

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

Form 3160-3  
(April 2004)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

MAY 16 2005

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.  
NM ~~24160~~ 61582

6. If Indian, Allottee or Tribe Name

If Unit or CA Agreement, Name and No.  
Parkway Delaware Unit

8. Lease Name and Well No.  
PDU, Well # 207 19265

9. API Well No.  
30-015-34121

10. Field and Pool, or Exploratory  
Parkway Delaware 49625

11. Sec., T. R. M. or Blk. and Survey or Area  
Sec 35, T19S, R29E

12. County or Parish  
Eddy

13. State  
NM

1a. Type of work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator  
St Mary Land & Exploration Company 154903

3a. Address 580 Westlake Park Blvd., Suite 600  
Houston, TX 77079

3b. Phone No. (include area code)  
281-677-2800

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*

At surface (B), 995' FNL & 1461' FEL

At proposed prod. zone "

Secretary's Potash

14. Distance in miles and direction from nearest town or post office\*  
17 miles NE of Carlsbad

15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drig. unit line, if any) 995'

16. No. of acres in lease  
920

17. Spacing Unit dedicated to this well  
20

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft. 150'

19. Proposed Depth  
4600'

20. BLM/BIA Bond No. on file  
6041872

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3318'

22. Approximate date work will start\*  
05/01/2005

23. Estimated duration  
15 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature

Name (Printed/Typed)  
Alan D. Means

Date

5/29/05

Title

Operations Engineer

Approved by (Signature)

/s/ Linda S. C. Rundell

Name (Printed/Typed)

/s/ Linda S. C. Rundell

Date

MAY 13 2005

Title

STATE DIRECTOR

Office

NM STATE OFFICE

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, are attached.

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

\*(Instructions on page 2)

Captain Controlled Water Basin

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

WITNESS SURFACE & INTERMEDIATE  
& CHANGE TO FRESH WATER MUD

Salt D.S.

et I  
5 N. French Dr., I I obbs. NM 88240  
District II  
130 I 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 87504~

State of New Mexico  
Energy Minerals and Natural Resources

Form C-144  
June 1, 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 below-grade tank covered by a "general plan" Yes ☐ No ☒

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

|  |                |                 |
|--|----------------|-----------------|
| Operator: <u>St Mary Land &amp; Exploration Company</u> Telephone: _____ e-mail address: _____   |                |                 |
| Address: <u>580 Westlake Park Blvd, #600, Houston, TX 77079</u> <u>30-015-34121</u>  |                |                 |
| Facility or well name: <u>Parkway Delaware 207</u> API 4: <u>pendings</u> U/L or Qtr/Qtr _____ Sec _____ T _____ R _____   |                |                 |
| County: <u>Lea</u>   | Latitude _____ | Longitude _____ |
| NAD: 1927 <input type="checkbox"/> 1983 <input type="checkbox"/> Surface Owner Federal <input checked="" type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Indian <input type="checkbox"/> |                |                 |
| plats attached   |                |                 |
| <b>Section 35, T19S, R29E, Wells #514; 402; 206; 207</b>   |                |                 |
| <b>Below-grade tank</b>  |                |                 |
| 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> mm Clav <input type="checkbox"/>   |                |                 |
| Pit Volume <u>3500</u> bbl   |                |                 |
| Volume: _____ bbl Type of fluid: _____   |                |                 |
| Construction material: _____   |                |                 |
| Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. _____  |                |                 |
| <b>Depth to ground</b> water (vertical distance from bottom of pit to seasonal high water elevation of ground water.) <u>400'</u>  |                |                 |
| Less than 100 feet (20 points)   |                |                 |
| 100 feet or more, build less than 100 feet (10 points)   |                |                 |
| 100 feet or more 100 ft (0 points) 0   |                |                 |
| 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)  |                |                 |
| No (0 points) 0  |                |                 |
| 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)  |                |                 |
| 1000 feet or more 1000 ft or more (0 points) 0   |                |                 |
| Ranking Score (Total Points) 0 Points  |                |                 |

Is this an oil closure. (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) 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 \_\_\_\_\_ PL and attach sample results. (.)

Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

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 X a general permit, or an (attached) alternative NMOCD-approved plan.

Date: 5/29/05

Printed Name title: Alan D. Means, Operations Engineer

Signature: \_\_\_\_\_

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:

Printed Name/Title: \_\_\_\_\_

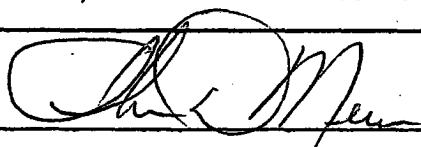
Signature: \_\_\_\_\_

Date: MAY 17 2005

As per Guidelines, a  
detailed closure plan must  
be submitted prior to  
closure.

|  |                                   |   |                 |
|--|-----------------------------------|---|-----------------|
| <b>NOTICE OF STAKING</b><br>Not to be used in place of Application for Permit to Drill (Form 3160-3)   |                                   | 6. Lease Number<br>NM - 24160   |                 |
| 1. Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other (Specify) _____  |                                   | 7. If Indian, Allottee or Tribe Name _____                            |                 |
| 2. Name of Operator:<br>St Mary Land & Exploration Company   |                                   | 8. Unit Agreement Name<br>Parkway Delaware Unit                       |                 |
| 3. Name of Specific Contact Person:<br>Dennis Goins  |                                   | 9. Farm or Lease Name<br>Federal                                      |                 |
| 4. Address & Phone No. of Operator or Agent<br>580 Westlake Park Blvd., Suite 600<br>Houston, TX 77079 Phone 281-677-2800  |                                   | 10. Well No.<br>207   |                 |
| 5. Surface Location of Well<br>B, 995 FNL & 1461 FEL   |                                   | 11. Field or Wildcat Name<br>Parkway Delaware                         |                 |
| Attach:<br>a) Sketch showing road entry onto pad, pad dimensions, and reserve pt.<br>b) Topographical or other acceptable map showing location, access road, and lease boundaries.   |                                   | 12. Sec., T., R., M., or Blk and Survey or Area<br>Sec 35, T19S, R29E |                 |
| 15. Formation Objective(s)<br>Delaware Sands   | 16. Estimated Well Depth<br>4600' | 13. County, Parish, or Borough<br>Eddy                                | 14. State<br>NM |
| 17. Additional Information (as appropriate; shall include surface owner's name, address and, if known, telephone number) Federal surface lands administed by Bureau of Land Management, Carlsbad, NM Field office. Surveyed welsite plats and maps are attached. |                                   |   |                 |

18. Signed



Title

Agent

Date

3/23/05

**Note:** Upon receipt of this Notice, the Bureau of Land Management (BLM) will schedule the date of the onsite predrill inspection and notify you accordingly. The location must be staked and access road must be flagged prior to the onsite.

