Form 3160-3
(May 1992)

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

ARTESIA

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

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

5. LEASE DESIGNATION AND SERIAL NO.
LC-028784-C

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ] 34850

1b. TYPE OF WELL
OIL WELL [ ] GAS WELL [X] OTHER SINGLE ZONE [ ] MULTIPLE ZONE [ ]

7. UNIT AGREEMENT NAME
Grayburg Deep Unit

2. NAME OF OPERATOR
Gruy Petroleum Management Co. 162683

8. FARM OR LEASE NAME, WELL NO.
Grayburg Deep Unit No. ~~19~~ 21

3. ADDRESS AND TELEPHONE NO.
P.O. Box 140907 Irving TX 75014 972-401-3111

9. API WELL NO.
30-015- 34776

RECEIVED
APR 11 2006
OCD-ARTESIA

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
1535' FNL & 1180' FEL

10. FIELD AND POOL, OR WILDCAT
Sand Tank; Morrow 84872

11. SEC. T.,R.,M., BLOCK AND SURVEY OR AREA
Sec 25-T17S-R29E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
2 miles NW of Loco Hills

12. COUNTY OR PARISH: Eddy
13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, T.O (Also to nearest drlg. unit line, if any): 1180

16. NO. OF ACRES IN LEASE: 320

17. NO. OF ACRES ASSIGNED TO THIS WELL: N/2 320

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.: 3110'

19. PROPOSED DEPTH: 11650'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3592' GR Roswell Controlled Water Basin

22. APPROX. DATE WORK WILL START*: 03-01-06

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE,SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	H-40 13-3/8"	48#	350' - 500'	490 sx circulate WITNESS
12-1/4"	J-55 9-5/8"	40#	4800'	1200 sx circulate
8-3/4"	P-110 5-1/2"	17#	11650'	1620 sx TOC 2700'

*Set surface casing 25' into the top of the Rustler, which is estimated to be between 350' and 500'.

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 0.22 psi per foot or 1500 psi, whichever is greater, but not to exceed 70% of the manufacturer's 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 psi 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.

24
SIGNED Leno Farris TITLE Mgr. Ops. Admin DATE 02-01-06

(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/ Tony J. Herrell TITLE FIELD MANAGER DATE APR 07 2006

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

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.

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, 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
	84872	Sand Tank; Morrow

Property Code	Property Name	Well Number
	GRAYBURG DEEP UNIT	19

OGRID No.	Operator Name	Elevation
162683	GRUY PETROLEUM MANAGEMENT COMPANY	3592'

