

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL
WELL ☐

GAS
WELL ☒

OTHER

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Marathon Oil Company

3. ADDRESS AND TELEPHONE NO.

P.O. Box 552 Midland, TX 79702

1-800-351-1417

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

SEC-11, T-22-S, R-23-E, 1514' FNL, 870' FEL

At proposed prod. zone

SEC-11, T-22-S, R-23-E, 1514' FNL, 870' FEL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

15-MILES N.W. OF CARLSBAD

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT

(Also to nearest drlg. unit line, if any) 870' FEL

16. NO. OF ACRES IN LEASE

640

17. NO. OF ACRES ASSIGNED
TO THIS WELL

640

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

2761'

19. PROPOSED DEPTH

8000'

20. ROTARY OR CABLE TOOLS

ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

G.L. 3933'

KB- 3949'

22. APPROX. DATE WORK WILL START*

JUNE 2000

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12.25"	9-5/8"	36#	1200'	785 SKS. TO SURFACE
8.75"	7"	23#-26#	8000'	1400 SKS. CIRC. TO SURFACE

PROPOSE TO DRILL AND COMPLETE A INDIAN BASIN UPPER PENN. ASSOC. WELL.

NSL-

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

R.J. Longmire

SIGNED

TITLE DRILLING SUPERINTENDENT

DATE 05-30-00

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

CONDITIONS OF APPROVAL, IF ANY

(ccm)

Assistant Field Manager
Lands And Minerals

APPROVED BY

TITLE

DATE

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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RECEIVED
JUN 09 2000
BLM
ROSWELL, NM

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Braxos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1984
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Indian Basin Upper Penn. 2088
Property Code	Property Name	Well Number
	SMITH FEDERAL	3 *
OGRID No.	Operator Name	Elevation
14021	MARATHON OIL COMPANY	3933

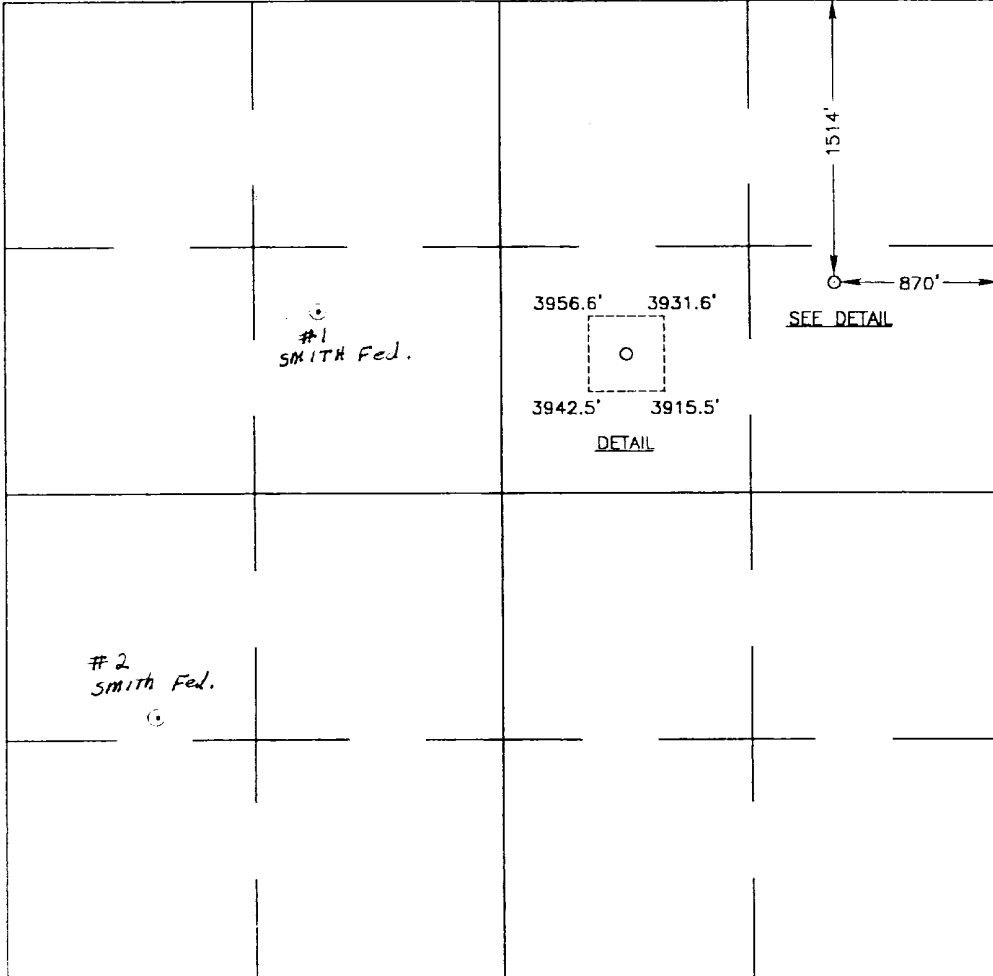
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	11	22 S	23 E		1514	NORTH	870	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Jerry Fletcher</i> Signature</p> <p>Jerry Fletcher Printed Name</p> <p>Engineer Tech Title</p> <p>05-30-00 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision and that the same is true and correct to the best of my belief.</p> <p>MAY 9, 2000</p> <p>Date Surveyed LMP</p> <p>Signature & Seal of Professional Surveyor</p> <p><i>Ronald J. Eidson</i> 5/17/00 00-11-0347</p> <p>Certificate No. RONALD J. EIDSON 3239 GARY EIDSON 12641 MACON McDONALD 12185</p>
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Thirteen Point Surface Use Plan
MARATHON OIL COMPANY

SMITH FEDERAL # 3
Sec. 11, T-22-S, R-23-E
Eddy County, New Mexico

1. Existing Roads: Refer to Vicinity Lease Map.
 - a. The proposed wellsite is staked and the surveyor's plat is attached.
 - b. To reach the location from Carlsbad, New Mexico: Follow Hwy. 285 North of Carlsbad 11 miles. Turn left on (NM)137. Go 6 miles west, Take left Y to Sitting Bull Falls; travel 4-miles; turn west on lease road; go 1- mile to location on left.
 - c. Existing roads within a one-mile radius (refer to Vicinity Lease Map).
 - d. The existing road will be maintained as necessary to provide access during the drilling operation.
2. Planned Access Road: Refer to Vicinity Lease Map.

Access will be by existing State roads and existing lease roads. Construction plans will require blading and rolling the road and pad. The access road enters the drilling pad on the Northeast corner. The drilling location will have the rig V-door facing East-Northeast.
3. Location of Existing Wells: See Vicinity Lease Map.
4. Location of Existing and Proposed Production Facilities within a one-mile radius:
 - a. Existing: There are four oil and gas wells operated by Marathon Yates Pet. and Kerr Mcgee within a one-mile radius of the proposed location. These locations have production facilities including separators, condensate, oil, water storage tanks. Marathon and Yates Pet. operate a variety of dehydrators, meter runs, and several gathering lines in the one-mile radius.
 - b. New Facilities: Marathon Oil Co proposes to install 2- flowlines for the Smith Fed. # 3. They will be 4" schedule 40 grade B welded steel lines , installed on the surface. They will transport fluids at the rate of 3MMCFDPD, 20- bopd, and 1000 bwpd to existing production facilities located at our Smith Fed. # 1 .