Operators must consider the following prior to the onsite:

- a) H<sub>2</sub>S Potential
- b) Cultural Resources (Archeology)
- c) Federal Right of Way or Special Use Permit

# State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

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

### DISTRICT II

101 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

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

|               |   |                           |
|---------------|---|---------------------------|
| API Number    | Pool Code   | Pool Name                 |
| Property Code | Property Name<br><b>PARKWAY DELAWARE UNIT</b>                   | Well Number<br><b>207</b> |
| OGRID No.     | Operator Name<br><b>ST. MARY LAND &amp; EXPLORATION COMPANY</b> | Elevation<br><b>3318'</b> |

### Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| B             | 35      | 19-S     | 29-E  |         | 995           | NORTH            | 1461          | EAST           | EDDY   |

### Bottom Hole Location If Different From Surface

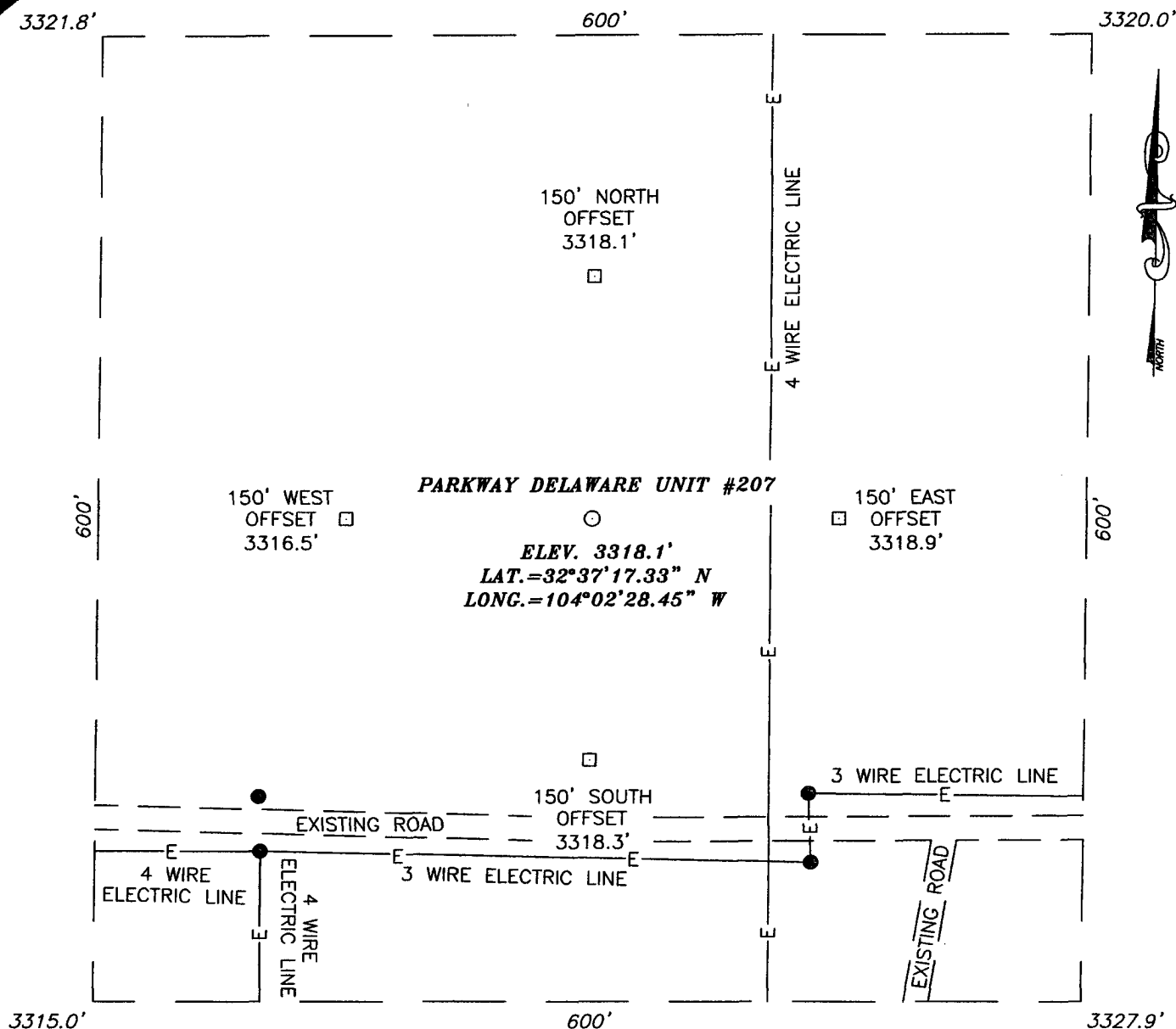
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
|               |         |     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

|                              |                 |                    |           |
|------------------------------|-----------------|--------------------|-----------|
| Dedicated Acres<br><b>40</b> | Joint or Infill | Consolidation Code | Order No. |
|------------------------------|-----------------|--------------------|-----------|

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

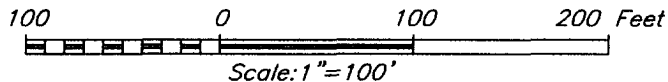
|  |   |
|--|---|
|  | <b>OPERATOR CERTIFICATION</b><br><br>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.<br><br>Signature: <i>[Signature]</i><br>Printed Name: <b>Han D. Means</b><br>Title: <b>Agent</b><br>Date: <b>3/29/05</b>  |
|  | <b>SURVEYOR CERTIFICATION</b><br><br>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.<br><br>DECEMBER 28, 2004<br>Date Surveyed: <b>DECEMBER 28, 2004</b><br>Signature & Seal of Professional Surveyor: <i>[Signature]</i><br>Certificate No. <b>GARY EIDSON 12641</b> |
|  | <b>GEODETIC COORDINATES</b><br>NAD 27 NME<br>Y=589929.2 N<br>X=589932.9 E<br>LAT.=32°37'17.33" N<br>LONG.=104°02'28.45" W   |
|  |   |

SECTION 35, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

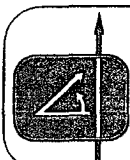
FROM THE INTERSECTION OF STATE HIGHWAY #360 AND COUNTY ROAD #235 (CURRY COMB ROAD). GO WEST ON CO. RD. #235 APPROX. 4.7 MILES TO A LEASE RD. ON THE LEFT. FOLLOW LEASE RD. SOUTH TO WEST TO SOUTH APPROX. 1.4 MILES TO A "T" INTERSECTION. TURN RIGHT AND GO WEST APPROX. 0.5 MILE TO A LEASE RD. ON THE RIGHT. GO NORTH APPROX. 0.4 MILE TURN LEFT AND GO WEST APPROX. 0.1 MILE. TURN RIGHT AND GO (NORTH) 200± FEET TO PROPOSED LOCATION.



