District I
P.O. Box 1980, Hobbs, NM 88241-1980
District II
P.O. Drawer DD, Artesia, NM 88211-0719
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 TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE

(Revised 3/9/94)

PIT REMEDIATION AND CLOSURE REPORT

Operator: BONNEVILLE FUELS CORPORATION Telephone: 303-853-1555

Address: 1660 Lincoln Street, Suite 1800, Denver, CO 80264

Facility Or: SCOTT "E" FEDERAL #13
Well Name

Location: Unit or Qtr/Qtr Sec SW L Sec 24 T 27N R 11W County SAN JUAN

Pit Type: Separator ____ Dehydrator ____ Other BLOW DOWN

Land Type: BLM XX, State ____, Fee ____, Other ____

Pit Location: (Attach diagram)
Pit dimensions: length 17, width 24, depth 5; 4.5
Reference: wellhead ____, other See Attached
Footage from reference: ____
Direction from reference: ____ Degrees ____ East North ____ of ____ West South ____

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

Date Remediation Started: 9/7/94; 5/24/96 Date Completed: 9/7/94; 5/24/96

Remediation Method: (Check all appropriate sections) Excavation XX Approx. cubic yards 75; 50

Landfarmed _____ Insitu Bioremediation _____

Other _____

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

General Description Of Remedial Action: Contamination was remediated by dilution and aeriation. Pit was re-excavated May 24, 1996 and encountered visible hydrocarbon contamination, not all of which could be remediated due to bedrock and pipeline restrictions (please see attached "Risk assessment").

Ground Water Encountered: No XX Yes ____ Depth _____

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

Sample location See Attached

Sample depth 5'; 14'

Sample date 9/7/94, 5/24/96 Sample time 2:15; 16:30

Sample Results

Benzene (ppm) Treated stockpile Composite .0002

Total BTEX (ppm) Treated Stockpile Composite 5.93

Field headspace (ppm) Treated Stockpile Composite (PID 778 units)

TPH @ 5' = 4,430; Backfill = 902, 885, 871; Backfill @ = 336.5 by 8015 method

Ground Water Sample: Yes ____ No XX (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 10/14/96

SIGNATURE RAK

PRINTED NAME AND TITLE JAMES O. CABLE VICE-PRESIDENT OPERATIONS

FINAL PIT CLOSURE SAMPLING REPORT

Operator: BONNEVILLE FUELS CORPORATION Telephone: (505) 632-9876

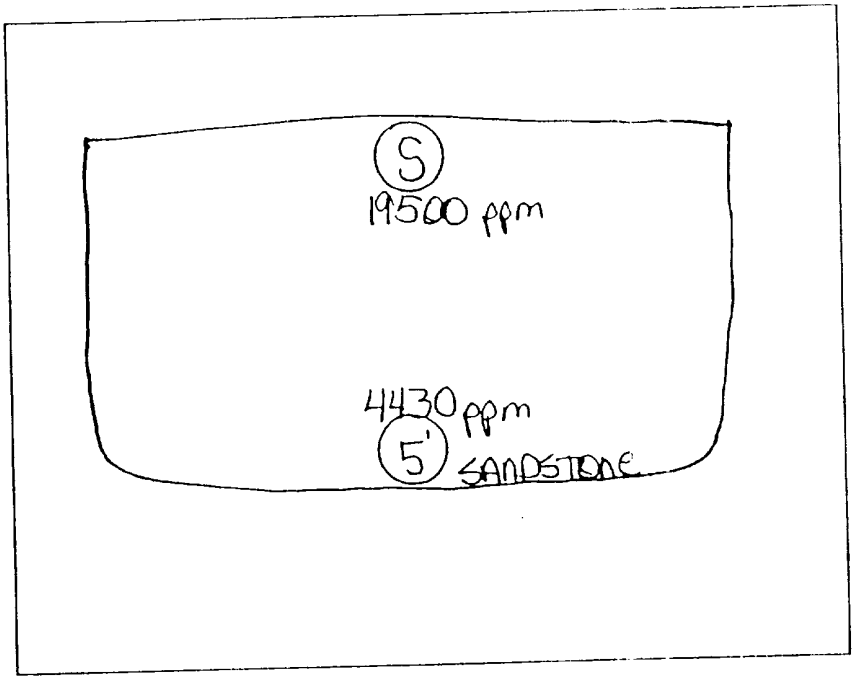
Address: 310 NORTH FIRST STREET, BLOOMFIELD, NM 87413

