Jerry D. Foust
DEPUTY OIL & GAS INSPECTOR
AUG 2 4 1999

CA 503 OVRV

SUBMIT 1 COPY TO
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528

PIT REMEDIATION AND CLOSURE REPORT

Operator: CONOCO, INC. **Telephone:** (505)324-5884

Address: 3315 Bloomfield Hwy., Farmington, NM 87401

Facility or Well Name: JICARILLA E #10

Location: Unit or Qtr/Qtr Sec I Sec 22 T 26N R 4W County RIO ARRIBA

Pit Type: Separator ____ Dehydrator ____ Other COMPRESSOR

Land Type: RANGE

Pit Location: (Attach diagram)

Pit dimensions: length 16', width 24', depth 3'

Reference: wellhead X, other ____

Footage from reference: 13'

Direction from reference: 87 Degrees X East ____ North ____ of ____ West South X

Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	(20 points) (10 points) (0 points)	0
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet Greater than 100 feet	(10 points) (0 points)	0
Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet Greater than 100 feet	(10 points) (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 No	(20 points) (0 points)	0
Distance To SurfaceWater: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 100 feet 100 feet to 1000 feet Greater than 1000 feet	(20 points) (10 points) (0 points)	0
		RANKING SCORE (TOTAL POINTS):	0

CA503 COMPR. PIT

Date Remediation Started: _____ **Date Completed:** 7/21/98

Remediation Method: (Check all appropriate sections)
Excavation X Approx. cubic yards 100
Landfarmed X Insitu Bioremediation _____
Other _____

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

General Description of Remedial Action: Excavation, BEDROCK BOTTOM, RISK ASSESSED.

Groundwater Encountered: No X Yes ____ Depth _____

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

Sample location see Attached Documents

Sample depth 4' (WEST SIDEWALL)

Sample date 7/20/98 Sample time 0830

Sample Results

Soil: Benzene	(ppm)	ND	Water: Benzene	(ppb)	
Total BTEX	(ppm)	27.590	Toluene	(ppb)	
Field Headspace	(ppm)	1,164	Ethylbenzene	(ppb)	
TPH	(ppm)	2,030	Total Xylenes	(ppb)	

Groundwater 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 KNOWLEGE AND BELIEF

DATE 7/21/98 **PRINTED NAME** Jeffrey C. Blagg, P.E. # 11607

SIGNATURE Jeffrey C. Blagg **AND TITLE** President

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO ____ (REASON) R.A. Attached

SIGNED: Lee C Man **DATE:** 9-9-98

Well Name:	**Jicarilla E #10**
Well Site location:	Unit I, Sec. 22, T26N, R4W
Pit Type:	Compressor Pit
Producing Formation:	Basin Dakota/Pictured Cliffs, Blanco Mesaverde
Pit Category:	Non Vulnerable
Horizonal Distance to Surface Water:	> 1000 ft.
Vicinity Groundwater Depth:	> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe encountered shale 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 a relatively shallow shale bedrock located 8 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below shale 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 (pit abandoned). Prior discharge into the pit is believed to be under 5 barrels per day.

4. Well site located within the **non-vulnerable area** and is approximately 0.11 miles southwest of the nearest vulnerable area boundary (Wild Horse Canyon wash).

   (Refer to Schmitz Ranch Quadrangle, New Mexico - Rio Arriba County, 7.5 Minute Series (Topographic), 1963, (vulnerable area boundary developed by Mr. William C. Olson, Hydrogeologist, Environmental Bureau, New Mexico Oil Conservation Division).

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

30039201 01

CLIENT: CONOCO

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: CA503
C.O.C. NO: 6102

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME JICARILLA E WELL #: 10 PIT: COMP/C.
QUAD/UNIT I SEC: 22 TWP: 26N RNG: 4W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: 1720' FSL/790' FEL CONTRACTOR: JVC

DATE STARTED: 7/20/98
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX: 16 FT. x 24 FT. x 8 FT. DEEP. CUBIC YARDAGE: 100
DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM
LAND USE: RANGE LEASE: CONTRACT #104 FORMATION: OK/PC/MV

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 13 FT. S87E FROM WELLHEAD.
DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

CHECK ONE:
✓ PIT ABANDONED
___ STEEL TANK INSTALLED
___ FIBERGLASS TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION

SIDEWALLS - MOSTLY LT. TO MED. LT. GRAY CLAY, PLASTIC, SLIGHTLY MOIST, FIRM TO STIFF, HC ODOR DETECTED W/IN EXCAVATION, STAINING OBSERVED ON SOUTH SIDEWALL BET. 5-8' BELOW GRADE ONLY, STRONG HC ODOR IN ALL OVM SAMPLES EXCEPT NORTH SIDEWALL WHICH CONSISTED OF MOD. YELL. BROWN SAND.

