(713) 425-1237

PR:wah

Attachment

cc: Wayne Price, OCD Hobbs District Office
Trish Carls, Brown McCarroll and Oaks Hartline
Jay Swindle, ENSR Consulting and Engineering
Master File

1009L005.01

ATTACHMENT A

LABORATORY RESULTS

Express Laboratories

401 North 11th • La Porte, Texas 77571

(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: **ENSR** Sample ID: **DP - 1** Environ ID: **29566**

Project: **ENSR - Exxon, Hobbs, NM, Proj. # 1009-005-105** Matrix: **Liquid**

Date Sampled: **8/30/94** Date Received: **8/31/94** Date/Time Analyzed: **8/31/94 17:31**

EPA Method 624 - Priority Pollutants + Xylenes

COMPOUNDS	CONCENTRATION (ug/l)	PQL (ug/l)	CAS #
Acrolein	< 50	50	107-02-8
Acrylonitrile	< 20	20	107-13-1
Benzene	< 5	5	71-43-2
Bromodichloromethane	< 5	5	75-27-4
Bromoform	< 5	5	75-25-2
Bromomethane	< 10	10	75-83-9
Carbon Tetrachloride	< 5	5	56-23-5
Chlorobenzene	< 5	5	108-90-7
Chloroethane	< 10	10	75-00-3
2-Chloroethyl vinyl ether	< 10	10	110-75-8
Chloroform	9	5	67-66-3
Chloromethane	< 10	10	74-87-3
Dibromochloromethane	< 5	5	124-48-1
Dichlorodifluoromethane	< 10	10	75-71-8
1,1-Dichloroethane	19	5	75-34-3
1,2-Dichloroethane	< 5	5	107-06-2
1,1-Dichloroethene	< 5	5	75-35-4
trans-1,2-Dichloroethene	< 5	5	540-59-0
1,2-Dichloropropane	< 5	5	78-87-5
cis-1,3-Dichloropropene	< 5	5	10061-01-5
trans-1,3-Dichloropropene	< 5	5	10061-02-6
Ethylbenzene	8	5	100-41-4
Methylene Chloride	< 5	5	75-09-2
1,1,2,2-Tetrachloroethane	< 5	5	79-34-5
Tetrachloroethene	< 5	5	127-18-4
Toluene	< 5	5	108-88-3
1,1,1-Trichloroethane	< 5	5	71-55-6
1,1,2-Trichloroethane	< 5	5	79-00-5
Trichloroethene	< 5	5	79-01-6
Vinyl chloride	< 10	10	75-01-4
m&p-Xylene	< 10	10	1330-20-7
o-Xylene	22	5	1330-20-7

SURROGATE RECOVERIES			
SURROGATE	CONCENTRATION	% RECOVERY	RANGE
1,2-Dichloroethane-d4 (surr)	43	86	70-121
Toluene-d8 (surr)	52	104	81-117
4-Bromofluorobenzene (surr)	50	100	74-121

Carl Degner, GC/MS Analyst

John Keller, Laboratory Director

Express Laboratories

401 North 11th • La Porte, Texas 77571

(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: ENSR Sample ID: DP-1 Attn: S. EUBANKS

Client: ENSR-EXXON Proj. No: 1009005105

Proj. Location: HOBBS, NM Environ ID: 29556

Sample Matrix: LIQUID Sample Depth: Sampled: 08/ 30 / 94

Received: 08/ 31 / 94 Reported: 09/ 06 / 94 Invoice No.: 5840

TOTAL PAH (EPA 8100)

Compounds	Results mg/l	Detection Limit mg/l
Acenaphthene	< 0.5	0.5
Acenaphthylene	< 0.5	0.5
Anthracene	< 0.5	0.5
Benzo(a)anthracene	< 0.5	0.5
Benzo(a)pyrene	< 0.5	0.5
Benzo(b)fluoranthene	< 0.5	0.5
Benzo(k)fluoranthene	< 0.5	0.5
Benzo(ghi)perylene	< 0.5	0.5
Chrysene	< 0.5	0.5
Dibenzo(a,h)anthracene	< 0.5	0.5
Fluoranthene	< 0.5	0.5
Fluorene	< 0.5	0.5
Indeno(1,2,3-cd)pyrene	< 0.5	0.5
Naphthalene	< 0.5	0.5
Phenanthrene	< 0.5	0.5
Pyrene	< 0.5	0.5

Analyst: J.K. Date Extracted: 08/30/94 Date Analyzed: 08/30/94 @ 17:27

John E. Keller

John E. Keller, Ph.D.

Express Laboratories

401 North 11th • La Porte, Texas 77571

(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: ENSR Sample ID: DP-2 Attn: S. EUBANKS

Client: EXXON Proj. No: 1009005105

Proj. Location: HOBBS, N.M. Environ ID: 29556

Sample Matrix: WATER Sample Depth: Sampled: 08/ 30 / 94

Received: 08/ 30 / 94 Reported: 09/ 07 / 94 Invoice No.: 5840

TOTAL METAL

Metals	Method	Results mg/l	Detection Limit mg/l
Dissolved Manganese	6010	0.7	0.1

Analyst: A.R. Date Extracted: 09/06/94 Date Analyzed: 09/06/94 @ 15:01

John E. Keller

John E. Keller, Ph.D.

ENVIRON EXPRESS QUALITY CONTROL REPORT

ANALYSIS: METALS - TOTAL	METHOD: EPA SW846 3015/6010/7470	MATRIX: LIQUID

ANALYSTS: A.R./J.L.	DATE: 09/06/94	UNITS: PPM (mg/l)	NO.SAMPLES: 5

SAMPLES: 29556, 29586 - 29587, 29709, 29719

MATRIX SPIKE & MATRIX SPIKE DUPLICATE ANALYSIS

SAMPLE MATRIX	SAMPLE RESULTS	SPIKE ADDED	SPIKE RESULTS	RECOVERY %	DUPLICATE RESULTS	RELATIVE DIFF.	CONT. CALIB.	QC LIMITS REC. RANGE	QC LIMITS REL. DIF.
ARSENIC	0.0	5	4.6	92	4.5	1	98	80 - 120	20
CHROMIUM	0.0	5	4.6	92	4.5	2	98	80 - 120	20
MANGANESE	0.0	5	4.6	92	4.6	0	97	80 - 120	20
ZINC	0.0	5	4.6	92	4.5	1	96	80 - 120	20

John E. Keller

JOHN KELLER, Ph.D
Laboratory Director

Express Laboratories

CHAIN OF CUSTODY RECORD

ENVIRON EXPRESS LABORATORIES
401 North 11th, La Porte, Texas 77571
(713) 471-0951 / (800) 880-0156
Fax No. (713) 471-5821

Project No.	Project Name	Project Location	Turn Around Time: Check One
1009-005-105	ENSR - EXXON	Hobbs, N.M.	☐ 1 day ☐ 2 days ☐ 5 days

Sampler's Affiliation: ENSR

Sampler's Name (PRINT): SHAWN EUBANKS

Sampler's: (Signature) [signature]

Results to: SHAWN EUBANKS phone 713 520-9520 fax 520-6802

Address: 3000 Richmond Ave

City: Houston, TX 77098

Invoice to: No. ( )

Sampler Remarks: Filter Mn in lab

Lab Remarks:

LABORATORY ANALYSIS
Reference EPA Method #

Lab Number	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid, Sludge, Etc.)	Preservative	BTEX 8020	TPH 418.1	Total Lead	TCLP Lead 1311	EPTOX Lead 1310	Volatile Organics	PAH's	Dissolved Mn	
29556	DP-2	8-30-94 14:00	X		3x40ml	Liquid	4°C HCl						✓			
		↓	X		125 ml	↓	4° HCl							✓		
		↓	X		125 ml	↓	4° HNO3								✓	
																9-6-94
																#5840

Relinquished by: (Signature)	Date: / Time:	Received By: (Signature)	Date: / Time:	Intact
[signature]	Date: Time:	[signature]	Date: 8-31 Time: 1010	
	Date: Time:		Date: Time:	

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

June 17, 1994

CERTIFIED MAIL
RETURN RECEIPT NO. P-111-334-133

Mr. J. Paul Reed
Environmental Project Coordinator
Baytown Chemical Plant
Exxon Chemical
P.O. Box 4004
Baytown, Texas 77522-4004

RE: GROUND WATER INVESTIGATION
FORMER DAL PASO SERVICE FACILITY
HOBBS, NEW MEXICO

Dear Mr. Reed:

The New Mexico Oil Conservation Division (OCD) has completed a review of Exxon Chemical Americas' May 1994 "INITIAL GROUNDWATER ASSESSMENT REPORT, FORMER EXXON CHEMICAL FACILITY 1715 DAL PASO STREET, HOBBS, NEW MEXICO" which was received by the OCD on May 25, 1994. This report presents the results of Exxon's ground water investigation at Exxon's former Dal Paso service facility located in Hobbs, New Mexico.

The investigation activities performed are satisfactory. However, the sampling results show that elevated levels of 1,1 dichloroethane, xylene, napthalene and manganese are present in the dissolved phase in ground water from the site monitor well. Since these contaminants are at or below the New Mexico Water Quality Control Commission ground water standards, the OCD defers comment on the need for additional investigations at this time. Instead, the OCD requires that Exxon:

1. Sample the ground water from the monitor well for aromatic volatile organics, halogenated volatile organics, polynuclear aromatic hydrocarbons and manganese on a quarterly basis.

2. Submit reports to the OCD Santa Fe Office with copies sent to the OCD Hobbs Office which contain the results of the quarterly sampling by October 1, January 1, April 1 and July 1 of each respective year. The first quarterly report will be due on October 1, 1994.

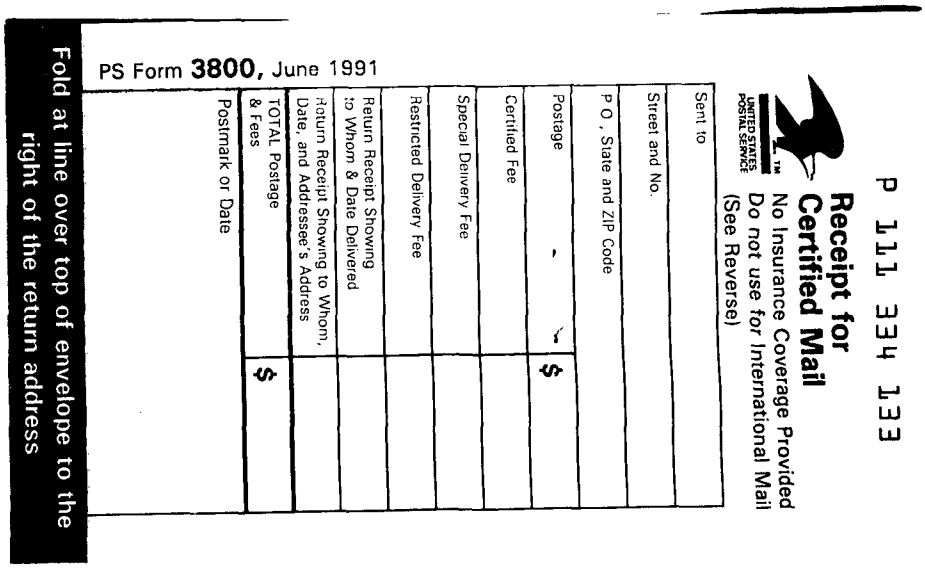
3. Notify the OCD at least one week in advance of all scheduled sampling events such that the OCD has the opportunity to witness the events and/or split samples.

If you have any questions, please contact me at (505) 827-5885.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Wayne Price, OCD Hobbs District Office
Jay Swindle, ENSR



EXXON CHEMICAL AMERICAS

EXXON CHEMICAL

Baytown Chemical Plant
Raymond C. Floyd
SITE MANAGER

VIA OVERNIGHT MAIL

May 24, 1994

Monitor Well Installation and Sampling Results - Former Exxon Dal Paso and West Marland Service Facilities Hobbs, New Mexico

Mr. William C. Olson
State of New Mexico
Energy, Minerals and Natural Resources Dept.
Oil Conservation Division
State Land Office Building
Santa Fe, New Mexico 87504

Dear Mr. Olson:

As per the Monitor Well Installation Work Plan approved by your office on January 31, 1994, please find attached the Well Installation and Sampling Reports for the above mentioned sites. Groundwater samples from the West Marland facility were collected in March and April 1994, and no contamination above the New Mexico groundwater cleanup standards was detected. However, the Dal Paso facility samples, also collected in March and April 1994, indicated a manganese concentration ranging from 0.3 ppm to 0.5 ppm which is slightly above the New Mexico standards of 0.2 ppm.

In order to ensure adequate reporting, the initial Dal Paso sampling data was sent to Roger Anderson at OCD via telefax on March 31, 1994. The wells at both facilities were sampled again on April 25, 1994. The Dal Paso results were sent to you via telefax on May 5, 1994.

To the best of Exxon's knowledge, neither Exxon nor the previous owner used or managed products containing manganese. Exxon believes that the manganese may be native to the area soils. Therefore, Exxon recommends that the background concentrations of manganese be determined to confirm that operational activities have not impacted the groundwater.

Please let me know your thoughts regarding this recommendation. Please feel free to call if you have questions regarding the reports.

Very truly yours,
Paul Reed /ag Shawn Gabanks
Paul Reed
Env. Projects Coordinator
(713) 425-1237

Enclosures

TELEFAX

TO: Bill Olson
Company: New Mexico OCD
FAX Number: (505) 827 5741

Date: May 5, 1994
No. of Pages: 1
Urgent: Yes

From: Paul Reed
Exxon Chemical Americas
(713) 425 1237
(713) 425 5788 FAX

Notes:

Bill,

We resampled the monitor wells at both the Marland Street and Dal Paso Street sites in Hobbs and analyzed the metals on a dissolved metals basis. The Marland Street sample was clean again. The Dal Paso Street sample showed the follo.. ng for **Manganese - 0.3 ppm.** The New Mexico standard for Manganese is 0.2 ppm. We are putting together our formal report and have it to you by June 1.

Please call me if you have questions. I look forward to discussing the Manganese issue with you after you have read the report or earlier if you wish. Thanks.

EXXON CHEMICAL AMERICAS

EXXON CHEMICAL

Baytown Chemical Plant
Raymond C. Floyd
SITE MANAGER

VIA TELEFAX

March 31, 1994

Notification of Potential Ground Water Contamination - Exxon Chemical Facility 1715 Dal Paso in Hobbs, New Mexico

Mr. Roger Anderson
State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division

Dear Mr. Anderson:

As per the Oil Conservation Division (OCD) approved monitor well installation plan at the above facility, the monitor well was installed, developed and sampled during the week of March 14, 1994. The ground water sample analytical data is attached for your review. As you can see the sample contained elevated levels of iron, manganese, and uranium.

Over the past two days Exxon's consultant, ENSR Consulting & Engineering, and I have been in telephone contact with your office regarding this data. Please note that the data is based on **total metals rather than dissolved metals.** We are following OCD's guidance and re-running the analysis for the metals on a dissolved metals basis. Exxon has asked the laboratory to re-run the sample and will provide your office with this data as soon as it is available. If the "re-run" sample cannot be adequately analyzed then Exxon will resample the well and notify OCD.

This letter serves as notice that the ground water at this site is potentially contaminated with the above metals. Please call Mr. Jay Swindle of ENSR at (713) 520 9900 or me if you have questions.

Very truly yours,

Paul Reed
Env. Projects Coordinator
(713) 425 1237

JPR1015

CLEAN TEXAS 2000 CLEAN INDUSTRIES MEMBER

1009-005-109
DP-100
PAGE 1 of 1

Express Laboratories
401 North 11th • La Porte, Texas 77571
(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5831

Customer: ENSR Sample ID: DP-100* Attn: S. NYBAKKE
Client: EXXON - DAL PASO Proj. No: 10090005106
Proj. Location: HOBBS, NM Environ ID: 25305
Sample Matrix: LIQUID Sample Depth: Sampled: 03/ 18 / 94
Received: 03/ 21 / 94 Reported: 03/ 28 / 94 Invoice No.: 4888

TOTAL RCRA METALS

Metals	Method	Results mg/l	Detection Limit mg/l
Aluminum	6010	92.0	0.1
Arsenic	6010	< 0.1	0.1
Barium	6010	0.8	0.1
Boron	6010	0.4	0.1
Cadmium	6010	< 0.1	0.1
Chromium	6010	< 0.1	0.1
Cobalt	6010	< 0.1	0.1
Copper	6010	< 0.1	0.1
Iron	6010	57.1	0.1
Lead	6010	< 0.1	0.1
Manganese	7470	0.9	0.01
Mercury	7470	< 0.01	0.01
Nickel	6010	< 0.1	0.1
Selenium	6010	< 0.1	0.1
Silver	6010	< 0.1	0.1
Uranium	6010	24.1	0.1
Zinc	6010	0.7	0.1

Analyst: A.R. Date Extracted: 03/25/94 Date Analyzed: 03/28/94 @ 14:12

* DUPLICATE OF DP-1

John E. Keller
John E. Keller, Ph.D.

1009-005-105
DP-1
PAGE 1 of 1

Express Laboratories
401 North 11th • La Porte, Texas 77571
(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Total

Customer: ENSR Sample ID: DP-1 Attn: S. EDWARDS
Client: EXXON - DAL PASO Proj. No: 1009005105
Proj. Location: HOBBS, NM Environ ID: 25104
Sample Matrix: LIQUID Sample Depth: Sampled: 03/ 18 / 94
Received: 03/ 21 / 94 Reported: 03/ 28 / 94 Invoice No.: 4885

TOTAL RCRA METALS

Metals	Method	Results mg/l	Detection Limit mg/l
Aluminum	6010	88.1	0.1
Arsenic	6010	< 0.1	0.1
Barium	6010	0.5	0.1
Boron	6010	0.4	0.1
Cadmium	6010	< 0.1	0.1
Chromium	6010	< 0.1	0.1
Cobalt	6010	< 0.1	0.1
Copper	6010	< 0.1	0.1
Iron	6010	34.1	0.1
Lead	6010	< 0.1	0.1
Manganese	7470	0.6	0.01
Mercury	7470	< 0.01	0.01
Nickel	6010	< 0.1	0.1
Selenium	6010	< 0.1	0.1
Silver	6010	< 0.1	0.1
Uranium	6010	14.6	0.1
Zinc	6010	0.6	0.1

Analyst: A.R. Date Extracted: 03/25/94 Date Analyzed: 03/28/94 @ 14:12

John E. Keller
John E. Keller, Ph.D.

EXXON CHEMICAL AMERICAS

EXXON CHEMICAL

Baytown Chemical Plant
Raymond C. Floyd
SITE MANAGER

March 4, 1994

Monitor Well Installation and Sampling
Exxon Chemical Facilities
Dal Paso & West Marland Streets, Hobbs, NM

Mr. William C. Olson
Hydrogeologist - Environmental Bureau
New Mexico Oil Conservation Division
Post Office Box 2088
State Land Office Building
Santa Fe, New Mexico 67504

Dear Mr. Olson:

The purpose of this letter is to notify the New Mexico Oil Conservation Division (OCD) of upcoming field activities at the above-referenced facilities. Scheduled activities include the installation of one monitor well at each site and subsequent groundwater sampling as described in the "Monitor Well Installation and Sampling Work Plans" submitted to the OCD in January 1994.

The work will be performed by a state-licensed drilling subcontractor under the supervision of Exxon Chemical Americas (Exxon) and ENSR Consulting and Engineering (ENSR) personnel. The work is scheduled to begin at the West Marland Street facility on Tuesday March 15, 1994. You or any of your staff are welcome to observe the field activities and to take split samples.

If you have any questions concerning this matter, please contact me at your convenience.

Sincerely,

Alice E McHugh for

J. Paul Reed
Environmental Project Coordinator
Baytown Chemical Plant - W435
Safety and Environmental Department
(713) 425-1237

cc: Patricia Carls - Brown McCarroll & Oaks Hartline
Jay Swindle - ENSR Consulting and Engineering
Master File

AEM\B:hobbmw.ltr

EXXON CHEMICAL AMERICAS

EXXON CHEMICAL

Baytown Chemical Plant
Raymond C. Floyd
SITE MANAGER

January 21, 1994

Former Exxon Chemical Facilities
Dal Paso and West Marland Sites, Hobbs, NM

Mr. William C. Olson
State of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
State Land Office Building
Santa Fe, New Mexico 87504

VIA OVERNIGHT DELIVERY

Dear Mr. Olson:

As requested in your November 18, 1993 letter, enclosed for your review and approval are two copies each of the Monitor Well Installation and Sampling Draft Work Plans for the former Exxon facilities located in Hobbs, New Mexico.

If you have any questions or comments concerning this matter, please call me at any time.

Sincerely,

for Alice E McHugh

J. Paul Reed
Environmental Project Coordinator
(713) 425-1237

Enclosures

cc: Ms. Trish Carls - Brown McCarroll & Oaks Hartline
Mr. Jay Swindle - ENSR Consulting and Engineering
Master File

AEM\B:hobbs\hobbspln.ltr

ENSR

ENSR Consulting
and Engineering
3000 Richmond Avenue
Houston, Texas 77098
(713) 520-9900
(713) 520-6802 (FAX)

April 28, 1993

Mr. William C. Olson
Hydrogeologist - Environmental Bureau
Oil Conservation Division
Land Office Building, State of New Mexico
P. O. Box 2088
Santa Fe, New Mexico 87504-2088

Re: Response to Comments, Removal Action Workplans
Former Exxon Dal Paso and West Marland Service Facilities
Hobbs, New Mexico

Dear Mr. Olson,

On behalf of Exxon Chemical Company, ENSR Consulting and Engineering (ENSR) is submitting this response to your letter dated March 29, 1993. The responses to your individual comments are as follows:

COMMENT 1

"The hazardous waste characteristics for contaminated soils from both facilities, with the exception of soils around the septic tank at the Dal Paso facility, were composites of different source areas. The OCD requires that composite samples for determining hazardous waste characteristics be taken of representative contaminated soils from each individual source area. Please sample representative contaminated soils from each source area, analyze the soils for hazardous waste characteristics and provide the results to OCD."

RESPONSE

Dal Paso Street Location:

The area of contaminated soil at the Dal Paso facility is restricted to one small area in the facility yard. This area was the former waste oil storage area and is shown on the attached figure taken from the Phase II Site Inspection Report (Figure 2-3). The contaminated area represents less than 100 cubic yards of soil and was sampled as a discrete sample during the Phase II Investigation and later as a composite sample for waste disposal analysis.

The discrete sample (Sample MBA-2A, Figure 3-2) was analyzed for Target Compound List (TCL) volatile and semi-volatile organic compounds and total metals. As reported in the Phase II report, the analytical results did not reveal the presence of any toxic constituents at levels that would require regulation under RCRA's Toxicity Characteristic (TC) Rule (ie. hazardous). The analytical laboratory report for the discrete sample collected from the waste oil storage area, sample MBA-2A, is attached along with a summary table taken from the Phase II report.

A composite sample was collected from the same area for waste classification. As reported in our letter dated February 4, 1993, the laboratory analytical results did not indicate the presence of TC constituents at levels that would render the soil as hazardous waste upon disposal and confirms the earlier sampling. A summary of the previously submitted waste characterization analytical results is also attached for your review.

Based on analytical results from both discrete and composite samples, the soil which is to be removed from the facility is classified as non-hazardous. After careful review, it appears that existing analytical data is sufficient to properly classify the waste soils as non-hazardous.

West Marland Street Location:

The contamination at the inactive West Marland Street facility appears to have resulted from spilled diesel fuel from a former above ground diesel storage tank and from leaking diesel fuel from heavy construction equipment parked on site. A site plan is provided on the attached figure taken from the Phase II Site Inspection Report (Figure 2-2).

Discrete soil sampling of the site revealed three areas of contamination which include the former diesel storage tank area (Samples DT-1A, DT-2A, DT-2B), the septic tank area (Sample TR-1A) and in the yard area directly south of the tanks (Sample YS-4A). The sample locations are provided in Figure 3-1. The three areas of contamination on site represent less than 100 cubic yards of soil in total. The physical and analytical characteristics of the contamination at each of the three contaminated areas are very similar and all appear to be the result of diesel fuel contamination.

As reported in the Phase II Report, laboratory analysis indicated that all three areas contain elevated total petroleum hydrocarbon concentrations. In addition, TCL volatile and semi-volatile compounds detected in grab samples collected at the former location of the above ground diesel tank and in the initial trenching activities near the septic tank are nearly identical and do not indicate the presence of TC constituents that would require regulation under RCRA. The third petroleum contaminated area, sample YS-4A, was not sampled for volatile, semi-volatile or metals because it appears to be a small surface stain which will account for less than two cubic yards of contaminated soil. The analytical laboratory reports for the discrete samples collected from the three area of contamination are attached along with a summary table taken from the Phase II report.

A composite sample was collected from the three areas for waste classification. As reported in our letter dated February 4, 1993, the laboratory analytical results did not indicate the presence of TC constituents at levels that would render the soil as hazardous waste upon disposal and confirms the earlier sampling. A summary of the previously submitted waste characterization analytical results is also attached for your review.

No physical or analytical evidence exists from discrete or composite samples collected from these three areas that would indicate disposal as a hazardous waste. In addition, it appears that existing analytical data is sufficient to properly classify the waste soils as non-hazardous.

COMMENT 2

"The total lead concentrations in some of the contaminated soils samples were relatively high. However, the TCLP lead analyses for these areas show concentrations at the detection limit for the analysis. Please explain these discrepancies in the analytical results."

RESPONSE

Total lead contamination was shown by grab sample analysis to exist in the waste oil storage area and the truck washing area at the Dal Paso facility (lead contamination was not found at the West Marland facility). TCLP metals sampling of the same areas did not indicate the presence of lead contamination. The discrepancy between the total lead concentrations and the TCLP concentrations from the samples collected at the Dal Paso facility is most likely due to a lead source that is not leachable under TCLP analytical methods. Although the nature of the lead source is not known, ENSR does not believe that additional sampling for this area should be required.

ENSR understands your concerns over the possibility of sending hazardous waste to an inappropriate facility. However, we believe that the existing analytical data is sufficient to properly classify the waste soils as non-hazardous. Based on the information provided in this letter and our letter dated February 4, 1993, ENSR is requesting (on behalf of EXXON) authorization for disposal of the contaminated soils in the CRI landfill near Hobbs, New Mexico.

If you have any questions or comments, please contact us at (713) 520-9900.

Sincerely,

J. Scott Kuykendall
Staff Geologist

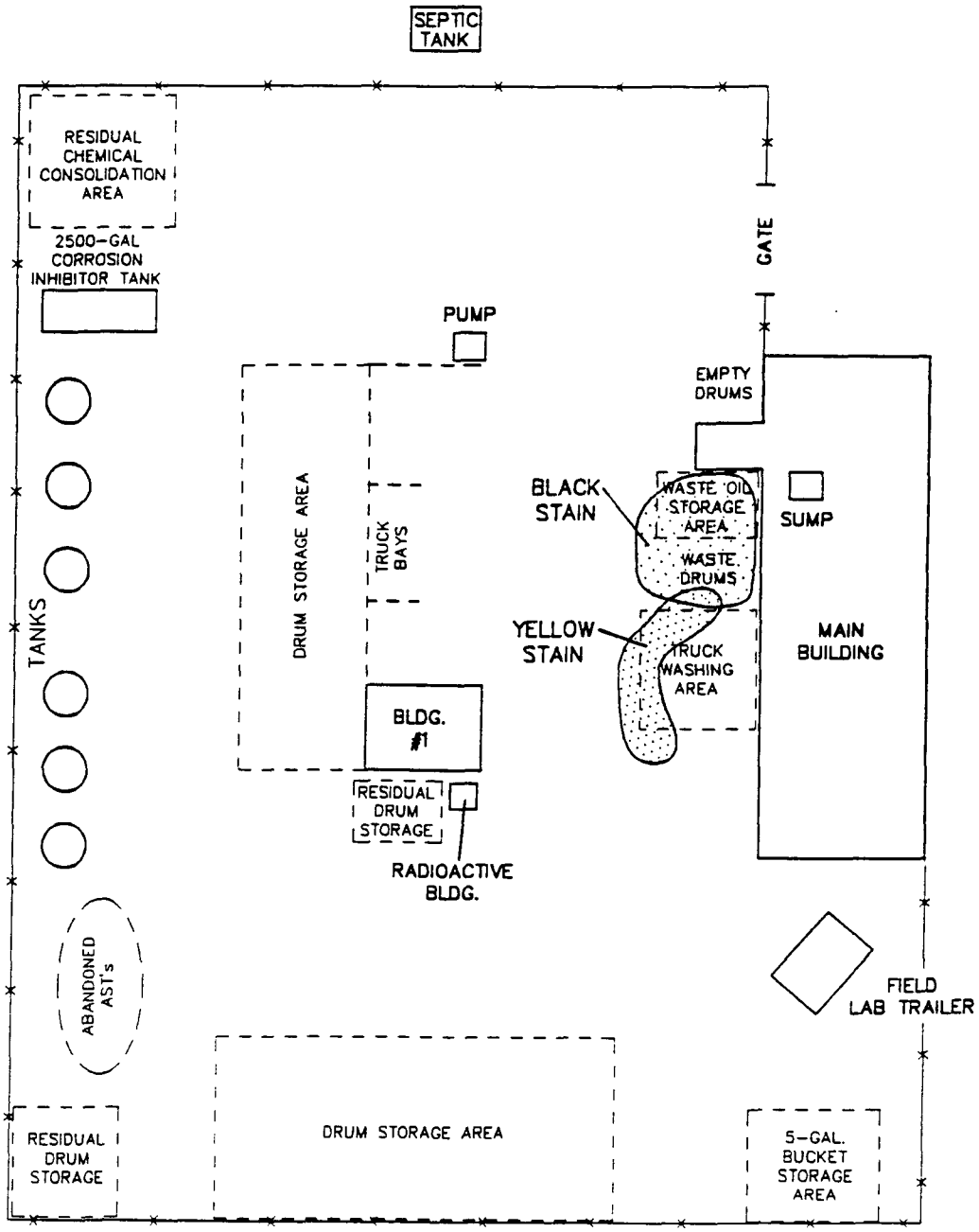
Jay L. Swindle. P.E.
Project Manager

Attachments

cc: Paul Reed - Exxon Chemical Company
Keith Hopson - Brown McCarroll and Oaks Hartline

AEM\B:ocd.2

FIGURES AND TABLES
FORMER EXXON CHEMICAL FACILITY
DAL PASO STREET, HOBBS NEW MEXICO



NOT TO SCALE

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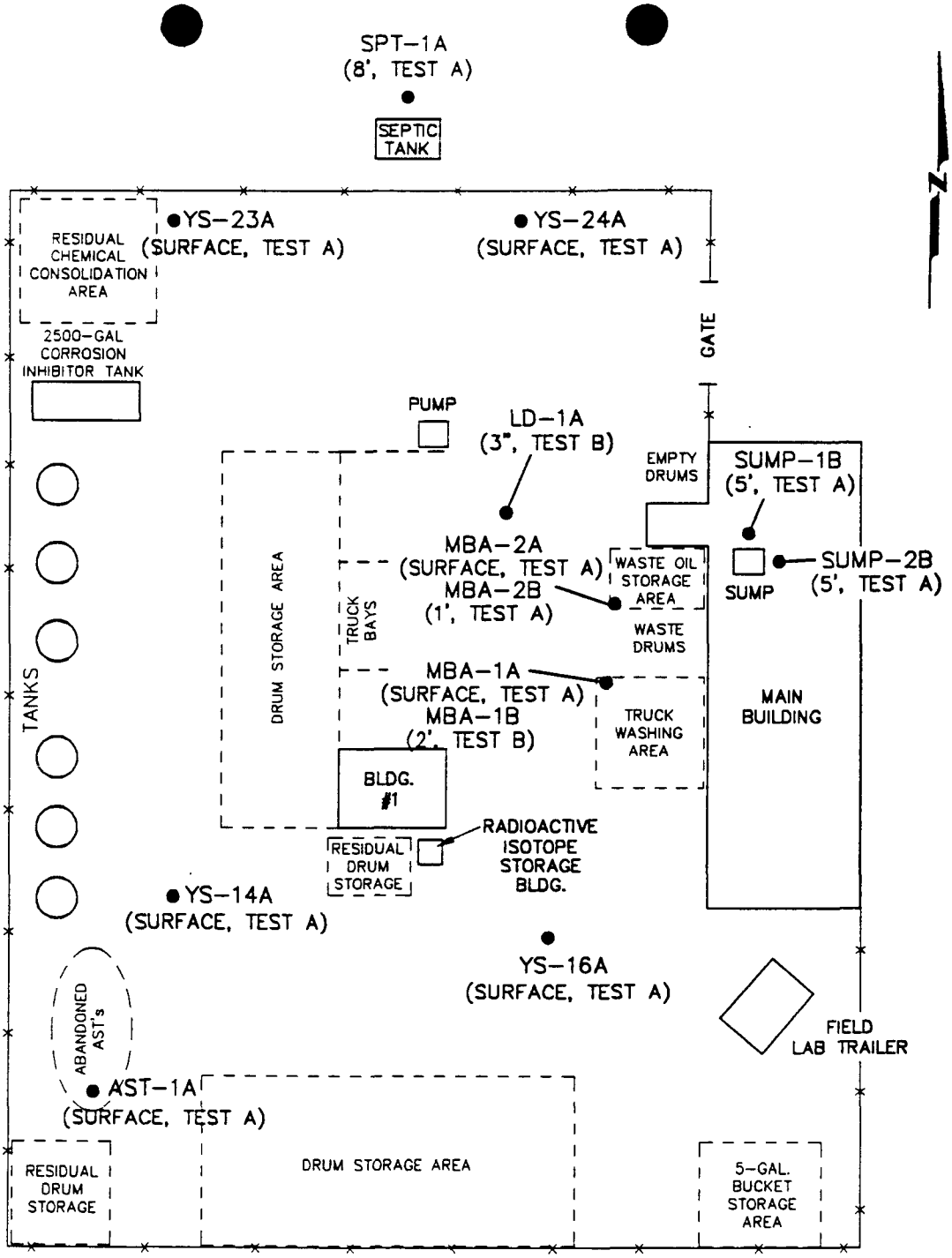
FIGURE 2-3
FENCED YARD AREA PLOT PLAN
CHEMICAL DISTRIBUTION FACILITY
HOBBS, NEW MEXICO

DRAWN: SJF	DATE: 6-9-92	PROJECT NUMBER:
APPV'D:	REVISED:	1009-001-150

CE100920



L E G E N D

● – SAMPLE LOCATION

NOTE: SURFACE SAMPLES COLLECTED BENEATH CALICHE PAD.
TEST A – TPH, ph, RCRA METALS.
TEST B – TPH, ph, RCRA METALS, TOTAL VOLATILES, TOTAL SEMI-VOLATILES.

