Form 3160-3
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE (Other instructions on reverse side)

FORM APPROVED
OMB NO. 1004-0136
Expires February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: LC-060529

1a. TYPE OF WORK: Drill [X] Deepen [ ]

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

b. TYPE OF WELL: Oil Well [X] Gas Well [ ] Other — Single Zone [X] Multiple Zone [ ]

7. UNIT AGREEMENT NAME: 17265

2. NAME OF OPERATOR: Shahara Oil, LLC 17311

8. FARM OR LEASE NAME, WELL NO.: Beeson "F" Federal No. 35

3. ADDRESS AND TELEPHONE NO.: 207 W. McKay, Carlsbad, NM 88220 — Phone: 505-885-5433, Fax: 505-885-4989

9. API WELL NO.: 30-015-31643

10. FIELD AND POOL, OR WILDCAT: Loco Hills QN-GB-SA

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 990' FSL & 890' FWL, Unit M
At proposed prod. zone: Same

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 29, T17S, R30E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE *: 1.75 miles southwest of Loco Hills, NM

12. COUNTY OR PARISH: Eddy

13. STATE: NM

15. DISTANCE FROM PROPOSED * LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
890'	440	40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	19. PROPOSED DEPTH	20. ROTARY OR CABLE TOOLS
825'	3400'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc): 3565' GR

22. APPROX. DATE WORK WILL START *: February 1, 2001

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24# K-55	500'	300 sx - circulate
7 7/8"	5 1/2"	15.5# J-55	3400'	600 sx -
				100' above 8 5/8" csg shoe

WITNESS

The operator proposes to drill to a depth sufficient to test the Queen, Grayburg and San Andres for oil.
Specific programs are outlined in the following attachments:

DRILLING PROGRAM
SURFACE USE AND OPERATING PLAN
EXHIBIT A - ROAD MAP
EXHIBIT B - EXISTING WELL MAP
EXHIBIT C - LOCAITON AND ACREAGE DEDICATION PLAT
EXHIBIT C-1 - TOPO MAP
EXHIBIT D - DRILLING AND RIG LAYOUT
EXHIBIT E - 3M BOP EQUIPMENT

ROSWELL CONTROLLED WATER BASIN

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If propsal 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.

SIGNED Perry C. Hughes TITLE E. O. DATE 12/6/00

(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.

Acting

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, ficticious ro fraudulent statements or representations as to any matter within its jurisdiction.

2009 DEC -8 A 9:51
BUREAU OF LAND MGMT
ROSWELL OFFICE

DRILLING PROGRAM

Shahara Oil, LLC
Beeson "F" Federal No. 35
990' FSL & 890' FWL, Unit M
Section 29, T17S, R30E
Eddy County, New Mexico
Lease No. LC-060529

In connection with Form 3160-3, Application for Permit to Drill subject well, Shahara Oil, LLC submits the following items of pertinent information in accordance with BLM requirements:

1. Geologic Name of Surface Formation: Permian

2. Estimated Tops of Important Geologic Markers and

Formation	Depth
Top of Salt	500'
Base of Salt	1100'
Queen	2250'
Grayburg	2700'
San Andres	3100'
Total Depth	3400'

3. Estimated Depths of Fresh Water, Oil and Gas:

There is little if any fresh water in this area. Oil is expected in the Queen, Grayburg and San Andres below 2250'. No other formations are expected to give up oil, gas or fresh water in measurable quantities. Any surface fresh water sands will be protected by setting 8 5/8" casing at approximately 500' into the anhydrite just above the top of salt estimated to be between 475' and 525' and circulating cement to surface. 5 1/2" production casing will be set at TD and cemented to 100' above the 8 5/8" casing shoe.

The pore pressure gradient is normal (±8.4 ppg) through the San Andres. No abnormal pressures are anticipated.

4. Casing and Cement Program

	Casing			
Hole Size	From	To	Casing OD	Weight, Grade, Coupling, Cond.
12 1/4"	0'	500'	8 5/8"	24# K-55 STC New
7 7/8"	0'	TD	5 1/2"	15.5# J-55 LTC New

Minimum Design Factors: Collapse 1.125, Burst 1.1, Tension 1.7.

8 5/8" Surface Casing Set at 500'
Cement to surface with 300 sx of Class C with additives.

5 1/2" Production Casing Set at TD
Cement with 600 sx of Class C with additives. Will bring top of cement 100' above the 8 5/8" casing shoe.

5. Minimum Specifications for Pressure Control:

7 7/8" Hole - The following BOP equipment will be nippled up on the 8 5/8" casing and used continuously until TD is reached for the 7 7/8" hole.

The blowout preventer equipment (BOP) shown in Exhibit "E" will consist of a 3000 psi WP double ram type preventer and a 3M annular (bag type) preventer with rotating head. Both BOP's will be hydraulically operated. At the drilling contractor's option, 5M BOP's may be substituted. H_2S trim will not be required.

Before drilling out from under the 8 5/8" surface casing, all BOP's and accessory equipment will be tested to 1000 psi with the rig pump. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

BLM method to calculate minimum BOP requirements:
(.052)(8.4 ppg)(3400') - (0.22 psi/ft)(3400')=737 psi
Minimum BOP requirements: 2M BOP stack and manifold system

6. Proposed Mud System:

The well will be drilled to TD with a combination of fresh water and 10# brine. The applicable depths and properties of this system are as follows:

Depth	Type	Weight (ppg)	Viscosity (sec)	Water Loss cc
0-500'	Fresh water	8.4	28	NC
500-3400'	Brine	10.0	29	NC

Sufficient mud materials to maintain mud properties and meet minimum lost circulation requirements will be kept at the well site at all times.

7. Auxiliary Well Control and Monitoring Equipment:

a) A kelly cock will be kept in the string at all times.

b) A full opening drill pipe stabbing valve (TIW/inside BOP) with proper drill pipe connections will be on the rig floor at all times.

c) An electronic pit volume totalizer system will NOT be used. The drilling fluids system will be visually monitored at all time.