BOTTOM - BEDROCK (SHALE), SOFT TO HARD, GRAYISH OLIVE IN COLOR, STRONG HC ODOR IN OVM SAMPLE.

BEDROCK BOTTOM

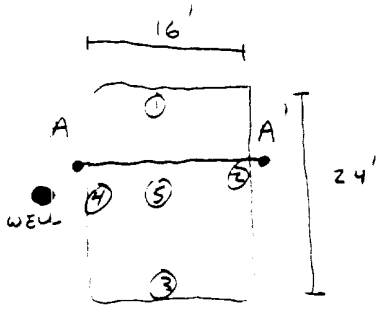
RISK ASSESSED

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SCALE
0 FT

PIT PERIMETER



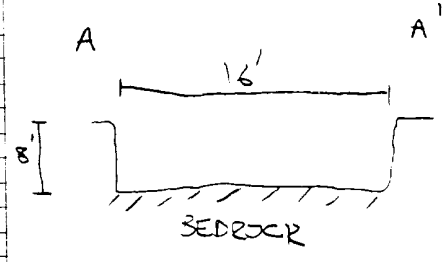
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 4'	0.0
2 @ 4'	833
3 @ 4'	941
4 @ 4'	1164
5 @ 8'	627

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
4 @ 4'	TPH/BTEX	0830
BOTH PASSED		

PIT PROFILE



TRAVEL NOTES: CALLOUT: 7/16/98 - AFTER, ONSITE: 7/20/98 - MORN.

CLIENT: CONOCO

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: GP503
C.O.C. NO: 5851

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JICARILLA WELL #: E-10 PIT: BLOW COMPR.

DATE STARTED: 4-3-98
DATE FINISHED:

QUAD/UNIT: SEC: 22 TWP: 26N RNG: 4W PM: NM CNTY: RA ST: NM

ENVIRONMENTAL SPECIALIST: JCB

QTR/FOOTAGE: NE/4 SE/4 CONTRACTOR: JOE VALDEZ

~~EXCAVATION~~ PIT APPROX. 12 FT. x 12 FT. x 4 FT. DEEP. CUBIC YARDAGE: NA

DISPOSAL FACILITY: _____ REMEDIATION METHOD: _____

LAND USE: RANGE LEASE: 104 FORMATION: _____

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 9 FT. N30°E FROM WELLHEAD.

DEPTH TO GROUNDWATER >100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >1000

NMOCD RANKING SCORE 0 NMOCD TPH CLOSURE STD: 5000 PPM

CHECK ONE:
X PIT ABANDONED
___ STEEL TANK INSTALLED
___ FIBERGLASS TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

7/22/99 - PRELIMINARY SAMPLING OF PIT PRIOR TO ANY EXCAVATION. (CHAIN OF CUSTODY RECORD & QA/QC DOCUMENT ATTACHED TO SEP. PIT PRELIMINARY INVESTIGATION - DATED 4/3/98) ATTACHED

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SCALE
0 FT

PIT PERIMETER

OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1	
2	
3	
4	
5	

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE

TRAVEL NOTES: CALLOUT: _____ ONSITE: _____

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / CONOCO	Project #:	04034-10
Sample ID:	Compressor ~~Blow~~ Pit @ 6'	Date Reported:	04-06-98
Laboratory Number:	D078	Date Sampled:	04-03-98
Chain of Custody No:	5851	Date Received:	04-06-98
Sample Matrix:	Soil	Date Extracted:	04-06-98
Preservative:	Cool	Date Analyzed:	04-06-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**3,970**	**0.2**
Diesel Range (C10 - C28)	**680**	**0.1**
Total Petroleum Hydrocarbons	**4,650**	**0.2**