NOT TO SCALE

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FIGURE 3-2
FENCED YARD SAMPLE LOCATIONS
CHEMICAL DISTRIBUTION FACILITY
HOBBS, NEW MEXICO

DRAWN: SJF	DATE: 3-10-92	PROJECT NUMBER:
APPV'D:	REVISED:	1009-001-150

CE100910

Table 6.1
Analytical Test Results
Site Inspection
Exxon Chemical Americas
Hobbs, NM
Dal Paso Site

Sample I.D.	Location	Depth	TPH 8015 (M) (mg/kg)	Total Metals (mg/kg) Ag	As	Ba	Cd	Cr	Hg	Pb	Se	pH	Detected Total Volatiles Code(ug/kg)	Detected Total Semivolatiles Code(ug/kg)
YS-1A	Yard Grid Sample	Surface	BDL	BDL	9.8	89	BDL	8.0	BDL	31	0.3	7.99		
YS-2A	Yard Grid Sample	Surface	BDL	BDL	9.9	120	BDL	7.0	BDL	BDL	BDL	8.12		
YS-3A	Yard Grid Sample	Surface	BDL	BDL	3.1	120	BDL	6.2	BDL	24	BDL	7.84		
YS-4A	Yard Grid Sample	Surface	BDL	BDL	2.4	110	BDL	15	BDL	9.9	BDL	7.85		
YS-5A	Yard Grid Sample	Surface	BDL	BDL	1.1	73	BDL	7.8	BDL	8	BDL	7.87		
YS-6A	Yard Grid Sample	Surface	BDL	BDL	1.1	110	BDL	6.6	BDL	21	BDL	7.72		
YS-7A	Yard Grid Sample	Surface	BDL	BDL	1.2	63	BDL	7.9	BDL	6	BDL	7.98		
YS-8A	Yard Grid Sample	Surface	BDL	BDL	1.0	58	BDL	7.6	BDL	BDL	BDL	7.99		
YS-9A	Yard Grid Sample	Surface	BDL	BDL	1.6	100	BDL	6.1	BDL	8.4	BDL	7.84		
YS-10A	Yard Grid Sample	Surface	BDL	BDL	0.8	71	BDL	5.9	BDL	8.2	BDL	8.07		
YS-11A	Yard Grid Sample	Surface	BDL	BDL	0.8	91	BDL	5.7	BDL	14	BDL	7.97		
YS-12A	Yard Grid Sample	Surface	BDL	BDL	4.0	3800	BDL	15	BDL	37	0.4	7.77		
YS-13A	Yard Grid Sample	Surface	BDL	BDL	2.0	330	BDL	16	BDL	110	BDL	7.57		
YS-14A	Yard Grid Sample	Surface	BDL	BDL	1.4	140	BDL	8.1	BDL	21	BDL	7.96		
YS-15A	Yard Grid Sample	Surface	BDL	BDL	1.2	130	BDL	7.4	BDL	24	BDL	7.79		
YS-16A	Yard Grid Sample	Surface	BDL	BDL	12	110	BDL	10	BDL	120	BDL	7.78		
YS-17A	Yard Grid Sample	Surface	BDL	BDL	1.3	160	BDL	8	BDL	35	BDL	7.83		
YS-18A	Yard Grid Sample	Surface	BDL	BDL	4.1	3100	BDL	24	0.6	110	BDL	7.85		
YS-19A	Yard Grid Sample	Surface	BDL	BDL	1.8	140	BDL	10	BDL	21	BDL	7.92		
YS-20A	Yard Grid Sample	Surface	BDL	BDL	2.1	170	BDL	8.4	BDL	38	BDL	7.79		
YS-21A	Yard Grid Sample	Surface	BDL	BDL	1.7	220	BDL	9.8	BDL	86	BDL	8.01		
YS-22A	Yard Grid Sample	Surface	BDL	BDL	2.4	180	BDL	14	BDL	45	BDL	7.80		
YS-23A	Yard Grid Sample	Surface	BDL	BDL	2.4	130	BDL	12	BDL	19	BDL	8.18		
YS-24A	Yard Grid Sample	Surface	BDL	BDL	2.1	82	BDL	9.8	BDL	9.9	BDL	8.06		
LD-1A	Loading Dock Area	Surface	BDL	BDL	2.7	250	BDL	7.0	BDL	130	0.3	8.99		
AST-1A	Above Ground Storage Tank Area	Surface	BDL	BDL	1.2	94	BDL	7.9	BDL	8.3	BDL	7.59		
SPT-1A	Septic Tank Area	8'	BDL	BDL	2.2	96	BDL	9.5	BDL	BDL	BDL	8.31		
MBA-1A		Surface	BDL	1.5	6.0	380	3.6	59	0.3	1500	0.6	8.47		
MBA-1B		1'	BDL	BDL	2.7	190	BDL	5.1	BDL	BDL	BDL	8.76		
MBA-2A		Surface	191	BDL	4.4	350	BDL	32	BDL	1300	BDL	8.71	1(30)(B), 2(16), 3(34), 5(18)	None Detected
MBA-2B		2'	BDL	BDL	1.5	62	BDL	10	BDL	10	BDL	8.20		
Sump 1B	Sump Area	5'	BDL	BDL	6.5	95	BDL	13	BDL	BDL	BDL	8.05		
Sump 2B	Sump Area	5'	BDL	BDL	4.3	96	BDL	12	BDL	BDL	BDL	8.22		
YS-15X	QA/QC Samples	Surface	BDL	BDL	1.2	110	BDL	8	BDL	20	BDL	7.80		
YS-22X	QA/QC Samples	Surface	BDL	BDL	2.5	180	BDL	14	BDL	46	BDL	7.82		
Trip Blank	QA/QC Sample												1(22)(B), 2(5)	
Equipment Blank	QA/QC Sample			BDL	0.005	0.002	BDL	0.2	BDL	0.02	BDL	1.64	1(7)(B), 4(10)	None Detected

LEGEND

BDL = Below analytical detection limit

Blank cells indicate that the sample was not analyzed for that parameter.

COMPOUND CODE FOR VOLATILES

1) Acetone
2) Methylene Chloride
3) Xylene (total)
4) Bromoform
5) 4-methyl-2-pentanone

Summary of Analytical Results
Exxon Chemical Company Facility
1715 Dal Paso Street
Hobbs, New Mexico
Date Sampled: 9-3-92

Analytical Parameters	Regulatory Threshold Limit	Sample ID: DP-1 Depth: 0'-2'		Sample ID: DP-2 Depth: 6'-8'	
TCLP Metals (mg/l)		**Level Detected**	**Detection Limit**	**Level Detected**	**Detection Limit**
Arsenic	5.0	<0.2	0.2	<0.2	0.2
Barium	100.0	1.2	0.5	1.2	0.5
Cadmium	1.0	<0.010	0.010	<0.010	0.010
Chromium	5.0	<0.05	0.05	<0.05	0.05
Lead	5.0	0.1	0.02	0.02	0.02
Mercury	0.2	<0.001	0.001	<0.001	0.001
Selenium	1.0	<0.2	0.2	<0.2	0.2
Silver	5.0	<0.01	0.01	<0.01	0.01
TCLP Volatiles (μg/l)					
Pyridine	5,000	<13	13	<10	10
Vinyl Chloride	200	<10	10	<10	10
1,1-Dichloroethene	700	<5	5	<5	5
Chloroform	6,000	<5	5	<5	5
1,2-Dichloroethane	500	<5	5	<5	5
Methyl Ethyl Ketone	200,000	<10	10	<10	10
Carbon Tetrachloride	500	<5	5	<5	5
Trichloroethene	500	<5	5	<5	5
Benzene	500	<5	5	<5	5
Tetrachloroethene	700	<5	5	<5	5
Chlorobenzene	100,000	<5	5	<5	5
TCLP Semivolatiles (μg/l)		**Level Detected**	**Detection Limit**	**Level Detected**	**Detection Limit**
1,4-Dichlorobenzene	7,500	<13	13	<10	10
2-Methylphenol	200,000	<13	13	<10	10
4-Methylphenol	200,000	<13	13	<10	10
3-Methylphenol	200,000	<13	13	<10	10

Summary of Analytical Results
Exxon Chemical Company Facility
1715 Dal Paso Street
Hobbs, New Mexico
Date Sampled: 9-3-92

Analytical Parameters	Regulatory Threshold Limit	Sample ID: DP-1 Depth: 0'-2'		Sample ID: DP-2 Depth: 6'-8'	
Hexachloroethane	3,000	<13	13	<10	10
Nitrobenzene	2,000	<13	13	<10	10
Hexachlorobuta-diene	500	<13	13	<10	10
2,4,6-Trichlorophenol	2,000	<13	13	<10	10
2,4,5-Trichlorophenol	400,000	<66	66	<50	50
2,4-Dinitrotoluene	130	<13	13	<10	10
Hexachlorobenzene	130	<13	13	<10	10
Pentachlorophenol	100,000	<66	66	<50	50
RCRA Characteristics					
pH	2<pH<12.5	8.57 units	0.01 units	8.13 units	0.01 units
Corrosivity	>6.35 MMPY	Unable to analyze due to matrix		Unable to analyze due to matrix	
Ignitability	<140°F	Unable to analyze due to matrix		Unable to analyze due to matrix	
Reactivity - HCN - H_2S	 250 mg/kg 500 mg/kg	 <0.40 mg/kg 245 mg/kg	 0.40 mg/kg 20 mg/kg	 <0.40 mg/kg 146 mg/kg	 0.40 mg/kg 20 mg/kg

LABORATORY REPORTS
FORMER EXXON CHEMICAL FACILITY
DAL PASO STREET, HOBBS, NEW MEXICO

1009-001-154
MBA-2A

Express Laboratories
401 North 11th • La Porte, Texas 77571
(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

omer: ENSR Sample ID: MBA-2A Attn: C. OVERTON

nt: BROWN MARONEY (EXXON) Proj. No: 1009001154

Location: HOBBS - DAL PASO Environ ID: 09805

le Matrix: SOIL Sample Depth: Sampled: 01/ 28 / 92

ived: 01/ 30 / 92 Reported: 02/ 05 / 92 Invoice No.: 2118

Test Method 8015(M)	Result PPM (mg/kg)	Blank PPM (mg/kg)	Detection Limit PPM (mg/kg)
Petroleum Extractables	*191	< 25	25

lyst: J.M. Date Extracted: 02/02/92 Date Analyzed: 02/03/92 @ 18:16
ndard : DIESEL

E: *This sample contains some heavy material that may not be suitable for anaylsis by Method 8015M. (TPH by G.C.)

John E. Keller
John E. Keller, Ph.D.

Analytical Report
02/14/92 13:42

m Maroney-Hobbs-Dal Paso	Field ID: MBA-2A	Date Sampled: 01/28/92
. No.: 1009-001-154	Lab ID: 33	Time Sampled: 1145
No.: A7864	Matrix: SOIL (GRAB)	Date Received:01/30/92

(Test Code) meter (Test Name) (Test Method)	Concen-tration	Units	Method Detection Limit	Date/Time Analysis Performed
-S- -HOU VER ON SOLID SW-846: 3050, 7760, AA	<1.1	MG/KG	1.1	02/05/92 915
-S-GFA-HOU ENIC ON SOLID SW-846: 7060, GRAPHITE FURNACE	4.4	MG/KG	0.3	02/05/92 645
-S- -HOU IVOLATILE ORGANICS/SOLID SW-846: 3550,8270, SON.,GC/MS	ATTACHED *1	UG/KG		Ext.: 02/10/92 Anal.:02/11/92
-S-ICP-HOU RIUM ON SOLID SW-846: 3050,6010, ICP	350	MG/KG	2.2	02/04/92 659
-S-ICP-HOU DMIUM ON SOLID A SW-846: 3050,6010, ICP	2.3	MG/KG	2.2	02/04/92 659
-S-ICP-HOU ROMIUM ON SOLID PA SW-846: 3050,6010, ICP	32	MG/KG	2.2	02/04/92 659
-S- -HOU RCURY ON SOLID PA SW-846: 7471, COLD VAPOR	0.09	MG/KG	0.05	02/06/92 1040
b -S-ICP-HOU EAD ON SOLID PA SW-846: 3050,6010, ICP	1300	MG/KG	5.4	02/04/92 659
Se -S-GFA-HOU SELENIUM ON SOLID EPA SW-846: 7740, GRAPHITE FURNACE	<0.3	MG/KG	0.3	02/05/92 634

*1 SEE ANALYTIKEM ID #A7864-33

***** CONTINUED *****

AnalytiKEM—Houston

Analytical Report
02/14/92 13:42

n Maroney-Hobbs-Dal Paso	Field ID: MBA-2A	Date Sampled: 01/28/92
. No.: 1009-001-154	Lab ID: 33	Time Sampled: 1145
No.: A7864	Matrix: SOIL (GRAB)	Date Received: 01/30/92

(Test Code) meter (Test Name) (Test Method)	Concen-tration	Units	Method Detection Limit	Date/Time Analysis Performed
-S- -HOU TILE ORGANICS ON SOLID SW-846: 8240, GC/MS	ATTACHED *1	UG/KG		02/07/92
-S- -HOU ON SOLID SW-846: 9045	8.71	UNITS	0.01	01/31/92 935

*1 SEE ANALYTIKEM ID #A7864-33

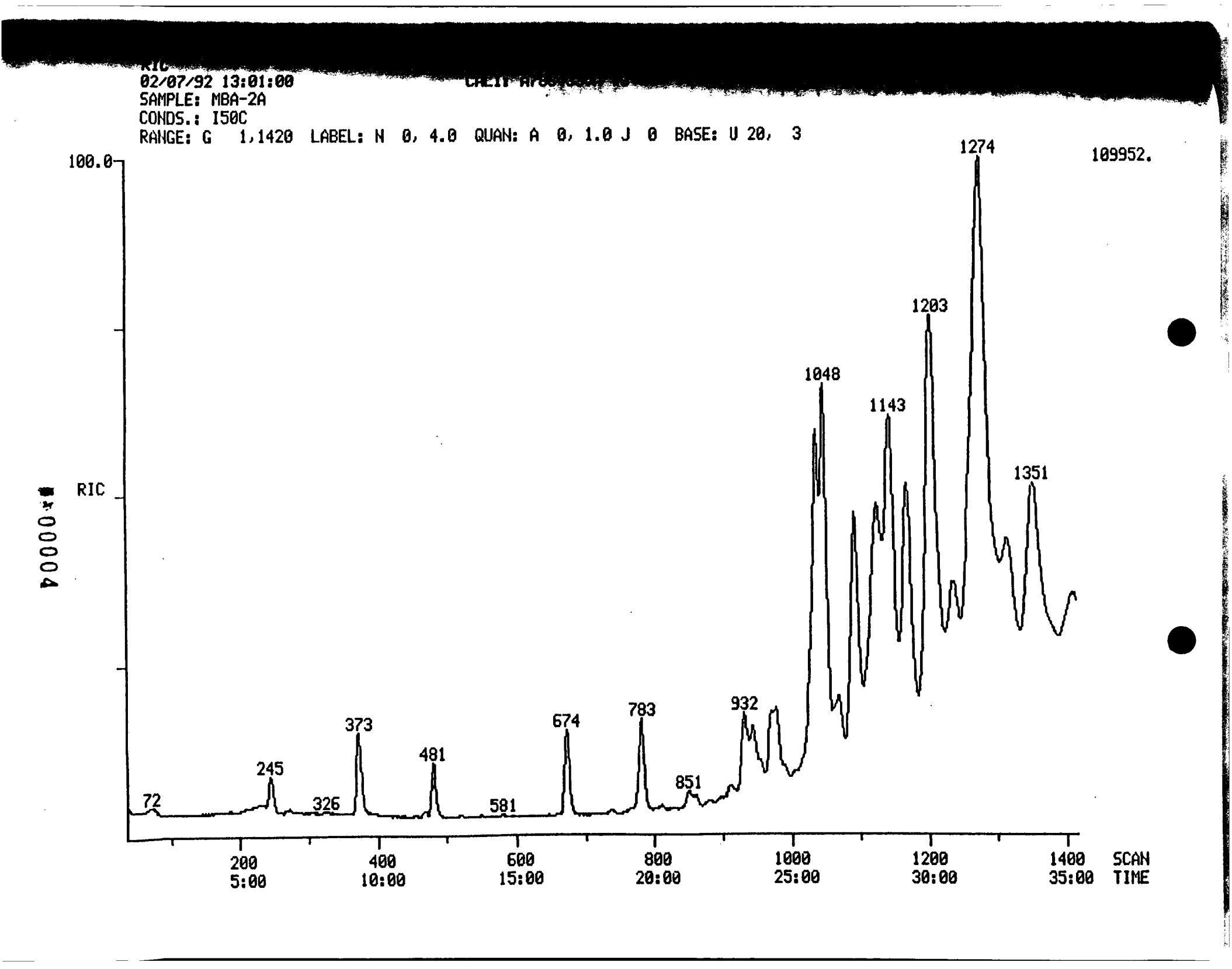
VOLATILE ORGANICS ANALYSIS DATA SHEET

ory Name: AnalytiKEM-Hou | Concentration: LOW | Date Extracted: 02/07/92
mple ID: A7864-33 | Sample Matrix: SOIL | Date Analyzed: 02/07/92
Sample ID: MBA-2A | Percent Moisture: 5.8 | Dilution Factor: 1.0

VOLATILE COMPOUNDS

umber		ug/Kg		CAS Number		ug/Kg	
-3	Chloromethane	11	<	78-87-5	1,2-Dichloropropane	5	<
-9	Bromomethane	11	<	10061-01-5	cis-1,3-Dichloropropene	5	<
-4	Vinyl Chloride	11	<	79-01-6	Trichloroethene	5	<
-3	Chloroethane	11	<	124-48-1	Dibromochloromethane	5	<
-2	Methylene Chloride	16		79-00-5	1,1,2-Trichloroethane	5	<
-1	Acetone	30	B	71-43-2	Benzene	5	<
-0	Carbon Disulfide	5	<	10061-02-6	Trans-1,3-Dichloropropene	5	<
-4	1,1-Dichloroethene	5	<	110-75-8	2-Chloroethylvinyl ether	11	<
-3	1,1-Dichloroethane	5	<	75-25-2	Bromoform	5	<
0-5	trans-1,2-Dichloroethene	5	<	108-10-1	4-Methyl-2-Pentanone	18	
-3	Chloroform	5	<	591-78-6	2-Hexanone	11	<
6-2	1,2-Dichloroethane	5	<	127-18-4	Tetrachloroethene	5	<
3-3	2-Butanone	11	<	79-34-5	1,1,2,2-Tetrachloroethane	5	<
-6	1,1,1-Trichloroethane	5	<	108-88-3	Toluene	5	<
3-5	Carbon Tetrachloride	5	<	108-90-7	Chlorobenzene	5	<
5-4	Vinyl Acetate	11	<	100-41-4	Ethylbenzene	5	<
7-4	Bromodichloromethane	5	<	100-42-5	Styrene	5	<
				1330-20-7	Xylene (total)	34	

he Lab ID for data on this page is A786433VA.
B - Compound was detected in the QC blank.
< - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.


RIC
02/07/92 13:01:00
SAMPLE: MBA-2A
CONDS.: I50C
RANGE: G 1,1420 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
109952.
RIC
72
245
326
373
481
581
674
783
851
932
1048
1143
1203
1274
1351
200
5:00
400
10:00
600
15:00
800
20:00
1000
25:00
1200
30:00
1400
35:00
SCAN
TIME

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

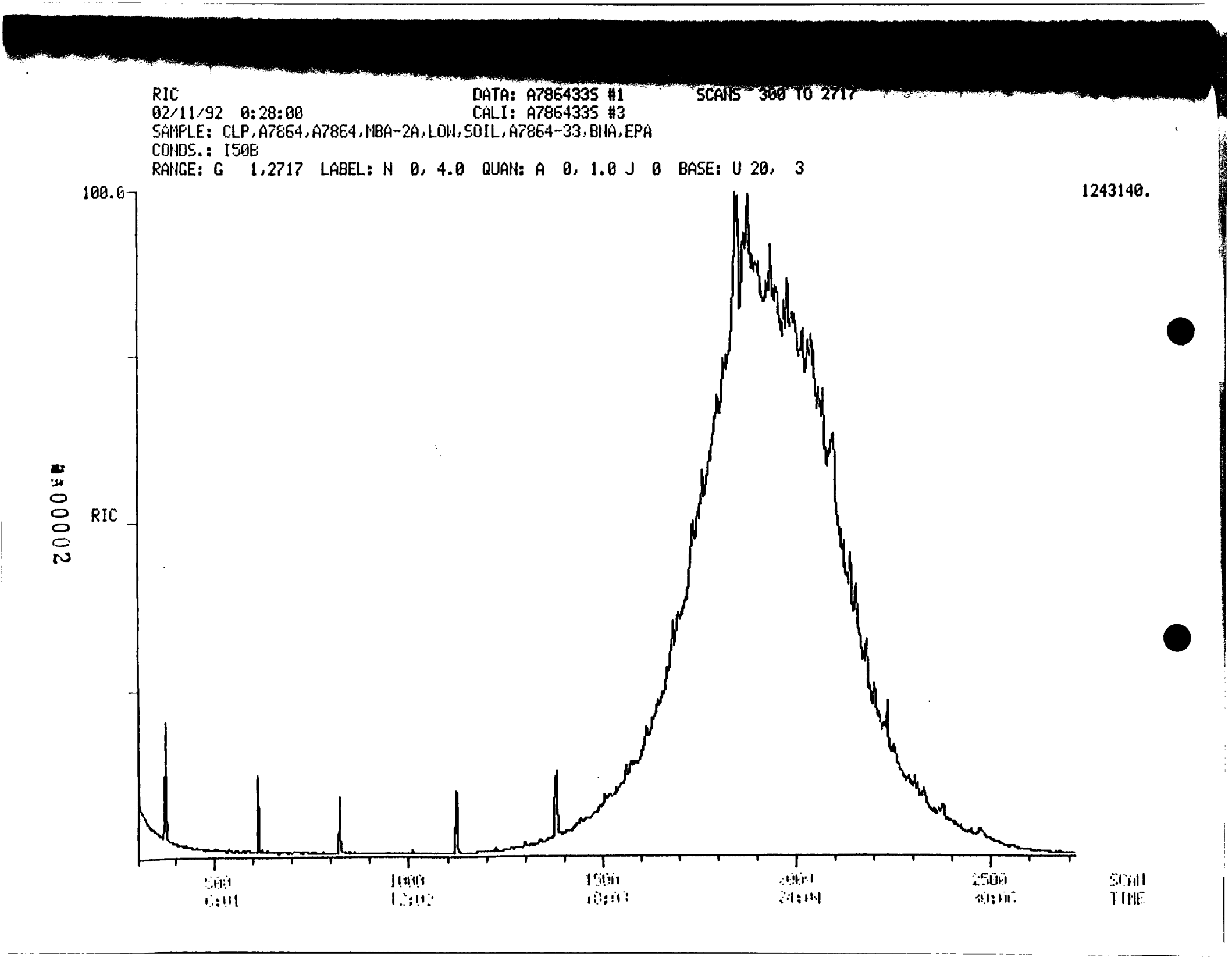
tory Name:	AnalytiKEM-Hou	Concentration:	LOW	Date Extracted:	02/10/92
ample ID:	A7864-33	Sample Matrix:	SOIL	Date Analyzed:	02/11/92
t Sample ID:	MBA-2A	Percent Moisture:	6.0	Dilution Factor:	20

SEMIVOLATILE COMPOUNDS

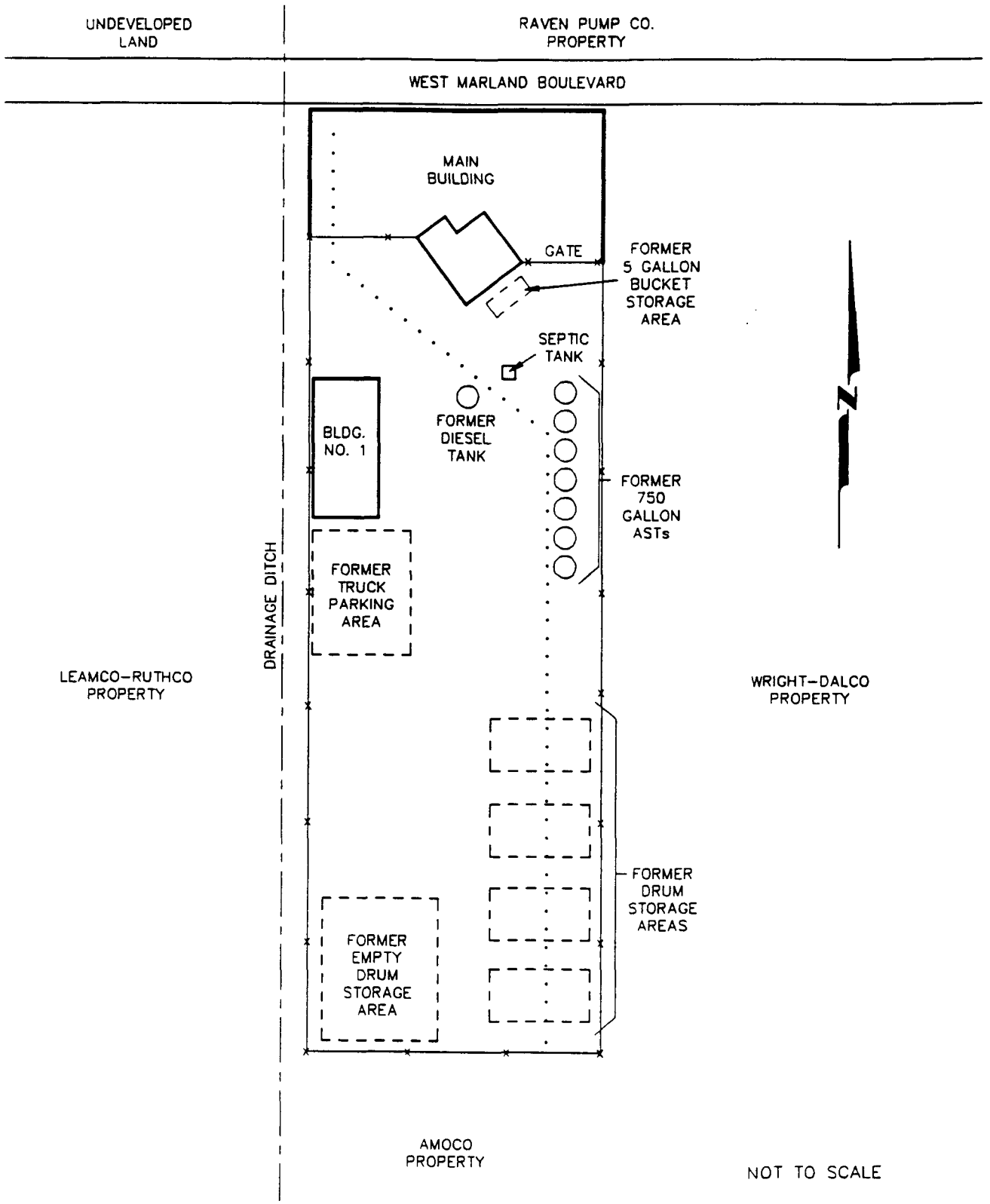
umber		ug/Kg		CAS Number		ug/Kg	
5-2	Phenol	7000	<	606-20-2	2,6-Dinitrotoluene	7000	<
3	Aniline	7000	<	99-09-2	3-Nitroaniline	34000	<
4-4	bis(2-Chloroethyl)Ether	7000	<	83-32-9	Acenaphthene	7000	<
8	2-Chlorophenol	7000	<	51-28-5	2,4-Dinitrophenol	34000	<
3-1	1,3-Dichlorobenzene	7000	<	100-02-7	4-Nitrophenol	34000	<
6-7	1,4-Dichlorobenzene	7000	<	132-64-9	Dibenzofuran	7000	<
1-6	Benzyl Alcohol	7000	<	121-14-2	2,4-Dinitrotoluene	7000	<
1	1,2-Dichlorobenzene	7000	<	84-66-2	Diethylphthalate	7000	<
7	2-Methylphenol	7000	<	7005-72-3	4-Chlorophenyl phenyl ether	7000	<
32-9	bis(2-Chloroisopropyl)Ether	7000	<	86-73-7	Fluorene	7000	<
4-5	4-Methylphenol	7000	<	100-01-6	4-Nitroaniline	34000	<
4-7	N-Nitroso-Di-n-Propylamine	7000	<	534-52-1	4,6-Dinitro-2-Methylphenol	34000	<
1	Hexachloroethane	7000	<	86-30-6	N-Nitrosodiphenylamine (1)	7000	<
3	Nitrobenzene	7000	<	101-55-3	4-Bromophenyl phenyl ether	7000	<
1	Isophorone	7000	<	118-74-1	Hexachlorobenzene	7000	<
5	2-Nitrophenol	7000	<	87-86-5	Pentachlorophenol	34000	<
7-9	2,4-Dimethylphenol	7000	<	85-01-8	Phenanthrene	7000	<
0	Benzoic Acid	34000	<	120-12-7	Anthracene	7000	<
1-1	bis(2-Chloroethoxy)Methane	7000	<	84-74-2	Di-n-Butylphthalate	7000	<
3-2	2,4-Dichlorophenol	7000	<	206-44-0	Fluoranthene	7000	<
2-1	1,2,4-Trichlorobenzene	7000	<	129-00-0	Pyrene	7000	<
0-3	Naphthalene	7000	<	85-68-7	Butylbenzylphthalate	7000	<
7-8	4-Chloroaniline	7000	<	91-94-1	3,3'-Dichlorobenzidine	14000	<
8-3	Hexachlorobutadiene	7000	<	56-55-3	Benzo(a)Anthracene	7000	<
0-7	4-Chloro-3-Methylphenol	7000	<	117-81-7	bis(2-Ethylhexyl)Phthalate	7000	<
7-6	2-Methylnaphthalene	7000	<	218-01-9	Chrysene	7000	<
7-4	Hexachlorocyclopentadiene	7000	<	117-84-0	Di-n-Octyl Phthalate	7000	<
6-2	2,4,6-Trichlorophenol	7000	<	205-99-2	Benzo(b)Fluoranthene	7000	<
5-4	2,4,5-Trichlorophenol	34000	<	207-08-9	Benzo(k)Fluoranthene	7000	<
8-7	2-Chloronaphthalene	7000	<	50-32-8	Benzo(a)Pyrene	7000	<
4-4	2-Nitroaniline	34000	<	193-39-5	Indeno(1,2,3-cd)Pyrene	7000	<
-11-3	Dimethyl Phthalate	7000	<	53-70-3	Dibenz(a,h)Anthracene	7000	<
-96-8	Acenaphthylene	7000	<	191-24-2	Benzo(g,h,i)Perylene	7000	<

The Lab ID for data on this page is A786433S.

< - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.


RIC
DATA: A7864335 #1
SCANS 300 TO 2717
02/11/92 0:28:00
CALI: A7864335 #3
SAMPLE: CLP,A7864,A7864,MBA-2A,LOW,SOIL,A7864-33,BNA,EPA
CONDS.: I50B
RANGE: G 1,2717 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
1243140.
RIC
2000000
SCAN
TIME

FIGURES AND TABLES
FORMER EXXON CHEMICAL FACILITY
WEST MARLAND STREET, HOBBS NEW MEXICO

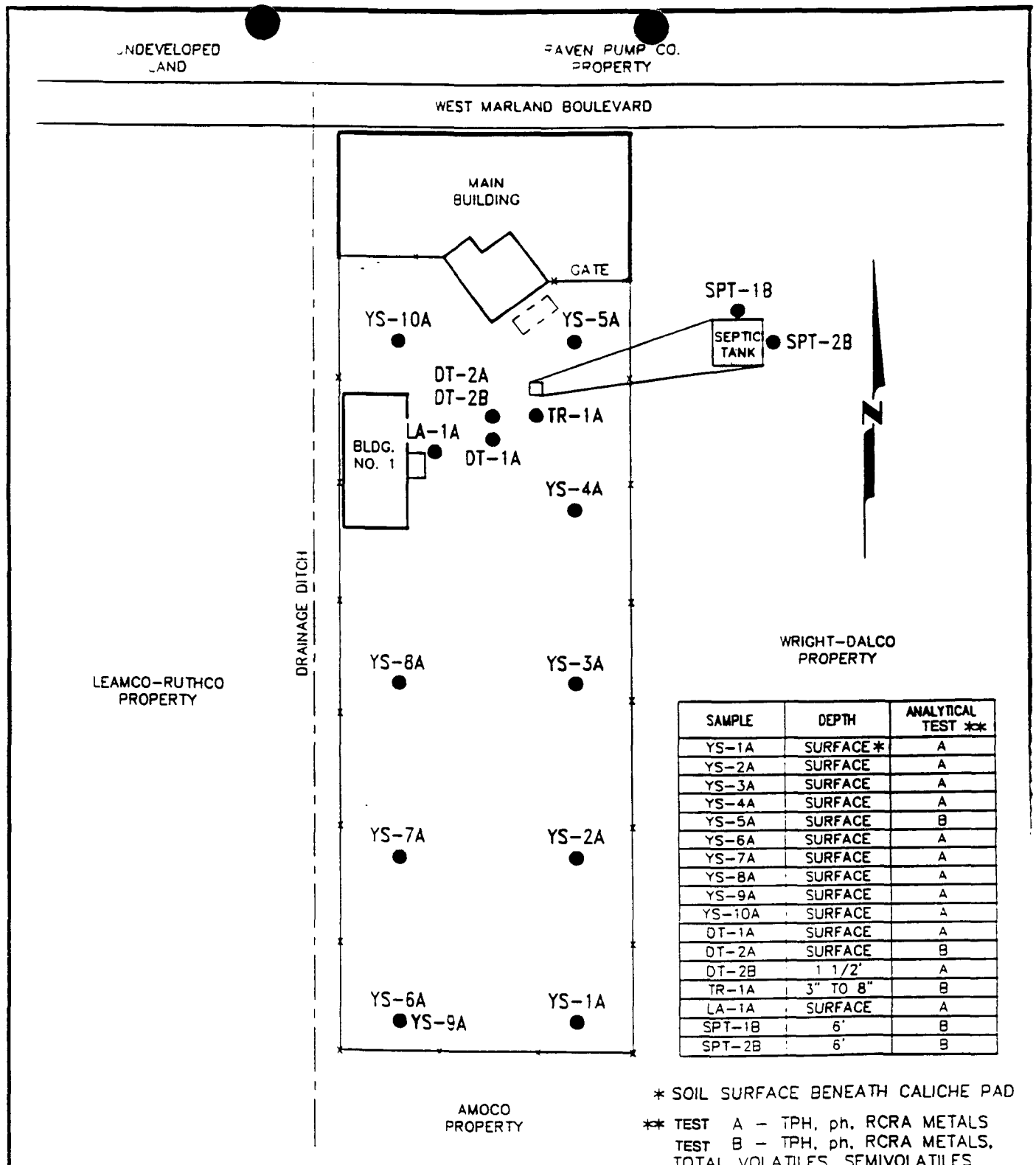


ENSR™
ENSR CONSULTING & ENGINEERING

FIGURE 2-2
SITE PLOT PLAN
CHEMICAL DISTRIBUTION COMPANY
HOBBS, NEW MEXICO

DRAWN: L.GAMBLE	DATE: 3-2-92	PROJECT NUMBER:
APPV'D:	REVISED:	1009-001-160

CE100907



SAMPLE	DEPTH	ANALYTICAL TEST **
YS-1A	SURFACE *	A
YS-2A	SURFACE	A
YS-3A	SURFACE	A
YS-4A	SURFACE	A
YS-5A	SURFACE	B
YS-6A	SURFACE	A
YS-7A	SURFACE	A
YS-8A	SURFACE	A
YS-9A	SURFACE	A
YS-10A	SURFACE	A
DT-1A	SURFACE	A
DT-2A	SURFACE	B
DT-2B	1 1/2'	A
TR-1A	3" TO 8"	B
LA-1A	SURFACE	A
SPT-1B	6'	B
SPT-2B	6'	B

* SOIL SURFACE BENEATH CALICHE PAD

** TEST A – TPH, ph, RCRA METALS
TEST B – TPH, ph, RCRA METALS, TOTAL VOLATILES, SEMIVOLATILES

NOT TO SCALE

LEGEND

EXISTING STRUCTURE

FENCE

SAMPLE LOCATION

ENSR™
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FIGURE 3-1
SOIL SAMPLE LOCATIONS
CHEMICAL DISTRIBUTION COMPANY
HOBBS, NEW MEXICO

DRAWN: L.GAMBLE	DATE: 3-2-92	PROJECT NUMBER:
APPVD:	REVISED:	1009-001-160

110908

B:\k\123\Marland 6/17/92

Table 6.1
Analytical Test Results
Site Inspection
Exxon Chemical Americas
Hobbs, NM
West Marland Site

Sample I.D.	Location	Depth	TPH 8015 (M) (mg/kg)	Total Metals (mg/kg) Ag	As	Ba	Cd	Cr	Hg	Pb	Se	pH	Detected Total Volatiles Code(ug/kg)	Detected Total Semivolatiles Code(ug/kg)
YS-1A	Yard Grid Sample	Surface	BDL	BDL	5.4	470	BDL	12	0.1	150	BDL	8.62		
YS-2A	Yard Grid Sample	Surface	BDL	BDL	2.8	250	BDL	3.6	BDL	12	BDL	7.94		
YS-3A	Yard Grid Sample	Surface	BDL	BDL	2.5	230	BDL	10	BDL	11	BDL	7.87		
YS-4A	Yard Grid Sample	Surface	1,710	BDL	3.1	220	BDL	6.8	BDL	18	BDL	8.06		
YS-5A	Yard Grid Sample	Surface	BDL	BDL	3.6	210	BDL	5.6	BDL	17	BDL	8.45	1(14)(B)	None Detected
YS-6A	Yard Grid Sample	Surface	BDL	BDL	5.6	540	BDL	16	0.2	170	BDL	8.05		
YS-7A	Yard Grid Sample	Surface	BDL	BDL	2.8	280	BDL	8.5	BDL	12	BDL	9.44		
YS-8A	Yard Grid Sample	Surface	BDL	BDL	2.6	120	BDL	14	BDL	14	BDL	8.22		
YS-9A	Duplicate of YS-6A	Surface	BDL	BDL	5.2	470	BDL	14	0.2	160	BDL	7.97		
YS-10A	Yard Grid Sample	Surface	BDL	BDL	3.6	300	BDL	4.6	BDL	49	BDL	8.12		
LA-1A	Loading Area	Surface	BDL	BDL	2.9	180	BDL	7.3	0.2	16	BDL	8.03		
DT-1A	Former Diesel Tank Area	Surface	100	BDL	3.5	250	BDL	2.8	BDL	6.8	BDL	8.51		
DT-2A	Former Diesel Tank Area	Surface	406	BDL	3.5	200	BDL	5.2	BDL	13	BDL	8.24	1(75), 2(730), 3(670), 4(720), 5(220), 6(2400)	None Detected
DT-2B	Former Diesel Tank Area	Surface	100	BDL	4.6	300	BDL	2.4	BDL	9.2	BDL	8.29		
TR-1A	Septic Tank Area (trench)	3'-8'	9,558	BDL	3.1	210	BDL	4.8	BDL	70	BDL	7.49	2(7900), 3(33,000), 4(13,000), 5(11,000), 6(370,000)	1(100,000)
SPT-1B	Septic Tank Area	6'	BDL	BDL	1.5	100	3.2	6.2	0.3	40	BDL	7.35	1(7)	
SPT-2B	Septic Tank Area	6'	BDL	BDL	1.6	140	BDL	11	0.1	14	BDL	7.37		
Trip Blank	QA/QC Sample												None Detected	
Equipment Blank	QA/QC Sample			BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL		7(12)	2(13)(B)

LEGEND

BDL = Below analytical detection limit

Blank cells indicate that the sample was not analyzed for that parameter.