8. Logging, Testing and Coring Programs:

a) Drillstem tests will not be run.

b) The electric logging program will consist of:
GR-DLL-MSFL-Cal - TD-1700'
GR-CNL-CDL-Cal - TD-1700'
GR-CDL-Cal - TD-Surface

c) No cores are planned.

d) Further testing procedures will be determined after the 5 1/2" production casing has been cemented at TD.

9. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

No abnormal pressures, temperatures, or other potential hazards are anticipated.

Little or no hydrogen sulfide or other hazardous gases or fluids have been encountered, reported, or are known to exist at this depth in this area. No major lost circulation zones have been reported in offsetting wells.

The maximum anticipated bottom hole pressure is approximately 1472 psi.
(3400' x .433 psi/ft = 1472 psi)
The maximum anticipated bottom hole temperature is 90 degrees F.

10. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is February 1, 2001. Once commenced, the drilling operation should be complete in 10 days. If the well is productive, an additional 20 days will be required for completion, testing, and installation of permanent facilities.

SURFACE USE AND OPERATING PLAN

Shahara Oil, LLC
Beeson "F" Federal No. 35
990' FSL & 890' FWL, Unit M
Section 29, T17S, R30E
Eddy County, New Mexico
Lease No. LC-060529

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities, and the operations plan to be followed in rehabilitating the surface after completion of the operation to that a complete appraisal can be made of the environmental effects associated with the operations.

Located: 1.75 miles southwest of Loco Hills, New Mexico

Federal Lease Number: LC-060529

Lease Issued: N/A

Acres in Lease: 440 acres

Record lessee: Phillips Petroleum Company

Surface Ownership: Federal

Grazing Permittee: Blaine B. Haines

Pool: Loco Hills Queen Grayburg San Andres

Pool Rules: This well is being drilled as a producing well in the Beeson "F" Federal Lease Waterflood to be completed only in the unitized formations under Oil Conservation Division Order No's R-11027, R-11027A & WFX756.

Exhibits:

"A" Road Map
"B" Existing Wells Map
"C" Well Location and Acreage Dedication Plat
"C-1" Topo Map (Location Verification Map)
"D" Drilling Rig Layout Diagram
"E" BOP Equipment

1. **Existing Roads:**

a) The well site and elevation plat for the proposed well is shown in Exhibit "C". It was staked by John West Engineering, Hobbs, NM.

b) All roads to the location are shown on Exhibit "A". The existing roads are illustrated in yellow and are adequate for travel during drilling and production operations. Upgrading of the road prior to drilling will be done where necessary as determined during the on-site inspection.

c) Directions to location: Go south from Loco Hills on County Road 217 (Hagerman Cutoff Road) 1 ¾" of mile to location on left.

2. **Proposed Access Road:**

Exhibit "A" shows the new access road to be constructed and is illustrated in green. The proposed access road as shown in Exhibit "C-1" has been centerline flagged. The road will be constructed as follows:

a) Length and Width: 40' of new access road will be constructed. The maximum width of the running surface will be 15'. See Exhibit "B".

b) Surfacing Material: Caliche material will be used to surface the proposed road. It will be watered, compacted, and graded. Caliche will be obtained from either the reserve pit or a borrow pit on the proposed location as described in Item 6 of the Surface Use and Operating Plan.

c) Maximum Grade: An approximate grade of less than two percent will be encountered from the existing road to the proposed well pad.

d) Turnouts: No turnouts are planned.

e) Drainage Design: The new road will be crowned at the center to direct drainage to ditches on both sides of the roadway with turnout ditches to be constructed as required. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns. BLM may specify any additions or changes during the on-site inspections.

f) Culverts: None required.

g) Cuts and Fills: A slight amount of leveling may be required as the road crosses small size sand dunes to the proposed well pad.

h.) Gates and Cattle Guards: Neither gates nor cattleguards will be necessary for this location.

3. **Location of Existing Wells:**

Exhibit "B" shows all existing wells within a one-mile radius of this well.

4. **Location of Existing and/or Proposed Facilities:**

a) Shahara Oil, LLC operates a production facility on the Beeson "F" Lease.

b) If the oil well proves to be commercial, the necessary production facilities will be installed on the drilling pad and flowlines will be installed to the production facilities and storage tanks utilizing access roads, existing roads and authorized right of ways. A Sundry will be submitted with an Archaeological Survey for flowlines that cross any land that has not been given a prior Negative Site Report Class III Archaeological Survey.

c) An electric powerline will be required. Central Valley Electric Cooperative, Inc. of Artesia is currently engineering the plans. A Sundry will be submitted concerning the electric power lines as soon as available.

5. **Location and Type of Water Supply:**

The well will be drilled with a combination of brine and fresh water mud system as outlined in the drilling program.

The water necessary for drilling operations will be purchased and trucked to the wellsite, or will be moved to the well site by way of a temporary pipeline laid on the ground along existing and proposed roads.

6. **Source of Construction Materials:**

Caliche needed for the road and well pad will be taken from the proposed reserve pit. An alternate plan will be to obtain caliche from a borrow pit located within the 400' x 400' archaeologically cleared tract at the proposed well site. If sufficient quality or quantity of caliche is not available, it will be transported to the proposed road and well site from an existing BLM approved caliche pit. The BLM will be notified and consulted if caliche must be obtained off location.