The proposed route is shown on the attached plats for distance of 2025'. An archaeological survey has been completed.

The anticipated life of the project is five to seven years. Due to the temporary nature of the project , Marathon requests approval for surface installation.

Also propose to construct and install a three phase 7.2/11.47 KV overhead power line to Serve the Smith Fed. # 3. This construction will tie into existing construction at the Smith Federal # 1 location. Constuction will be to REA specs. Using 30-40' poles. The total length is 3186'. An archaeological survey has been completed and will be forwarded upon Completion.
 - c. Rehabilitation of disturbed areas no longer needed for operations will be accomplished by grading, leveling and seeding as recommended.
5. Location and Type of Water Supply:

A. P. D. (cont.)
Thirteen Point Surface Use Plan
Smith Federal # 3

- a. Source: Indian Basin Gas Plant, NE/4 Sec. 23, T-21-S, R-23-E.
 - b. The water will be transported by a trucking contractor. No new construction will be required on/along the water route.
 - c. No water well will be drilled on this location.
6. Source of Construction Materials:
- a. Construction materials may be obtained from the construction site.
 - b. If production is obtained, native materials will be used on the location and for installation of production facilities.
 - c. On-site inspection may dictate any changes in location construction.
7. Methods of Handling Waste Material Disposal:
- a. Cuttings - will be deposited in the reserve pit.
 - b. Drilling fluids - contained in reserve pit and allowed to evaporate. Free water will be removed and transported to an approved disposal site to accelerate pit drying.
 - c. Produced fluids - none anticipated.
 - d. A portable chemical toilet will be provided.
 - e. Garbage and other waste material - garbage and trash will be stored in a receptacle on location and periodically hauled to an approved sanitary landfill.
 - f. After the rig moves out, all materials not necessary for operations will be removed. Pits will be backfilled and leveled. The location will be cleaned of all trash and debris.
8. Ancillary Facilities: Camp facilities will not be required. Portable trailers will be on location to house a company drilling foreman and contract toolpusher.
9. Wellsite Layout:
- a. The wellpad layout shows the drillsite layout as staked. Topsoil will be stockpiled per specifications.
 - b. The reserve pit will be fenced on three sides before drilling begins. The fourth side will be fenced when the drilling rig leaves location.
 - c. The reserve pit will be lined (8 mil material).

A. P. D. (cont.)
Thirteen Point Surface Use Plan
Smith Federal # 3

10. Plans for Restoration of the Surface:

- a. Backfilling, leveling, and contouring are planned as soon as all pits have dried. Waste disposal and spoiled materials will be hauled away immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible.
- b. The soil banked material will be spread over the area. Revegetation will be accomplished by planting mixed grasses as per formula provided by the BLM. Revegetation is recommended for road area, as well as around the drill pad.
- c. The reserve pit will be fenced during drilling operations. Fencing will be maintained until leveling and cleanup are accomplished.
- d. If any oil is in the pits and is not immediately removed after operations cease, the pit containing the oil or other adverse substances will be flagged overhead or covered with mesh.
- e. The rehabilitation operations will begin after the completion rig is removed. Removal of oil or other adverse substances will begin immediately or area will be flagged and fenced. Other cleanup will be done as needed. Planting and revegetation will be done between July 15 and September 15.
- f. All efforts will be made to minimize surface disturbances and protect the visual resources along the scenic byway.

11. Other Information:

- a. There are no significant archaeological or cultural sites visible in the area of disturbance. A cultural resource survey was performed by Archaeological Consultants Inc. of Roswell.
- b. General topography: Shown on Vicinity Lease Map. The terrain at the wellsite is gently rolling hills. Vegetation is primarily sage brush and natural grasses.
- c. Animal life: Prairie dogs, domestic livestock, rabbits and native rodents and predators.
- d. Dwellings (nearest): Approximately 2 miles.
- e. General location: Approximately 15 miles Northwest of Carlsbad, New Mexico.
- f. Drainage: Internal
- g. Surface Owner: The surface is owned by the Bureau of Land Management.
- h. Due to proximity of the location and nearby drainage, Marathon will make every effort to minimize surface disturbance. Please see the location pad and reserve pit dimensions..

12. Operator Representatives:

R. J. Longmire
Drilling, Completion, & Workover Superintendent

A. P. D. (cont.)
Thirteen Point Surface Use Plan
Smith Federal # 3

12. Operator Representatives:

R. J. Longmire
Drilling, Completion, & Workover Superintendent
P. O. Box 552
Midland, TX 79702
800/351-1417
915/682-1626

13. Certification:

I hereby certify that I, or someone under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions that presently exist; that the statements made in this plan are, to the best of my knowledge and belief, true and correct; and that the work associated with the operations proposed herein will be performed by MARATHON OIL COMPANY and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

June 1, 2000
Date

R. J. Longmire
R. J. Longmire

DRILLING PROGRAM
MARATHON OIL COMPANY
Smith Federal # 3

1. Estimated KB Elevation: 3949' KB

<u>FORMATION</u>	<u>-----TOP-----</u>		<u>-----BASE-----</u>		<u>FLUID CONTENT</u>
	<u>MEASURED</u>	<u>SUBSEA</u>	<u>MEASURED</u>	<u>SUBSEA</u>	
Queen	Surface	+3949'	650'	+3299'	water
San Andres	650'	+3299'	2250'	+1699'	water
Glorietta	2250'	+1699'	2355'	+1594'	
Delaware	3300'	+649'	4300'	- 351'	
Bone Spring	4300'	-351'	5950'	-2001'	oil gas
Wolfcamp	5950'	-2001'	7520'	-3571'	oil gas
B/Permian Shale	7520'	-3571'	7530'	-3581'	
U. Penn	7530'	-3581'	8000'	-4051'	gas, oil, water

<u>FORMATION</u>	<u>---EST PSIG</u>	<u>SBHP--- PPG EMW</u>	<u>EST DEG f</u>	<u>SBHT PPM</u>	<u>H2S</u>	<u>---SIGNIFICANCE--- (obj, marker, etc.)</u>
Bone Springs	1210	8.5		500		marker
Wolfcamp	1680	9.0				marker
B/Permian Shale	1810	9.0				objective pay
U. Penn	2050	9.0		5000		objective pay

2. See (1) above.

If any unexpected water or mineral bearing zones are encountered, they will be reported, evaluated, and protected as circumstances and regulations require.

3. **Pressure Control Equipment:**

4. 9-5/8" Surface: 11" 3M annular tested to 200 psi /2000 psi, 11" 3M dual rams, choke manifold and mud cross, tested to 300#/3000#.

Auxiliary Equipment:

Surface Hole: Annular or rotating head w/air rig.

