

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Div-Dist. 2
1301 W. Grand Avenue
Artesia, NM 87003
(Other instructions on reverse side)

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

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		6. LEASE DESIGNATION AND SERIAL NO. LC 028793-A	
1b. TYPE OF WELL OIL <input type="checkbox"/> GAS <input checked="" type="checkbox"/> WELL <input type="checkbox"/> WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE <input checked="" type="checkbox"/> MULTIPLE <input type="checkbox"/>		7. UNIT AGREEMENT NAME Grayburg Deep Unit NM 70954X	
2. NAME OF OPERATOR Gruy Petroleum Management Co.		8. FARM OR LEASE NAME, WELL NO. Grayburg Deep Unit No. 17 34852	
3. ADDRESS AND TELEPHONE NO. P.O. Box 140907 Irving TX 75014 972-401-3111		9. API WELL NO. 30-015-34214	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements) SHL 1990' FSL & 445' FWL Sec. 17-17S-30E BHL 2300' FSL & 660' FWL Sec 17-17S-30E 26 miles East of Artesia		10. FIELD AND POOL, OR WILDCAT Empire Morrow South 76400	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*		11. SEC. T., R., M., BLOCK AND SURVEY OR AREA Sec. 17 T17S R30E	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, T.O. (Also to nearest drig. unit line, if any) 445'		12. COUNTY OR PARISH Eddy	
16. NO. OF ACRES IN LEASE 320		13. STATE NM	
17. NO. OF ACRES ASSIGNED TO THIS WELL S/2 320		18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. N/A	
19. PROPOSED DEPTH 12500'		20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3623' GR		22. APPROX. DATE WORK WILL START* 06-15-05	

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 #	350' - 500' WITNESS	490 sx circulate
12-1/4"	P-110/N-80 9 5/8"	40 #	4000'	1200 sx circulate
7-7/8"	P-110 5 1/2"	17 #	12500'	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 .22 psi per foot or 1500#, 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#, and we 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.

SIGNED Zeno Farris TITLE Mgr. Ops. Admin DATE 04-25-05

(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/ James Stovall TITLE FOR FIELD MANAGER DATE MAY 26 2005

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

NSL
29.5 set

Reswell 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

Form C-144
March 12, 2004

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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: Grady 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: Grayburg Deep Unit No. 17 API #: _____ U/L or Qtr/Qtr^L _____ Sec 17 T 17S R 30E
County: Eddy Latitude 324905.29N Longitude 1040103.7W 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 <u>12</u> 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)
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) -0-	

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MAY 02 2005

DOB-ARTECO

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: 04-27-05

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.

Approved: MAY 3 2005

Date: _____

Printed Name/Title _____

Signature [Signature]



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

June 7, 2005

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

Gruy Petroleum Management, Company

P. O. Box 140907

Irving, Texas 75039

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JUN 10 2005

ODD-ARTESIA

Attention: Zeno Farris

Re: *Administrative application dated May 23, 2005 (administrative application reference No. pMES0-515842966) for Gruy Petroleum Management Company's proposed Grayburg Deep Unit Well No. 17 to be directionally drilled from a surface location 1990 feet from the South line and 445 feet from the West line (Lot 3/Unit L) of Section 19, Township 17 South, Range 30 East, NMPM, Eddy County, New Mexico, to a depth of 11,400 feet to test the Atoka and Morrow formations within the SW/4 equivalent of Section 19, to a targeted bottom-hole location at a point 2300 feet from the South line and 660 feet from the West line (Lot 3/Unit L) of Section 19.*

Dear Mr. Farris:

The Division requires well location exception requests be considered for good cause shown and with reasonable supporting documentation and evidence. Your application provided nothing but the statements: (i) that the location "was chosen for geological and reservoir purposes;" and (ii) "during staking we moved the well south and west to get away from nearby residence."

Reviewing your request at face value, i.e. without geological and surface topo maps, cross-sections, a detailed geological summary, and assuming no other factors, there is no apparent reason why this well cannot be moved to the southeast that meets the required standard setback requirements for deep gas wells in southeast New Mexico.

Therefore, your application for administrative approval for the above-described unorthodox deep Atoka and Morrow gas well location is hereby **denied** and is being returned to you at this time.

The conservation rules in all oil and gas producing states governing well spacing and the placement of these wells within such drilling tracts and proration units have been enacted to promote the orderly development of that states valuable oil and gas resources by preventing waste, protecting correlative rights, and preventing the drilling of unnecessary wells. It is very easy to get into a mode of thinking that considers these rules as minor inconveniences and applications for exceptions as "open and shut" issues. I have enclosed a packet of information containing guidelines for such well location exceptions.

Sincerely,

Michael E. Stogner
Engineer

cc: New Mexico Oil Conservation Division – Artesia
U. S. Bureau of Land Management – Carlsbad



PMESD-515842966

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

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May 23, 2005

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe New Mexico 87505
Attn: Mr. Michael Stogner

Re: Unorthodox Well Location Application
Grayburg Deep Unit No. 17
SHL 1990 FSL 445' FWL
BHL 2300' FSL & 660' FWL
S/2 Section 19 17S-30E
Sand Tank Morrow (Wildcat) (10700' Top)
Penetration Point of Top of Morrow: 2150' FSL & 552' FWL
Sand Tank Atoka (Wildcat) (10500' Top)
Penetration of Top of Atoka: 2087' FSL & 523' FWL
Eddy County New Mexico

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MAY 2 2005

Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

Dear Mr. Stogner:

Gruy has recently proposed its Grayburg Deep Unit No. 17 well to be directionally drilled to a depth of 11,400, as a Sand Tank Morrow/Atoka test. Our original proposed SHL of 2300' FSL & 660' FWL was chosen for geological and reservoir purposes and is unorthodox as the Anderson Penn well in the NW/4 19-17S-30E. During staking we moved the well south and west to get away from a nearby residence. A permit has been submitted with a SHL of 1990' FSL & 445' FWL and a BHL of 2300' FSL & 660' FWL. Formation tops were correlated from offset well logs and it is estimated the Atoka will be penetrated at 2087' FSL & 523' FWL and the Morrow will be penetrated at 2150' FSL & 552' FWL. Both penetration points are unorthodox as to the north and west setbacks.

All proration units are within the boundaries of the Grayburg Deep Unit operated by Conoco Phillips. Gruy has an agreement with Conoco Phillips to drill this well. We are requesting administrative approval of the above unorthodox locations for the proposed Atoka/Morrow tests. Upon successful completion of a producer Gruy will amend the NSL order to reflect the actual formation tops and setbacks of any successful completion. In accordance with Rule 1207.A. (2), (b) we are enclosing spacing plats and tabulations of the affected spacing units, in addition to proof of notification.

If you have any questions or require additional information concerning this matter, please contact me at 972-443-6489.

Yours truly,

Zeno Farris

Zeno Farris
Manager, Operations Administration

Cc: N.M.O.C.D. - Artesia

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

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name Sand Tank; Morrow
Property Code	Property Name GRAYBURG DEEP UNIT	Well Number 17
OGRID No. 162683	Operator Name GRUY PETROLEUM MANAGEMENT COMPANY	Elevation 3623'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	19	17-S	30-E		1990	SOUTH	445	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
L	19	17-S	30-E		2300	SOUTH	660	WEST	EDDY

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

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

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MAY 2 2005

Oil Conservation Division
1220 S. St Francis Drive
Santa Fe, NM 87505

GEODETIC COORDINATES
NAD 27 NME
BOTTOM HOLE LOCATION
Y=661814.7 N
X=597182.0 E

Penetration Point Morrow-10700'
2150' FSL & 552' FWL

Penetration Point Atoka-10500'
2087' FSL & 523' FWL

Grayburg Deep Unit #20
1980'

Grayburg Deep Unit #17

DETAIL
3623.6' 3624.8' 3620.8' 3622.0'

GEODETIC COORDINATES
NAD 27 NME
SURFACE LOCATION
Y=661494.2 N
X=596968.0 E
LAT.=32°49'05.29" N
LONG.=104°01'03.70" W

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
Manager Operations Admin
Title
May 11, 2005
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

MARCH 30, 2005

Date Surveyed
Signature & Seal of Professional Surveyor
GARY E. BUDSON
05.11.05
Certificate No. GARY BUDSON 12641

Diagram labels: BOTTOM HOLE, 660', 445', GRID AZ. = 33°43'27", HD = 385.4', SURF. LOCATION SEE DETAIL, 1990', 2300', 600', 600', 1310'.