7. **Method of Handling Waste Disposal:**

a) Drill cuttings will be disposed into the reserve pit.

b) Drilling fluids will be contained in the reserve pit. The reserve pit will be an earthen pit, approximately 150' x 150' x 6' deep and fenced on three sides prior to drilling. The fourth side will be fenced immediately following rig removal. The reserve pit will be lined with plastic (5-7 mil thickness) to minimize loss of drilling fluids.

d) Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.

e) Oil produced during testing will be stored in steel test tanks until sold.

f) Trash, waste paper, garbage and junk will be placed in a trash bin located on the drill site pad. it will be transported to an approved landfill for disposal within 30 days after completion of drilling and/or completion of operations. All waste material will be contained to prevent scattering by the wind.

g) A portable chemical toilet will be provided on the location for human waste during the drilling and completion operations.

8. **Ancillary Facilities:**

No other facilities will be built as a result of the operations on this well.

9. **Well Site Layout:**

a) Exhibit "D" shows the relative location and dimensions of the well pad, mud pits, reserve pit, location of the major rig components, and location of parking area.

b) Cut and fill requirements will be minor, but clearing and leveling of the well site will be necessary. Top soil, if available, will be stockpiled per BLM specifications as determined at the on-site inspection.

c) The reserve pit will be lined with a high quality plastic sheeting (5-7 mil thickness).

d) The pad and pit area are staked and flagged.

10. **Plans for Reclamation of the Surface:**

a) After completion of drilling and/or completion of operations, all equipment and other material not needed for operations will be removed. The pit area will be allowed to dry before reclamation. If the borrow pit is constructed, the cuttings in the reserve pit will be deep buried in the borrow pit, and the reserve pit and borrow pit will be broken out, filled, and leveled. The location will be cleaned of all trash and junk to leave the well site in an as aesthetically pleasing condition as possible.

b) Three sides of the reserve pit will be fenced prior to and during drilling operations. The borrow pit will be fenced on all four sides after the location is built. At the time the rig is removed, the reserve pit will be fenced on the fourth side to prevent livestock or wildlife from being entrapped in the pit. The fencing will remain in place until the pits are cleaned up and leveled.

c) After abandonment, all equipment, trash and junk will be removed and the well site will be

cleaned

d) Topsoil removed from the drill site will be used to recontour the pit area to the original natural level. The disturbed area will be revegetated by reseeding during the proper growing season with a seed mixture of native grasses as recommended by the BLM.

11. **Other Information:**

a) Topography: The land surface in the area is undulating with small sand dunes. In the immediate area of the well site, the land slope is to the southwest.

b) Soil: Top soil at the well site is loamy sand.

c) Flora and Fauna: The vegetation cover is moderate. It includes range grasses, weeds, scrub oak bushes, and mesquite bushes. Wildlife in the area is that typical of a semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, hawks, dove, quail and other small birds.

d) Ponds and Streams: There are no rivers or streams within a mile of this proposed location.

e) Residences and Other Structures: There are no occupied dwellings within a mile of this location.

f) Archaeological, Historical, or Other Cultural Sites: None are know of in the area. An archaeological survey has been conducted by Geo Marine Archaeological Services.

g) Land Use: Grazing, oil and gas production and wildlife habitat.

h) Surface Ownership: Federal

12. **Operator's Representative:**

Perry L. Hughes, Executive Officer
Shahara Oil, LLC
207 W. McKay
Carlsbad, NM 88220

Phone: 505-885-5433
Fax: 505-885-4989

13. **Certification:**

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Shahara Oil, LLC and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of false statement.

12/6/00
Date

Perry L. Hughes, Executive Officer

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

APPLICABILITY:

The provisions of this plan are effective when drilling operations are conducted in areas where zones may be penetrated that are known to contain, or may be reasonably expected to contain, hydrogen sulfide gas in concentrations of 100 parts per million or more.

TRAINING REQUIREMENTS:

A. When conducting drilling operations in an area where hydrogen sulfide gas might be encountered, all personnel at the well site will have had proper training in the following areas:

1. The hazards and characteristics of hydrogen sulfide gas (H_2S).

2. Toxicity of hydrogen sulfide and sulfur dioxide.

3. Hydrogen sulfide gas detectors, warning systems, evacuation procedures, and proper use and maintenance of personal protective equipment.

4. Proper rescue procedures, first aid, and artificial respiration.

B. In addition, supervisory personnel will be trained in the following areas:

1. The effects of hydrogen sulfide on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.

2. Corrective action and shut-in procedures when drilling or reworking a well, and blowout prevention and well control procedures.

3. The contents and requirements of the Hydrogen Sulfide Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable hydrogen sulfide zone (within 2 days or 500 feet) and weekly hydrogen sulfide and well control drills for all personnel in each crew. The initial training session will include a review of the site specific Hydrogen Sulfide Drilling Operations Plan and the Public Protection Plan. This plan will be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

WELL SITE DIAGRAM:

A. Attached is a detailed well site diagram showing:

1. Drilling rig orientation
2. Prevailing wind direction (Southwest)
3. Location of briefing areas
4. Location of Caution/Danger signs
5. Location of hydrogen sulfide monitors
6. Location of wind direction indicators

HYDROGEN SULFIDE SAFETY EQUIPMENT:

A. All safety equipment and systems will be installed, tested, and deemed operational when drilling reaches a depth of 500 feet above, or two days prior to penetrating the Queen Sand.

B. During drilling operations, a flare line will be routed from the BOP manifold to the reserve pit. Should suspected sour gas be vented through the flare line, a flare pistol will be used to ignite the flare.

C. Protective equipment for essential personnel will be installed and maintained as follows:

1. 30-minute air packs will be maintained on the rig floor and near the briefing area.
2. 30-minute work units will be maintained at the H_2S trailer and/or on the rig floor.
3. 30-minute escape units will be maintained on the rig floor.
4. 300 cubit ft. air cylinders will be maintained in the H_2S trailer.
5. Associated breathing air equipment will also be installed and maintained.
6. Hydrogen sulfide monitor will be located in the dog house on the rig floor with sensors placed on the rig floor, at the bell nipple, the shale shaker, and in the pit areas.
7. An audible/visual alarm will be located near the dog house on the rig floor.

