District I
P.O Box 1980, Hobbs, NM

District II
P.O. Drawer DD, Artesia, NM 88221

District III
1000 Rio Brazos Rd. Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Dept.

OIL CONSERVATION DIVISION
2040 S. Pacheco
Santa Fe, New Mexico 87504

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE

RECEIVED
JUN 14 1996
OIL CON. DIV.

PIT REMEDIATION AND CLOSURE REPORT

Operator: Caulkins Oil Company Telephone: (505) 632-1544

Address: P.O. Box 340, Bloomfield, NM 87413

Facility or Well Name: Breech "E" 68

Location: Unit or Qtr/Qtr Sec F Sec 4 T 26N R 6W County Rio Arriba

Pit Type: Separator X Dehydrator ___ Other ___

Land Type: BLM X , State ___ , Fee ___ , Other ___

Pit Location: Pit dimensions: length 12' , width 12' , depth 4'
(Attach diagram)

References: wellhead X , other ___

Footage from reference: 114'

Direction from reference: 165 Degrees ___ East North ___ of West South X

Depth to Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet	(20 points)	
	50 feet to 99 feet	(10 points)	
	Greater than 100 feet	(0 points)	0
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources)	Yes	(20 points)	
	No	(0 points)	0
Distance to Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	(20 points)	
	200 feet to 1000 feet	(10 points)	
	Greater than 1000 feet	(0 points)	0
	RANKING SCORE (TOTAL POINTS):		0

Approved
DEPUTY OIL & GAS INSPECTOR
AUG 26 1996

Date Remediation Started: 1-10-96 Date Completed: 5-21-96

Remediation Method: (Check all appropiate sections)
Excavation ___ Approx. cubic yards ___
Landfarmed X Insitu Bioremediation ___
Other ___

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility)
Onsite X Offsite ___

General Description of Remedial Action: Excavated soil from pit and area around where spill occurred. Soil was spread out on location in an area approximately 60' wide x 117' long x 1' deep. Soil was then rototilled periodically until field headspace samples reached acceptable levels. Pit was covered using clean sandy soil from wellpad. Landfarmed soil was spread out over location. Disturbed areas on location will be re-seeded.

Ground Water Encountered: No X Yes ___ Depth ___

Final Pit: Closure Sampling: (if multiple samples, attach sample results and diagram of sample)
Sample location 1-16-96 Sample taken from bottom of excavated pit - Final soil samples from landfarm
Sample depth 2" to 12"
Sample date 4-29-96 Sample time 9:15 a.m.
Benzene (ppm) ___
Total BTEX (ppm) ___
Field headspace (ppm) 15.6 avg. (diagram attached)
TPH 63.6

Ground Water Sample: Yes No X (If yes, attach sample results)

