

District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY
APPROPRIATE
DISTRICT OFFICE
AND 1 COPY TO
SANTA FE OFFICE
DEPUTY OIL & GAS INSPECTOR
(Revised 3/9/94)
SEP 08 1995

PIT REMEDIATION AND CLOSURE REPORT

*Pulled
C-134*

Operator: BHP PETROLEUM (AMERICAS) INC. **Telephone:** (505)-327-1639
Address: P.O. BOX 977 FARMINGTON, NEW MEXICO 87499
Facility Or: G.C.U. #307 SWD
Well Name J
Location: Unit or Qtr/Qtr Sec NW/SW Sec 30 T29N R 12W County SAN JUAN
Pit Type: Separator Dehydrator Other EMERGENCY OVERFLOW
Land Type: BLM , State , Fee X, Other

Pit Location: Pit dimensions: length 49.5', width 41.5', depth 4'
(Attach diagram) Reference: wellhead , other WATER STORAGE TANKS
Footage from reference: 60'
Direction from reference: 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) 20

Wellhead Protection Area:
(Less than 200 feet from a private
domestic water source, or; less than
1000 feet from all other water sources)

RECEIVED
MAR - 6 1995
OIL CON. DIV.
DIST. 3

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) 10

RANKING SCORE (TOTAL POINTS): 30

Date Remediation Started: JANUARY 16, 1995 Date Completed: FEBRUARY 20, 1995

Remediation Method: Excavation _____
(Check all appropriate sections) Landfarmed X _____
Other _____

Approx. cubic yards 505
Insitu Bioremediation _____

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

General Description Of Remedial Action: EXCAVATED APPROX. 5' DEPTH OF BOTTOM & 2' OF SIDE WALLS, REMOVED ALL CONTAMINATED SOIL. SOIL FROM THE PIT WAS THEN SPREAD ON LOCATION FROM 8" TO 1' DEEP TO LAND FARM, WE THEN DILUTED WITH CLEAN SOIL TO BELOW THE SPECIFIC REMEDIATION LEVEL OF TPH 100 PPM. PIT WAS THEN CLOSED BY BACKFILLING AND CONTOURING. BHP TERMINATED REMEDIAL ACTION AFTER A FINAL COMPOSITE SOIL SAMPLE WAS TAKEN AND ANALYZED TO DOCUMENT SUCCESSFUL REMEDIATION HAD OCCURED THE REMEDIATED SOIL WAS THEN USED TO SHAPE THE EXCAVATION.
Ground Water Encountered: No X Yes _____ Depth _____

Final Pit:
Closure Sampling:
(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location PIT-NORTH WALL, SOUTH WALL, EAST WALL, AND WEST WALL. CENTER OF PIT. 2 SAMPLES FROM FILL SOIL.

Sample depth _____

Sample date 2-10-95

Sample time 1:15 P.M.

Sample Results

Benzene (ppm) _____

Total BTEX (ppm) _____

Field headspace (ppm) _____

TPH _____

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 3/1/95

SIGNATURE J.C. Harris

PRINTED NAME
AND TITLE

J.C. HARRIS PRODUCTION SUPT.