VISUAL WARNING SYSTEMS:

A. High visibility Caution/Danger signs will be posted on roads providing direct access to the well location.

B. Green, yellow and red conditions flags to be displayed to denote Normal Conditions, Potential Danger and Danger, H_2S present.

C. Wind socks to be located at the protection center and in the pit area to continuously indicate wind direction.

CIRCULATING MEDIUM:

A. Drilling fluid to be conditioned to minimize the volume of H_2S circulated to the surface.

SPECIAL WELL CONTROL EQUIPMENT:

A. In addition to the normal BOP stack and choke manifold, a drilling head will be used to help control any H_2S contaminated drilling fluid.

WELL TESTING:

A. No drill stem test will be conducted.

COMMUNICATION:

A. Radio/phone communication will be available at the drilling rig and also in company vehicles.

ADDITIONAL INFORMATION:

A. Additional information concerning Emergency Reaction Steps, Ignition Procedures, Training Requirements and Emergency Equipment Requirements will be available on location at the well site.

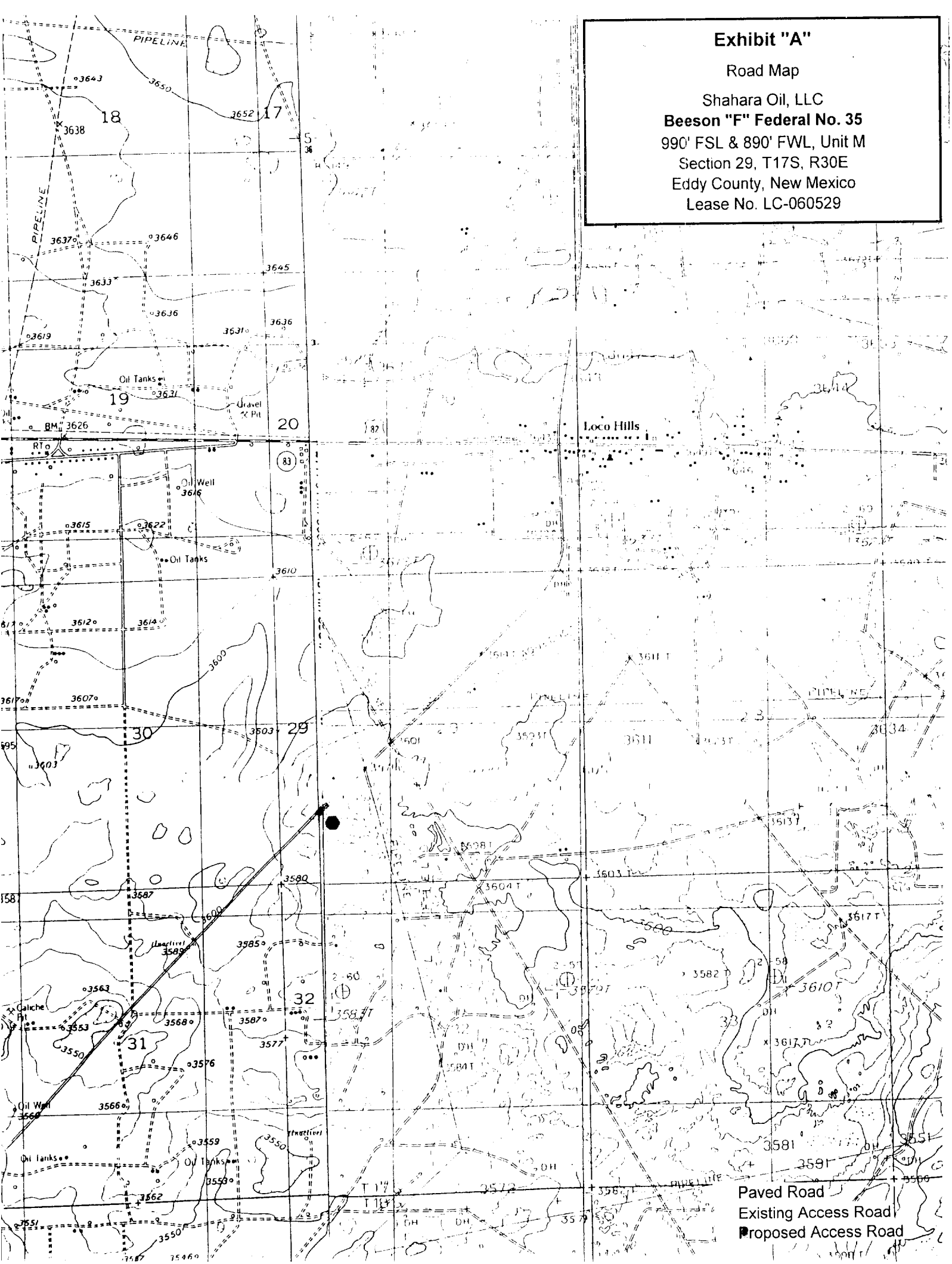


Exhibit "A"
Road Map
Shahara Oil, LLC
Beeson "F" Federal No. 35
990' FSL & 890' FWL, Unit M
Section 29, T17S, R30E
Eddy County, New Mexico
Lease No. LC-060529
Loco Hills
Paved Road
Existing Access Road
Proposed Access Road