Surface Location

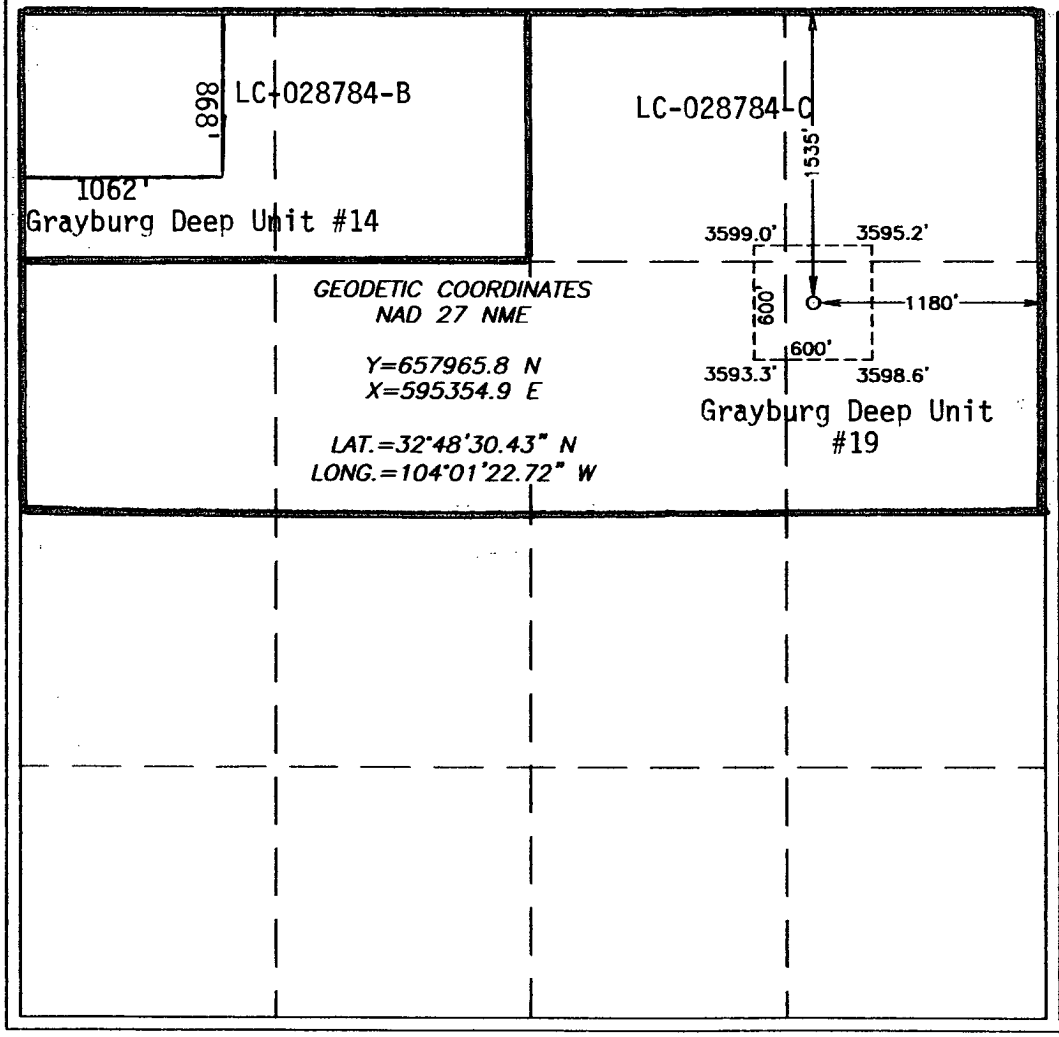
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	25	17-S	29-E		1535	NORTH	1180	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	Y	U	

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.

Zeno Farris
Signature

Zeno Farris
Printed Name

Mgr Operations Admin
Title

February 1, 2006
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.

JANUARY 16, 2006
Date Surveyed LA

Signature & Seal of Professional Surveyor

GARY G. EIDSON NEW MEXICO 12641 REGISTERED PROFESSIONAL SURVEYOR

Gary G. Eidson 1/24/06

06.11.0057

Certificate No. GARY EIDSON 12641

Gruy Petroleum Management Co.
5215 North O'Connor Blvd. • Suite 1500 • Irving, TX 75039 • (972) 401-3111 • Fax (972) 443-6487
Mailing Address: P.O. Box 140907 • Irving, TX 75014-0907
A wholly-owned subsidiary of Cimarex Energy Co., a NYSE Listed Company, "XEC"

CIMAREX

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Bureau of Land Management
620 E. Greene St.
Carlsbad, New Mexico 88220
Attn: Ms. Linda Denniston

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.: LC-028784-B – N/2 NW/4 Sec 25-T17S-R29E
LC-028784-C – NE/4, S/2 NW/4 Sec 25-T17S-R29E

County: Eddy County, New Mexico

Formation (S): Morrow

Bond Coverage: Statewide 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: February 1, 2006

Application to Drill

Gruy Petroleum Management Co.
Grayburg Deep Unit No. 19
Unit Letter H Section 25
T17S - R29E 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: 1535' FNL & 1180' FEL

2 Elevation above sea level: GR 3592'

3 Geologic name of surface formation: Quaternery 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: 11650'

6 Estimated tops of geological markers:

Yates	1100
San Andres	2700
Yeso	4200
Wolfcamp	7750
Strawn LS	10225
Morrow Clastics	10925
Miss Unc.	11225