Intermediate Hole: N/A

Production Hole: Flow indicator, PVT, H₂S Sensors, air packs, stroke counter, rotating head.

BOP systems will be consistent with API RP 53. Blowout preventers will be installed and pressure tested prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned.

Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Casing will be pressure tested before drilling casing cement plugs.

Upper and lower kelly cocks with valve handle and safety valve and subs to fit all drillstring connections in use will be available on rig floor.

A. P. D. (cont.)
Thirteen Point Surface Use Plan
Smith Federal # 3

Test Frequency

1. When installed.
 2. Anytime a pressure seal is broken (test confined only to affected equipment).
 3. At least every 20 days.
 4. Blind and pipe rams shall be activated each trip but not more than once/day.
4. Casing and Cement Program:
- | ---DEPTH--- | | SECTION | | HOLE | | CSG | WT. | THREADS | | NEW |
|---------------|--------------|-------------|-------------|------------|---------------|-----|--------------|-------------|------------------|----------------------|
| FROM | TO | LENGTH | | SIZE | SIZE | PPF | GRADE | COUPLINGS | USED | |
| 0 | 1800' | 1800' | | 12.25" | 9-5/8" | 36# | K-55 | 8rd, STC | New | |
| 0 | 4800' | 4800' | | 8.75" | 7-0" | 23# | K-55 | 8rd, LT&C | New | |
| 4800' | 8000' | 3800' | | 8.75" | 7-0" | 26# | K-55 | 8RD LT&C | NEW | |
| Casing | DV | Stg. | Lead | Amt | Type | | Yield | Wt. | | |
| String | Depth | | Tail | SXS | Cement | | CF/SX | PPG. | TOC | |
| | | | | | | | | | Additives | |
| 9-5/8" | none | 1 | L | 100 | Thix-set | | 1.52 | 14.0 | surf. | 1.0% thix-set A |
| 9-5/8" | | 1 | T | 485 | prem.p. | | 2.02 | 14.8 | surf | 2% cacl;.5lb/Flocele |
| 9-5/8" | | | T | 200 | prem.p. | | 1.34 | 14.8 | surf | 2% cacl |
| 7" | 5400' | 1 | L | 250 | "H" Foamed | | 2.13 | 9.2 | 6400 | Foamed N2 |
| 7" | | 1 | T | 350 | "H" Foamed | | 1.44 | 13.0 | 7000' | Foamed N2 |
| 7" | | 2 | L | 700 | Interfill "C" | | 2.47 | 14.0 | Surf. | Flocele 1/4#/sk |
| 7" | | 2 | T | 100 | "C" Neat | | 1.32 | 14.8 | 5900' | 5# gilsonite / sk. |

Each stage will be preceded by an appropriate mud flush. Actual production hole volumes will be based on the caliper volume plus 20% excess.

A. P. D. (cont.)
Thirteen Point Surface Use Plan
Smith Federal # 3

Centralizer Program:

9 5/8" Conventional centralizers. Bottom 3 joints and every fourth joint to surface.

7" Conventional centralizers middle of 1st joint, then every joint to 7500', and 1 cent. Every 4th joint thereafter to 1100'.

5. Mud Program

<u>---DEPTH---</u>		<u>MUD TYPE</u>	<u>WEIGHT</u>		<u>WL</u>	<u>ADDITIVES</u>	<u>VISUAL</u>
<u>FROM</u>	<u>TO</u>		<u>(PPG)</u>	<u>VIS</u>	<u>CC</u>		<u>MONTR.</u>
0	1200'	fresh water	8.3	28	N/A	Gel, Lime	Reserve
1200'	5000'	fresh	8.5	28-32	N/C	Gel, caustic, H ₂ S Scavenger	Reserve
5000'	7000'	fresh	8.5	32-36	N/C	Gel, caustic, H ₂ S Scavenger	Reserve
7000'	8000'	fresh	8.5	32-36	<20	Gel, caustic, H ₂ S Scavenger	Steel Pits

Sufficient quantities of additives will be on location to maintain above mud properties for any anticipated well conditions.

6. Logging, Testing & Coring Programs:

<u>LOG/TEST/CORE/MUDLOG/OTHER</u>	<u>--INTERVAL--</u>		<u>REMARKS</u>
	<u>FROM</u>	<u>TO</u>	
DLL/MSFL/GR/CNL/LDT/CAL	TD	5000'	
LDT/CNL/GR/CAL	TD	surf casing	
MUD LOGGER	6000'	TD	ROP, Lithology, Gas Analysis, Chromatograph
NO CORES OR DST'S			

7. Abnormal Pressures, Temperatures or Potential Hazards:

None anticipated. Possible H₂S in Cisco & Upper Penn. See H₂S Drilling Operations Plan.

8. Other Information:

Anticipated Starting Date: As soon as possible.

Duration of Well: drilling - 18 days, completion - 10 days.

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1984
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2068, SANTA FE, N.M. 87504-2068

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name SMITH FEDERAL	Well Number 3
OGRID No.	Operator Name MARATHON OIL COMPANY	Elevation 3933

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	11	22 S	23 E		1514	NORTH	870	EAST	EDDY

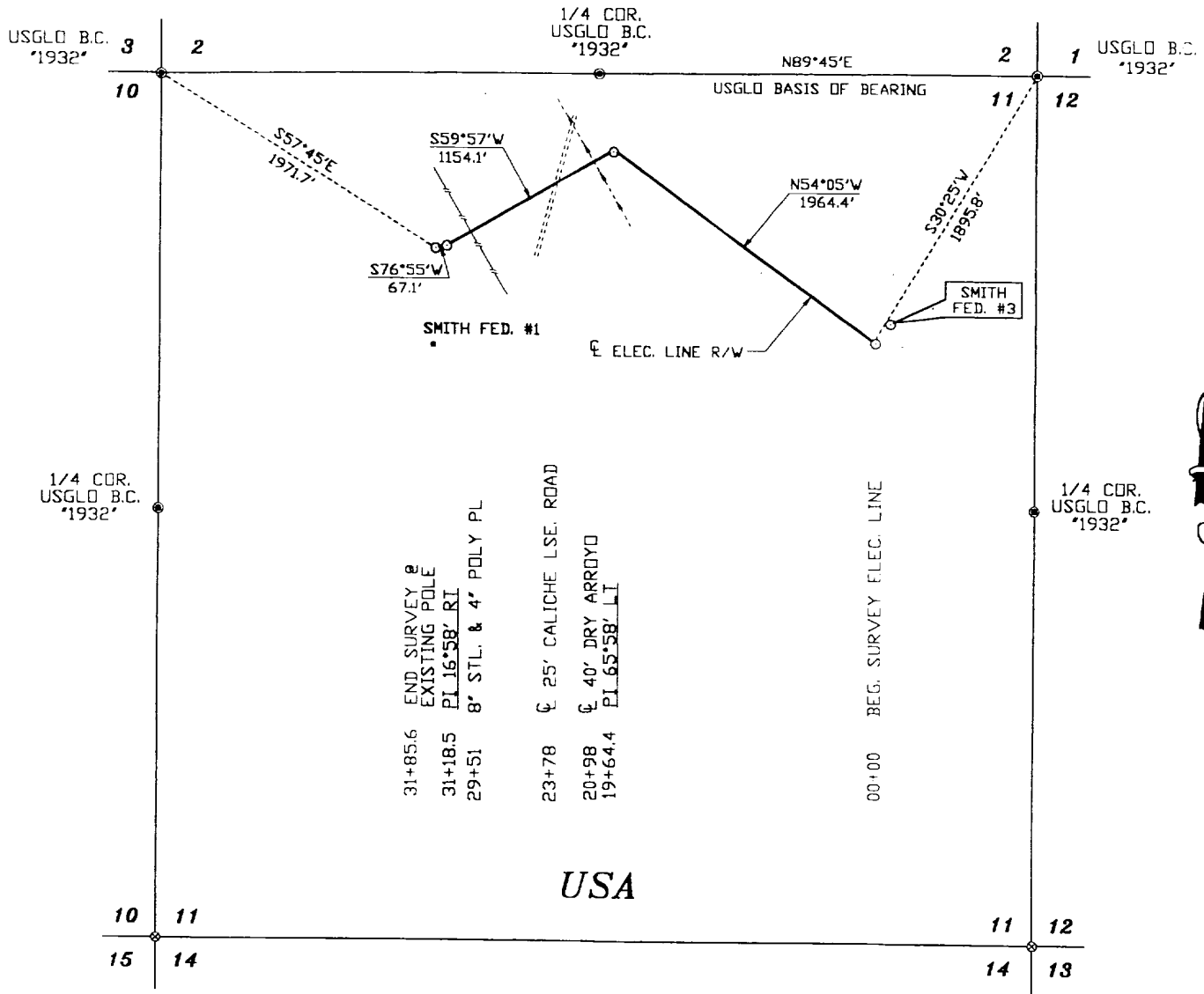
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

