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

Form 3160-3
(September 2001)

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

OCT 2003
RECEIVED
OCD ARTESIA

1a. Type of Work: ☑ DRILL ☐ REENTER	5. Lease Serial No. NM - 67102
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	6. If Indian, Allottee or Tribe Name
2. Name of Operator ST. MARY LAND & EXPLORATION	7. If Unit or CA Agreement, Name and No. PARKWAY DELAWARE UNIT
3a. Address PO BOX 7168, BILLINGS, MT 59103	3b. Phone No. (include area code) (406) 245-6248
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 2000' FNL & 1564' FEL, UL:G At proposed prod. zone SAME	8. Lease Name and Well No. PDU # 305
	9. API Well No. 30-015-33071
	10. Field and Pool, or Exploratory PARKWAY DELAWARE
	11. Sec., T., R., M., or Blk. and Survey or Area SEC. 35, T19S, R29E
14. Distance in miles and direction from nearest town or post office* 17 MILES NE OF CARLSBAD	12. County or Parish EDDY / 13. State NM

SECRETARY'S POTASH

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
	920	20
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
	4550'	6041872
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3326' GL	EARLY OCTOBER	10-12 DAYS

CAPITAN CONTROLLED WATER BASIN

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)	Date
Herbert R Thackeray	HERB THACKERAY	9/19/03
Title: OPERATIONS ENGINEER		
Approved by (Signature): /s/ Jesse J. Juen	Name (Printed/Typed): Jesse J. Juen	Date: 17 OCT 2003
Title: ACTING 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 reverse)

627 0288

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
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
	49625	Parkway Delaware

Property Code	Property Name	Well Number
19265	P.D.U.	305

OGRID No.	Operator Name	Elevation
154903	ST. MARY LAND & EXPLORATION COMPANY	3326'

Surface Location

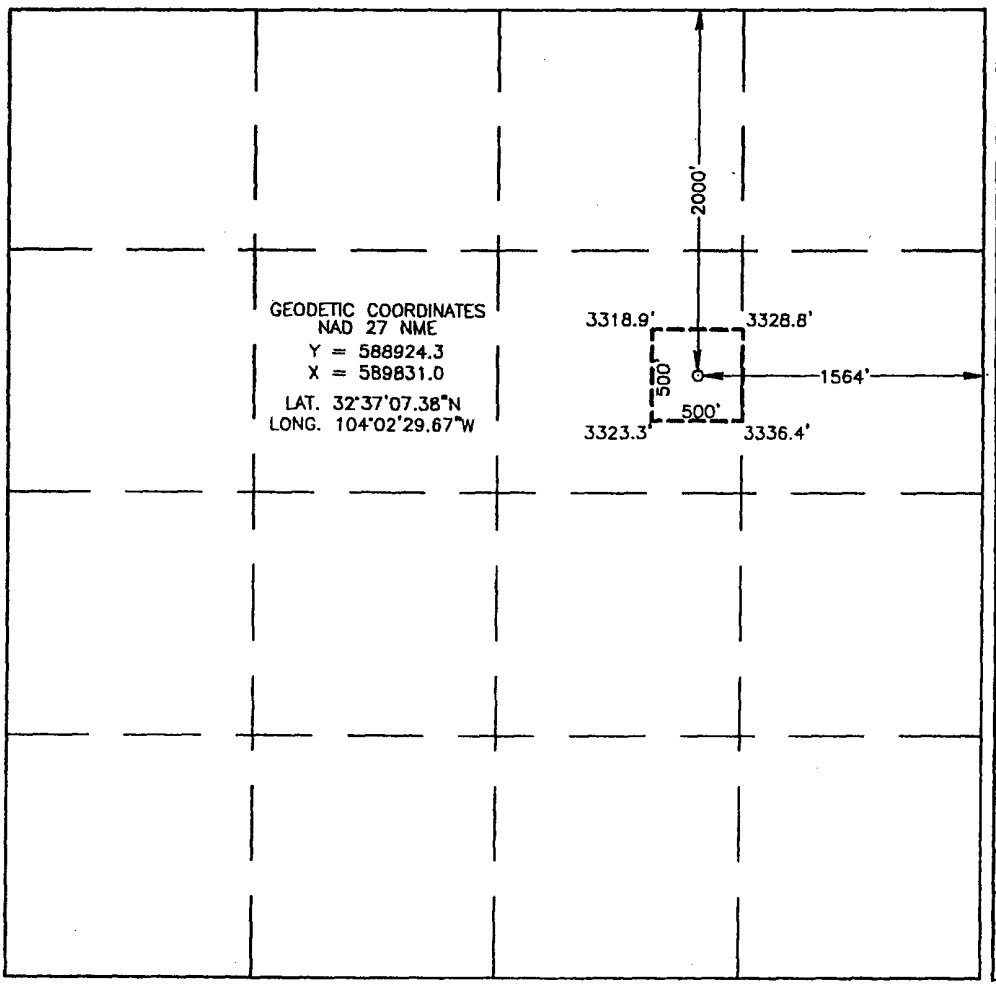
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	35	19-S	29-E		2000	NORTH	1564	EAST	EDDY

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.
40			

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

Herb Thackeray
Printed Name

Operations Engineer
Title

8/21/03
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.