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: **Jicarilla E 10.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / Conoco	Project #:	04034-10
Sample ID:	4 @ 4'	Date Reported:	07-21-98
Laboratory Number:	D664	Date Sampled:	07-20-98
Chain of Custody No:	6102	Date Received:	07-20-98
Sample Matrix:	Soil	Date Extracted:	07-21-98
Preservative:	Cool	Date Analyzed:	07-21-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**1,890**	**0.2**
Diesel Range (C10 - C28)	**138**	**0.1**
Total Petroleum Hydrocarbons	**2,030**	**0.2**

ND - Pararneter 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: **Jicarilla E #10 Compressor Pit.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / Conoco	Project #:	04034-10
Sample ID:	4 @ 4'	Date Reported:	07-21-98
Laboratory Number:	D664	Date Sampled:	07-20-98
Chain of Custody:	6102	Date Received:	07-20-98
Sample Matrix:	Soil	Date Analyzed:	07-21-98
Preservative	Cool	Date Extracted:	07-21-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**ND**	**8.8**
Toluene	**4,260**	**8.4**
Ethylbenzene	**930**	**7.6**
p,m-Xylene	**14,780**	**10.8**
o-Xylene	**7,620**	**5.2**
Total BTEX	**27,590**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**96 %**
	Bromofluorobenzene	**96 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-84 USEPA, December 1996.

Comments: **Jicarilla E #10 Compressor Pit.**

Analyst

Review

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CA503

SUBMIT 1 COPY TO
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528

PIT REMEDIATION AND CLOSURE REPORT

Operator: CONOCO, INC. **Telephone:** (505)324-5884

Address: 3315 Bloomfield Hwy., Farmington, NM 87401

Facility or Well Name: JICARILLA E #10

Location: Unit or Qtr/Qtr Sec I Sec 22 T 26N R 4W County RIO ARRIBA

Pit Type: Separator X Dehydrator ____ Other ____

Land Type: RANGE

Pit Location: (Attach diagram)

Pit dimensions: length 12', width 18', depth 7'

Reference: wellhead X, other ____

Footage from reference: 90'

Direction from reference: 27 Degrees ____ East North X of X West South ____

Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet 50 feet to 99 feet Greater than 100 feet	(20 points) (10 points) (0 points)	0
Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)	Less than 100 feet Greater than 100 feet	(10 points) (0 points)	0
Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)	Less than 100 feet Greater than 100 feet	(10 points) (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 No	(20 points) (0 points)	0
Distance To SurfaceWater: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 100 feet 100 feet to 1000 feet Greater than 1000 feet	(20 points) (10 points) (0 points)	0

RANKING SCORE (TOTAL POINTS): 0

CA503 SEP. PIT

Date Remediation Started: _____ **Date Completed:** 7/21/98

Remediation Method: (Check all appropriate sections) Excavation X Approx. cubic yards 40

Landfarmed X Insitu Bioremediation _____

Other _____

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

General Description of Remedial Action: Excavation. BEDROCK BOTTOM. RISK ASSESSED.

Groundwater Encountered: No X Yes ___ Depth _____

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

Sample location see Attached Documents

Sample depth 4' (WEST SIDEWALL)

Sample date 7/20/98 Sample time 0745

Sample Results

Soil: Benzene	(ppm)	0.435	Water: Benzene	(ppb)	_____
Total BTEX	(ppm)	25.200	Toluene	(ppb)	_____
Field Headspace	(ppm)	778	Ethylbenzene	(ppb)	_____
TPH	(ppm)	40.3	Total Xylenes	(ppb)	_____

Groundwater 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 KNOWLEGE AND BELIEF

DATE 7/21/98 **PRINTED NAME** Jeffrey C. Blagg, P.E. # 11607

SIGNATURE Jeffrey C. Blagg **AND TITLE** President

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO ___ (REASON) R.A. Attached

SIGNED: Ken C Mank **DATE:** 9-9-98

Well Name:	**Jicarilla E #10**
Well Site location:	Unit I, Sec. 22, T26N, R4W
Pit Type:	Separator Pit
Producing Formation:	Basin Dakota/Pictured Cliffs, Blanco Mesaverde
Pit Category:	Non Vulnerable
Horizonal Distance to Surface Water:	> 1000 ft.
Vicinity Groundwater Depth:	> 100 ft.