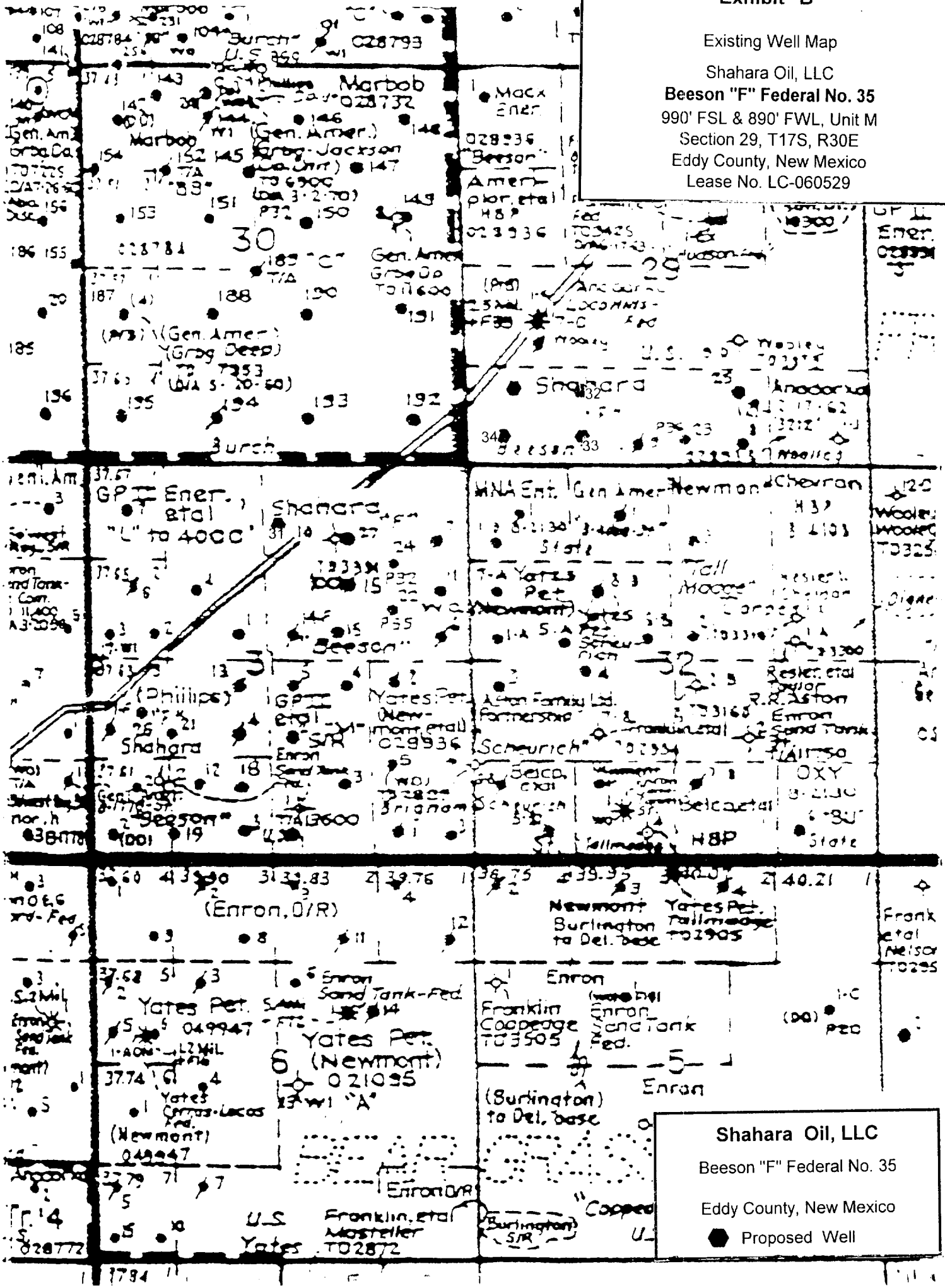


Exhibit "B"
Existing Well Map
Shahara Oil, LLC
Beeson "F" Federal No. 35
990' FSL & 890' FWL, Unit M
Section 29, T17S, R30E
Eddy County, New Mexico
Lease No. LC-060529
Shahara Oil, LLC
Beeson "F" Federal No. 35
Eddy County, New Mexico
Proposed Well

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name

Property Code	Property Name	Well Number
	BEESON "F" FEDERAL	35
OGRID No.	**Operator Name**	**Elevation**
	SHAHARA OIL LLC	3565

Surface Location

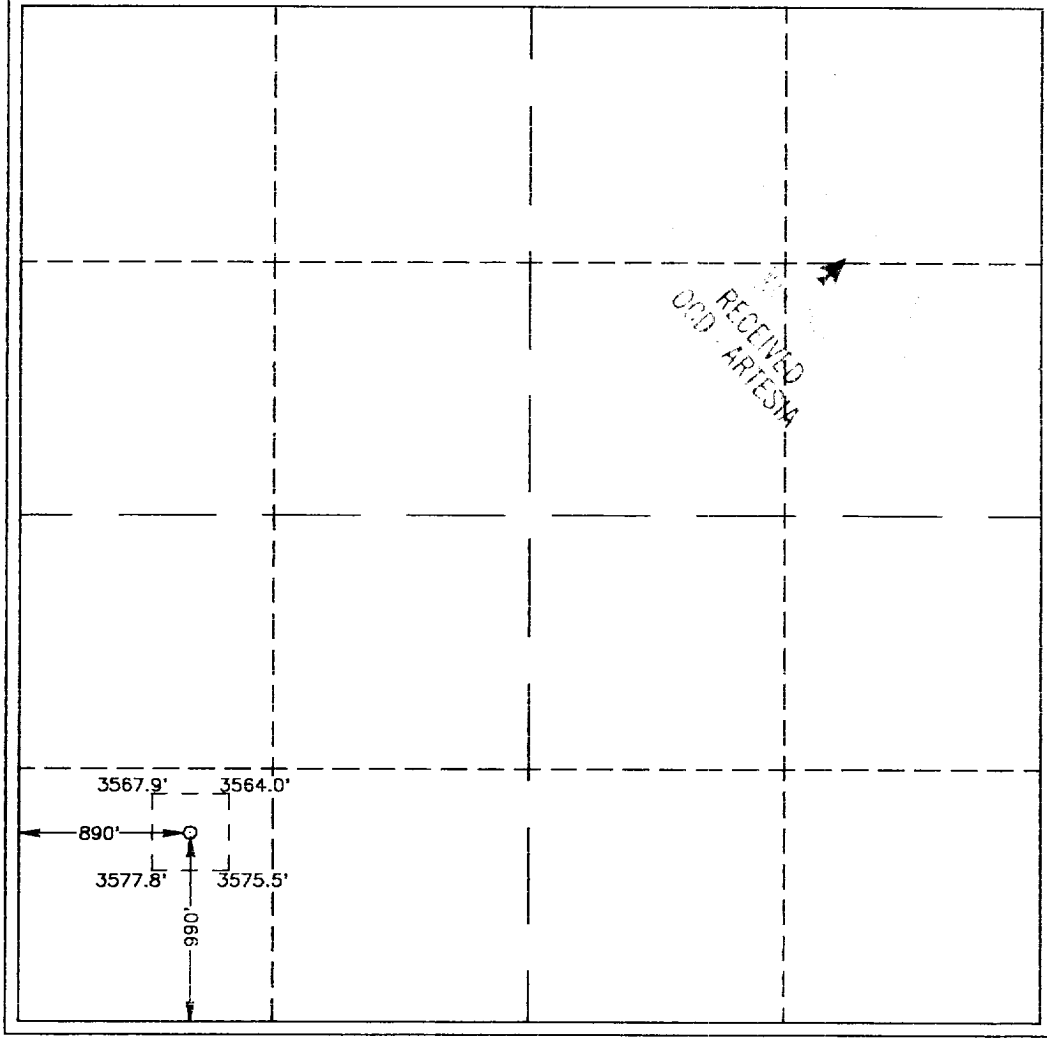
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	29	17 S	30 E		990	SOUTH	890	WEST	EDDY