DISTRICT II

1201 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

OIL CONSERVATION DIVISION

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name Sand Tank; Atoka
Property Code	Property Name GRAYBURG DEEP UNIT	Well Number 17
OGRID No. 162683	Operator Name GRUY PETROLEUM MANAGEMENT COMPANY	Elevation 3623'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	19	17-S	30-E		1990	SOUTH	445	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
L	19	17-S	30-E		2300	SOUTH	660	WEST	EDDY
Dedicated Acres 320	Joint or Infill Y	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

<p>GEODETIC COORDINATES NAD 27 NME BOTTOM HOLE LOCATION Y=661814.7 N X=597182.0 E</p> <p>Penetration Point Morrow-10700' 2150' FSL & 552' FWL</p> <p>Penetration Point Atoka-10500' 2087' FSL & 523' FWL</p> <p>Grayburg Deep Unit #20 1980'</p> <p>Grayburg Deep Unit #17</p> <p>DETAIL 3623.6' 3624.8' 600' 3620.8' 3622.0' 600'</p> <p>GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=661494.2 N X=596968.0 E LAT.=32°49'05.29" N LONG.=104°01'03.70" W</p>		<p>OPERATOR CERTIFICATION</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> Signature Zeno Farris Printed Name Manager Operations Admin Title May 11, 2005 Date</p> <p>SURVEYOR CERTIFICATION</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>MARCH 30, 2005</p> <p>Date Surveyed Signature & Seal of Professional Surveyor Professional Surveyor NEW MEXICO 05.11.05 Certificate No. GARY EIDSON 12641</p>
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List of Offset SPU's
GRUY PETROLEUM MANAGEMENT CO.
Grayburg Deep Unit 17
Sand Tank Morrow Atoka/Morrow (Gas) Pool

<u>OFFSET SPU</u>	<u>COLOR CODE</u>	<u>Well Name</u>	<u>Location</u>	<u>OPERATOR</u>	<u>ACERAGE DESCRIPTION</u>	<u>ACRES</u>
1	Green	Grayburg Deep Unit 10 Anderson Penn	C-19-17-30	Conoco Phillips Company	NW/4 Sec. 19 T-17S-R-30E	160
2	Blue	Proposed Grayburg Deep Unit 18 Proposed Grayburg Deep Unit 16 Sand Tank Morrow	A-24-17-29 O-24-17-29	Conoco Phillips Company	E/2 Sec. 24 T-17S-R-29E	320
3	Purple	Proposed Grayburg Deep Unit 17 Sand Tank Morrow	L-19-17-30	Conoco Phillips Company	S/2 Sec. 19 T-17S-R-30E	320

7002 1000 0005 3428 3328

CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$ 0.60
Certified Fee	2.30
Return Receipt Fee (Endorsement Required)	1.75
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 4.65

Sent To: Conoco Phillips Company
505 Westlake Park Blvd.
WL3 Room 5050
Houston, TX 77079
Attn: Ms. Linda Hicks

Postmark: MAY 2005
L/S COLINAS STA IRVING TX 75014
USPS

7002 1000 0005 3428 3348

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$ 0.60
Certified Fee	2.30
Return Receipt Fee (Endorsement Required)	1.75
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 4.65

Sent To: EOG Resources, Inc.
4000 North Big Spring, Suite 500
Midland, TX 79702
Attn: Mr. Mike Mullins

Postmark: MAY 2005
L/S COLINAS STA IRVING TX 75014
USPS

7002 1000 0005 3428 3331

CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

OFFICIAL USE

Postage	\$ 0.60
Certified Fee	2.30
Return Receipt Fee (Endorsement Required)	1.75
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 4.65

Sent To: Davoil, Inc.
6300 Ridglea Place, Suite 1208
Fort Worth, TX 76116-5738

Postmark: MAY 2005
L/S COLINAS STA IRVING TX 75014
USPS

7002 1000 0005 3428 3348

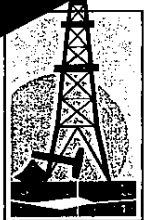
U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

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Postage	\$ 0.60
Certified Fee	2.30
Return Receipt Fee (Endorsement Required)	1.75
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 4.65

Sent To: Great Western Drilling Company
700 West Louisiana
Midland, TX 79702
Attn: Mr. Mike Heathington

Postmark: MAY 2005
L/S COLINAS STA IRVING TX 75014
USPS



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., an American Stock Exchange company

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Bureau of Land Management
2909 West 2nd 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.: LC-028793-A

Legal Description: S/2 Sec 19, T17S-R30E
Containing 320.00 acres, Lea County New Mexico

Formation (S): Morrow

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: 04/27/05

Application to Drill

Gruy Petroleum Management Co.
Grayburg Deep Unit No. 17
Unit Letter L Section 19
T17S - R30E 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 1990' FSL & 445' FWL Sec. 19- 17S-30E
BHL 2300' FSL & 660' FWL Sec. 19-17S-30E
- 2 Elevation above sea level: GR 3623'
- 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: 12500'
- 6 Estimated tops of geological markers:

Rustler	500'
San Andres	3400
Wolfcamp	8200'
Atoka	10200'
Morrow	10800'
- 7 Possible mineral bearing formation:

Grayburg/San Andres	Oil
Atoka	Gas
Morrow	Gas
- 8 Casing program:

Hole Size	Interval	Casing OD	Weight	Thread	Collar	Grade
17 1/2"	0-500'	13 3/8"	54.5	8-R	ST&C	J-55
12 1/4"	0-4000'	9 5/8"	40	8-R	ST&C	P-110/N-80
7 7/8"	0-12500'	5 1/2"	17	8-R	ST&C	P-110

Application to Drill

Gruy Petroleum Management Co.
Grayburg Deep Unit No. 17
Unit Letter L Section 19
T17S - R30E Eddy County, NM

9 Cementing & Setting Depth:

13 3/8"	Surface	Set 350' to 500' of 13 3/8" J-55 54.5 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 4000' of 9 5/8" P-110/N-80 40# ST&C casing Cement in two stages, first stage cement with 1000 Sx. Of Class POZ/C Cement + additives, second stage cement with 200 Sx. Of Class "C" + additives, circulate cement to surface.
5 1/2"	Production	Set 12500' of 5 1/2" P-110 17# ST&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 nipples 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' - 4000'	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.
4000' - 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' - 12500'	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. 17
Unit Letter L Section 19
T17S - R30E 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 are expected. The area has a potential 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 potentialized as a gas well.

Hydrogen Sulfide Drilling Operations Plan

- 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.

Hydrogen Sulfide Drilling Operations Plan

- 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 separator will be brought into service along with H₂S scavengers if

Surface Use Plan

Gruy Petroleum Management Co.
Grayburg Deep Unit No. 17
Unit Letter L Section 19
T17S - R30E 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 Hwy 82 and General American Road West of Loco Hills go South 0.1 miles. Turn left and go East 0.1 miles. Proposed well is 200' South of road.
- 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. 17
Unit Letter L Section 19
T17S - R30E 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.
Grayburg Deep Unit No. 17
Unit Letter L Section 19
T17S - R30E 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.
Grayburg Deep Unit No. 17
Unit Letter L Section 19
T17S - R30E 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 14097
Irving, TX 75014
Office Phone: (972) 443-6489
Zeno Farris

