

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

Form 3166-3
Bureau of Land Management
Received
JUL 31 2000
Carlsbad Field Office
Carlsbad, NM

UNITED STATES

SUBMIT IN TRIPLICATE*
(Other instruction
reverse side)

OMB NO. 1004-0136
Expires: February 28, 1995

DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division

811 S 1st Street

Artesia, NM 88210-2834

1. TYPE OF WORK
a. TYPE OF WELL
OIL WELL ☐ GAS WELL ☒ OTHER ☐
2. NAME OF OPERATOR
Marathon Oil Company
3. ADDRESS AND TELEPHONE NO.
P.O. Box 552 Midland, TX 79702
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface 2706 FNL Lot 7
At proposed prod. zone 27201 FNL & 1420' FEL
1837' S & 2309' E Lot 1C
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
15 Miles N.W. of Carlsbad N.M.
15. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any) 1420' FEL
18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT. * 1667'
21. ELEVATIONS (Show whether DF, RT, GR, etc.)
G.L. 4055'

5. LEASE DESIGNATION AND SERIAL NO.
NM 07260
6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Indian Hills Unit
7. UNIT AGREEMENT NAME
Indian Hills Unit
8. FARM OR LEASE NAME, WELL NO.
Indian Hills Unit # 29
9. API WELL NO.
30-015-31502
10. FIELD AND POOL, OR WILDCAT
Indian Basin Upper Penn. Assoc
11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA
Sec. 33, T-21-S, R-24-E
12. COUNTY OR PARISH
Eddy
13. STATE
N.M.
16. NO. OF ACRES IN LEASE
640
17. NO. OF ACRES ASSIGNED
TO THIS WELL
320 E/2
19. PROPOSED DEPTH
8800'
20. ROTARY OR CABLE TOOLS
Rotary
22. APPROX. DATE WORK WILL START*
ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8" K-55	54.50#	1800'	950 sx Circ. to surface
12-1/4"	9-5/8" K-55	40# & 53.50#	8800'	2600 sx. Circ. to surface

Proposed well is to be a Indian Basin Upper Penn. Assoc. Gas Test,
Straight Hole.

NOTIFY OCD SPUD & TIME TO WITNESS
& 9 5/8" CEMENTING OF CASING

* Distance from the Indian Hills Unit # 9 Located @ 990' FNL & 1980' FEL to the Indian Hills Unit #
29 is 1667'.

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. Jerry Fletcher
SIGNED Jerry Fletcher TITLE Engineer Tech. DATE 7-18-00
(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:

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.

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

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

DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

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. Assoc.
Property Code	Property Name		Well Number
	INDIAN HILLS UNIT		29
OGRID No.	Operator Name		Elevation
14021	MARATHON OIL COMPANY		4055

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 7	33	21 S	24 E		2706	NORTH	1420	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
LOT 10	33	21 S	24 E		1837	SOUTH	2309	EAST	EDDY
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
320 S/2									

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

The figure is a land survey plat divided into 16 lots, each labeled with a number and its area in acres. The lots are arranged in a grid-like fashion, with some areas designated for specific purposes.

Lots and Areas:

- LOT 4: 42.16 AC.
- LOT 3: 42.38 AC.
- LOT 2: 42.59 AC.
- LOT 1: 42.81 AC.
- LOT 5: 42.29 AC.
- LOT 6: 42.51 AC.
- LOT 7: 42.72 AC.
- LOT 8: 42.94 AC.
- LOT 12: 42.42 AC.
- LOT 11: 42.64 AC.
- LOT 10: 42.85 AC.
- LOT 9: 43.07 AC.
- LOT 13: 42.55 AC.
- LOT 14: 42.77 AC.
- LOT 15: 42.98 AC.
- LOT 16: 43.20 AC.

Key Features and Dimensions:

- Project Area:** Indicated by a curved arrow pointing to a specific location within the survey.
- Penetration Point:** A point marked on the survey, likely indicating a well location.
- Upper Penn BHL:** A boundary line or feature labeled "Upper Penn BHL".
- Producing Area:** Indicated by a curved arrow pointing to a specific location within the survey.
- Dimensions:** Various distances are marked in feet (e.g., 4058.4', 3964.9', 1420', 3960.0', 4037.6', 44', 660', 2309', 1837', 660').