Facility Or: SCOTT "E" FEDERAL #13
Well Name

Location: Unit or Qtr/Qtr Sec SW Sec 24 T 27 R 11 County SAN JUAN

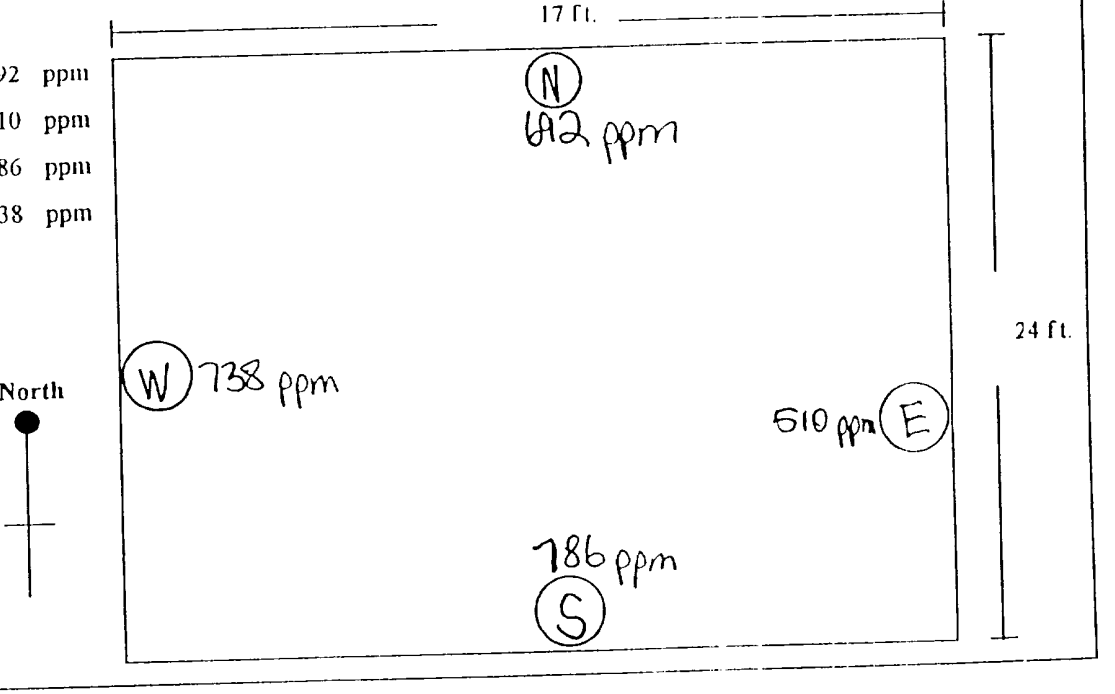
Depth	TPH
Surface	19500 ppm
2 ft.	ppm
4 ft.	ppm
6 ft.	ppm
8 ft.	ppm
10 ft.	ppm
12 ft.	ppm
14 ft.	ppm
16 ft.	ppm
18 ft.	ppm
20 ft.	ppm
5' ft.	4430 ppm
ft.	ppm
ft.	ppm