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



OPERATOR CERTIFICATION

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

Signature

PERRY L. HUGHES

Printed Name

E. O.

Title

11/6/00

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 supervison, and that the same is true and correct to the best of my belief.

OCTOBER 27, 2000

Date Surveyed JLP

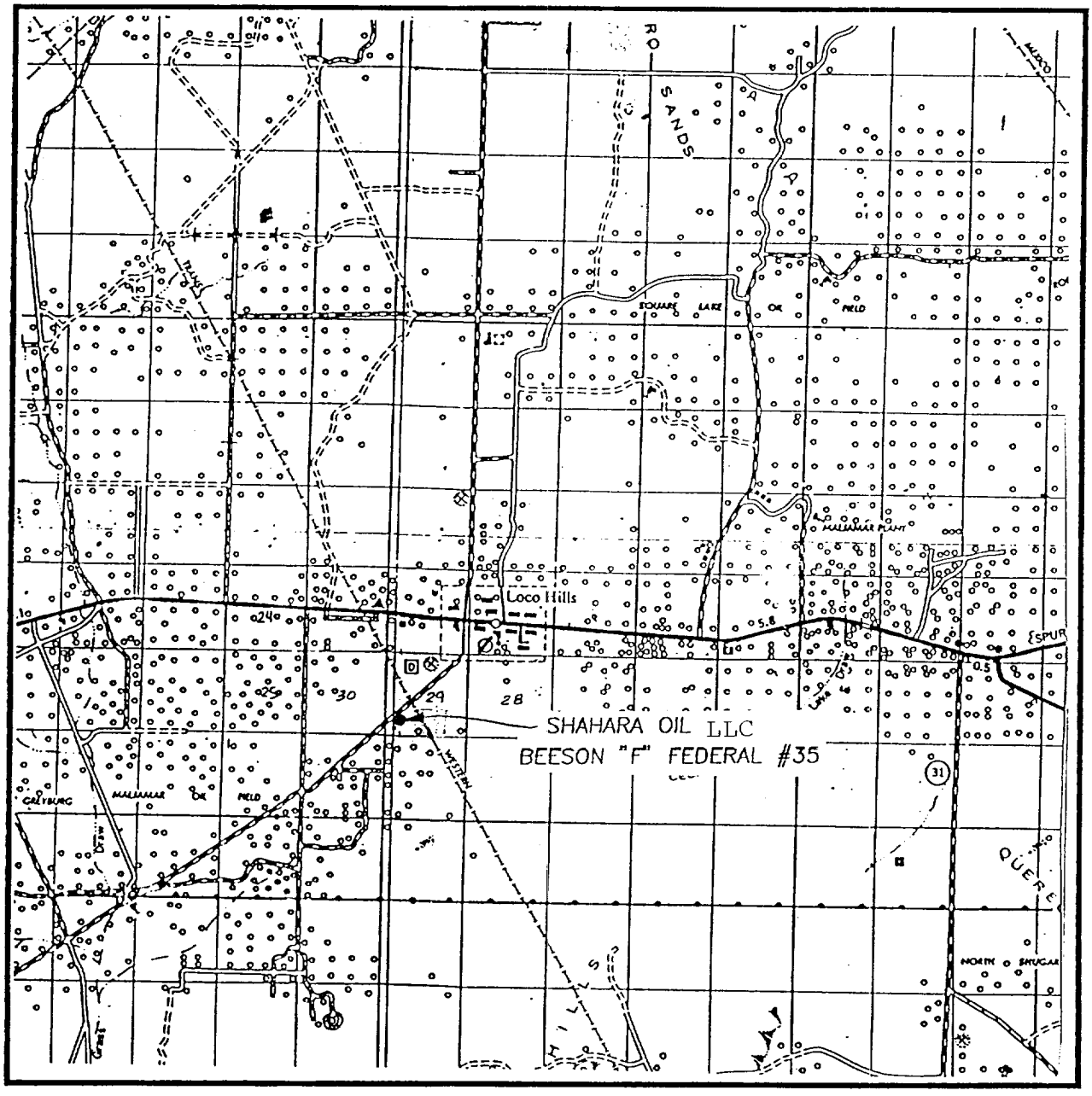
Signature & Seal of Professional Surveyor