Certifications:

OPERATOR CERTIFICATION

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

Jerry Fletcher
Signature

Jerry Fletcher
Printed Name

Engineer Tech.
Title

11-03-00
Date

SURVEYOR CERTIFICATION

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.

OCTOBER 30, 2000
Date Surveyed

Ronald J. Eidson
Signature & Seal of Professional Surveyor

10/31/00
W.O. Num: 00-11-0692

Certificate No. RONALD J. EIDSON, 3239
GARY G. EIDSON, 12641

MARATHON OIL COMPANY

Structure : Indian Hills Unit No. 29

Slot : slot #1

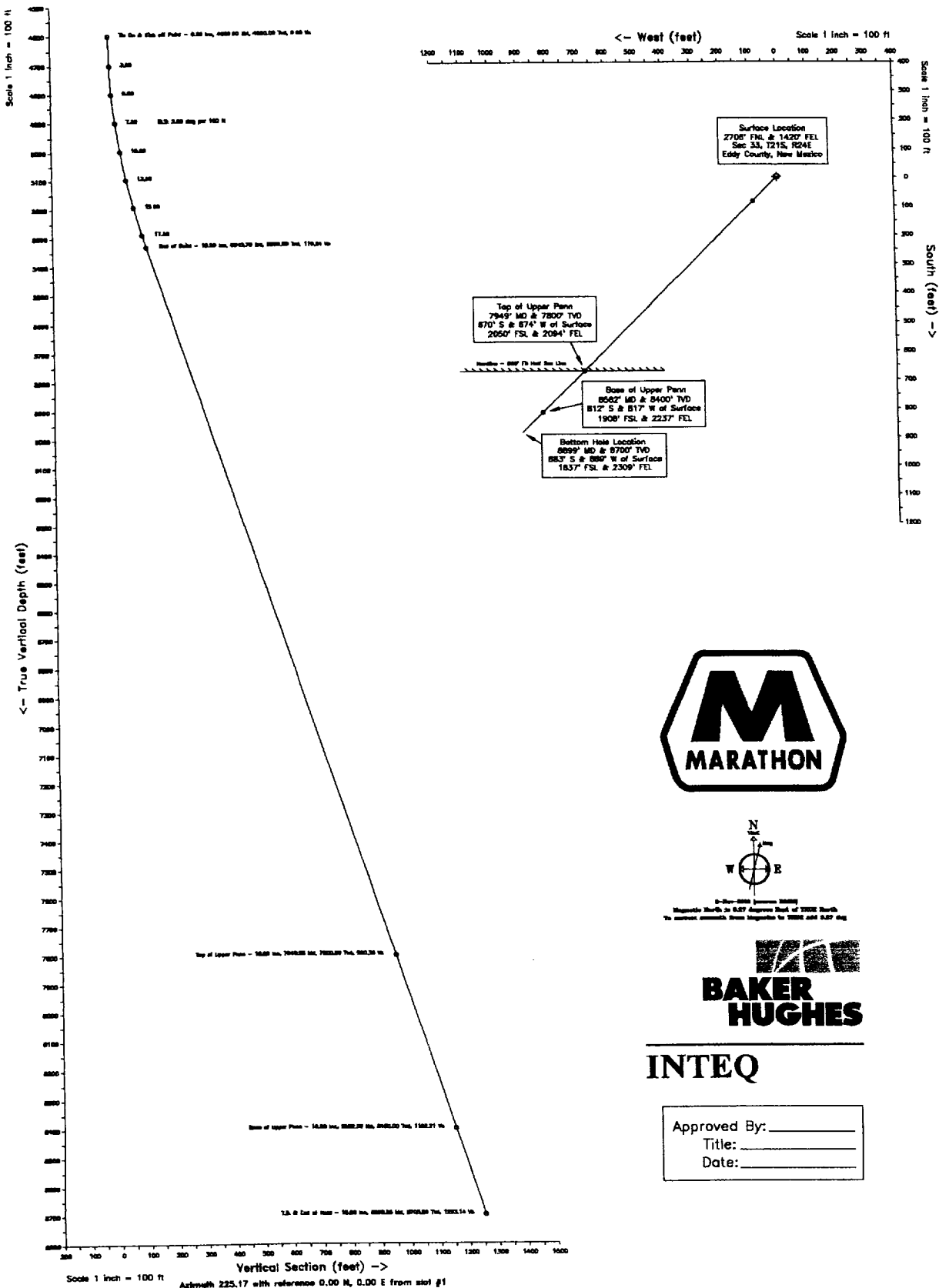
Field : Indian Basin

Location : EDDY COUNTY, NM.