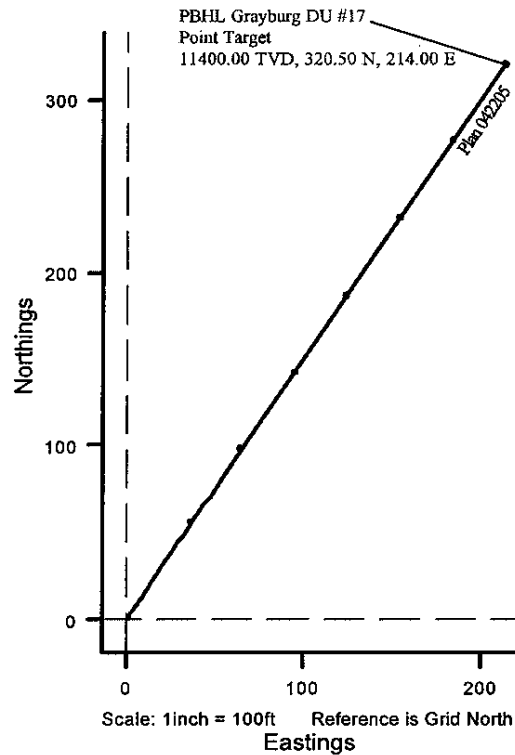
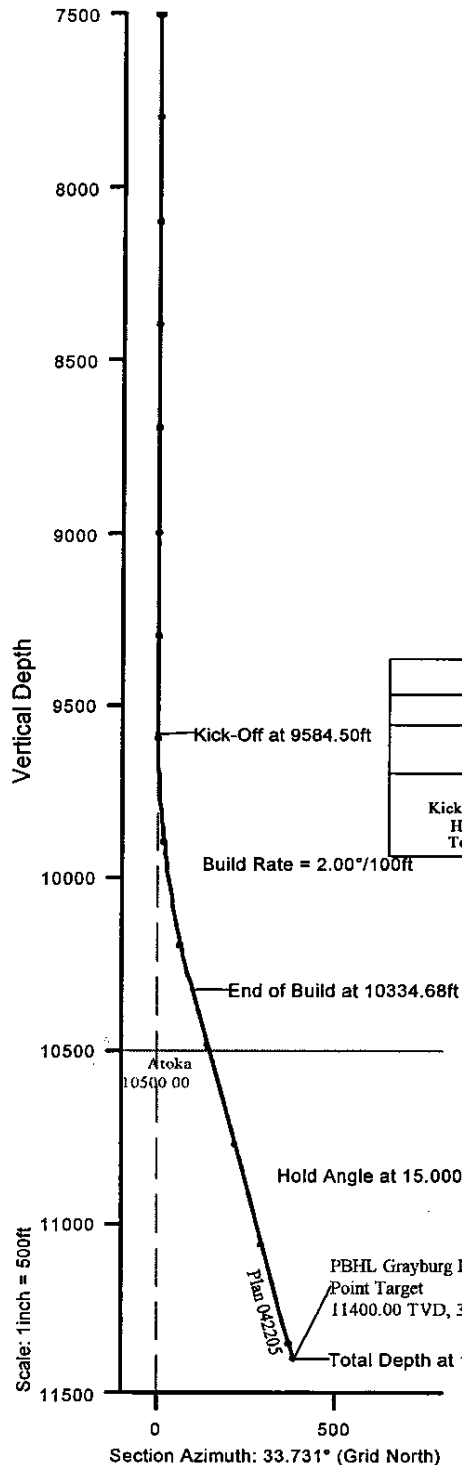
- 13 **CERTIFICATION:** I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Gruy Petroleum Management Company and/or its contractors/subcontractors and 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: 4/27/2005

TITLE: Manager, Operations Administration

**New Mexico
Eddy County
Sec. 19-T17S-R30E
Grayburg Deep Unit17
Plan 042205**



Plan 042205 Proposal Data							
Coordinate System : NAD27 New Mexico State Planes, Eastern Zone							
Measured Depth	Incl.	Azim.	Vertical Depth	Northings	Eastings	Vertical Section	Dogleg Rate
Kick-Off Point	0.00	0.000	0.00	0.00 N	0.00 E	0.00	0.00
Kick-Off Point	9584.50	0.000	9584.50	0.00 N	0.00 E	0.00	0.00
Hold Angle	10334.68	15.000	33.731	10326.14	81.20 N	54.22 E	97.64
Total Depth	11446.42	15.000	33.731	11400.00	320.50 N	214.00 E	385.38

Grayburg Deep Unit17 Surface Location	
RKB Elevation:	3643.00ft above Mean Sea Level
Ref. Global Coordinates:	661494.20 N, 596968.00 E
Ref. Geographical Coordinates:	32° 49' 05.2944" N, 104° 01' 03.6981" W

Plan 042205 Bottom Hole Location	
Ref. RKB(3623'+20'KB):	11400.00ft
Ref. Structure:	7757.00ft
Ref. Wellhead:	320.50 N, 214.00 E
Ref. Global Coordinates:	661814.70 N, 597182.00 E
Ref. Geographical Coordinates:	32° 49' 08.4595" N, 104° 01' 01.1792" W

Prepared by: Dennis Cook Date/Time: 22 April, 2005 - 10:31 Checked: Approved:



Gruy Petroleum Management Co.
New Mexico
Eddy County
Sec. 19-T17S-R30E
Grayburg Deep Unit17 - Plan 042205

Sperry Drilling Services Proposal Report

22 April, 2005

Data Source: Mr Tom Strother

Proposal Ref: pro8408

Prepared by: Dennis Cook
Checked by:
Approved by:

HALLIBURTON
Sperry Drilling Services

HALLIBURTON**Sperry Drilling Services****Gruy Petroleum Management Co.**
New Mexico
Eddy County**Proposal Report for Sec. 19-T17S-R30E - Grayburg Deep Unit17 - Plan 042205**
Data Source: Mr Tom Strother

Measured Depth (ft)	Incl.	Grid Azim.	Sub-Sea Depth (ft)	Vertical Depth (ft)	Local Coordinates		Global Coordinates		Dogleg Rate (°/100ft)	Vertical Section	Comment
					Northings (ft)	Eastings (ft)	Northings (ft)	Eastings (ft)			
0.00	0.000	0.000	-3643.00	0.00	0.00 N	0.00 E	661494.20 N	596968.00 E		0.00	
9584.50	0.000	0.000	5941.50	9584.50	0.00 N	0.00 E	661494.20 N	596968.00 E	0.00	0.00	Kick-Off at 9584.50ft
9600.00	0.310	33.731	5957.00	9600.00	0.03 N	0.02 E	661494.23 N	596968.02 E	2.00	0.04	
9700.00	2.309	33.731	6056.97	9699.97	1.94 N	1.29 E	661496.14 N	596969.29 E	2.00	2.33	
9800.00	4.309	33.731	6156.80	9799.80	6.74 N	4.50 E	661500.94 N	596972.50 E	2.00	8.10	
9900.00	6.308	33.731	6256.36	9899.36	14.43 N	9.64 E	661508.63 N	596977.64 E	2.00	17.35	
10000.00	8.308	33.731	6355.55	9998.55	25.01 N	16.70 E	661519.21 N	596984.70 E	2.00	30.07	
10100.00	10.307	33.731	6454.22	10097.22	38.46 N	25.68 E	661532.66 N	596993.68 E	2.00	46.24	
10200.00	12.307	33.731	6552.28	10195.28	54.76 N	36.57 E	661548.96 N	597004.57 E	2.00	65.85	
10300.00	14.306	33.731	6649.59	10292.59	73.90 N	49.35 E	661568.10 N	597017.35 E	2.00	88.87	
10334.68	15.000	33.731	6683.14	10326.14	81.20 N	54.22 E	661575.40 N	597022.22 E	2.00	97.64	End of Build at 10334.68ft
10400.00	15.000	33.731	6746.23	10389.23	95.26 N	63.61 E	661589.46 N	597031.61 E	0.00	114.54	
10500.00	15.000	33.731	6842.83	10485.83	116.79 N	77.98 E	661610.99 N	597045.98 E	0.00	140.43	
10514.67	15.000	33.731	6857.00	10500.00	119.94 N	80.09 E	661614.14 N	597048.09 E	0.00	144.22	Atoka
10600.00	15.000	33.731	6939.42	10582.42	138.31 N	92.35 E	661632.51 N	597060.35 E	0.00	166.31	
10700.00	15.000	33.731	7036.01	10679.01	159.83 N	106.72 E	661654.03 N	597074.72 E	0.00	192.19	
10800.00	15.000	33.731	7132.60	10775.60	181.36 N	121.10 E	661675.56 N	597089.10 E	0.00	218.07	
10900.00	15.000	33.731	7229.20	10872.20	202.88 N	135.47 E	661697.08 N	597103.47 E	0.00	243.95	
11000.00	15.000	33.731	7325.79	10968.79	224.41 N	149.84 E	661718.61 N	597117.84 E	0.00	269.84	
11100.00	15.000	33.731	7422.38	11065.38	245.93 N	164.21 E	661740.13 N	597132.21 E	0.00	295.72	
11200.00	15.000	33.731	7518.97	11161.97	267.46 N	178.58 E	661761.66 N	597146.58 E	0.00	321.60	
11300.00	15.000	33.731	7615.57	11258.57	288.98 N	192.96 E	661783.18 N	597160.96 E	0.00	347.48	
11400.00	15.000	33.731	7712.16	11355.16	310.51 N	207.33 E	661804.71 N	597175.33 E	0.00	373.36	
11446.42	15.000	33.731	7757.00	11400.00	320.50 N	214.00 E	661814.70 N	597182.00 E	0.00	385.38	Total Depth at 11446.42ft Target - PBHL Grayburg DU #17, Current Target