**ST. MARY LAND & EXPLORATION COMPANY**

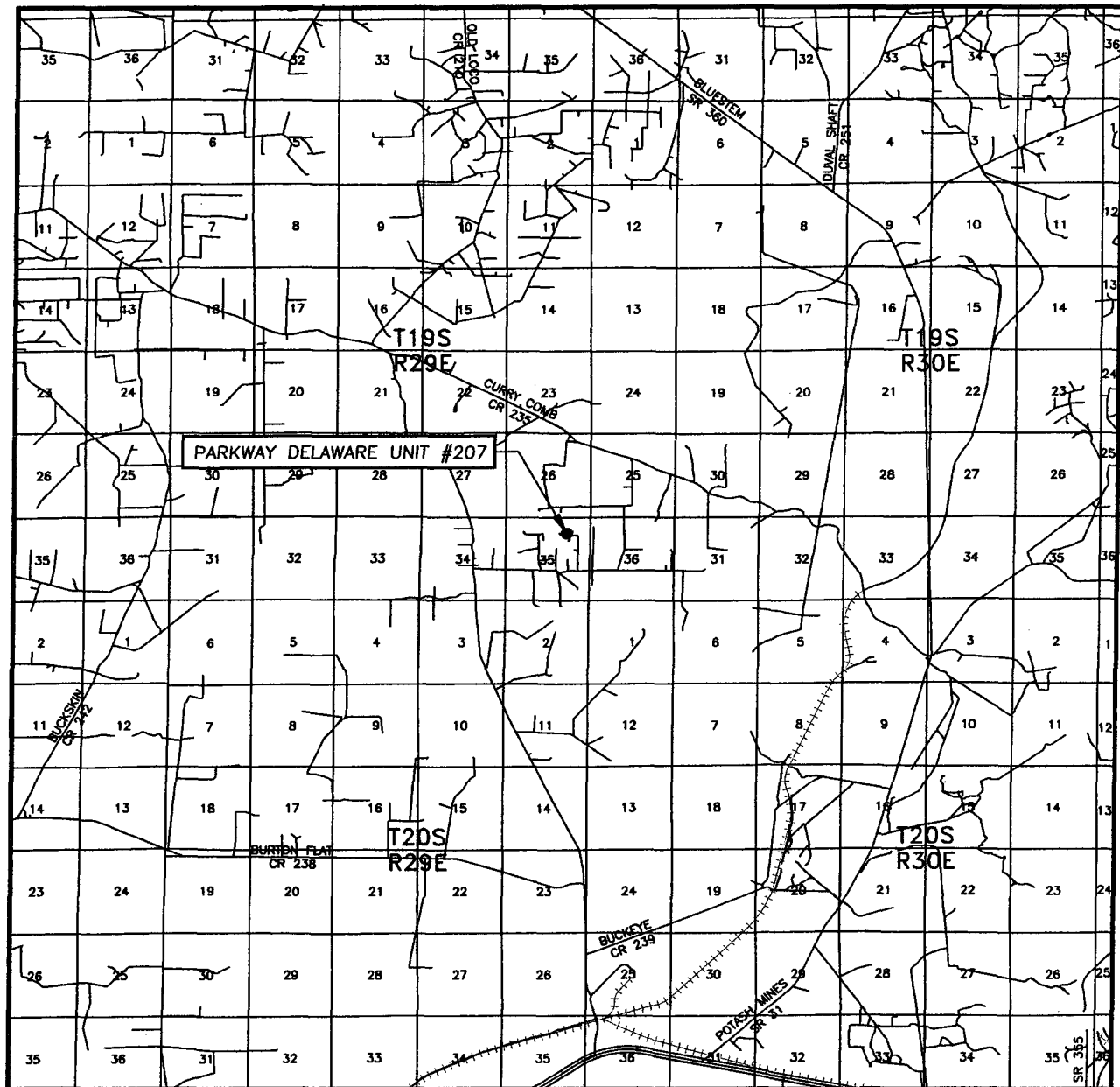
PARKWAY DELAWARE UNIT #207 WELL  
 LOCATED 995 FEET FROM THE NORTH LINE  
 AND 1461 FEET FROM THE EAST LINE OF SECTION 35,  
 TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.,  
 EDDY COUNTY, NEW MEXICO.

|                         |                     |           |                |
|-------------------------|---------------------|-----------|----------------|
| Survey Date: 12/28/04   | Sheet 1 of 1 Sheets |           |                |
| W.O. Number: 04.11.1751 | Dr By: DEL          | Rev 1:N/A |                |
| Date: 01/03/05          | Disk: CD#3          | 04111751  | Scale: 1"=100' |



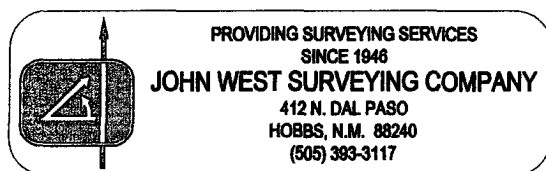
PROVIDING SURVEYING SERVICES  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 393-3117

# VICINITY MAP

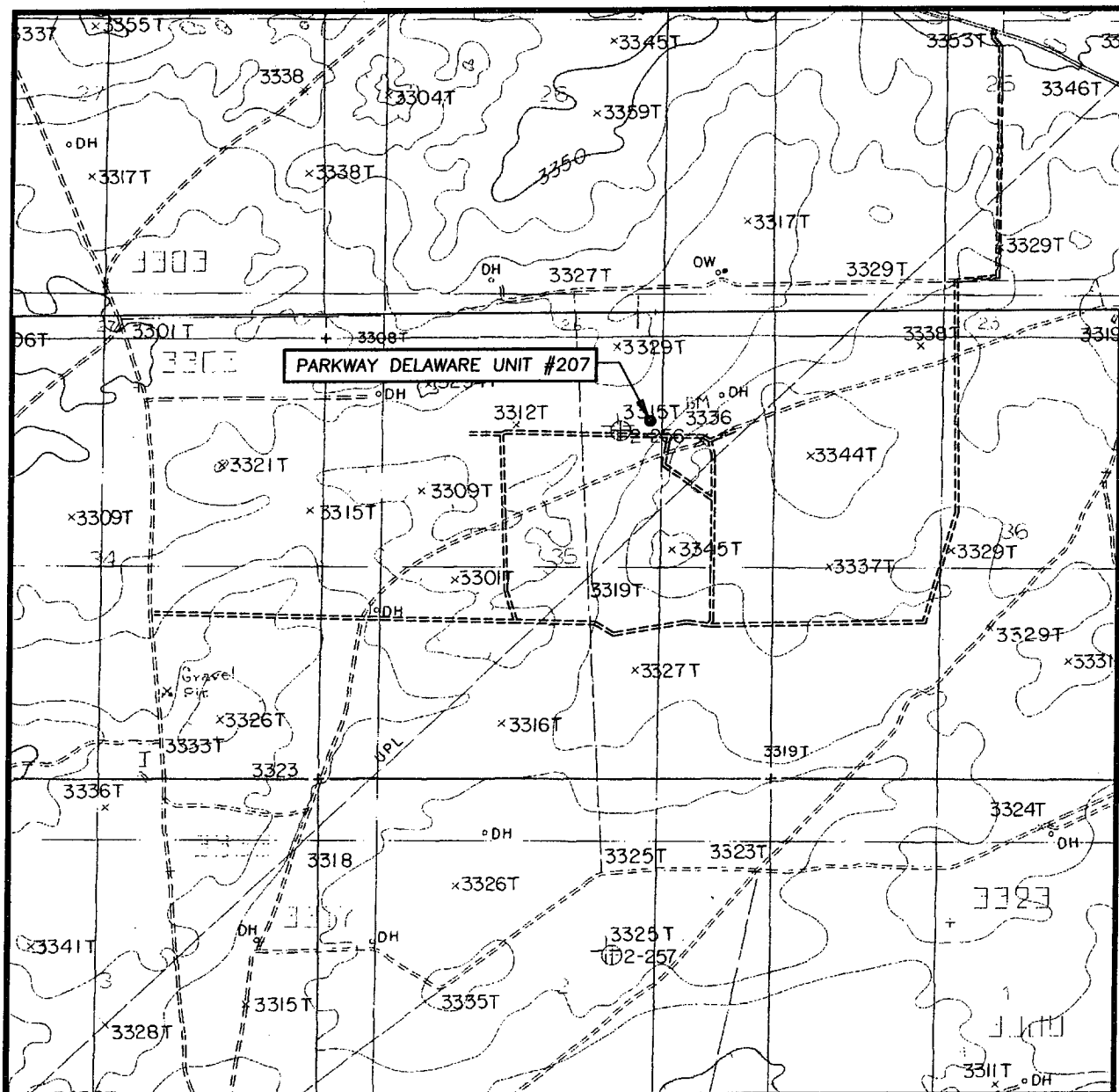


SCALE: 1" = 2 MILES

SEC. 35 TWP. 19-S RGE. 29-E  
 SURVEY N.M.P.M.  
 COUNTY EDDY  
 DESCRIPTION 995' FNL & 1461' FEL  
 ELEVATION 3318'  
 OPERATOR ST. MARY LAND & EXPLORATION COMPANY  
 LEASE PARKWAY DELAWARE UNIT



# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:

ILLINOIS CAMP SE, N.M. - 10'

ILLINOIS CAMP NE, N.M. - 10'

SEC. 35 TWP. 19-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 995' FNL & 1461' FEL

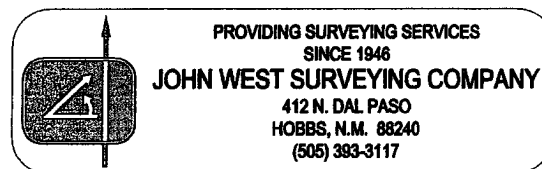
ELEVATION 3318'

OPERATOR ST. MARY LAND & EXPLORATION COMPANY

LEASE PARKWAY DELAWARE UNIT

U.S.G.S. TOPOGRAPHIC MAP

ILLINOIS CAMP SE, N.M. AND ILLINOIS CAMP NE, N.M.



