District I
P.O. Box 1980, Hobbs, NM
District II
P.O. Drawer DD, Arlesia, NM 88211
Strict III
Rio Brazos Rd, Azzec, NM 87410

Pland State of New Mexico
Energy, Minerals and Natural Resources Department

Abd. Nehy

OK 12/1011. CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DIST. 3

SEP 2001 AND L'COPY TO
SEP 2001 AND L'COPY TO
PLECE VENTA PE OFFICE
ONLOON DIV
DIST. 3

PIT REMEDIATION AND CLOSURE REPORT

Operators	Amoco Production Company	Telephone: (505) · 326-9200	
Address:		MEM HEVICO 01401	—
Well Name	HEUZH &C DJ		
		COUNTY TAN TUAN COUNTY SAN TUAN	
	rator Dehydrator Ot		
Land Type: BL	M, State, Fee	Other Com. AGMT	
Pit Location: Attach diagram)	Reference: wellhead X Footage from reference:	135	
	Direction from reference	e: <u>45</u> Degrees <u>X</u> East North <u>of</u> <u>West South X</u>	
Depth To Ground (Vertical distant contaminants to think high water elevations)	ce from seasonal	Less than 50 feet (20 points) 50 feet to 99 feet (10 points) Greater than 100 feet (0 Points)	0
domestic water se	ection Area: eet from a private ource, or; less than ll other water sources)	Yes (20 points) No (0 points) _	
Distance To Su Horizontal distantes, ponds, ri irrigation canal	ance to perennial vers, streams, creeks,	Less than 200 feet (20 points) 200 feet to 1000 feet (10 points) Greater than 1000 feet (0 points)	10
		RANKING SCORE (TOTAL POINTS):	10

Date Remediation St	arted:	Date Completed:	7/11/94
Remediation Method:		Approx. cubic yards	
(Check all appropriate	Landfarmed X	Insitu Bioremediation	
	Other		····
Remediation Location (ie. landfarmed onsite, name and location of offsite facility)	n: Onsite_X Off	site	
General Description	Of Remedial Action	1:	
Excavation	on. BEDROCK BOTTOM.	RISK-ASSESSED. PRELIQUELY	SUBMITTED
		TED 12/13/46 (ATTROJED).	
·			
Ground Water Encoun	tered: No 🔀	Yes Depth	
	7		
Final Pit: Closure Sampling: (if multiple samples,	Sample location	see Attached Documents	
attach sample results and diagram of sample	Sample depth	3'	
locations and depths)	Sample date 7/11/		515
	Sample Results		
	Benzene(ppm)		
	Total BTEX(pp	m)	
	Field headspa	ce(ppm) 207	
	TPH 772 PP	-	
Ground Water Sample:	Yes No 🔀	(If yes, attach sample r	esults)
OF MY KNOWLEDGE AND	AT THE INFORMATION BELIEF	ABOVE IS TRUE AND COMPLETE	TO THE BEST
DATE 7/11/94		RIINCI	
SIGNATURE BASA	AND TITL	NAME Buddy D. Sh.	AU predinator

RESULTS GIVEN TO BOB MCKOY	7/12/94 onr
CLIENT: AMOCO BLAGG ENGINEERING, INC.	LOCATION NO. BOOLT
P.O. BOX 87, BLOOMFIELD, NM 874 (505) 632-1199	
FIELD REPORT: CLOSURE VERIFICATION	N PAGE No: _/ of
LOCATION: NAME: HEATH &C WELL #: D1 PIT: BLOW	DATE STARTED: 7/11/94 DATE FINISHED: 7/11/94
QUAD/UNIT: G SEC: 8 TWP:292 RNG:92 PM: DO CNTY:57 ST:	ENVIRONMENTAL SPECIALIST:
SOIL REMEDIATION: EXCAVATION APPROX ZZ FT. x _ 70 FT	
DISPOSAL FACILITY: LANDFARMED ON-STEE CUBIC)	_
LAND USE: RANGE LEASE: 5F-	TE 5 3 TO
FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 135 FEET	
DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: >1000 NEAREST SU	
NMOCD RANKING SCORE: NMOCD TPH CLOSURE STD: 1800 PPM	FORMATION: :MU
SOIL AND EXCAVATION DESCRIPTION: BOTTOM CONSIST OF TANDSTONE	•
BELOW BAST SIDEWALL CENSIST OF MED. GRAY DISCOLORATION	OF SAME MATERIAL.
IN NORTH, EAST, WEST, & BOTTON	
SEDROCK RISK ASSESSED	
SAMPLE I.D. LAB NO: WEIGHT (g) mL. FREON DILUTION READING	CALC. ppm
Ge 131 TPH-1015 10 20 1:1 386	
SCALE	
O FT OVM	
PIT PERIMETER N RESULTS P	IT PROFILE
SAMPLE FIELD HEADSPACE PID (ppm)	A '
16 11 605 2 12 162 GRUND 3 10 1 1.6	
4 4 454 Swarre)
70' A 3 131 207 131	9
	3/2
LAB SAMPLES	
<u>' 22'</u>	
TRAVEL NOTES: CALLOUT: 7 8 94 ONSITE: 7 11 94	\