COMPOUND CODE FOR VOLATILES

1) Acetone
2) 4-Methyl-2-Pentanone
3) 2-Hexanaone
4) Toluene
5) Ethylbenzene
6) Xylene (total)
7) Bromoform

COMPOUND CODE FOR SEMIVOLATILES

1) Napthalene
2) Di-n-Butylpthalate

Summary of Analytical Results
Former Exxon Chemical Company Facility
2607/2609 West Marland Facility
Hobbs, New Mexico
Date Sampled: 9-3-92

Analytical Parameters	Regulatory Threshold Limit	Sample ID: MR-1 Depth: 0'-3'	
TCLP Metals (mg/l)		**Level Detected**	**Detection Limit**
Arsenic	5.0	<0.2	0.2
Barium	100.0	1.2	0.5
Cadmium	1.0	<0.010	0.010
Chromium	5.0	<0.05	0.05
Lead	5.0	<0.02	0.02
Mercury	0.2	<0.001	0.001
Selenium	1.0	<0.2	0.2
Silver	5.0	<0.01	0.01
TCLP Volatiles (μg/l)			
Pyridine	5,000	<11	11
Vinyl Chloride	200	<10	10
1,1-Dichloroethene	700	<5	5
Chloroform	6,000	<5	5
1,2-Dichloroethane	500	<5	5
Methyl Ethyl Ketone	200,000	<10	10
Carbon Tetrachloride	500	<5	5
Trichloroethene	500	<5	5
Benzene	500	<5	5
Tetrachloroethene	700	<5	5
Chlorobenzene	100,000	<5	5
TCLP Semivolatiles (μg/l)		**Level Detected**	**Detection Limit**
1,4-Dichlorobenzene	7,500	<11	11
2-Methylphenol	200,000	<11	11
4-Methylphenol	200,000	<11	11
3-Methylphenol	200,000	<11	11

Summary of Analytical Results
Former Exxon Chemical Company Facility
2607/2609 West Marland Facility
Hobbs, New Mexico
Date Sampled: 9-3-92

Analytical Parameters	Regulatory Threshold Limit	Sample ID: MR-1 Depth: 0'-3'	
Hexachloroethane	3,000	<11	11
Nitrobenzene	2,000	<11	11
Hexachlorobuta-diene	500	<11	11
2,4,6-Trichlorophenol	2,000	<11	11
2,4,5-Trichlorophenol	400,000	<54	54
2,4-Dinitrotoluene	130	<11	11
Hexachlorobenzene	130	<11	11
Pentachlorophenol	100,000	<54	54
RCRA Characteristics			
pH	2<pH<12.5	8.06 units	0.01 units
Corrosivity	>6.35 MMPY	Unable to analyze due to matrix	Unable to analyze due to matrix
Ignitability	<140°F	Unable to analyze due to matrix	Unable to analyze due to matrix
Reactivity - HCN - H_2S	 250 mg/kg 500 mg/kg	 <0.40 mg/kg 241 mg/kg	 0.40 mg/kg 20 mg/kg

B - Below Method Detection Limit

LABORATORY REPORTS
FORMER EXXON CHEMICAL FACILITY
WEST MARLAND STREET, HOBBS, NEW MEXICO

1009-001-164
TR-1A

Express Laboratories

401 North 11th • La Porte, Texas 77571

(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: ENSR Sample ID: TR-1A Attn: C. OVERTON

Client: BROWN MARONEY (EXXON) Proj. No: 1009001164

Proj. Location: HOBBS - MARLAND Environ ID: 09809

Sample Matrix: SOIL Sample Depth: Sampled: 01/ 28 / 92

Received: 01/ 30 / 92 Reported: 02/ 05 / 92 Invoice No.: 2119

Test Method 8015(M)	Result PPM (mg/kg)	Blank PPM (mg/kg)	Detection Limit PPM (mg/kg)
Petroleum Extractables	9,558	< 25	25

Analyst: J.M. Date Extracted: 02/02/92 Date Analyzed: 02/03/92 @ 19:15

Standard : DIESEL

John E. Keller

John E. Keller, Ph.D.

1009-001-164
YS-4A

Express Laboratories

401 North 11th • La Porte, Texas 77571

(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: ENSR Sample ID: YS-4A Attn: C. OVERTON

Client: EXXON Proj. No: 1009001164

Proj. Location: HOBBS-MARLAND Environ ID: 09596

Sample Matrix: SOIL Sample Depth: Sampled: 01/ 21 / 92

Received: 01/ 24 / 92 Reported: 01/ 29 / 92 Invoice No.: 2098

Test Method 8015(M)	Result PPM (mg/kg)	Blank PPM (mg/kg)	Detection Limit PPM (mg/kg)
Petroleum Extractable	1,710	< 25	25

Analyst: J.M. Date Extracted: 01/28/92 Date Analyzed: 01/28/92 @ 23:32
Standard : DIESEL

John E. Keller

John E. Keller, Ph.D.

1009-001-164
DT-1A

Express Laboratories

401 North 11th • La Porte, Texas 77571

(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: ENSR Sample ID: DT-1A Attn: C. OVERTON

Client: EXXON Proj. No: 1009001164

Proj. Location: HOBBS-MARLAND Environ ID: 09603

Sample Matrix: SOIL Sample Depth: Sampled: 01/ 21 / 92

Received: 01/ 24 / 92 Reported: 01/ 29 / 92 Invoice No.: 2098

Test Method 8015(M)	Result PPM (mg/kg)	Blank PPM (mg/kg)	Detection Limit PPM (mg/kg)
Petroleum Extractable	100	< 25	25

Analyst: J.M. Date Extracted: 01/29/92 Date Analyzed: 01/29/92 @ 11:17

Standard : DIESEL

John E. Keller

John E. Keller, Ph.D.

1009-001-164
DT-2A

Express Laboratories

401 North 11th • La Porte, Texas 77571

(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: ENSR Sample ID: DT-2A Attn: C. OVERTON

Client: EXXON Proj. No: 1009001164

Proj. Location: HOBBS-MARLAND Environ ID: 09604

Sample Matrix: SOIL Sample Depth: Sampled: 01/ 21 / 92

Received: 01/ 24 / 92 Reported: 01/ 29 / 92 Invoice No.: 2098

Test Method 8015(M)	Result PPM (mg/kg)	Blank PPM (mg/kg)	Detection Limit PPM (mg/kg)
Petroleum Extractable	406	< 25	25

Analyst: J.M. Date Extracted: 01/29/92 Date Analyzed: 01/29/92 @ 10:53

Standard : DIESEL

John E. Keller

John E. Keller, Ph.D.

1009-001-164
DT-2B

Express Laboratories

401 North 11th • La Porte, Texas 77571

(713) 471-0951 • 1 (800) 880-0156 • FAX (713) 471-5821

Customer: ENSR Sample ID: DT-2B Attn: C. OVERTON

Client: EXXON Proj. No: 1009001164

Proj. Location: HOBBS-MARLAND Environ ID: 09605

Sample Matrix: SOIL Sample Depth: Sampled: 01/ 21 / 92

Received: 01/ 24 / 92 Reported: 01/ 29 / 92 Invoice No.: 2098

Test Method 8015(M)	Result PPM (mg/kg)	Blank PPM (mg/kg)	Detection Limit PPM (mg/kg)
Petroleum Extractable	100	< 25	25

Analyst: J.M. Date Extracted: 01/29/92 Date Analyzed: 01/29/92 @ 11:41

Standard : DIESEL

John E. Keller

John E. Keller, Ph.D.

AnalytiKEM—Houston

Analytical Report
02/13/92 09:12

Brown Maroney Hobbs-Marland	Field ID: TR-1A	Date Sampled: 01/28/92
Proj. No.: 1009-001-164	Lab ID: 1	Time Sampled: 900
Lab No.: A7861	Matrix: SOIL (GRAB)	Date Received: 01/30/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
Ag -S- -HOU SILVER ON SOLID EPA SW-846: 3050, 7760, AA	<1.1	MG/KG	1.1	02/05/92 915
As -S-GFA-HOU ARSENIC ON SOLID EPA SW-846: 7060, GRAPHITE FURNACE	3.1	MG/KG	0.3	02/05/92 645
BNA -S- -HOU SEMIVOLATILE ORGANICS/SOLID EPA SW-846: 3550,8270, SON.,GC/MS	ATTACHED *1	UG/KG		Ext.: 02/02/92 Anal.: 02/11/92
Ba -S-ICP-HOU BARIUM ON SOLID EPA SW-846: 3050,6010, ICP	210	MG/KG	2.2	02/03/92 858
Cd -S-ICP-HOU CADMIUM ON SOLID EPA SW-846: 3050,6010, ICP	<2.2	MG/KG	2.2	02/03/92 858
Cr -S-ICP-HOU CHROMIUM ON SOLID EPA SW-846: 3050,6010, ICP	4.8	MG/KG	2.2	02/03/92 858
Hg -S- -HOU MERCURY ON SOLID EPA SW-846: 7471, COLD VAPOR	<0.05	MG/KG	0.05	02/03/92 825
Pb -S-ICP-HOU LEAD ON SOLID EPA SW-846: 3050,6010, ICP	70	MG/KG	5.4	02/03/92 858
Se -S-GFA-HOU SELENIUM ON SOLID EPA SW-846: 7740, GRAPHITE FURNACE	<0.3	MG/KG	0.3	02/04/92 650

*1 SEE ANALYTIKEM ID #A7861-1

***** CONTINUED *****

VOLATILE ORGANICS ANALYSIS DATA SHEET

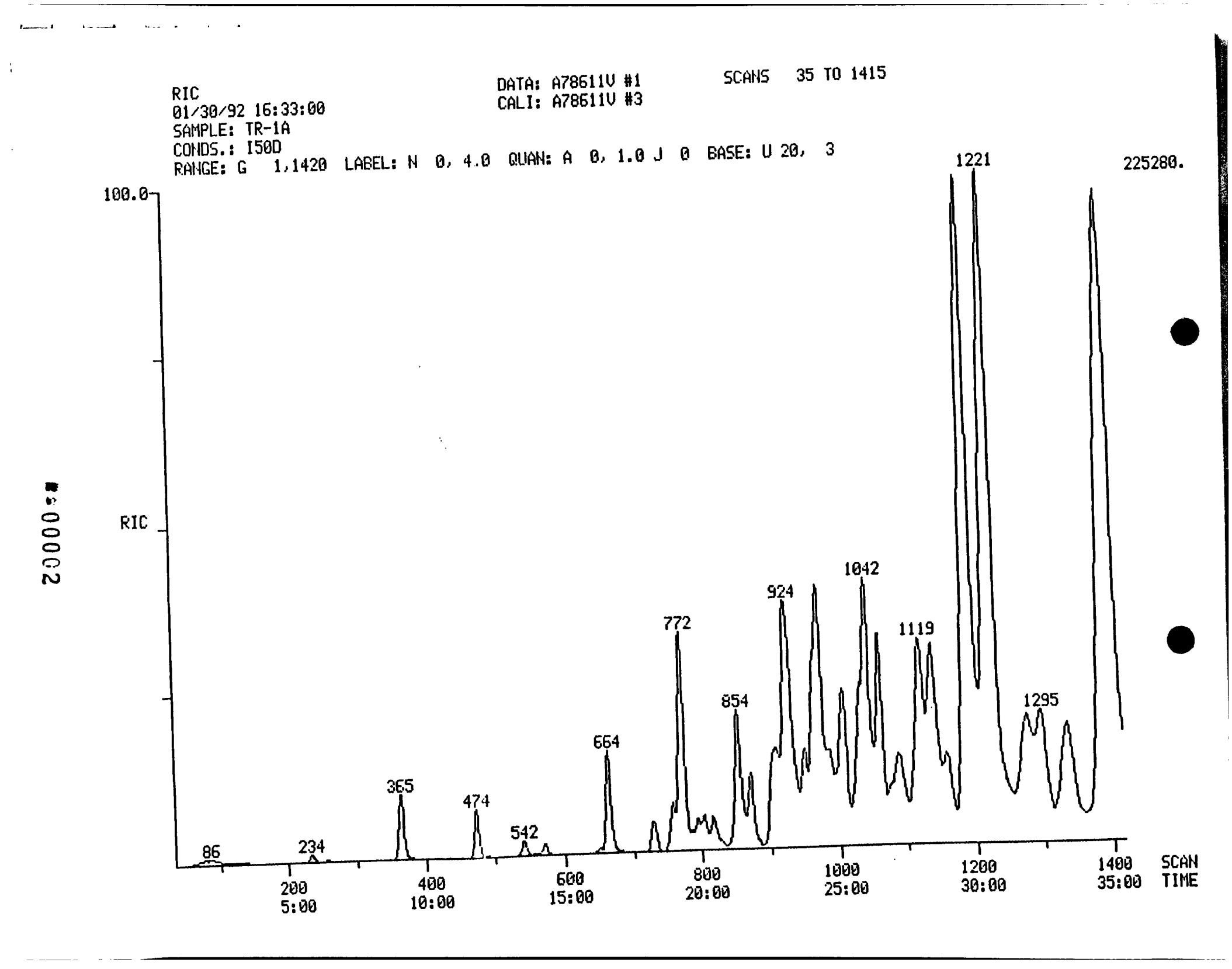
Laboratory Name:	AnalytiKEM-Hou	Concentration:	MED	Date Extracted:	01/30/92
Lab Sample ID:	A7861-1	Sample Matrix:	SOIL	Date Analyzed:	01/30/92
Client Sample ID:	TR-1A	Percent Moisture:	10.4	Dilution Factor:	4.0

VOLATILE COMPOUNDS

CAS Number		ug/Kg		CAS Number		ug/Kg	
74-87-3	Chloromethane	5600	<	78-87-5	1,2-Dichloropropane	2800	<
74-83-9	Bromomethane	5600	<	10061-01-5	cis-1,3-Dichloropropene	2800	<
75-01-4	Vinyl Chloride	5600	<	79-01-6	Trichloroethene	2800	<
75-00-3	Chloroethane	5600	<	124-48-1	Dibromochloromethane	2800	<
75-09-2	Methylene Chloride	2800	<	79-00-5	1,1,2-Trichloroethane	2800	<
67-64-1	Acetone	5600	<	71-43-2	Benzene	2800	<
75-15-0	Carbon Disulfide	2800	<	10061-02-6	Trans-1,3-Dichloropropene	2800	<
75-35-4	1,1-Dichloroethene	2800	<	110-75-8	2-Chloroethylvinyl ether	5600	<
75-34-3	1,1-Dichloroethane	2800	<	75-25-2	Bromoform	2800	<
156-60-5	trans-1,2-Dichloroethene	2800	<	108-10-1	4-Methyl-2-Pentanone	7900	
67-66-3	Chloroform	2800	<	591-78-6	2-Hexanone	33000	
107-06-2	1,2-Dichloroethane	2800	<	127-18-4	Tetrachloroethene	2800	<
78-93-3	2-Butanone	5600	<	79-34-5	1,1,2,2-Tetrachloroethane	2800	<
71-55-6	1,1,1-Trichloroethane	2800	<	108-88-3	Toluene	13000	
56-23-5	Carbon Tetrachloride	2800	<	108-90-7	Chlorobenzene	2800	<
108-05-4	Vinyl Acetate	5600	<	100-41-4	Ethylbenzene	11000	
75-27-4	Bromodichloromethane	2800	<	100-42-5	Styrene	2800	<
				1330-20-7	Xylene (total)	370000	

The Lab ID for data on this page is A78611V.

< - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.


RIC
01/30/92 16:33:00
SAMPLE: TR-1A
CONDS.: I50D
RANGE: G 1,1420 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
DATA: A78611V #1
CALI: A78611V #3
SCANS 35 TO 1415
225280.
100.0
RIC
20000
86
234
365
474
542
664
772
854
924
1042
1119
1221
1295
200
5:00
400
10:00
600
15:00
800
20:00
1000
25:00
1200
30:00
1400
35:00
SCAN
TIME

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

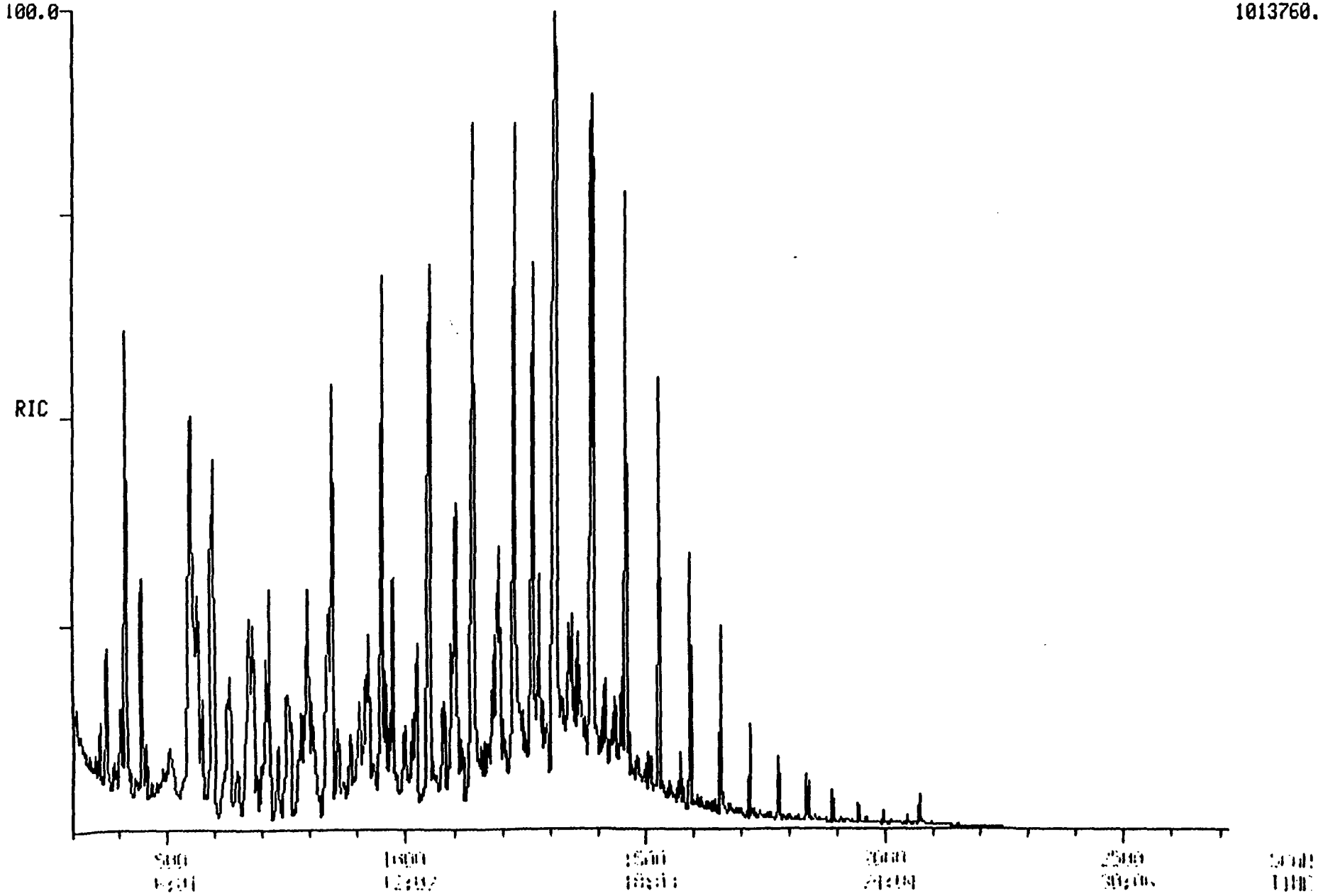
Laboratory Name: AnalytiKEM-Hou | Concentration: LOW | Date Extracted: 02/02/92
Lab Sample ID: A7861-1 | Sample Matrix: SOIL | Date Analyzed: 02/11/92
Client Sample ID: TR-1A | Percent Moisture: 10.0 | Dilution Factor: 20

SEMIVOLATILE COMPOUNDS

CAS Number		ug/Kg		CAS Number		ug/Kg	
108-95-2	Phenol	7300	<	606-20-2	2,6-Dinitrotoluene	7300	<
62-53-3	Aniline	7300	<	99-09-2	3-Nitroaniline	35000	<
111-44-4	bis(2-Chloroethyl)Ether	7300	<	83-32-9	Acenaphthene	7300	<
95-57-8	2-Chlorophenol	7300	<	51-28-5	2,4-Dinitrophenol	35000	<
541-73-1	1,3-Dichlorobenzene	7300	<	100-02-7	4-Nitrophenol	35000	<
106-46-7	1,4-Dichlorobenzene	7300	<	132-64-9	Dibenzofuran	4400	¼
100-51-6	Benzyl Alcohol	7300	<	121-14-2	2,4-Dinitrotoluene	7300	<
95-50-1	1,2-Dichlorobenzene	7300	<	84-66-2	Diethylphthalate	7300	<
95-48-7	2-Methylphenol	7300	<	7005-72-3	4-Chlorophenyl phenyl ether	7300	<
39638-32-9	bis(2-Chloroisopropyl)Ether	7300	<	86-73-7	Fluorene	7300	<
106-44-5	4-Methylphenol	7300	<	100-01-6	4-Nitroaniline	35000	<
621-64-7	N-Nitroso-Di-n-Propylamine	7300	<	534-52-1	4,6-Dinitro-2-Methylphenol	35000	<
67-72-1	Hexachloroethane	7300	<	86-30-6	N-Nitrosodiphenylamine (1)	7300	<
98-95-3	Nitrobenzene	7300	<	101-55-3	4-Bromophenyl phenyl ether	7300	<
78-59-1	Isophorone	7300	<	118-74-1	Hexachlorobenzene	7300	<
88-75-5	2-Nitrophenol	7300	<	87-86-5	Pentachlorophenol	35000	<
105-67-9	2,4-Dimethylphenol	7300	<	85-01-8	Phenanthrene	7300	<
65-85-0	Benzoic Acid	35000	<	120-12-7	Anthracene	7300	<
111-91-1	bis(2-Chloroethoxy)Methane	7300	<	84-74-2	Di-n-Butylphthalate	7300	<
120-83-2	2,4-Dichlorophenol	7300	<	206-44-0	Fluoranthene	7300	<
120-82-1	1,2,4-Trichlorobenzene	7300	<	129-00-0	Pyrene	7300	<
91-20-3	Naphthalene	100000		85-68-7	Butylbenzylphthalate	7300	<
106-47-8	4-Chloroaniline	7300	<	91-94-1	3,3'-Dichlorobenzidine	15000	<
87-68-3	Hexachlorobutadiene	7300	<	56-55-3	Benzo(a)Anthracene	7300	<
59-50-7	4-Chloro-3-Methylphenol	7300	<	117-81-7	bis(2-Ethylhexyl)Phthalate	7300	<
91-57-6	2-Methylnaphthalene	7300	<	218-01-9	Chrysene	7300	<
77-47-4	Hexachlorocyclopentadiene	7300	<	117-84-0	Di-n-Octyl Phthalate	7300	<
88-06-2	2,4,6-Trichlorophenol	7300	<	205-99-2	Benzo(b)Fluoranthene	7300	<
95-95-4	2,4,5-Trichlorophenol	35000	<	207-08-9	Benzo(k)Fluoranthene	7300	<
91-58-7	2-Chloronaphthalene	7300	<	50-32-8	Benzo(a)Pyrene	7300	<
88-74-4	2-Nitroaniline	35000	<	193-39-5	Indeno(1,2,3-cd)Pyrene	7300	<
131-11-3	Dimethyl Phthalate	7300	<	53-70-3	Dibenz(a,h)Anthracene	7300	<
208-96-8	Acenaphthylene	7300	<	191-24-2	Benzo(g,h,i)Perylene	7300	<

The Lab ID for data on this page is A78611SC.
¼ - Reported value is less than the detection limit.
< - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

RIC DATA: A7861ISC #1 SCANS 300 TO 2717
02/11/92 1:47:00 CALI: A7861ISC #3
SAMPLE: CLP,A7861,A7861,TR-1A,LOW,SOIL,A7861-1,BNA,EPA
CONDS.: I50B
RANGE: G 1,2717 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



20000

AnalytiKEM—Houston

Analytical Report
02/10/92 12:19

Brown Maroney Hobbs-Marland	Field ID: YS-4A	Date Sampled: 01/21/92
Proj. No.: 1009-001-164	Lab ID: 4	Time Sampled: 1115
Lab No.: A7846	Matrix: SOIL (GRAB)	Date Received:01/24/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
Ag -S- -HOU SILVER ON SOLID EPA SW-846: 3050, 7760, AA	<1.1	MG/KG	1.1	01/30/92 1630
As -S-GFA-HOU ARSENIC ON SOLID EPA SW-846: 7060, GRAPHITE FURNACE	3.1	MG/KG	0.3	01/30/92 650
Ba -S-ICP-HOU BARIUM ON SOLID EPA SW-846: 3050,6010, ICP	220	MG/KG	2.2	01/30/92 752
Cd -S-ICP-HOU CADMIUM ON SOLID EPA SW-846: 3050,6010, ICP	<2.2	MG/KG	2.2	01/30/92 752
Cr -S-ICP-HOU CHROMIUM ON SOLID EPA SW-846: 3050,6010, ICP	6.8	MG/KG	2.2	01/30/92 752
Hg -S- -HOU MERCURY ON SOLID EPA SW-846: 7471, COLD VAPOR	<0.06	MG/KG	0.06	02/03/92 825
Pb -S-ICP-HOU LEAD ON SOLID EPA SW-846: 3050,6010, ICP	18	MG/KG	5.6	01/30/92 752
Se -S-GFA-HOU SELENIUM ON SOLID EPA SW-846: 7740, GRAPHITE FURNACE	<0.3	MG/KG	0.3	01/30/92 650
pH -S- -HOU pH ON SOLID EPA SW-846: 9045	8.06	UNITS	0.01	01/28/92 800

AnalytiKEM—Houston

Analytical Report
02/10/92 12:21

Brown Maroney Hobbs-Marland	Field ID: DT-1A	Date Sampled: 01/22/92
Proj. No.: 1009-001-164	Lab ID: 11	Time Sampled: 900
Lab No.: A7846	Matrix: SOIL (GRAB)	Date Received:01/24/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
Ag -S- -HOU SILVER ON SOLID EPA SW-846: 3050, 7760, AA	<1.1	MG/KG	1.1	01/30/92 1630
As -S-GFA-HOU ARSENIC ON SOLID EPA SW-846: 7060, GRAPHITE FURNACE	3.5	MG/KG	0.3	01/30/92 650
Ba -S-ICP-HOU BARIUM ON SOLID EPA SW-846: 3050,6010, ICP	250	MG/KG	2.2	01/30/92 752
Cd -S-ICP-HOU CADMIUM ON SOLID EPA SW-846: 3050,6010, ICP	<2.2	MG/KG	2.2	01/30/92 752
Cr -S-ICP-HOU CHROMIUM ON SOLID EPA SW-846: 3050,6010, ICP	2.8	MG/KG	2.2	01/30/92 752
Hg -S- -HOU MERCURY ON SOLID EPA SW-846: 7471, COLD VAPOR	<0.05	MG/KG	0.05	02/03/92 825
Pb -S-ICP-HOU LEAD ON SOLID EPA SW-846: 3050,6010, ICP	6.8	MG/KG	5.4	01/30/92 752
Se -S-GFA-HOU SELENIUM ON SOLID EPA SW-846: 7740, GRAPHITE FURNACE	<0.3	MG/KG	0.3	01/30/92 650
pH -S- -HOU pH ON SOLID EPA SW-846: 9045	8.51	UNITS	0.01	01/28/92 800

AnalytiKEM—Houston

Analytical Report
02/10/92 12:21

Brown Maroney Hobbs-Marland	Field ID: DT-2A	Date Sampled: 01/22/92
Proj. No.: 1009-001-164	Lab ID: 12	Time Sampled: 1000
Lab No.: A7846	Matrix: SOIL (GRAB)	Date Received:01/24/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
Ag -S- -HOU SILVER ON SOLID EPA SW-846: 3050, 7760, AA	<1.1	MG/KG	1.1	01/30/92 1630
As -S-GFA-HOU ARSENIC ON SOLID EPA SW-846: 7060, GRAPHITE FURNACE	3.5	MG/KG	0.3	01/30/92 650
BNA -S- -HOU SEMIVOLATILE ORGANICS/SOLID EPA SW-846: 3550,8270, SON.,GC/MS	ATTACHED *1	UG/KG		Ext.: 01/31/92 Anal.:02/04/92
Ba -S-ICP-HOU BARIUM ON SOLID EPA SW-846: 3050,6010, ICP	200	MG/KG	2.2	01/30/92 752
Cd -S-ICP-HOU CADMIUM ON SOLID EPA SW-846: 3050,6010, ICP	<2.2	MG/KG	2.2	01/30/92 752
Cr -S-ICP-HOU CHROMIUM ON SOLID EPA SW-846: 3050,6010, ICP	5.2	MG/KG	2.2	01/30/92 752
Hg -S- -HOU MERCURY ON SOLID EPA SW-846: 7471, COLD VAPOR	<0.05	MG/KG	0.05	02/03/92 825
Pb -S-ICP-HOU LEAD ON SOLID EPA SW-846: 3050,6010, ICP	13	MG/KG	5.4	01/30/92 752
Se -S-GFA-HOU SELENIUM ON SOLID EPA SW-846: 7740, GRAPHITE FURNACE	<0.3	MG/KG	0.3	01/30/92 650

*1 SEE ANALYTIKEM ID #A7846-12

***** CONTINUED *****

AnalytiKEM—Houston

Analytical Report
02/10/92 12:21

Brown Maroney Hobbs-Marland	Field ID: DT-2A	Date Sampled: 01/22/92
Proj. No.: 1009-001-164	Lab ID: 12	Time Sampled: 1000
Lab No.: A7846	Matrix: SOIL (GRAB)	Date Received: 01/24/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
VOA -S- -HOU VOLATILE ORGANICS ON SOLID EPA SW-846: 8240, GC/MS	ATTACHED *1	UG/KG		Ext.: 02/04/92 Anal.: 02/04/92
pH -S- -HOU pH ON SOLID EPA SW-846: 9045	8.24	UNITS	0.01	01/28/92 800

*1 SEE ANALYTIKEM ID #A7846-12

AnalytiKEM—Houston

Analytical Report
02/10/92 12:21

Brown Maroney Hobbs-Marland	Field ID: DT-2B	Date Sampled: 01/22/92
Proj. No.: 1009-001-164	Lab ID: 13	Time Sampled: 1145
Lab No.: A7846	Matrix: SOIL (GRAB)	Date Received:01/24/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
Ag -S- -HOU SILVER ON SOLID EPA SW-846: 3050, 7760, AA	<1.1	MG/KG	1.1	01/30/92 1630
As -S-GFA-HOU ARSENIC ON SOLID EPA SW-846: 7060, GRAPHITE FURNACE	4.6	MG/KG	0.3	01/30/92 650
Ba -S-ICP-HOU BARIUM ON SOLID EPA SW-846: 3050,6010, ICP	300	MG/KG	2.2	01/30/92 752
Cd -S-ICP-HOU CADMIUM ON SOLID EPA SW-846: 3050,6010, ICP	<2.2	MG/KG	2.2	01/30/92 752
Cr -S-ICP-HOU CHROMIUM ON SOLID EPA SW-846: 3050,6010, ICP	2.4	MG/KG	2.2	01/30/92 752
Hg -S- -HOU MERCURY ON SOLID EPA SW-846: 7471, COLD VAPOR	<0.05	MG/KG	0.05	02/03/92 825
Pb -S-ICP-HOU LEAD ON SOLID EPA SW-846: 3050,6010, ICP	9.2	MG/KG	5.4	01/30/92 752
Se -S-GFA-HOU SELENIUM ON SOLID EPA SW-846: 7740, GRAPHITE FURNACE	<0.3	MG/KG	0.3	01/30/92 650
pH -S- -HOU pH ON SOLID EPA SW-846: 9045	8.29	UNITS	0.01	01/28/92 800