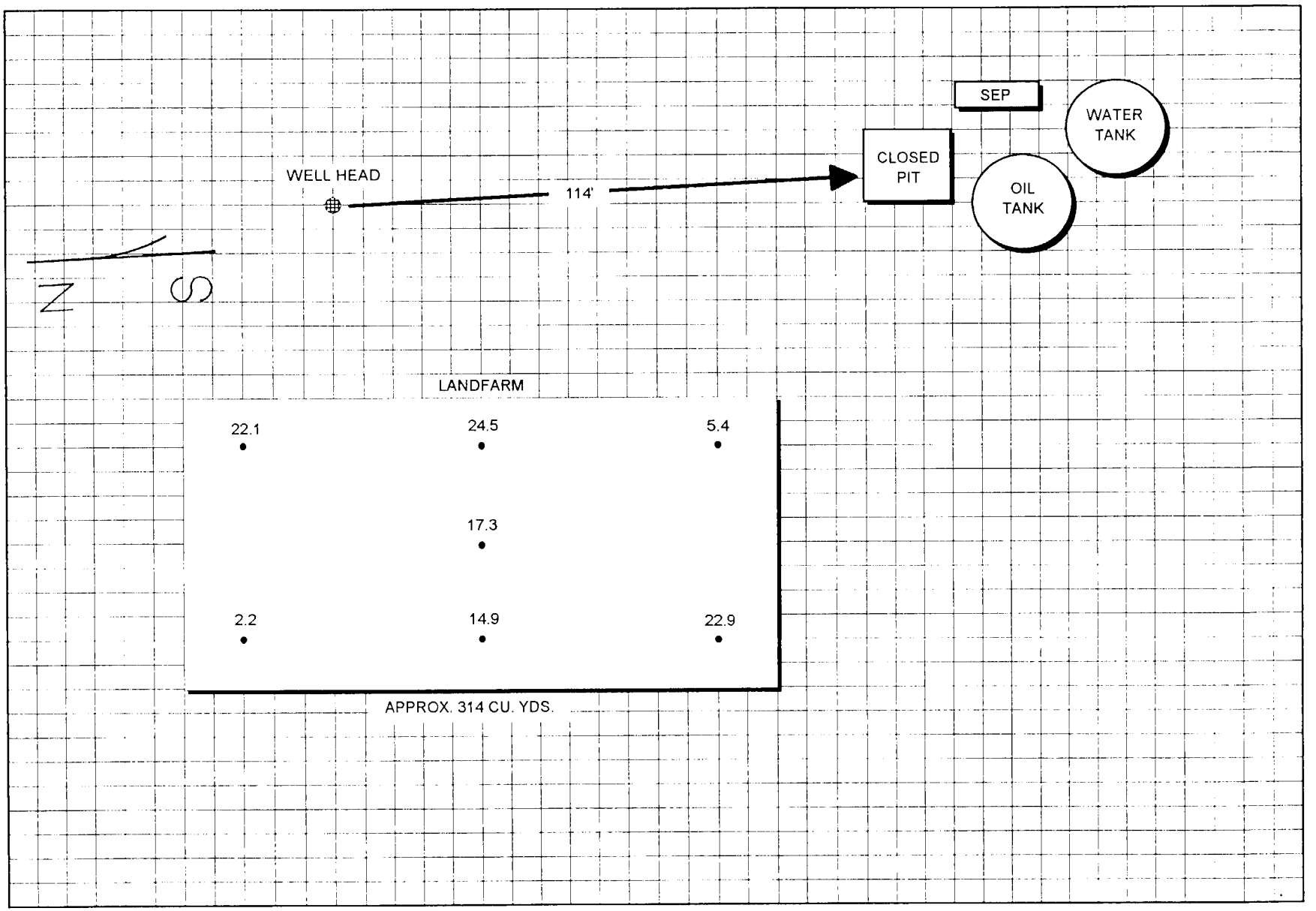
I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

DATE June 13, 1996

SIGNATURE Robert L Verquer PRINTED NAME AND TITLE ROBERT L. VERQUER, SUPERINTENDENT

CAULKINS OIL COMPANY

WELL NAME: Breech E 68



ANALYTICA

ENVIRONMENTAL LABORATORY

January 18, 1996

Robert Verquer
Caulkins Oil Co.
PO Box 340
Bloomfield, NM 87413

Dear Mr. Verquer:

Enclosed are the results for the analysis of the soil sample received on January 17, 1996. The sample was received cool and intact. Analyses for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) and Total Petroleum Hydrocarbons were performed on the sample.

The sample was extracted with methanol prior to BTEX analysis. Analysis was performed according to EPA Method 8020, using a Hewlett-Packard 5890 gas chromatograph equipped with an OI Analytical Purge and Trap (model 4560) and a photoionization detector. Detectable levels of btex analytes were found in the sample as reported.

TPH analysis was performed according to EPA Method 418.1 following the freon extraction of the sample (EPA Method 3550 - Sonication Extraction). The instrument used for the analysis was a BUCK TPH analyzer. The level of petroleum hydrocarbons present in the sample is indicated on the report sheet.

Quality control reports appear at the end of the analytical package and can be identified by title. Should you have any questions regarding the analysis, feel free to call.