Created by: bcriv
Date plotted : 2-Nov-2000
Plot Reference is 2.5 Deg BUL
Coordinates are in feet reference slot #1.
True Vertical Depths are reference rotary log
--- Baker Hughes INTEQ ---

WELL PROFILE DATA

Point	MD	Inc	Dir	TVD	North	East	V. Sect	Deg/100
KOP	4600.00	0.00	225.17	4600.00	0.00	0.00	0.00	0.00
End of Build	5343.78	18.59	225.17	5330.80	-84.34	-84.85	119.64	2.50
Target	7948.98	18.59	225.17	7800.00	-670.00	-674.00	950.36	0.00
End of Hold	8582.03	18.59	225.17	8400.00	-812.31	-817.16	1152.21	0.00
T.D. & End of Hold	8898.55	18.59	225.17	8700.00	-883.47	-888.74	1253.14	0.00



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The information contained herein is confidential and proprietary to Baker Hughes Services Company

**BAKER
HUGHES**

INTEQ

Approved By: _____
Title: _____
Date: _____

MARATHON OIL COMPANY
Indian Hills Unit No. 29

slot #1
Indian Basin
EDDY COUNTY, NM.

P R O P O S A L L I S T I N G

by
Baker Hughes INTEQ

Your ref : 2.5 Deg BUR
Our ref : prop2610
License :

Date printed : 2-Nov-2000
Date created : 2-Nov-2000
Last revised : 2-Nov-2000

Field is centred on n32 30 0.000,w104 30 0
Structure is centred on n32 30 0.000,w104 30 0

Slot location is n32 30 0.000,w104 30 0.000
Slot Grid coordinates are N 545652.918, E 448616.515
Slot local coordinates are 0.00 N 0.00 E

Projection type: mercator - New Mexico East (3001), Spheroid: Clarke - 1866

Reference North is True North

MARATHON OIL COMPANY
Indian Hills Unit No. 29, slot #1
Indian Basin, EDDY COUNTY, NM.

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	R E C T A N G U L A R C O O R D I N A T E S	Dogleg Deg/100ft	Vert Sect
4600.00	0.00	225.17	4600.00	0.00 E	0.00	0.00
4700.00	2.50	225.17	4699.97	1.55 W	2.50	2.18
4800.00	5.00	225.17	4799.75	6.19 W	2.50	8.72
4900.00	7.50	225.17	4899.14	13.91 W	2.50	19.61
5000.00	10.00	225.17	4997.97	24.69 W	2.50	34.82
5100.00	12.50	225.17	5096.04	38.53 W	2.50	54.33
5200.00	15.00	225.17	5193.17	55.38 W	2.50	78.09
5300.00	17.50	225.17	5289.17	75.23 W	2.50	106.07
5343.78	18.59	225.17	5330.80	84.85 W	2.50	119.64
5500.00	18.59	225.17	5478.86	120.18 W	0.00	169.45
6000.00	18.59	225.17	5952.76	231.86 S	0.00	328.88
6500.00	18.59	225.17	6426.66	344.26 S	0.00	488.32
7000.00	18.59	225.17	6900.56	456.67 S	0.00	647.75
7500.00	18.59	225.17	7374.45	569.07 S	0.00	807.19
7948.98	18.59	225.17	7800.00	670.00 S	0.00	950.36
8000.00	18.59	225.17	7848.35	681.47 S	0.00	966.62
8500.00	18.59	225.17	8322.25	793.87 S	0.00	1126.06
8582.03	18.59	225.17	8400.00	812.31 S	0.00	1152.21
8898.55	18.59	225.17	8700.00	883.47 S	0.00	1253.14

Top of Upper Penn

Base of Upper Penn

All data is in feet unless otherwise stated.
Coordinates from slot #1 and TVD from rotary table.
Bottom hole distance is 1253.14 on azimuth 225.17 degrees from wellhead.
Vertical section is from wellhead on azimuth 225.17 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

MARATHON OIL COMPANY
 Indian Hills Unit No. 29, slot #1
 Indian Basin, EDDY COUNTY, NM.