All data is in Feet (US) unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to RKB(3623'+20'KB). Northings and Eastings are relative to Wellhead.

HALLIBURTON**Sperry Drilling Services****Gruy Petroleum Management Co.**
New Mexico
Eddy County**Proposal Report for Sec. 19-T17S-R30E - Grayburg Deep Unit17 - Plan 042205**
Data Source: Mr Tom Strother

Global Northings and Eastings are relative to NAD27 New Mexico State Planes, Eastern Zone.

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from Wellhead and calculated along an Azimuth of 33.731° (Grid).

Based upon Minimum Curvature type calculations, at a Measured Depth of 11446.42ft.,
The Bottom Hole Displacement is 385.38ft., in the Direction of 33.731° (Grid).**Comments**

Measured Depth (ft)	Station Coordinates			Comment
	TVD (ft)	Northings (ft)	Eastings (ft)	
9584.50	9584.50	0.00 N	0.00 E	Kick-Off at 9584.50ft
10334.68	10326.14	81.20 N	54.22 E	End of Build at 10334.68ft
11446.42	11400.00	320.50 N	214.00 E	Total Depth at 11446.42ft

Formation Tops

Formation Plane (Below Well Origin)		Profile Penetration Point			
Sub-Sea (ft)	Dip Angle	Measured Depth (ft)	Vertical Depth (ft)	Sub-Sea Depth (ft)	Formation Name
6857.00	0.000	10514.67	10500.00	6857.00	80.09 E Atoka

HALLIBURTON

Sperry Drilling Services

Gruy Petroleum Management Co.
New Mexico
Eddy County**Proposal Report for Sec. 19-T17S-R30E - Grayburg Deep Unit17 - Plan 042205**
Data Source: Mr Tom Strother**Targets associated with this wellpath**

Target Name	Target Entry Coordinates			Target Shape	Target Type
	TVD (ft)	Northings (ft)	Eastings (ft)		
PBHL Grayburg DU #17	11400.00	320.50 N	214.00 E	Point	Current Target
	7757.00	661814.70 N	597182.00 E		
	Mean Sea Level/Global Coordinates: Geographical Coordinates:		32° 49' 08.4595" N 104° 01' 01.1792" W		

North Reference Sheet for Sec. 19-T17S-R30E - Grayburg Deep Unit17

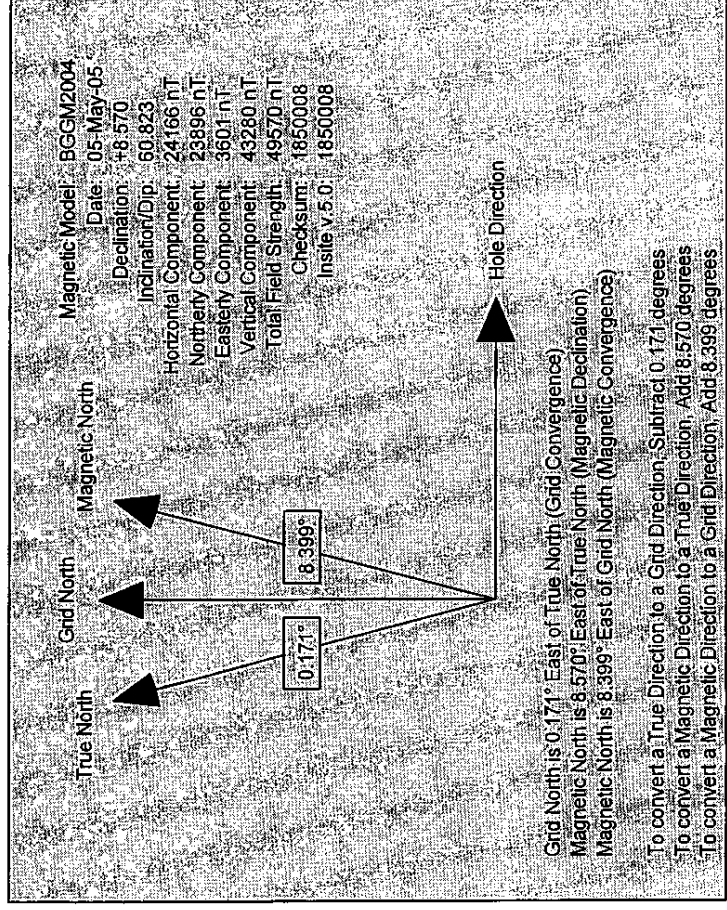
Coordinate System is NAD27 New Mexico State Planes, Eastern Zone, US Foot
Source: Snyder, J.P., 1987, Map Projections - A Working Manual

Datum is North American Datum of 1927 (US48, AK, HI, and Canada)

Spheroid is Clarke - 1886
Equatorial Radius: 6378206.400m.
Polar Radius: 6356583.800m.
Inverse Flattening: 294.978698213901

Projection method is Transverse Mercator or Gauss Kruger Projection
Central Meridian is -104.333°
Longitude Origin: 0.000°
Latitude Origin: 31.000°
False Easting: 152400.00m
False Northing: 0.00m
Scale Reduction: 0.99980909

Grid Coordinates of Well: 661494.20 N, 596968.00 E
Geographical Coordinates of Well: 32° 49' 05.2944" N, 104° 01' 03.6981" W
Surface Elevation of Well: 3643.00ft
Grid Convergence at Surface is +0.171°
Magnetic Convergence at Surface is -8.399° (5 May, 2005)



DISTRICT I

1625 N. FRENCH DR., HOBBES, NM 86240

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised JUNE 10, 2003

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION

Submit to Appropriate District Office

1220 SOUTH ST. FRANCIS DR.

State Lease - 4 Copies

Fee Lease - 3 Copies

Santa Fe, New Mexico 87505

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1625 S. ST. FRANCIS DR., SANTA FE, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
		Empire; Morrow, South
Property Code	Property Name	Well Number
	GRAYBURG DEEP UNIT	17
OGRID No. 162683	Operator Name GRUY PETROLEUM MANAGEMENT COMPANY	Elevation 3623'