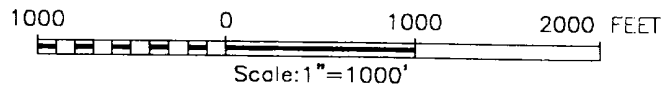
	BASIS OF BEARING	S89°45'W	
		1514'	
		870'	
		S86°59'W 2761'	
		S57°17'W 4291'	
		S68°31'E 1450'	
		#1 SMITH FED.	
		#2 SMITH FED.	
		YATES PETR. CORP. SMITH FED GAS COM #2	
			SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i> MAY 9, 2000 Date Surveyed _____ J.M.P. Signature & Seal of Professional Surveyor 00-11-0347 Certificate No. RONALD J. EIDSON 3239 GARY EIDSON 12841 MACON McDONALD 12185

SECTION 11, TOWN. 11P 22 SOUTH, RANG. 23 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE, 3185.6 FEET OR 0.603 MILES IN LENGTH AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE CENTERLINE SURVEY.



I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

Ronald J. Eidson 5/17/2000
RONALD J. EIDSON, N.M. P.S. No. 3239
GARY G. EIDSON, N.M. P.S. No. 12641

JOHN WEST SURVEYING COMPANY

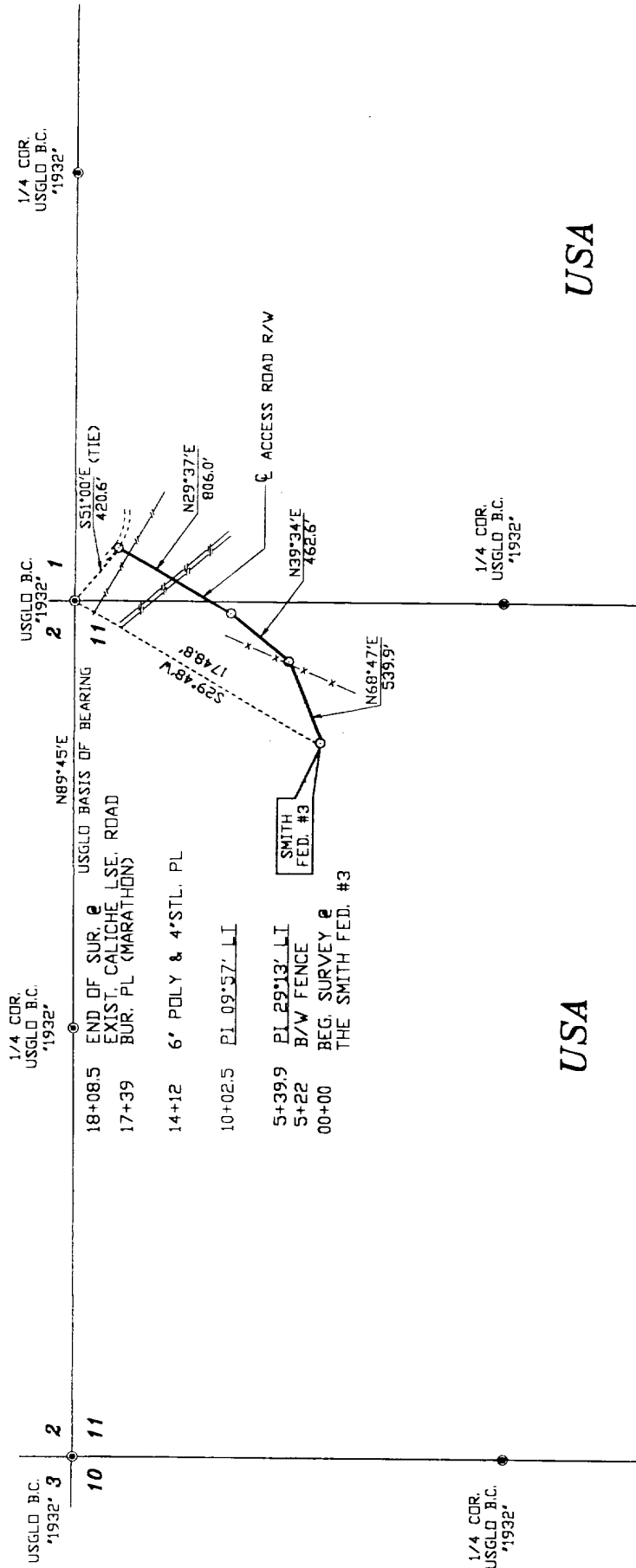
412 N. DAL PASO - HOBBS, NEW MEXICO - 505-393-3117

MARATHON OIL COMPANY

SURVEY OF AN ELECTRIC LINE
CROSSING USA LAND LOCATED IN
SECTION 11, TOWNSHIP 22 SOUTH, RANGE 23 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 5/9/2000	Sheet 1 of 1 Sheets
W.O. Number: 00-11-0347	Drawn By: LMP
Date: 5/16/00	CD #1
MARA0347	Scale: 1"=1000'

SECTIONS 11 & 12, TOWNSHIP 22 SOUTH, RANGE 23 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A STRIP OF LAND 300 FEET WIDE, 1808.5 FEET OR 0.342 MILES IN LENGTH AND BEING 150 FEET LEFT AND 150 FEET RIGHT OF THE ABOVE CENTERLINE SURVEY.