G.C. #307 SWD

CONTRACTOR LIST

L.B.H. CONSTRUCTION

P.O. Box 213

AZTEC, N.M. 87410

BHP Petroleum

Pit Closure Report

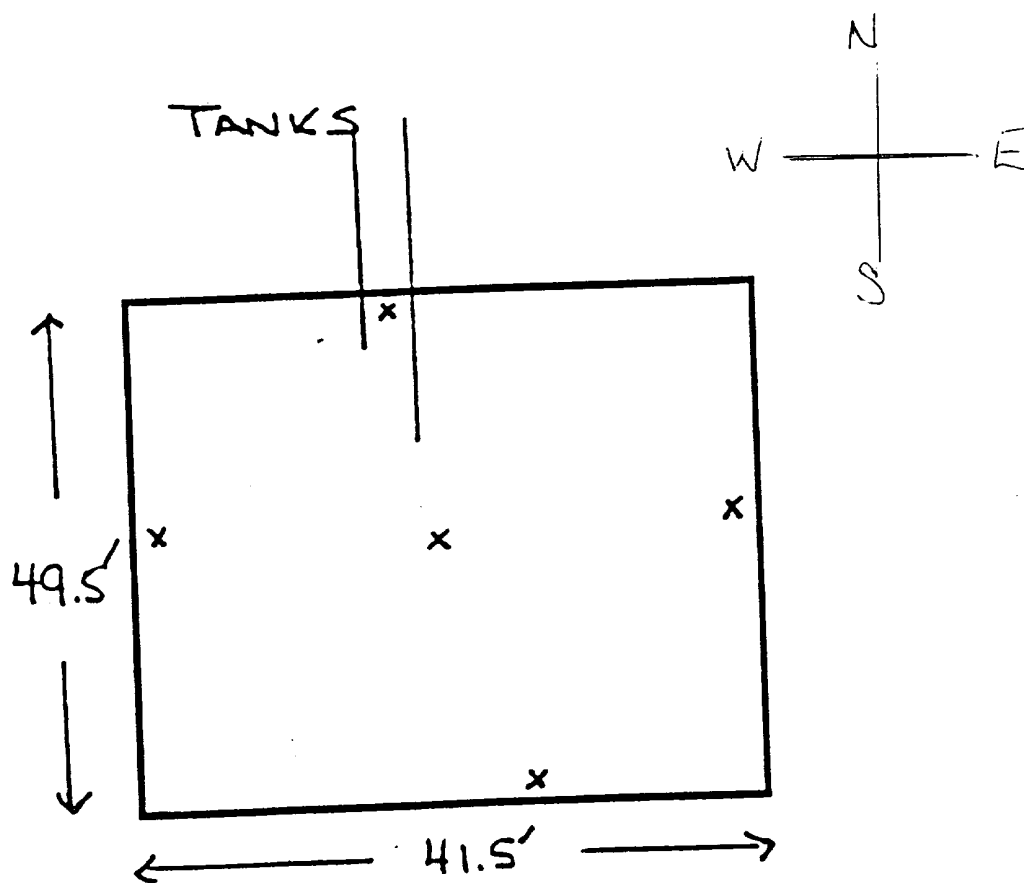
Gallegos Canyon Unit
Well #307

FEE

1455 FSL 510 FWL

SEC 30 - T29N - R12W

Diagram:



February 28, 1995

J. C. Harris
BHP Petroleum
PO Box 977
Farmington, NM 87499

Dear Mr. Harris:

Enclosed are the results for the analyses of two sets of samples received on February 10, 1995. The samples were designated GCU 328 and GCU 307 and were received cool and intact. Analyses for Total Petroleum Hydrocarbons (TPH, C_6 - C_{10} and C_{10} - C_{20} ranges), were performed on composites of the samples. Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) analysis was run on the composite for GCU 328 - pit. BTEX analysis for the GCU 307 - pit was run previously, so not repeated. Samples designated pit consisted of five point composites and those designated fill were two point composites as per OCD guidelines.

BTEX analysis was performed according to EPA Method 8020 on a methanol extract of the composite, using a Hewlett-Packard 5890 gas chromatograph equipped with an OI Analytical Purge and Trap (model 4560) and a photoionization detector. Detectable levels of btx analytes were not found in the sample, as reported.

TPH analysis in the C_6 - C_{10} range was performed using the method for Gasoline Range Organics as developed by the State of Tennessee and the USEPA. TPH analysis for the nonvolatile hydrocarbons (C_{10} - C_{20} range) was performed according to EPA Method 8015, modified, following extraction with hexane, using a Hewlett Packard 5890 gas chromatograph equipped with a flame ionization detector. Petroleum hydrocarbons were found in none of the samples, at a level above the stated detection limit, as reported. Make note that detection limits for the gasoline range hydrocarbons are in the parts per billion range, while those for the heavier hydrocarbons are in the part per million.

Samples were originally extracted for analysis on February 17, 1995; however, unacceptable spike recoveries required reextraction and reanalysis of the samples for Diesel range analysis. Quality control reports appear at the end of the analytical package and can be identified by title. In addition chromatography is provided for your information and records. Should you have any questions regarding the analysis, feel free to call.