**TITLE PAGE/ABSTRACT/  
NEGATIVE SITE REPORT  
CFO/RFO**

1/03

|  |      |  |         |  |       |
|--|------|--|---------|--|-------|
| 1. BLM Report No.  |      | 2. Reviewer's Initials/Date _____<br>ACCEPTED ( ) REJECTED ( ) |         | 3. NMCRIS No.:<br>91491                          |       |
| 4. Type of Report<br><div style="display: flex; justify-content: space-around;"> <span>Negative(X)</span> <span>Positive ( )</span> </div>   |      |  |         |  |       |
| 5. Title of Report: Class III Archaeological Survey for St. Mary Land & Exploration Company's Proposed Well Pad to Serve the Parkway Delaware Unit No. 207 Well<br><br>Author: Stephen Smith   |      |  |         | 6. Fieldwork Date:<br>January 20, 2005           |       |
|  |      |  |         | 7. Report Date:<br>January 21, 2005              |       |
| 8. Consultant Name & Address:<br>Boone Archaeological Services<br>2030 North Canal<br>Carlsbad, NM 88220<br>Direct Charge: Danny Boone<br>Field Personnel Name: Stephen Smith<br>Phone: (505) 885-1352   |      |  |         | 9. Cultural Resource Permit No.<br>190-2920-03-E |       |
|  |      |  |         | 10. Consultant Report No.<br>BAS 01-05-15        |       |
| 11. Customer Name: St. Mary Land & Exploration Company<br>Responsible Individual: Dennis Goins<br>Address: 580 Westlake Park Blvd., Suite 600<br>Houston, Texas 77079<br>Phone: (281) 677-2774   |      |  |         | 12. Customer Project No.:                        |       |
| 13. Land Status  | BLM  | STATE  | PRIVATE | OTHER  | TOTAL |
| a. Area Surveyed (acres)   | 5.51 | 0  | 0       | 0  | 5.51  |
| b. Area of Effect (acres)  | 3.67 | 0  | 0       | 0  | 3.67  |
| 14. Linear: Length: N/A Width: N/A<br>Block: 600 ft by 600 ft  |      |  |         |  |       |
| 15. Location: (Maps Attached if Negative Survey)<br>a. State: New Mexico<br>b. County: Eddy<br>c. BLM Office: Carlsbad<br>d. Nearest City or Town: Carlsbad, NM<br>e. Legal Location: T 19S, R 29E, Section 35: SE¼NW¼NE¼, SW¼NE¼NE¼<br>f. Well Pad Footages: 995 ft FNL; 1461 FEL<br>g. USGS 7.5 Map Name and Code Number: Illinois Camp SE, NM (Provisional Edition 1985) 32104-E1 |      |  |         |  |       |



**16. Project Data:**

a. Records Search: Date of BLM File Review: January 19, 2005 Name of Reviewer: Stephen Smith  
Date of ARMS Data Review: January 19, 2005 Name of Reviewer: Stephen Smith

**Findings:**

Sites within 0.25 mile of the project area: During the course of the pre-field investigation for this project it was learned that no previously recorded sites are plotted within 0.25 mile or one mile of the project area. The proposed well pad interacts with BLM previous project 04-918, 89-929, and one previous project that has no legible identification numbers. The pre-field investigation was supervised by Craig Johnson, BLM-CFO archaeologist.

b. Description of Undertaking: St. Mary Land & Exploration Company plans to construct a well pad to serve the Parkway Delaware Unit No. 207 Well. Mr. Dennis Goins of St. Mary Land & Exploration Company contacted Boone Archaeological Services requesting an archaeological survey for the proposed project. The well pad is staked at 600 ft by 600 ft (8.26 acres). Because the proposed well pad interacts with BLM previous projects 04-918, 89-929, and one previous project that has no legible identification numbers, an estimated 2.75 acres was deducted from the total acreage of the survey for the well pad. A total of 5.51 acres (+/-) required an archaeological survey, all of which is on lands administered by the BLM-CFO.

**c. Environmental Setting :**

Topography: Very slight hills to generally flat area, sandy/loamy soil shallow to caliche/gypsum

Vegetation: Mesquite, yucca, sumac, pencil cholla, horse creeper, and various grasses

Visibility: 60-70 percent due to vegetative cover

NRCS: Reeves-Gypsum land-Cottonwood association: Loamy soils that are very shallow to moderately deep over Gypsum beds, and Gypsum land

**d. Field Methods:**

Transect Interval: Transects are no greater than 15 meters and performed in a straight-line pattern.

Crew Size: 1

Time in Field: 2.5 hours

**e. Artifacts Collected: None**
**17. Cultural Resource Findings: During the course of this survey one isolated manifestation was encountered and recorded.**

a. Identification and Description: N/A

b. Evaluation of Significance of Each Resource: N/A

**18. Management Summary (Recommendations):** Because no significant cultural resources were encountered during the survey for St. Mary Land & Exploration Company's proposed well pad, archaeological clearance is recommended as presently staked. If cultural resources are encountered during any construction related activity, construction should cease and an archaeologist with the BLM be immediately notified.

**19.**

I certify that the information provided above is correct and accurate and meets all appreciable BLM standards.

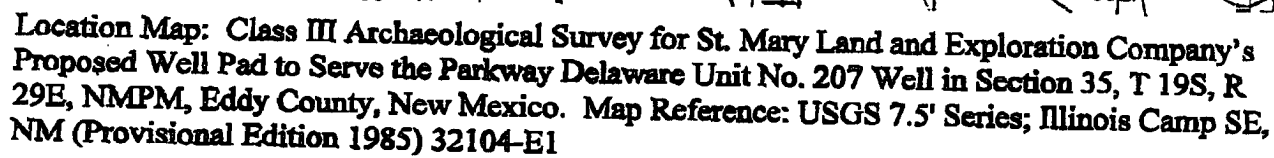
Responsible Archaeologist

Stephen Smith

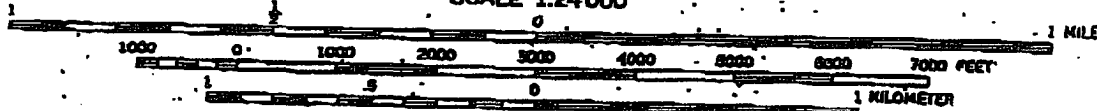
Signature

1-24-05

Date



**SCALE 1:24 000**



**Nine Point Drilling Plan**  
**(Supplement to BLM 3160-3)**

St. Mary Land and Exploration Co.

PDU #207

995' FNL, 1461' FEL; Sec 35, T19S, R29E

Parkway Delaware Unit

Parkway (Delaware) Field

Eddy Co., NM

NM-24160

1. Name and estimated tops of geologic horizons

|              |       |
|--------------|-------|
| Rustler      | 146'  |
| Slado        | 351'  |
| Tansill      | 1261' |
| Yates        | 1513' |
| Capitan Reef | 1695' |
| Delaware     | 2698' |

2. Protection of possible useable water will be achieved by setting 13.375" surface casing @ 400' +/- and cementing it to surface. Isolation of the productive Delaware-Brushy Canyon will be achieved by setting 4.5" casing @ 4600' +/-, and cementing back to surface.
3. The well control equipment to be employed during the drilling of this well is illustrated on attached EXHIBIT A. This equipment includes a two ram BOP, annular BOP and choke manifold of comparable pressure rating. Equipment will be rated for 3000 PSI and will be tested to 80% of that pressure prior to drilling out of the 13 3/8" surface casing. A hydraulic closing unit will be a part of this equipment and will be function tested daily.
4. The casing strings will consist of the following:

Surface: 13 3/8" OD, 48#/ft, H40, STC, new pipe @ 300 - 400' in 17 1/2" hole.

