1014 52

N.M. Oil Cons. DIV-Dist. 2 1301 W. Grand Avenue Artesia, NM 88210



| Form 3160-3 (April 2004) | • | 00210 | , | | OMB No | APPROVED 0. 1004-0137 1. 1004-0137 | | |
|---|-------------------------------------|---|------------------------------------|----------------|--|--------------------------------------|----------------|--|
| (April 2004) K-04 UNITED STATES UNITED STATES DEPARTMENT OF THE BUREAU OF LAND MAN | | | 5. Lease Serial No. L.C-066087A | | | | | |
| APPLICATION FOR PERMIT TO | | | 6. If Indian, Allotee | or Tribe Nat | ne | | | |
| la. Type of work: DRILL REENTI | | | | | 7 If Unit or CA Agre | - | and No. | |
| 1b. Type of Well: Oil Well Gas Well Other | Sir | ngle Zone | Multip | ole Zone | 8. Lease Name and Southwest TT | Well No. | /1 | |
| Name of Operator Edge Petroleum Operating Company, 1 | inc. | | | | 9. API Well No. | 015 | - 33666 | |
| 3a. Address 1301 Travis, Suite 2000 Houston, TX 77002 | 3b. Phone No. 713-65 | (include area co 4-8960 | de) | | 10. Field and Pool, or Exploratory Turkey Track (Morrow) (Atoka) | | | |
| 4. Location of Well (Report location clearly and in accordance with an | ny State requirem | ents.*) | | | 11. Sec., T. R. M. or B | lk. and Surve | y or Area | |
| At surface 1980' FNL & 800' FWL | | | | | Section 6, T-19 | 9-S, R-30-E | ı | |
| At proposed prod. zone 1980' FNL & 800' FWL | Let 5 | | 1 | | 12. County or Parish | | 3. State | |
| Distance in miles and direction from nearest town or post office* 9 miles south of Loco Hills | | | | | Eddy County | " | NM . | |
| 15. Distance from proposed* location to nearest property or lease line, ft. | 16. No. of a | cres in lease | | | ng Unit dedicated to this | | | |
| (Also to nearest drig. unit line, if any) 18. Distance from proposed location* | ļ | l Denth | - | | Section 6 (313.04 acro BIA Bond No. on file | es) | | |
| to nearest well, drilling, completed, applied for, on this lease, ft. 1,200' | 19. Proposed Depth 11,800 | | | | B 000121 | | | |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3420' GL | 22. Approxit | nate date work w | rill sta | t* | 23. Estimated duration 35 days | n | | |
| 3420 GE | 24. Attac | | - | | <u> </u> | D XIATE | TO DACINI | |
| The following, completed in accordance with the requirements of Onsho | | | | | AN CONTROLLE nis form: | DWAIE | EK BASIN | |
| Well plat certified by a registered surveyor. A Drilling Plan. | | 4. Bond to co | | he operatio | ons unless covered by an | existing bon | d on file (see | |
| A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office). | Lands, the | 5. Operator of 6. Such other authorized | r site | specific inf | ormation and/or plans as | may be requ | iired by the | |
| 25. Signature Radll K Dail | 9 | (Printed/Typed) Randell K. Fo | rdi | | | Date 08/16/ | 2004 | |
| Title Consultant | | _ | | | | | | |
| Approved by (Signature) /s/ Jesse J. Juen | Name | (Printer ype | sse | J. Ju | en | Date OC | T 0 1 2004 | |
| Title ACTING STATE DIRECTOR | Office | | | NM S | TATE OFFICE | E | | |
| Application approval does not warrant or certify that the applicant hole conduct operations thereon. Conditions of approval, if any, are attached. | ds legal or equi | table title to thos | e righ | ts in the sul | bject lease which would de APPROV | • • • | | |
| Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a c States any false, fictitious or fraudulent statements or representations as | crime for any po to any matter w | erson knowingly vithin its jurisdict | and v | villfully to r | | | | |
| *(Instructions on page 2) | | | + | | | | 7 | |
| | | * | | | | | j | |
| | | | | | | <u>.</u> | | |

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED RECEIVED

001 0 7 2004

OCD-ARTESIA

State of New Mexico

DISTRICT I 1625 M. FRENCH DR., HOBBS, NK 68240

Energy, Minerals and Natural Resources Department

DISTRICT II 1301 W. GRAND AVENUE, ARTESIA, NE 68210 OIL CONSERVATION DIVISION 1220 SOUTH ST. FRANCIS DR.