Sincerely,

Denise A. Bohemier
Lab Director

TOTAL VOLATILE PETROLEUM HYDROCARBONS
Gasoline Range Organics

BHP Petroleum

Project ID: GCU 307
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Report Date: 02/16/95
Date Sampled: 02/10/95
Date Received: 02/10/95
Date Analyzed: 02/16/95

Sample ID	Lab ID	Concentration (ug/kg)	Detection Limit (ug/kg)
Fill - Composite	0658	ND	88.4

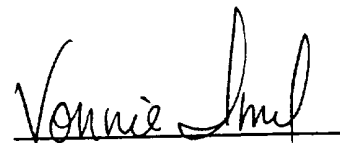
ND- Analyte not detected at the stated detection limit.

Quality Control: Surrogate % Recovery Acceptance Limits
 Trifluorotoluene 103% 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

Vanrie Shul

TOTAL VOLATILE PETROLEUM HYDROCARBONS

Gasoline Range Organics

BHP Petroleum

Project ID: GCU 307
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Report Date: 02/16/95
Date Sampled: 02/10/95
Date Received: 02/10/95
Date Analyzed: 02/16/95

Sample ID	Lab ID	Concentration (ug/kg)	Detection Limit (ug/kg)
Pit - Composite	0657	ND	64.6

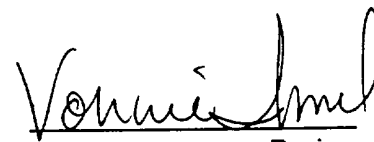
ND- Analyte not detected at the stated detection limit.

Quality Control: Surrogate % Recovery Acceptance Limits
 Trifluorotoluene 95% 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

TOTAL VOLATILE PETROLEUM HYDROCARBONS

Diesel Range Organics

BHP Petroleum

Project ID: GCU 307
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Report Date: 02/27/95
Date Sampled: 02/10/95
Date Received: 02/10/95
Date Extracted: 02/23/95
Date Analyzed: 02/24/95

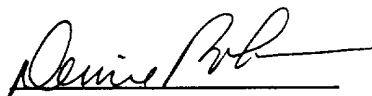
Sample ID	Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
Pit - Composite	0657	ND	12.8

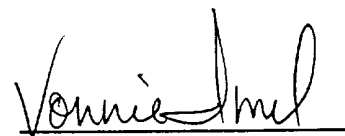
ND- Analyte not detected at the stated detection limit.

Quality Control: Surrogate % Recovery Acceptance Limits
 o - Terphenyl 95% 50 - 150%

Reference: EPA Method 8015A, modified. "Nonhalogenated Volatile Organics by Gas Chromatography." Test Methods for Evaluating Solid Waste. Physical/ Chemical Methods, SW-846, 3rd Ed, Final Update I, July, 1992. USEPA.

Comments:


Analyst


Review

**VOLATILE AROMATIC HYDROCARBONS****BHP Petroleum**

Project ID: GCU 307
Sample ID: Pit Composite
Lab ID: 0599-0603
Sample Matrix: Soil
Preservative: Cool
Condition: Intact

Date Sampled: 02/08/95
Date Received: 01/30/95
Date Extracted: 01/30/95
Date Analyzed: 02/02/95
02/03/95

Target Analyte	Concentration (ug/kg)	Detection Limit (ug/kg)
Benzene	ND	9.94
Toluene	ND	9.94
Ethylbenzene	ND	9.94
m,p-Xylenes	ND	19.9
o-Xylene	ND	9.94

RECEIVED
SEP - 8 1995
OIL CON. DIV.
DIST. 3

ND - Analyte not detected at the stated detection limit.

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Trifluorotoluene	98	81 -117%
	Bromofluorobenzene	101	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

QC

QUALITY CONTROL REPORT
TOTAL VOLATILE PETROLEUM HYDROCARBONS
Diesel Range Organics

Matrix Spike Analysis

Project ID: NA
Sample Matrix: Soil
Preservative: NA
Condition: NA

Report Date: 02/27/95
Date Sampled: NA
Date Received: NA
Date Extracted: 02/23/95
Date Analyzed: 02/24/95

Lab ID	Spike Added (mg/kg)	Original Conc. (mg/kg)	Spike Conc. (mg/kg)	Percent Recovery
MBSPK34754	2,120	ND	2,420	114%

ND- Analyte not detected at the stated detection limit.


