

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. DIV-Dist. 2  
1301 W. Grand Avenue  
Artesia, NM 88203

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

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

1b. TYPE OF WELL

OIL ☐

GAS ☒

SINGLE ☐

MULTIPLE ☐

WELL

WELL

OTHER

ZONE

ZONE

2. NAME OF OPERATOR

Gruy Petroleum Management Co.

3. ADDRESS AND TELEPHONE NO.

P.O. Box 140907 Irving TX 75014 972-401-3111

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

SUBJECT TO LIKE APPROVAL BY STATE

RECEIVED

OCT 22 2004

OOB-ARTESIA

SHV  
2475' FNL & 1250' FEL BHL 1500 FNL & 1250' FEL

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

17 miles South of Carlsbad

15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, T.O.

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

1250'

16. NO. OF ACRES IN LEASE

1480

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

320 E/2

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

NA

19. PROPOSED DEPTH

13000'

20. ROTARY OR CABLE TOOLS

Rotary

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

3227' GR

22. APPROX. DATE WORK WILL START\*

01-15-05

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PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	J-55 13 3/8"	54.5 #	200'	350 sx circulate
12 1/4"	J-55 9 5/8"	40 #	1900'	950 sx circulate
8 3/4"	P-110 7"	26 #	10000'	1250 sx circulate
6 1/8"	P-110 4 1/2" liner	11.6 #	9500' - 13000'	235 sx TOC 9500

From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000 - psi BOP system. We are requesting a variance for the 13 3/8" surface casing and BOP testing from Onshore Order No. 2, which states all casing strings below the conductor, shall be pressure tested to .22 psi per foot or 1500 # whichever is greater, but not to exceed 70% of the manufactures stated maximum internal yield. During the running of the surface pipe and the drilling of the intermediate hole we do not anticipate any pressures greater than 1000 # and are requesting a variance to test the 13 3/8" casing and BOP system to 1000 # psi, and use rig pumps instead of an independent service company.

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.

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SIGNED

Zeno Farris

TITLE

Mgr. Ops. Admin

DATE

9-24-04

(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

/s/ Joe G. Lara

TITLE

FIELD MANAGER

DATE

OCT 22 2004

\*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

ADDITIONAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

Carlsbad Controlled Water Basin

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-144  
March 12, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Gruy Petroleum Management Co. Telephone: 972-443-6489 e-mail address: zfarris@magnumhunter.com

Address: P.O. Box 140907, Irving, Tx 75014-0907

Facility or well name: Bufflehead 26 Federal Com # 1 API #: U/L or Qtr/Qtr H Sec 26 T 25S R 26E

County: Eddy Latitude 320604.28 N Longitude 1041530.30 W NAD: 1927 ☒ 1983 ☐ Surface Owner Federal ☐ State ☐ Private ☐ Indian ☐

Pit	Below-grade tank	
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness 12 mil Clay <input type="checkbox"/> Volume _____ bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. _____	
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet (20 points) 50 feet or more, but less than 100 feet (10 points) <u>100 feet or more</u> (0 points)	RECEIVED OCT - 4 2004 OCD-ARTES
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes (20 points) <u>No</u> (0 points)	
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) <u>1000 feet or more</u> (0 points)	
Ranking Score (Total Points)		

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility \_\_\_\_\_. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface \_\_\_\_\_ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 9-27-04

Printed Name/Title Zeno Farris Manager Operations Administration

Signature Zeno Farris

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval  
Date: OCT 4 2004

Printed Name/Title

Signature [Signature]



## **Gruy Petroleum Management Co.**

600 East Las Colinas Blvd. • Suite 1100 • Irving, TX 75039 • (972) 401-3111 • Fax (972) 443-6450

Mailing Address: P.O. Box 140907 • Irving, TX 75014-0907

*A wholly-owned subsidiary of Magnum Hunter Resources, Inc., a NYSE company MHR*

### **STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS**

Bureau of Land Management  
2909 West 2<sup>nd</sup> Street  
Roswell New Mexico 88201-2019  
Attn: Ms. Linda Askwig

Gruy Petroleum Management Co. accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land, or portion thereof, as described below:

Lease No.: NMNM - 94839

Legal Description: E/2 Sec 26, T25S-R26E  
Containing 320 acres, Eddy County New Mexico

Formation (S): Morrow/Pennsylvanian

Bond Coverage: Nationwide BLM Bond

BLM Bond File No.: NM 2575

Authorized Signature: Zeno Farris  
Representing Gruy Petroleum Management Co.

Name: Zeno Farris

Title: Manager, Operations Administration

Date: 09/24/04

## Application to Drill

Gruy Petroleum Management Co.  
Bufflehead 26 Federal Com No. 1  
Unit Letter H Section 26  
T25S - R26E Eddy County, NM

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

- 1 Location: SHL 2475' FNL & 1250' FEL Sec. 26- 25S 26E  
BHL 1500' FNL & 1250 FEL Sec 26-25S-26E
- 2 Elevation above sea level: GR 3227'
- 3 Geologic name of surface formation: Quaternary Alluvium Deposits
- 4 Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.
- 5 Proposed drilling depth: 13000'
- 6 Estimated tops of geological markers:

T/Salt	250'	Cisco Canyon	9928
B/Salt	800'	Strawn	10078
Delaware	1450	Atoka	10388
Bone Spring	6168	Morrow	11,158
Wolfcamp	8098	Barnett	11,768

- 7 Possible mineral bearing formation:

Strawn	Gas
Atoka	Gas
Morrow	Gas

- 8 Casing program:

Hole Size	Interval	Casing OD	Weight	Thread	Collar	Grade
17 1/2"	0-200'	13 3/8"	54.5	8-R	ST&C	J-55
12 1/4"	0-1900'	9 5/8"	40	8-R	ST&C	J-55
8 3/4"	0-10000'	7"	26	8-R	ST&C	P-110
6 1/8"	9500' - 13000'	4 1/2"	11.6	8-R	ST&C	P-110

## Application to Drill

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### 9 Cementing & Setting Depth:

13 3/8"	Surface	Set 200' of 13 3/8" J-55 54.5 ST&C casing. Cement with 350 Sx. Of Premium Plus cement + additives, circulate cement to surface.
9 5/8"	Intermediate	Set 1900' of 9 5/8" J-55 40# ST&C casing. Lead with 550 Sx. of Interfill C Cement + additives, tail with 400 Sx. Of Premium Plus + additives, circulate cement to surface.
7"	Intermediate	Set 10000' of 7" P-110 26# ST&C casing. Cement in two stages, first stage cement with 750 Sx. of Class Interfill H/Super H Cement + additives. Second stage cement with 500 Sx of Interfill H/Super H, circulate cement to surface. .
4 1/2"	liner	Set 3500' of 4 1/2" P-110 11.6 # ST&C liner from 9500' to 13000'. Cement iwth 235 sx of Super H. TOC 9500'.