JULY 29, 2003
Date Surveyed L.A.

Signature & Seal of Professional Surveyor

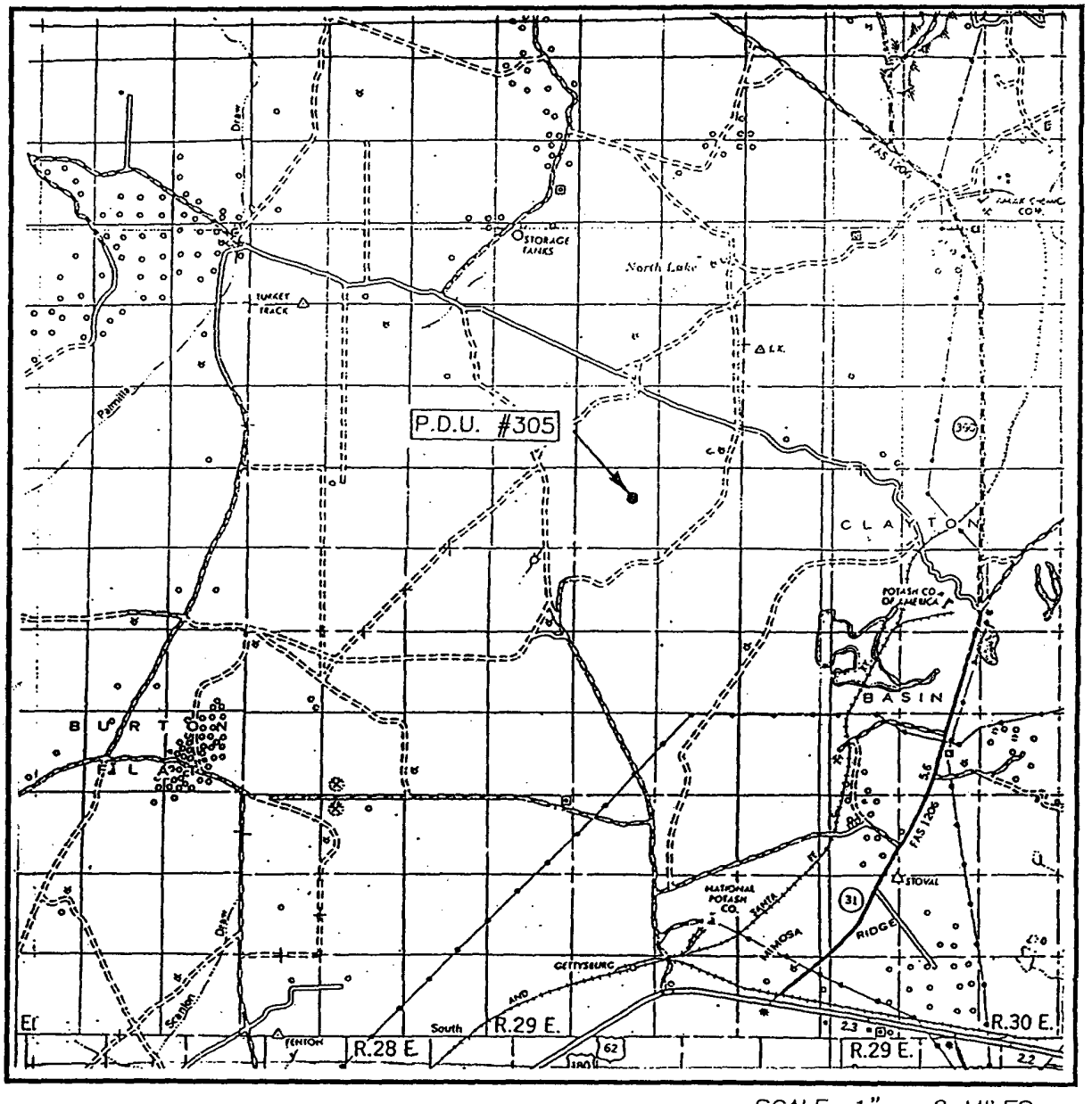
RONALD J. EIDSON
NEW MEXICO
12641
REGISTERED PROFESSIONAL SURVEYOR

8/8/03

03.11.0793

Certificate No. RONALD J. EIDSON 3239
GARY L. EIDSON 12641

VICINITY MAP



SCALE: 1" = 2 MILES