RISK ASSESSMENT (non-vulnerable area)

Pit remediation activities were terminated when trackhoe encountered shale bedrock at 7 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 a relatively shallow shale bedrock located 7 feet below grade. Groundwater levels located on or close to the well pad are estimated to be at a much greater depth below shale 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 (pit abandoned). Prior discharge into the pit is believed to be under 5 barrels per day.

4. Well site located within the **non-vulnerable area** and is approximately 0.11 miles southwest of the nearest vulnerable area boundary (Wild Horse Canyon wash).

   (Refer to Schmitz Ranch Quadrangle, New Mexico - Rio Arriba County, 7.5 Minute Series (Topographic), 1963, (vulnerable area boundary developed by Mr. William C. Olson, Hydrogeologist, Environmental Bureau, New Mexico Oil Conservation Division).

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

915

CLIENT: CONOCO

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: CA503
C.O.C. NO: 5851

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JICARILLA WELL #: E-10 PIT: SEP

QUAD/UNIT: SEC: 22 TWP: 26N RNG: 4W PM: NM CNTY: RA ST: NM

CTR/FOOTAGE: NE/4 SE/4 CONTRACTOR: JOE VALDEZ

DATE STARTED: 4-3-98
DATE FINISHED:

ENVIRONMENTAL SPECIALIST: JCD

~~PIT EXCAVATION~~ APPROX 12 FT. x 12 FT. x 3 FT. DEEP. CUBIC YARDAGE: NA

DISPOSAL FACILITY: REMEDIATION METHOD:

LAND USE: RANGE LEASE: 104 FORMATION:

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 87 FT. N30°W FROM WELLHEAD.

DEPTH TO GROUNDWATER: >100 NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: >1000

NMOCD RANKING SCORE 0 NMOCD TPH CLOSURE STD: 5000 PPM

CHECK ONE:
X PIT ABANDONED
___ STEEL TANK INSTALLED
___ FIBERGLASS TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

915

7/27/99 - PRELIMINARY SAMPLING OF PIT PRIOR TO ANY EXCAVATION.

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SCALE
0 FT

PIT PERIMETER

OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1	
2	
3	
4	
5	

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE

TRAVEL NOTES: CALLOUT: ONSITE:

CLIENT: CONOCO

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: CA503
C.O.C. NO: 6102

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: JICARILLA E WELL #: 10 PIT: SEP.
QUAD/UNIT: I SEC: 22 TWP: 26N RNG: 4W PM: NM CNTY: RA ST: NM
QTR/FOOTAGE: 1720'FSL | 790'FEL CONTRACTOR: JUC

DATE STARTED: 7/20/98
DATE FINISHED:
ENVIRONMENTAL SPECIALIST: NV

EXCAVATION APPROX: 12 FT. x 18 FT. x 7 FT. DEEP. CUBIC YARDAGE: 40
DISPOSAL FACILITY: ON-SITE REMEDIATION METHOD: LANDFARM
LAND USE: RANGE LEASE: CONTRACT #104 FORMATION: OK/PC/MV

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 90 FT. N27W FROM WELLHEAD
DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM

CHECK ONE:
- ✓ PIT ABANDONED
- ___ STEEL TANK INSTALLED
- ___ FIBERGLASS TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

SIDEWALLS - CONSISTED OF MOD. YELL. BROWN SAND TO MOSTLY DUSKY RED TO BROWN CLAY NON COHESIVE TO PLASTIC, SLIGHTLY MOIST, FIRM TO STIFF, NO APPARENT STAINING OBSERVED W/IN EXCAVATION, HC ODOR DETECTED W/IN EXCAVATION, WEST SIDEWALL OVM SAMPLE CONTAINED STRONG HC ODOR.

BOTTOM - BEDROCK (SHALE) SOFT TO HARD, LT. OLIVE GRAY IN COLOR, STRONG HC ODOR IN OVM SAMPLE.