### 10 Pressure control Equipment:

Exhibit "E". A 13 3/8" 5000 PSI working pressure B.O.P. consisting of one set of blind rams and one set of pipe rams and a 5000 # annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 6000'. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. BOP unit will be hydraulically operated. BOP will be nipped up on the 9 5/8" & 7" casing and will be operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling

### 11 Proposed Mud Circulating System:

Depth	Mud Wt	Viscosity	Fluid Loss	Type Mud
0 - 200'	8.4 - 8.6	30 - 32	May lose circ.	Fresh water spud mud add paper to control seepage and high viscosity sweeps to clean hole.
200' - 1900'	9.7 - 10.0	28 - 29	May lose circ	Brine water. Add paper as needed to control seepage and add lime to control pH (9-10). Use high viscosity sweeps to clean hole.
1900' - 8300'	8.4 - 9.9	28 - 29	NC	Fresh water. Paper for seepage. Lime for pH (9 - 9.5)
8300' - 10000'	8.45 - 8.9	28 - 29	NC	Cut brine. Caustic for pH control.
10000' - 13000'	8.9 - 9.7	29 - 45	NC	XCD Polymer mud system.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs. Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until production casina is run and cemented.

## **Application to Drill**

Gruy Petroleum Management Co.  
Bufflehead 26 Federal Com No. 1  
Unit Letter H Section 26  
T25S - R26E Eddy County, NM

### 12 Testing, Logging and Coring Program:

- A. Mud logging program: One-man unit from 8000' to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
- C. No DST's, or cores are planned at this time.

### 13 Potential Hazards:

No abnormal pressures or temperatures or H<sub>2</sub>S gas are expected. Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 4000 PSI, estimated BHT 190.

### 14 Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 35 - 45 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

### 15 Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The Strawn / Morrow / Atoka pay will be perforated and stimulated. The well will be tested and potentialized as a gas well.

## Surface Use Plan

Gruy Petroleum Management Co.  
Bufflehead 26 Federal Com No. 1  
Unit Letter H Section 26  
T25S - R26E Eddy County, NM

- 1 Existing Roads: Area maps, Exhibit "B" is a reproduction of Lea Co. General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.
  - A. Exhibit "A" shows the proposed well site as staked.
  - B. From the intersection of Eddy County road # 720 (Blackriver Village Rd) and Eddy County Road # 742 (John C Forehand Rd), go south 9.7 miles to Prickly Pear Rd. Turn right west and go 0.9 miles to propoase lease rd. Follow survey north 0.3 miles to location.
- 2 PLANNED ACCESS ROADS: 1645' of access road will be constructed.
- 3 LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A"
  - A. Water wells - Baily well in NE/4 of Sec 27
  - B. Disposal wells - None known
  - C. Drilling wells - None known
  - D. Producing wells - As shown on Exhibit "A"
  - E. Abandoned wells - As shown on Exhibit "A"

## **Surface Use Plan**

Gruy Petroleum Management Co.  
Bufflehead 26 Federal Com No. 1  
Unit Letter H Section 26  
T25S - R26E Eddy County, NM

- 4 If, on completion this well is a producer Gruy Petroleum Management Co. will furnish maps and/or plats showing on site facilities or off site facilities if needed. This will be accompanied with a Sundry Notice.

5 LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped in flexible lines laid on top of the ground.

6 SOURCE OF CONSTRUCTION MATERIAL:

If possible construction will be obtained from the excavation of drill site, if additional material is needed it will be purchased from a local source and transported over the access route as shown on Exhibit "C".

7 METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the reserve pit.
- B. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.
- C. Salts remaining after completion of well will be picked up by supplier including broken sacks.
- D. Sewage from living quarters will drain into holding tanks and be cleaned out periodically. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for breaking out. In the event that drilling fluids do not evaporate in a reasonable time they will be hauled off by transports and be disposed of at a state approved disposal facility. Later pits will be broken out to speed drying. Water produced during testing will be put in reserve pits. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8 ANCILLARY FACILITIES:

- A. No camps or airstrips to be constructed.



## Surface Use Plan

Gruy Petroleum Management Co.  
Bufflehead 26 Federal Com No. 1  
Unit Letter H Section 26  
T25S - R26E Eddy County, NM

### 9 WELL SITE LAYOUT

- A. Exhibit "D" shows location and rig layout.
- B. This exhibit indicates proposed location of reserve and trash pits; and living facilities.
- C. Mud pits in the active circulating system will be steel pits and the reserve pit is proposed to be unlined, unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- D. If needed, the reserve pit is to be lined with PVC or polyethylene line. The pit liner will be 6 mils thick. Pit liner will extend a minimum, 2'00" over the reserve pits dikes where the liner will be anchored down.
- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

### 10 PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be recountered to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

## Surface Use Plan

Gruy Petroleum Management Co.  
Bufflehead 26 Federal Com No. 1  
Unit Letter H Section 26  
T25S - R26E Eddy County, NM

### 11 OTHER INFORMATION:

- A. Topography consists of a sloping plane with loose tan/brown soils. Vegetation is mainly yucca, mesquite, creosote, and various grasses.
- B. The wellsite is on surface owned by The United States Department of the Interior, Bureau of Land Management. The land is used mainly for cattle ranching, recreational use, and oil and gas production.
- C. An Archaeological survey will be conducted on the location and proposed roads, and this report will be filed with the Bureau of Land Management in the Carlsbad BLM office.
- D. There are no known dwellings within 1 1/2 miles of this location.

### 12 OPERATORS REPRESENTATIVE:

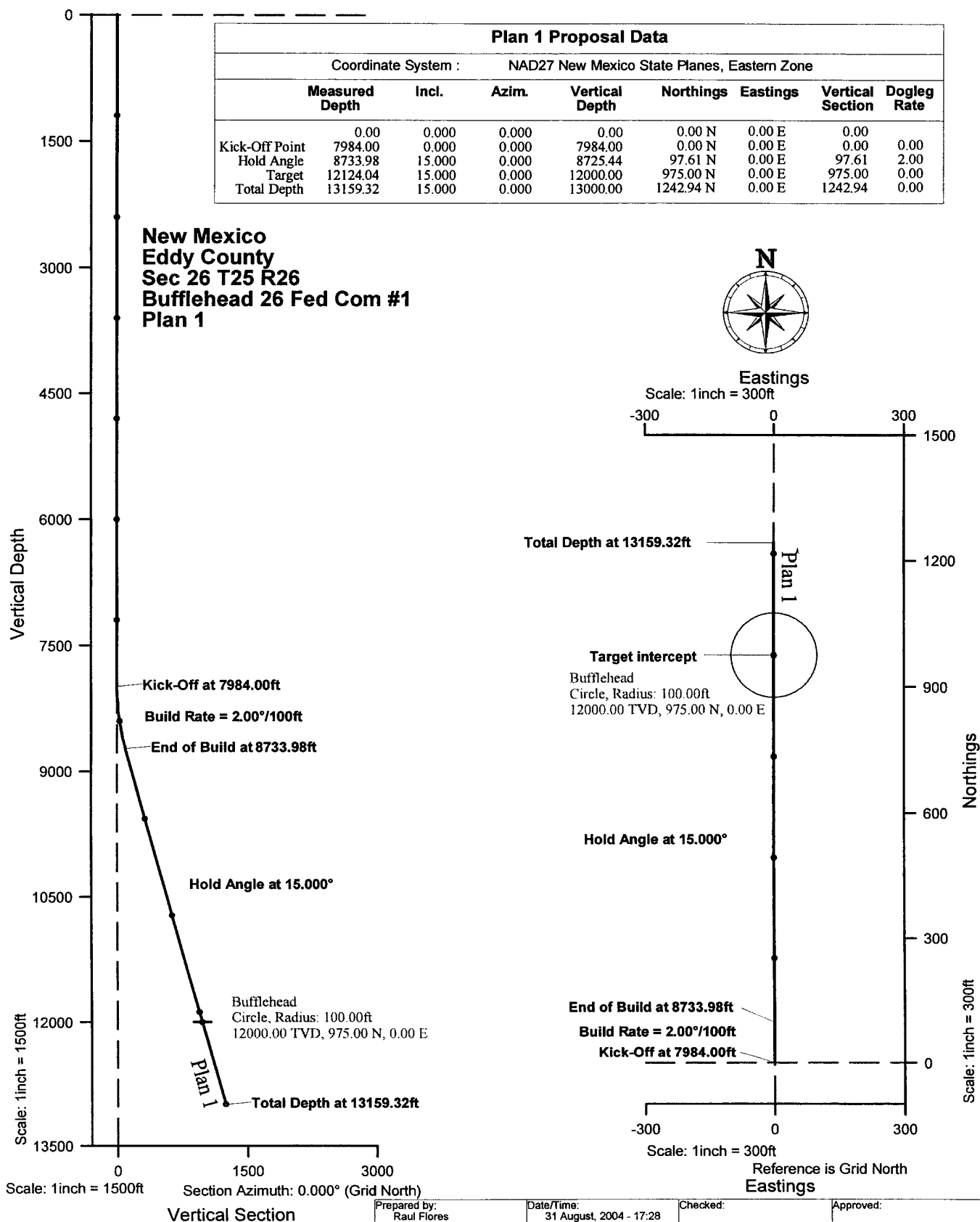
Gruy Petroleum Management Company  
P.O. Box 14097  
Irving, TX 75014  
Office Phone: (972) 443-6489  
Zeno Farris