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

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2000' FNL & 1564' FEL

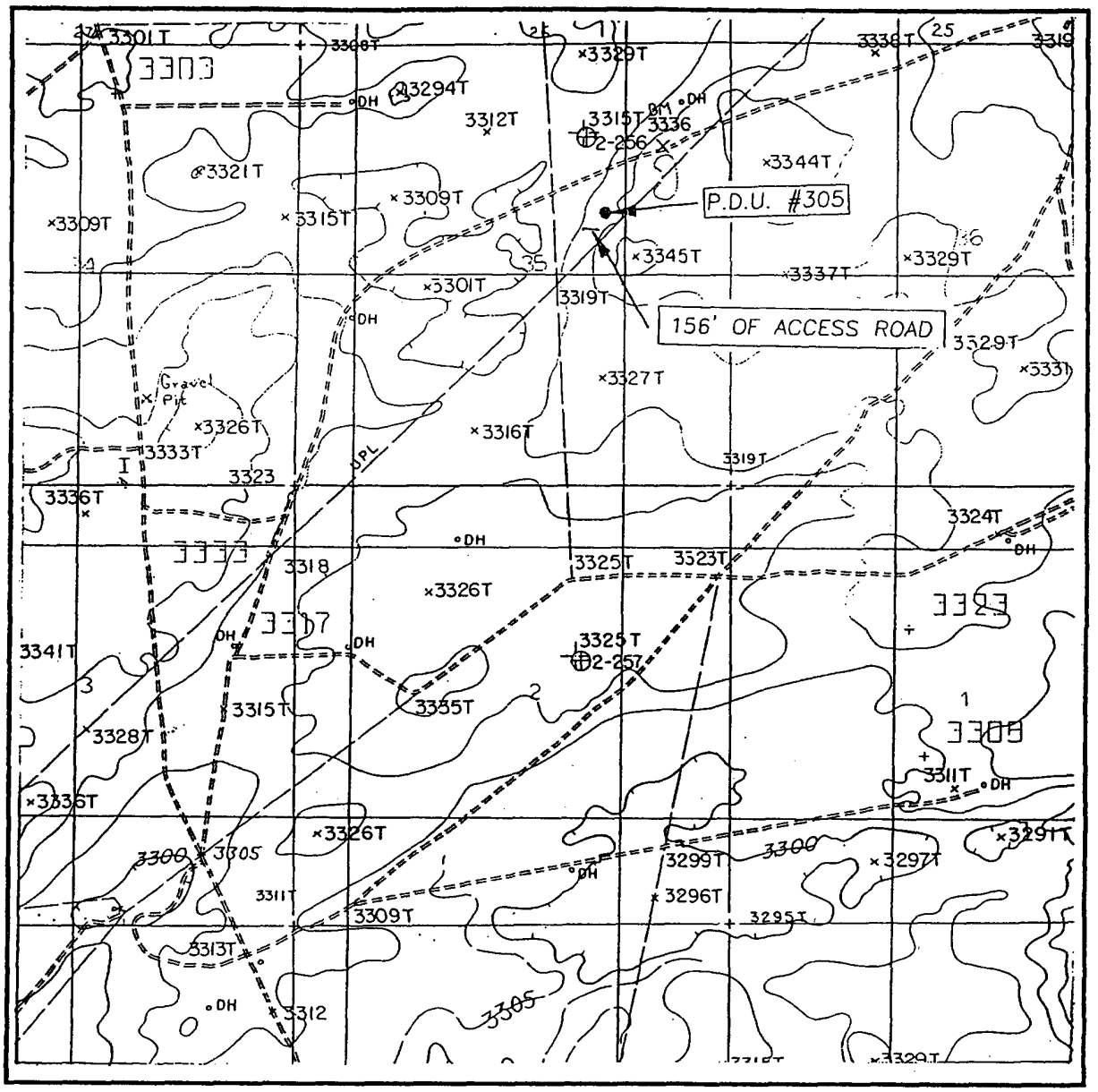
ELEVATION 3326'

OPERATOR NANCE PETROLEUM

LEASE P.D.U.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'
ILLINOIS CAMP SE, N.M.