BEDROCK BOTTOM

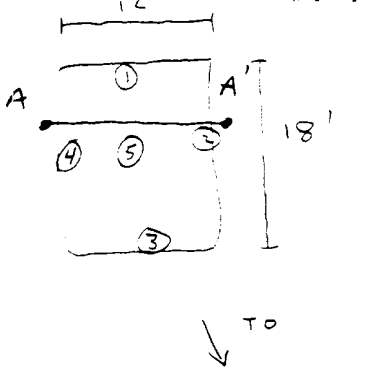
RISK ASSESSED

SCALE
0 FT

FIELD 418: CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

PIT PERIMETER



OVM RESULTS

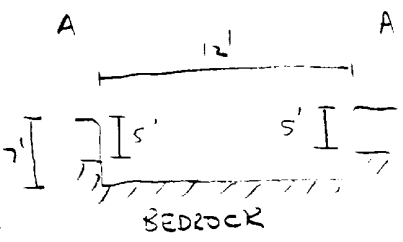
SAMPLE ID	FIELD HEADSPACE PID (ppm)
1 @ 4'	0.0
2 @ 4'	0.0
3 @ 4'	0.0
4 @ 4'	77.8
5 @ 7'	253.8

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
3 @ 4'	TPH/BTEX	0745

BOTH PASSED

PIT PROFILE



TRAVEL NOTES: CALLOUT: 7/16/98 - AFTER. ONSITE: 7/20/98 - MORN

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / CONOCO	Project #:	04034-10
Sample ID:	Sep Pit @ 9'	Date Reported:	04-06-98
Laboratory Number:	D079	Date Sampled:	04-03-98
Chain of Custody No:	5851	Date Received:	04-06-98
Sample Matrix:	Soil	Date Extracted:	04-06-98
Preservative:	Cool	Date Analyzed:	04-06-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**7.2**	**0.2**
Diesel Range (C10 - C28)	**54.4**	**0.1**
Total Petroleum Hydrocarbons	**61.6**	**0.2**

ND - Pararneter 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: **Jicarilla E 10.**

Analyst

Review

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

5851

CHAIN OF CUSTODY RECORD

Client/Project Name	Project Location
BLAGG / CONOCO	JICARILLA E 10
Sampler: (Signature) J. C. Blagg	Chain of Custody Tape No. 04034-10

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH 8015						Remarks
COMPRESSOR Blow Pit @ 6'	4-3-98	1045	D078	Soil	1	X						
SEP Pit @ 9'	"	1055	D079	"	1	X						

ANALYSIS/PARAMETERS

Samples received cool & intact

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
J. C. Blagg	4-6-98	915	Glenn L. Spencer	4-6-98	0915
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.
5796 U.S. Highway 64-3014
Farmington, New Mexico 87401
(505) 632-0615

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / Conoco	Project #:	04034-10
Sample ID:	4 @ 4'	Date Reported:	07-21-98
Laboratory Number:	D663	Date Sampled:	07-20-98
Chain of Custody No:	6102	Date Received:	07-20-98
Sample Matrix:	Soil	Date Extracted:	07-21-98
Preservative:	Cool	Date Analyzed:	07-21-98
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**38.8**	**0.2**
Diesel Range (C10 - C28)	**1.5**	**0.1**
Total Petroleum Hydrocarbons	**40.3**	**0.2**

ND - Pararneter 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: **Jicarilla E #10 Separator Pit.**

Analyst

Review

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ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Blagg / Conoco	Project #:	04034-10
Sample ID:	4 @ 4'	Date Reported:	07-21-98
Laboratory Number:	D663	Date Sampled:	07-20-98
Chain of Custody:	6102	Date Received:	07-20-98
Sample Matrix:	Soil	Date Analyzed:	07-21-98
Preservative:	Cool	Date Extracted:	07-21-98
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	**435**	**8.8**
Toluene	**6,190**	**8.4**
Ethylbenzene	**452**	**7.6**
p,m-Xylene	**12,580**	**10.8**
o-Xylene	**5,540**	**5.2**
Total BTEX	**25,200**	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	**100 %**
	Bromofluorobenzene	**100 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-84 USEPA, December 1996.