Surface Location

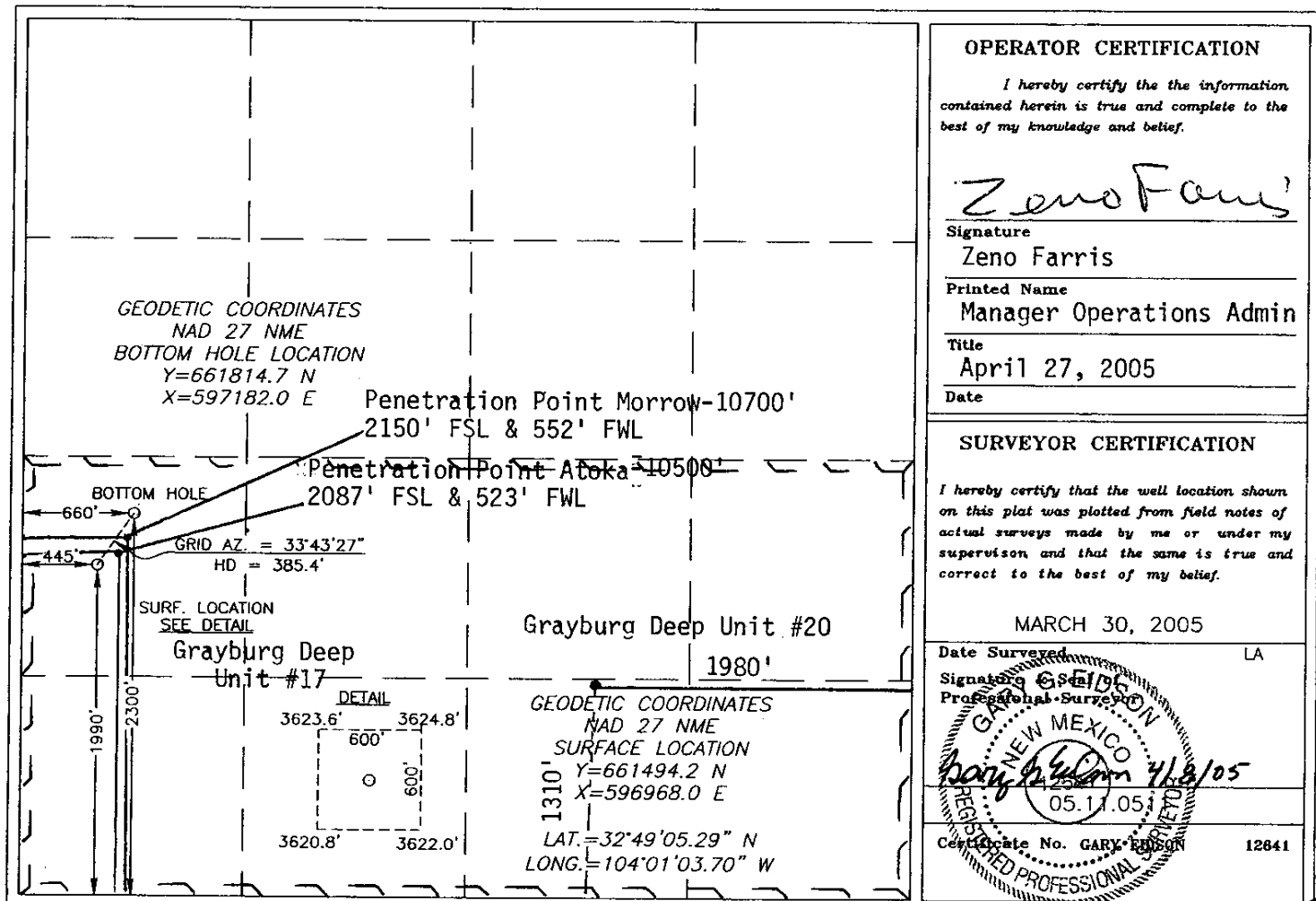
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
13	19	17-S	30-E		1990	SOUTH	445	WEST	EDDY

Bottom Hole Location If Different From Surface

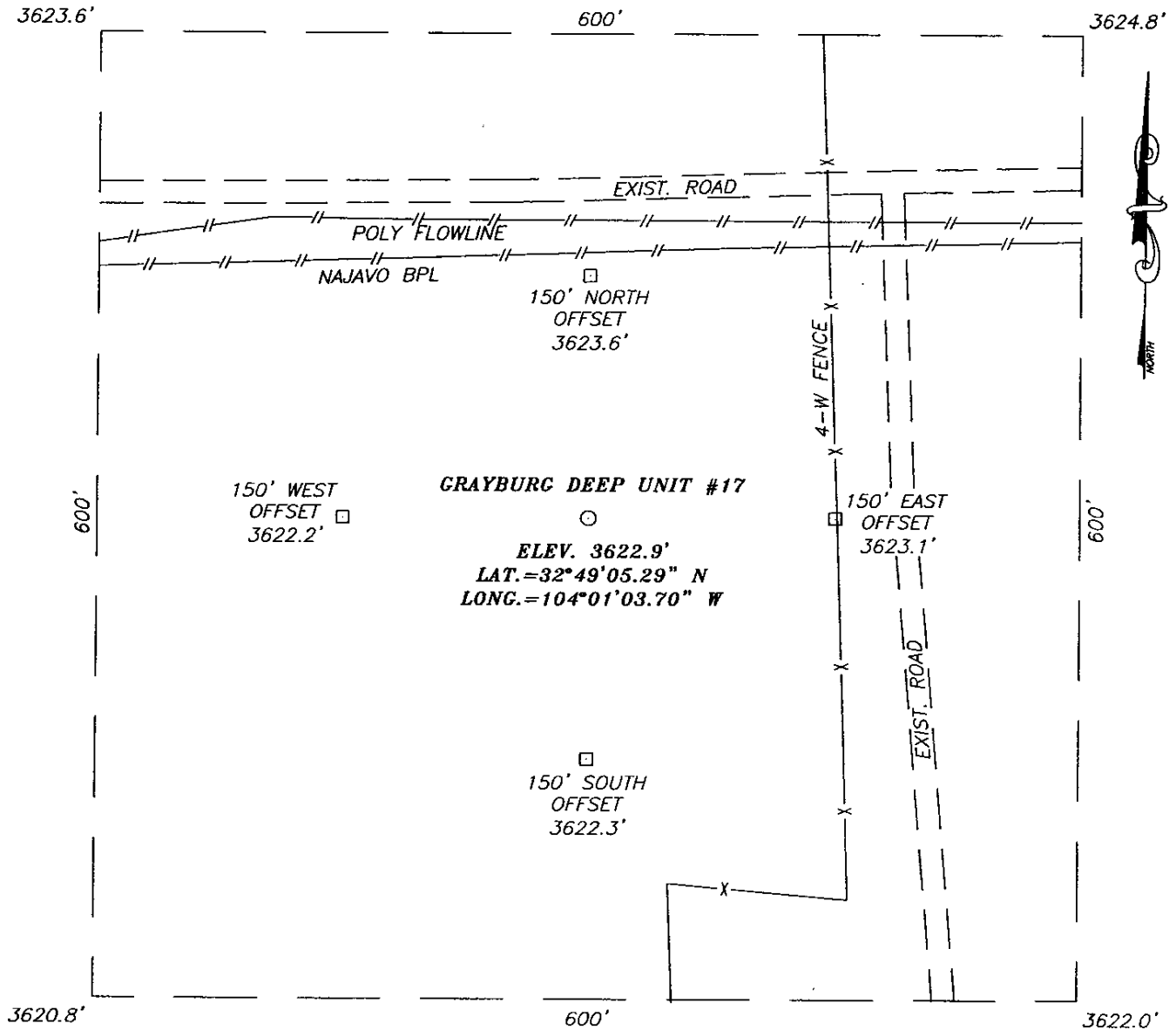
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
13	19	17-S	30-E		2300	SOUTH	660	WEST	EDDY

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

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

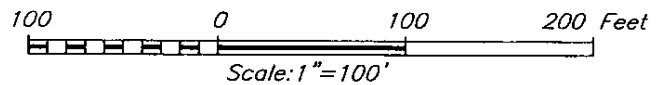


SECTION 19, TOWNSHIP 17 SOUTH, RANGE 30 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HIGHWAY #82 AND GENERAL AMERICAN ROAD WEST OF LOCO HILLS GO SOUTH 0.1 MILES. TURN LEFT AND GO EAST 0.1 MILES. PROPOSED WELL IS 200' SOUTH OF ROAD.



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

GRUY PETROLEUM MANAGEMENT COMPANY

GRAYBURG DEEP UNIT #17 WELL
 LOCATED 1990 FEET FROM THE SOUTH LINE
 AND 445 FEET FROM THE WEST LINE OF SECTION 19,
 TOWNSHIP 17 SOUTH, RANGE 30 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO.