I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

Ronald J. Eidson 5/17/2000
RONALD J. EIDSON, N.M. P.S. No. 3239
GARY G. EIDSON, N.M. P.S. No. 12641

JOHN WEST SURVEYING COMPANY

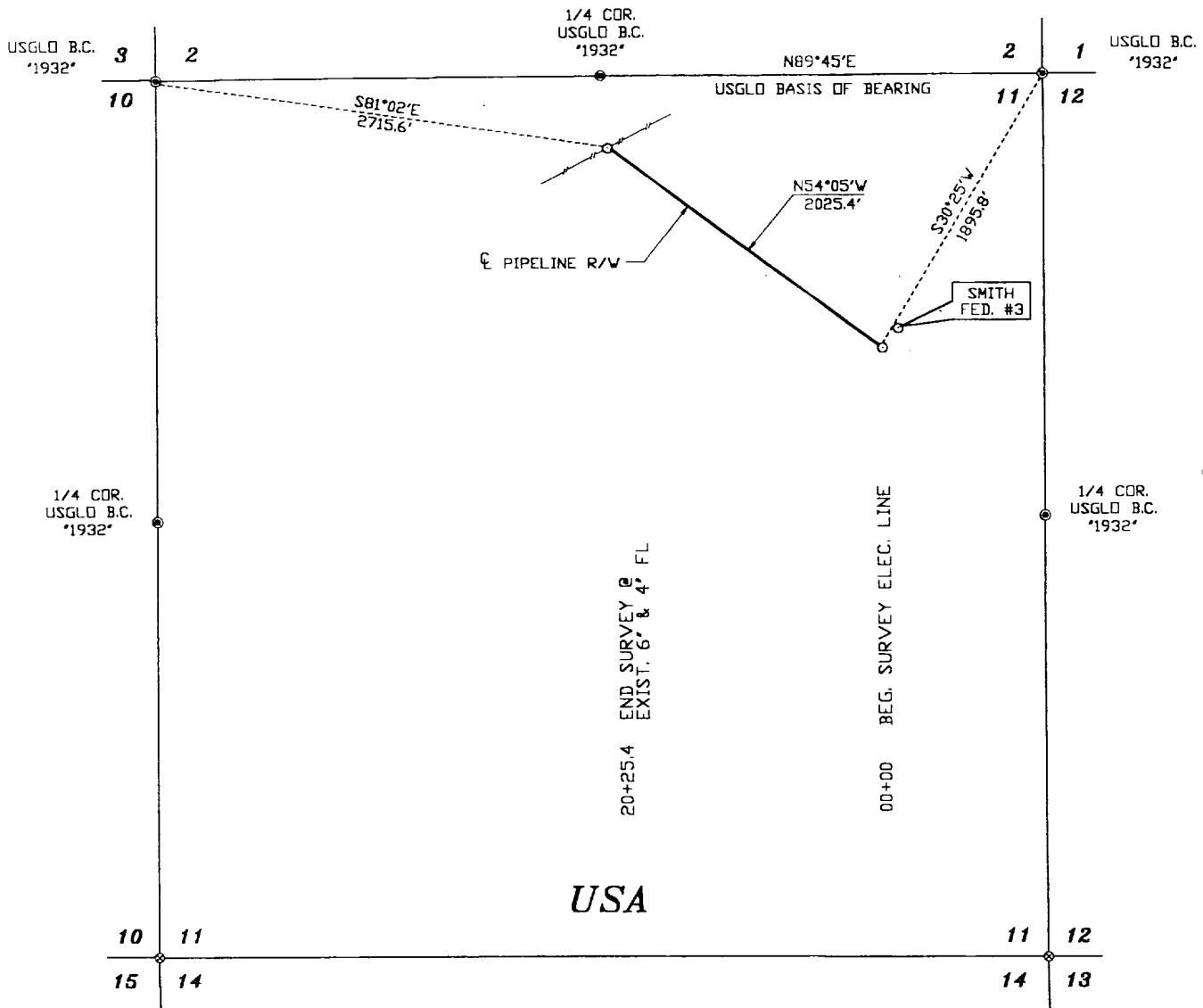
412 N. DAL PASO - HOBBS, NEW MEXICO - 505-393-3117

MARATHON OIL COMPANY

SURVEY OF AN ACCESS ROAD
CROSSING USA LAND LOCATED IN
SECTIONS 11 & 12, TOWNSHIP 22 SOUTH, RANGE 23 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

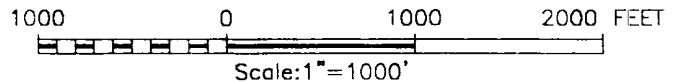
Survey Date: 5/9/2000	Sheet 1 of 1	Sheets
W.O. Number: 00-11-0347	Drawn By: LMP	
Date: 5/16/00	CD #1	MARA0347
		Scale: 1"=1000'

**SECTION 11, TOWNSHIP 22 SOUTH, RANGE 23 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO**



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE, 2025.4 FEET OR 0.384 MILES IN LENGTH AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE CENTERLINE SURVEY.



I HEREBY CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

Ronald J. Eidson 5/17/2000
RONALD J. EIDSON, N.M. P.S. No. 3239
GARY G. EIDSON-N.M. P.S. No. 12641