7 Possible mineral bearing formation:

Atoka	Gas
Morrow	Gas

8 Casing program:

Hole Size	Interval	Casing OD	Weight	Thread	Collar	Grade
17 1/2"	0-500'	13 3/8"	48	8-R	ST&C	H-40
12 1/4"	0-4800'	9 5/8"	40	8-R	LT&C	J-55
7 7/8"	0-11650'	5 1/2"	17	8-R	LT&C	P-110

Application to Drill

Gruy Petroleum Management Co.
Grayburg Deep Unit No. 19
Unit Letter H Section 25
T17S - R29E Eddy County, NM

9 Cementing & Setting Depth:

13 3/8"	Surface	Set 350' to 500' of 13 3/8" H-40 48# ST&C casing to a depth of 25' into the Rustler. Cement with 490 Sx. Of Class "C" cement + additives, circulate cement to surface.
9 5/8"	Intermediate	Set 4800' of 9 5/8" J-55 40# LT&C casing. Cement lead with 1000 Sx. Of Class POZ/C Cement + additives, tail with 200 Sx. Of Class "C" + additives, circulate cement to surface.
5 1/2"	Production	Set 11650' of 5 1/2" P-110 17# LT&C casing. Cement in two stages, first stage cement with 1020 Sx. of Class POZ/C Cement + additives. Second stage cement with 600 Sx of Class "C". Estimated top of cement 2700'.

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 nippled up on the 9 5/8" 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 - 500'	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.
500' - 4800'	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.
4800' - 8300'	8.4 - 9.9	28 - 29	NC	Brine 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' - 11650'	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 casing is run and cemented.

Application to Drill

Gruy Petroleum Management Co.
Grayburg Deep Unit No. 19
Unit Letter H Section 25
T17S - R29E Eddy County, NM

12 Testing, Logging and Coring Program:

A. Mud logging program: One-man unit from 4800' to TD

B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR

C. No DSTs or cores are planned at this time.

13 Potential Hazards:

No abnormal pressures or temperatures are expected. The area has a potiential H2S hazard. An H2S drilling plan is attached. 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 175 .

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 Morrow pay will be perforated and stimulated. The well will be tested and potentialed as a gas well.

Hydrogen Sulfide Drilling Operations Plan

Gruy Petroleum Management Co.
Grayburg Deep Unit No. 19
Unit Letter H Section 25
T17S - R29E Eddy County, NM

1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:

A. Characteristics of H2S
B. Physical effects and hazards
C. Proper use of safety equipment and life support systems.
D. Principle and operation of H2S detectors, warning system and briefing
E. Evacuation procedure, routes and first aid.
F. Proper use of 30 minute pressure demand air pack.

2 H2S Detection and Alarm Systems

A. H2S detectors and audio alarm system to be located at bell nipple, end of flow line (mud pit) and on derrick floor or doghouse.

3 Windsock and/or wind streamers

A. Windsock at mudpit area should be high enough to be visible.
B. Windsock at briefing area should be high enough to be visible.

4 Condition Flags and Signs

A. Warning sign on access road to location.
B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.

5 Well control equipment

A. See exhibit "E"

6 Communication

A. While working under masks chalkboards will be used for communication.
B. Hand signals will be used where chalk board is inappropriate.
C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7 Drillstem Testing not anticipated.

8 Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.

9 If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H2S scavengers if

Surface Use Plan

Gruy Petroleum Management Co.
Grayburg Deep Unit No. 19
Unit Letter H Section 25
T17S - R29E 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 US HWY #82 AND CO RD #216 (GENERAL AMERICAN RD-APPROX 2.0 MILES WEST OF LOCO HILLS), GO SOUTH ON CO RD #216 APPROX 0.4 MILES. TURN RIGHT AND GO WEST APPROX 0.1 MILES. TURN LEFT AT Y INTERSECTION AND GO SOUTHWEST APPROX 0.1 MILES. THIS LOCATION IS APPROX 200 FEET SOUTH.