Ronald J. Eidson 11/03/00

W.O. Num. 00-11-1352

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

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 29 TWP. 17-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 990' FSL & 890' FWL

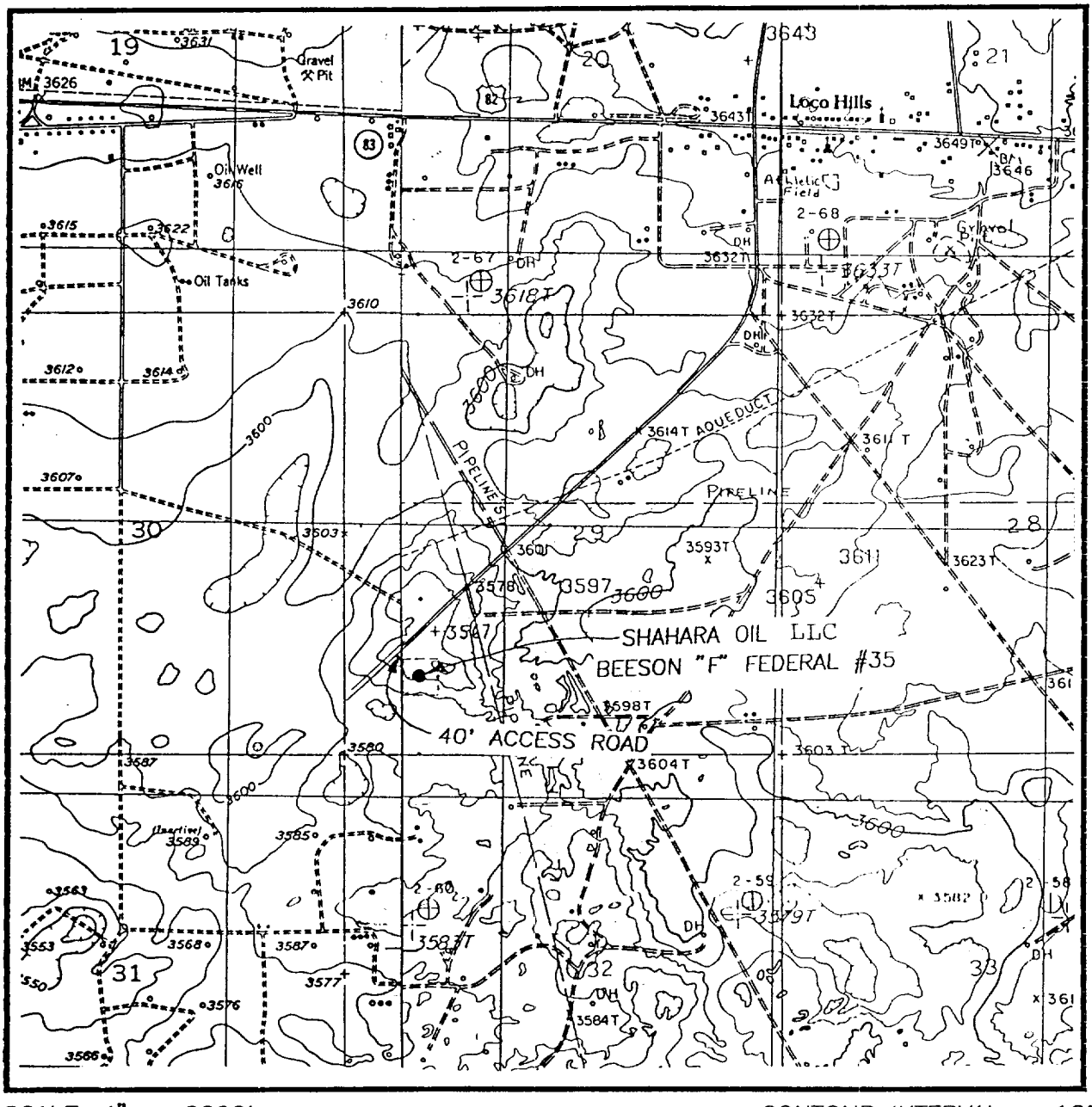
ELEVATION 3565

OPERATOR SHAHARA OIL LLC

LEASE BEESON "F" FEDERAL

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

LOCATION VERIFICATION MAP



SCALE: 1" = 2000' CONTOUR INTERVAL – 10'

SEC. 29 TWP. 17-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 990' FSL & 890' FWL

ELEVATION 3565

OPERATOR SHAHARA OIL LLC

LEASE BEESON "F" FEDERAL

U.S.G.S. TOPOGRAPHIC MAP

LOCO HILLS, RED LAKE SE, N.M.

Exhibit "C-1"

Location Verification Map

Shahara Oil, LLC

Beeson "F" Federal No. 35

990' FSL & 890' FWL, Unit M

Section 29, T17S, R30E

Eddy County, New Mexico

Lease No. LC-060529

Exhibit "E"

BOP Equipment

Shahara Oil, LLC
Beeson "F" Federal No. 35
990' FSL & 890' FWL, Unit M
Section 29, T17S, R30E
Eddy County, New Mexico
Lease No. LC-060529