**WITNESS**

Intermediate 1: 9.625" OD, 36#/ft, J55, STC, new pipe @ 1500' +/- in 12.25" hole.

**WITNESS**

Intermediate 2: 7" OD, 23#/ft, J55, STC, new pipe @ 3200' +/- in 8.75" hole.

Production: 4.50" OD, 11.6#/ft, J55, STC, new pipe @ 4600' +/- in 6.25" hole

5. **Cementing programs for the above casing strings are:**

**Surface:**       **Lead Slurry:** 195 sx Class C Cement w/ 4% bwoc Bentonite, 2% bwoc CaCl, .25#/sk celloflake, .004 gps FP-13L mixed at 13.5 ppg, and having a yield of 1.75 cu ft/sk

**Tail Slurry:** 150 sx Class C Cement w/ 2% bwoc CaCl, .004 gps FP-13L mixed at 14.8 ppg, and having a yield of 1.34 cu ft/sk

*The above volume represents 80% excess over calculated hole volume, and will be adjusted to actual setting depth of casing. The slurries will be preceded by a fresh water spacer, and displaced with brine water.*

**Intermediate 1 @ 1500':**

**Lead Slurry:** 280 sx (50:50) Poz (Fly Ash) : Class C Cement w/ 10% bwoc Bentonite, 5% bwoc CaCl, .25#/sk celloflake, .004 gps FP-13L mixed at 11.9 ppg, and having a yield of 2.37 cu ft/sk

**Tail Slurry:** 200 sx Class C Cement w/ 2% bwoc CaCl, .004 gps FP-13L mixed at 14.8 ppg, and having a yield of 1.35 cu ft/sk

*The above are BJ Services products with 120% excess open hole volume - actual volumes will be adjusted to the open hole caliper of this wellbore. The cement slurries will be preceded by 12 bbls cement wash for mud removal and displaced with fresh water. Equivalent products from another vendor may be substituted for BJ depending on price/availability.*

**Intermediate 2 @ 3200':**

**Lead Slurry:** 115 sx (50:50) Poz (Fly Ash) : Class C Cement w/ 10% bwoc Bentonite, 5% bwoc CaCl, .25#/sk celloflake, .004 gps FP-13L mixed at 11.9 ppg, and having a yield of 2.37 cu ft/sk

**Tail Slurry:** 150 sx Class C Cement w/ 2% bwoc CaCl, .004 gps FP-13L mixed at 14.8 ppg, and having a yield of 1.35 cu ft/sk

*The above are B J Services products with 60% excess open hole volume - actual volumes will be adjusted to the open hole caliper of this wellbore. The cement slurries will be preceded by 12 bbls cement wash for mud removal and displaced with fresh water. Equivalent products from another vendor may be substituted for B J depending on price/availability.*

**Production:**

**Lead Slurry:** 145 sx (50:50) Poz (Fly Ash) : Class C Cement w/ 10% bwoc Bentonite, 5% bwoc CaCl, .25#/sk celloflake, .004 gps FP-13L, 5 #/sk LCM-1 mixed at 11.5 ppg, and having a yield of 2.71cu ft/sk

**Tail Slurry:** 100 sx Class C Cement w/ 12% bwoc CSE-2, 1% bwoc FL-62, .004 gps FP-13L mixed at 13.6 ppg, and having a yield of 1.8 cu ft/sk

*The above are B J Services products with 50% excess open hole volume - actual volumes will be adjusted to the open hole caliper of this wellbore. Equivalent products from another vendor may be substituted for BJ depending on price/availability.*

6. It is anticipated that this well will be drilled to TD utilizing the fluids shown below:
    - 0-400':** Gel/Lime "spud mud" 8.6-9.0 PPG. Utilize native solids to maintain sufficient viscosity to clean hole. Mix paper as required to control seepage loss.
    - 300-1800':** Brine 9.9 - 10.0 PPG. Circulate thru reserve pit for gravitational solids removal. Add paper as required to control seepage loss while maintaining pH at 10.0 - 10.5 using Lime. Brine water will minimize hole wash out in the salt.
    - 1800-3200':** Fresh Water 8.3 - 8.5 PPG Loss of circulation is anticipated in the Capitan Reef which will require switching to fresh water and dry drilling to casing point.
    - 3200-3800':** Cut Brine 8.5 - 8.9 PPG Pump high-vis sweeps to clean hole.
    - 3800-4600':** Cut Brine/Starch 8.7 - 8.9 PPG Maintain water loss @ 10-15 cc. Sweep with high-vis pill to clean hole for logging operations.
  7. Auxiliary equipment will include an upper kelly cock valve, safety valve to fit drill pipe and pressure gauges.
  8. No drill stem testing, mud logging or coring is planned for this wellbore. A Platform Express Triple Combo electric log suite will be run at TD.
  9. The estimated BHP at TD is not expected to exceed 1500 psi, and a BHT of 105 F is anticipated. There is no H<sub>2</sub>S present in the hydrocarbons being produced from the other wells in this section. Should such unexpected circumstances be encountered the operator and drilling contractor are prepared to take necessary steps to ensure safety of all personnel, and environment. Lost circulation could occur but is not expected to be a serious problem in this area, and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid.
- It is estimated that this well will be drilled and cased in 10-11 days. Drilling will commence as soon after approval is received and services can be contracted.

**Thirteen Point Plan for Surface Use**  
**(Additional data for form 3160-3)**

St. Mary Land and Exploration Company

PDU #207

995' FNL, 1461' FEL; Sec 35, T19S, R29E

Parkway Delaware Unit

Parkway (Delaware)

Eddy Co., NM

NM-24160-61582

1. **EXISTING ROADS - A "VICINITY MAP" and a "LOCATION VERIFICATION MAP"** by John West Surveying are attached which show the location of existing roads and the area topography.  
The road log to the location is as follows:
  - a) From the intersection of Hwy. 360 and Co. Rd 235(Curry Comb Rd), proceed west on 235 for 4.7 miles.
  - b) Turn south on lease road and proceed for 1.4 miles to a "T" intersection.
  - c) Turn west on caliche road for .5 miles to lease road on the right.
  - d) Turn north and proceed for .4 miles.
  - e) Turn west .1 miles
  - f) Turn north and go 200' to location.
2. **PLANNED ACCESS ROAD** —Approximately 200' of new N-S access road will be built from the existing E-W main caliche road to the east.
3. **LOCATION OF EXISTING WELLS - EXHIBIT B** shows the location of other wells within a mile radius of the proposed location.
4. **LOCATION OF EXISTING OR PROPOSED FACILITIES** – This production well will be tied into existing PDU facilities.
5. **LOCATION AND TYPE OF WATER SUPPLY** - All water (fresh or otherwise) needed for the drilling and completion of this well will be purchased from a commercial source and trucked to the location via the existing and proposed access road. No water source wells will be drilled, and no surface water will be utilized.