- 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 Gruy Petroleum Management Company and/or its contractors/subcontractors and will be in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME: Zeno Farris

DATE: 9/24/2004

TITLE: Manager, Operations Administration





**Gruy Petroleum Management  
New Mexico  
Eddy County  
Sec 26 T25 R26  
Bufflehead 26 Fed Com #1 - Plan 1**

**Sperry-Sun**

# **Proposal Report**

**1 September, 2004**

Proposal Ref: pro8500

**HALLIBURTON**

**Proposal Report for Sec 26 T25 R26 - Bufflehead 26 Fed Com #1 - Plan 1**

Measured Depth (ft)	Incl. (Deg)	Grid Azim. (Deg)	Station Coordinates			Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
TVD (ft)	Northings (ft)	Eastings (ft)						
0.00	0.000	0.000	0.00	0.00 N	0.00 E	0.00		
7984.00	0.000	0.000	7984.00	0.00 N	0.00 E	0.00	0.00	Kick-Off at 7984.00ft
8000.00	0.320	0.000	8000.00	0.04 N	0.00 E	0.04	2.00	
8100.00	2.320	0.000	8099.97	2.35 N	0.00 E	2.35	2.00	
8200.00	4.320	0.000	8199.80	8.14 N	0.00 E	8.14	2.00	
8300.00	6.320	0.000	8299.36	17.41 N	0.00 E	17.41	2.00	
8358.99	7.500	0.000	8357.92	24.51 N	0.00 E	24.51	2.00	Build Rate = 2.00°/100ft
8400.00	8.320	0.000	8398.54	30.15 N	0.00 E	30.15	2.00	
8500.00	10.320	0.000	8497.21	46.34 N	0.00 E	46.34	2.00	
8600.00	12.320	0.000	8595.26	65.97 N	0.00 E	65.97	2.00	
8700.00	14.320	0.000	8692.57	89.01 N	0.00 E	89.01	2.00	
8733.98	15.000	0.000	8725.44	97.61 N	0.00 E	97.61	2.00	End of Build at 8733.98ft
8800.00	15.000	0.000	8789.21	114.70 N	0.00 E	114.70	0.00	
8900.00	15.000	0.000	8885.81	140.58 N	0.00 E	140.58	0.00	
9000.00	15.000	0.000	8982.40	166.46 N	0.00 E	166.46	0.00	
9100.00	15.000	0.000	9078.99	192.34 N	0.00 E	192.34	0.00	
9200.00	15.000	0.000	9175.58	218.22 N	0.00 E	218.22	0.00	
9300.00	15.000	0.000	9272.18	244.10 N	0.00 E	244.10	0.00	
9400.00	15.000	0.000	9368.77	269.98 N	0.00 E	269.98	0.00	
9500.00	15.000	0.000	9465.36	295.87 N	0.00 E	295.87	0.00	
9600.00	15.000	0.000	9561.96	321.75 N	0.00 E	321.75	0.00	
9700.00	15.000	0.000	9658.55	347.63 N	0.00 E	347.63	0.00	
9800.00	15.000	0.000	9755.14	373.51 N	0.00 E	373.51	0.00	
9900.00	15.000	0.000	9851.73	399.39 N	0.00 E	399.39	0.00	
10000.00	15.000	0.000	9948.33	425.27 N	0.00 E	425.27	0.00	
10100.00	15.000	0.000	10044.92	451.15 N	0.00 E	451.15	0.00	
10200.00	15.000	0.000	10141.51	477.03 N	0.00 E	477.03	0.00	
10300.00	15.000	0.000	10238.10	502.92 N	0.00 E	502.92	0.00	
10400.00	15.000	0.000	10334.70	528.80 N	0.00 E	528.80	0.00	
10429.01	15.000	0.000	10362.72	536.31 N	0.00 E	536.31	0.00	Hold Angle at 15.000°
10500.00	15.000	0.000	10431.29	554.68 N	0.00 E	554.68	0.00	
10600.00	15.000	0.000	10527.88	580.56 N	0.00 E	580.56	0.00	
10700.00	15.000	0.000	10624.48	606.44 N	0.00 E	606.44	0.00	
10800.00	15.000	0.000	10721.07	632.32 N	0.00 E	632.32	0.00	
10900.00	15.000	0.000	10817.66	658.20 N	0.00 E	658.20	0.00	
11000.00	15.000	0.000	10914.25	684.08 N	0.00 E	684.08	0.00	
11100.00	15.000	0.000	11010.85	709.96 N	0.00 E	709.96	0.00	
11200.00	15.000	0.000	11107.44	735.85 N	0.00 E	735.85	0.00	
11300.00	15.000	0.000	11204.03	761.73 N	0.00 E	761.73	0.00	
11400.00	15.000	0.000	11300.63	787.61 N	0.00 E	787.61	0.00	
11500.00	15.000	0.000	11397.22	813.49 N	0.00 E	813.49	0.00	
11600.00	15.000	0.000	11493.81	839.37 N	0.00 E	839.37	0.00	
11700.00	15.000	0.000	11590.40	865.25 N	0.00 E	865.25	0.00	
11800.00	15.000	0.000	11687.00	891.13 N	0.00 E	891.13	0.00	
11900.00	15.000	0.000	11783.59	917.01 N	0.00 E	917.01	0.00	