JOHN WEST SURVEYING COMPANY

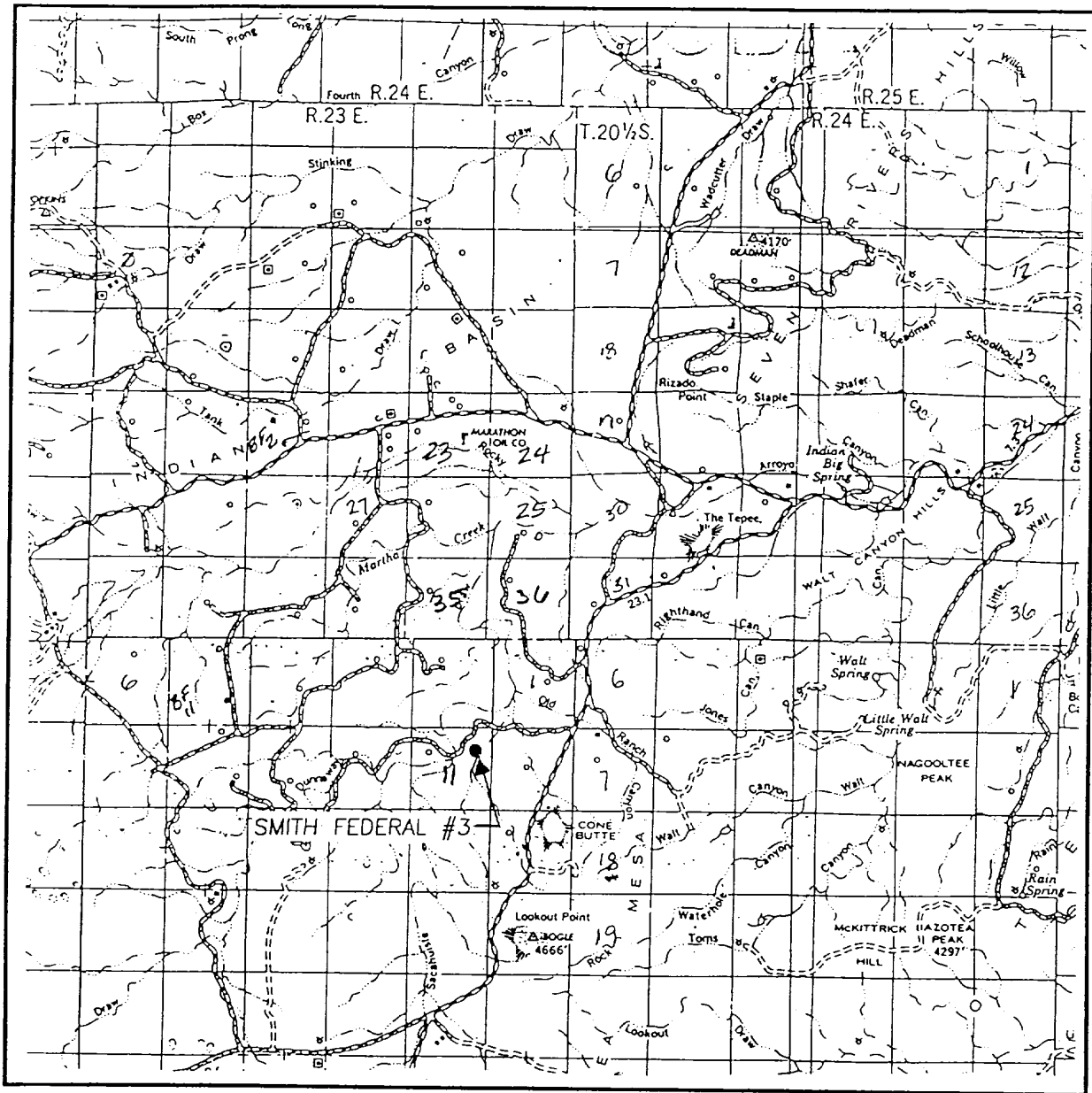
412 N. DAL PASO - HOBBS, NEW MEXICO - 505-393-3117

MARATHON OIL COMPANY

SURVEY OF A PIPELINE
CROSSING USA LAND LOCATED IN
SECTION 11, TOWNSHIP 22 SOUTH, RANGE 23 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 5/9/2000	Sheet 1 of 1 Sheets
W.O. Number: 00-11-0347	Drawn By: LMP
Date: 5/16/00	CD #1
MARA0347	Scale: 1"=1000'

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 11 TWP. 22-S RGE. 23-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1514' FNL & 870' FEL

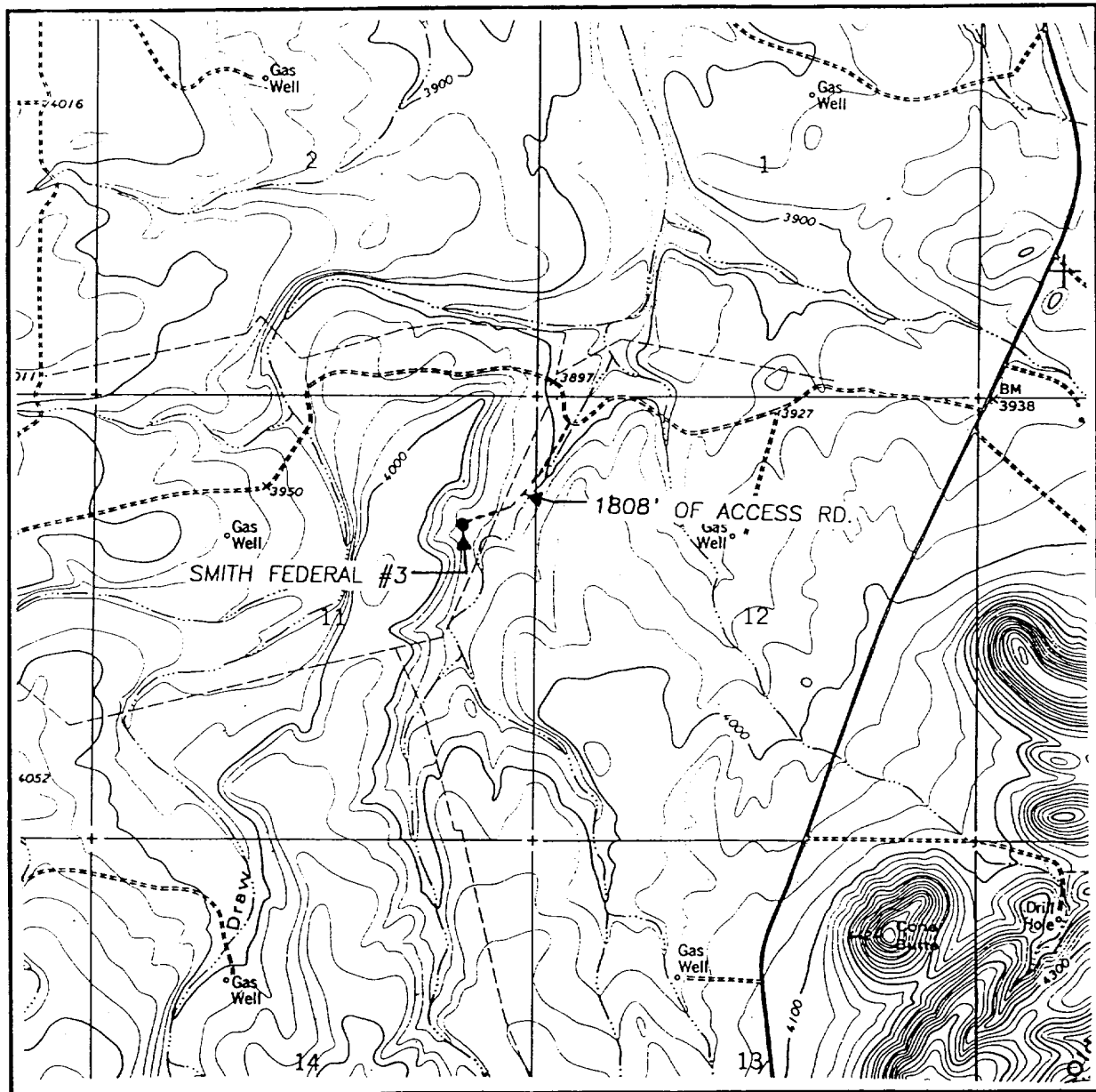
ELEVATION 3933

OPERATOR MARATHON OIL CO.