PROPOSAL LISTING Page 2
 Your ref : 2.5 Deg BUR
 Last revised : 2-Nov-2000

Comments in wellpath
 =====

MD	TVD	Rectangular Coords.		Comment
7948.98	7800.00	670.00 S	674.00 W	Top of Upper Penn
8582.03	8400.00	812.31 S	817.16 W	Base of Upper Penn
Targets associated with this wellpath				
=====				
Target name	Geographic Location	T.V.D.	Rectangular Coordinates	Revised
		7800.00	670.00S	674.00W
				2-Nov-200

Thirteen Point Surface Use Plan
MARATHON OIL COMPANY
INDIAN HILLS UNIT # 29
Sec. 33, T-21-S, R-24-E

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" of Marathon road and Hwy. 137 travel 4.7 miles; turn left on lease road , follow 1.5 miles, turn left, go .3 mile, turn left @ "Y" follow 4.75 miles to access road on the right, follow .3 mile to location.
- 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 Southeast corner. The drilling location will have a V-door facing East.

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 within a one-mile radius of the proposed location. These locations have production facilities including separators, condensate, oil, water storage tanks. Marathon operates a variety of dehydrators, meter runs, and several gathering lines in the one-mile radius
- b. New Facilities : Marathon Oil Company proposes to test deliverability of well before building new facilities for well.
- 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. 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.

A. P. D. (cont.)
Thirteen Point Surface Use Plan
INDIAN HILLS UNIT # 29

- 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
INDIAN HILLS UNIT # 29

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
P. O. Box 552
Midland, TX 79702


A. P. D. (cont.)
Thirteen Point Surface Use Plan
INDIAN HILLS UNIT # 29

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.

21 July 2000
Date


R. J. Longmire

**DRILLING PROGRAM
MARATHON OIL COMPANY
INDIAN HILLS UNIT # 29**

1. Estimated KB Elevation: 4071' 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	+4071'	650'	+3421'	water
San Andres	650'	+3421'	2250'	+1821'	water
Glorietta	2250'	+1821'	2355'	+1716'	
Delaware	3300'	+771'	4300'	- 229'	
Bone Spring	4300'	-229'	5950'	-1879'	oil gas
Wolfcamp	5950'	-1879'	7520'	-3449'	oil gas
B/Permian Shale	7520'	-3449'	7530'	-3459'	
U. Penn	7530'	-3459'	8800'	-4729'	gas, oil, water

<u>FORMATION</u>	<u>---EST</u>	<u>SBHP---</u>	<u>EST</u>	<u>SBHT</u>	<u>H2S</u>	<u>---SIGNIFICANCE---</u>
	<u>PSIG</u>	<u>PPG EMW</u>	<u>DEG f</u>		<u>PPM</u>	<u>(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. 13-3/8" Surface: 13-5/8 3M annular tested to 300#/3000#, 13-5/8" 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 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. Preventers and 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
INDIAN HILLS UNIT # 29

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:

<u>---DEPTH---</u>		<u>SECTION</u>	<u>HOLE</u>	<u>CSG</u>	<u>WT.</u>	<u>THREADS</u>		<u>NEW</u>
<u>FROM</u>	<u>TO</u>	<u>LENGTH</u>	<u>SIZE</u>	<u>SIZE</u>	<u>PPF</u>	<u>GRADE</u>	<u>COUPLINGS</u>	<u>USED</u>
0	1800'	1800'	17.50"	13-3/8"	54.50#	K-55	8rd, STC	New
0	4800'	4800'	12.25"	9-5/8"	40#	L-80	8rd, LT&C	New
4800'	8800'	4000'	12.25"	9-5/8"	53.50#	C-75	8rd, LT&C	New
<u>Casing</u>	<u>DV</u>		<u>Lead</u>	<u>Amt</u>	<u>Type</u>	<u>Yield</u>	<u>Wt.</u>	
<u>String</u>	<u>Depth</u>	<u>Stg.</u>	<u>Tail</u>	<u>SXS</u>	<u>Cement</u>	<u>CF/SX</u>	<u>PPG.</u>	<u>TOC</u>
								<u>Additives</u>
13-3/8"			L	100	"C"	7.15	9.5	Dia Seal
13-3/8"			L	100	Thixset	1.52	14.0	Thixset
13-3/8"			L	750	Lite	2.02	12.4	surf. 2% cacl2
13-3/8"			T	300	Prem. Plus	1.34	14.8	
9-5/8"	6400'	1	L	350	" "	2.18	9.2	N2
9-5/8"		1	T	700	" "	1.44	13.0	N2
9-5/8"		2	L	1360	Interfill "C"	2.47	11.9	Flocele
9-5/8"		2	T	200	Prem. Plus	1.32	14.8	Neat

A. P. D. (cont.)
Thirteen Point Surface Use Plan
INDIAN HILLS UNIT # 29

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

Centralizer Program:

13- 3/8" Conventional centralizers. Bottom 3 joints and every fourth joint to surface.