Well Name:

Well Site location:

Pit Type:

Producing Formation:

Pit Category:

Horizontal Distance to Surface Water:

Vicinity Groundwater Depth:

Heath GC D#1

Unit G, Sec. 8, T29N, R9W

Blow Pit

Mesa Verde

Vulnerable

< 1000 ft. > 100 ft.

RISK ASSESSMENT

Pit remediation activities were terminated when backhoe encountered competent sandstone bedrock at 8 feet below grade.

No past or future threat to surface water or groundwater is likely based on the following considerations:

- 1. Past production fluids were contained locally by the relatively shallow sandstone bedrock. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below the bedrock.
- 2. Topographic information does not indicate off site lateral fluid migration near the earthen pit.
- 3. Daily discharge into the earthen pit has been terminated (abandoned). Prior discharge into the pit is believed to be under 5 barrels per day.

Based upon the information given, we conclude that the subsurface vertical and lateral impact from the earthen pit is very limited and that the sandstone bottom creates enough of a impermeable barrier as to subdue impact to groundwater below it (please refer to BP AMOCO's (formerly Amoco Production Company) report "Post Excavation Pit Closure Investigation Summary, July, 1995", with cover letter dated November 30, 1995). BP AMOCO therefore request pit closure approval on this location.

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:

Amoco

Sample ID:

5 @ 13'

Project #:

Heath GC D 1

Date Analyzed: Date Reported: 7-11-94 7-11-94

Project Location: Laboratory Number:

TPH-1015

Sample Matrix:

Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	770	10

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample Duplicate % *Diff. TPH mg/kg TPH mg/kg 630 9.38 692

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

USEPA Storet No.4551, 1978

Comments:

Blow Pit

B0017

Review

^{*}Administrative Acceptance limits set at 30%.

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION, P.O. Box 2088

Santa Fe, New Mexico 87504-20

SEP 2001
PLOCINED
DIST

PIT REMEDIATION AND CLOSURE REPORT

Operator:	Amoco Production Company	Telephone:	(505) - 326-9200
	200 Amoco Court, Farmington,		
Pacility Or:	HEATH GC 0 #1	· · · · · · · · · · · · · · · · · · ·	
Location: Unit	or Qtr/Qtr Sec Sec	8 TZ9N R9W County	SAN JUAN
	rator Dehydrator_\(\square\) Ot		11
Land Type: BL	M_√, State, Fee,	Other com, AGMT.	
t Location:	Pit dimensions: length Reference: wellhead X	other	\
	-	•	at North
	Direction from reference		of st South <u>~</u>
		· · ·	st bouth <u>y</u>
Depth To Groun (Vertical distant contaminants to s high water elevat ground water)	re from seasonal	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	(10 points)
domestic water so	ection Area: eet from a private ource, or; less than ll other water sources)		(20 points) O
	ance to perennial vers, streams, creeks,	Less than 200 feet 200 feet to 1000 feet Greater than 1000 feet	
		RANKING SCORE (TOTAL 1	eoints):

Date Remediation St	arted:	Date Completed: 5/31/00
mediation Method:	Excavation 🗸	Approx. cubic yardsNA
heck all appropriate sections)	Landfarmed	Insitu Bioremediation
	Other CLOSE AS	15.
Remediation Locatio (ie. landfarmed onsite, name and location of offsite facility)	n: Onsite√ Off	site
General Description	Of Remedial Action	n:
Excavation	on. No REMEDIATION	he cessary .
		· · · · · · · · · · · · · · · · · · ·
		
Ground Water Encoun	tered: No 🗸	Yes Depth
Final Pit: Closure Sampling: (if multiple samples,	Sample location _	see Attached Documents
attach sample results and diagram of sample	Sample depth	6' (TEST HOLE BOTTOM)
locations and depths)	Sample date $5/2$	4/00 Sample time 12/5
	Sample Results	
	Benzene(ppm)	
	Total BTEX(p	om)
	Field headspa	ace(ppm)
	TPH 92 ppm	<u> </u>
Ground Water Sample	: Yes No	/ (If yes, attach sample results)
I HEREBY CERTIFY TH	AT THE INFORMATION	ABOVE IS TRUE AND COMPLETE TO THE BEST
OF MY KNOWLEDGE AND DATE 5/3//00	BELIEF	
SIGNATURE SAST	PRINTED AND TITE	