**Proposal Report for Sec 26 T25 R26 - Bufflehead 26 Fed Com #1 - Plan 1**

Measured Depth (ft)	Incl. (Deg)	Grid Azim. (Deg)	Station Coordinates			Vertical Section (ft)	Dogleg Rate (°/100ft)	Comment
TVD (ft)	Northings (ft)	Eastings (ft)						
12000.00	15.000	0.000	11880.18	942.90 N	0.00 E	942.90	0.00	
12100.00	15.000	0.000	11976.77	968.78 N	0.00 E	968.78	0.00	
12124.04	15.000	0.000	12000.00	975.00 N	0.00 E	975.00	0.00	Target - Bufflehead, 100.00 Radius., Current Target
12200.00	15.000	0.000	12073.37	994.66 N	0.00 E	994.66	0.00	
12300.00	15.000	0.000	12169.96	1020.54 N	0.00 E	1020.54	0.00	
12400.00	15.000	0.000	12266.55	1046.42 N	0.00 E	1046.42	0.00	
12500.00	15.000	0.000	12363.15	1072.30 N	0.00 E	1072.30	0.00	
12600.00	15.000	0.000	12459.74	1098.18 N	0.00 E	1098.18	0.00	
12700.00	15.000	0.000	12556.33	1124.06 N	0.00 E	1124.06	0.00	
12800.00	15.000	0.000	12652.92	1149.95 N	0.00 E	1149.95	0.00	
12900.00	15.000	0.000	12749.52	1175.83 N	0.00 E	1175.83	0.00	
13000.00	15.000	0.000	12846.11	1201.71 N	0.00 E	1201.71	0.00	
13100.00	15.000	0.000	12942.70	1227.59 N	0.00 E	1227.59	0.00	
13159.32	15.000	0.000	13000.00	1242.94 N	0.00 E	1242.94	0.00	Total Depth at 13159.32ft

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to Grid North. Vertical depths are relative to Well. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.  
Vertical Section is from Well and calculated along an Azimuth of 0.000° (Grid).

Coordinate System is NAD27 New Mexico State Planes, Eastern Zone.  
Grid Convergence at Surface is -0.822°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 13159.32ft., The Bottom Hole Displacement is 1242.94ft., in the Direction of 0.000° (Grid).

**Comments**

Measured Depth (ft)	TVD (ft)	Northings (ft)	Eastings (ft)	Comment
7984.00	7984.00	0.00 N	0.00 E	Kick-Off at 7984.00ft
8358.99	8357.92	24.51 N	0.00 E	Build Rate = 2.00°/100ft
8733.98	8725.44	97.61 N	0.00 E	End of Build at 8733.98ft
10429.01	10362.72	536.31 N	0.00 E	Hold Angle at 15.000°
13159.32	13000.00	1242.94 N	0.00 E	Total Depth at 13159.32ft

---

**Proposal Report for Sec 26 T25 R26 - Bufflehead 26 Fed Com #1 -  
Plan 1**

---

**Targets associated with this wellpath**

Target Name	Target Entry Coordinates			Target Shape	Target Type
	TVD (ft)	Northings (ft)	Eastings (ft)		
Bufflehead	12000.00	975.00 N	0.00 E	Circle	Current Target
Mean Sea Level/Map Coordinates:	12000.00	975.00 N	0.00 E		
Geographical Coordinates:		30° 59' 34.1588" N	105° 55' 44.2979" W		

## DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 88240

## DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

## DISTRICT III

1000 Rio Brazos Rd., Artec, NM 87410

## DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

## State of New Mexico

Energy, Minerals and Natural Resources Department

## OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name Cottonwood Draw; Morrow
Property Code	Property Name BUFFLEHEAD 26 FEDERAL COM	Well Number 1
OGRID No. 162683	Operator Name GRUY PETROLEUM MANAGEMENT COMPANY	Elevation 3227'

## 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	26	25-S	26-E		2475	NORTH	1250	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
H	26	25-S	26-E		1500	NORTH	1250	EAST	EDDY

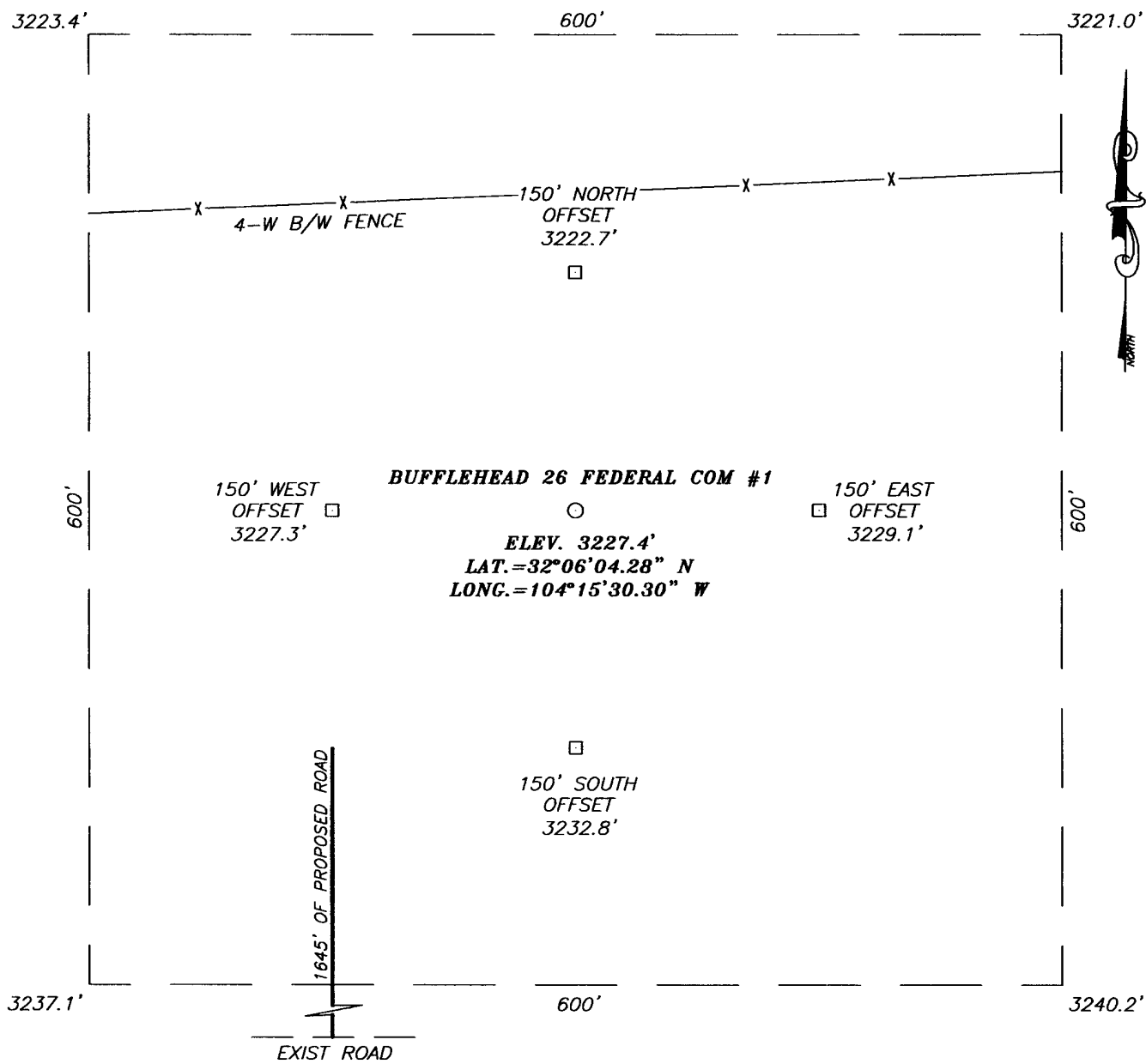
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	N	C	