Revised JUNE 10, 2005 Submit to Appropriate District Office

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410 Santa Fe, New Mexico 87505

State Lease - 4 Copies Fee Lease - 3 Copies

Form C-102

DISTRICT IV WELL LOCATION AND ACREAGE DEDICATION PLAT ☐ AMENDED REPORT 1220 S. ST. FRANCIS DR., SANTA FR. NM 87505 Pool Code Pool Name API Number Property Code Property Name Well Number SOUTHWEST TT 6 FEDERAL 224400 1 OGRID No. Operator Name Elevation EDGE PETROLEUM OPERATING COMPANY, INC. 3420'

Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County | Į |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|---|
| 5 | 6 | 19-5 | 30-E | | 1980' | NORTH | 800' | WEST | EDDY | |

Bottom Hole Location If Different From Surface

| | | | | Doctom | HOIC DO | Eddon II Diric | .1 011 | TIOMI CILI | 1400 | | |
|---|----------------|-----------|----------|-----------------|---------|----------------|--------|--------------|---------------|----------------|--------|
| Γ | UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | Nort | h/South line | Peet from the | East/West line | County |
| | | ŀ | 1 | | | | ļ | | | | |
| - | Dedicated Acre | s Joint o | r Infill | Consolidation (| Code Or | der No. | Ц | | L_,,,, | <u> </u> | L |
| | 212 | | | | | | | | | | |
| L | | | | | | | | | | | i |

NO ALLOWARD WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED

| LOT 4 | LOT 3 | LOT 2 | LOT 1 | OPERATOR CERTIFICATION |
|-----------------|------------------------------|------------|----------|--|
| | | | | I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. |
| 38.22 AC | 40.06 AC | 40.06 AC | 40.06 AC | Signature May |
| 3416.4' 3416.1' | | · . . | | Randell K. Ford Printed Name Consultant |
| 3415.4' 3411.4' | | | | August 3, 2004 Date SURVEYOR CERTIFICATION |
| 18.21 AC LOT 6 | GEODETIC CONNAD 27 | | | I hereby certify that the well location show on this plat was plotted from field notes a actual surveys made by me or under r |
| | Y=615310 X=59745 | - . | | supervison, and that the same is true of correct to the best of my belief. |
| 38.25 AC | LAT.=32*41'2 LONG.=104*00 | | | JULY 14, 2004 Date Surveyed JR Signature & Seal of State Surveyed Seal of State St |
| LOT 7 | | | | Professional Surveyor Sary Blum 7/19/04 04.11,0869 |
| 38.30 AC | | | | Certificate No. GARY REDSON 126 |

DRILLING PROGRAM

EDGE PETROLEUM OPERATING COMPANY, INC. SOUTHWEST TT 6 FEDERAL #1

Section 6, T-19-S, R-30-E Eddy County, New Mexico

The following items supplement Form 3160-3 in accordance with instructions contained in Onshore Oil and Gas Orders #1 and #2, and all other applicable federal and state regulations.