9-5/8" Conventional centralizers middle of 1st joint, then every joint to 7500', and 1 cent. Every 4th joint thereafter to 8800'.

5. Mud Program

---DEPTH---			WEIGHT		WL		VISUAL
FROM	TO	MUD TYPE	(PPG)	VIS	CC	ADDITIVES	MONTR.
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	8.9	32-36	N/C	Gel, caustic, H ₂ S Scavenger	Reserve
7000'	8800'	fresh	8.9	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			

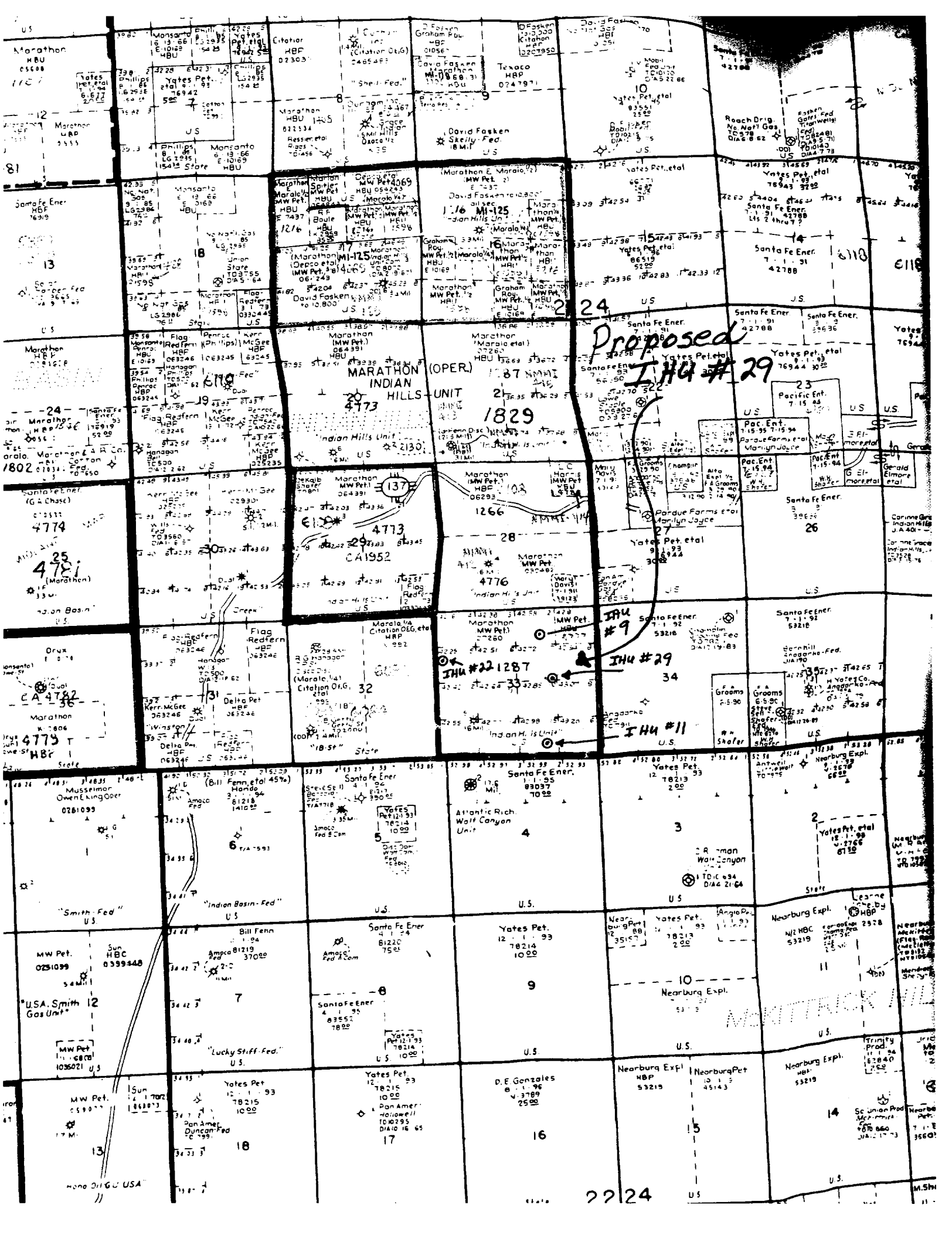
7. Abnormal Pressures, Temperatures or Potential Hazards:

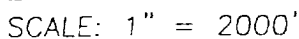
None anticipated. Possible H₂S in Cisco & Upper Penn. See H₂S Drilling Operations Plan.

8. Other Information:

Anticipated Starting Date: As soon as possible.

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





SEC. 33 TWP. 21-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2720' FSL & 1420' FEL

ELEVATION 4055

OPERATOR MARATHON OIL COMPANY

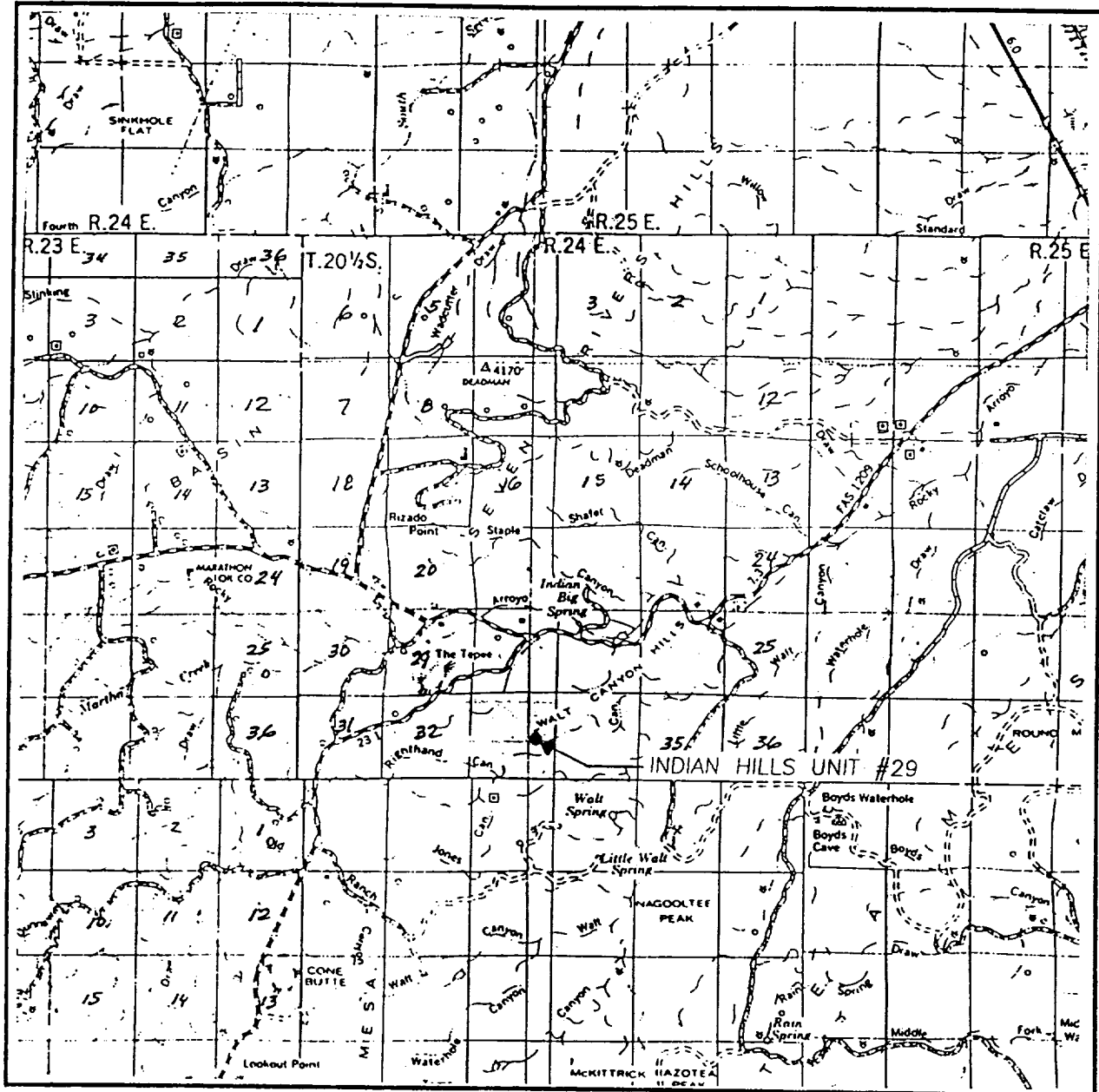
LEASE INDIAN HILLS UNIT

U.S.G.S. TOPOGRAPHIC MAP

MARTHA CREEK, AZOTEA PEAK, N.M.