Comments: **Jicarilla E #10 Separator Pit.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

6102

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG / CONOCO	JICARILLA E #10	
Sampler: NJV	Client No. 04034-10	

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)	BTEX (8021)					Remarks
												BOTH SAMPLES
												PRESERV. - COOL
(4) @ 4'	7/20/98	0745	D663	SOIL	1	✓	✓					SEPARATOR PIT
(4) @ 4'	7/20/98	0830	D664	SOIL	1	✓	✓					COMPRESSOR PIT

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
Nelson Velez	7/20/98	1559	C. Jack Collins	7/20/98	1559
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

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Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

CA503

SUBMIT 1 COPY TO
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528

ON-SITE SOIL REMEDIATION REPORT

Operator: Conoco, Inc. Telephone: (505) 324-5884

Address: 3315 Bloomfield Hwy., Farmington, NM 87401

Facility or Well Name: JICARILLA E #10

Location: Unit or Qtr/Qtr Sec I Sec 22 T 26N R 4W County RIO ARRIBA

Land Type: RANGE

Date Remediation Started: 7/20/98 Date Completed: 5/19/99

Remediation Method: Landfarmed Y Approx. cubic yards 140

Composted ____

Other ____

Depth To Groundwater:	(pts.)	0
Distance to an Ephemeral Stream	(pts.)	0
Distance to Nearest Lake, Playa, or Watering Pond	(pts.)	0
Wellhead Protection Area:	(pts.)	0
Distance To SurfaceWater:	(pts.)	0
RANKING SCORE (TOTAL POINTS):		0

Final Closure Sampling:

Sampling Date: 5/19/99 Time: 0900

Sample Results:

Field Headspace (ppm) 15.4

TPH (ppm) 61.4 Method 8015

Other ____

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

DATE 5/19/99 PRINTED NAME Jeffrey C. Blagg, P.E. #11607

SIGNATURE Jeffrey C. Blagg AND TITLE President

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES X NO ____ (REASON) ____

SIGNED: Ken C Marr DATE: 6-3-99

CLIENT: CONOCO

BLAGG ENGINEERING, INC.
P.O. BOX 87, BLOOMFIELD, NM 87413
(505) 632-1199

LOCATION NO: CA503
C.O.C. NO: 6676

FIELD REPORT: LANDFARM/COMPOST PILE CLOSURE VERIFICATION

LEASE NAME: JICARILLA E WELL #: 10 PITS: COMPR. SEP
DATE STARTED: 5/17/99
DATE FINISHED:
QUAD/UNIT: I SEC: 22 TWP: 26N RNG: 4W PM: NM CNTY: RA ST: NM
ENVIRONMENTAL SPECIALIST: NV
1/4, 1/4, FOOTAGE: NE/4 SE/4 CONTRACTOR: JVC

REMEDIATION:

REMEDIATION SYSTEM: LANDFARM
APPROX. CUBIC YARDAGE: 140
LAND USE: RANGE
LIFT DEPTH (ft): 1-1.5

FIELD NOTES & REMARKS:

DEPTH TO GROUNDWATER: >100' NEAREST WATER SOURCE: >1000' NEAREST SURFACE WATER: >1000'
NMOCD RANKING SCORE: 0 NMOCD TPH CLOSURE STD: 5000 PPM 7/20/98

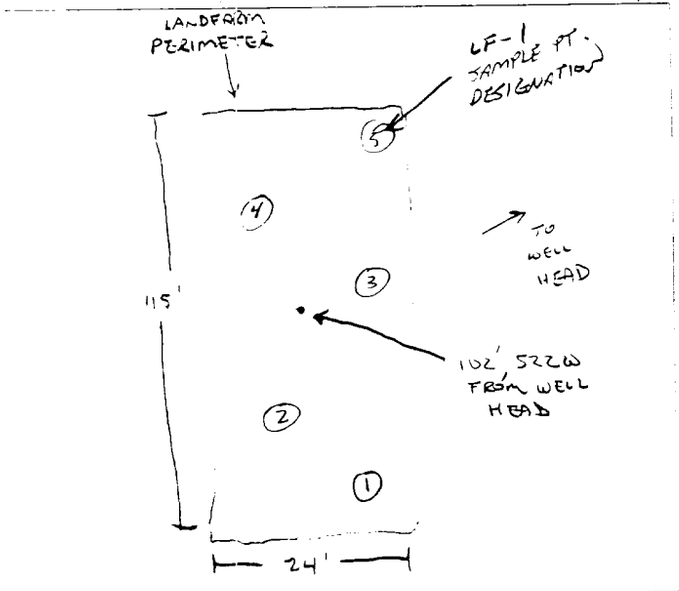
OR. YELL. BROWN/LT. TO MED. GRAY SILTY CLAY TO CLAY PLASTIC, SLIGHTLY MOIST TO MOIST FIRM TO SLIGHTLY STIFF, NO APPARENT DISCOLORATION OBSERVED, SAMPLING DEPTHS RANGE FROM 6-12 INCHES, NO APPARENT HC ODOR DETECTED IN OVM SAMPLE, COLLECTED 5 PT. COMPOSITE FOR LAB ANALYSIS.