1. <u>ESTIMATED TOPS OF GEOLOGIC MARKERS:</u>

| | 1 |
|--------------------------------|---------|
| Yates | 1,300' |
| Queen | 2,290' |
| Grayburg | 2,600' |
| San Andres | 3,100' |
| Bone Spring Im | 4,890' |
| 3 rd Bone Spring sd | 8,790' |
| Wolfcamp | 9,210' |
| Strawn Im | 10,510' |
| Atoka (Clastics) | 10,890' |
| Morrow Im | 11,010' |
| Middle Morrow sd | 11,380' |
| Lower Morrow sd | 11,530' |
| Barnett sh | 11,650' |
| Mississippian sd | 11,750' |
| Total Depth | 11,800' |

2. <u>ESTIMATED DEPTHS TO WATER, OIL, OR GAS FORMATIONS:</u>

Fresh Water

Above 200'

Oil and Gas

San Andres, Bone Springs, Atoka, Strawn and Morrow

3. Pressure control equipment: The blow out preventer equipment (BOP) shown in Exhibit #1 will consist of a 3000 psi double ram type preventer for drilling the intermediate hole. The blowout preventer stack for the production hole will consist of at least a double-ram blowout preventer and annular preventer rated to 3000 psi working pressure. A diagram of the BOPs and choke manifold is attached. All BOPs and accessory equipment will be tested according to Onshore Order #2 before drilling out.

4. PROPOSED CASING PROGRAM:

| Hole Size | <u>Interval</u> | Casing Size | <u>Weight</u> | Grade, Joint |
|-----------|-----------------|-------------|-----------------------------|--------------|
| 17-1/2" | 0 – 350' | 13-3/8" | 48# | H-40 ST&C |
| 12-1/4" | 0 - 3,050 | 9-5/8" | 4 3. <mark>5#</mark> | K-55 LT&C |
| 8-1/2" | 0 - 11,800 | 5-1/2" | 20# | N-80 LT&C |

Equivalent or adequate grades and weights of casing may be substituted at time casing is run, depending on availability. Changes will be relayed to BLM prior to running.

5. PROPOSED CEMENTING PROGRAM

WITNESS

20" conductor cemented with ready mix to surface
13-3/8" surface 250 sxs Premium Plus cement, 2% calcium chloride WITNESS
9-5/8" intermediate 500 sxs Interfill "C" cement, 1/4# per sx Flocele
200 sxs Premium Plus cement
5-1/2" production 200 sxs Light Cement

200 sxs Super "H" cement .5% Halad, .4% CFR-3, 3# per sx

Gilsonite

6. PROPOSED MUD SYSTEM:

| <u>DEPTH</u> | DESCRIPTION | MUD WEIGHT | VISCOSITY | WATER LOSS |
|----------------|-----------------|----------------|-------------|------------|
| 0 – 350' | fresh water | 8.6 – 8.8 ppg | 28 – 30 | NC |
| 350 – 3,050' | brine water | 10.0 – 10.2 pp | g = 28 - 34 | NC |
| 3,050 - 11,800 | fresh/brine/mud | 8.4 - 10.4 ppg | 28 – 40 | 6-8 cc |

7. TESTING, LOGGING AND CORING PROGRAM:

Samples From 2,000'
DST's Potential DST Zones: Wolfcamp reef, Strawn Im, Atoka sand, Mid/Lwr Morrow sd
Logging Dual Lateral, Gamma Ray, Caliper, Density Neutron, PE Factor Possible sidewall core: Grayburg, San Andres, Strawn Im, Atoka sand, Mid/Lwr Morrow sd

8. ABNORMAL PRESSURES AND TEMPERATURES:

None anticipated. Maximum bottom hole pressure should not exceed 4,900psi. Although we do not anticipate encountering H₂S in amounts significant enough to require an H₂S contingency plan in accordance with Rule 118 of the OCD, we have prepared an H₂S drilling plan, which follows.

ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

It is planned that operations will commence on August 26, 2004. Drilling should be completed within 35 days followed by completion operations.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

EDGE PETROLEUM OPERATING COMPANY, INC. Southwest TT 6 Federal #1

I. HYDROGEN SULFIDE TRAINING

- A. All regularly assigned personnel, contracted or employed by Cabal Energy Corporation, will receive training from a qualified instructor in the following areas prior to commencing drilling potential hydrogen sulfide bearing formations in this well:
 - 1. The hazards and characteristics of hydrogen sulfide (H_2S) .
 - 2. The proper use and maintenance of personal protective equipment and life support systems.
 - 3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures and prevailing winds.
 - 4. The proper techniques for first aid and rescue procedures.
- B. In addition, supervisory personnel will be trained in the following areas:
 - 1. The effects of H₂S 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 H₂S Drilling Operations Plan.