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

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 33 TWP. 21-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2720' FSL & 1420' FEL

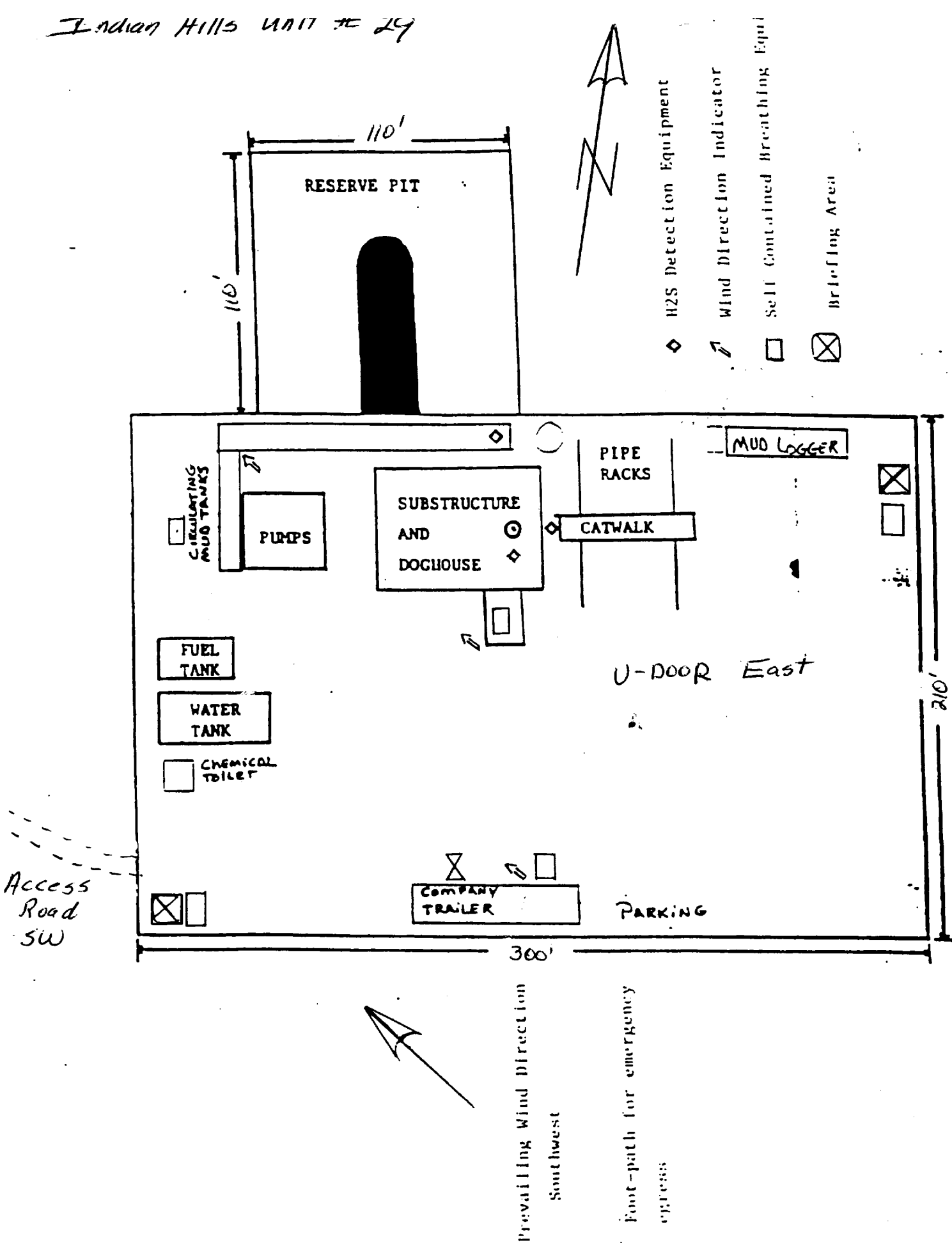
ELEVATION 4055