SIDE VIEW



TOP VIEW

North Side	692 ppm
East Side	510 ppm
South Side	786 ppm
West Side	738 ppm



ON SITE TECHNOLOGIES, LTD.
P.O. BOX 2606, FARMINGTON, NM 87499
(505) 325-5667

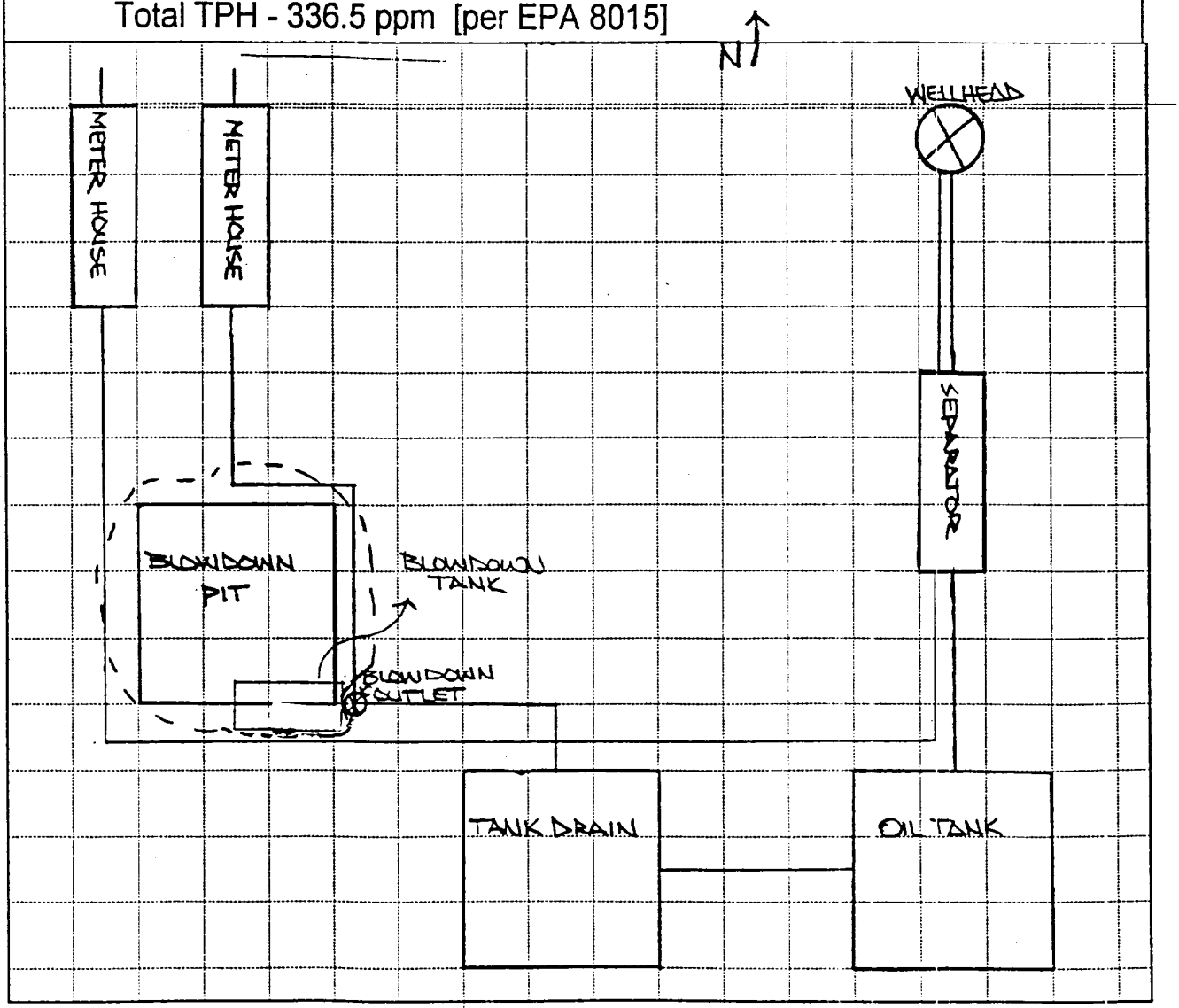
DATE : 05-24-96
CLIENT : BONNEVILLE FUELS
SITE LOCATION : SCOTT "E" FEDERAL . # 13
Unit L Sec . 24 , T27N , R 11W , NMPM
San Juan County
CONTRACTOR : ON SITE EQUIPMENT : Backhoe