6. **SOURCE OF CONSTRUCTION MATERIALS** - Construction material (caliche) required for the preparation of the drill site is available from a local source 3 ½ miles away. It is not anticipated that a significant amount of material will be required as the terrain is relatively flat. Transportation will be over the existing roads.
7. **METHODS FOR HANDLING WASTE DISPOSAL** -
- Drill cuttings will be disposed into drilling pits after fluids have evaporated.
  - The drilling pits will be lined with a biodegradable plastic liner, and buried as per regulatory requirements. The pits will be located on the #207 drill site.
  - Receptacles for solid wastes (paper, plastic, etc) will be provided and equipped to prevent scattering by wind, animals, etc. This waste will be hauled to an approved landfill site.
  - Any other waste generated by the drilling, completion, testing of this well will be removed from the site within 30 days of the completion of drilling or testing operations.
  - A Porta-John will be provided for the crews. This will be properly maintained during the drilling operations and removed upon completion of the well.
8. **ANCILLARY FACILITIES** - The drilling, completion, and/or testing of this well will require no ancillary facilities.
9. **WELLSITE LAYOUT** - Attached, as EXHIBITS C & D are plats showing the anticipated orientation of the drilling rig and the pad. A similar rig may have to be substituted for United Drilling Rig #24 if it is no longer available when approval is granted for this application. Material moved to create the drilling pits will be utilized in the dike around the pits so as to facilitate restoration of the area when operations are completed.
10. **PLANS FOR SURFACE RESTORATION** - Reclamation of the surface location will be in accordance with the requirements set forth by the BLM. As stated earlier all waste generated by this operation will be disposed of in an approved manner, and the site restored as closely as possible to its pre-operation appearance. Due to the topography of the area no problems are anticipated in achieving this status and no erosion or other detrimental effects are expected as a result of this operation.
11. **OTHER INFORMATION** - The surface ownership of the drill site and the access routes are under the control/ownership of:
- Bureau of Land Management  
P. O. Box 1778  
Carlsbad, New Mexico 88221-1778  
505-234-5972

The BLM representative for this area is Barry Hunt who can be reached at the above number, or 505-361-4078.

The site was archaeologically surveyed in July 2004. Danny Boone, the registered archeological surveyor, should forward a copy of that report to the BLM.

12. **OPERATORS REPRESENTATIVE - St. Mary Land and Exploration is covered by Nationwide Bond No. 6041872. St. Mary Land and Exploration is represented by:**

Charles M. Jones, Operations Manager

Dennis Goins, Operations Engineer

580 Westlake Park Blvd., Suite 600

Houston, Texas 77079

281-677-2800 Office

281-677-2774 Direct

918-408-8025 Cell

Alan D. Means, Contract Drilling Engineer  
Midland, Tx

432-620-9181 Office

432-664-7052 Cell

432-687-3117 Home

Jackie Herron, Contract Pumper  
Hagerman, NM

505-746-7601 Cell

505-752-2701 Home

13. **OPERATORS CERTIFICATION**

I hereby certify that I, Alan D. Means-Operations Engineer, have inspected the proposed drill site and access route and that I am familiar with the conditions that currently exist; that the statements made in the APD package are to the best of my knowledge true and correct; and that the work associated with operations herein will be performed by ST. MARY LAND & EXPLORATION COMPANY and it's contractors and subcontractors in conformity with the terms and conditions of this APD package. I also certify responsibility for the operations conducted on that portion of the leased lands associated with this application with bond coverage being provided under a BLM nationwide bond.

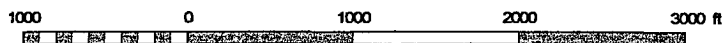
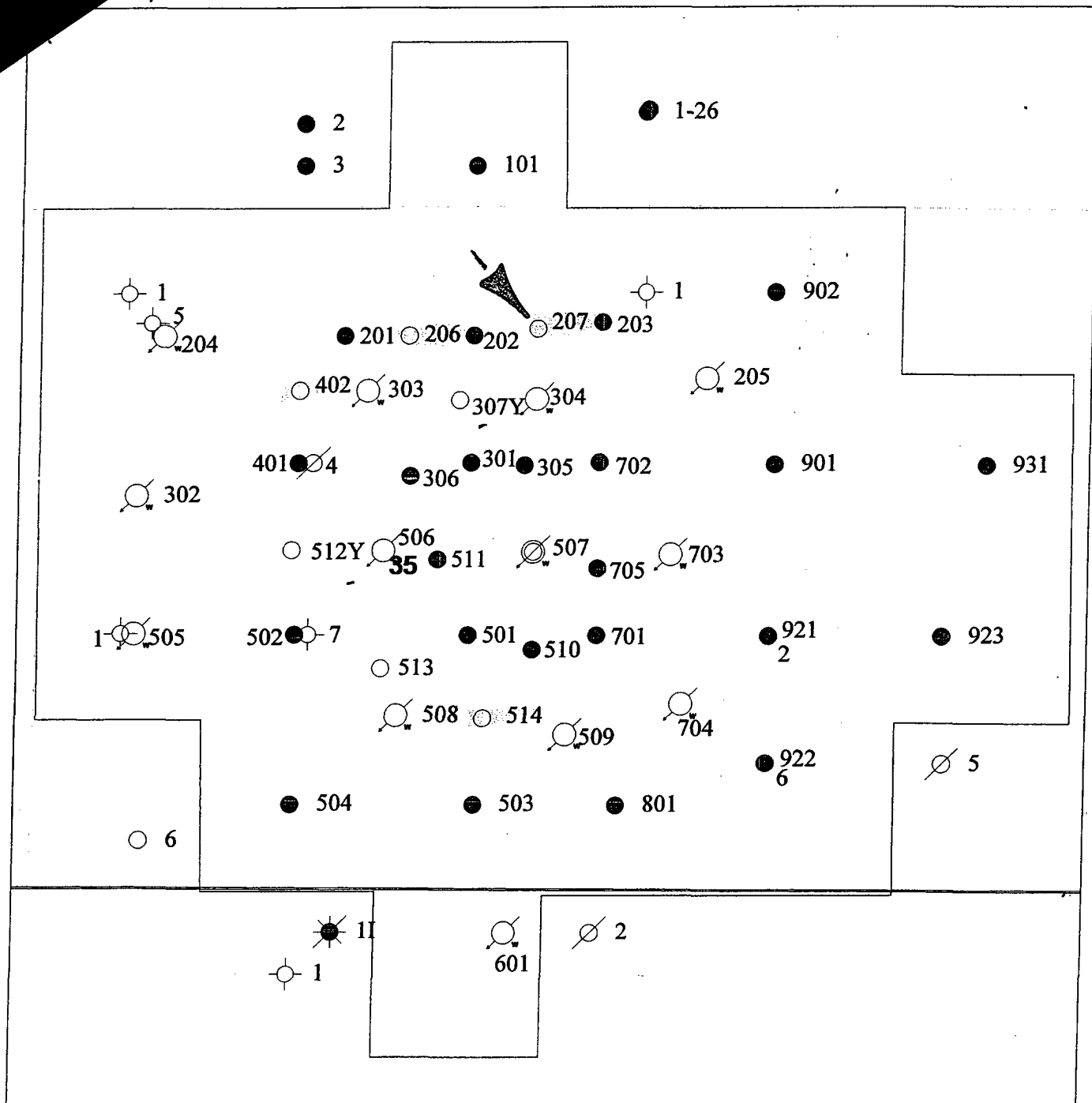
This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Name and title: Alan D. Means, Consulting Operations Engineer for St. Mary Land & Exploration Company

Signature: 