Sincerely,

Denise A. Bohemier
Lab Director

807 SOUTH CARLTON • FARMINGTON, NEW MEXICO 87401 • (505) 326-2395

ANALYTICA
ENVIRONMENTAL LABORATORY

VOLATILE AROMATIC HYDROCARBONS

Caulkins Oil Co.

Project ID:	NA	Report Date:	01/18/96
Sample ID:	Breech E68[redacted]	Date Sampled:	01/16/96
Lab ID:	2417	Date Received:	01/16/96
Sample Matrix:	Soil	Date Extracted:	01/17/96
Preservative:	Cool	Date Analyzed:	01/17/96
Condition:	Intact		

Target Analyte	Concentration (mg/kg)	Detection Limit (mg/kg)
Benzene	0.14	0.11
Toluene	3.72	0.88
Ethylbenzene	1.41	0.88
m,p-Xylenes	15.7	1.75
o-Xylene	4.16	0.88

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	104	81 -117%
Bromofluorobenzene	115	74 -121%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Final Update I, July, 1992.

Comments:

Analyst

Review

ANALYTICA
ENVIRONMENTAL LABORATORY

TOTAL PETROLEUM HYDROCARBONS

EPA Method 418.1

Caulkins Oil, Co.

Project ID:	NA	Report Date:	01/18/96
Sample Matrix:	Soil	Date Sampled:	01/16/96
Preservative:	Cool	Date Received:	01/16/96
Condition:	Intact	Date Extracted:	01/17/96
		Date Analyzed:	01/17/96

Sample ID	Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
Breech E68E	2417	379	33.0

ND- Analyte not detected at the stated detection limit.

Reference: Method 3550 - Sonication Extraction; Test Methods for Evaluating Solid Waste, SW-846, United States Environmental Protection Agency, September, 1986; Method 418.1 - Petroleum Hydrocarbons, Total Recoverable; Chemical Analysis of Water and Waste, United States Environmental Protection Agency, 1978.

Comments:

Analyst

Review

VOLATILE AROMATIC HYDROCARBONS
QUALITY CONTROL REPORT

Method Blank Analysis

Sample Matrix:	Soil	Report Date:	01/18/96
Lab ID:	MB35081	Date Extracted:	01/17/96
		Date Analyzed:	01/17/96

Target Analyte	Concentration (mg/kg)	Detection Limit (mg/kg)
Benzene	ND	0.5
Toluene	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	1.0
o-Xylene	ND	0.5

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	103	81-117%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, Final Update I, July 1992.

Comments:

Analyst

Review

VOLATILE AROMATIC HYDROCARBONS

Matrix Spike Analysis

Lab ID:	MB35081Spk	Report Date:	01/18/96
Sample Matrix:	Soil	Date Sampled:	NA
Preservative:	NA	Date Received:	NA
Condition:	NA	Date Extracted:	01/17/96
		Date Analyzed:	01/17/96

Target Analyte	Spike Added. (mg/kg)	Original Conc. (mg/kg)	Spiked Sample Conc. (mg/kg)	% Recovery	Acceptance Limits (%)
Benzene	200	0.00	177	89%	39-150
Toluene	200	0.00	232	116%	32-160
Ethylbenzene	200	0.00	177	88%	46-148
m,p-Xylenes	400	0.00	399	100%	NE
o-Xylene	200	0.00	201	101%	NE

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Spike acceptance range not established by the EPA.

Quality Control:

Surrogate	% Recovery	Acceptance Limits
Trifluorotoluene	75	81 - 117%
Bromofluorobenzene	104	74 - 121%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

VOLATILE AROMATIC HYDROCARBONS

Matrix Spike Duplicate Analysis

Lab ID:	MB35081Spk	Report Date:	01/18/96
Sample Matrix:	Extract Blank	Date Sampled:	NA
Preservative:	NA	Date Received:	NA
Condition:	NA	Date Extracted:	01/17/96
		Date Analyzed:	01/17/96

Target Analyte	Spike Added (ug/kg)	Sample Spike Recovery (%)	Duplicate Spike Recovery (%)	Acceptance Limits (%)
Benzene	200	89%	74%	66 - 97
Toluene	200	116%	123%	97 - 142
Ethylbenzene	200	88%	95%	60 - 124
m,p-Xylenes	400	100%	96%	NE
o-Xylene	200	101%	94%	NE

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Spike acceptance range not established by the EPA.