LEASE SMITH FEDERAL

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
MARTHA CREEK, N.M. - 20'

SEC. 11 TWP. 22-S RGE. 23-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1514' FNL & 870' FEL

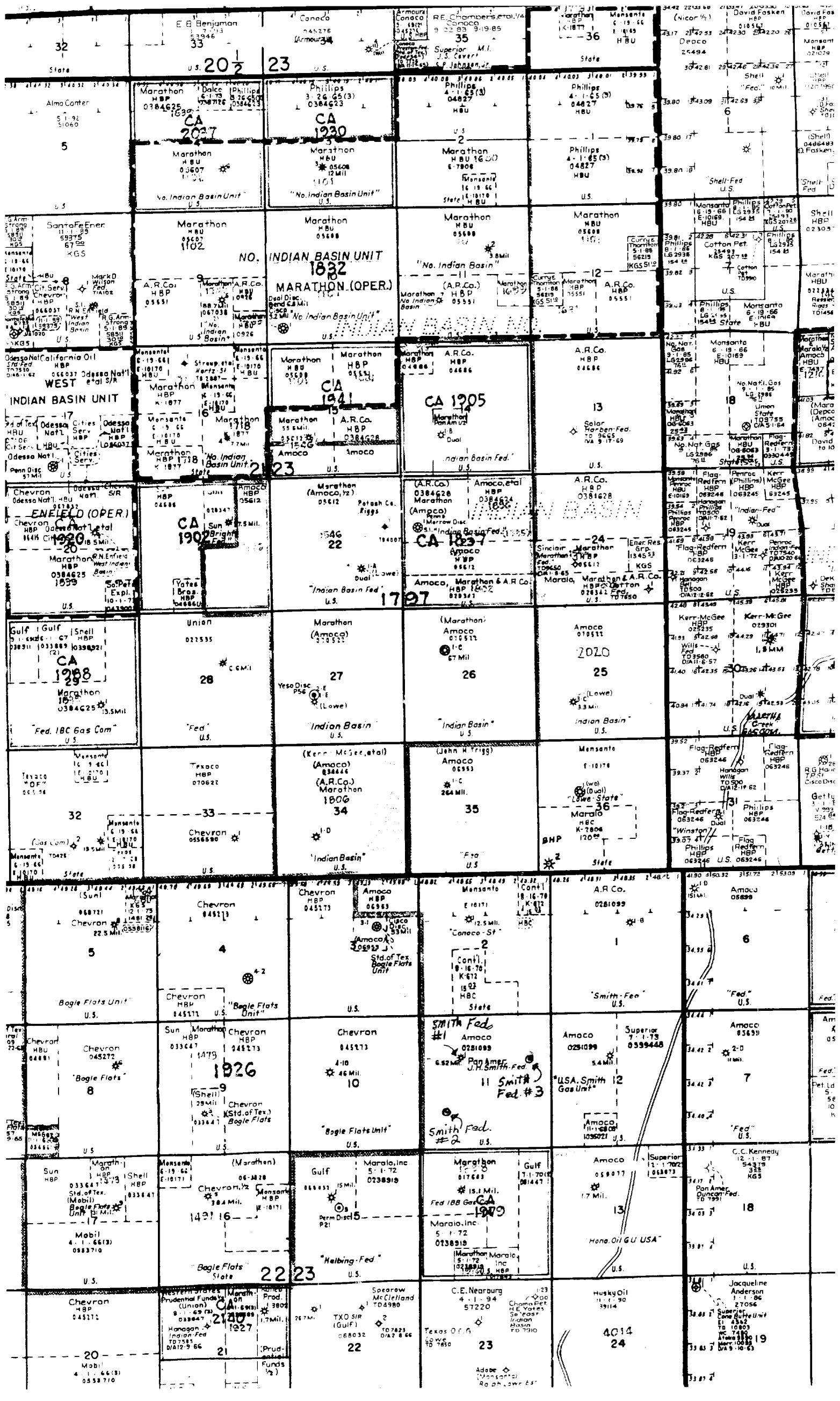
ELEVATION 3933

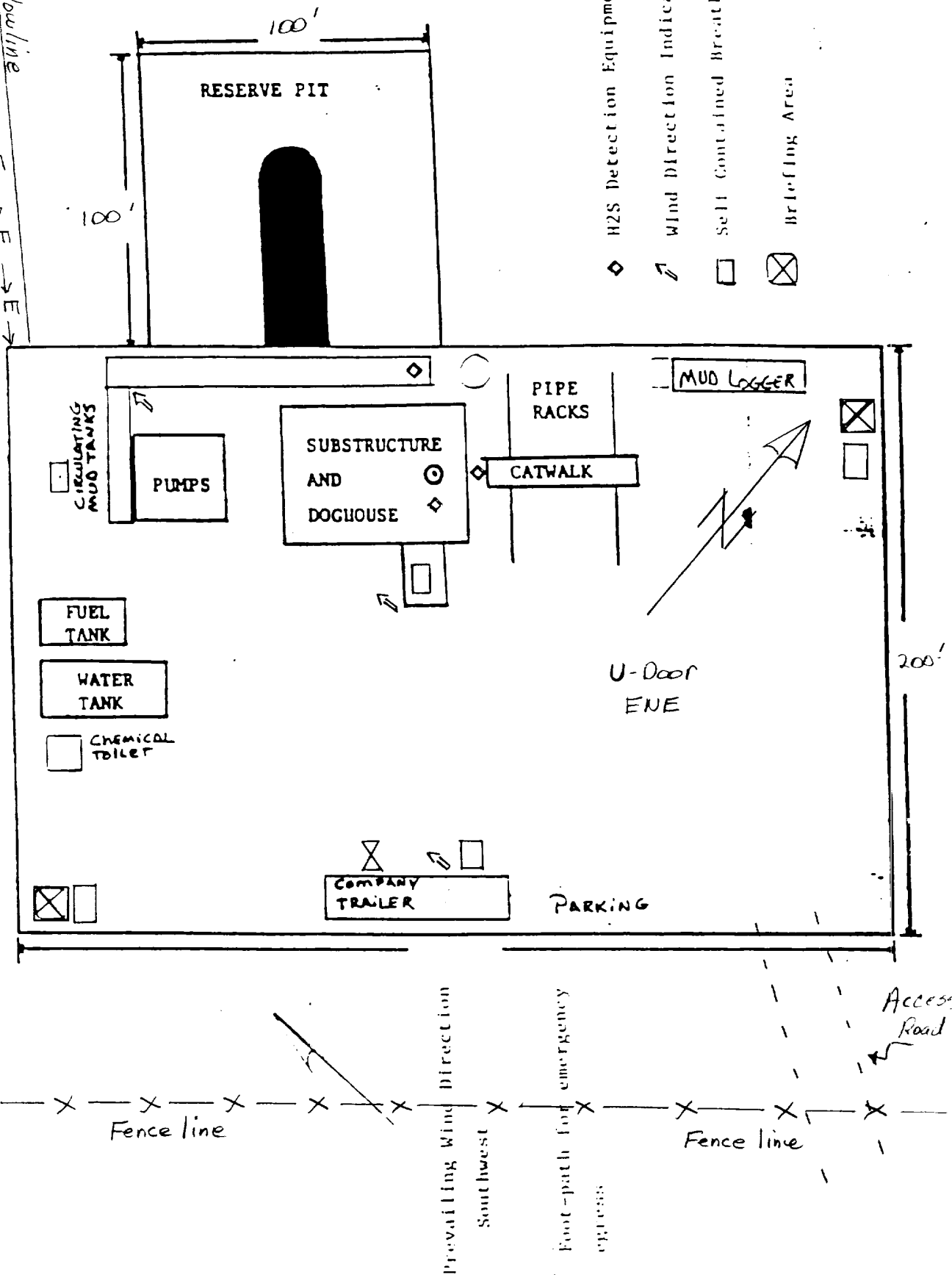
OPERATOR MARATHON OIL CO.