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>1500'</p> <p>2475'</p> <p>1250'</p> <p>3223.4'</p> <p>3221.0'</p> <p>3237.1'</p> <p>3240.2'</p> <p>600'</p> <p>BHL</p> <p>SHL</p> <p>Bufflehead 26 Fed Com</p>		<p><b>OPERATOR CERTIFICATION</b></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>Zeno Farris</i></p> <p>Signature</p> <p>Zeno Farris</p> <p>Printed Name</p> <p>Manager Operations Admin</p> <p>Title</p> <p>September 29, 2004</p> <p>Date</p>
<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=400543.3 N X=523197.9 E</p> <p>LAT.=32°06'04.28" N LONG.=104°15'30.30" W</p>		<p><b>SURVEYOR CERTIFICATION</b></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>AUGUST 16, 2004</p> <p>Date Surveyed</p> <p>Signature &amp; Seal of Professional Surveyor</p> <p><i>GARY H. EDSON</i> 8/23/04</p> <p>04.11.099</p> <p>Certificate No. GARY EDSON 12641</p>

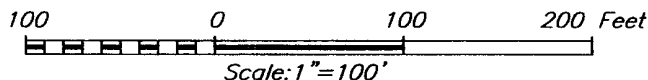


**SECTION 26, TOWNSHIP 25 SOUTH, RANGE 26 EAST, N.M.P.M.,**  
 EDDY COUNTY, NEW MEXICO



**DIRECTIONS TO LOCATION**

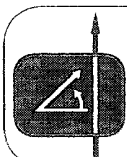
FROM THE INTERSECTION OF CO. RD. #720  
 (BLACK RIVER VILLAGE RD.) AND CO. RD. #742  
 (JOHN D. FOREHAND RD..) GO SOUTH ON CO. RD.  
 #742 FOR APPROX. 9.7 MILES TO PRICKLEY PEAR  
 RD. TURN RIGHT (WEST) AND GO APPROX. 0.9  
 MILES TO A PROPOSED ROAD SURVEY ON THE  
 RIGHT. FOLLOW PROPOSED ROAD SURVEY NORTH  
 APPROX. 0.3 MILES TO PROPOSED LOCATION.



**GRUY PETROLEUM MANAGEMENT COMPANY**

BUFFLEHEAD 26 FEDERAL COM #1 WELL  
 LOCATED 2475 FEET FROM THE NORTH LINE  
 AND 1250 FEET FROM THE EAST LINE OF SECTION 26,  
 TOWNSHIP 25 SOUTH, RANGE 26 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.

Survey Date: 08/16/04	Sheet 1 of 1 Sheets
W.O. Number: 04.11.0991	Dr By: J.R.
Date: 08/17/04	Rev 1:N/A
Disk: CD#10	04110991
	Scale: 1"=100'



PROVIDING SURVEYING SERVICES  
 SINCE 1948  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 383-3117