Quality Control:

Surrogate	% Recovery	Acceptance Limits
Trifluorotoluene	80	81-117%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Quality Control Report
TOTAL PETROLEUM HYDROCARBONS
EPA Method 418.1

Method Blank Analysis

Project ID:	NA	Report Date:	01/18/96
Sample Matrix:	Soil	Date Extracted:	01/17/96
		Date Analyzed:	01/17/96

Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
MB35081	ND	5.00

ND- Analyte not detected at the stated detection limit.

Reference: Method 3550 - Sonication Extraction; Test Methods for Evaluating Solid Waste, SW-846, United States Environmental Protection Agency, September, 1986; Method 418.1 - Petroleum Hydrocarbons, Total Recoverable; Chemical Analysis of Water and Waste, United States Environmental Protection Agency, 1978.

Comments:

Analyst

Review

Quality Control Report
TOTAL PETROLEUM HYDROCARBONS
EPA Method 418.1

Duplicate Analysis

Project ID:	NA	Report Date:	01/18/96
Sample ID:	Breech E68[redacted]	Date Extracted:	01/17/96
Sample Matrix:	Soil	Date Analyzed:	01/17/96

Lab ID	Duplicate Conc. (mg/kg)	Sample Conc. (mg/kg)	Percent Difference	Acceptance Limit
2417Dup	343	379	10%	< 22

ND - Analyte not detected at the stated detection limit.
NA - Not calculated.

Reference: Method 3550 - Sonication Extraction; Test Methods for Evaluating Solid Waste, SW-846, United States Environmental Protection Agency, September, 1986; Method 418.1 - Petroleum Hydrocarbons, Total Recoverable; Chemical Analysis of Water and Waste, United States Environmental Protection Agency, 1978.

Comments:

Analyst

Review

Quality Control Report
TOTAL PETROLEUM HYDROCARBONS
EPA Method 418.1

Matrix Spike Analysis

Project ID:	NA	Report Date:	01/18/96
Sample Matrix:	Soil	Date Extracted:	01/17/96
		Date Analyzed:	01/17/96

Lab ID	Spiked Sample Conc. (mg/kg)	Unspiked Sample Conc. (mg/kg)	Spike Added (mg/kg)	Percent Recovery
MBSPK35081	28.1	ND	25.0	112%

Acceptance Limits: 89 - 113%

ND- Analyte not detected at the stated detection limit.

Reference: Method 3550 - Sonication Extraction; Test Methods for Evaluating Solid Waste, SW-846, United States Environmental Protection Agency, September, 1986; Method 418.1 - Petroleum Hydrocarbons, Total Recoverable; Chemical Analysis of Water and Waste, United States Environmental Protection Agency, 1978.

Comments:

Analyst

Review

ANAITAS ENVIRONMENTAL LABS

TOTAL VOLATILE PETROLEUM HYDROCARBONS

Gasoline Range Organics

Caulkins Oil, Inc.

Project ID:	NA	Report Date:	05/17/96
Sample Matrix:	Soil	Date Sampled:	04/29/96
Preservative:	Cool	Date Received:	04/29/96
Condition:	Intact	Date Extracted:	05/13/96
		Date Analyzed:	05/15/96

Sample ID	Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
Breech E 68	3282	ND	21.0

ND- Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	% Recovery	Acceptance Limits
Trifluorotoluene	89%	50 - 150%

Reference: Method for the Determination of Gasoline Range Organics, State of Tennessee, Department of Environment and Conservation, Division of Underground Storage Tanks.

Comments:

Analyst

Review