CLOSED

FIELD 418.1 CALCULATIONS

SAMP. TYPE	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm

SKETCH/SAMPLE LOCATIONS



OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
LF-1	15.4

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME	RESULT
LF-1	TPH (8015)	0900	61.4

SCALE
0 FT

TRAVEL NOTES: NA ON SITE: 5/17/99

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Blagg / CONOCO	Project #:	403410
Sample ID:	LF - 1	Date Reported:	05-19-99
Laboratory Number:	F270	Date Sampled:	05-17-99
Chain of Custody No:	6676	Date Received:	05-18-99
Sample Matrix:	Soil	Date Extracted:	05-18-99
Preservative:	Cool	Date Analyzed:	05-19-99
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**15.4**	**0.2**
Diesel Range (C10 - C28)	**46.0**	**0.1**
Total Petroleum Hydrocarbons	**61.4**	**0.2**

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: **Jicarilla E #10 Landfarm. 5 Pt. Composite.**

Analyst

Review

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CHAIN OF CUSTODY RECORD

6676

Client / Project Name	Project Location	ANALYSIS / PARAMETERS
BLAGG / CONOCO	LANDFARM JICARILLA E #10	

Sampler:	Client No.
NJV	403410

Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers	TPH (8015)						Remarks
												PRESERV. - COOL
LF-1	5/17/99	0900	F270	SOIL	1	✓						5 PT. COMPOSITE

	Date	Time		Date	Time
Relinquished by: (Signature) Nelson Velez	5/18/99	0705	Received by: (Signature) Adam L. Quinn	5.18.99	705
Relinquished by: (Signature)			Received by: (Signature)		
Relinquished by: (Signature)			Received by: (Signature)		

ENVIROTECH INC.

5796 U.S. Highway 64
Farmington, New Mexico 87401
(505) 632-0615

Sample Receipt	Y	N	N/A
Received Intact	✓		
Cool - Ice/Blue Ice	✓		

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC NM 87410
(505) 334-6178 FAX: (505) 334-6170
http://www.emnrd.state.nm.us/ocd/District III/3distric.htm

This form is not to be used for reporting packer leakage tests in Southeast New Mexico

Revised 11/16/98

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator CONOCO INC Lease Name JICARILLA E Well No 10(PDM)

Location of Well: Unit Letter I Sec 22 Twp 26 Rge ~~10~~ 04 API # 30-0392010100

	NAME OF RESERVOIR OR POOL	TYPE OF PROD. (Oil or Gas)	METHOD OF PROD. (Flow or Art. Lift)	PROD.MEDIUM (Tbg. or Csg.)
Upper Completion	PICTURED CLIFF	GAS	FLOW	TBG.
Lower Completion	DAKOTA ~~MESA VERDE~~	GAS	FLOW	TBG.

PRE-FLOW SHUT-IN PRESSURE DATA

	Hour, date shut-in	Length of time shut-in	SI press. Psig	Stabilized? (Yes or No)
Upper Completion	08-20-00	3-DAYS	80	NO
Lower Completion	08-20-00	3-DAYS	352	NO

FLOW TEST NO. 1

Commenced at (hour, date)* 08-23-00 Zone producing (Upper or Lower):

TIME (hour,date)	LAPSED TIME SINCE*	PRESSURE		PROD. ZONE TEMP.	REMARKS
		Upper Completion	Lower Completion		
08-21-00	1-DAY	65	294		BOTH ZONES SHUT IN
08-22-00	2-DAYS	79	338		BOTH ZONES SHUT IN
08-23-00	3-DAYS	80	352		BOTH ZONES SHUT IN
08-24-00	1-DAY	81	135		LOWER ZONE FLOWING
08-25-00	2-DAYS	82	139		LOWER ZONE FLOWING

Production rate during test MESA VERDE/DAKOTA COMLGD.