Reference:

EPA Method 8015A, modified. "Nonhalogenated Volatile Organics by Gas Chromatography." Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3rd Ed, Final Update I, July, 1992. USEPA.

Comments:

GCU 307


Analyst


Review

QUALITY CONTROL REPORT
TOTAL VOLATILE PETROLEUM HYDROCARBONS
Diesel Range Organics

Method Blank Analysis

Project ID: NA
Sample Matrix: Soil
Preservative: NA
Condition: NA

Report Date: 02/27/95
Date Sampled: NA
Date Received: NA
Date Extracted: 02/23/95
Date Analyzed: 02/24/95

Sample ID	Lab ID	Concentration (mg/kg)	Detection Limit (mg/kg)
Method Blank	MB34753	ND	20.0

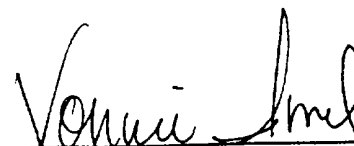
ND- Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptance Limits</u>
	o - Terphenyl	101%	50 - 150%

Reference: EPA Method 8015A, modified. "Nonhalogenated Volatile Organics by Gas Chromatography." Test Methods for Evaluating Solid Waste. Physical/ Chemical Methods, SW-846, 3rd Ed, Final Update I, July, 1992. USEPA.

Comments: GCU 307


Analyst


Review

QUALITY CONTROL REPORT
TOTAL VOLATILE PETROLEUM HYDROCARBONS
Gasoline Range Organics

Duplicate Analysis

Project ID: NA
Sample Matrix: Soil
Preservative: NA
Condition: NA

Report Date: 02/16/95
Date Sampled: NA
Date Received: NA
Date Analyzed: 02/16/95

Lab ID	Sample Conc. (ug/kg)	Duplicate Conc. (ug/kg)	Percent Difference
MBSPK34746 DUP	2,770	2,630	5%

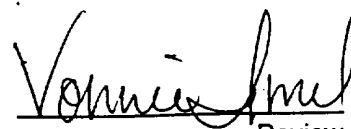
ND- Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	96%	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: GCU 307


Analyst


Review

QUALITY CONTROL REPORT
TOTAL VOLATILE PETROLEUM HYDROCARBONS
Gasoline Range Organics

Matrix Spike Analysis

Project ID:	NA	Report Date:	02/16/95
Sample Matrix:	Soil	Date Sampled:	NA
Preservative:	NA	Date Received:	NA
Condition:	NA	Date Analyzed:	02/16/95

Lab ID	Spike Added (ug/kg)	Original Conc. (ug/kg)	Spike Conc. (ug/kg)	Percent Recovery
MBSPK34746	2,700	> 90	2,770	100%

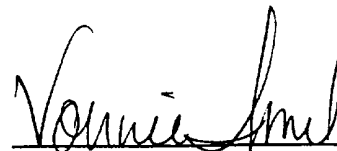
ND- Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>Percent Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	90%	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: GCU 307


Analyst


Review

QUALITY CONTROL REPORT
TOTAL VOLATILE PETROLEUM HYDROCARBONS
Gasoline Range Organics

Method Blank Analysis

Project ID:	NA	Report Date:	02/16/95
Sample Matrix:	Soil	Date Sampled:	NA
Preservative:	NA	Date Received:	NA
Condition:	NA	Date Analyzed:	02/16/95

Sample ID	Lab ID	Concentration (ug/kg)	Detection Limit (ug/kg)
Method Blank	MB34746	ND	90.0

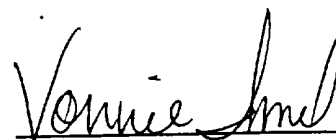
ND- Analyte not detected at the stated detection limit.

Quality Control:	<u>Surrogate</u>	<u>% Recovery</u>	<u>Acceptance Limits</u>
	Trifluorotoluene	97%	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: GCU 307


Analyst


Review