2 PLANNED ACCESS ROADS: No new access road will be constructed.

3 LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A"

A. Water wells - None known

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.
Grayburg Deep Unit No. 19
Unit Letter H Section 25
T17S - R29E 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.

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.

Gruy Petroleum Management Co.
Grayburg Deep Unit No. 19
Unit Letter H Section 25
T17S - R29E Eddy County, NM

11 OTHER INFORMATION:

A. Topography consists of a sloping plane with loose tan sands. Vegetation is mainly yucca, mesquite and shin oak.

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 farming, 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. The Taylor residence NW/4 of the location is within 1 1/2 miles of this location.

12 OPERATORS REPRESENTATIVE:

Gruy Petroleum Management Company
P.O. Box 140907
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 exit; 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 is 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.

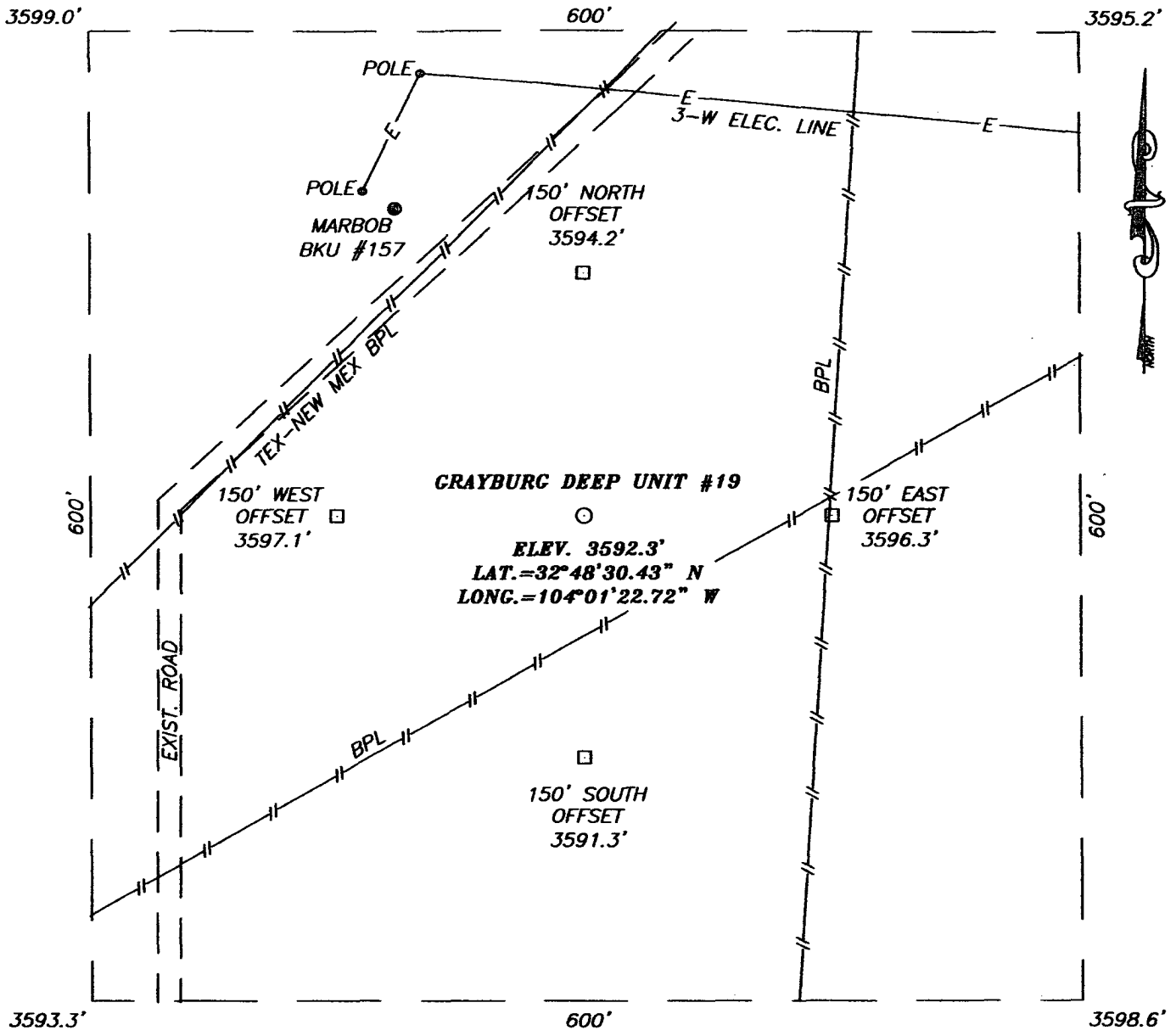
NAME: Zeno Farris

DATE: 2/1/2006

TITLE: Manager, Operations Administration

SECTION 25, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY. #82 AND CO. RD. #216 (GENERAL AMERICAN RD.) (APPROX. 2.0 MILES WEST OF LOCO HILLS) GO SOUTH ON CO. RD. #216 APPROX. 0.4 MILES. TURN RIGTH AND GO WEST APPROX. 0.1 MILES. TURN LEFT AT "Y" INTERSECTION AND GO SOUTHWEST APPROX. 0.1 MILES. THIS LOCATION IS APPROX. 200 FEET SOUTH.

100 0 100 200 Feet

Scale:1"=100'

PROVIDING SURVEYING SERVICES SINCE 1968

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO

HOBBS, N.M. 88240

(505) 393-3117

GRUY PETROLEUM MANAGEMENT COMPANY

GRAYBURG DEEP UNIT #19 WELL
LOCATED 1535 FEET FROM THE NORTH LINE
AND 1180 FEET FROM THE EAST LINE OF SECTION 25,
TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 1/16/06	Sheet 1 of 1 Sheets		
W.O. Number: 06.11.0057	Dr By: LA		Rev 1:N/A
Date: 1/19/06	Disk: CD#5	06110057	Scale:1"=100'