VOLATILE ORGANICS ANALYSIS DATA SHEET

Laboratory Name: AnalytiKEM-Hou
Lab Sample ID: A7846-12
Client Sample ID: DT-2A

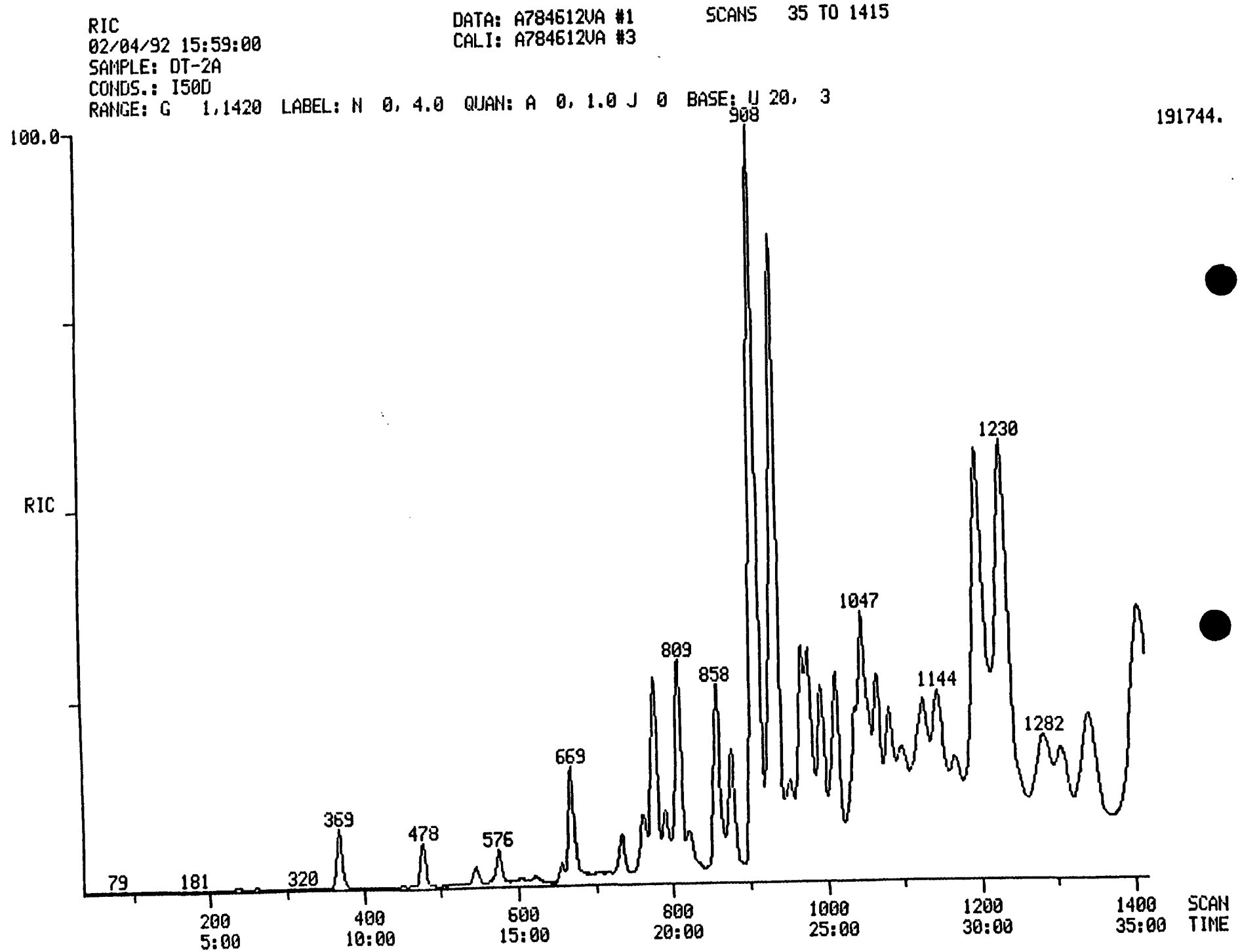
Concentration: LOW
Sample Matrix: SOIL
Percent Moisture: 3.0

Date Extracted: 02/04/92
Date Analyzed: 02/04/92
Dilution Factor: 5.0

VOLATILE COMPOUNDS

CAS Number		ug/Kg		CAS Number		ug/Kg	
74-87-3	Chloromethane	52	<	78-87-5	1,2-Dichloropropane	26	<
74-83-9	Bromomethane	52	<	10061-01-5	cis-1,3-Dichloropropene	26	<
75-01-4	Vinyl Chloride	52	<	79-01-6	Trichloroethene	26	<
75-00-3	Chloroethane	52	<	124-48-1	Dibromochloromethane	26	<
75-09-2	Methylene Chloride	26	<	79-00-5	1,1,2-Trichloroethane	26	<
67-64-1	Acetone	75		71-43-2	Benzene	26	<
75-15-0	Carbon Disulfide	26	<	10061-02-6	Trans-1,3-Dichloropropene	26	<
75-35-4	1,1-Dichloroethene	26	<	110-75-8	2-Chloroethylvinyl ether	52	<
75-34-3	1,1-Dichloroethane	26	<	75-25-2	Bromoform	26	<
156-60-5	trans-1,2-Dichloroethene	26	<	108-10-1	4-Methyl-2-Pentanone	730	
67-66-3	Chloroform	26	<	591-78-6	2-Hexanone	670	
107-06-2	1,2-Dichloroethane	26	<	127-18-4	Tetrachloroethene	26	<
78-93-3	2-Butanone	52	<	79-34-5	1,1,2,2-Tetrachloroethane	26	<
71-55-6	1,1,1-Trichloroethane	26	<	108-88-3	Toluene	720	
56-23-5	Carbon Tetrachloride	26	<	108-90-7	Chlorobenzene	26	<
108-05-4	Vinyl Acetate	52	<	100-41-4	Ethylbenzene	220	
75-27-4	Bromodichloromethane	26	<	100-42-5	Styrene	26	<
				1330-20-7	Xylene (total)	2400	

The Lab ID for data on this page is A784612VA.
< - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.


RIC
02/04/92 15:59:00
SAMPLE: DT-2A
CONDS.: I50D
DATA: A784612VA #1
CALI: A784612VA #3
SCANS 35 TO 1415
RANGE: G 1,1420 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
191744.
100.0
RIC
908
1230
1047
809
858
1144
1282
669
369
478
576
79
181
320
200
5:00
400
10:00
600
15:00
800
20:00
1000
25:00
1200
30:00
1400
35:00
SCAN
TIME

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Laboratory Name: AnalytiKEM-Hou
Lab Sample ID: A7846-12
Client Sample ID: DT-2A

Concentration: LOW
Sample Matrix: SOIL
Percent Moisture: 5.0

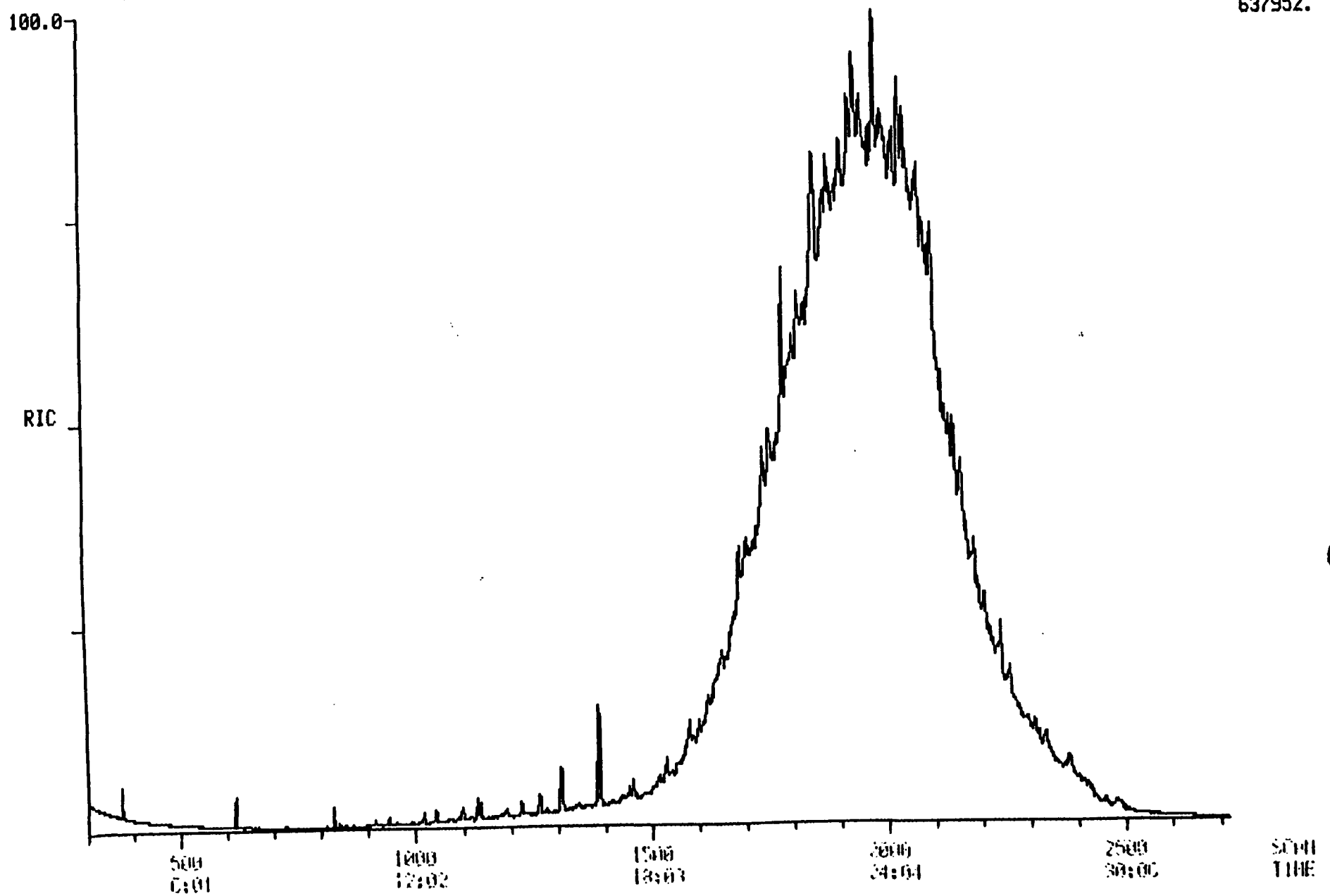
Date Extracted: 01/31/92
Date Analyzed: 02/04/92
Dilution Factor: 25

SEMIVOLATILE COMPOUNDS

CAS Number		ug/Kg		CAS Number		ug/Kg	
108-95-2	Phenol	8600	<	606-20-2	2,6-Dinitrotoluene	8600	<
62-53-3	Aniline	8600	<	99-09-2	3-Nitroaniline	42000	<
111-44-4	bis(2-Chloroethyl)Ether	8600	<	83-32-9	Acenaphthene	8600	<
95-57-8	2-Chlorophenol	8600	<	51-28-5	2,4-Dinitrophenol	42000	<
541-73-1	1,3-Dichlorobenzene	8600	<	100-02-7	4-Nitrophenol	42000	<
106-46-7	1,4-Dichlorobenzene	8600	<	132-64-9	Dibenzofuran	8600	<
100-51-6	Benzyl Alcohol	8600	<	121-14-2	2,4-Dinitrotoluene	8600	<
95-50-1	1,2-Dichlorobenzene	8600	<	84-66-2	Diethylphthalate	8600	<
95-48-7	2-Methylphenol	8600	<	7005-72-3	4-Chlorophenyl phenyl ether	8600	<
39638-32-9	bis(2-Chloroisopropyl)Ether	8600	<	86-73-7	Fluorene	8600	<
106-44-5	4-Methylphenol	8600	<	100-01-6	4-Nitroaniline	42000	<
621-64-7	N-Nitroso-Di-n-Propylamine	8600	<	534-52-1	4,6-Dinitro-2-Methylphenol	42000	<
67-72-1	Hexachloroethane	8600	<	86-30-6	N-Nitrosodiphenylamine (1)	8600	<
98-95-3	Nitrobenzene	8600	<	101-55-3	4-Bromophenyl phenyl ether	8600	<
78-59-1	Isophorone	8600	<	118-74-1	Hexachlorobenzene	8600	<
88-75-5	2-Nitrophenol	8600	<	87-86-5	Pentachlorophenol	42000	<
105-67-9	2,4-Dimethylphenol	8600	<	85-01-8	Phenanthrene	8600	<
65-85-0	Benzoic Acid	42000	<	120-12-7	Anthracene	8600	<
111-91-1	bis(2-Chloroethoxy)Methane	8600	<	84-74-2	Di-n-Butylphthalate	8600	<
120-83-2	2,4-Dichlorophenol	8600	<	206-44-0	Fluoranthene	8600	<
120-82-1	1,2,4-Trichlorobenzene	8600	<	129-00-0	Pyrene	8600	<
91-20-3	Naphthalene	8600	<	85-68-7	Butylbenzylphthalate	8600	<
106-47-8	4-Chloroaniline	8600	<	91-94-1	3,3'-Dichlorobenzidine	17000	<
87-68-3	Hexachlorobutadiene	8600	<	56-55-3	Benzo(a)Anthracene	8600	<
59-50-7	4-Chloro-3-Methylphenol	8600	<	117-81-7	bis(2-Ethylhexyl)Phthalate	8600	<
91-57-6	2-Methylnaphthalene	8600	<	218-01-9	Chrysene	8600	<
77-47-4	Hexachlorocyclopentadiene	8600	<	117-84-0	Di-n-Octyl Phthalate	8600	<
88-06-2	2,4,6-Trichlorophenol	8600	<	205-99-2	Benzo(b)Fluoranthene	8600	<
95-95-4	2,4,5-Trichlorophenol	42000	<	207-08-9	Benzo(k)Fluoranthene	8600	<
91-58-7	2-Chloronaphthalene	8600	<	50-32-8	Benzo(a)Pyrene	8600	<
88-74-4	2-Nitroaniline	42000	<	193-39-5	Indeno(1,2,3-cd)Pyrene	8600	<
131-11-3	Dimethyl Phthalate	8600	<	53-70-3	Dibenz(a,h)Anthracene	8600	<
208-96-8	Acenaphthylene	8600	<	191-24-2	Benzo(g,h,i)Perylene	8600	<

The Lab ID for data on this page is A784612SA.
< - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.

RIC DATA: A784612SA #1 SCANS 300 TO 2717
02/04/92 20:07:00 CALI: A784612SA #3
SAMPLE: CLP,A7846,A7845,DT-2A,LOW,SOIL,A7846-12,BNA,EPA
CONDS.: I50B
RANGE: G 1,2717 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3



23000C2

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

March 29, 1993

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-329

Mr. J.P. Reed
Env. Tech. Services Section-CN-461
Baytown Chemical Plant
Exxon Chemical
Baytown, Texas 77522

RE: REMOVAL ACTION WORKPLAN
EXXON DAL PASO AND WEST MARLAND SERVICE FACILITIES
HOBBS, NEW MEXICO

Dear Mr. Reed:

The New Mexico Oil Conservation Division (OCD) is in the process of reviewing Exxon's February 1993 "REMOVAL ACTION WORKPLAN FOR FACILITY OWNED BY EXXON CHEMICAL COMPANY IN HOBBS, NEW MEXICO (1715 DAL PASO STREET) and Exxon's February 1993 "REMOVAL ACTION WORKPLAN FOR FACILITY FORMERLY LEASED BY EXXON CHEMICAL COMPANY IN HOBBS, NEW MEXICO (2607/2609 WEST MARLAND BOULEVARD). These documents were submitted to OCD on Exxon's behalf by Exxon's consultant ENSR Consulting and Engineering.

The OCD needs to receive the following information in order to complete a review of the proposed removal actions:

1. The hazardous waste characteristics for contaminated soils from both facilities, with the exception of soils around the septic tank at the Dal Paso facility, were composites of different source areas. The OCD requires that composite samples for determining hazardous waste characteristics be taken of representative contaminated soils from each individual source area. Please sample representative contaminated soils from each source area, analyze the soils for hazardous waste characteristics and provide the results to OCD.

2. The total lead concentrations in some of the contaminated soils samples were relatively high. However, the TCLP lead analyses for these areas show concentrations at the detection limit for the analysis. Please explain these discrepancies in the analytic results.

Receipt of this information will allow OCD to complete a review of these workplans. If you have any questions, please contact me at (505) 827-5885.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: Jerry Sexton, OCD Hobbs District Supervisor
Jay Swindle, ENSR

EXXON CHEMICAL AMERICAS

OIL CONSERVATION DIVISION
RECEIVED
'93 MAR 19 AM 9 00

EXXON CHEMICAL

Baytown Chemical Plant
Raymond C. Floyd
MANAGER

March 15, 1993

Change of Mailing Address and Phones

Mr. Roger C. Anderson
Bureau Chief, Environmental Bureau
Oil Conservation Division
Land Office Building, State of New Mexico
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Anderson:

My role at Exxon Chemical has changed recently. I am now associated with the Environmental Affairs Department at Exxon Chemical's Baytown, Texas facility. I am still working on the various site closures around the country associated with Exxon's acquisition of NL Treating Chemicals in 1987. I ask that you direct your correspondence to Exxon Chemical regarding the clean up activities at the two Hobbs, New Mexico sites to me at the following address:

J. P. Reed
Env. Tech. Services Section - CN-461
Baytown Chemical Plant
Exxon Chemical
P.O. Box 4004
Baytown, Texas 77522

Phone: (713) 425 1237
FAX: (713) 425 5788
Beeper: (713) 841 0386

Beeper Instructions:
1. Dial number and listen for 3 beeps.
2. Punch in your phone number followed by # sign.
3. Listen for 5 beeps.
4. Hang up.

Thank you for bearing with me as I make this transition to Baytown.

Very truly yours,

Paul Reed

JPR705

cc: Ms. Jo-Christy Brown - BMOH
Mr. David Sigman - ECA Legal
Mr. Jay Swindle - ENSR C&E

ENSR

ENSR Consulting
and Engineering
3000 Richmond Avenue
Houston, Texas 77098
(713) 520-9900
(713) 520-6802 (FAX)

February 4, 1993

RECEIVED
FEB 16 1993
OIL CONSERVATION DIV.
SANTA FE

Mr. Roger C. Anderson
Bureau Chief
Environmental Bureau
Oil Conservation Division
Land Office Building, State of New Mexico
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Re: Waste Classification of Contaminated Soils from the former Exxon Chemical Company Facility at 2607/2609 West Marland Boulevard and Exxon Chemical Company Facility at 1715 Dal Paso, Hobbs, New Mexico

Dear Mr. Anderson:

The purpose of this letter is to:

- Notify the New Mexico Oil Conservation Division (OCD) that the requested samples have been collected and that the contaminated soils from the Exxon Chemical facilities referenced above, should be classified as non-hazardous based on the attached data,
- Submit work plans for the clean up of contaminated soils at the two sites, and
- Request authorization for disposal of the contaminated soils in the Controlled Recovery Incorporated (CRI) landfill near Hobbs, New Mexico.

Waste Classification

As discussed in our meeting on July 31, 1992 OCD requested that a waste classification of the contaminated soils at each of the two Hobbs sites be made prior to submittal of the removal action work plans to OCD. Pursuant to this request, three composite samples were collected from the areas of concern at the sites as discussed in our meeting. Each sample was composited from at least five sample points within known or suspected areas of soil contamination. Samples DP-1 (from the Dal Paso site) and MR-1 (from the Marland site) were collected from trenches through areas of known hydrocarbon and/or lead soil contamination. These contaminated areas had been identified through previous sampling conducted by ENSR in January 1992. In addition, sample DP-2 (from the Dal Paso site) was collected from a trench at the base of the collapsed septic tank as ODC requested. The soil surrounding the septic tank was suspected to have contained oily wastes prior to the tanks decommissioning in 1984. As shown by the attached analytical data, as well as past analytical data, the soils from the septic tank area at the Dal Paso site do not appear to be contaminated with metals or hydrocarbons and therefore are not addressed in the removal action work plan.

The sample results indicate that the soils at the Dal Paso and Marland Street sites are not characteristically hazardous, so the soil can be disposed of as non-hazardous waste.

The volume of contaminated soil from the two sites has been estimated to be approximately 100-200 cubic yards.

Work Plans

Work plans are attached for your review and approval. After obtaining OCD approval, ENSR expects to begin field work within 60 days, weather permitting.

Disposal Authorization Request

Exxon is requesting authorization from the OCD for disposal of the non-hazardous contaminated waste soils at the following waste management facility:

Controlled Recovery Inc., Landfill
P.O. Box 369
Hobbs, New Mexico 88241

Attached is the generator certificate and analytical data stating that the contaminated material described in this letter is not listed as a RCRA hazardous waste in 40 CFR 261.31, nor is it characteristically toxic.

We appreciate your prompt review of the attached work plans and issuance of the disposal authorization. Please return a copy of the written authorization to me at the address below.

If you have any comments or require additional information, please contact me or Scott Kuykendall at 713/520-9900.

Sincerely,

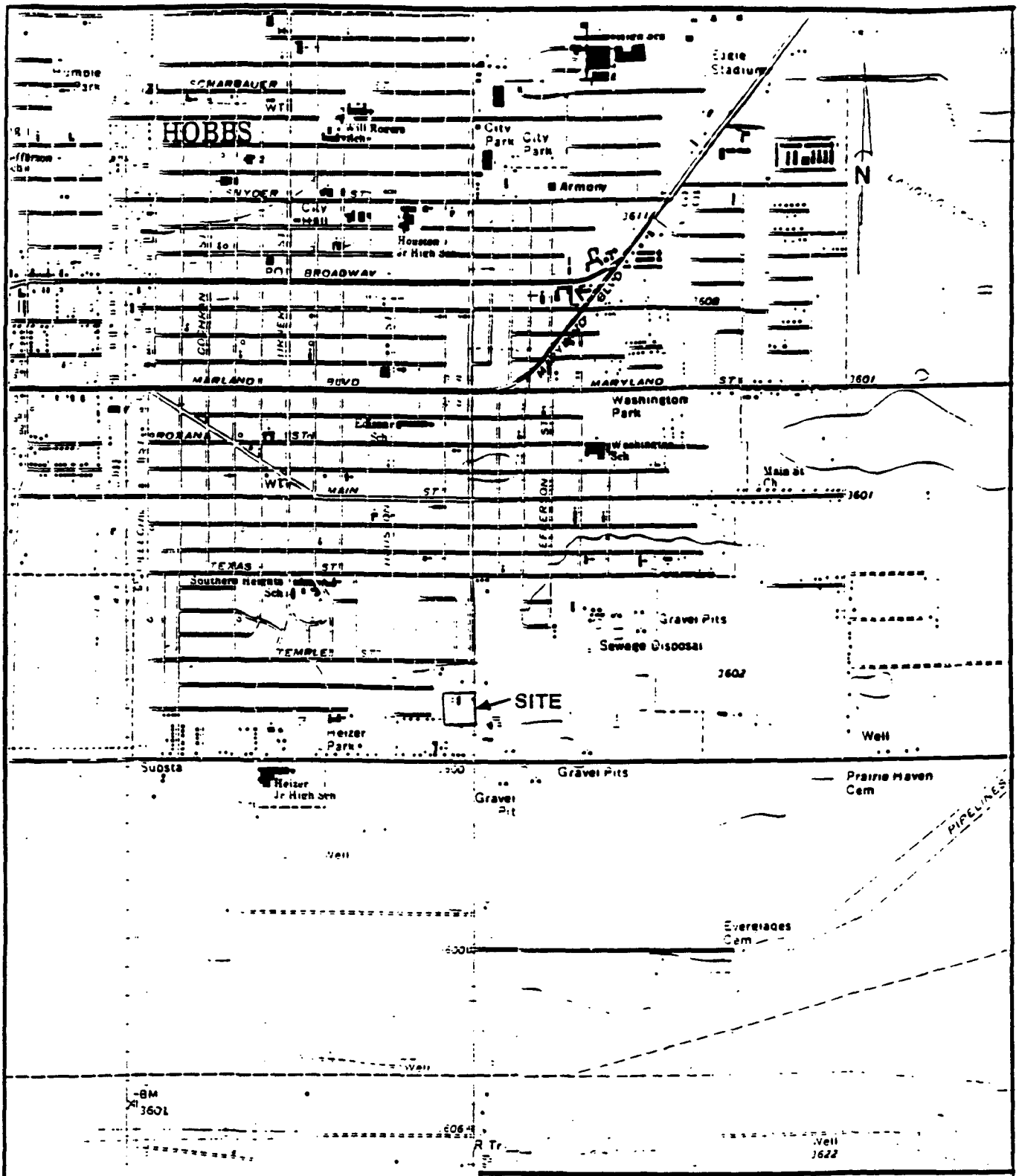
Jay Swindle, P.E.
Project Manager

J. Scott Kuykendall
Staff Geologist

JS:JSK/db

Reference No. 1009-006-120

cc: Keith Hopson, Brown McCarroll and Oaks Hartline
Paul Reed, Exxon



REFERENCE: U.S.G.S. Quadrangle Map for Hobbs, New Mexico 1979.

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ENSR CONSULTING AND ENGINEERING

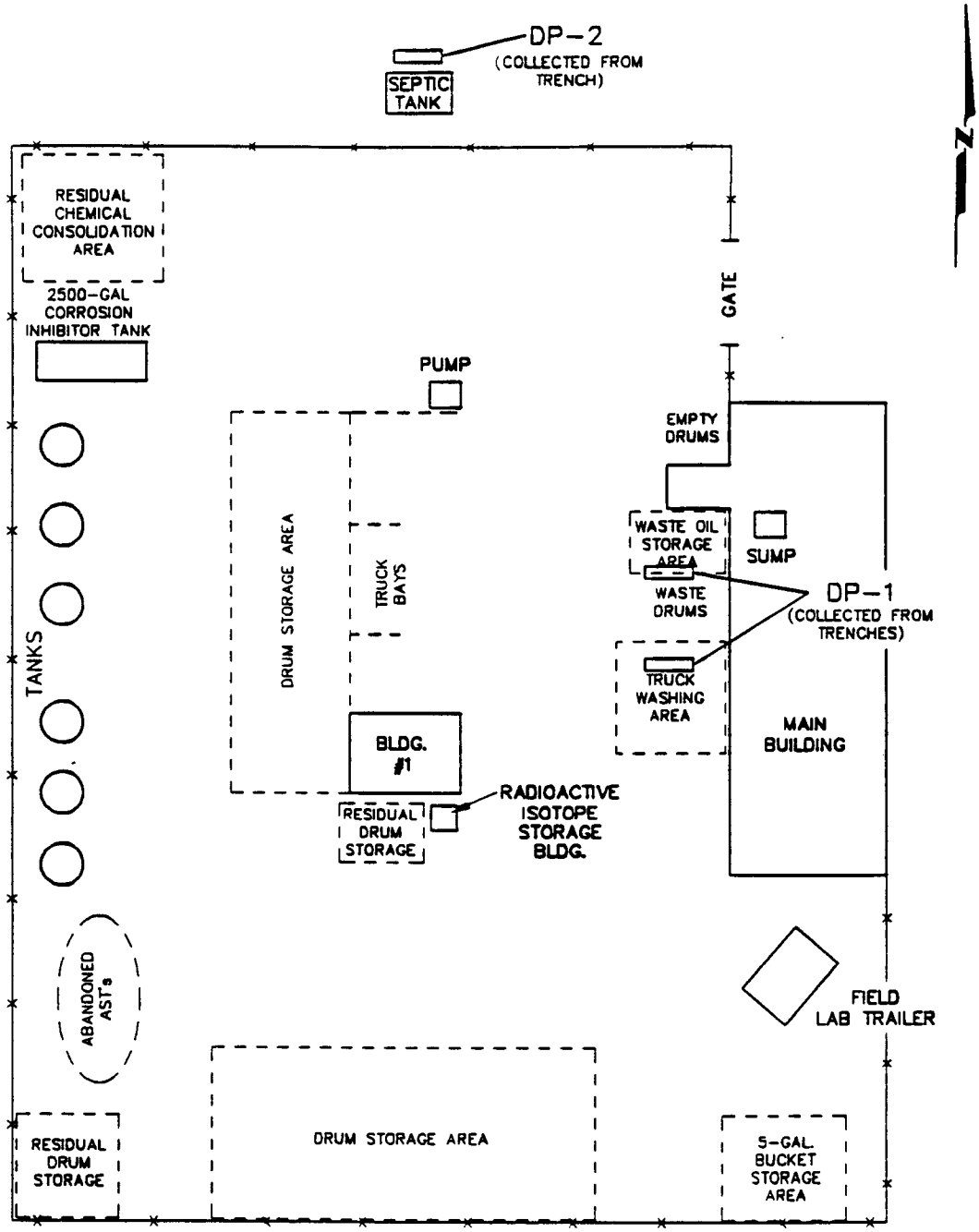
PROPERTY LOCATION

1715 DAL PASO STREET

HOBBS, NEW MEXICO

DRAWN BY: S. GHANI	DATE: 10-19-92	PROJECT NUMBER: 009-001-150
CHK'D.BY:	REVISED:	

10-0



NOT TO SCALE

ENSR™
ENSR CONSULTING & ENGINEERING

SITE PLOT PLAN WITH SAMPLE LOCATIONS 1715 DAL PASO STREET HOBBS, NEW MEXICO

DRAWN: SJF/SG	DATE: 11-12-92	PROJECT NUMBER:
APPV'D:	REVISED:	1009-001-150

CE100949

GENERATORS CERTIFICATE PREPARED FOR THE
STATE OF NEW MEXICO, OIL CONSERVATION DIVISION

"I certify that the waste described in this and attached documents is not a listed hazardous waste as described by 40 CFR 261 Subpart D and that the waste described is not contaminated with a listed hazardous waste. I further certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment."

Signature: Paul Read

Date Signed: 1-26-93

Name and Official Title (Type or Print):

Paul Read
Environmental Coordinator
Exxon Chemical Company
8230 Stedman
Houston, Texas 77029

Generators Name and Location:

Exxon Chemical Co.
1715 Del Paso St.
Hobbs, New Mexico

Exxon Chemical Co.
2807/2809 W. Marland Blvd.
Hobbs, New Mexico

Type and Quantity of Waste:

There are approximately 50 to 100 cubic yards of non-hazardous contaminated soils at the Del Paso street location and approximately 50 to 100 cubic yards at the West Marland Street location.

Summary of Analytical Results
Exxon Chemical Company Facility
1715 Dal Paso Street
Hobbs, New Mexico
Date Sampled: 9-3-92

Analytical Parameters	Regulatory Threshold Limit	Sample ID: DP-1 Depth: 0'-2'		Sample ID: DP-2 Depth: 6'-8'	
TCLP Metals (mg/l)		**Level Detected**	**Detection Limit**	**Level Detected**	**Detection Limit**
Arsenic	5.0	<0.2	0.2	<0.2	0.2
Barium	100.0	1.2	0.5	1.2	0.5
Cadmium	1.0	<0.010	0.010	<0.010	0.010
Chromium	5.0	<0.05	0.05	<0.05	0.05
Lead	5.0	0.1	0.02	0.02	0.02
Mercury	0.2	<0.001	0.001	<0.001	0.001
Selenium	1.0	<0.2	0.2	<0.2	0.2
Silver	5.0	<0.01	0.01	<0.01	0.01
TCLP Volatiles (μg/l)					
Pyridine	5,000	<13	13	<10	10
Vinyl Chloride	200	<10	10	<10	10
1,1-Dichloroethene	700	<5	5	<5	5
Chloroform	6,000	<5	5	<5	5
1,2-Dichloroethane	500	<5	5	<5	5
Methyl Ethyl Ketone	200,000	<10	10	<10	10
Carbon Tetrachloride	500	<5	5	<5	5
Trichloroethene	500	<5	5	<5	5
Benzene	500	<5	5	<5	5
Tetrachloroethene	700	<5	5	<5	5
Chlorobenzene	100,000	<5	5	<5	5
TCLP Semivolatiles (μg/l)		**Level Detected**	**Detection Limit**	**Level Detected**	**Detection Limit**
1,4-Dichlorobenzene	7,500	<13	13	<10	10
2-Methylphenol	200,000	<13	13	<10	10
4-Methylphenol	200,000	<13	13	<10	10
3-Methylphenol	200,000	<13	13	<10	10

Summary of Analytical Results
Exxon Chemical Company Facility
1715 Dal Paso Street
Hobbs, New Mexico
Date Sampled: 9-3-92

Analytical Parameters	Regulatory Threshold Limit	Sample ID: DP-1 Depth: 0'-2'		Sample ID: DP-2 Depth: 6'-8'	
Hexachloroethane	3,000	<13	13	<10	10
Nitrobenzene	2,000	<13	13	<10	10
Hexachlorobuta-diene	500	<13	13	<10	10
2,4,6-Trichlorophenol	2,000	<13	13	<10	10
2,4,5-Trichlorophenol	400,000	<66	66	<50	50
2,4-Dinitrotoluene	130	<13	13	<10	10
Hexachlorobenzene	130	<13	13	<10	10
Pentachlorophenol	100,000	<66	66	<50	50
RCRA Characteristics					
pH	2<pH<12.5	8.57 units	0.01 units	8.13 units	0.01 units
Corrosivity	>6.35 MMPY	Unable to analyze due to matrix		Unable to analyze due to matrix	
Ignitability	<140°F	Unable to analyze due to matrix		Unable to analyze due to matrix	
Reactivity - HCN - H_2S	 250 mg/kg 500 mg/kg	 <0.40 mg/kg 245 mg/kg	 0.40 mg/kg 20 mg/kg	 <0.40 mg/kg 146 mg/kg	 0.40 mg/kg 20 mg/kg

AnalytiKEM An American NuKEM Company

AnalytiKEM Inc.
2925 Richmond Avenue
Houston, TX 77098
713/520-1495
713/520-9900
Fax: 713/523-7107

October 2, 1992

ENSR
3000 Richmond
Houston, TX 77098

Attention: Scott Kuykendall

Attached are reports of chemical analyses of samples received September 9, 1992. These analyses are:

Count	Test Code	Test Name	Test Method	Sampled	Matrix
3	Ag - -TCL-HOU	TCLP SILVER	EPA SW-846: 7760, ATOMIC ABSORPTION		TCLP_EXT
3	As - -TCI-HOU	TCLP ARSENIC	EPA SW-846: 6010, ICP		TCLP_EXT
3	BNA - - -HOU	SEMIVOLATILE ORGANICS	EPA SW-846: 3520,8270, LLE,GC/MS		TCLP_EXT
3	Ba - -TCL-HOU	TCLP BARIUM	EPA SW-846: 6010, ICP		TCLP_EXT
3	CORR -S- -HOU	CORROSIVITY ON SOLID	EPA SW-846: 1110, NACE STEEL COUPON	09/03/92	SOIL
3	Cd - -TCL-HOU	TCLP CADMIUM	EPA SW-846: 6010, ICP		TCLP_EXT
3	Cr - -TCL-HOU	TCLP CHROMIUM	EPA SW-846: 6010, ICP		TCLP_EXT
3	FP -S- -HOU	IGNITABILITY ON SOLID	EPA SW-846: 1010, PENSKY MARTIN	09/03/92	SOIL
3	H2S -S-REA-SWL	HYDROGEN SULFIDE, REACTIVE/SLD	EPA SW-846: 7.3.4.2, 9030	09/03/92	SOIL
3	HCN -S-REA-SWL	HYDROCYANIC ACID, REACTIVE/SLD	EPA SW-846: 7.3.3.2, 9010	09/03/92	SOIL
3	Hg - -TCL-HOU	TCLP MERCURY	EPA SW-846: 7470, COLD VAPOR		TCLP_EXT
3	Pb - -TCL-HOU	TCLP LEAD	EPA SW-846: 6010, ICP		TCLP_EXT
3	Se - -TCI-HOU	TCLP SELENIUM	EPA SW-846: 6010, ICP		TCLP_EXT
3	VOA - - -HOU	VOLATILE ORGANIC ANALYSES	EPA SW-846: 8240, GC/MS		TCLP_EXT
3	pH -S-COR-HOU	pH CORROSION ON SOLID	EPA SW-846: 9045	09/03/92	SOIL

Data contained in this report reflect a full quality control review and have met all applicable standards established by AnalytiKEM. AnalytiKEM quality assurance protocols are in accordance with EPA guidelines.