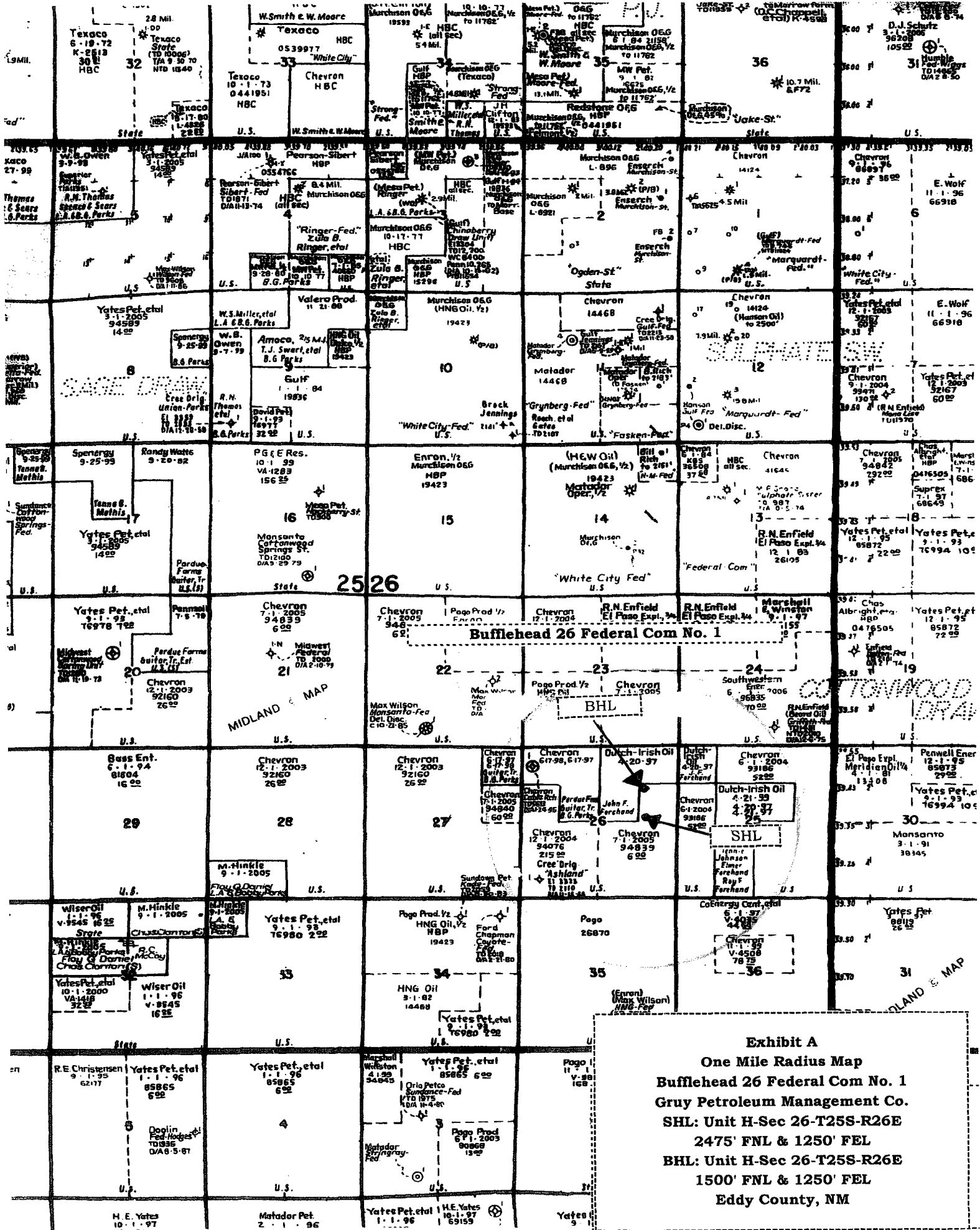
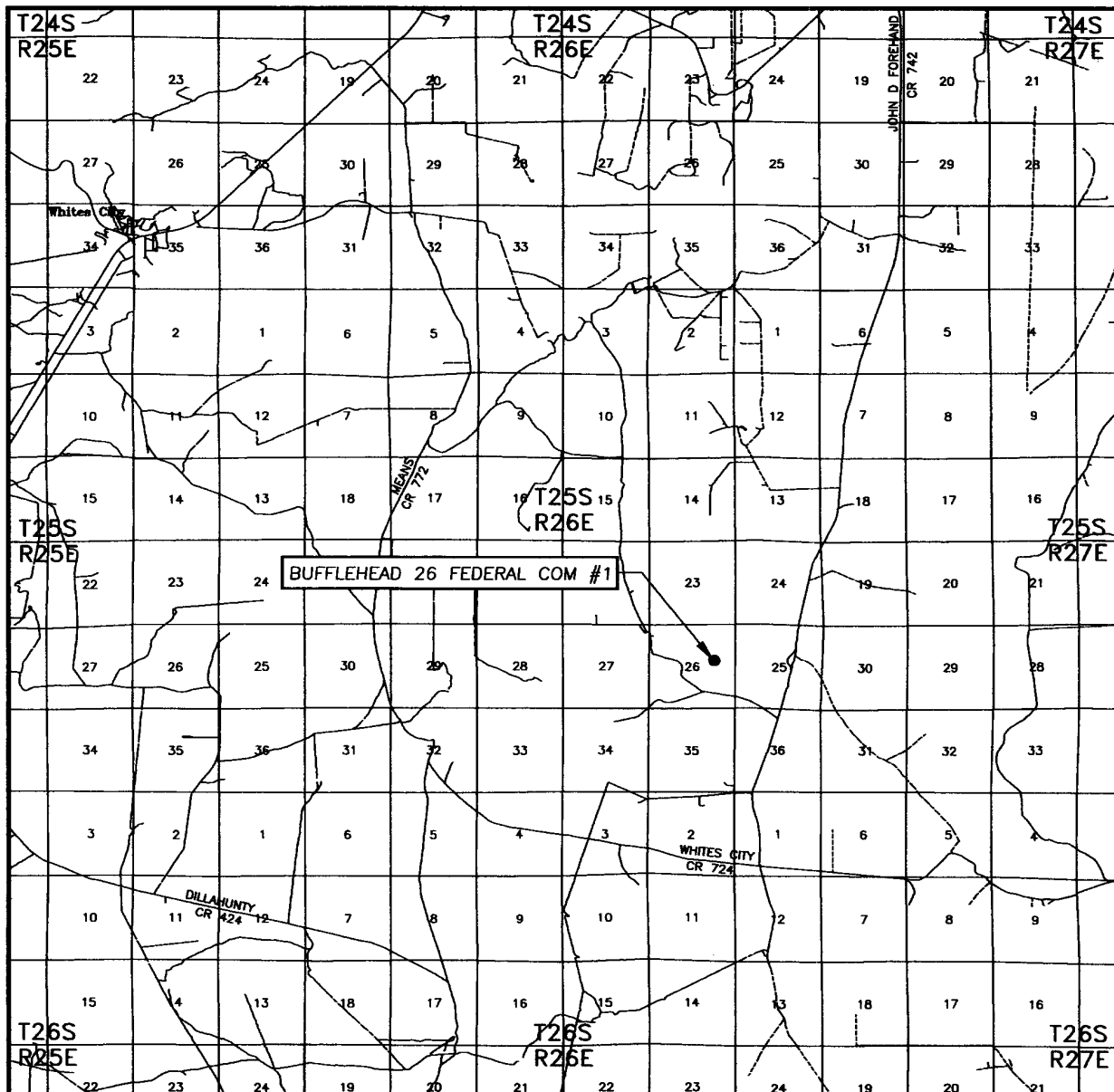


Exhibit A  
One Mile Radius Map  
Bufflehead 26 Federal Com No. 1  
Gruy Petroleum Management Co.  
SHL: Unit H-Sec 26-T25S-R26E  
2475' FNL & 1250' FEL  
BHL: Unit H-Sec 26-T25S-R26E  
1500' FNL & 1250' FEL  
Eddy County, NM