C. There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H₂S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S safety equipment and systems will be installed, tested and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H_2S .

- A. Well Control Equipment.
 - 1. Flare line with continuous pilot.
 - 2. Choke manifold with a minimum of one remote choke.
 - 3. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
 - **4.** Auxiliary equipment to include annular preventer, mud-gas separator, rotating head and flare.
- **B.** Protective Equipment for Essential Personnel:

Mark II Surviveair 30-minute units located in the dog house and at briefing areas, as indicated on well site diagram.

- C. H₂S Detection and Monitoring Equipment:
 - 1. Two portable H₂S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H₂S levels of 20 ppm are reached.
 - 2. One portable SO₂ monitor positioned near flare line.
- D. Visual Warning Systems
 - 1. Wind direction indicators are shown on well site diagram.
 - 2. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a

reasonable distance form the immediate location. Bilingual signs will be used when appropriate. See example attached.

E. Mud Program

- 1. The Mud Program has been designed to minimize the volume of H₂S circulated to the surface. Proper mud weights, safe drilling practices and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.
- 2. A mud-gas separator will be utilized as needed.

F. Metallurgy:

All drill strings, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and line and valves shall be suitable for H₂S service.

G. Communication:

Cellular telephone communications in company vehicles, rig floor and mud logging trailer.

H. Well Testing:

Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing and an H₂S environment will be conducted during the daylight hours.

MULTI POINT SURFACE USE AND OPERATIONS PLAN FOR

EDGE PETROLEUM OPERATING COMPANY, INC. SOUTHWEST TT 6 FEDERAL #1

1980' FNL & 800' FVVL Section 6, T-19-S, R-30-E Eddy County, New Mexico Lease No.: NM LC-066087-A

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 operations plan to be followed in rehabilitating the surface and environmental effects associated with the operation.

1. **EXISTING ROADS**:

- A. Exhibit "A" is a Vicinity map showing the location of the proposed well as staked.
- B. Directions: The well site location is at milepost 13 on ST. HWY #360. Go 0.9 miles NW to a caliche road on the left. Go southwest on caliche road for approx. 0.3 miles to a caliche pit. Go east thru caliche pit. Proposed location is approx. 350' SE.

2. PLANNED ACCESS ROAD:

- A. Length and Width: Exhibit "B" is the proposed access road. It will be approximately 856' long and 12' wide and run South to the NW corner of the location.
- B. Construction: The proposed access road will be constructed by grading and topping with compacted caliche. The surface will be properly drained.
- C. Turnouts: None required.
- D. Culverts: None necessary.
- E. Cuts and Fills: 1-foot Cut to the North.
- F. Gates and Cattle Guards: None necessary.
- G. Off lease right of way: None required.

3. LOCATION OF EXISTING WELLS:

Existing wells in the immediate area are shown on the Location Verification Map, Exhibit "C".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. Edge Petroleum Operating Company, Inc. has no production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities, gas separation-process equipment and tank battery, if required, will be installed on the drilling pad.

5. LOCATION AND TYPE OF WATER SUPPLY:

It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing and proposed access roads.

6. SOURCE OF CONSTRUCTION MATERIAL:

Caliche for surfacing the proposed access road and well site pad will be obtained from the location, if available, or from an approved Federal pit. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access road.

7. <u>METHODS OF HANDLING WASTE DISPOSAL:</u>

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
- E. Oil Produced during tests will be stored in test tanks.

- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. All trash and debris will be removed from the well site within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

None required.

9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area has been staked and flagged 600' x 600'.
- B. Mat Size: 230' x 330', plus 180' x 180' reserve pit on the north.
- C. Cut & Fill: The location will require a 1-foot cut on the north with fill to the south.
- D. The surface will be topped with compacted caliche and the reserve pits will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. The well site will be cleaned of trash leaving to the extent possible.
- B. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled as soon worked.