REMEDIATION SUMMARY

LOC . # : BON 1001	LOGGER : CG
JOB # : 4-1286	PAGE # 1
START 11:15	FINISH : 12 :30

NOTES:
Blowdown Pit Remediation
Blowdown Treated Stockpile: (PID:778 Units)
TD:4.5' [Stop at Bedrock]
Notes: Excavation was limited horizontally due to pipelines surrounding pit.

LAB: Total BTEX - 5.9 ppm [per EPA 8020]
Total TPH - 336.5 ppm [per EPA 8015]



OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Cindy Gray*	Date:	29-May-96
Company:	*On Site Technologies, Ltd.*	*COC No.:*	*4122*
Address:	*612 E. Murray Drive*	*Sample No.*	*11009*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1286*

Project Name:	***Bonneville Fuels Federal Lease***				
Project Location:	***Scott E Federal #13; Treated Stockpile Composite***				
Sampled by:	CG/ML	Date:	24-May-96	Time:	16:20
Analyzed by:	DC	Date:	28-May-96		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	***Result***	***Units of Measure***	***Detection Limit***	***Units of Measure***
Benzene	<0.2	ug/kg	0.2	ug/kg
Toluene	25.4	ug/kg	0.2	ug/kg
Ethylbenzene	491.6	ug/kg	0.2	ug/kg
m,p-Xylene	4377.6	ug/kg	0.2	ug/kg
o-Xylene	1035.2	ug/kg	0.2	ug/kg
TOTAL	5929.8	ug/kg		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DKG

Date: 5/29/96

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

TPH - Gasoline / Diesel Range Organics

Attn:	*Cindy Gray*	Date:	30-May-96
Company:	*On Site Technologies, Ltd.*	*COC No.:*	*4122*
Address:	*612 E. Murray Drive*	*Sample No.*	*11009*
City, State:	*Farmington, NM 87401*	*Job No.*	*4-1286*

Project Name:	***Bonneville Fuels Federal Lease***				
Project Location:	***Scott E Federal #13; Treated Stockpile Composite***				
Sampled by:	CG/ML	Date:	24-May-96	Time:	16:20
Analyzed by:	DC	Date:	29-May-96		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Gasoline Range Organics (C5 - C9)	40.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	296.5	mg/kg	5.0	mg/kg
TOTAL	336.5	mg/kg		

Quality Assurance Report

GRO QC No.: *0461-STD*
DRO QC No.: *0475-STD*

Calibration Check

Parameter	*Method Blank*	*Unit of Measure*	*True Value*	*Analyzed Value*	*% Diff*	*Limit*
Gasoline Range (C5 - C9)	<50	ppb	1,080	1,198	10.9	15%
Diesel Range (C10 - C28)	<5.0	ppm	2,000	1,883	5.9	15%

Matrix Spike

Parameter	*1- Percent Recovered*	*2 - Percent Recovered*	*Limit*	*%RSD*	*Limit*
Gasoline Range (C5-C9)	94	80	(70-130)	11	20%
Diesel Range (C10-C28)	117	106	(70-130)	7	20%

Method - *SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography*

Approved by:
Date: 5/30/96

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 28-May-96

Internal QC No.: 0444-STD
Surrogate QC No.: 0445-STD
Reference Standard QC No.: 0355-STD