Oil: _____ BOPD based on _____ Bbls. in _____ Hours _____ Grav. _____ GOR _____

Gas: _____ MCFPD; Tested thru (Orifice or Meter): _____

MID-TEST SHUT-IN PRESSURE DATA

	Hour, date shut-in	Length of time shut-in	SI press psig	Stabilized? (Yes or No)
Upper Completion				
Lower Completion	Hour, date shut-in	Length of time shut-in	SI press. psig	Stabilized? (Yes or No)

(Continue on reverse side)

NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

FLOW TEST NO. 2

Commenced at (hour, date)**				Zone producing (Upper or Lowr):	
TIME (hour,date)	LAPSED TIME Since**	PRESSURE Upper Completion	PRESSURE Lower Completion	PROD. ZONE	REMARKS

Production rate during test

Oil:_____BOPD based on_____Bbls. in_____Hours._____Grav._____GOR_____
Gas:_____MCFPD:Tested thru (Orfice or Meter):_____

Remarks:_____

I hereby certify that the information herein contained is true and complete to the bes of my knowledge.

Approved_____19___ New Mexico Oil Conservation Division

By_____

Title_____

Operator CONOCO INC

By S Shaw

Title PRODUCTION FIELD SUPT.

Date 9/9/03

NORTHWEST NEW MEXICO PACKER LEAKAGE TEST INSTRUCTIONS

1. A packer leakage test shall be commenced on each multiply completed well within seven days after actual completion of the well, and annually thereafter as prescribed by the order authorizing the multiple completion. Such tests shall also be commenced on all multiple completions within seven days following recompletion and/or chemical or fracture treatment, and whenever remedial work has been done on a well during which the packer or the tubing have been disturbed. Tests shall also be taken at any time that communication is suspected or when requested by the Division.

2. At least 72 hours prior to the commencement of any packer leakage test, the operator shall notify the Division in writing of the exact time the test is to be commenced. Offset operators shall also be so notified.

3. The packer leakage test shall commence when both zones of the dual completion are shut-in for pressure stabilization. Both zones shall remain shut-in until the well-head pressure in each has stabilized, provided however, that they need not remain shut-in more than seven days.

4. For Flow Test No. 1, one zone of the dual completion shall be produced at the normal rate of production while the other zone remains shut-in. Such test shall be continued for seven days in the case of a gas well and for 24 hours in the case of an oil well. Note: if, on an initial packer leakage test, a gas well is being flowed to the atmosphere due to the lack of a pipeline connection the flow period shall be three hours.

5. Following completion of Flow Test No. 1, the well shall again be shut-in, in accordance with Paragraph 3 above.

6. Flow Test No. 2 shall be conducted even though no leak was indicated during Flow Test No. 1. Procedure for Flow Test no. 2 is to be the same as for Flow Test No. 1 except that the previously produced zone shall remain shut-in while the zone which was previously shut-in is produced.

7. Pressures for gas-zone tests must be measured on each zone with a deadweight pressure gauge at time intervals as follows: 3 hours tests: immediately prior to the beginning of each flow-period, at fifteen-minute intervals during the first hour thereof, and at hourly intervals thereafter, including one pressure measurement immediately prior to the beginning of each flow period, at least one time during each flow period (at approximately the midway point) and immediately prior to the conclusion of each flow period. Other pressures may be taken as desired, or may be requested on wells which have previously shown questionable test date.

24-hour oil zone tests: all pressures, throughout the entire test, shall be continuously measured and recorded with recording pressure gauges the accuracy of which must be checked at least twice, once at the beginning and once at the end of each test, with a deadweight pressure gauge. If a well is a gas-oil or an oil-gas dual completion, the recording gauge shall be required on the oil zone only, with deadweight pressures as required above being taken on the gas zone.

8. The result s of the above-described tests shall be filed in triplicate within 15 days after completion of the test. Tests shall be filed with the Aztec District Office of the New Mexico oil Conservation Division on northwest new Mexico packer leakage Test Form Revised 11-16-98 with all deadweight pressures indicated thereon as well as the flowing temperatures (gas zones only) and gravity and GOR (oil zones only).