CLIENT: AMOCO BLAGG ENGINEERING, IN P.O. BOX 87, BLOOMFIELD, NM (505) 632-1199		LOCATION NO	
FIELD REPORT: CLOSURE VERIFICAL LOCATION: NAME: HERTH &C D WELL #: \ PIT: ASAN QUAD/UNIT: & SEC: & TWP: 79 NRG: 90 PM: DYN CNTY: SQTR/FUUTAGE: 1850/N/1650/E SWNE CONTRACTOR: FLINT	DEHY	PAGE No: DATE STARTED: _ DATE FINISHED: _ ENVIRONMENTAL SPECIALIST:	5/24/00
EXCAVATION APPROXNA _ FT. x _NA _ FT. x _NA _ FT. DEEM DISPOSAL FACILITY:	N METHO FOF	D: COSE AS RMATION: RMATION:	リ S Mソ WELLHEAD.
DEPTH TO GROUNDWATER: <100' NEAREST WATER SOURCE: >1000' NEAREST WATER SOU	.7 ppm -4/00	CHECK ON PIT ABANDONED STEEL TANK IN FIBERGLASS TA	STALLED NK INSTALLED
DISCOLORAMEN OBSERVED OR HC ODOR DETECTED.	, FIRM TO	rooze [,] no as	Thiagg
FIELD 418.1 CALC TIME SAMPLE 1.D. LAB NO: WEIGHT (9) P SCALE 17.15 D e 6' FRU-2003 G	nL. FREON DI		+
O FT PIT PERIMETER OVM	PIT	PROFILE	92
RESULTS SAMPLE PELD HEADSPACE PID (ppm) 1 @ 6' 0.0 2 @ 3 @ 4 @ 5 @ 5 @ 5 @ 5 @ 5 @ 5 @ 5 @ 5 @ 5	Not	APPLICABLE	
TRAVEL NOTES: CALLOUT: 5/23 /00 -AFTER ONSITE: 5/2	.4/00 - AT	e EK .	

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

FIELD MODIFIED EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:

BP AMOCO

Sample ID:

1 @ 6'

Heath GC D #1 TPH-2073

Project Location: Laboratory Number: Project #:

Date Analyzed:

05-31-00 05-31-00

Date Reported: Sample Matrix:

Soil

Parameter	Result, mg/kg	Detection Limit, mg/kg
Total Recoverable Petroleum Hydrocarbons	92	20

ND = Not Detectable at stated detection limits.

QA/QC:

QA/QC Sample TPH mg/kg Duplicate TPH mg/kg % *Diff.

96

76

23.26

Method:

Modified Method 418.1, Petroleum Hydrocarbons, Total

Recoverable, Chemical Analysis of Water and Waste,

USEPA Storet No.4551, 1978

Comments:

Abandoned Dehydrator Pit - B0017

Analyst

Review Sheep

^{*}Administrative Acceptance limits set at 30%.

BLAGG ENGINEERING, INC.

P.O. Box 87, Bloomfield, New Mexico 87413 Phone: (505)632-1199 Fax: (505)632-3903

Field TPH-Worksheet

Max Characters:

Client:

BP AMOCO

Sample ID:

1 @ 6'

Date Analyzed: Date Reported:

Project #:

05-31-00 05-31-00

Project Location: Laboratory Number: Heath GC D #1 TPH-2073

Sample Matrix:

Soil

Sample Weight:

5.00 grams

Volume Freon:

20.00 mL

Dilution Factor:

1 (unitless)

TPH Reading:

23 mg/kg

TPH Result:

92.0 mg/kg

Reported TPH Result: **Actual Detection Limit:**

92 mg/kg 20.0 mg/kg

Reported Detection Limit

20 mg/kg

QA/QC:

Original TPH mg/kg

Duplicate TPH mg/kg

% Diff.