Method Blank

Analyte	*Result*	*Units of Measure*
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Analyte	*Units of Measure*	*True Value*	*Analyzed Value*	*% Diff*	*Limit*
Benzene	ppb	20.0	19.9	0	15%
Toluene	ppb	20.0	20.0	0	15%
Ethylbenzene	ppb	20.0	20.1	0	15%
m,p-Xylene	ppb	40.0	39.6	1	15%
o-Xylene	ppb	20.0	19.9	0	15%

Matrix Spike

Analyte	*1- Percent Recovered*	*2 - Percent Recovered*	*Limit*	*%RSD*	*Limit*
Benzene	79	89	(39-150)	8	20%
Toluene	69	74	(46-148)	4	20%
Ethylbenzene	77	81	(32-160)	3	20%
m,p-Xylene	73	77	(35-145)	3	20%
o-Xylene	73	76	(35-145)	3	20%

Surrogate Recoveries

Laboratory Identification	*S1 Percent Recovered*	*S2 Percent Recovered*
Limit Percent Recovery	(70-130)	
11008-4122	102	
11009-4122	101	
11010-4122	96	
11011-4122	96	

S1: Flourobenzene

4122

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 5-25-96

Page 1 of 1

Purchase Order No.:	Job No. 4-1286
SEND INVOICE TO: Name	Cindy Gray
Company	for / Bonneville Fuels
Dept.	
Address	
City, State, Zip	
Sampling Location:	
Sampler:	Cindy Gray / Mike Lane

REPORT RESULTS TO: Name Cindy Gray Title

Company for / Bonneville Fuels

Mailing Address

City, State, Zip

Telephone No. Telefax No.

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	8015 M	8020	ANALYSIS REQUESTED	LAB ID
Scott E. Federal # 25-14 Treated Stockpile Composite	5/24	0940	Soil	4°C	1	✓	✓	(PID 218 units)	11668-4177
Scott E. Federal # 13 Treated Stockpile Composite	5/24	1620	Soil	4°C	1	✓	✓	(PID 278 units)	11669-4177
Fullerton Federal # 6E Treated Stockpile Composite #1	5/25	1015	Soil	4°C	1	✓	✓	(PID 583 units)	11670-4177
Fullerton Federal # 6E Treated Stockpile Composite # 2	5/25	1030	Soil	4°C	1	✓	✓	(PID 1076 units)	11671-4177

Relinquished by: Cindy Gray	Date/Time 5/28/96 0930	Received by:	Date/Time 5/28/96 0930
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: Cindy Gray Date 5/28/96

(Client Signature Must Accompany Request)

Rush	24-48 Hours	10 Working Days	Special Instructions:

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

RISK ASSESSMENT
Bonneville Fuels Corporation Scott "E" Federal #13
San Juan County, New Mexico

This pit was originally remediated in September 1994. Vertical excavation was precluded by relatively shallow sandstone bedrock. Lateral excavation was hampered by surface facilities and numerous buried gas pipelines.

In May 1996, Bonneville contracted On Site Technologies to sample this site with a Geoprobe and auger to determine if the original remediation efforts meet with NMOCD/BLM BTEX Guidelines for closure. The Geoprobe drilled to a depth of 14' and encountered visually contaminated samples with PID values of up to 1800 units. The decision was made to re-excavate this pit and attempt further remediation.

The Scott "E" Federal #13 location is rather tight, originally being a cut and fill location into the side of Kutz Canyon. Sandstone and shale crop out on the surface of this location on the south, west and east sides. The formation in outcrop forms a rather irregular surface of alternating hard bedrock and softer sand and soil. Presumably, when this well was originally completed by Gulf in 1964, or shortly thereafter, numerous gas pipelines were buried on this location, probably taking advantage of the softer areas between hard bedrock. The exact location of these pipelines was unknown prior to excavation and was very difficult to ascertain with a metal detector because there were so many of them. As it turned out, a six-inch high pressure line was not marked and was first noticed when unearthed (see pictures); this in spite of the fact that One Calls had been made and Williams Field Services had marked the location for lines.