Should you have any questions, do not hesitate to contact me at (713) 520-1495.

LAB NO. A8972 CONT.

Very Truly Yours,

ANALYTIKEM

Larry Frantz
Lab Director

LF/lis

Enclosures: Analytical Summary, Analytical Report, Chain of Custody, Sample Receipt Checklist, Quality Control Logs, ANALYTIKEM ID #A8972-1T, ANALYTIKEM ID #A8972-2T, ANALYTIKEM ID #A8972-3T, SWL CERT. #92-09-118-01, SWL CERT. #92-09-118-02, SWL CERT. #92-09-118-03

LAB NO. A8972
PROJECT 1009-001-150 EXXON

AnalytiKEM An American NuKEM Company

AnalytiKEM Inc.
2925 Richmond Avenue
Houston, TX 77098
713/520-1495
713/520-9900
Fax: 713/523-7107

SAMPLE DISPOSAL LETTER

DATE: 10/02/92

TO: Scott Kuykendall

FROM: Larry Frantz, Lab Director

PROJ. NO.: 1009-001-150 LAB NO.: A8972 RECEIVED:09/09/92
EXXON

It is the policy of AnalytiKEM Laboratories to dispose of unanalyzed portions of samples thirty days following submittal of the hard copy data package. Samples from lab number A8972 are due for disposal on November 6, 1992.

Please indicate your preference for disposal below and return this form to Lab Receiving personnel by October 23, 1992. **No response will be interpreted as permission to dispose of the samples on November 6, 1992 and charge your project accordingly.**

( )A. AnalytiKEM's preferred policy for disposal is to dispose of unused samples, including samples not analyzed, by drumming and transporting by a federally licensed hazardous waste transportation firm at a cost of $6.50/Field ID. **In an effort to present all relative charges in a timely manner, disposal charges will appear upon this project's billing summary unless this letter is returned with instructions indicating otherwise.**

( )B. AnalytiKEM will return remaining samples, including samples not authorized for analysis to the originating site at our expense.
ADDRESS OF THE
ORIGINATING SITE: _____

_____

( )C. **AnalytiKEM will hold your sample at a cost of $20.00/Field ID per quarter for refrigerated storage or $6.50/Field ID per quarter for ambient storage. The project will be billed in advance each quarter based upon the number of samples in storage at the beginning of the quarter. The minimum storage fee per project will be $50.00 to cover administrative costs.**

( ) Refrigerated ( ) Ambient ____ Number of Samples or ALL

Should you have any questions, do not hesitate to contact me at (713) 520-1495.
SIGNATURE: _____
LF/lis

LAB NO. A8972
PROJECT 1009-001-150 EXXON

B09218313

Page 1 of 2

AnalytiKEM

An American NuKEM Company

2925 RICHMOND AVENUE HOUSTON, TX 77098 (713) 520-1495 FAX: (713) 523-7107

Analysis Request and Chain of Custody Record

Project no.: 009-001-150160

Client/Project Name: EXXon

Project Location: DALLAS / MARLAND

Lab ID No	Field Sample No./ Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
1	DP-1	9-3-92 0830		✓	4oz Tall x2	Soil	4°C	TCLP Volatiles	
1	DP-1	9-3-92 0830		✓	16oz Amb	Soil		TCLP Semi Volatiles	
1	DP-1	9-3-92 0830		✓	16oz SSwm	Soil		TCLP Metals	
1	DP-1	9-3-92 0830		✓	8oz SSwm	Soil		TPH (GC)	
1	DP-1	9-3-92 0830		✓	8oz Amb	Soil		Reactivity	
1	DP-1	9-3-92 0830		✓	8oz SSwm	Soil		ph, corrosivity, flashpoint	
2	DP-2	9-3-92 0930		✓	4oz Tall x2	Soil		TCLP Volatiles	
2	DP-2	9-3-92 0930		✓	16oz Amb	Soil		TCLP Semi Volatiles	
2	DP-2	9-3-92 0930		✓	16oz SSwm	Soil		TCLP Metals	
2	DP-2	9-3-92 0930		✓	8oz SSwm	Soil		TPH (GC)	

Samplers: (Signature) [signature]

Affiliation: ERSI

Relinquished by: (Signature) [signature] Date: 9-3-92 Time: 1200

Relinquished by: (Signature) Date: Time:

Relinquished by: (Signature) Date: Time:

Received by: (Signature) Date: Time:

Received by: (Signature) Date: Time:

Received by Laboratory: (Signature) [signature] Date: 9-9- Time: 9:0

COC Seal No: Intact

REMARKS:

Data Results To: 1. Jon Swindle

2.

Laboratory No.: A8932

AnalytiKEM

An American NuKEM Company

2925 RICHMOND AVENUE HOUSTON, TX 77098 (713) 520-1495 FAX: (713) 523-7107

Analysis Request and Chain of Custody Record

Project no.: 1009-001-150,160 | Client/Project Name: Exxon | Project Location: Del Paso / Morland

Lab ID No	Field Sample No / Identification	Date and Time	Grab	Comp	Sample Container (Size/Mat'l)	Sample Type (Liquid Sludge, Etc.)	Preservative	ANALYSIS REQUESTED	LABORATORY REMARKS
2	DP-2	9-3-92 0930		L	8oz Amb	Soil	4°C	Reactivity	
2	DP-2	9-3-92 0930		L	8oz ssum	Soil	4°C	gh, Corrosivity, Flashpoint	
3	MR-1	9-3-92 1100		L	40z Vol x2	Soil	4°C	TCLP VOA	
3	MR-1	9-3-92 1100		L	16oz Amb	Soil	4°C	TCLP Semi VOA	Jar broken in lab 9-9-92
3	MR-1	9-3-92 1100		L	16oz ssum	Soil	4°C	TCLP Metals	
3	MR-1	9-3-92 1100		L	8oz ssum	Soil	4°C	TPH (6C)	
3	MR-1	9-3-92 1100		L	8oz Amb	Soil	4°C	Reactivity	
3	MR-1	9-3-92 1100		L	8oz ssum	Soil	4°C	gh, Corrosivity, Flashpoint	

Samplers: (Signature) [signature]

Affiliation:

Relinquished by: (Signature) [signature] Date: 9-3-92 Time: 1200

Relinquished by: (Signature) Date: Time:

Relinquished by: (Signature) Date: Time:

Received by: (Signature) Date: Time:

Received by: (Signature) Date: Time:

Received by Laboratory: (Signature) Paul Dear Date: 9-9-92 Time: 9:02

COC Seal No: Intact: ☐

REMARKS:

Data Results To:
1. JAY Swindle
2.

Laboratory No.: A8972

ANALYTIKEM LABORATORIES
SAMPLE RECEIPT CHECKLIST

Client: Exxon Project Number: 005-001-50160 Laboratory Number: 78522

1. ✓ Shipped — Notes: Fed Ex #946353132
   ____ Hand Delivered — No Ticket

2. ✓ COC Present on Receipt — Notes: ____
   ____ No COC

3. ____ COC Tape on Shipping Container — Notes: ____
   ✓ No COC Tape on Shipping Container — Notes: ____

4. ✓ Samples Broken/Leaking — Notes: See Below
   ✓ Sample Intact on Receipt — Rusty Samples
   ____ Other (See Notes)

5. ✓ Ambient on Receipt — Notes: See Below
   ____ Chilled on Receipt

6. ____ Samples Preserved Correctly — Notes: ____
   ____ Improper Preservatives
   ✓ N/A (None Recommended)
   ____ Other (See Notes)

7. ✓ Received Within Holding Time — Notes: ____
   ____ Not Received Within Holding Time
   ____ N/A (None Recommended)
   ____ Other (See Notes)

8. ____ COC Tapes on Samples — Notes: ____
   ✓ No COC Tapes on Samples

9. ✓ Discrepancies Between COC and Sample Labels — Notes: See Below
   ____ No Discrepancies Noted
   ____ N/A (No COC Received)

Inspected and Logged in by: [signature] Date/Time: 9-9-92 9:02

Additional Comments: Samples should have arrived Friday 9-4-92 but samples didn't ship then because there were no labels. Scott K called on 9-8-92 & said the samples would be wet & ambient to my company. One of the 4oz Tall jar TCLP volatiles does not have

AnalytiKEM-Houston

Analytical Summary
10/13/92 11:12

Lab Number: A8972
Project: 1009-001-150
EXXON

Lab ID / *Field ID* / *Test* / *Matrix*	1 DP-1 SOIL	2 DP-2 SOIL	3 MR-1 SOIL	1T DP-1/ TCLP TCLP_EXT	2T DP-2/ TCLP TCLP_EXT	3T MR-1/ TCLP TCLP_EXT
Ag - -TCL-HOU	--	--	--	<0.01* MG/L	<0.01* MG/L	<0.01* MG/L
(MDL)				*(0.01)**	*(0.01)**	*(0.01)**
As - -TCI-HOU	--	--	--	<0.2* MG/L	<0.2* MG/L	<0.2* MG/L
(MDL)				*(0.2)**	*(0.2)**	*(0.2)**
BNA - - -HOU	--	--	--	ATTACHED UG/L	ATTACHED UG/L	ATTACHED UG/L
(MDL)				*()**	*()**	*()**
Ba - -TCL-HOU	--	--	--	1.2* MG/L	1.2* MG/L	1.2* MG/L
(MDL)				*(0.5)**	*(0.5)**	*(0.5)**
CORR -S- -HOU	SEE REM*	SEE REM*	SEE REM*	--	--	--
(MDL)	*()**	*()**	*()**			
Cd - -TCL-HOU	--	--	--	<0.010* MG/L	<0.010* MG/L	<0.010* MG/L
(MDL)				*(0.010)**	*(0.010)**	*(0.010)**
Cr - -TCL-HOU	--	--	--	<0.05* MG/L	<0.05* MG/L	<0.05* MG/L
(MDL)				*(0.05)**	*(0.05)**	*(0.05)**
FP -S- -HOU	SEE REM*	SEE REM*	SEE REM*	--	--	--
(MDL)	*()**	*()**	*()**			
H2S -S-REA-SWL	ATTACHED PPM	ATTACHED PPM	ATTACHED PPM	--	--	--
(MDL)	*()**	*()**	*()**			

* Please see attached Analytical Report for remarks.

Signatures of approval indicate quality assurance-quality control verification of analytical results, billing and enclosed documentation.

Approvals: _____ Date: 10/13/92 _____ Date: 10/13/92

***** CONTINUED *****

AnalytiKEM-Houston

Analytical Summary
10/13/92 11:12

Lab Number: A8972
Project: 1009-001-150
EXXON

Lab ID / *Field ID* / *Test /Matrix*	1 DP-1 SOIL	2 DP-2 SOIL	3 MR-1 SOIL	1T DP-1/ TCLP TCLP_EXT	2T DP-2/ TCLP TCLP_EXT	3T MR-1/ TCLP TCLP_EXT
HCN -S-REA-SWL	ATTACHED	ATTACHED	ATTACHED	--	--	--
	PPM	PPM	PPM			
(MDL)	*()**	*()**	*()**			
Hg - -TCL-HOU	--	--	--	<0.001*	<0.001*	<0.001*
				MG/L	MG/L	MG/L
(MDL)				*(0.001)**	*(0.001)**	*(0.001)**
Pb - -TCL-HOU	--	--	--	0.1*	0.02	0.02
				MG/L	MG/L	MG/L
(MDL)				*(0.02)**	*(0.02)**	*(0.02)**
Se - -TCI-HOU	--	--	--	<0.2*	<0.2*	<0.2*
				MG/L	MG/L	MG/L
(MDL)				*(0.2)**	*(0.2)**	*(0.2)**
TPH -S-GC -HOU	34	<25	270J*	--	--	--
	MG/KG	MG/KG	MG/KG			
(MDL)	*(25)*	*(25)*	*(460)**			
VOA - - -HOU	--	--	--	ATTACHED	ATTACHED	ATTACHED
				UG/L	UG/L	UG/L
(MDL)				*()**	*()**	*()**
pH -S-COR-HOU	8.57	8.13	8.06	--	--	--
	UNITS	UNITS	UNITS			
(MDL)	*(0.01)*	*(0.01)*	*(0.01)*			

* Please see attached Analytical Report for remarks.

Signatures of approval indicate quality assurance-quality control verification of analytical results, billing and enclosed documentation.

Approvals: _____ Date: 10/13/92 _____ Date: 10/13/92

AnalytiKEM-Houston

Analytical Report
10/13/92 11:10

EXXON	Field ID: DP-1	Date Sampled: 09/03/92
Proj. No.: 1009-001-150	Lab ID: 1	Time Sampled: 830
Lab No.: A8972	Matrix: SOIL (COMPOSITE)	Date Received:09/09/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
CORR -S- -HOU CORROSIVITY ON SOLID EPA SW-846: 1110, NACE STEEL COUPON	SEE REM* *1			/ /
FP -S- -HOU IGNITABILITY ON SOLID EPA SW-846: 1010, PENSKY MARTIN	SEE REM* *2,3			/ /
H2S -S-REA-SWL HYDROGEN SULFIDE, REACTIVE/SLD EPA SW-846: 7.3.4.2, 9030	ATTACHED *4	PPM		09/14/92
HCN -S-REA-SWL HYDROCYANIC ACID, REACTIVE/SLD EPA SW-846: 7.3.3.2, 9010	ATTACHED *4	PPM		09/14/92
TPH -S-GC -HOU PETROLEUM HYDROCARBON BY GC EPA SW-846: 8015 MOD, GC	34	MG/KG	25	Ext.: 09/15/92 Anal.:09/16/92
pH -S-COR-HOU pH CORROSION ON SOLID EPA SW-846: 9045	8.57	UNITS	0.01	09/16/92 1620

*1 *UNABLE TO ANALYZE DUE TO SOLID MATRIX
*2 ABSORPTION OF WATER OR MANUAL FRICTION
*3 FLASHPOINT N/A, NON-LIQUID MATRIX NO FIRE CAUSED BY IGNITION
*4 SEE SWL CERT. #92-09-118-01

AnalytiKEM-Houston

Analytical Report
10/13/92 11:11

EXXON	Field ID: DP-2	Date Sampled: 09/03/92
Proj. No.: 1009-001-150	Lab ID: 2	Time Sampled: 930
Lab No.: A8972	Matrix: SOIL (COMPOSITE)	Date Received:09/09/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
CORR -S- -HOU CORROSIVITY ON SOLID EPA SW-846: 1110, NACE STEEL COUPON	SEE REM* *1			/ /
FP -S- -HOU IGNITABILITY ON SOLID EPA SW-846: 1010, PENSKY MARTIN	SEE REM* *2,3			/ /
H2S -S-REA-SWL HYDROGEN SULFIDE, REACTIVE/SLD EPA SW-846: 7.3.4.2, 9030	ATTACHED *4	PPM		09/14/92
HCN -S-REA-SWL HYDROCYANIC ACID, REACTIVE/SLD EPA SW-846: 7.3.3.2, 9010	ATTACHED *4	PPM		09/14/92
TPH -S-GC -HOU PETROLEUM HYDROCARBON BY GC EPA SW-846: 8015 MOD, GC	<25	MG/KG	25	Ext.: 09/15/92 Anal.:09/16/92
pH -S-COR-HOU pH CORROSION ON SOLID EPA SW-846: 9045	8.13	UNITS	0.01	09/16/92 1620

*1 *UNABLE TO ANALYZE DUE TO SOLID MATRIX
*2 ABSORPTION OF WATER OR MANUAL FRICTION
*3 FLASHPOINT N/A, NON-LIQUID MATRIX NO FIRE CAUSED BY IGNITION
*4 SEE SWL CERT. #92-09-118-02

AnalytiKEM-Houston

Analytical Report
10/13/92 11:11

EXXON	Field ID: MR-1	Date Sampled: 09/03/92
Proj. No.: 1009-001-150	Lab ID: 3	Time Sampled: 1100
Lab No.: A8972	Matrix: SOIL (COMPOSITE)	Date Received:09/09/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
CORR -S- -HOU CORROSIVITY ON SOLID EPA SW-846: 1110, NACE STEEL COUPON	SEE REM* *1			/ /
FP -S- -HOU IGNITABILITY ON SOLID EPA SW-846: 1010, PENSKY MARTIN	SEE REM* *2,3			/ /
H2S -S-REA-SWL HYDROGEN SULFIDE, REACTIVE/SLD EPA SW-846: 7.3.4.2, 9030	ATTACHED *4	PPM		09/14/92
HCN -S-REA-SWL HYDROCYANIC ACID, REACTIVE/SLD EPA SW-846: 7.3.3.2, 9010	ATTACHED *4	PPM		09/14/92
TPH -S-GC -HOU PETROLEUM HYDROCARBON BY GC EPA SW-846: 8015 MOD, GC	270J* *5	MG/KG	460	Ext.: 09/15/92 Anal.:09/16/92
pH -S-COR-HOU pH CORROSION ON SOLID EPA SW-846: 9045	8.06	UNITS	0.01	09/16/92 1620

*1 *UNABLE TO ANALYZE DUE TO SOLID MATRIX
*2 ABSORPTION OF WATER OR MANUAL FRICTION
*3 FLASHPOINT N/A, NON-LIQUID MATRIX NO FIRE CAUSED BY IGNITION
*4 SEE SWL CERT. #92-09-118-03
*5 RESULT DETECTED BELOW MDL

AnalytiKEM-Houston

Analytical Report
10/13/92 11:11

EXXON	Field ID: DP-1/TCLP	Date Sampled: / /
Proj. No.: 1009-001-150	Lab ID: 1T	Time Sampled:
Lab No.: A8972	Matrix: TCLP_EXT	Date Received:09/09/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
Ag - -TCL-HOU TCLP SILVER EPA SW-846: 7760, ATOMIC ABSORPTION	<0.01* *1	MG/L	0.01	09/21/92 1350
As - -TCI-HOU TCLP ARSENIC EPA SW-846: 6010, ICP	<0.2* *1	MG/L	0.2	09/24/92 853
BNA - - -HOU SEMIVOLATILE ORGANICS EPA SW-846: 3520,8270, LLE,GC/MS	ATTACHED *2,1	UG/L		Ext.: 09/18/92 Anal.:09/23/92
Ba - -TCL-HOU TCLP BARIUM EPA SW-846: 6010, ICP	1.2* *1	MG/L	0.5	09/24/92 853
Cd - -TCL-HOU TCLP CADMIUM EPA SW-846: 6010, ICP	<0.010* *1	MG/L	0.010	09/24/92 853
Cr - -TCL-HOU TCLP CHROMIUM EPA SW-846: 6010, ICP	<0.05* *1	MG/L	0.05	09/24/92 853
Hg - -TCL-HOU TCLP MERCURY EPA SW-846: 7470, COLD VAPOR	<0.001* *1	MG/L	0.001	09/22/92 1600
Pb - -TCL-HOU TCLP LEAD EPA SW-846: 6010, ICP	0.1* *1	MG/L	0.02	09/24/92 853

*1 *RESULT IS NOT SPIKE CORRECTED
*2 SEE ANALYTIKEM ID #A8972-1T

***** CONTINUED *****

AnalytiKEM-Houston

Analytical Report
10/13/92 11:11

EXXON	Field ID: DP-1/TCLP	Date Sampled: / /
Proj. No.: 1009-001-150	Lab ID: 1T	Time Sampled:
Lab No.: A8972	Matrix: TCLP_EXT	Date Received:09/09/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
Se - -TCI-HOU TCLP SELENIUM EPA SW-846: 6010, ICP	<0.2* *1	MG/L	0.2	09/24/92 853
VOA - - -HOU VOLATILE ORGANIC ANALYSES EPA SW-846: 8240, GC/MS	ATTACHED *2,1	UG/L		Ext.: 09/17/92 Anal.:09/17/92

*1 *RESULT IS NOT SPIKE CORRECTED
*2 SEE ANALYTIKEM ID #A8972-1T

AnalytiKEM-Houston

Analytical Report
10/13/92 11:11

EXXON	Field ID: DP-2/TCLP	Date Sampled: / /
Proj. No.: 1009-001-150	Lab ID: 2T	Time Sampled:
Lab No.: A8972	Matrix: TCLP_EXT	Date Received:09/09/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
Ag - -TCL-HOU TCLP SILVER EPA SW-846: 7760, ATOMIC ABSORPTION	<0.01* *1	MG/L	0.01	09/21/92 1350
As - -TCI-HOU TCLP ARSENIC EPA SW-846: 6010, ICP	<0.2* *1	MG/L	0.2	09/24/92 853
BNA - - -HOU SEMIVOLATILE ORGANICS EPA SW-846: 3520,8270, LLE,GC/MS	ATTACHED *2,1	UG/L		Ext.: 09/18/92 Anal.:09/23/92
Ba - -TCL-HOU TCLP BARIUM EPA SW-846: 6010, ICP	1.2* *1	MG/L	0.5	09/24/92 853
Cd - -TCL-HOU TCLP CADMIUM EPA SW-846: 6010, ICP	<0.010* *1	MG/L	0.010	09/24/92 853
Cr - -TCL-HOU TCLP CHROMIUM EPA SW-846: 6010, ICP	<0.05* *1	MG/L	0.05	09/24/92 853
Hg - -TCL-HOU TCLP MERCURY EPA SW-846: 7470, COLD VAPOR	<0.001* *1	MG/L	0.001	09/22/92 1600
Pb - -TCL-HOU TCLP LEAD EPA SW-846: 6010, ICP	0.02 *1	MG/L	0.02	09/24/92 853

*1 *RESULT IS NOT SPIKE CORRECTED
*2 SEE ANALYTIKEM ID #A8972-2T

***** CONTINUED *****

AnalytiKEM-Houston

Analytical Report
10/13/92 11:11

EXXON	Field ID: DP-2/TCLP	Date Sampled: / /
Proj. No.: 1009-001-150	Lab ID: 2T	Time Sampled:
Lab No.: A8972	Matrix: TCLP_EXT	Date Received:09/09/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
Se - -TCI-HOU TCLP SELENIUM EPA SW-846: 6010, ICP	<0.2* *1	MG/L	0.2	09/24/92 853
VOA - - -HOU VOLATILE ORGANIC ANALYSES EPA SW-846: 8240, GC/MS	ATTACHED *2,1	UG/L		Ext.: 09/17/92 Anal.:09/17/92

*1 *RESULT IS NOT SPIKE CORRECTED
*2 SEE ANALYTIKEM ID #A8972-2T

AnalytiKEM-Houston

Analytical Report
10/13/92 11:11

EXXON	Field ID: MR-1/TCLP	Date Sampled: / /
Proj. No.: 1009-001-150	Lab ID: 3T	Time Sampled:
Lab No.: A8972	Matrix: TCLP_EXT	Date Received:09/09/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
Ag - -TCL-HOU TCLP SILVER EPA SW-846: 7760, ATOMIC ABSORPTION	<0.01* *1	MG/L	0.01	09/21/92 1350
As - -TCI-HOU TCLP ARSENIC EPA SW-846: 6010, ICP	<0.2* *1	MG/L	0.2	09/24/92 853
BNA - - -HOU SEMIVOLATILE ORGANICS EPA SW-846: 3520,8270, LLE,GC/MS	ATTACHED *2,1	UG/L		Ext.: 09/18/92 Anal.:09/23/92
Ba - -TCL-HOU TCLP BARIUM EPA SW-846: 6010, ICP	1.2* *1	MG/L	0.5	09/24/92 853
Cd - -TCL-HOU TCLP CADMIUM EPA SW-846: 6010, ICP	<0.010* *1	MG/L	0.010	09/24/92 853
Cr - -TCL-HOU TCLP CHROMIUM EPA SW-846: 6010, ICP	<0.05* *1	MG/L	0.05	09/24/92 853
Hg - -TCL-HOU TCLP MERCURY EPA SW-846: 7470, COLD VAPOR .	<0.001* *1	MG/L	0.001	09/22/92 1600
Pb - -TCL-HOU TCLP LEAD EPA SW-846: 6010, ICP	0.02 *1	MG/L	0.02	09/24/92 853

*1 *RESULT IS NOT SPIKE CORRECTED
*2 SEE ANALYTIKEM ID #A8972-3T

***** CONTINUED *****

AnalytiKEM-Houston

Analytical Report
10/13/92 11:12

EXXON	Field ID: MR-1/TCLP	Date Sampled: / /
Proj. No.: 1009-001-150	Lab ID: 3T	Time Sampled:
Lab No.: A8972	Matrix: TCLP_EXT	Date Received:09/09/92

Parameter (Test Code) (Test Name) (Test Method)	Concentration	Units	Method Detection Limit	Date/Time Analysis Performed
Se - -TCI-HOU TCLP SELENIUM EPA SW-846: 6010, ICP	<0.2* *1	MG/L	0.2	09/24/92 853
VOA - - -HOU VOLATILE ORGANIC ANALYSES EPA SW-846: 8240, GC/MS	ATTACHED *2,1	UG/L		Ext.: 09/17/92 Anal.:09/17/92

*1 *RESULT IS NOT SPIKE CORRECTED
*2 SEE ANALYTIKEM ID #A8972-3T

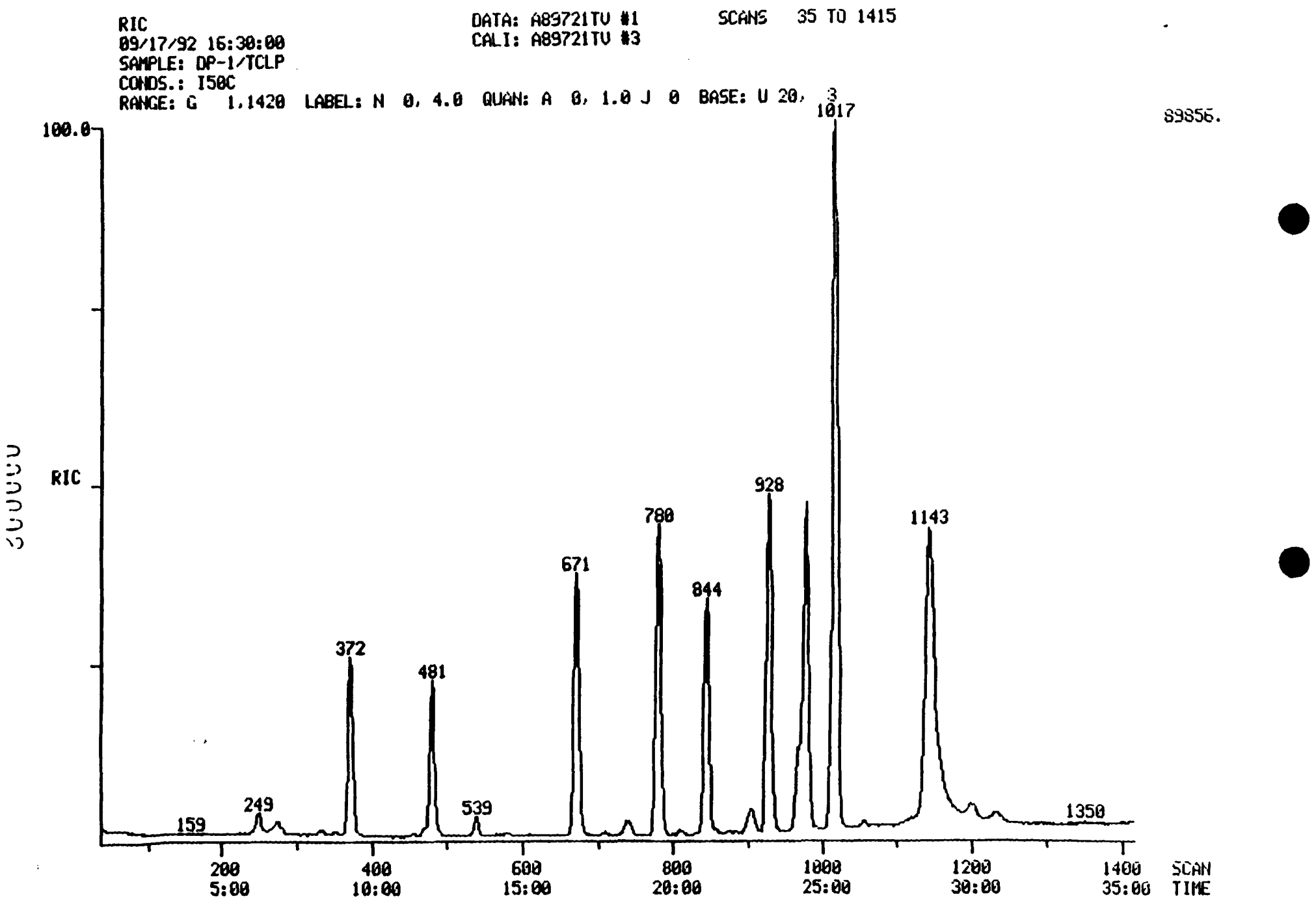
ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	AnalytiKEM-Hou	Concentration:	LOW	Date Extracted:	09/17/92
Lab Sample ID:	A8972-1T	Sample Matrix:	WATER	Date Analyzed:	09/17/92
Client Sample ID:	DP-1-TCLP	Percent Moisture:	100.0	Dilution Factor:	1.0

TCLP VOLATILE COMPOUNDS

CAS Number		ug/L		CAS Number		ug/L	
75-01-4	Vinyl Chloride	10	<	79-01-6	Trichloroethene	5	<
75-35-4	1,1-Dichloroethene	5	<	71-43-2	Benzene	5	<
67-66-3	Chloroform	5	<	127-18-4	Tetrachloroethene	5	<
107-06-2	1,2-Dichloroethane	5	<	108-90-7	Chlorobenzene	5	<
78-93-3	2-Butanone	10	<				
56-23-5	Carbon Tetrachloride . . .	5	<				

The Lab ID for data on this page is A89721TV.
< - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.
Data not spike corrected.


RIC
09/17/92 16:30:00
SAMPLE: DP-1/TCLP
CONDS.: I50C
DATA: A89721TU #1
CALI: A89721TU #3
SCANS 35 TO 1415
RANGE: G 1.1420 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
89856.
100.0
RIC
159
249
372
481
539
671
780
844
928
1017
1143
1350
200
5:00
400
10:00
600
15:00
800
20:00
1000
25:00
1200
30:00
1400
35:00
SCAN
TIME

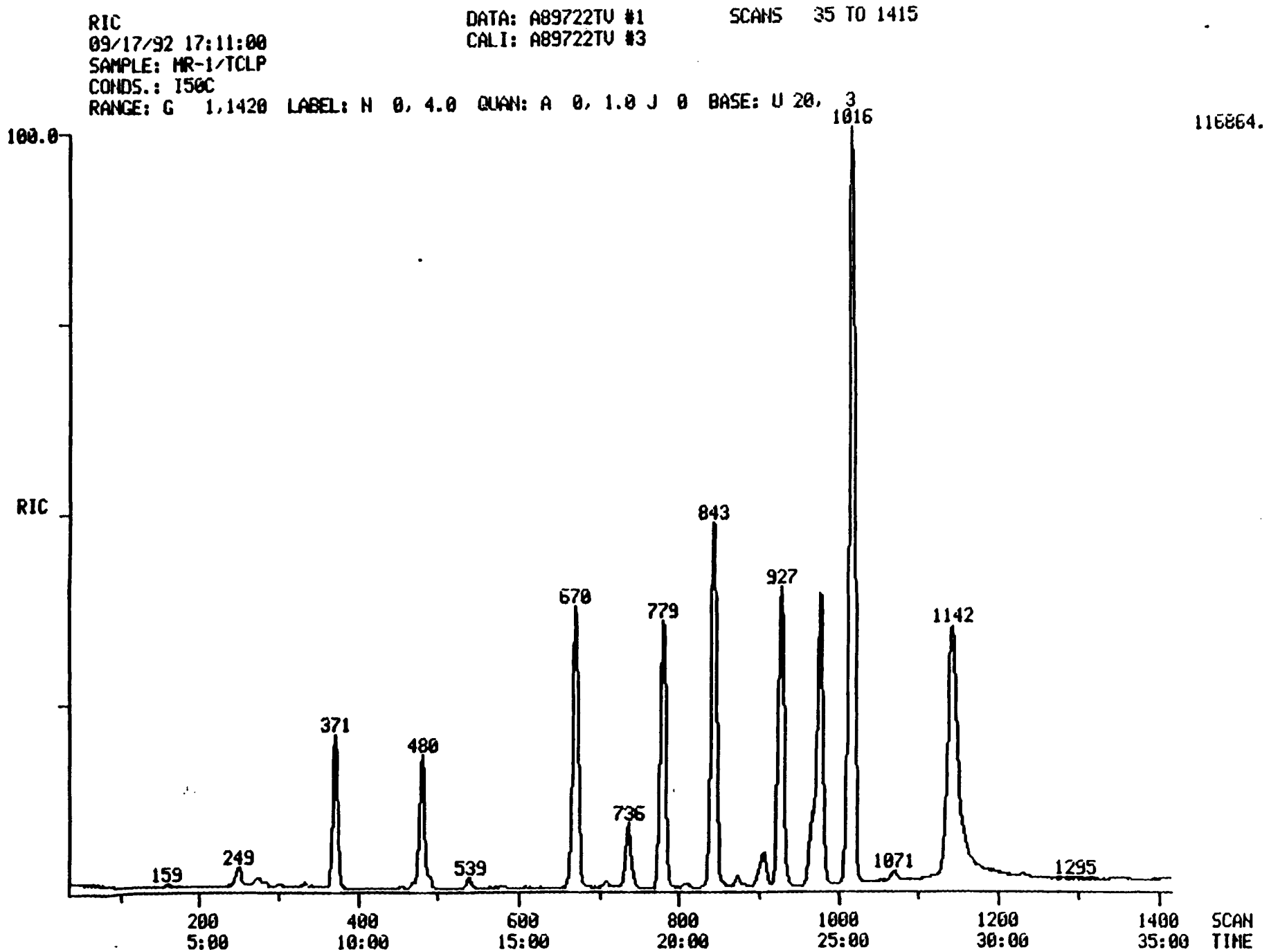
ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	AnalytiKEM-H..u	Concentration:	LOW	Date Extracted:	09/17/92
Lab Sample ID:	A8972-2T	Sample Matrix:	WATER	Date Analyzed:	09/17/92
Client Sample ID:	MR-1-TCLP	Percent Moisture:	100.0	Dilution Factor:	1.0

TCLP VOLATILE COMPOUNDS

CAS Number		ug/L		CAS Number		ug/L	
75-01-4	Vinyl Chloride	10	<	79-01-6	Trichloroethene	5	<
75-35-4	1,1-Dichloroethene	5	<	71-43-2	Benzene	5	<
67-66-3	Chloroform	5	<	127-18-4	Tetrachloroethene	5	<
107-06-2	1,2-Dichloroethane	5	<	108-90-7	Chlorobenzene	5	<
78-93-3	2-Butanone	10	<				
56-23-5	Carbon Tetrachloride . . .	5	<				

The Lab ID for data on this page is A89722TV.
< - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.
Data not spike corrected.