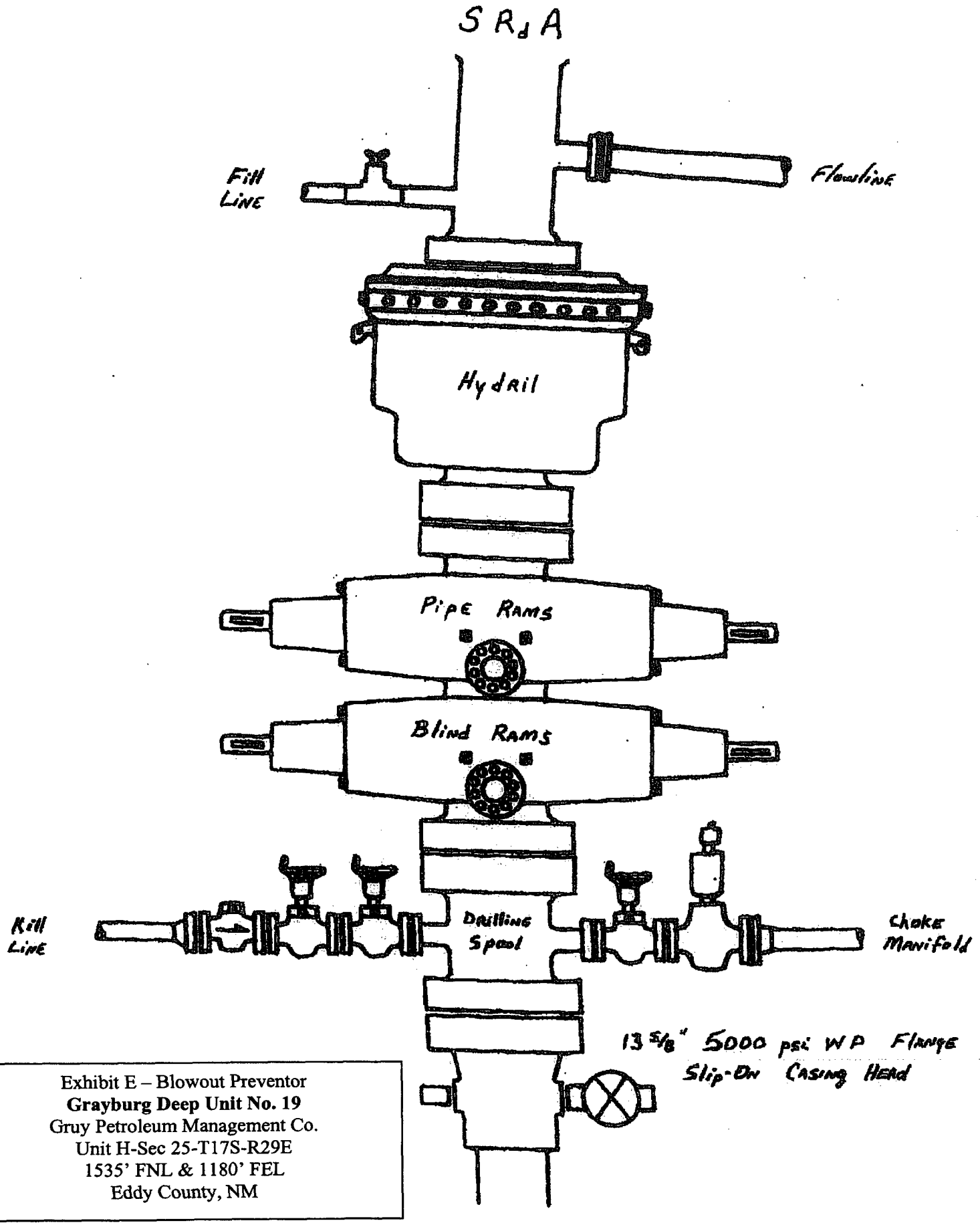


Exhibit E – Blowout Preventor
Grayburg Deep Unit No. 19
Gruy Petroleum Management Co.
Unit H-Sec 25-T17S-R29E
1535' FNL & 1180' FEL
Eddy County, NM