11. OTHER INFORMATION:

- A. Surface Ownership Bureau of Land Management
- B. Mesa Field Services, P. O. BOX 3072, CARLSBAD, NEW MEXICO 88221, conducted an archaeological survey. No significant archaeological resources were found in the area of the planned access road or of the proposed well site.

C. Oil & Gas Lease:

LC 066087A

Township 19 South, Range 30 East, Section 6 Lots 3, 4, 5 and SE4NW4

D. RECORD LESSEE:

David C. Collier, Etux (Mary Louise Collier)
The Herman J. Ledbetter Family Trust

50% 50%

E. BOND COVERAGE:

\$25,000 Statewide Oil & Gas Surety Bond BLM Bond #: NM B000121

12. OPERATOR'S REPRESENTATIVE:

The field representative for assuring compliance with the approved use and operations plan is as follows:

R. K. Ford & Associates
415 West Wall, Suite 1700
Midland, Texas 79701
432-682-0440 (Office)
432-682-0441 (Fax)
432-570-7216 (Home)
432-559-2222 (Cell)
Randell@rkford.com (E-mail)

13. **CERTIFICATION**:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; 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 Edge Petroleum Operating Company, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

August 16, 2004

Randell K. Ford

President

United States Department of the Interior Bureau of Land Management Roswell Field Office 2909 Second Street Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name:

Edge Petroleum Operating Company, Inc.

Street or Box:

1301 Travis, Suite 2000

City, State:

Houston, Texas

Zip Code:

77002

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No:

LC-066087-A

Legal Description of Land:

Township 19 South, Range 30 East, Eddy, New Mexico

Lots 3, 4, 5 and the SE4NW4 of Section 6

Bond Coverage:

Statewide Oil and Gas Surety Bond

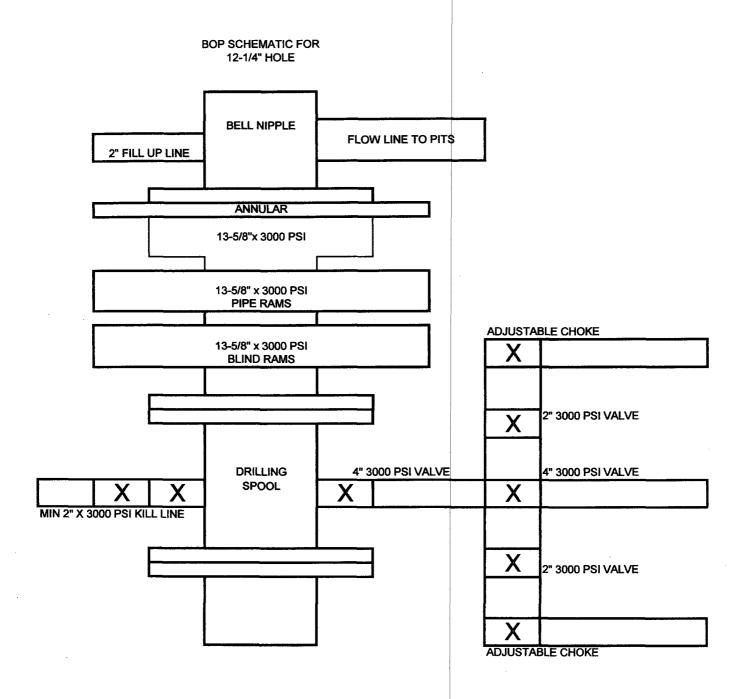
BLM Bond File No.:

NM B000121

Randell K. Ford

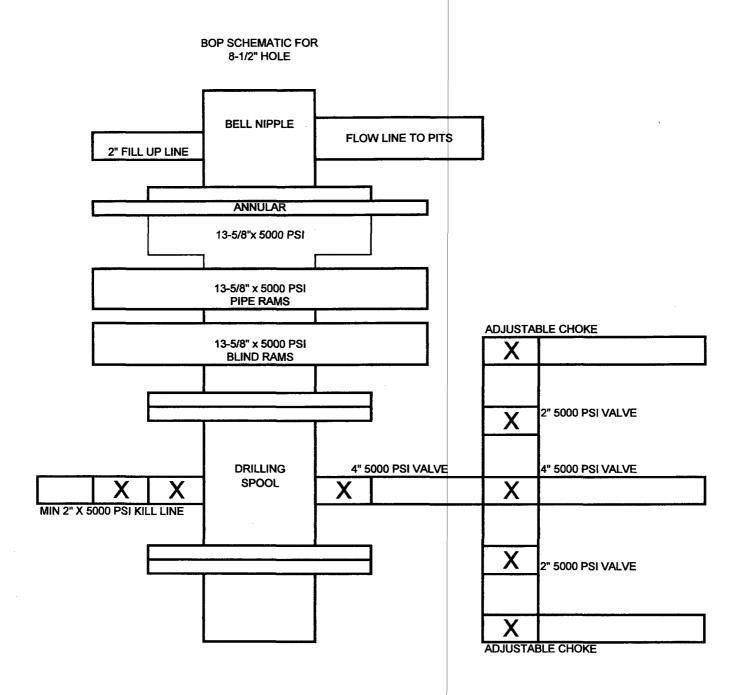
Agent

August 16, 2004



Edge Petroleum Operating Company, Inc. Southwest TT 6 Federal Eddy County, New Mexico

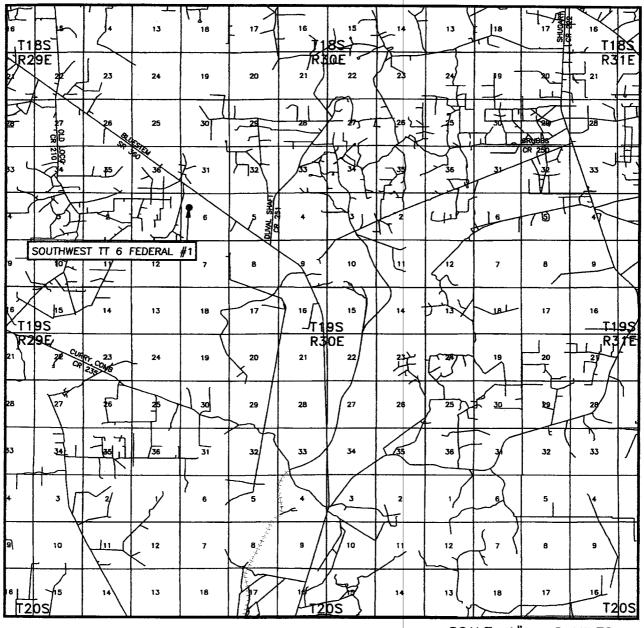
Exhibit 1



Edge Petroleum Operating Company, Inc. Southwest TT Federal 6 Eddy County, New Mexico