4/4/05





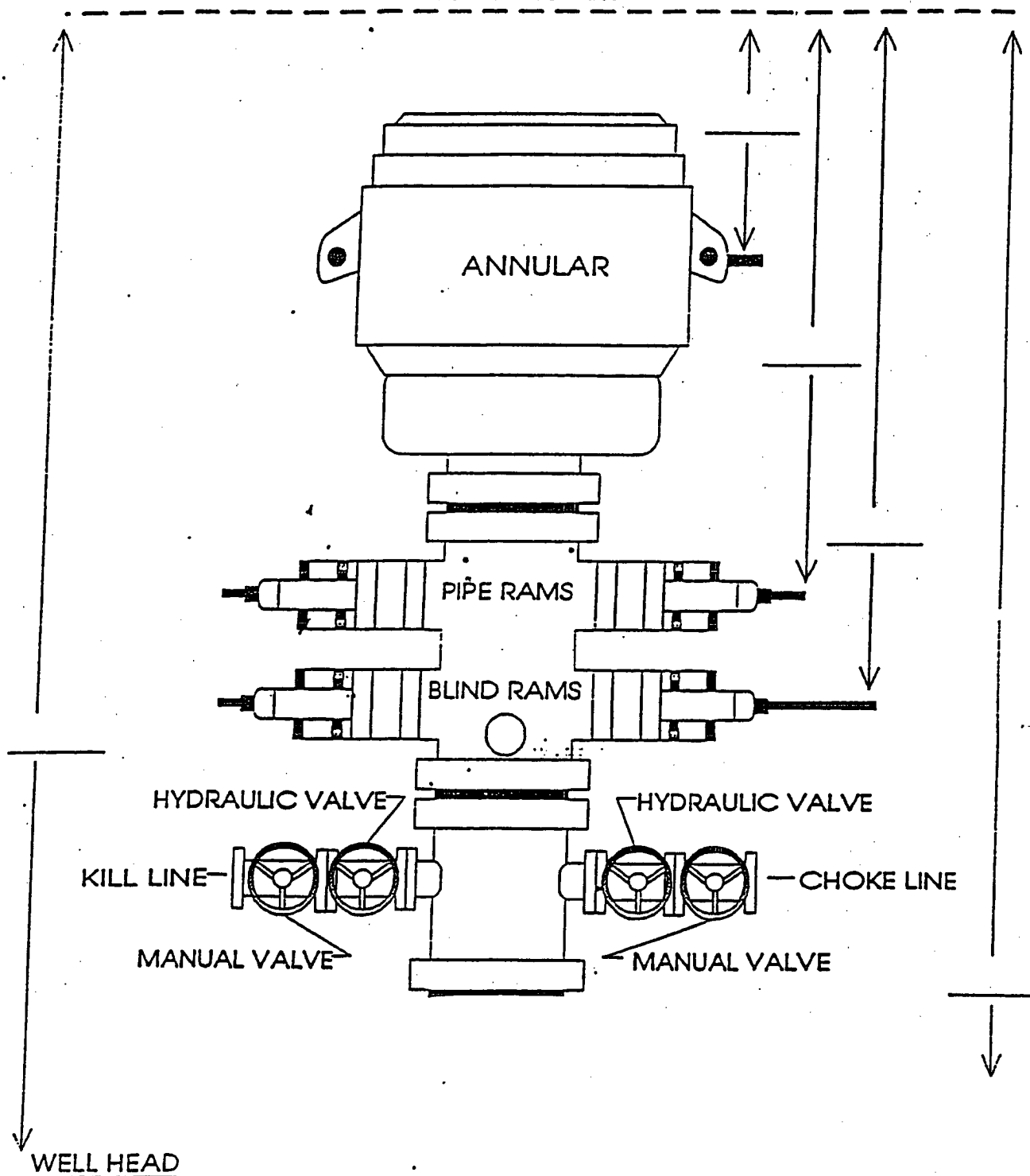
| St. Mary Land and Exploration                |        |                             |
|--|--------|-----------------------------|
| 2005 PDU INFILL WELLS<br>Parkway, New Mexico |        |                             |
|  |        | Date:<br>March 2, 2005      |
|  | Scale: | Drafted by:<br>Eric Hauwert |

# EXHIBIT A

B.O.P. STACK SPACING

SIZE: 11" 3000#

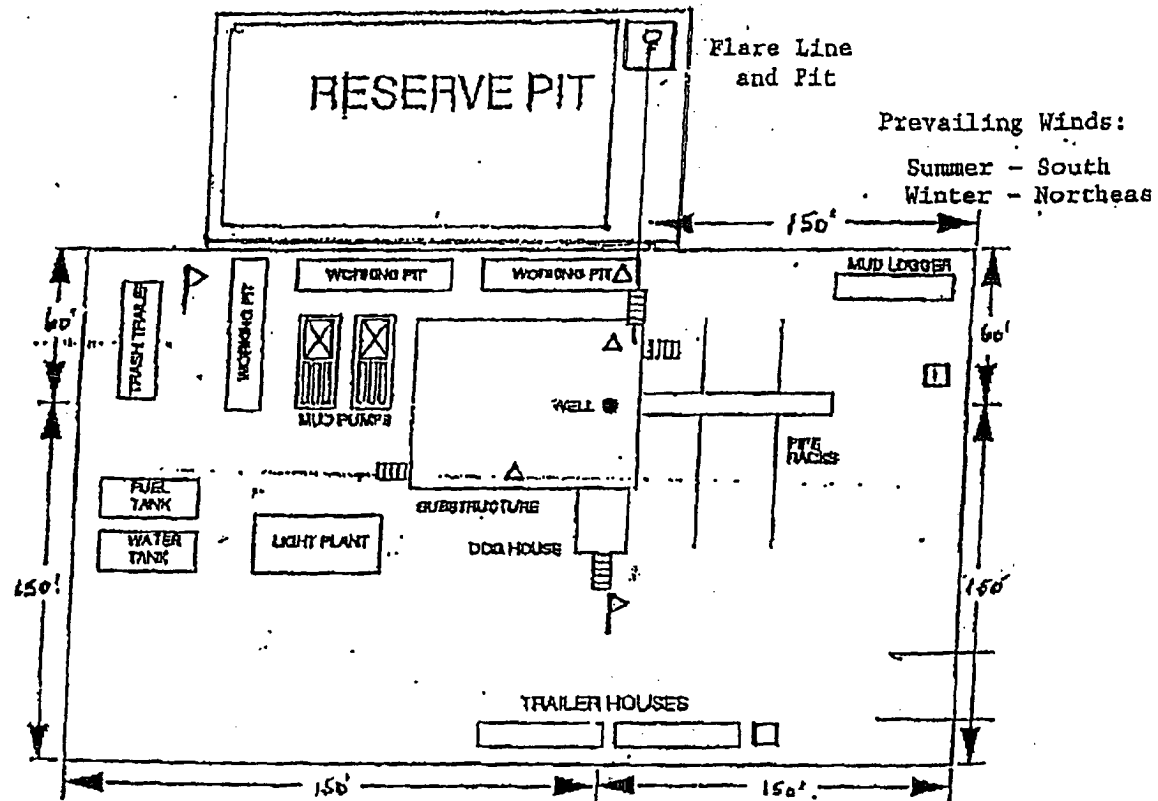
TOP OF ROTARY



WELL PDU 512 CONTRACTOR UNITED DRILLING

# EXHIBIT C

## Typical United Drilling Rig Layout



- △ - H2S Monitors with alarms at the bell nipple and shale shaker
- ▶ - Wind Direction Indicators
- - Safe Briefing areas with caution signs and protective breathing equipment. Minimum 150 feet from wellhead. 1 designates primary area.