DRILLING OPERATIONS
CHOKE MANIFOLD
5M SERVICE

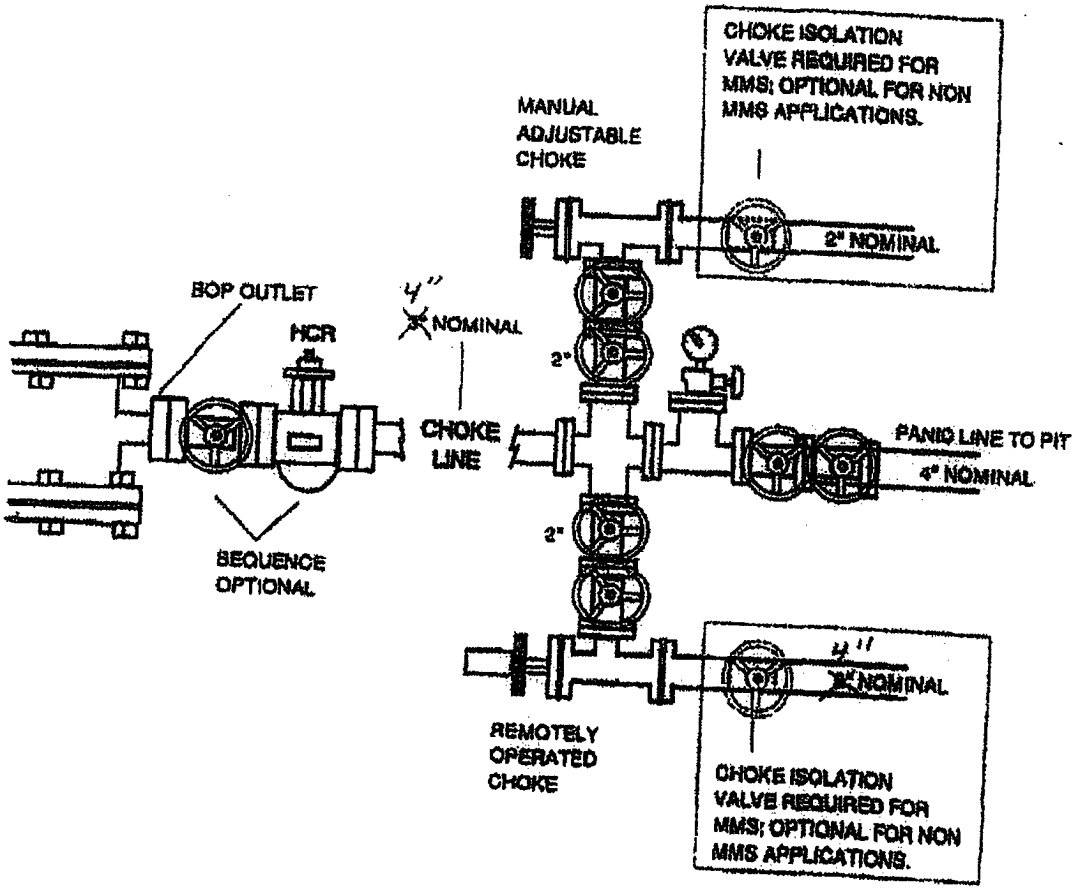


Exhibit E1 – Choke Manifold Diagram
Grayburg Deep Unit No. 19
Gruy Petroleum Management Co.
Unit H-Sec 25-T17S-R29E
1535' FNL & 1180' FEL
Eddy County, NM

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Gruy Petroleum Management Company **Well No.:** ~~19~~ 21 - Grayburg Deep Unit
Location: 1535' FNL & 1180' FEL sec. 25, T. 17 S., R. 29 E.
Lease: LC-028784(c)

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at (505) 234-5972 in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: 13-3/8 inch 9-5/8 inch 5-1/2 inch

C. BOP tests

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Include the API No. assigned to well by NMOCD on the subsequent report of setting the first casing string.

4. A Hydrogen Sulfide Contingency Plan should be activated prior to drilling in the **Yates** formation. A copy of the plan shall be posted at the drilling site.

II. CASING:

1. 13-3/8 inch surface casing string should be set **at approximately 355 feet in the top 25 feet of the Rustler Anhydrite**, below usable water and circulate cement to the surface. If cement does not circulate to the surface the Carlsbad Field Office shall be notified at (505) 234-5972 and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. Minimum required fill of cement behind the 9-5/8 inch intermediate casing string is **sufficient to circulate to the surface.**

3. Minimum required fill of cement behind the 5-1/2 inch production casing string is **sufficient to tie back 500 feet above the uppermost perforation in the pay zone.**

III. PRESSURE CONTROL:

1. Before drilling below the 13-3/8 inch surface casing string, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve. Before drilling below the 9-5/8 inch intermediate casing string, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve.

2. Before drilling below the 13-3/8 inch surface casing string, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **2000** psi. Before drilling below the 9-5/8 inch intermediate casing string, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be **5000** psi.

CONDITIONS OF APPROVAL - DRILLING (CONTINUED)

Operator's Name: Gruy Petroleum Management Company Well No.: 21 (BW) - Grayburg Deep Unit
Location: 1535' FNL & 1180' FEL sec. 25, T. 17 S., R. 29 E.
Lease: LC-028784(c)

3. After setting the **9-5/8** inch intermediate casing string and before drilling into the **Wolfcamp** formation, the BOPE shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

A. The Carlsbad Field Office shall be notified at (505) 234-5972 in sufficient time for a representative to witness the tests.

B. The tests shall be done by an independent service company.

C. The results of the test shall be reported to the BLM Carlsbad Field Office at 620 East Greene Street, Carlsbad, New Mexico 88220-6292.

D. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.

E. Testing must be done in a safe workman like manner. Hard line connections shall be required.

F. A variance to test the BOPE to a reduced pressure of **1000** psi using the rig pumps before drilling below the **13-3/8** inch surface casing string is approved.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

A. Recording pit level indicator to indicate volume gains and losses.

B. Flow-sensor on the flow-line to warn of abnormal mud returns from the well.