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

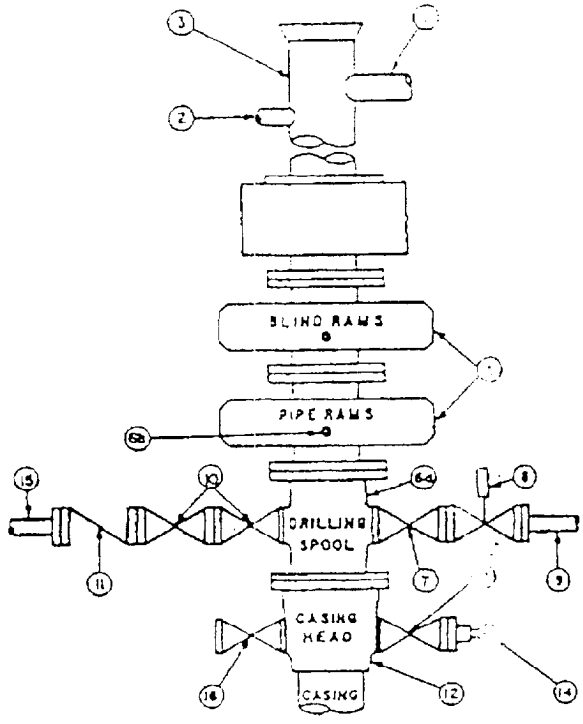
3,000 psi Working Pressure

3 MWP

STACK REQUIREMENTS

No.	Item	Min. I.D.	Min. Nominal
1	Flowline		
2	Fill up line		2"
3	Drilling nipple		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		
	—or—		
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.)		
7	Valve Gate ☐ Plug ☐	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves Gate ☐ Plug ☐	2-1/16"	
11	Check valve	2-1/16"	
12	Casing head		
13	Valve Gate ☐ Plug ☐	1-13/16"	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"

OPTIONAL			
16	Flanged valve	1-13/16"	



CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 3,000 psi, minimum.
2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.

MEC TO FURNISH:

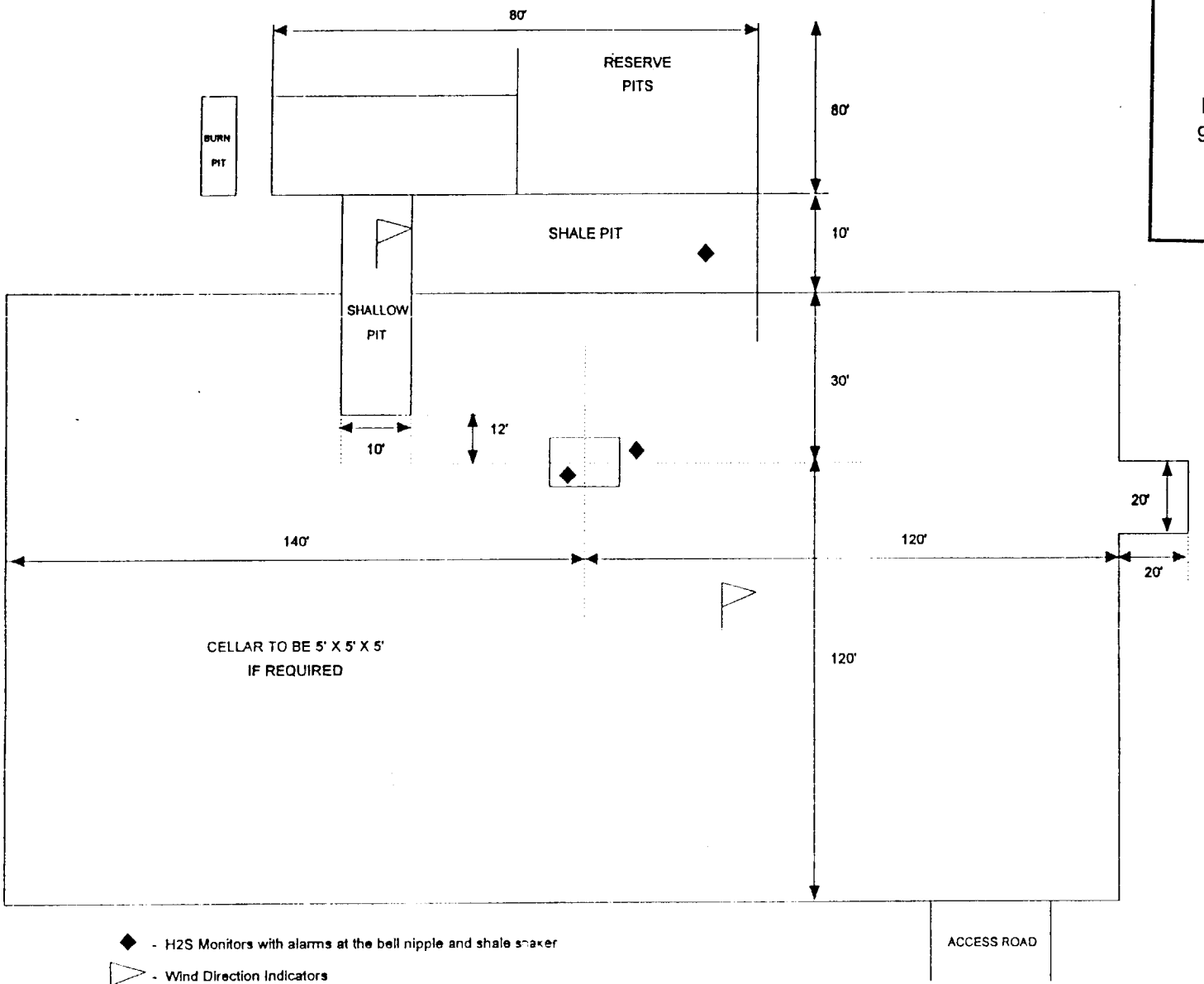
1. Bradenhead or casinghead and side valves.
2. Wear bushing, if required.

GENERAL NOTES:

1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke. Valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position.
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with handwheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.
7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valve except for emergency.
9. All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Do not use kill line for routine fill-up operations.

Exhibit "D"
RIG LAYOUT

Shahara Oil, LLC
Beeson "F" Federal No. 35
990' FSL & 890' FWL, Unit M
Section 29, T17S, R30E
Eddy County, New Mexico
Lease No. LC-060529



◆ - H2S Monitors with alarms at the bell nipple and shale shaker

- Wind Direction Indicators

- Safe Briefing areas with caution signs and protective breathing equipment. Min. 150 ft from wellhead.