Survey Date: 3/30/05	Sheet 1 of 1 Sheets
W.O. Number: 05.11.0511	Dr By: LA
Date: 4/06/05	Disk: CD#4
05110511	Scale: 1"=100'

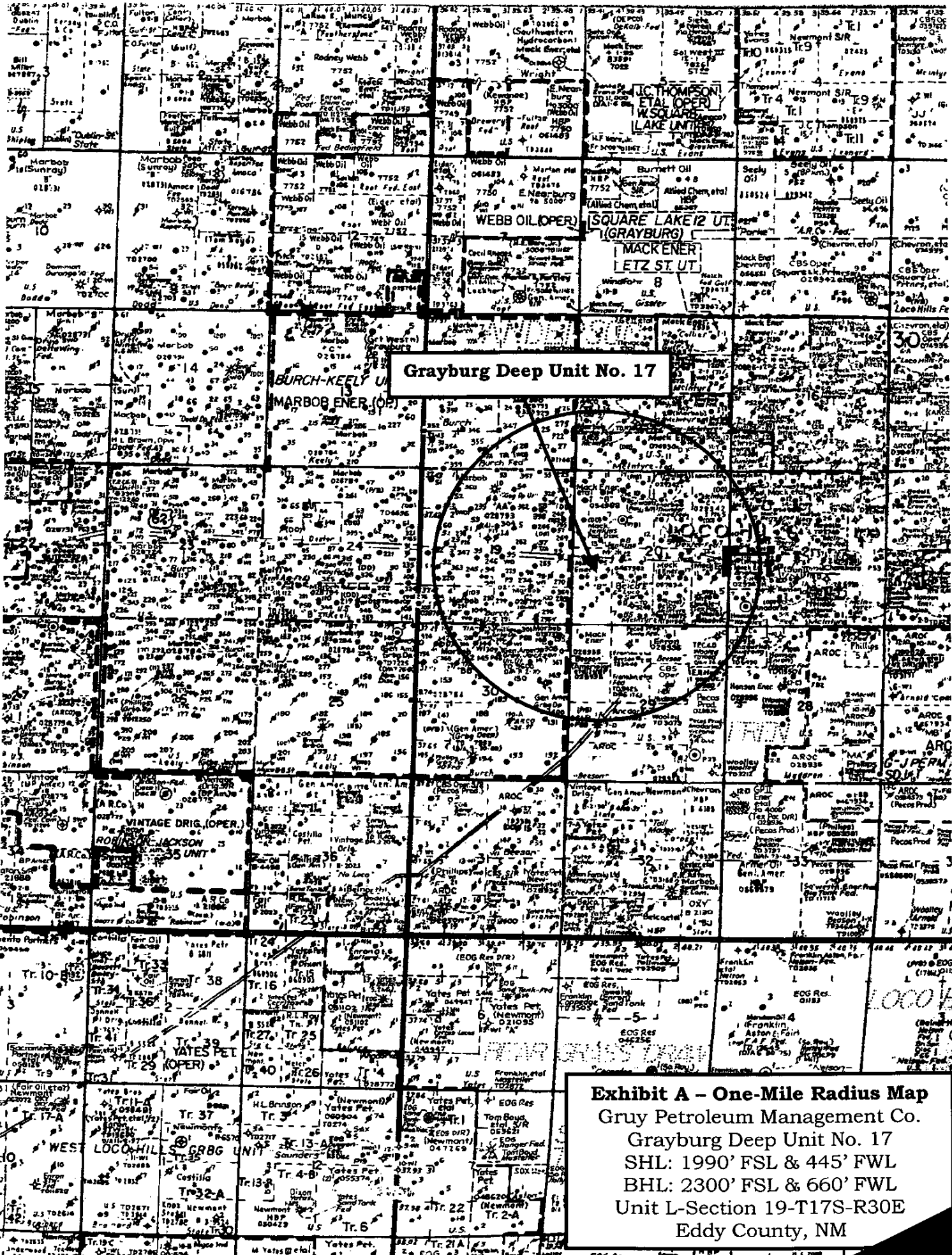
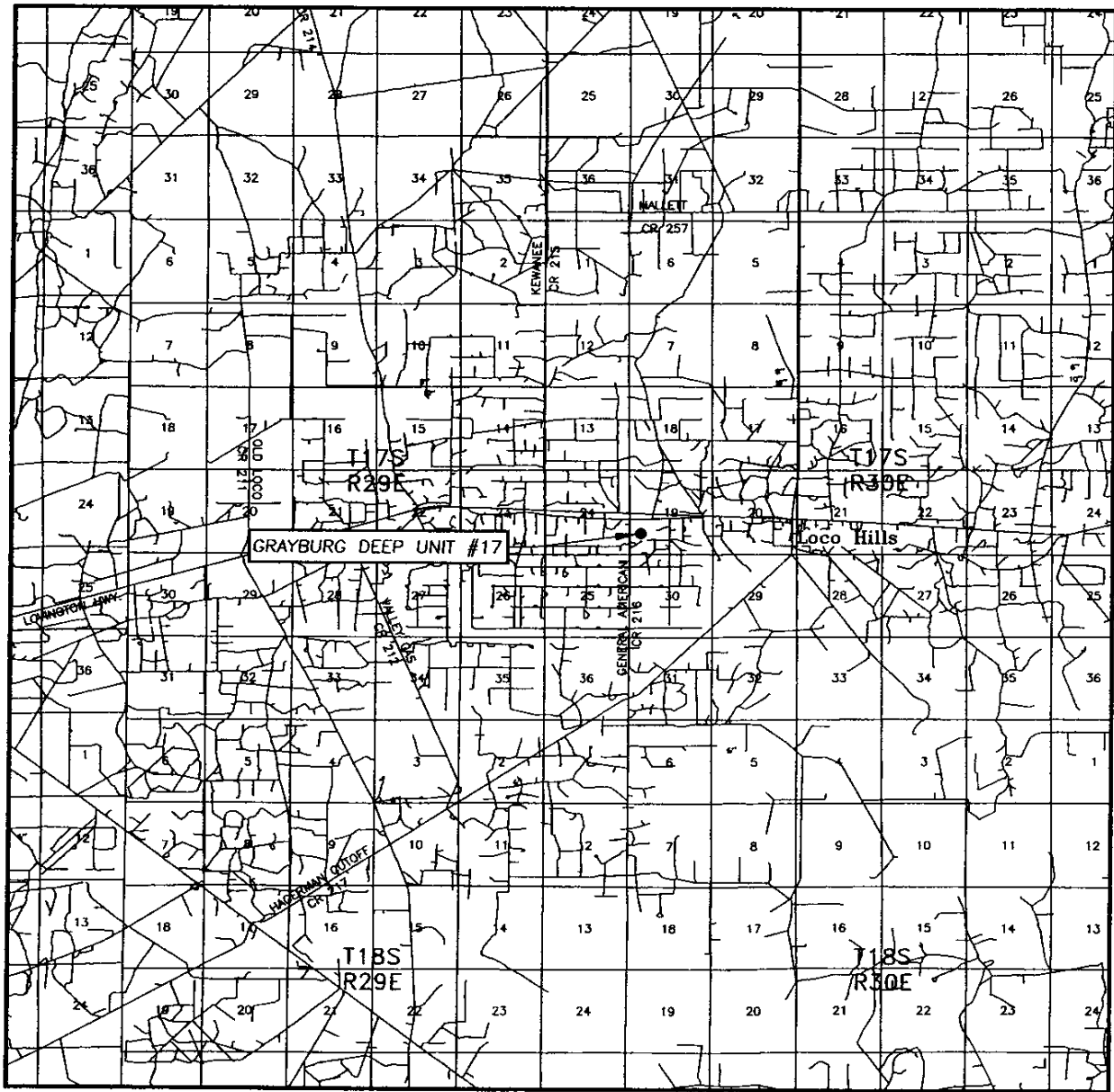


Exhibit A - One-Mile Radius Map
Gruy Petroleum Management Co.
Grayburg Deep Unit No. 17
SHL: 1990' FSL & 445' FWL
BHL: 2300' FSL & 660' FWL
Unit L-Section 19-T17S-R30E
Eddy County, NM

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 19 TWP. 17-S RGE. 30-E
 SURVEY N.M.P.M.
 COUNTY EDDY
 DESCRIPTION 1990' FSL & 445' FWL
 ELEVATION 3623'
 OPERATOR GRUY PETROLEUM MANAGEMENT COMPANY
 LEASE GRAYBURG DEEP UNIT