96

76

23.26

Comments:

Comments:

Abandoned Dehydrator Pit - B0017

CLIENT: 3P BLAGG ENG	INEERING, INC. LECATION NO: 800/7
P.O. BOX 87, BL	OOMFIELD, NM 87413
(505)	632-1199 C.D.C. ND: 84/5
FIELD REPORT: LANDFARM/COM	POST PILE CLOSURE VERIFICATION
QUAD/UNIT: 6 SEC: 8 TWP: 290 RNG: 90	DATE STARTED: 6/11/01 DATE STARTED: 6/11/01
QTR/FOOTAGE: TWP. CW RNG. 100	FNVIRONMENTAL .
SOIL REMEDIATION:	460
REMEDIATION SYSTEM: LANGERY	
LAND USE: RANGE - BLM 5F-07633	LIFT DEPTH (ft): 1-1.5
FIELD NOTES & REMARKS:	
DEPTH TO GROUNDWATER: < 100 NEAREST WATER SOURCE	
NMOCD RANKING SCORE: NMOCD TPH CLOSURE ST	
PALE YELL BROWN JAND WITH JOME &	RAVEL, NON CONESINE, DRY TO SUGHTLY MOIST, LOOSE UNG OBSERVED OR HE GOOR DETECTED & ANY OF THE
SAMPLE PTS. OR OUM SAMPLE, SAMPLE P	PTHS RANGED TRONG 8"-18" COLLECTED 5 PT.
composite sample for LAB ANALYSIS.	,
(ELDSED)	
FIELD 4	8.1 CALCULATIONS
SAMP. TIME SAMPLE I.D. LAB No: WEIGH	(g) mL. FREON DILUTION READING CALC. ppm
SKETCH/SAMPLE LOCATIONS N	
	OVM CALIB. READ. 52.5 ppm
SAMPLE PT.	TIME: 0715 pm 6/11/01
45	OVM RESULTS LAB SAMPLES
Down	SAMPLE FIELD HEADSPACE SAMPLE ANALYSIS TIME RESULTS ID
2 STARE	1F-1 0-7 1F-1 (8015) 0745 ND
D 210,230E	
66 D FROM WELL	
HEAD	
	SCALE
LANDTARM PERIMETER	0 FT
TRAVEL NOTES: CALLOUT: WA	ONSITE: 6/
revised: 03/12/01	bei1006.skc



EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg / BP	Project #:	94034-010
Sample ID:	LF - 1	Date Reported:	06-13-01
Laboratory Number:	20010	Date Sampled:	06-11-01
Chain of Custody No:	8415	Date Received:	06-12-01
Sample Matrix:	Soil	Date Extracted:	06-13-01
Preservative:	Cool	Date Analyzed:	06-13-01
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.1

ND - Parameter not detected at the stated detection limit.

References:

Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste,

SW-846, USEPA, December 1996.

Comments:

Heath GC Lease D #1 Landfarm

5 Pt. Composite.

Den L. Officer Analyst

(Review Mosters

CHAIN OF CUSTODY RECORD

Client No. Cli	Client / Project Name			Project Location	19NOFABRE	SAINA	OADAMETERS	
Client No. 94 0 3 4 0 10 Sample Sample Lab Number I O O 7 45 20010 I O 0 8 45 20013 I O 0 9 45 20013 I O 0 9 45 20013 I O O					LEASE	AIMALT	AIMALI SIS / TANAMIETENS	
Sample Sample Lab Number Date Time Lab Number o 0745 20010 o 945 20013 o 945 20013				Client No.			Remarks	arks
Sample Sample Lab Number Date Time Lab Number	2			94034-016			At Sam	SAMPLES
11/01 0745 20010 11/01 0945 20012 11/01 0945 20013 11/01 0945 20013			Sample Time	Lab Number	Sample Matrix	Con	PRESENEO	Cool
11/01 1045 20012 11/01 0845 20013 11/01 0945 20013		10/11	2445	2000	2017	1 1	HEATH GC	1#0
11/01 0845 20013 11/01 0945 20013		11/011	045	20011	7.05	>	HEATH GC	1#り
[[[0] 0945 20013	y	11/01/0	345	20002	5016	> 1	HENTE G	上本一
	7-	11/01/0	2462	20013	2016	> -	HEATH GC	0 #T
							ALL SAF	SAMPLET
							SPT. COMPOSITES	1005/7ES
	Relinquished by (Signature)	121		19	Time 7/0	sceived by: (Signature)	Date	Time 0210
	Relinquished by: (Signature)					sceived by: (Signature)		
	Relinquished by: (Signature)				Œ	sceived by: (Signature)		
						SCH IOC	Sample Receipt	ipt
5796 U.S. Highway 64 Farmington, New Mexico 87401								Y N/A
					5796 U.S. Farmington, New	lighway 64 / Mexico 87401	Received Intact	\
(505) 632-0615					(202)	2-0615	Cool - Ice/Blue Ice	\-\