RIC
09/17/92 17:11:00
SAMPLE: MR-1/TCLP
CONDS.: I50C
DATA: A89722TV #1
CALI: A89722TV #3
SCANS 35 TO 1415
RANGE: G 1.1420 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
116864.
100.0
RIC
159
249
371
480
539
670
736
779
843
927
1016
1071
1142
1295
200
5:00
400
10:00
600
15:00
800
20:00
1000
25:00
1200
30:00
1400
35:00
SCAN
TIME

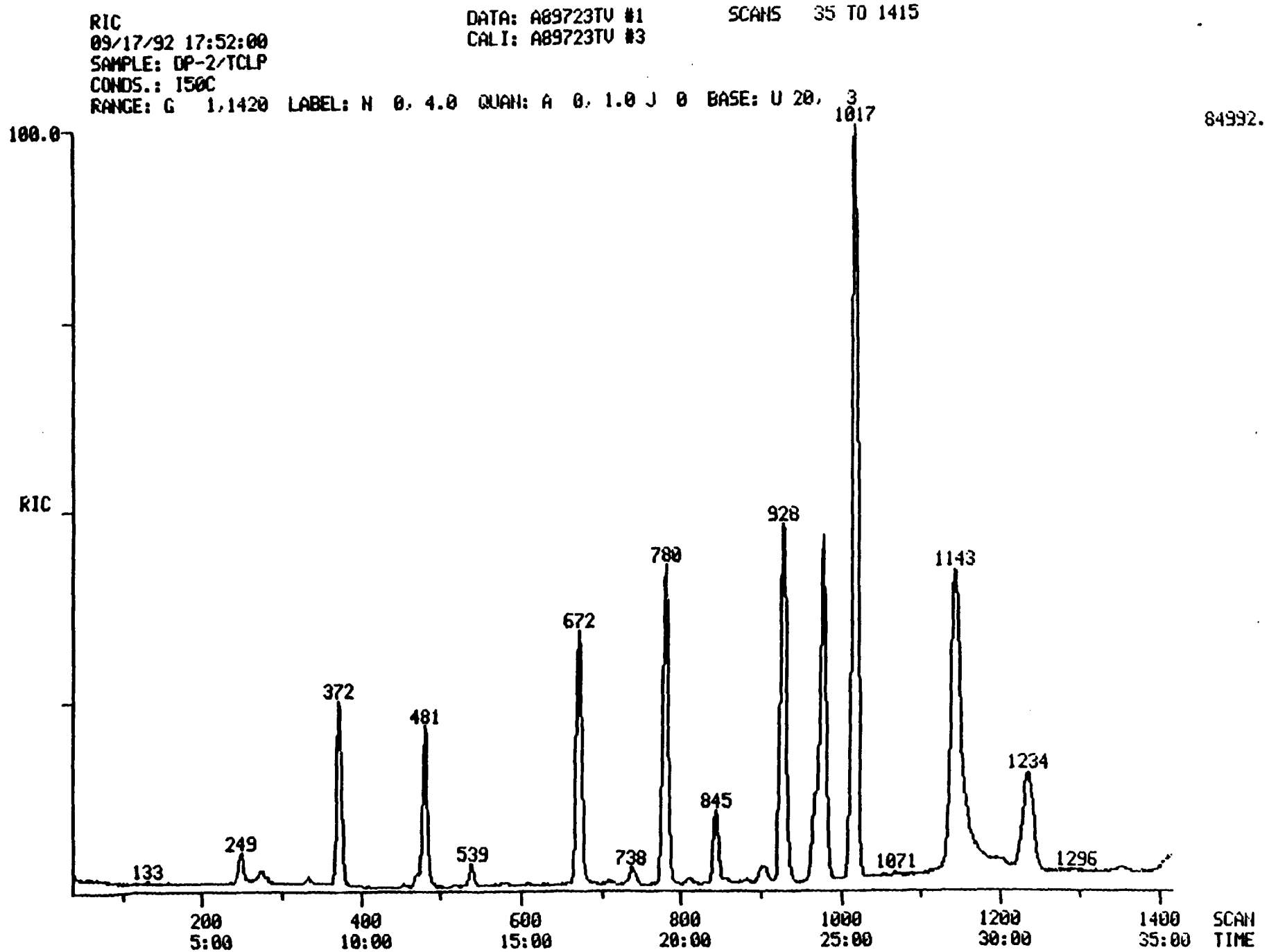
ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	AnalytiKEM-Hou	Concentration:	LOW	Date Extracted:	09/17/92
Lab Sample ID:	A8972-3T	Sample Matrix:	WATER	Date Analyzed:	09/17/92
Client Sample ID:	DP-2-TCLP	Percent Moisture:	100.0	Dilution Factor:	1.0

TCLP VOLATILE COMPOUNDS

CAS Number		ug/L		CAS Number		ug/L	
75-01-4	Vinyl Chloride	10	<	79-01-6	Trichloroethene	5	<
75-35-4	1,1-Dichloroethene	5	<	71-43-2	Benzene	5	<
67-66-3	Chloroform	5	<	127-18-4	Tetrachloroethene	5	<
107-06-2	1,2-Dichloroethane	5	<	108-90-7	Chlorobenzene	5	<
78-93-3	2-Butanone	10	<				
56-23-5	Carbon Tetrachloride . . .	5	<				

The Lab ID for data on this page is A89723TV.
< - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.
Data not spike corrected.


RIC
09/17/92 17:52:00
SAMPLE: DP-2/TCLP
CONDS.: 150C
RANGE: G 1,1420 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
DATA: A89723TV #1
CALI: A89723TV #3
SCANS 35 TO 1415
84992.
100.0
RIC
133
249
372
481
539
672
738
780
845
928
1017
1071
1143
1234
1296
200
5:00
400
10:00
600
15:00
800
20:00
1000
25:00
1200
30:00
1400
35:00
SCAN
TIME

BROMOFLUOROBENZENE

Tuning Report
09/17/92 12:05:00 + 7:00
Instrument: I50C
#273 to #287 averaged - #307 to #318 - #255 to #260
Case Number: E

Data: BF091792C1 # 280
Cali: BF091792C1 # 3
Analyst: BPB
Laboratory: Z

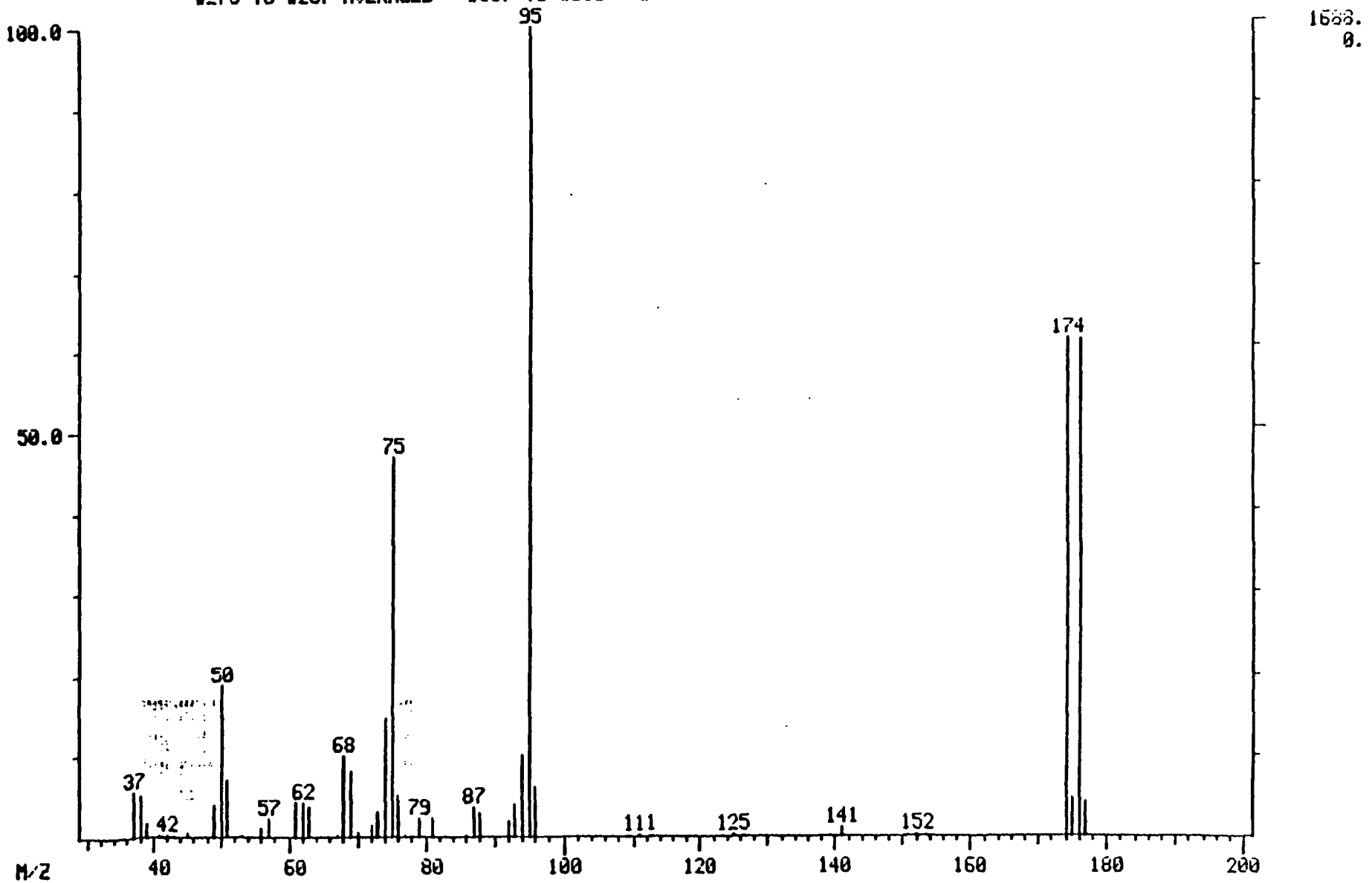
Base m/z: 95
RIC: 7000.
Acct. No.: 8506-090
Contract: Z

			Ion Abundance Criteria				
m/z	Intensity	% RA	Min %	Max %	Mass	Actual	Status
50	317.	18.8	15.0	40.0	95	18.8	PASS
75	795.	47.1	30.0	60.0	95	47.1	PASS
95	1688.	100.0	100.0	---	---	100.0	PASS
96	104.	6.2	5.0	9.0	95	6.2	PASS
173	0.	0.0	---	2.0	174	0.0	PASS
174	1032.	61.1	50.0	---	95	61.1	PASS
175	81.	4.8	5.0	9.0	174	7.8	PASS
176	1024.	60.7	95.0	101.0	174	99.2	PASS
177	71.	4.2	5.0	9.0	176	6.9	PASS

MASS SPECTRUM
09/17/92 12:05:00 + 7:00
SAMPLE: BFB CALIBRATION
CONDS.: I50C
TEMP: 225 DEG. C
#273 TO #287 AVERAGED - #307 TO #318 - #255 TO #260

DATA: BF091792C1 #280
CALI: BF091792C1 #3

BASE M/Z: 95
RIC: 7000.



Mass List
09/17/92 12:05:00 + 7:00
Sample: BFB CALIBRATION
Conds.: I50C
#273 to #287 averaged - #307 to #318 - #255 to #260

Data: BF091792C1 # 280
Cali: BF091792C1 # 3
Base m/z: 95
RIC: 7000.

36 0.00 0. Minima Min Inten: 0.
177 Maxima # 0

Mass		% RA	Inten.
36?	S	0.12	2.
37?	S	5.51	93.
38?	S	5.09	86.
39?	S	1.66	28.
41?	S	0.18	3.
42?	S	0.18	3.
45?	S	0.59	10.
49?	S	3.91	66.
50?	S	18.78	317.
51?	S	6.93	117.
53?	S	0.18	3.
56?	S	1.13	19.
57?	S	2.13	36.
60?	S	0.06	1.
61?	S	4.03	68.
62?	S	4.03	68.
63?	S	3.50	59.
67?	S	0.18	3.
68?	S	10.01	169.
69	S	8.12	137.
70	S	0.65	11.
72	S	1.36	23.
73	S	3.14	53.
74	S	14.57	246.
75	S	47.10	795.
76	S	4.86	82.
77	S	0.24	4.
79	S	2.31	39.
81	S	2.07	35.
84	S	0.12	2.
86	S	0.18	3.
87	S	3.67	62.
88	S	2.67	45.
92	S	2.01	34.
93	S	3.97	67.
94	S	9.83	166.
95	S	100.00	1688.
96	S	6.16	104.
111	S	0.24	4.
113	S	0.06	1.
125	S	0.18	3.
129	S	0.06	1.
141	S	1.01	17.
152	S	0.18	3.
155	S	0.12	2.
174	S	61.14	1032.
175	S	4.80	81.
176	S	60.66	1024.
177	S	4.21	71.

CONTINUING CALIBRATION CHECK
VOLATILE HSL COMPOUNDS

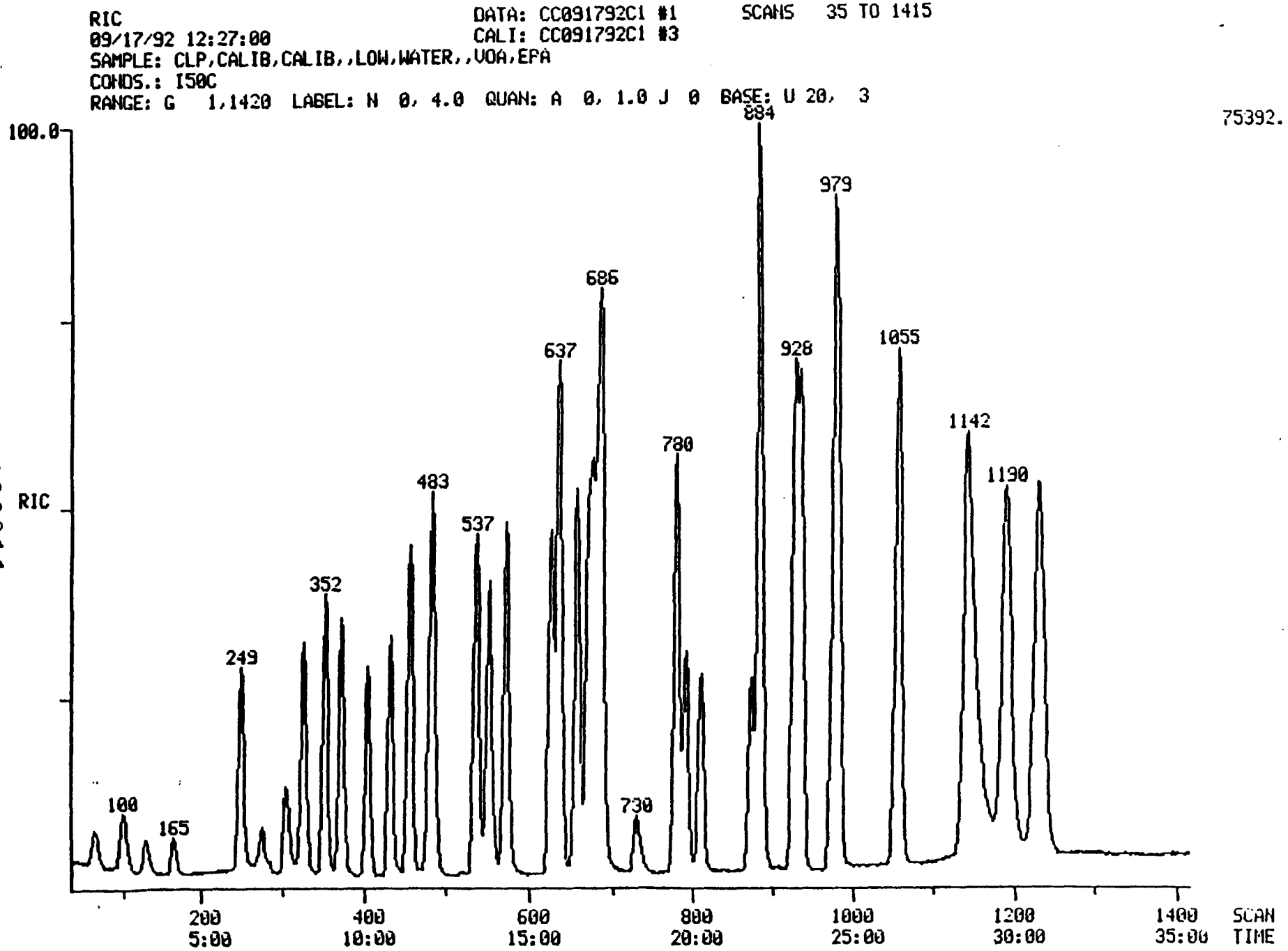
Case No: STAND Region: _____ Calibration Date: 09/17/92
Contractor: AnalytiKEM-Hou Time: 12:27
Contract No: _____ Laboratory ID: CCJ91792C1
Instrument ID: I50C Initial Cali. Date: 09/15/92

Minimum RF for SPCC is 0.300 (1) Maximum %D for CCC is 25%

Compound	AVE RF	RF(50)	% D	CCC	SPCC
Chloromethane	0.985	0.770	21.8		* *
Bromomethane	0.988	0.840	15.0		
Vinyl Chloride	0.998	0.777	22.1	*	
Chloroethane	0.640	0.474	25.9		
Methylene Chloride	1.380	1.168	15.4		
Acetone	0.279	0.714	-155.9		
Carbon Disulfide	1.959	2.150	-9.7		
1,1-Dichloroethene	1.425	1.316	7.6	*	
1,1-Dichloroethane	3.633	3.118	14.2		* *
trans-1,2-Dichloroethene	1.663	1.447	13.0		
Chloroform	4.353	3.833	11.9	*	
1,2-Dichloroethane	3.140	2.821	10.2		
2-Butanone	0.026	0.057	-119.2		
1,1,1-Trichloroethane	0.694	0.671	3.3		
Carbon Tetrachloride	0.522	0.496	5.0		
Vinyl Acetate	0.090	0.091	-1.1		
Bromodichloromethane	0.717	0.706	1.5		
1,2-Dichloropropane	0.439	0.413	5.9	*	
cis-1,3-Dichloropropene	0.588	0.578	1.7		
Trichloroethene	0.394	0.377	4.3		
Dibromochloromethane	0.512	0.505	1.4		
1,1,2-Trichloroethane	0.335	0.319	4.8		
Benzene	0.934	0.906	3.0		
Trans-1,3-Dichloropropene	0.523	0.498	4.8		
Bromoform	0.348	0.333	4.3		* *
4-Methyl-2-Pentanone	0.469	0.548	-16.8		
2-Hexanone	0.332	0.572	-72.3		
Tetrachloroethene	0.376	0.363	3.5		
1,1,2,2-Tetrachloroethane	0.654	0.657	-0.5		* *
Toluene	0.785	0.744	5.2	*	
Chlorobenzene	0.974	0.897	7.9		* *
Ethylbenzene	0.542	0.525	3.1	*	
Styrene	0.921	1.046	-13.6		
Xylene (total)	0.581	0.651	-12.0		

RF(50) - Response Factor from daily standard file at 50 ug/l
AVE RF - Average Response Factor from initial calibration Form VI
%D - - - Percent Difference
CCC - - Calibration Check Compounds (*)
SPCC - - System Performance Check Compounds (**)
(1) - - Mininum RF for Bromoform is 0.250

Form VII


RIC
09/17/92 12:27:00
SAMPLE: CLP,CALIB,CALIB,,LOW,WATER,,VOA,EPA
CONDS.: I50C
RANGE: G 1,1420 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
DATA: CC091792C1 #1
CALI: CC091792C1 #3
SCANS 35 TO 1415
75392.
100.0
RIC
100
165
249
352
483
537
637
686
730
780
884
928
979
1055
1142
1190
200
5:00
400
10:00
600
15:00
800
20:00
1000
25:00
1200
30:00
1400
35:00
SCAN
TIME

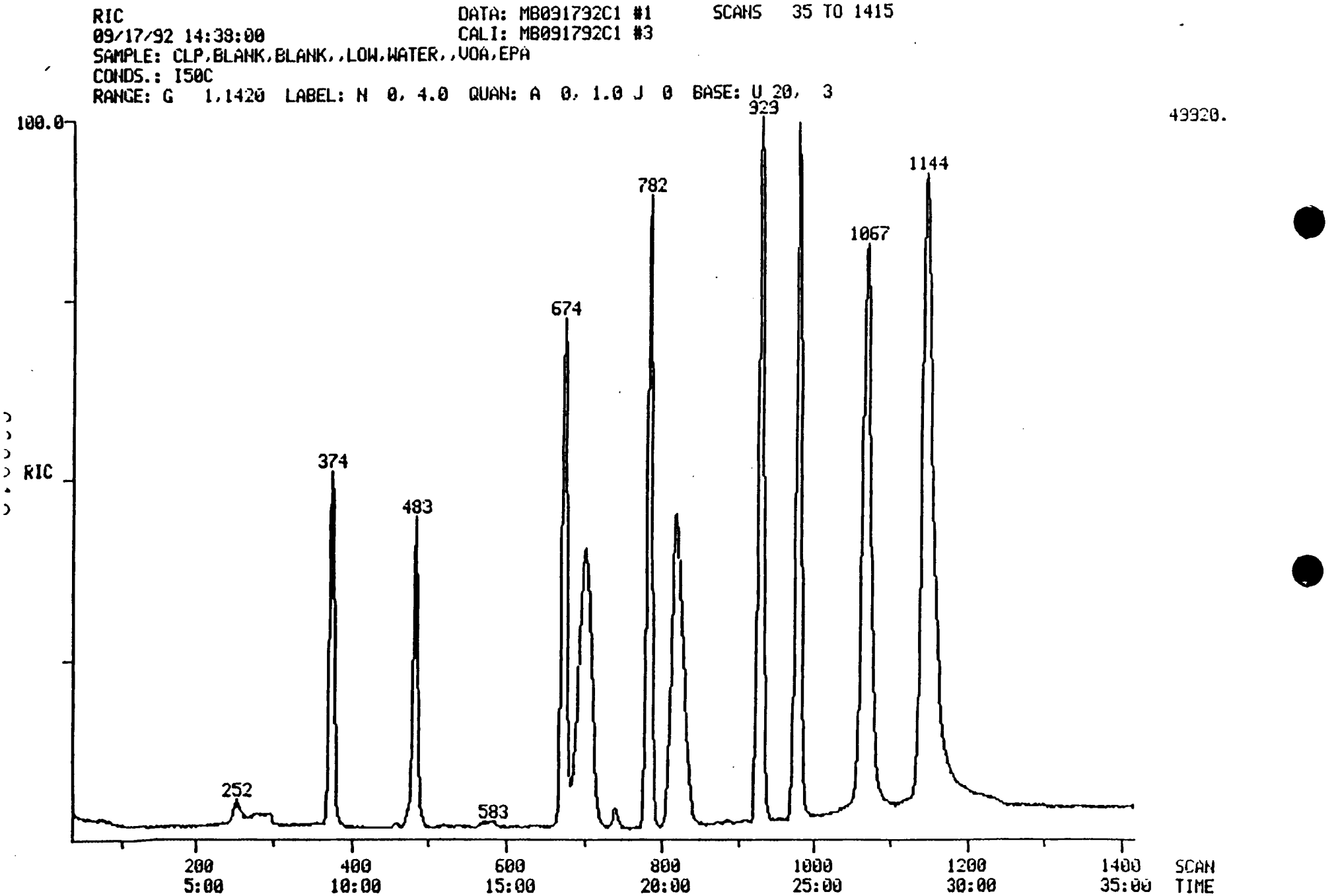
VOLATILE ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	AnalytiKEM-Hou	Concentration:	LOW	Date Extracted:	09/17/92
Lab Sample ID:	MB091792C1	Sample Matrix:	WATER	Date Analyzed:	09/17/92
Client Sample ID:	MB091792C1	Percent Moisture:	100.0	Dilution Factor:	1.0

VOLATILE COMPOUNDS

CAS Number		ug/L		CAS Number		ug/L	
74-87-3	Chloromethane	10	<	78-87-5	1,2-Dichloropropane	5	<
74-83-9	Bromomethane	10	<	10061-01-5	cis-1,3-Dichloropropene	5	<
75-01-4	Vinyl Chloride	10	<	79-01-6	Trichloroethene	5	<
75-00-3	Chloroethane	10	<	124-48-1	Dibromochloromethane	5	<
75-09-2	Methylene Chloride	6		79-00-5	1,1,2-Trichloroethane	5	<
67-64-1	Acetone	5	≈	71-43-2	Benzene	5	<
75-15-0	Carbon Disulfide	5	<	10061-02-6	Trans-1,3-Dichloropropene	5	<
75-35-4	1,1-Dichloroethene	5	<	110-75-8	2-Chloroethylvinyl ether	10	<
75-34-3	1,1-Dichloroethane	5	<	75-25-2	Bromoform	5	<
156-60-5	trans-1,2-Dichloroethene	5	<	108-10-1	4-Methyl-2-Pentanone	10	<
67-66-3	Chloroform	5	<	591-78-6	2-Hexanone	10	<
107-06-2	1,2-Dichloroethane	5	<	127-18-4	Tetrachloroethene	5	<
78-93-3	2-Butanone	10	<	79-34-5	1,1,2,2-Tetrachloroethane	5	<
71-55-6	1,1,1-Trichloroethane	5	<	108-88-3	Toluene	5	<
56-23-5	Carbon Tetrachloride	5	<	108-90-7	Chlorobenzene	5	<
108-05-4	Vinyl Acetate	5	<	100-41-4	Ethylbenzene	5	<
75-27-4	Bromodichloromethane	5	<	100-42-5	Styrene	5	<
				1330-20-7	Xylene (total)	5	<

The Lab ID for data on this page is MB091792C1.
≈ - Reported value is less than the detection limit.
< - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.


RIC
09/17/92 14:38:00
SAMPLE: CLP,BLANK,BLANK,,LOW,WATER,,VOA,EPA
CONDS.: I50C
RANGE: G 1,1420 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
DATA: MB091792C1 #1
CALI: MB091792C1 #3
SCANS 35 TO 1415
100.0
49320.
RIC
252
374
483
583
674
782
923
1067
1144
200
5:00
400
10:00
600
15:00
800
20:00
1000
25:00
1200
30:00
1400
35:00
SCAN
TIME

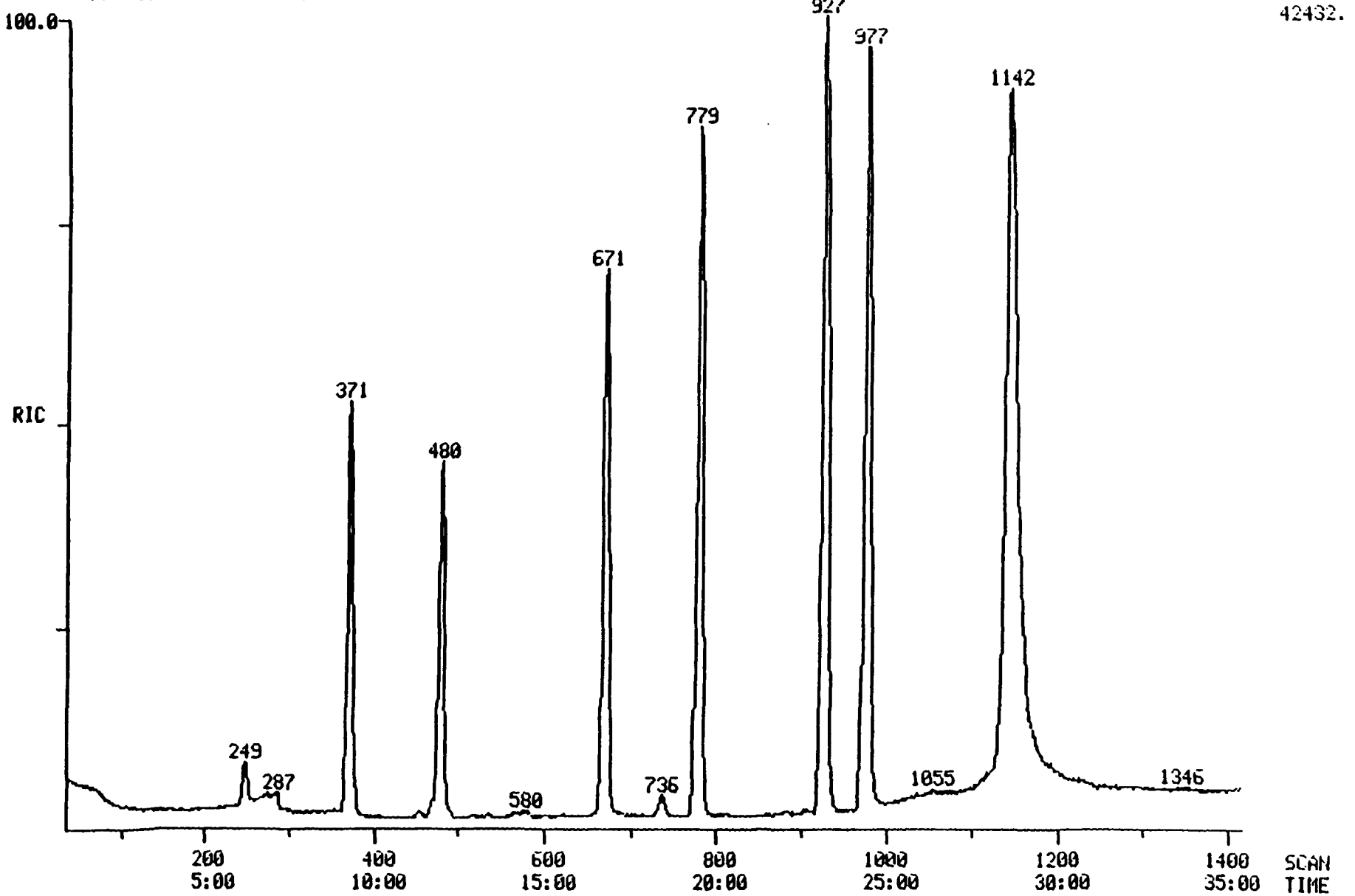
ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	AnalytiKEM-Hou	Concentration:	LOW	Date Extracted:	09/17/92
Lab Sample ID:	MB5249Z	Sample Matrix:	WATER	Date Analyzed:	09/17/92
Client Sample ID:	TCLP_BLANK	Percent Moisture:	100.0	Dilution Factor:	1.0

TCLP VOLATILE COMPOUNDS

CAS Number		ug/L		CAS Number		ug/L	
75-01-4	Vinyl Chloride	10	<	79-01-6	Trichloroethene	5	<
75-35-4	1,1-Dichloroethene	5	<	71-43-2	Benzene	5	<
67-66-3	Chloroform	5	<	127-18-4	Tetrachloroethene	5	<
107-06-2	1,2-Dichloroethane	5	<	108-90-7	Chlorobenzene	5	<
78-93-3	2-Butanone	10	<				
56-23-5	Carbon Tetrachloride . . .	5	<				

The Lab ID for data on this page is MB5249Z.
< - Compound analyzed for but not detected. The reported value is the minimum attainable detection limit for the sample.
Data not spike corrected.


RIC
09/17/92 15:43:00
SAMPLE: TCLP BLANK
CONDS.: 150C
DATA: MB5249Z #1
CALI: MB5249Z #3
SCANS 35 TO 1415
RANGE: G 1.1420 LABEL: N 0. 4.0 QUAN: A 0. 1.0 J 0 BASE: U 20. 3
42432.
100.0
RIC
249
287
371
480
580
671
736
779
927
977
1055
1142
1346
200
5:00
400
10:00
600
15:00
800
20:00
1000
25:00
1200
30:00
1400
35:00
SCAN
TIME

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: ANALYTIKEM-HOU _____ Contract: _____

Lab Code: HOUSTON Case No.: A8972 SAS No.: _____ SDG No.: A8972

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	DP-1-TCLP	101	101	112	109	0
02	DP-1-TCLP-MS	100	103	112	103	0
03	DP-2-TCLP	102	100	110	106	0
04	MR-1-TCLP	96	97	113	109	0
05	TCLP_BLANK	102	98	109	109	0
06	MB091792C1	100	98	111	111	0

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

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

ORGANICS ANALYSIS DATA SHEET

Laboratory Name:	AnalytiKEM-Hou	Concentration:	LOW	Date Extracted:	09/17/92
Lab Sample ID:	A8972-1TMS	Sample Matrix:	WATER	Date Analyzed:	09/17/92
Client Sample ID:	DP-1-TCLP-MS	Percent Moisture:	100.0	Dilution Factor:	1.0

TCLP VOLATILE COMPOUNDS

CAS Number		ug/L	%R	CAS Number		ug/L	%R
75-01-4	Vinyl Chloride	43	86	79-01-6	Trichloroethene	49	98
75-35-4	1,1-Dichloroethene	43	86	71-43-2	Benzene	49	98
67-66-3	Chloroform	47	94	127-18-4	Tetrachloroethene	54	108
107-06-2	1,2-Dichloroethane	48	96	108-90-7	Chlorobenzene	50	100
78-93-3	2-Butanone	57	114				BPB
56-23-5	Carbon Tetrachloride	54	108				

The Lab ID for data on this page is A89721TVMS.
Data not spike corrected.