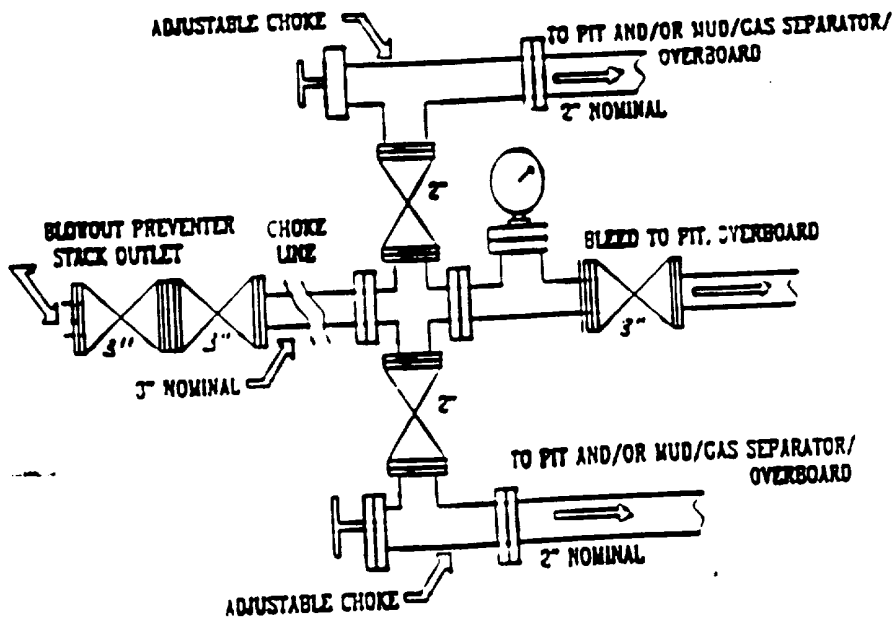
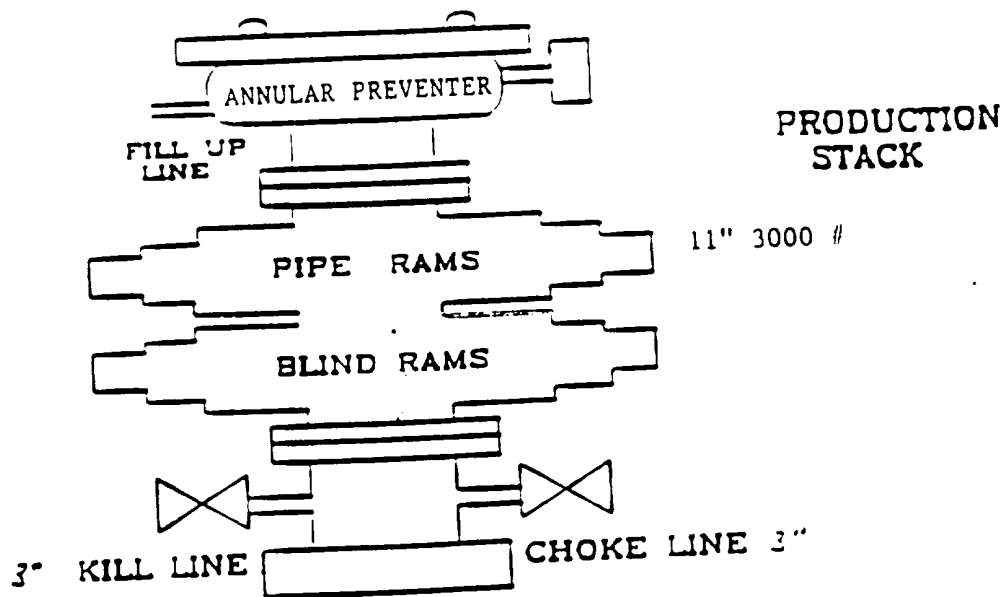
LEASE SMITH FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
MARTHA CREEK, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117







MARATHON OIL COMPANY

H2S DRILLING OPERATIONS PLAN

I. HYDROGEN SULFIDE TRAINING

All contractors and subcontractors employed by Marathon Oil Company will receive or have received training from a qualified instructor within the last twelve months in the following areas prior to commencing drilling operations on this well.

1. The hazards and characteristics of hydrogen sulfide (H₂S)
2. Safety precautions
3. Operations of safety equipment and life support systems

In addition, contractor supervisory personnel will be trained or prepared in the following areas:

1. The effect of H₂S on metal components in the system. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-down procedures when drilling or reworking a well, blowout prevention and well control procedures, if the nature of work performed involves these items.
3. The contents and requirements of the contingency plan when such plan is required.

All personnel will be required to carry documentation of the above training on their person.

II. H₂S EQUIPMENT AND SYSTEMS

1. Safety Equipment

The following safety equipment will be on location.

- A. Wind direction indicators as seen in attached diagram.
- B. Automatic H₂S detection alarm equipment (both audio and visual).
- C. Clearly visible warning signs as seen on the attached diagram. Signs will use the words "POISON GAS" and "CAUTION" with a strong color contrast.
- D. Protective breathing equipment will be located in the dog house and at briefing areas as seen in the attached diagram.

2. WELL CONTROL SYSTEMS

A. Blowout Prevention Equipment

Equipment includes but is not limited to:

- a. pipe rams to accomodate all pipe sizes
- b. blind rams
- c. choke manifold
- d. closing unit

Auxillary equipment added as appropriate includes:

- a. annular preventor _____
- b. rotating head _____
- c. mud- gas separator _____
- d. flare line and means of ignition _____
- e. remote operated choke _____

B. Communication

The rig contractor will be required to have two-way communication capability. Marathon Oil Company will have either land-line or mobile telephone capabilities.

C. Mud Program

The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight, safe drilling practices, and the use of H₂S scavengers when appropriate will minimize hazards when penetrating H₂S bearing zones.

D. Drill Stem Test intervals are as follows:

DST No. 1	_____ ft. to _____ ft.
DST No. 2	_____ ft. to _____ ft.
DST No. 3	_____ ft. to _____ ft.

Drill Stem Testing Safety Rules are attached.

III. WELL SITE DIAGRAM

A complete well site diagram including the following information is attached.

- 1. Rig orientation
- 2. Terrain
- 3. Briefing areas
- 4. Ingress and egress
- 5. Pits and flare lines
- 6. Caution and danger signs
- 7. Wind indicators and prevailing wind direction