# EXHIBIT D

Center  
Line  
Well

100'

Reserve Pit  
50' x 100'

BERM

Working Pits

5'  
10'

42' 8' 50' 28'

Stinger

30'

40'

50'

15' 28'

Stinger

30'

Center  
Line  
Well

40'

100'

49

100'

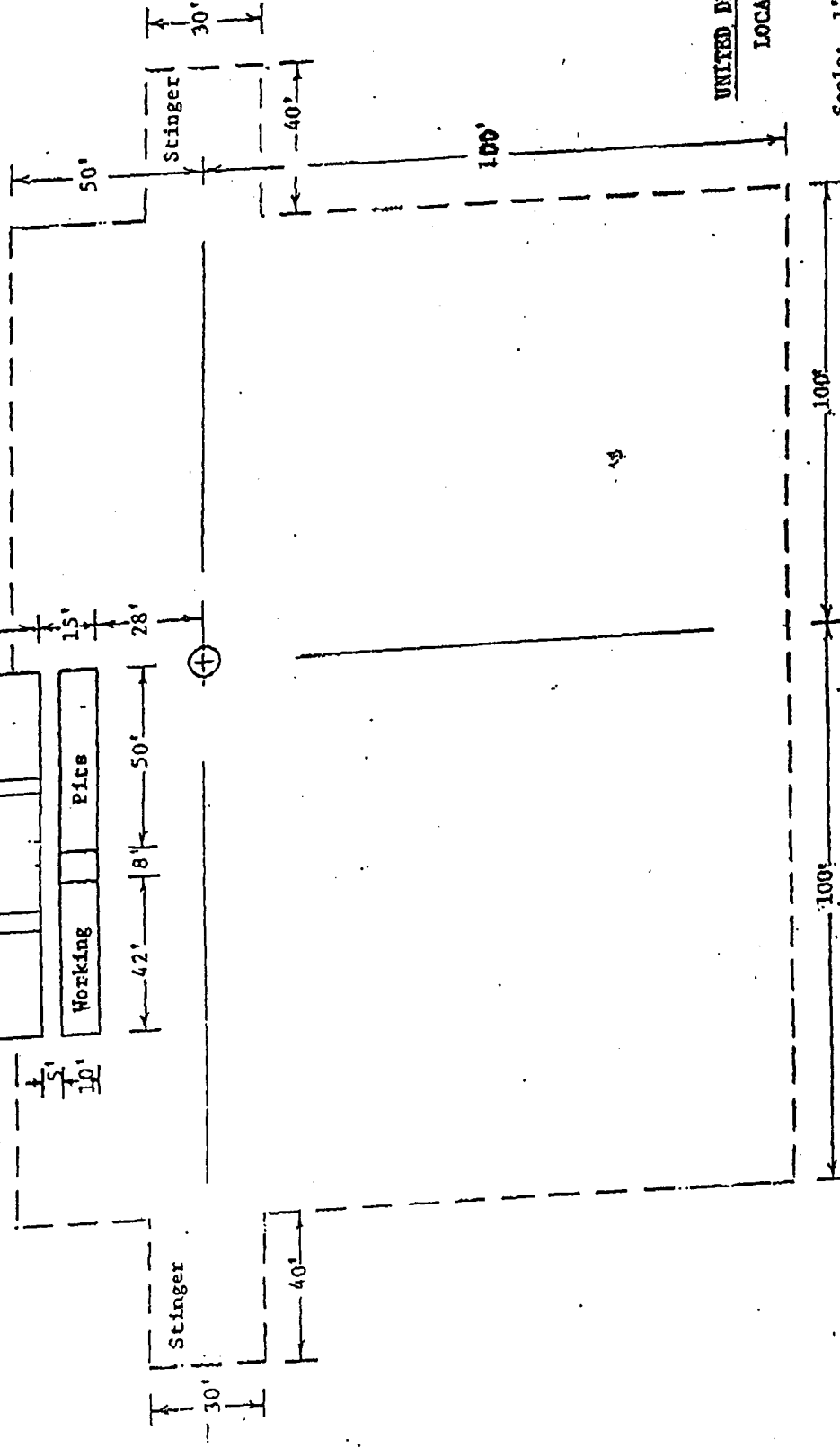
100'

UNITED DRILLING, INC.

LOCATION FLAT

RIG 24

Scale: 1"=40'



## State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

HOBBS, NM 88240

DISTRICT II

1220 S. 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<br>30 -15 | Pool Code<br>49625                                   | Pool Name<br>Parkway Delaware |
| Property Code        | Property Name<br>PARKWAY DELAWARE UNIT               | Well Number<br>207            |
| OGRID No.            | Operator Name<br>ST. MARY LAND & EXPLORATION COMPANY | Elevation<br>3318'            |

## Surface Location

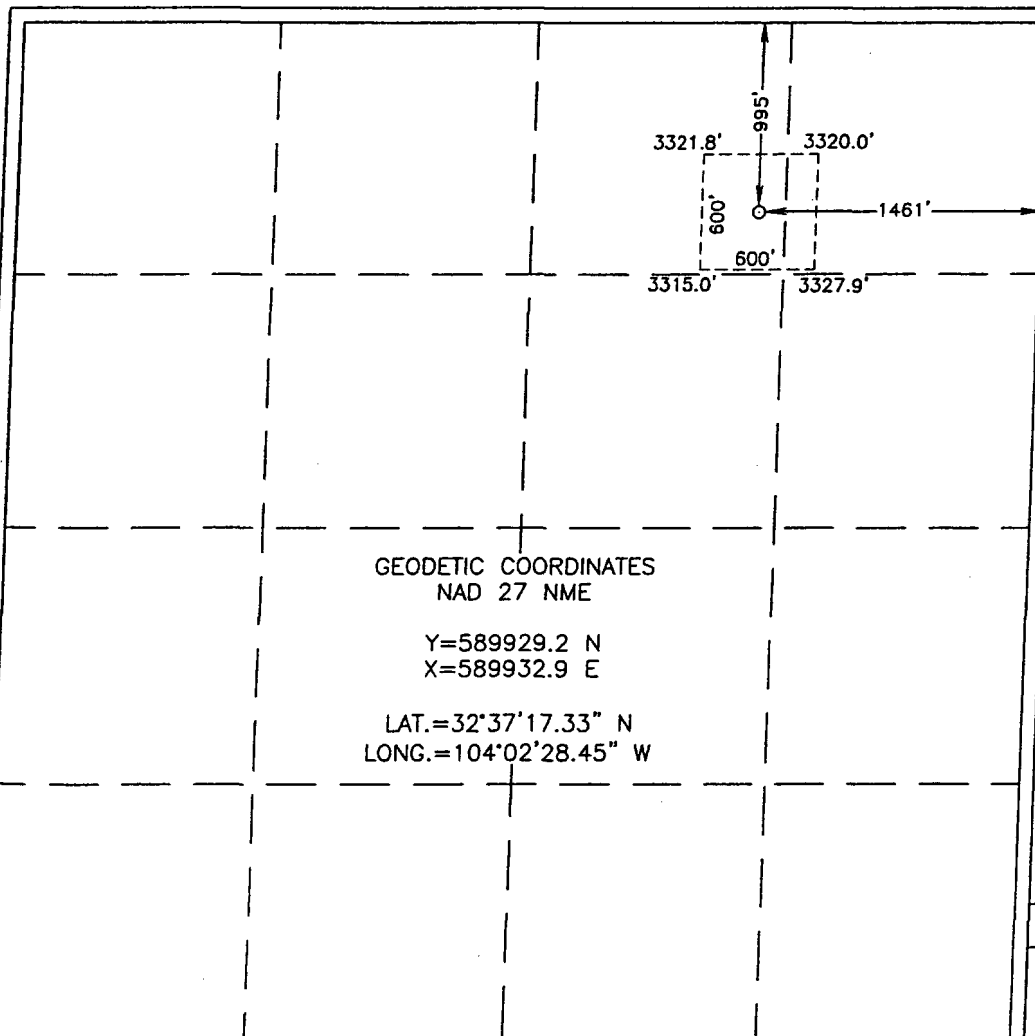
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| B             | 35      | 19-S     | 29-E  |         | 995           | NORTH            | 1461          | 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. |
|-----------------|-----------------|--------------------|-----------|
| 10              |                 |                    |           |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



## OPERATOR CERTIFICATION

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

Signature

Alan D. Means

Printed Name

Operations Engineer

Title

Date

3/29/05

## 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.

DECEMBER 28, 2004

Date Surveyed  
Signature & Seal of  
Professional Surveyor.

DEL

Certificate No. GARY EDSON 12641