INITIAL CALIBRATION DATA
VOLATILE HSL COMPOUNDS

Case No: STAND Region: _____ Instrument ID: I50C
Contractor: AnalytiKEM-Hou Calibration Date: 09/15/92
Contract No: _____

Min AVE RF for SPCC is 0.300 (1) Max %RSD for CCC is 30%

Laboratory ID	IC0915020C1		IC0915100C1		IC0915200C1			
	CC091592C1		IC0915150C1					CCC*
Compound	RF(20)	RF(50)	RF(100)	RF(150)	RF(200)	AVE RF	% RSD	SPCC**
Chloromethane	1.281	1.110	0.718	0.832	0.983	0.985	22.6	* *
Bromomethane	1.232	1.036	1.054	0.835	0.781	0.988	18.4	
Vinyl Chloride	1.243	0.985	0.953	0.912	0.895	0.998	14.2	*
Chloroethane	0.766	0.636	0.633	0.572	0.593	0.640	11.8	
Methylene Chloride	1.676	1.292	1.333	1.308	1.291	1.380	12.1	
Acetone	0.470	0.531	0.140	0.136	0.120	0.279	72.7	
Carbon Disulfide	1.344	1.164	2.426	2.579	2.284	1.959	33.5	
1,1-Dichloroethene	1.717	1.420	1.363	1.365	1.259	1.425	12.2	*
1,1-Dichloroethane	4.142	3.466	3.670	3.519	3.370	3.633	8.4	* *
trans-1,2-Dichloroethene	2.030	1.636	1.649	1.544	1.458	1.663	13.2	
Chloroform	5.051	4.191	4.463	4.166	3.895	4.353	10.1	*
1,2-Dichloroethane	3.589	3.025	3.321	2.945	2.821	3.140	9.9	
2-Butanone	0.041	0.040	0.019	0.017	0.015	0.026	49.1	
1,1,1-Trichloroethane	0.781	0.761	0.670	0.660	0.598	0.694	10.9	
Carbon Tetrachloride	0.563	0.543	0.504	0.519	0.483	0.522	6.0	
Vinyl Acetate	0.071	0.041	0.129	0.120	0.087	0.090	40.2	
Bromodichloromethane	0.767	0.767	0.723	0.691	0.639	0.717	7.6	
1,2-Dichloropropane	0.488	0.433	0.454	0.417	0.403	0.439	7.6	*
cis-1,3-Dichloropropene	0.675	0.619	0.599	0.540	0.508	0.588	11.2	
Trichloroethene	0.467	0.392	0.387	0.366	0.357	0.394	11.0	
Dibromochloromethane	0.518	0.496	0.557	0.502	0.489	0.512	5.3	
1,1,2-Trichloroethane	0.389	0.311	0.363	0.313	0.300	0.335	11.5	
Benzene	1.101	0.982	0.930	0.858	0.798	0.934	12.5	
Trans-1,3-Dichloropropene	0.612	0.522	0.532	0.487	0.462	0.523	10.9	
2-Chloroethylvinyl ether	0.259	0.062	0.276	0.252	0.246	0.219	40.4	
Bromoform	0.313	0.322	0.379	0.364	0.362	0.348	8.3	* *
4-Methyl-2-Pentanone	0.437	0.351	0.521	0.526	0.511	0.469	16.0	
2-Hexanone	0.376	0.363	0.314	0.313	0.293	0.332	10.8	
Tetrachloroethene	0.466	0.392	0.340	0.353	0.330	0.376	14.7	
1,1,2,2-Tetrachloroethane	0.709	0.647	0.696	0.639	0.577	0.654	8.0	* *
Toluene	0.907	0.831	0.760	0.752	0.677	0.785	11.1	*
Chlorobenzene	1.054	0.981	0.992	0.952	0.893	0.974	6.0	* *
Ethylbenzene	0.634	0.564	0.535	0.511	0.467	0.542	11.5	*
Styrene	0.856	0.746	1.044	1.037	0.922	0.921	13.7	
Xylene (total)	0.562	0.489	0.647	0.639	0.569	0.581	11.1	
Toluene-d8	1.391	1.375	1.354	1.386	1.353	1.372	1.3	
Bromofluorobenzene	0.947	0.957	1.014	1.022	1.003	0.989	3.5	
1,2-Dichloroethane-d4	2.958	2.707	3.155	2.943	3.156	2.984	6.2	
Benzene-d6	1.043	0.998	0.979	0.941	0.937	0.980	4.5	

Response Factor (number is the amount of ug/L)
AVE RF - Average Response Factor
%RSD - - Percent Relative Standard Deviation
CCC - - Calibration Check Compounds (*)
SPCC - - System Performance Check Compounds (**)
(1) - - Minimum AVE RF for Bromoform is 0.250

Form VI

Sample: 01A A8972-1 Collected: 09/03/92
Job: RE REACTIVITY

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
REACTIVITY CYANIDE	SW-846 7.3.3	<0.40	ppm	0.40	09/14/92	JA
REACTIVITY SULFIDE	SW-846 7.3.4	245	ppm	20	09/14/92	SJ

Sample: 02A A8972-2 Collected: 09/03/92
Job: RE REACTIVITY

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
REACTIVITY CYANIDE	SW-846 7.3.3	<0.40	ppm	0.40	09/14/92	JA
REACTIVITY SULFIDE	SW-846 7.3.4	146	ppm	20	09/14/92	SJ

Sample: 03A A8972-3 Collected: 09/03/92
Job: RE REACTIVITY

Test Name	Method	Result	Units	Detection Limit	Date Started	Analyst
REACTIVITY CYANIDE	SW-846 7.3.3	<0.40	ppm	0.40	09/14/92	JA
REACTIVITY SULFIDE	SW-846 7.3.4	241	ppm	20	09/14/92	SJ

SOUTHWESTERN LABORATORIES QUALITY CONTROL LOG

MDL

METHOD OF ANALYSIS 376.1 PARAMETER Sulfide MATRIX Solid. Liquid ANALYST [illegible] DATE 9/4/92 TIME 700

CALIBRATION STANDARDS/BLANK	ABSORBANCE
L.R. (c) =	

STANDARDS	THEORETICAL CONCENTRATION	MEASURED CONCENTRATION	% RECOVERY
BLANK			
210	454	411	73%

LAB NUMBERS/SAMPLE ID NUMBERS IN THIS RUN:

92-09-131-1A, 92-09-138-1A-5A, 92-09-132 1A, 92-09-151-1A,
92-09-159-1D-4A ; 92-09-099-1B

QUALITY CONTROL DUPLICATES AND SPIKES

PERCENT RECOVERY CALCULATION: SPIKED SAMPLE - SAMPLE ÷ THEORETICAL x 100

LAB #-SAMPLE ID #	FIRST CONC.	DIL. FACTOR	REPL. CONC.	DIL. FACTOR	RANGE	%PRECISION	SPIKED SAMPLE CONC.	SAMPLE CONC.	THEO. CONC.	% RECOVERY
92-09-159-2A	153		152		1	0				

PRECISION = FIRST CONC - REPLICATE CONC ÷ MEAN x 100

SOUTHWESTERN LABORATORIES QUALITY CONTROL LOG

SW 846 REIKN SLUDGE/

METHOD OF ANALYSIS EPA 335.3 PARAMETER CN-W MATRIX H2O ANALYST J ALLEN DATE 14 SEP 92 TIME 0500

CALIBRATION STANDARDS/BLANK	ABSORBANCE
STD 0.02	3.25
0.05	9.375
0.10	18.125
0.50	85.00
L.R. (r) = .99995	

STANDARDS	THEORETICAL CONCENTRATION	MEASURED CONCENTRATION	% RECOVERY
BLANK			
STD 0.50	.500	.5055	101
	.500	.5114	102

LAB NUMBERS/SAMPLE ID NUMBERS IN THIS RUN:

REIKN 92-09-099-1 ; 92-09-118-(1,2,3) ; 92-09-137-1 ; 92-09-139-1
92-09-159-(1,2,3,4) CN-W 92-09-076-(3,4)

QUALITY CONTROL DUPLICATES AND SPIKES

PERCENT RECOVERY CALCULATION: SPIKED SAMPLE - SAMPLE ÷ THEORETICAL × 100

LAB #-SAMPLE ID #	FIRST CONC.	DIL. FACTOR	REPL. CONC.	DIL. FACTOR	RANGE	%PRECISION	SPIKED SAMPLE CONC.	SAMPLE CONC.	THEO. CONC.	% RECOVERY
92-09-159-2	<0.02	12.5 mL / 25 mL	<0.02	12.5 mL / 25 mL	0	—	.266	0	.250	104
92-09-159-4	<0.02	12.5 mL / 25 mL	<0.02	12.5 mL / 25 mL	0	—	.2621	0	.250	105

PRECISION = FIRST CONC. - REPLICATE CONC. ÷ MEAN × 100

ANALYTIKEM - HOUSTON

SILVER QUALITY CONTROL LC

EPA SW-846:7760, AA

DATE/TIME OF ANALYSIS: 2/Sep92/1350 PAGE 1 OF 2

LAB NUMBER-SAMPLE	COMMENTS	CHECK STANDARDS	CONCENTRATION FOUND/TRUE
A9007(12)	Method blank for JT ~~A8T~~	SAMPLE BLANK	
A8931-(1-5)		METHOD BLANK	
A9027-(1-6)		ERA 2 PE STD	1.012/1.0
A9007A-LT	A9027 was <2 mg/kg.	INTERNAL STD.	
A8972-(1T-3T)			
A9021-1			

MATRIX SPIKE	PRECISION	MS DUPLICATE		ACCURACY				
LAB NUMBER-SAMPLE	MS % REC.	MSD % REC.	% RPD	SPIKE AMOUNT	MS RESULT	% REC.	MSD RESULT	% REC.
A9007-MB	107	—	—	0.1	0.107	107	—	—
A9007-2	112	106	5.5	0.1	0.112	112	0.106	106
(S) A8931-MB	115	—	-	↓	0.115	115	—	—
A8931-1	107	90	17.2	↓	0.107	107	0.090	90
A9027-MB	86	—	—	0.2	0.172	86	—	—
A9027-6	88	90	2.2	↓	0.176	88	0.179	90
A9007A-MB	88	—	—	0.1	0.088	88	—	—
A9007A-Extract Soil	82	↓	↓	↓	0.082	82	↓	↓
A9007A-6T	72				0.072	72		
A8972-MB	72				0.072	72		
-Extract Soil	84				0.084	84		
-1T	85				0.085	85		
-2T	87	↓	↓	↓	0.087	87	↓	↓

CONTROL LIMITS: AQUEOUS, 9-12 %RPD, 78-116 %REC.

SOLIDS, SAME %RPD, SAME %REC.

1 OUT OF 3 DUPLICATES WERE OUTSIDE OF QC LIMITS

0 OUT OF 16 SPIKE RECOVERIES WERE OUTSIDE OF QC LIMITS

ANALYST: Erick M Edwards/ERE QA/QC:

ANALYTIKEM – HOUSTON

SILVER QUALITY CONTROL LO

EPA SW-846:7760, AA

DATE/TIME OF ANALYSIS: 21 Sep 92 / 1350 PAGE 2 OF 2

LAB NUMBER-SAMPLE	COMMENTS	CHECK STANDARDS	CONCENTRATION FOUND/TRUE
		SAMPLE BLANK	
		METHOD BLANK	
		P.E. STD.	
		INTERNAL STD.	

MATRIX SPIKE	PRECISION		MS DUPLICATE	ACCURACY				
LAB NUMBER-SAMPLE	MS % REC.	MSD % REC.	% RPD	SPIKE AMOUNT	MS RESULT	% REC.	MSD RESULT	% REC.
A8972-3T	86	–	–	0.1	0.086	86	–	–
A9021-mB	88	↓	↓	↓	0.088	88	↓	↓
A9021-1	87	91	4.5	↓	0.087	87	0.091	91

CONTROL LIMITS: AQUEOUS, 9-12 %RPD, 78-116 %REC.

SOLIDS, SAME %RPD, SAME %REC.

0 OUT OF 1 DUPLICATES WERE OUTSIDE OF QC LIMITS

0 OUT OF 4 SPIKE RECOVERIES WERE OUTSIDE OF QC LIMITS

ANALYST: [signature] QA/QC: [signature]

ANALYTIKEM - HOUSTON
ICAP QUALITY CONTROL LOG

DATE/TIME: 24 SEPT92/0853 EPA SW-846:6010 PAGE 1 OF 3

LAB ID	A8972-(1T->3T)	A9021-1	A9041-(1->10) BS	A9041-(1->10) TTL	A9062-1,3,5,6		
NOS							

PARAMETER		As	Se	Zn	Pb	Cd	Ni	Cr	Be	Cu	Ba
PE	ERA-3	1.08 / 1.00	9.08 / 10.0	0.994 / 1.00	0.985 / 1.00	1.01 / 1.00	0.994 / 1.00	0.998 / 1.00	1.00 / 1.00	1.00 / 1.00	1.00 / 1.00
STDS											

A8972-MB MS/MSD %REC	106	98		108	107		100			104
%RPD										
SPIKE AMT.	2.0	2.0		1.0	0.1		0.2			2.0
A8972-EB MS/MSD %REC	102	99		97	99		97			116
%RPD										
SPIKE AMT.	2.0	2.0		1.0	0.1		0.2			2.0
A8972-1T MS/MSD %REC	96	97		76	100		93			78
%RPD										
SPIKE AMT.	2.0	2.0		1.0	0.1		0.2			2.0
A8972-2T MS/MSD %REC	111	96		77	80		78			80
%RPD										
SPIKE AMT.	2.0	2.0		1.0	0.1		0.2			2.0

CONTROL LIMITS:

AQUEOUS	%RPD.										
	%REC.										
SOLIDS	%RPD.										
	%REC.										

-0- OUT OF -0- DUPLICATES WERE OUTSIDE OF QC LIMITS
0 OUT OF 24 SPIKE RECOVERIES WERE OUTSIDE OF QC LIMITS

COMMENTS: _____

ANALYST: James Matthews/JM QA/QC: Ted McKinney/TM

ANALYTICHEM - HOUSTON
ICAP QUALITY CONTROL LOG

DATE/TIME: 24SEPT92/0853 EPA SW-846:6010

	As	Se	Zn	Pb	Cd	Ni	Cr	Be	Cu	Ba	
48972-3T MS/MSD %REC	112	112		82	78		70			62	
%RPD											
SPIKE AMT.	2.0	2.0		1.0	0.1		0.2			2.0	
A9021-MB MS/MSD %REC			88	88	90	88	86		99		
%RPD											
SPIKE AMT.			1.0	1.0	0.1	1.0	0.2		0.2		
A9021-1 MS/MSD %REC			88/86	93/92	88/86	91/90	88/89		92/91		
%RPD			2.30	1.08	2.30	1.10	1.13		1.09		
SPIKE AMT.			1.0	1.0	0.1	1.0	0.2		0.2		
A9041-MB MS/MSD %REC Diss			93	93	92	94	91		104	94	
%RPD											
SPIKE AMT.			1.0	1.0	0.1	1.0	0.2		0.2	2.0	
A9041-3 MS/MSD %REC Diss			77/88	79/83	65/72	84/88	84/89		*/*	85/85	
%RPD			13.33	4.94	10.22	4.65	5.78		2.43	0	
SPIKE AMT.			1.0	1.0	0.1	1.0	0.2		0.2	2.0	
A9041-MB MS/MSD %REC Total			89	91	87	88	120		104	94	
%RPD											
SPIKE AMT.			1.0	1.0	0.1	1.0	0.2		0.2	2.0	

CONTROL LIMITS:

AQUEOUS	%RPD											
	%REC.											
SOLIDS	%RPD											
	%REC.											

0 OUT OF 13 DUPLICATES WERE OUTSIDE OF QC LIMITS
2 OUT OF 52 SPIKE RECOVERIES WERE OUTSIDE OF QC LIMITS

COMMENTS:

ANALYST: James Mathis/JM QA/QC: Ted R McKelvey/TM

ANALYTIKEM - HOUSTON
ICAP QUALITY CONTROL LOG

DATE/TIME: 24 SEPT 92/0853 EPA SW-846:6010 PAGE 3 OF 3

	Zn	Pb	Cd	Ni	Cr	Be	Cu	Ba			
A9041-10 MS/MSD %REC (Total)	84 / 77	88 / 84	87 / 95	89 / 88	* / *		92 / 92	81 / 82			
%RPD	8.70	4.65	8.79	1.13	0.66		0	1.23			
SPIKE AMT.	1.0	1.0	0.1	1.0	0.2		0.2	2.0			
A9062-MB MS/MSD %REC		86			88		82				
%RPD											
SPIKE AMT.		1.0			0.2		0.2				
A9062-1 MS/MSD %REC		81 / 81			66 / 71		72 / 74				
%RPD		0			7.30		2.74				
SPIKE AMT.		1.0			0.2		0.2				
MS/MSD %REC											
%RPD											
SPIKE AMT.											
MS/MSD %REC											
%RPD											
SPIKE AMT.											
MS/MSD %REC											
%RPD											
SPIKE AMT.											

CONTROL LIMITS:

AQUEOUS	%RPD											
	%REC.											
SOLIDS	%RPD											
	%REC.											

0/2 OUT OF 10/23 DUPLICATES WERE OUTSIDE OF QC LIMITS
0/2 OUT OF 10/23 SPIKE RECOVERIES WERE OUTSIDE OF QC LIMITS

COMMENTS: * spike lost to high analyte concentration

ANALYST: James Matthews/SM QA/QC: Ted McKelvey/ITM

AnalytiKEM-Houston

QUALITY CONTROL LOG

Parameter: Ignitability on Solid

Method of Analysis: EPA SW-846, 1010

Page: 1 of 1

Matrix: Soil

Date/Time: 9-16-92/1740

Lab Numbers	Detection Limits
*A9007-6	
*A8972-1,2,3	

Calibration Stds./Blk	Absorbance/Conc.

Correlation Coefficient:

Comments: ** Samples analyzed in duplicate

Check Standards	Concentration Found/True
Sample Blank	ppm
Method Blank	ppm
P.E. Std.	ppm
Internal Std.	ppm

Internal Quality Control Duplicates and Spikes

* Below MDL

Lab No. - Sample ID	Sample Conc.	Duplicate Conc.	Range	Percent RPD	Spiked Result	Sample Result	Spike Added	Percent Recovery
**A9007-6								
**A8972-1								

Analyst: [signature]

QA/QC Approval: [signature]

ANALYTIKEM - HOUSTON

MERCURY QUALITY CONTROL LOG

EPA SW-846:7470, 7471 AA

DATE/TIME OF ANALYSIS: 9/22/92 / 16:00 PAGE 1 OF 1

LAB NUMBER-SAMPLE		COMMENTS	CHECK STANDARDS	CONCENTRATION FOUND/TRUE
A8972-1T-3T			SAMPLE BLANK	—
A9007A-6T			METHOD BLANK	—
A9027-1-6			EPA 1085-1 P.E. STD.	0.0105/0.010
A9003-1			CVS ~~INTERNAL~~ STD.	0.0075/0.0075

MATRIX SPIKE	PRECISION	MS DUPLICATE		ACCURACY				
LAB NUMBER-SAMPLE	MS % REC.	MSD % REC.	% RPD	SPIKE AMOUNT	MS RESULT	% REC.	MSD RESULT	% REC.
A8972-extract blk	106	—	—	0.005	0.0053	106	—	—
A8972-1T	98	—	—	↓	0.0049	98	—	—
A8972-2T	102	—	—		0.0051	102	—	—
A8972-3T	98	—	—		0.0049	98	—	—
A9007A-extract blk	98	—	—		0.0049	98	—	—
A9007A-6T	100	—	—		0.0050	100	—	—
S A9027-4	98	98	0		0.0049	98	0.0049	98
A9003-1	90	90	0		0.0045	90	0.0045	90
METHOD BLANK	102	—	—		0.0051	102	—	—

CONTROL LIMITS: AQUEOUS, 11-15 %RPD, 81-123 %REC

SOLIDS, SAME %RPD, SAME %REC

0 OUT OF 2 DUPLICATES WERE OUTSIDE OF QC LIMITS

0 OUT OF 10 SPIKE RECOVERIES WERE OUTSIDE OF QC LIMITS

ANALYST: Tammy Lanore / TL QA/QC: Ted R McKinney / TM

Analytical KEM LABORATORIES HOUSTON
QUALITY CONTROL LOG- MATRIX SPIKE RECOVERY AND PRECISON
SW-846: METHOD 8 A8972
MATRIX: SOIL SAMPL A8972-1

COMPOU	SPIKE ADDED	SAMPLE RESULT	MS RESULT	REC%	MSD RESULT	REC%	RPD	QC LIMITS RPD	QC LIMITS REC%
DIESEL	250	34	299	106	446	165	39	20.00	20-150

Sandra Metz 9/30/92 Brenda R. Basile 9/30/92

ANALYST DATE QA/QC APPROVAL DATE

ANALYTIKEM LABORATORIES
QUALITY CONTROL LOG-FORTIFIED BLANK AND METHOD BLANK
TPH ANALYSIS
LAB NO. A8972

BLANK EXTRACTION DATE: 9/15/92

NO TPH DETECTED AT STATED
METHOD DETECTION LIMIT MB5243LS

FORTIFIED METHOD BLANK FB5244LS

AMOUNT(MG/L) SPIKED	AMOUNT(MG/L) RECOVERED	PERCENT RECOVERY
250	290	116

COMMENTS:

Sanda [illegible] 9/20/92
ANALYST SIGNATURE DATE

Brenda P. Bowden 9/29/92
QAQC COORDINATOR DATE

AnalytiKEM—Houston

QUALITY CONTROL LOG

Parameter: pH correction on Solid

Method of Analysis: EPA SW-846, 9040

Page: 1 of 1

Matrix: ~~Liquid~~ Solid AB

Date/Time: 9-16-92/1620

Lab Numbers	Detection Limits
A8972-123	0.01/unit
A9007-6	↓

Calibration Stds./Olk	Absorbance/Conc.
Buffer 10.00	} Calib.
4.00	
Correlation Coefficient:	

Check Standards	Concentration Found/Time
Sample Blank	
Method Blank	
P.E. Std.	
Internal Std. Buffer 7.0	7.04 units
ccv's Buffer 7.0	7.05 units.

Comments:

Internal Quality Control Duplicates and Spikes

* Below MDL

Lab No. - Sample ID	Sample Conc.	Duplicate Conc.	Range	Percent RPD	Spiked Result	Sample Result	Spike Added	Percent Recovery
A8972-1	8.57	8.58	0.01	0.1				
A9007-6	7.39	7.32	0.07	1.0				

AnalytiKEM-Houston

Billing Summary
10/02/92 14:22

EXXON
Project No.: 1009-001-150 Lab Number: A8972

	Test Code	Description	Number	Cost	Total
1.	Ag - -TCL-HOU	TCLP SILVER	3	15.62	46.86
2.	As - -TCI-HOU	TCLP ARSENIC	3	15.62	46.86
3.	BNA - - -HOU	SEMIVOLATILE ORGANICS	3	450.00	1350.00
4.	Ba - -TCL-HOU	TCLP BARIUM	3	15.62	46.86
5.	CORR -S- -HOU	CORROSIVITY ON SOLID	3	65.00	195.00
		No Charge-Unable to Analyze	3	-65.00	-195.00
6.	Cd - -TCL-HOU	TCLP CADMIUM	3	15.62	46.86
7.	Cr - -TCL-HOU	TCLP CHROMIUM	3	15.63	46.89
8.	FP -S- -HOU	IGNITABILITY ON SOLID	3	35.00	105.00
9.	H2S -S-REA-SWL	HYDROGEN SULFIDE, REACTIVE/SLD	3	35.00	105.00
10.	HCN -S-REA-SWL	HYDROCYANIC ACID, REACTIVE/SLD	3	35.00	105.00
11.	Hg - -TCL-HOU	TCLP MERCURY	3	15.63	46.89
12.	Pb - -TCL-HOU	TCLP LEAD	3	15.63	46.89
13.	Se - -TCI-HOU	TCLP SELENIUM	3	15.63	46.89
14.	TCLP -S- -HOU	TOXICITY CHAR. LEACH. PROC.	3	100.00	300.00
15.	TPH -S-GC -HOU	PETROLEUM HYDROCARBON BY GC	3	100.00	300.00
16.	VOA - - -HOU	VOLATILE ORGANIC ANALYSES	3	225.00	675.00
17.	ZHE -S- -HOU	ZERO HEADSPACE EXTRACTION/SLD	3	150.00	450.00
18.	pH -S-COR-HOU	pH CORROSION ON SOLID	3	10.00	30.00
19.		Sample Disposal Charge		$ 6.50	32.50
	Total:				3827.50

ENSR

November 18, 1992

ENSR Consulting
and Engineering
3000 Richmond Avenue
Houston, Texas 77098
(713) 520-9900
(713) 520-6802 (FAX)

Mr. Roger C. Anderson
Bureau Chief
Environmental Bureau
Oil Conservation Division
Land Office Building, State of New Mexico
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Re: Waste Classification of Contaminated Soils from the former Exxon Chemical Company Facility at 2607/2609 West Marland Boulevard and Exxon Chemical Company Facility at 1715 Dal Paso, Hobbs, New Mexico

Dear Mr. Anderson:

As discussed in our meeting on July 31, 1992 you requested that a waste classification of the contaminated soils be made prior to submittal of a work plan to the OCD for a removal action. ENSR collected samples from both sites on September 3, 1992 in the areas of concern, as discussed in our meeting. Therefore, the purpose of this letter is to notify the New Mexico Oil Conservation Division (OCD) that contaminated soils from the Exxon Chemical facilities, referenced above, should be classified as non-hazardous for disposal purposes based on the attached analytical data.

Samples, DP-1 from the Dal Paso site and MR-1 from the Marland site, were collected from trenches through areas of known hydrocarbon and/or lead soil contamination. These contaminated areas had been identified through previous sampling conducted by ENSR in January 1992. Sample DP-2 was collected from the Dal Paso site in a trench at the base of the collapsed septic tank, as you requested. The soil surrounding the septic tank was suspected to have contained oily wastes prior to its being taken out of service in 1984. As shown by the attached analytical data, as well as past analytical data, the soils from the septic tank area do not appear to be contaminated with metals or hydrocarbons and therefore will not be addressed in the work plan for a removal action.

All three samples were collected as composite samples, as requested. Each was composited from at least five sample points within the known or suspected contaminated soil areas.

We expect to submit work plans to your offices by December 23, 1992 for your approval. After obtaining OCD approval ENSR expects to begin field work within 30 days, weather permitting.

ENSR is currently considering disposal of the contaminated soils at the CRI landfill near Hobbs. ENSR will request OCD authorization for disposal when the work plan is submitted.

If you have any questions or comments please contact me at (713) 520-9900.

Sincerely,

J. Scott Kuykendall
Staff Geologist

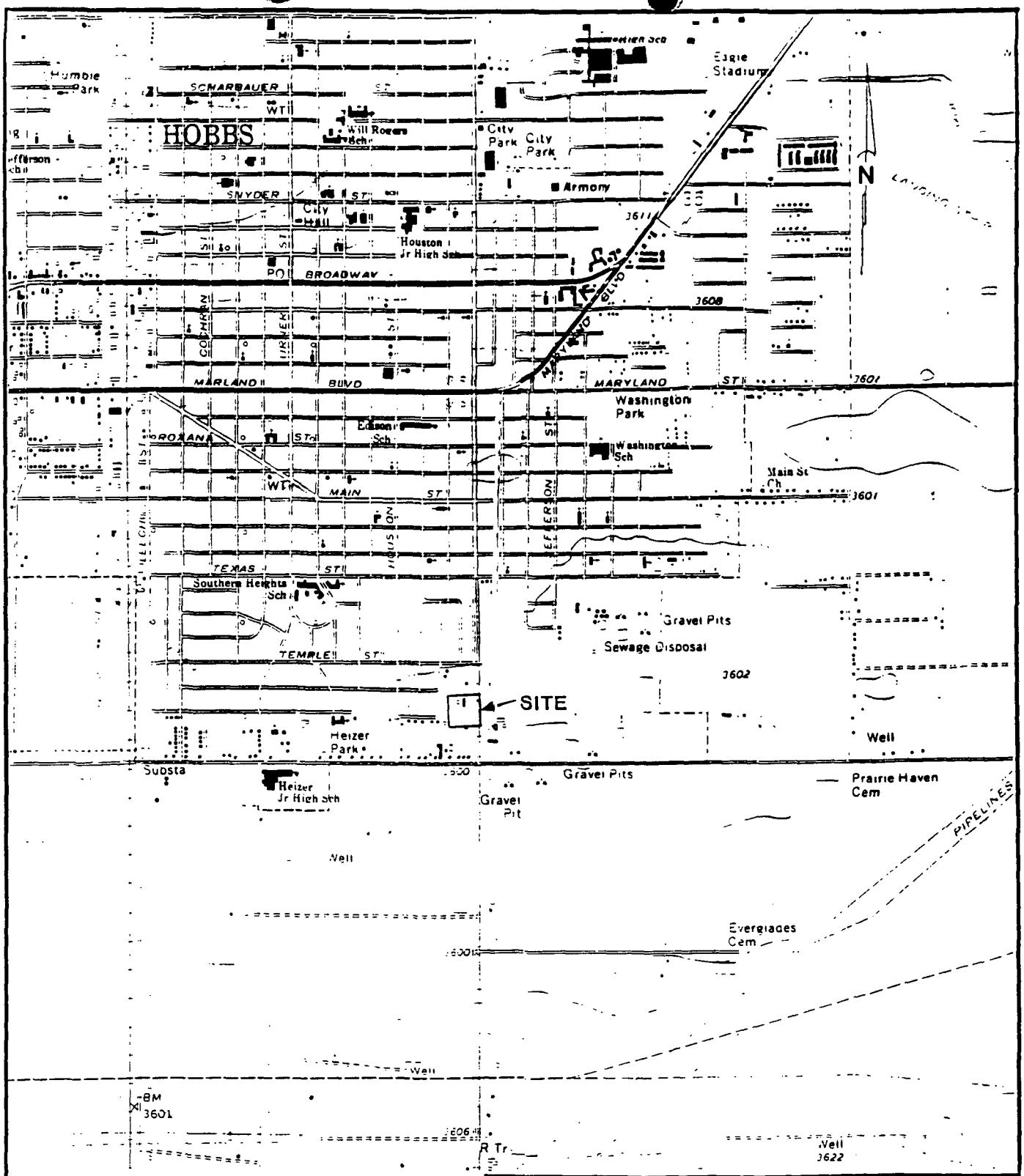
Jay Swindle
Project Manager

JSK:JS/db

Attachments

Reference No. 1009-001-150

cc: Brown McCarroll and Oaks Hartline



REFERENCE: U.S.G.S. Quadrangle Map for Hobbs, New Mexico 1979.

TOPO

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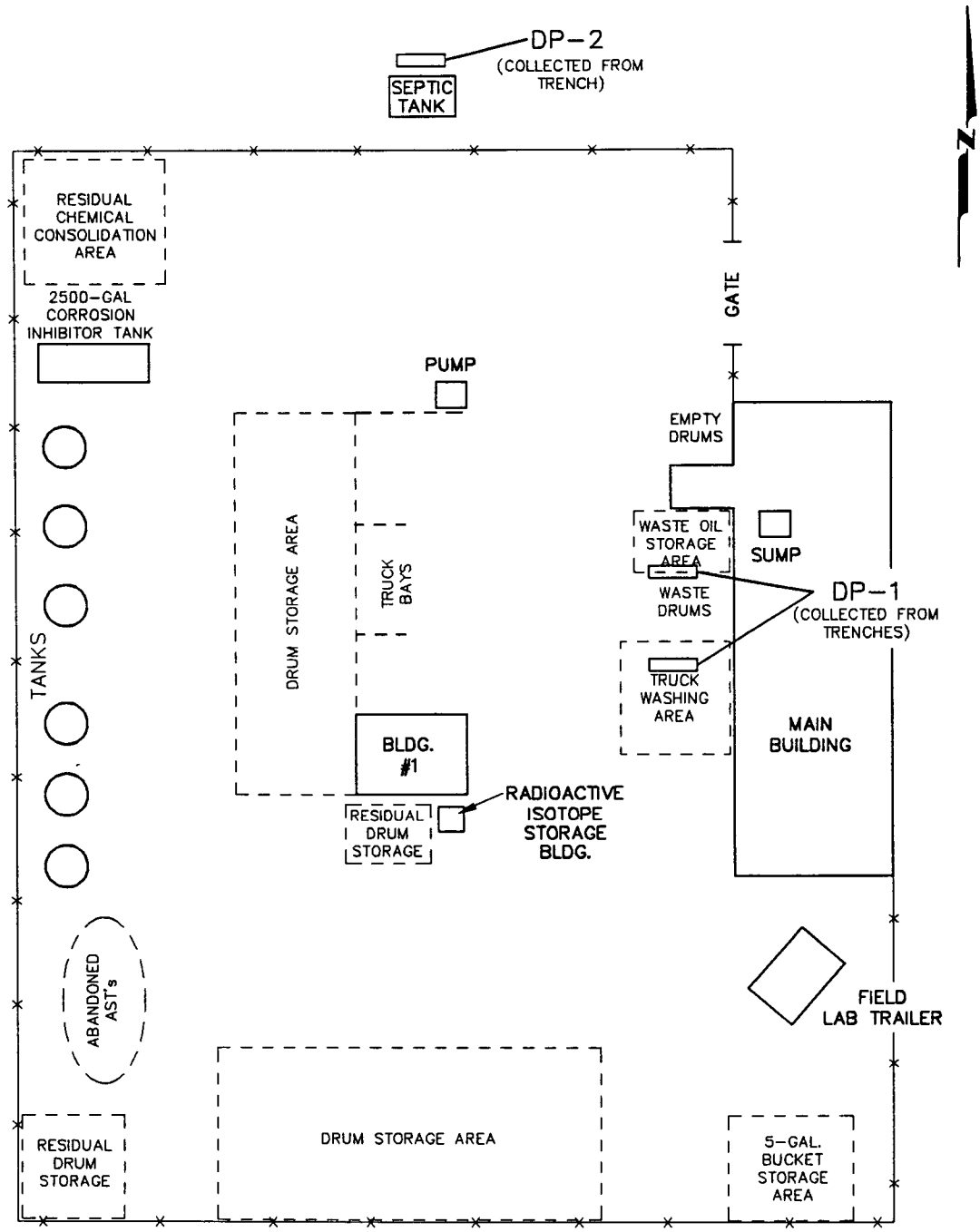
PROPERTY LOCATION

1715 DAL PASO STREET

HOBBS, NEW MEXICO

DRAWN BY: S. GHANI	DATE: 10-19-92	PROJECT NUMBER: 1009-001-150
CHK'D.BY:	REVISED:	



NOT TO SCALE

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SITE PLOT PLAN WITH SAMPLE LOCATIONS 1715 DAL PASO STREET HOBBS, NEW MEXICO

DRAWN: SJF/SG	DATE: 11-12-92	PROJECT NUMBER:	
APPV'D:	REVISED:	1009-001-150	

CE100949

Summary of Analytical Results
Exxon Chemical Company Facility
1715 Dal Paso Street
Hobbs, New Mexico
Date Sampled: 9-3-92

Analytical Parameters	Regulatory Threshold Limit	Sample ID: DP-1 Depth: 0'-2'		Sample ID: DP-2 Depth: 6'-8'	
TCLP Metals (mg/l)		**Level Detected**	**Detection Limit**	**Level Detected**	**Detection Limit**
Arsenic	5.0	<0.2	0.2	<0.2	0.2
Barium	100.0	1.2	0.5	1.2	0.5
Cadmium	1.0	<0.010	0.010	<0.010	0.010
Chromium	5.0	<0.05	0.05	<0.05	0.05
Lead	5.0	0.1	0.02	0.02	0.02
Mercury	0.2	<0.001	0.001	<0.001	0.001
Selenium	1.0	<0.2	0.2	<0.2	0.2
Silver	5.0	<0.01	0.01	<0.01	0.01
TCLP Volatiles (μg/l)					
Pyridine	5,000	<13	13	<10	10
Vinyl Chloride	200	<10	10	<10	10
1,1-Dichloroethene	700	<5	5	<5	5
Chloroform	6,000	<5	5	<5	5
1,2-Dichloroethane	500	<5	5	<5	5
Methyl Ethyl Ketone	200,000	<10	10	<10	10
Carbon Tetrachloride	500	<5	5	<5	5
Trichloroethene	500	<5	5	<5	5
Benzene	500	<5	5	<5	5
Tetrachloroethene	700	<5	5	<5	5
Chlorobenzene	100,000	<5	5	<5	5
TCLP Semivolatiles (μg/l)		**Level Detected**	**Detection Limit**	**Level Detected**	**Detection Limit**
1,4-Dichlorobenzene	7,500	<13	13	<10	10
2-Methylphenol	200,000	<13	13	<10	10
4-Methylphenol	200,000	<13	13	<10	10
3-Methylphenol	200,000	<13	13	<10	10

Summary of Analytical Results
Exxon Chemical Company Facility
1715 Dal Paso Street
Hobbs, New Mexico
Date Sampled: 9-3-92

Analytical Parameters	Regulatory Threshold Limit	Sample ID: DP-1 Depth: 0'-2'		Sample ID: DP-2 Depth: 6'-8'	
Hexachloroethane	3,000	<13	13	<10	10
Nitrobenzene	2,000	<13	13	<10	10
Hexachlorobuta-diene	500	<13	13	<10	10
2,4,6-Trichlorophenol	2,000	<13	13	<10	10
2,4,5-Trichlorophenol	400,000	<66	66	<50	50
2,4-Dinitrotoluene	130	<13	13	<10	10
Hexachlorobenzene	130	<13	13	<10	10
Pentachlorophenol	100,000	<66	66	<50	50
RCRA Characteristics					
pH	2<pH<12.5	8.57 units	0.01 units	8.13 units	0.01 units
Corrosivity	>6.35 MMPY	Unable to analyze due to matrix		Unable to analyze due to matrix	
Ignitability	<140°F	Unable to analyze due to matrix		Unable to analyze due to matrix	
Reactivity - HCN - H_2S	 250 mg/kg 500 mg/kg	 <0.40 mg/kg 245 mg/kg	 0.40 mg/kg 20 mg/kg	 <0.40 mg/kg 146 mg/kg	 0.40 mg/kg 20 mg/kg

BROWN McCARROLL & OAKS HARTLINE

Attorneys

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Fax (713) 529-4639

November 12, 1992

Writer's Direct Number:
(512) 479-9752

Mr. Carl Baldwin
County Commissioner
Lee County Courthouse
Lovington, New Mexico 88240

VIA FEDERAL EXPRESS

Re: Cleanup of Facilities Owned or Formerly Operated by Exxon Corporation

Dear Mr. Baldwin:

As we discussed on Tuesday, November 10, 1992, Exxon Chemical Company, a division of Exxon Corporation, (Exxon) is working with the New Mexico Oil Conservation Division (OCD) to conduct a cleanup of two properties that were owned or operated by Exxon in the City of Hobbs. The purpose of this letter is to (1) briefly review the history of the sites; (2) briefly describe the proposed cleanup plan; and (3) advise you of an opportunity to review and comment on the proposed plans.