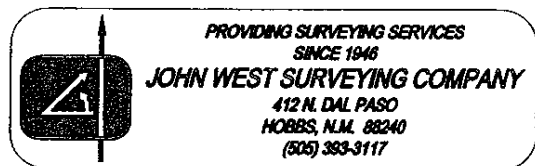
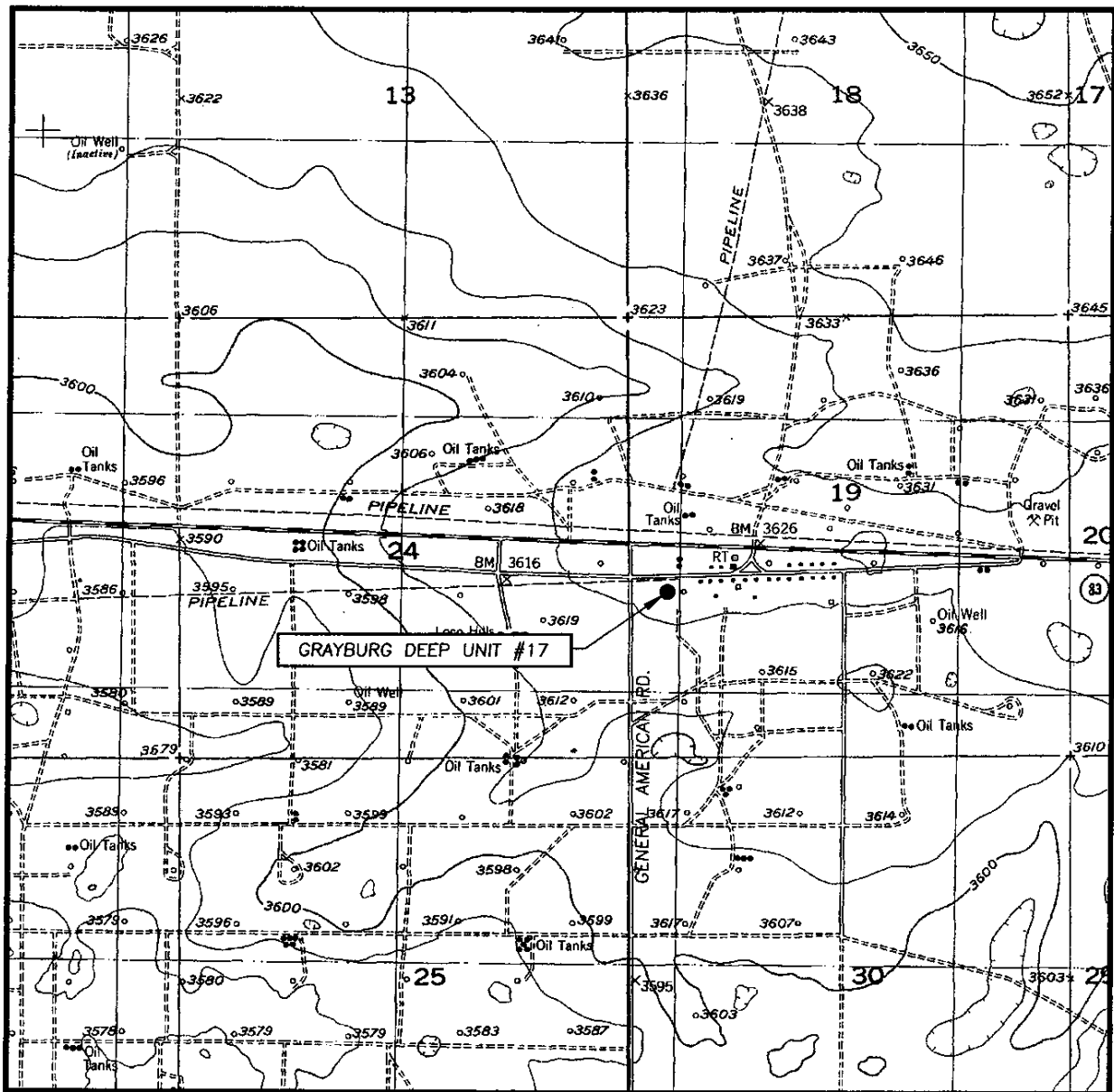


Exhibit B

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
REDLAKE SE, N.M. - 10'

SEC. 19 TWP. 17-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1990' FSL & 445' FWL

ELEVATION 3623'

OPERATOR GRUY PETROLEUM
MANAGEMENT COMPANY

LEASE GRAYBURG DEEP UNIT

U.S.G.S. TOPOGRAPHIC MAP
REDLAKE SE, N.M.

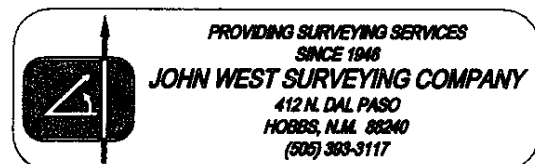
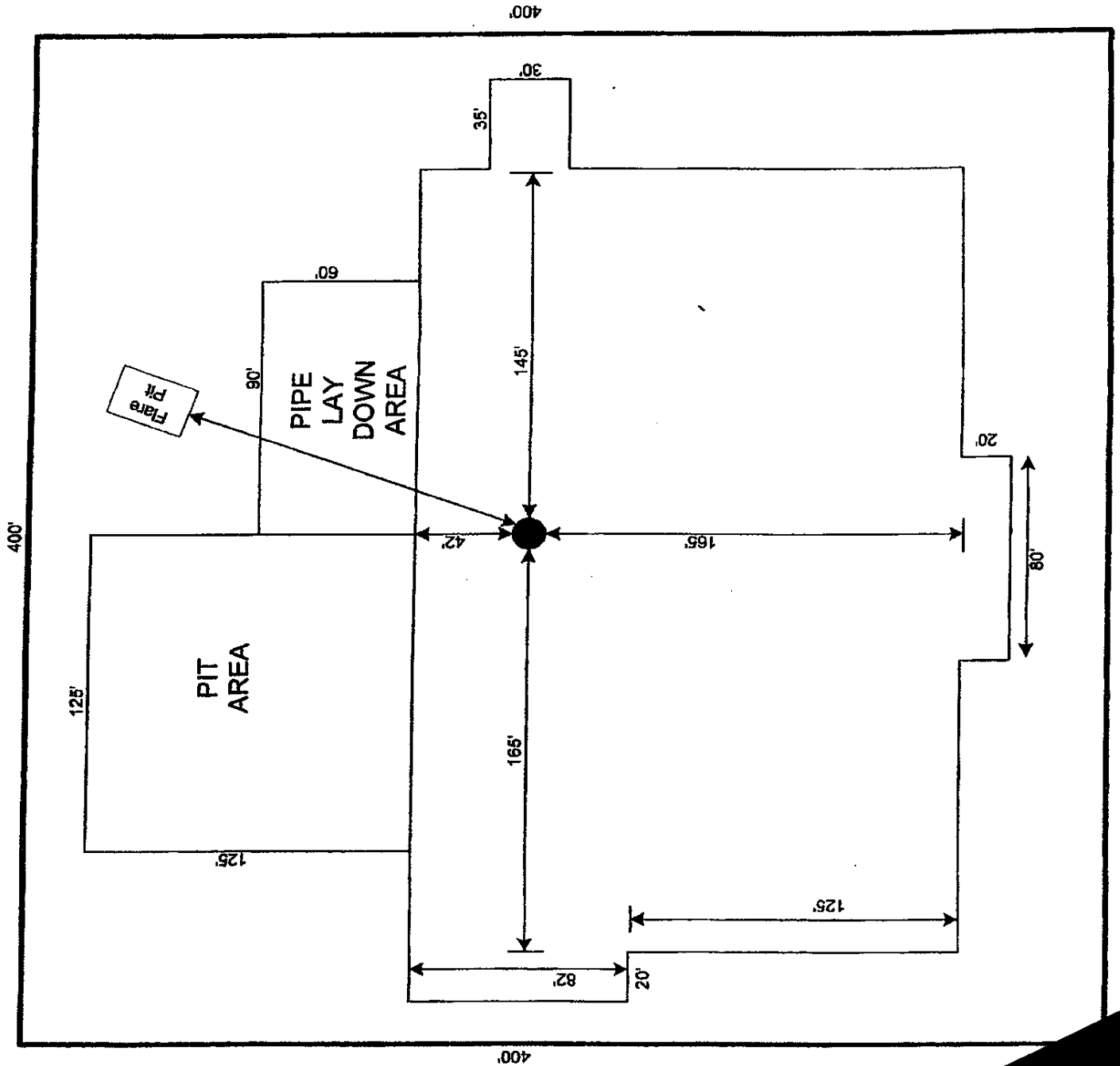