The inability to accurately locate buried pipelines on the Scott "E" Federal #13 location led to a situation where personnel were in potential physical danger. The physical danger, known pipeline and surface equipment constraints and the irregular nature of the bedrock at this location precluded complete clean up of this blowdown pit.

What was accomplished at this site was the excavation of the pit a depth of 5-8' and 16' long by 14' wide. The contaminated soil was remediated on site through dilution and aeration. The treated stockpile composite was tested for BTEX and TPH. The 8020 method indicated Benzene of less than .0002 ppm and total BTEX of 5.93 ppm. The TPH value using the 8015 method was 336.5 ppm.

What was remediated was done so according to NMOCD/BLM Guidelines, but there was contamination that remained behind that could not be reached in order to be remediated at this time.

This location is believed to be no risk to groundwater contamination or public health. Vertical migration of

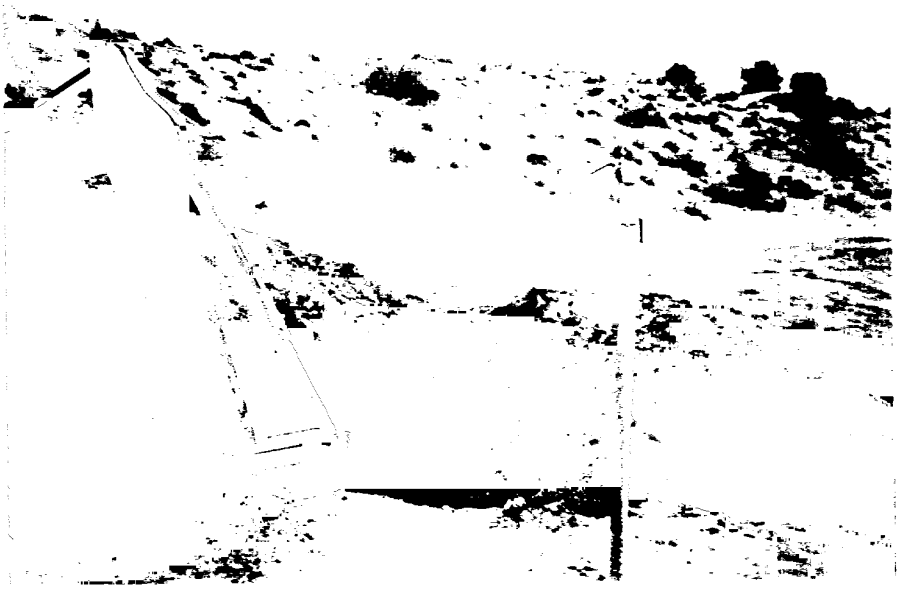
hydrocarbons is blocked by bedrock. Laterally, if the hydrocarbons were to migrate (and with no ground water, minimal rainfall and a relatively minor light end fraction they don't seem likely to) they would move down structural dip or into Kutz Canyon. There, exposed to air, they would rapidly biodegrade and pose little to no threat to surface water supplies. The hydrocarbons from this pit have been on site for as long as 30 years and there is no evidence of any lateral migration. There is no surface water present within 1000' (and much further) of this location; there are no water wells of any kind within 1000' (and much further) of this location; and groundwater is at a depth at approximately 750' according to the New Mexico Bureau of Mines Publication, Hydrogeology and Water Resources of the San Juan Basin, New Mexico.

Respectfully submitted,

Robert J. Kozarek

Robert J. Kozarek
Senior Geologist
Bonneville Fuels Corporation

SCOTT E. FEDERAL #13
NW-SW Sec. 24-T27N-11W
San Juan County, NM



SCOTT E. FEDERAL #13
NW-SW Sec 24-T27N-11W
San Juan County, NM

SCOTT E. FEDERAL #13
NW-SW Sec. 24-T27N-11W
San Juan County, NM

SCOTT E. FEDERAL #13
NW-SW Sec. 24-T27N-11W
San Juan County, NM