The first property is located at 1715 Dal Paso Street in the City of Hobbs (see enclosed maps). Exxon acquired the property in 1987 from NL Industries, Inc. (NLI). The property is currently used as office space only. When Exxon first acquired the property in 1987, it used the facility to store and distribute oil field chemicals. NLI also used the property for storing and distributing oil field chemicals. Dry chemicals were stored inside the buildings on the site; liquid chemicals were stored in above-ground tanks and drums in the yard area. The chemicals were used for the maintenance of oil wells and included paraffin solvents, corrosion inhibitors, scale inhibitors, emulsion breakers, desalting compounds, microbiocides, surfactants, defoamers, and water clarifiers. Soils at the facility became contaminated as a result of periodic product spills and leaks over many years of facility usage.

The second property is located at 2607/2609 West Marland Street in the City of Hobbs (see enclosed maps). It is currently owned by Electro-Support Systems, Inc. Exxon acquired the lease to the property from NLI in 1987 and terminated the lease in 1989. During the period of Exxon's operations, the facility was used for the storage and distribution of oil field chemicals similar to those described above. The products were

stored in above-ground tanks and drums in the yard area. Soils at this site are also contaminated with constituents from the oil field products.

As required by the laws of the State of New Mexico, Exxon notified the OCD regarding the contaminated soils at the properties and have been working with that agency to develop appropriate cleanup plans. Toward that end, Exxon has prepared an Engineering Evaluation/Cost Analysis, which discusses several cleanup alternatives. A copy of the Engineering Evaluation/Cost Analysis for each site is enclosed. To allow public participation in the remedy selection process, Exxon intends to publish a notice in the Hobbs News Sun on November 16, 1992. Exxon hereby invites the County to review these documents and to call me or Mr. J. Paul Reed, Exxon's Environmental Coordinator, at (713) 671-8676 for more information.

Very truly yours,

Patricia E. Carls

Patricia E. Carls

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13232.68180

Enclosures

cc: (via Federal Express)
R. Anderson, OCD
R. Littleton, County Commissioner
B. Goff, County Commissioner
M. Hughes, County Commissioner
I. Azisky, County Commissioner
S. Vincent, County Commissioner

BROWN McCARROLL & OAKS HARTLINE
Attorneys

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(713) 529-3110
Fax (713) 529-4639

November 12, 1992

Writer's Direct Number:
(512) 479-9752

VIA FEDERAL EXPRESS

Mr. Robert Love
Mayor
City of Hobbs
City Hall
300 North Turner
Hobbs, New Mexico 88240

Re: Cleanup of Facilities Owned or Formerly Operated by Exxon Corporation

Dear Mr. Love:

As we discussed on Tuesday, November 10, 1992, Exxon Chemical Company, a division of Exxon Corporation, (Exxon) is working with the New Mexico Oil Conservation Division (OCD) to conduct a cleanup of two properties that were owned or operated by Exxon in the City of Hobbs. The purpose of this letter is to (1) briefly review the history of the sites; (2) briefly describe the proposed cleanup plan; and (3) advise you of an opportunity to review and comment on the proposed plans.

The first property is located at 1715 Dal Paso Street in the City of Hobbs (see enclosed maps). Exxon acquired the property in 1987 from NL Industries, Inc. (NLI). The property is currently used as office space only. When Exxon first acquired the property in 1987, it used the facility to store and distribute oil field chemicals. NLI also used the property for storing and distributing oil field chemicals. Dry chemicals were stored inside the buildings on the site; liquid chemicals were stored in above-ground tanks and drums in the yard area. The chemicals were used for the maintenance of oil wells and included paraffin solvents, corrosion inhibitors, scale inhibitors, emulsion breakers, desalting compounds, microbiocides, surfactants, defoamers, and water clarifiers. Soils at the facility became contaminated as a result of periodic product spills and leaks over many years of facility usage.

The second property is located at 2607/2609 West Marland Street in the City of Hobbs (see enclosed maps). It is currently owned by Electro-Support Systems, Inc. Exxon acquired the lease to the property from NLI in 1987 and terminated the lease in 1989. During the period of Exxon's operations, the facility was used for the storage and

distribution of oil field chemicals similar to those described above. The products were stored in above-ground tanks and drums in the yard area. Soils at this site are also contaminated with constituents from the oil field products.

As required by the laws of the State of New Mexico, Exxon notified the OCD regarding the contaminated soils at the properties and have been working with that agency to develop appropriate cleanup plans. Toward that end, Exxon has prepared an Engineering Evaluation/Cost Analysis, which discusses several cleanup alternatives. A copy of the Engineering Evaluation/Cost Analysis for each site is enclosed. To allow public participation in the remedy selection process, Exxon intends to publish a notice in the Hobbs News Sun on November 16, 1992. Exxon hereby invites the City to review these documents and to call me or Mr. J. Paul Reed, Exxon's Environmental Coordinator, at (713) 671-8676 for more information.

Very truly yours,

Patricia E. Carls

Patricia E. Carls

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13232.68180

Enclosures

cc: (via Federal Express)
R. Gallagher, City Manager
R. Doss, City Engineer
M. Gray, Fire Chief
R. Anderson, OCD

BROWN McCARROLL & OAKS HARTLINE

Attorneys

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Houston, Texas 77019-2100
(713) 529-3110
Fax (713) 529-4639

November 12, 1992

Writer's Direct Number:
(512) 479-9752

VIA FEDERAL EXPRESS

Ms. Cris Adams
Hobbs Public Library
509 North Shipp
Hobbs, New Mexico 88240

Re: Exxon Chemical Company; Public Document Repository

Dear Ms. Adams:

As we discussed last week, I am the attorney for Exxon Chemical Company, a division of Exxon Corporation (Exxon), on an environmental matter involving property located in the City of Hobbs. Federal law requires Exxon to make certain documents available for public review for a period of thirty days. Accordingly, I am enclosing one copy of each of the following documents: Engineering Evaluation/Cost Analysis (Dal Paso Street); Engineering Evaluation/Cost Analysis (West Marland Street).

These documents must be made available for public review from November 16, 1992 through December 16, 1992. I understand that you and your staff can accommodate Exxon's needs by making the documents available at the Reference Desk.

Thank you for your cooperation and assistance in this matter. Please feel free to call me collect if you have any questions or need additional information.

Very truly yours,

Patricia E. Carls

Patricia E. Carls

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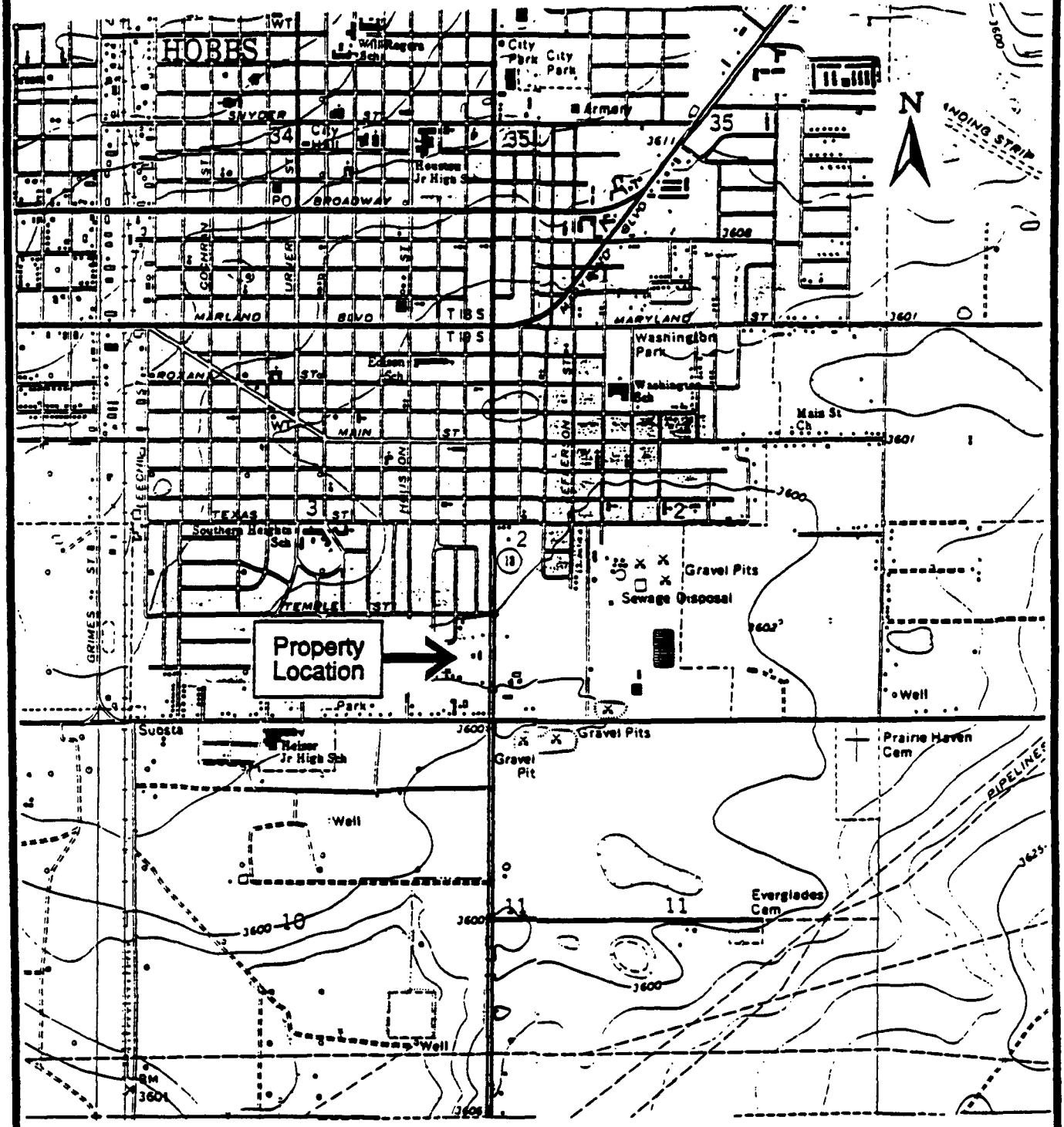
Enclosure

cc: R. Anderson, OCD (via Federal Express)



Source: USGS, Hobbs, West, N. Mex. quadrangle, 1969. Photo Revised 1979.

QUADRANGLE LOCATION

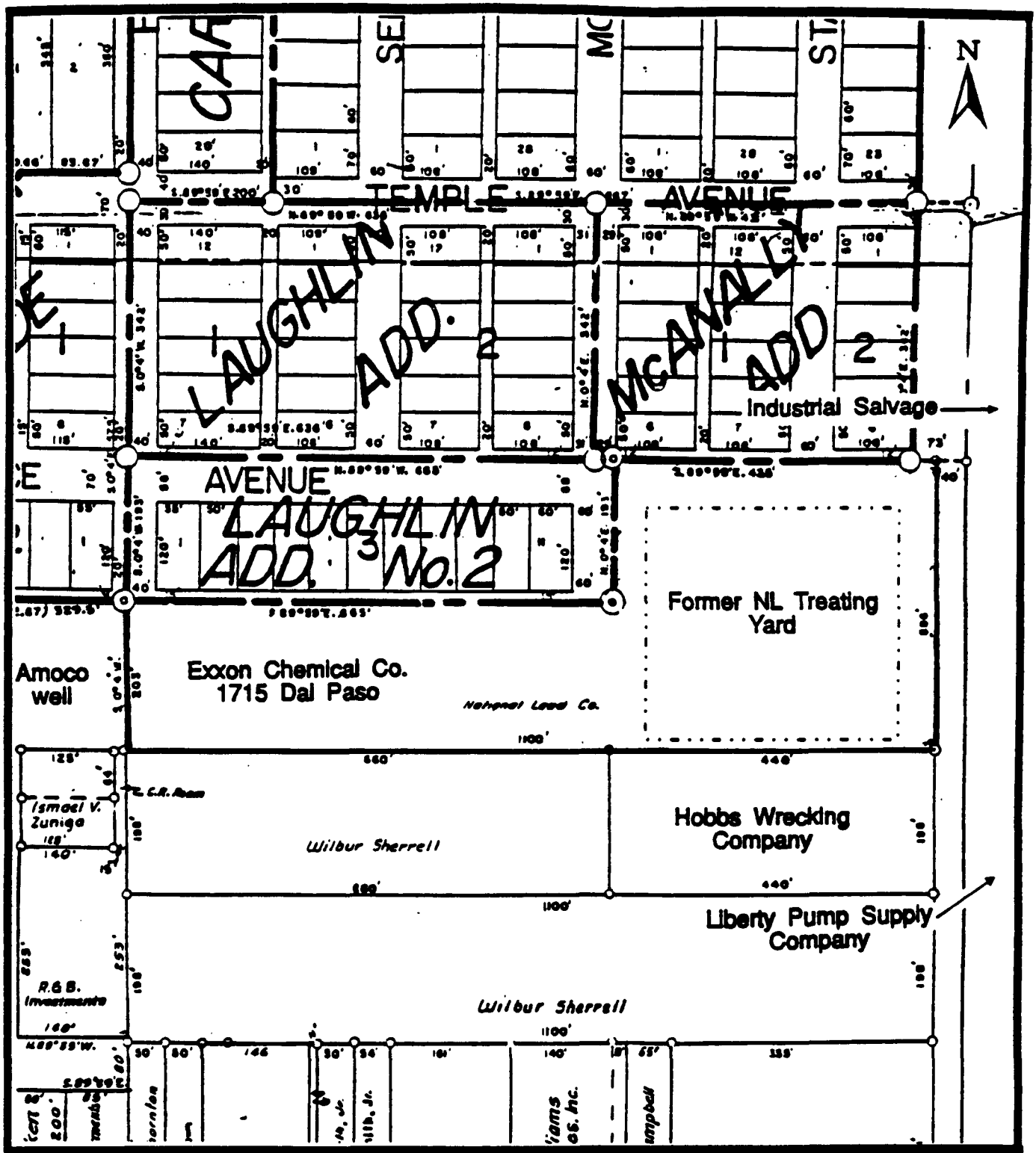
Scale

0 1Mile

ENSR
Consulting and Engineering

Figure 1
Property Location
1715 Dal Paso
Hobbs, NM

DRAWN: RBB | DATE: 9-5-91 | PRJ. NO.: 2620-092-517



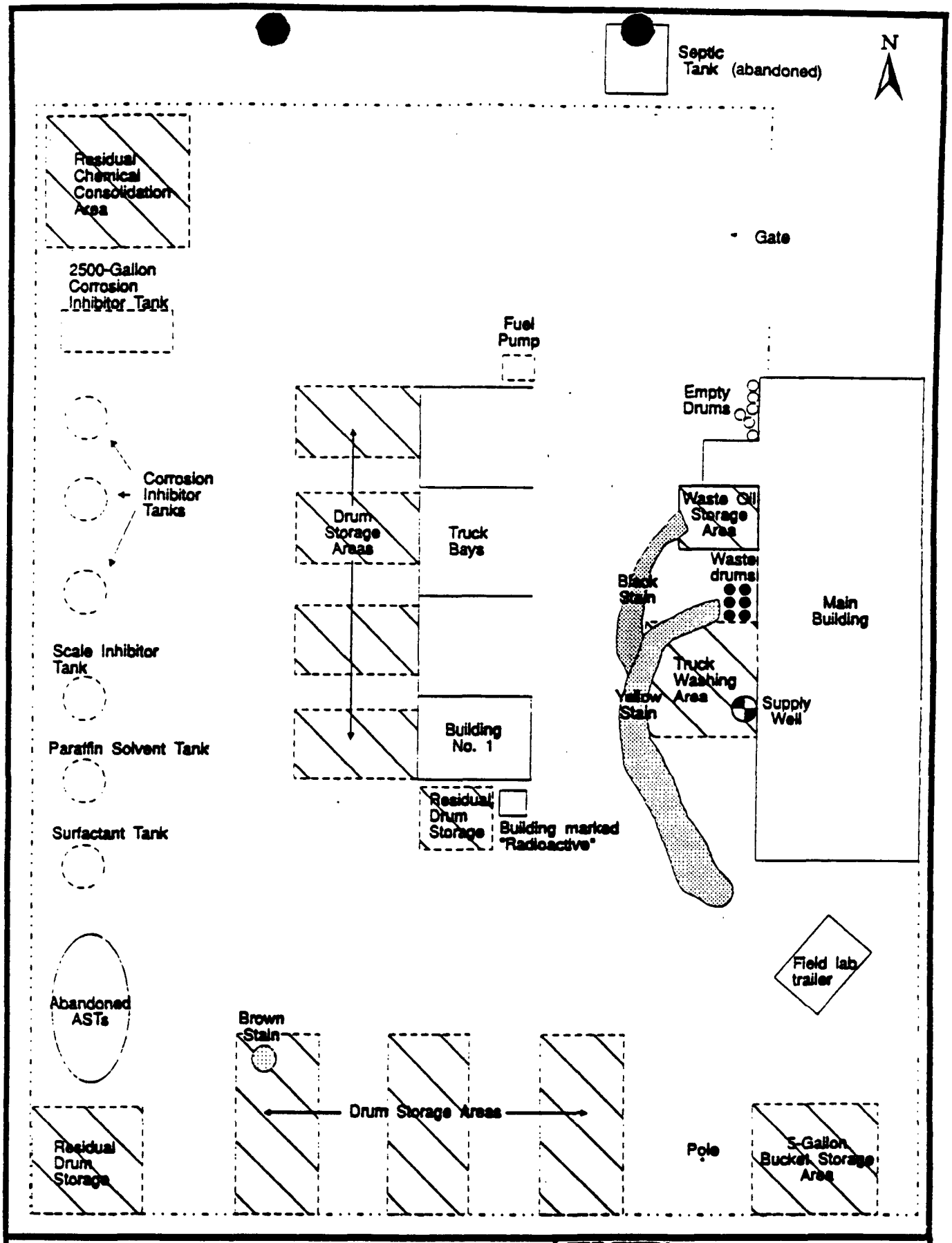
Source: Commercial Appraisal Report for Exxon Company, U.S.A. May 9, 1989.

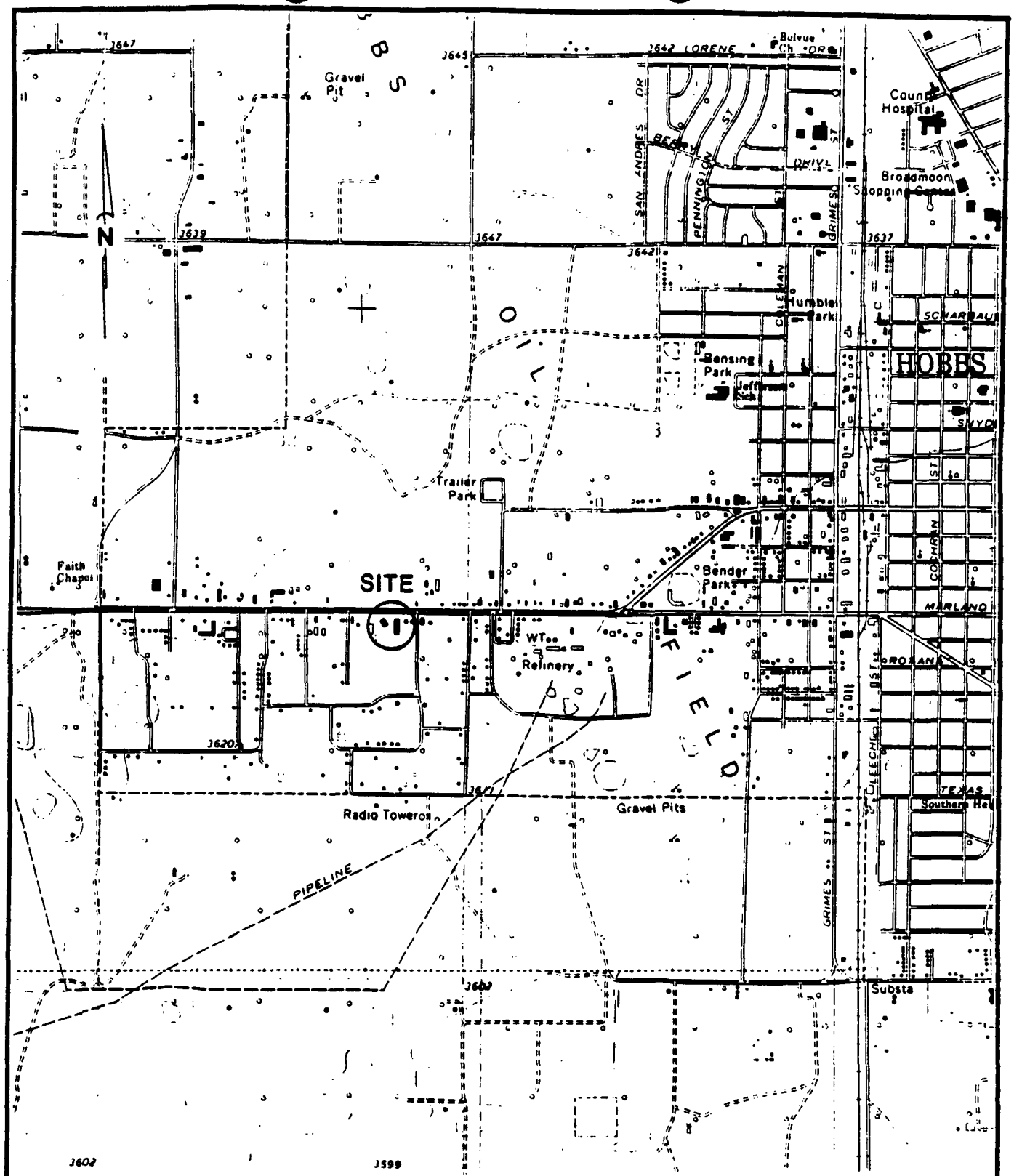
Scale: 1 inch = 200 feet

ENSR
Consulting and Engineering

Figure 2
Property Boundaries
1715 Dal Paso, Hobbs, NM

DRAWN: RBB | DATE: 9-5-91 | PRJ. NO.: 2620-092-517


Septic Tank (abandoned)
N
Residual Chemical Consolidation Area
Gate
2500-Gallon Corrosion Inhibitor Tank
Fuel Pump
Empty Drums
Corrosion Inhibitor Tanks
Drum Storage Areas
Truck Bays
Waste Oil Storage Area
Waste drums
Black Stain
Main Building
Scale Inhibitor Tank
Truck Washing Area
Yellow Stain
Supply Well
Paraffin Solvent Tank
Building No. 1
Residual Drum Storage
Building marked "Radioactive"
Surfactant Tank
Field lab trailer
Abandoned ASTs
Brown Stain
Drum Storage Areas
Residual Drum Storage
Pole
5-Gallon Bucket Storage Area
Fence
Existing structure
Approximate location of structure
Approximate area location
NOT TO SCALE
ENSR Consulting and Engineering
Figure 3
Property Details
1715 Dal Paso, Hobbs, New Mexico



0 2000 4000

SCALE IN FEET

Ref.: USGS, Hobbs West, New Mexico Quadrangle Map, 1979

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FIGURE 2-1

SITE LOCATION MAP

CHEMICAL DISTRIBUTION COMPANY

HOBBS, NEW MEXICO

DRAWN: L.GAMBLE	DATE: 3-2-92	PROJECT NUMBER:
APPV'D:	REVISED:	1009-001-160

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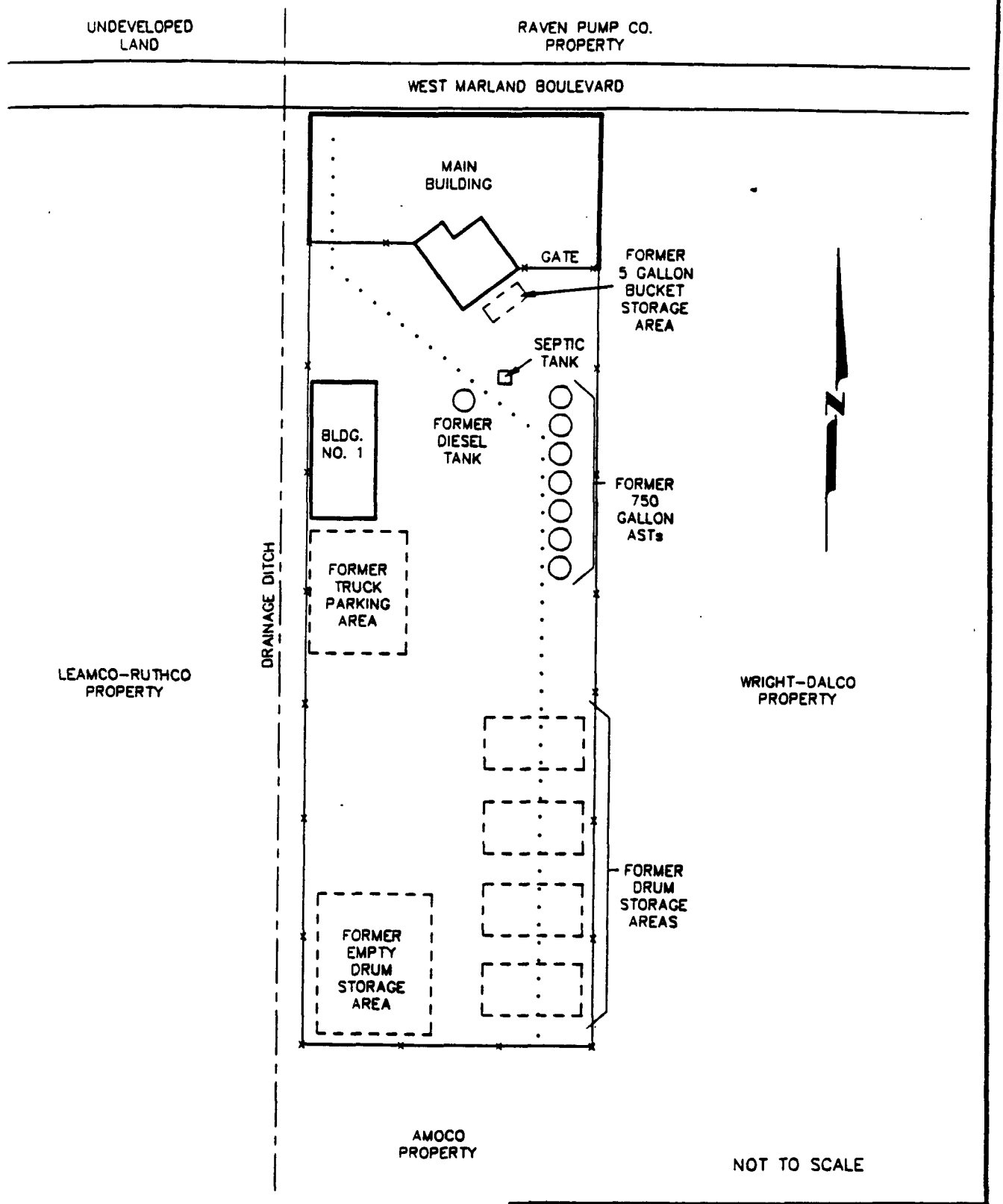

ENSR™
ENSR CONSULTING & ENGINEERING

FIGURE 2-2
SITE PLOT PLAN
CHEMICAL DISTRIBUTION COMPANY
HOBBS, NEW MEXICO

DRAWN: L.GAMBLE	DATE: 3-2-92	PROJECT NUMBER:
APPV'D:	REVISED:	1009-001-160

CE100907

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Attorneys

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Fax (713) 529-4639

November 10, 1992

Writer's Direct Number:
(512) 479-9752

Hobbs News Sun
201 North Thort
Hobbs, New Mexico 88240

VIA FEDERAL EXPRESS
(Standard Overnight)

Attn: Marcella Joyce

Re: Public Notice

Dear Ms. Joyce:

Enclosed is a Public Notice item to be published in the Monday, November 16, 1992 edition of the Hobbs News Sun. Because this is a legal notice, I will need a Publisher's Affidavit confirming that the notice was indeed published on November 16, 1992. The affidavit should include a clipping of the notice as it appeared in the newspaper. Please send any bill for this service to me at the above address.

Thank you for your cooperation in this matter. Please feel free to call me if you have any questions or need additional information.

Very truly yours,

Patricia E. Carls

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Enclosure

cc: R. Anderson, OCD

NOTICE

Exxon Chemical Company, a division of Exxon Corporation ("Exxon") plans to conduct Removal Action Activities at two sites located in the City of Hobbs. The sites are located at 1765 Dal Paso Street, and at 2607/2609 West Marland Boulevard. An Engineering Evaluation/Cost Analysis has been prepared. This document is available for review at:

Hobbs Public Library
509 North Shipp
Hobbs, New Mexico 88240.

The soils at the two properties are contaminated with constituents from chemicals used in oil field production and drilling that were spilled or leaked onto the ground. Exxon intends to (1) remove the contaminated soils as per State requirements; (2) dispose of the soils on an authorized off-site landfill; and (3) backfill the property with clean soil from an off-site source.

Written comments on the Engineering Evaluation/Cost Analysis may be submitted on or before December 16, 1992 to:

Mr. J. Paul Reed
Environmental Coordinator
Exxon Chemical Company
8230 Stedman
Houston, Texas 77029.

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13232.68180

7/31/92 Exxon Hobbs Chemical Facility 9:30am

participants Roger Anderson
Bill Olson
Chris Enstice
Keith Hopson - Brown, McCarrol & Oakes Hartline
Patricia Carrigan - " " " "
Jay Swindle - EMSR
Paul Reed - Exxon

P.R. Review site investigation report
2 sites in Hobbs

J.S. 1.) site Dal Paso south of Hobbs on Eunice Hwy
Phase I & II investigation
Metals (totals) above TC levels
Need to
1.) check for TCLP on metals at surface
2.) check " " " " all septic tank
prior to closure

Exxon will submit work plan for remediation

2.) West Maryland site

BROWN McCARROLL & OAKS HARTLINE

Attorneys

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Fax (713) 529-4639

July 2, 1992

Writer's Direct Number:

(512) 479-9752

Mr. Roger Anderson
Energy, Minerals & Natural
Resources Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Re: Exxon Chemical Company Sites in Hobbs, New Mexico

Dear Mr. Anderson:

Thank you for taking the time on Tuesday, June 30, 1992 to discuss the referenced matter. As I mentioned, Exxon Chemical Company (Exxon) has completed Phase I and Phase II environmental audits of two oil field service satellite facilities in Hobbs, New Mexico. As is detailed in the enclosed reports, the contaminated soils discovered at these sites may require remediation. Therefore, we would like to meet with you at 9:30 a.m. on Friday, July 31, 1992 to discuss this matter.

The enclosed reports describe the sites' current use, former uses, and present condition. In brief, Exxon acquired the sites in Hobbs from NL Industries, Inc. in November 1987. Exxon took title to the site on Dal Paso Street and assumed the lease to the site on West Marland Street. The Dal Paso Street site is still an active facility. However, the lease on the West Marland Street has been terminated. The property on Dal Paso Street was used by Exxon and NL Industries, Inc. for storing and distributing oil field chemicals. The chemicals were stored in drums and in above-ground storage tanks. The property on West Marland Street was used by Exxon and NL Industries, Inc. primarily for office space, but the yard area may have been used intermittently for chemical storage. Exxon and NL Industries, Inc. are currently discussing certain issues relating to the cleanup of these properties.

The meeting on July 31, 1992 will be attended by a representative of Exxon Chemical Company, Paul Reed; a representative of ENSR Consulting and Engineering, Jay Swindle; myself and Keith Hopson from this firm; and perhaps representatives from NL Industries, Inc. Now that site data has been developed, we need to explore what may

be necessary. We would appreciate the agency's input on appropriate action and cleanup levels as well as other aspects possibly involved in such a project.

We look forward to meeting with you on Friday, July 31, 1992. In the meantime, please do not hesitate to call if you have any questions or need additional information.

Very truly yours,

Patricia E. Carls

Patricia E. Carls

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Enclosures

icc: K. Hopson
S. Oaks

BROWN McCARROLL & OAKS HARTLINE
Attorneys

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Houston, Texas 77019-2100
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Fax (713) 529-4639

September 9, 1992

Writer's Direct Number:
(512) 479-9752

Mr. Roger C. Anderson
Chief, Environmental Bureau
Oil Conversation Division
State of New Mexico
Energy, Minerals & Natural Resources Department
P. O. Box 2088
Land Office Building
Santa Fe, New Mexico 87504-2088

Re: Cleanup of Properties in Hobbs, New Mexico by Exxon Corporation

Dear Mr. Anderson:

On behalf of Exxon Corporation (Exxon), I would like to express our thanks to you and your staff for taking the time to meet with us on July 31, 1992 to discuss the cleanup of two sites owned or formerly operated by Exxon. The sites are on Marland Street and Dal Paso Street in Hobbs, New Mexico.

As required by Rule 1-203 of the New Mexico Water Quality Control Commission Regulations, Exxon notified the Oil Conservation Division of discharges at the facilities in Hobbs. As is detailed in the environmental site assessment reports for each of the facilities, Exxon has discovered evidence of soil contamination at the two facilities. Because the Oil Conservation Division does not have jurisdiction over hazardous waste, you requested that Exxon collect in situ representative samples of the contaminated soils at both sites and analyze the samples according to the Toxicity Characteristic Leaching Procedure (TCLP) to verify that the contaminant levels are not greater than the hazardous waste toxicity characteristic levels set forth at 40 C.F.R. § 261.24. Such sampling was conducted on Thursday, September 3, 1992.

We also understood from our meeting that, if the sampling results confirm that no hazardous waste is present at both sites, Exxon must submit brief workplans describing the proposed cleanup activities for your review and approval. We also understood that the cleanup work at the sites would be governed primarily by Rule 1-203 of the New Mexico Water Quality Control Commission Regulations, as well as the October 29, 1991 Guidelines

for Surface Impoundment Closures (the "Guidelines"). However, we also understood that the agency may use its discretion in interpreting and enforcing the Guidelines. We also understand that submission of the workplans coupled with our July 31, 1992 meeting constitutes compliance with any applicable State notification requirements.

We expect the TCLP sampling results to be available in October 1992. If the sampling results confirm that no hazardous wastes are present at the sites, we intend to prepare workplans for your review and approval. We anticipate that such workplans will be submitted prior to the end of 1992. Upon completion of the OCD-approved workplans, a final report confirming completion of the workplan will be submitted to your Agency.

Please let me know if I have inadvertently misstated our understanding or if you have any questions or need additional information. We look forward to working with you on these projects.

Very truly yours,

Patricia E. Carls

Patricia E. Carls

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cc: D. Sigman
P. Reed
J. Smith
J. Young