Exhibit C

Eddy County, NM



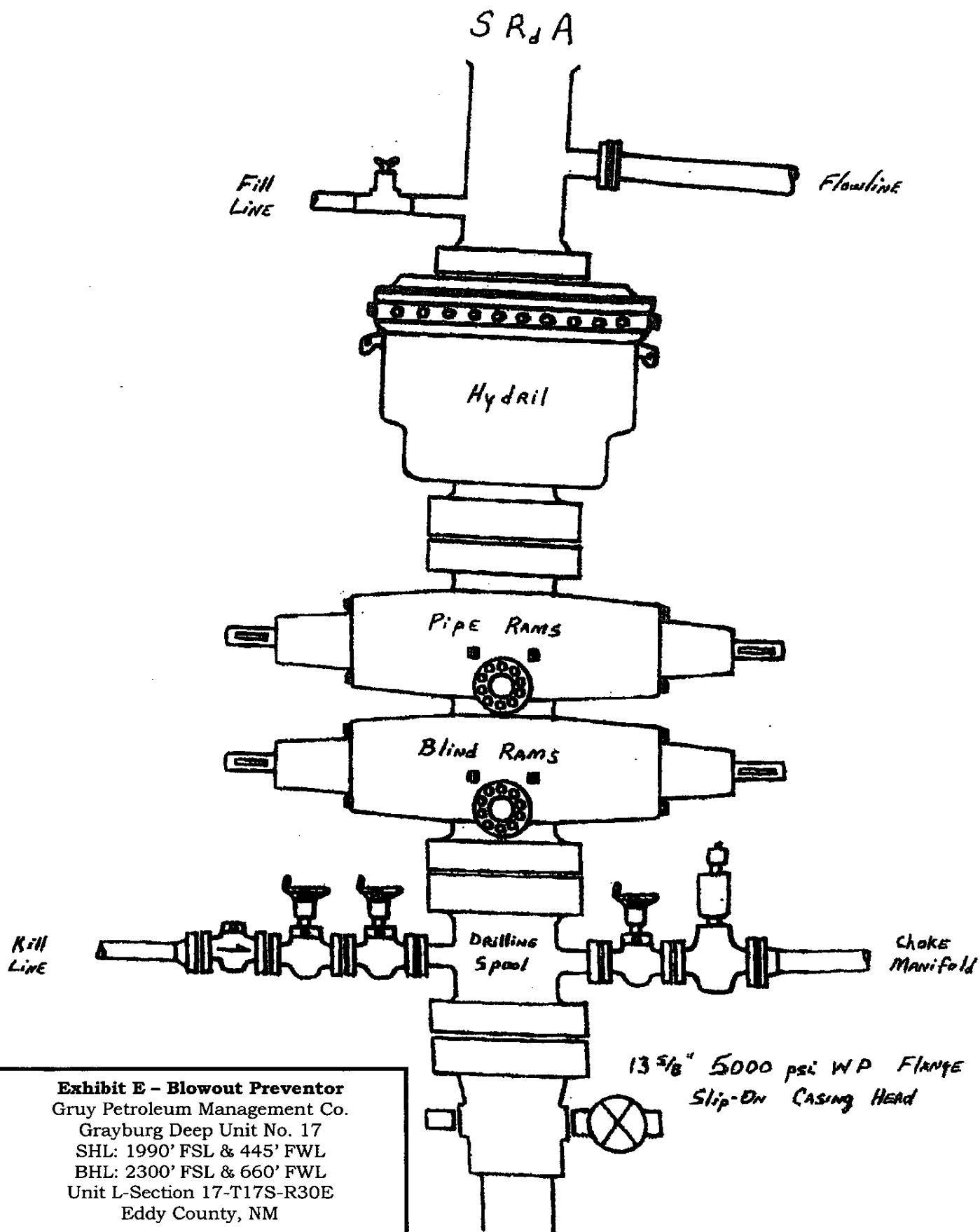


Exhibit E - Blowout Preventor
 Gruy Petroleum Management Co.
 Grayburg Deep Unit No. 17
 SHL: 1990' FSL & 445' FWL
 BHL: 2300' FSL & 660' FWL
 Unit L-Section 17-T17S-R30E
 Eddy County, NM

DRILLING OPERATIONS
CHOKE MANIFOLD
5M SERVICE

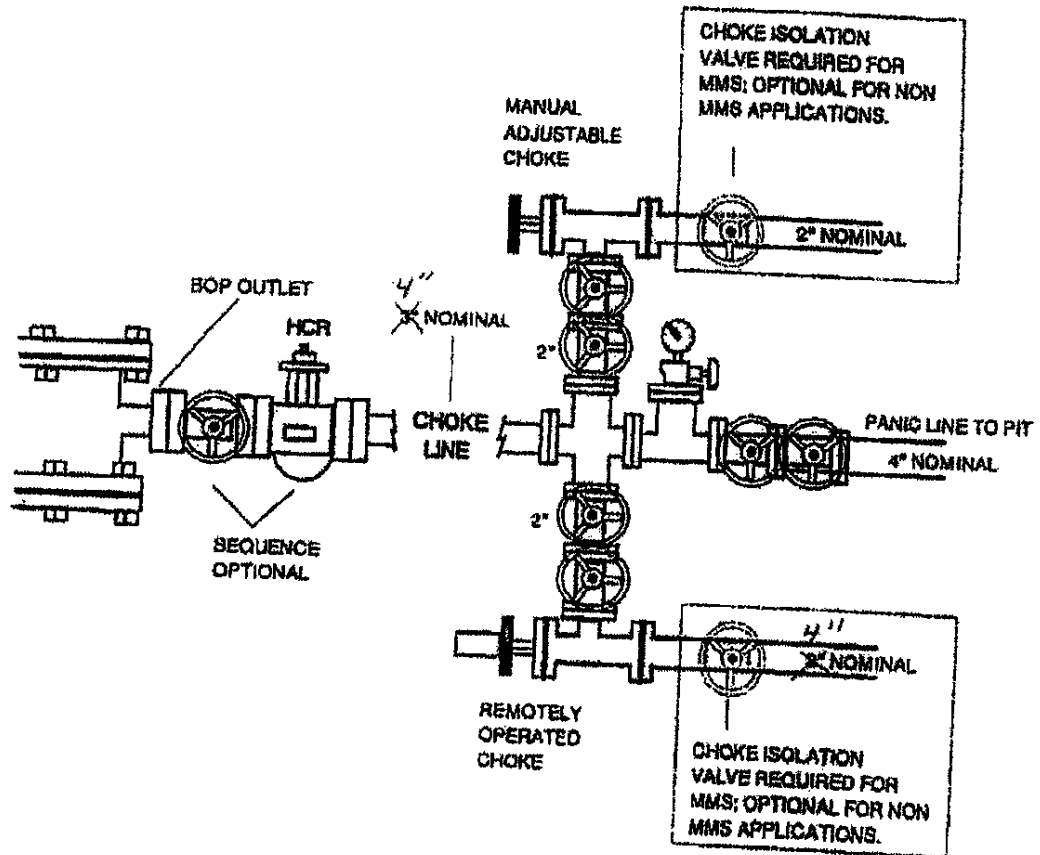


Exhibit E Cont'd - Choke Manifold Diagram

Gray Petroleum Management Co.

Grayburg Deep Unit No. 17

SHL: 1990' FSL & 445' FWL

BHL: 2300' FSL & 660' FWL

Unit L-Section 17-T17S-R30E

Eddy County, NM