Exhibit 2

VICINITY MAP



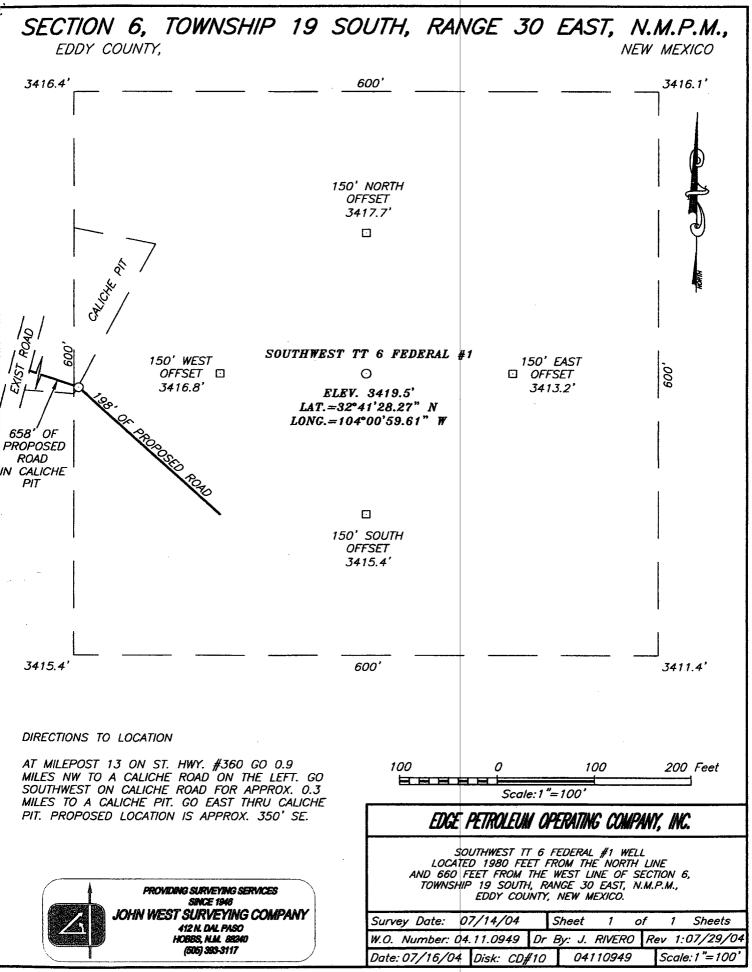
SCALE: 1" = 2 MILES

| SEC. 6 TWP. 19-S RGE. 30-E |
|----------------------------------|
| SURVEYN.M.P.M. |
| COUNTYEDDY |
| DESCRIPTION 1980' FNL & 800' FWL |
| ELEVATION 3420' |
| OPERATOR OPERATING COMPANY, INC. |
| LEASE SOUTHWEST IT 6 FEDERAL |

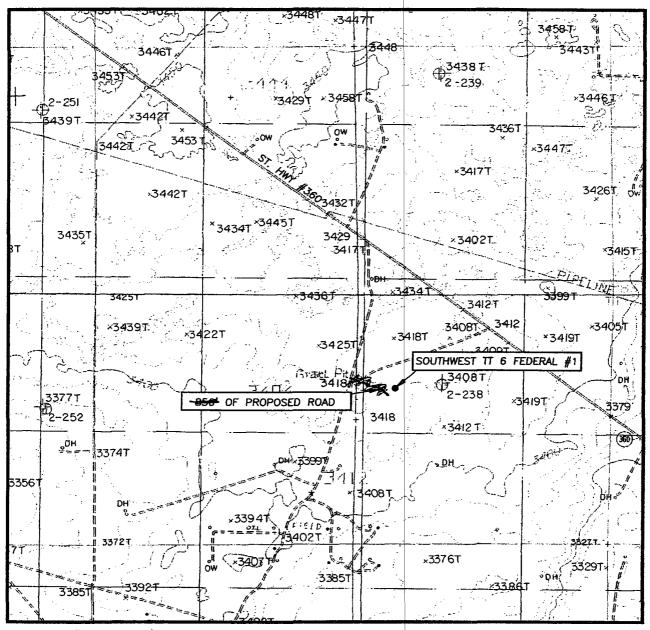


PROVIDING SURVEYING SERVICES
SINCE 1948
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOGBS, N.M. 88240
(505) 393-3117

Edge Petroleum Exhibit "A" Southwest TT 6 Federal #1



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: ILLINOIS CAMP NE, N.M. – 10'

SEC. 6 TWP. 19-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1980' FNL & 800' FWL

ELEVATION 3420'

EDGE PETROLEUM

OPERATOR OPERATING COMPANY, INC.

LEASE SOUTHWEST TT 6 FEDEERAL

U.S.G.S. TOPOGRAPHIC MAP

ILLINOIS CAMP NE, N.M.



PROVIDING SURVEYING SERVICES SINCE 1946 JOHN WEST SURVEYING COMPANY 412 N. DAL PASO HOBBS, N.M. 88240 (505) 393-3117

> Edge Petroleum Exhibit "C" Southwest TT 6 Federal #1

DRILLING RIG LAYOUT Edge Petroleum Operating Company, Inc. Southwest TT 6 Federal #1