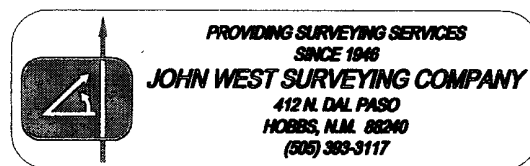
# VICINITY MAP



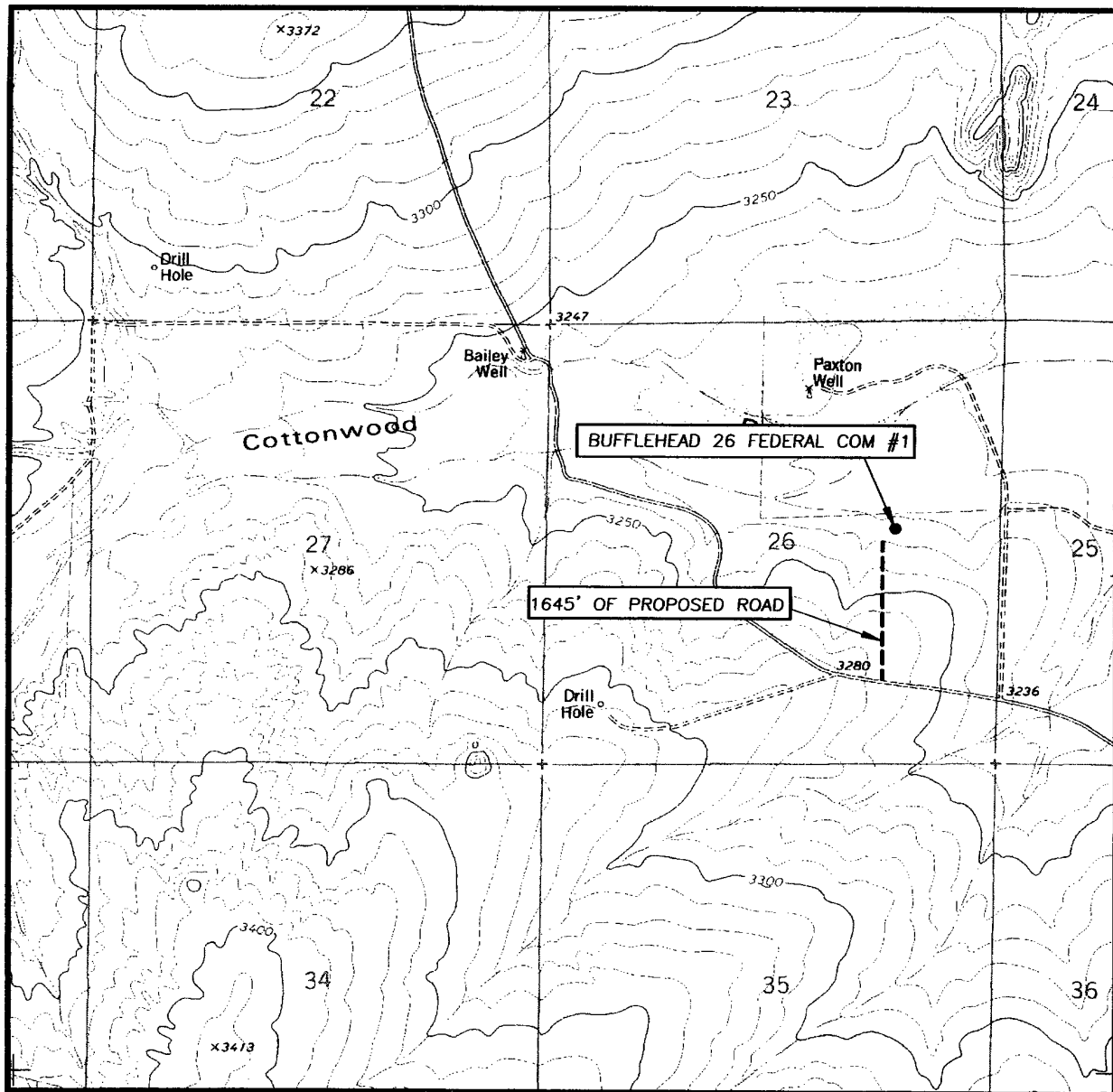
SCALE: 1" = 2 MILES

SEC. 26 TWP. 25-S RGE. 26-E  
 SURVEY N.M.P.M.  
 COUNTY EDDY  
 DESCRIPTION 2475' FNL & 1250' FEL  
 ELEVATION 3227'  
 OPERATOR GRUY PETROLEUM  
 LEASE MANAGEMENT COMPANY  
LEASE BUFFLEHEAD 26 FEDERAL COM

EXHIBIT B



# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
JUMPING SPRING, N.M. - 10'

SEC. 26 TWP. 25-S RGE. 26-E

SURVEY \_\_\_\_\_ N.M.P.M.

COUNTY \_\_\_\_\_ EDDY

DESCRIPTION 2475' FNL & 1250' FEL

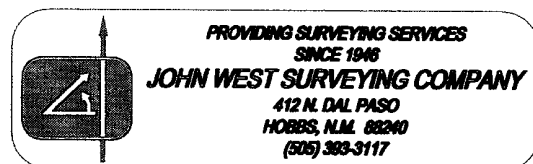
ELEVATION \_\_\_\_\_ 3227'

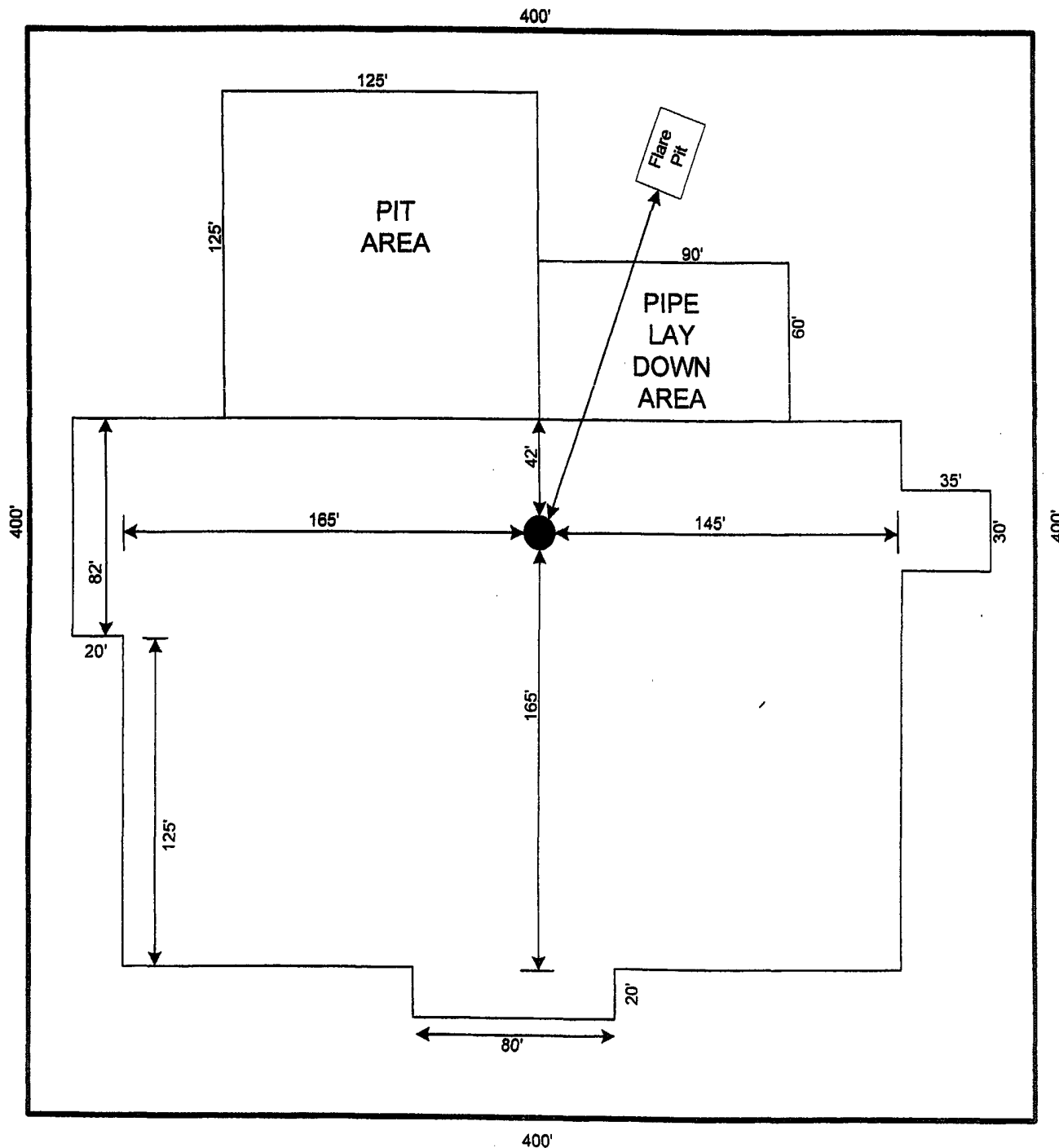
OPERATOR \_\_\_\_\_ GRUY PETROLEUM  
MANAGEMENT COMPANY

LEASE BUFFLEHEAD 26 FEDERAL COM

U.S.G.S. TOPOGRAPHIC MAP  
JUMPING SPRING, N.M.