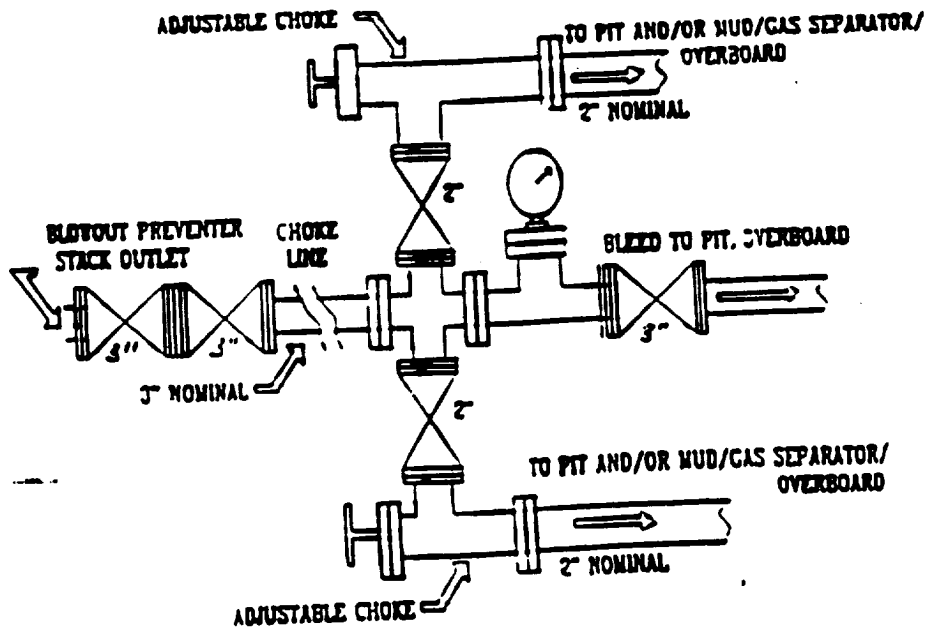
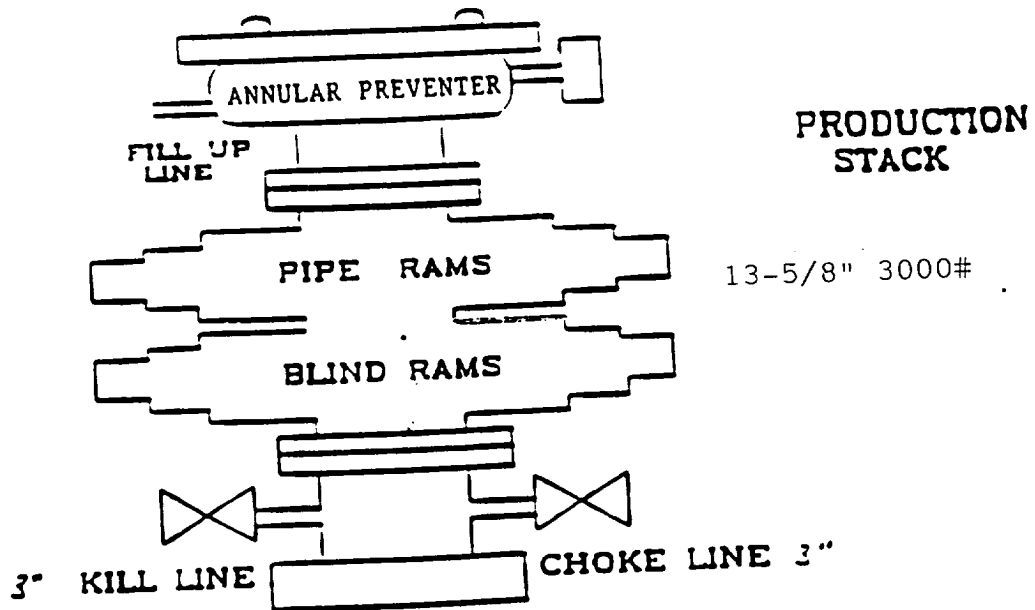
OPERATOR MARATHON OIL COMPANY

LEASE INDIAN HILLS UNIT

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

Indian Hills Unit # 29





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.