EXHIBIT C





**RIG # 80**

GRUY PETROLEUM  
MANAGEMENT COMPANY  
IRVING TEXAS

SCALE 1"=60'

**Exhibit D**

**Rig Layout Plan**

**Bufflehead 26 Federal Com No. 1**

**Gruy Petroleum Management Co.**

**SHL: Unit H-Sec 26-T25S-R26E**

**2475' FNL & 1250' FEL**

**BHL: Unit H-Sec 26-T25S-R26E**

**1500' FNL & 1250' FEL**

**Eddy County, NM**

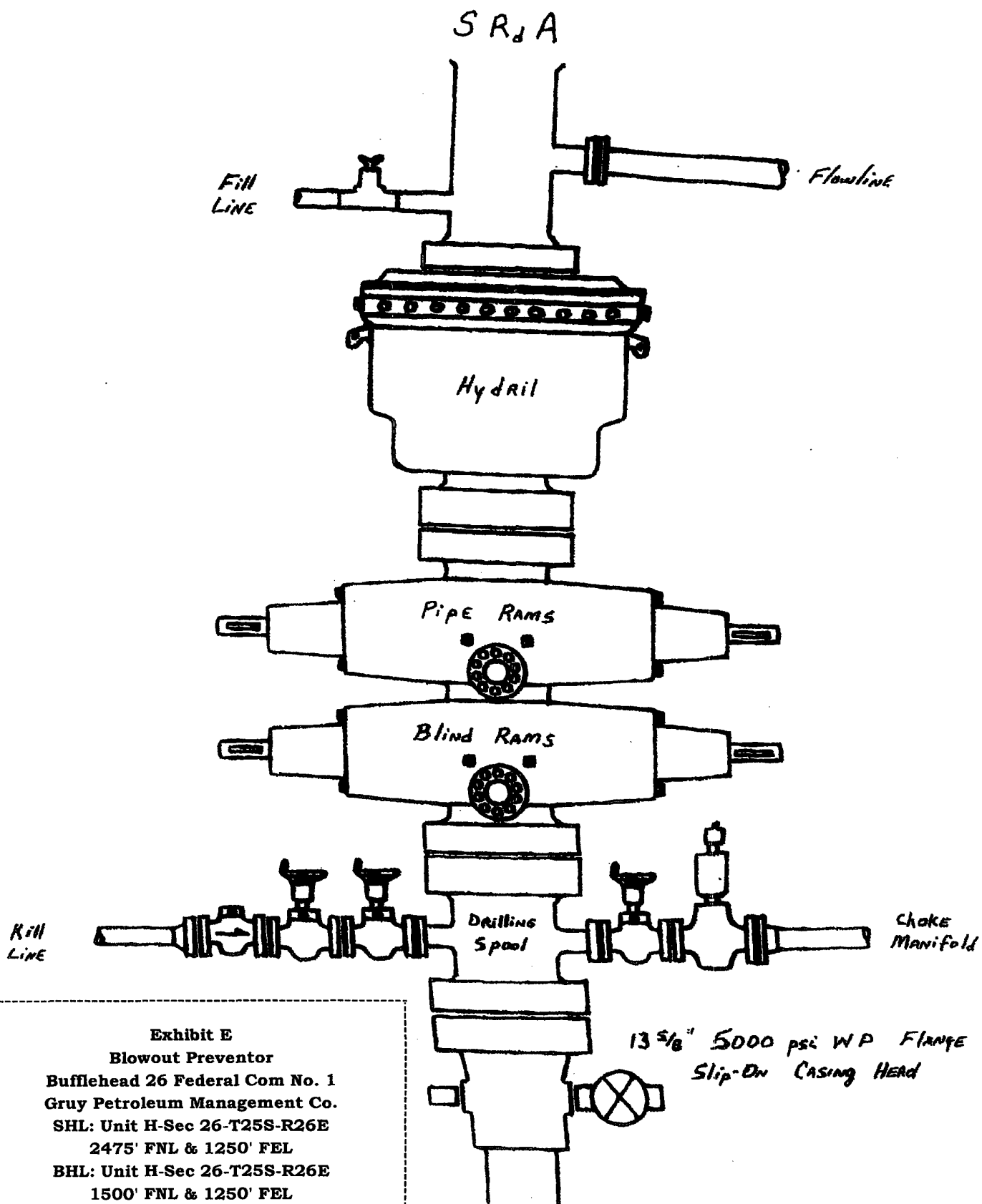
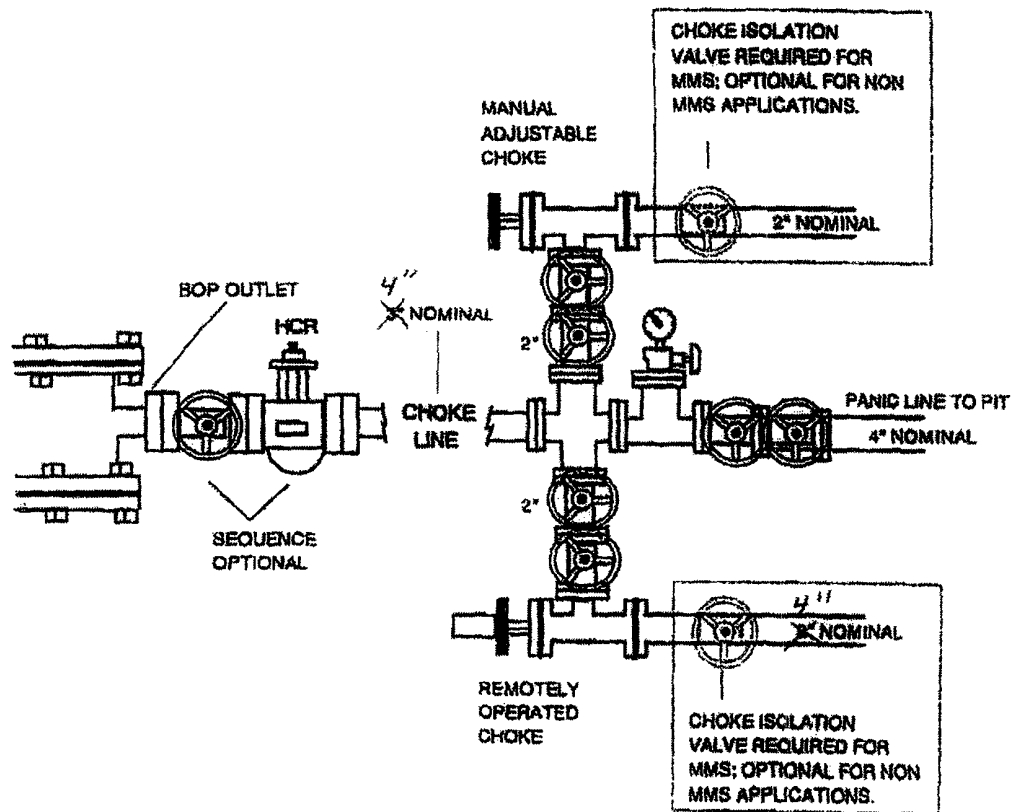


Exhibit E  
Blowout Preventor  
Bufflehead 26 Federal Com No. 1  
Gruy Petroleum Management Co.  
SHL: Unit H-Sec 26-T25S-R26E  
2475' FNL & 1250' FEL  
BHL: Unit H-Sec 26-T25S-R26E  
1500' FNL & 1250' FEL  
Eddy County, NM

**DRILLING OPERATIONS  
CHOKE MANIFOLD  
5M SERVICE**



**Exhibit E-Cont'd**  
**Blowout Preventor-Choke Manifold**  
**Bufflehead 26 Federal Com No. 1**  
**Gruy Petroleum Management Co.**  
**SHL: Unit H-Sec 26-T25S-R26E**  
**2475' FNL & 1250' FEL**  
**BHL: Unit H-Sec 26-T25S-R26E**  
**1500' FNL & 1250' FEL**  
**Eddy County, NM**