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

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2000' FNL & 1564' FEL

ELEVATION 3326'

OPERATOR NANCE PETROLEUM

LEASE P.D.U.

U.S.G.S. TOPOGRAPHIC MAP
ILLINOIS CAMP SE, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

APD

Operator: St. Mary Land and Exploration Co.
Lease name: Parkway Delaware Unit
Well number: **PDU # 305**
Location: 2000' FNL, 1564' FEL; Sec 35, T19S, R29E
Field name: Parkway` (Delaware)
County: Eddy, New Mexico
Lease No: NM-67102

Nine Point Drilling Plan
(supplement to BLM 3160-3)

1. Name and estimated tops of geologic horizons

Rustler	150'
Salado	250'
Tansill	1250'
Yates	1500'
Capitan Reef	1720'
Delaware	3600'

2. Protection of possible useable water will be achieved by setting 13 3/8" surface casing 25' into the Rustler anhydrite @ ~250-350' and cementing it to surface. Protection/isolation of potential oil or gas producing horizons (Delaware @ 3600') will be achieved by setting 5 1/2" casing @ 4550' 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, and a choke manifold of comparable pressure rating. Equipment will be rated for 2000 psi, and will be tested to 80% of that pressure rating prior to drilling out the 13 3/8" surface casing. A hydraulic closing unit will be a part of this equipment, and it 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 @ ~250 - 350' in 17 1/2" hole	WITNESS
Intermediate	8 5/8" OD, 24&32#/ft J55, STC new pipe @ 3200' in 12 ¼" hole	WITNESS
Production:	5 1/2" OD, 15.5&17#/ft, J55, LTC, new pipe @ 4550' in 7 7/8" hole	

5. Cementing programs for the above casing strings are:
(NOTE: Products listed are from Schlumberger quote where D44 = salt, D20 = bentonite gel, D46 = antifoamer, D29 = celloflake. It's possible we would use another contractor with equivalent products)

Surface: 335 sx Class C w/2% S1 +.25#/sk D29 mixed at 14.8 ppg, and having a yield of 1.34 cu ft/sk

The above volumes represent 100% excess over calculated hole volume at 300' 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: Stage 1
(a) 500 sx 50/50 Poz:Class C w/5% D44, 10% D20, .25#/sk D29 + 0.2 % D46 mixed @ 11.6 ppg and having a yield of 2.47 cu ft/sk
(b) 200 sx Class C neat mixed @ 14.8 ppg, and having a yield of 1.32 cu ft/sk
Stage 2 (w/DV @ ~1400')
(a) 310 sx 50/50 Poz:Class C w/5% D44, 10% D20, .25#/sk D29 + 0.2 % D46 mixed @ 11.6 ppg and having a yield of 2.47 cu ft/sk
(b)55 sx Class C neat mixed @ 14.8 ppg, and having a yield of 1.32 cu ft/sk

The above volumes represent 50% excess over calculated hole volume

Production: (a) 320 sx 35/65 Poz:Class H w/ 5% D44 + 6% D20 +0.2% D46 +.25#/sk D29 mixed @ 12.4 ppg and having a yield of 2.03 cu ft/sk
(b) 160 sx 50/50 Poz:Class H w/5% D44, 2% D20, .25#/sk D29 + 0.2 % D46 mixed @ 14.2 ppg and having a yiel of 1.33 cu ft/sk

The above volumes represent 25% excess over calculated hole volume

6. It is anticipated that this well will be drilled to TD utilizing fluids shown below

0~300'	FW "spud mud"	8.6-9.0 ppg	
~300~1800'	Brine	9.7-10.0 ppg	*brine to be used to minimize hole wash out in the salt*
~1800-3200'	FW	8.3 – 8.5 ppg	*we anticipate loss of circulation in reef, requiring switch to FW and dry drilling to casing point*
3200-3800'	Cut brine	8.5 – 8.9 ppg	
3800-4550'	Cut brine/Starch	8.7 – 8.9 ppg maintaining water loss @ 10-15 cc	

7. No drill stem testing, mud logging or coring is planned for this wellbore. Electric logs to be run @ TD will be; Platform Express Triple Combo, CMR –Plus. RFT's may be taken to determine pressures in individual Delaware stringers.

8. The expected BHP at TD is not expected to exceed 600 psi, and a BHT of 110 is anticipated. There is very little H2S present in the hydrocarbons being produced from the other wells in this field. Should 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 is expected to be a problem in the Capitan Reef. If / when this occurs we plan to switch from brine to fresh water and dry drill to the intermediate casing point.

9. It is estimated that this well will be drilled, logged, and cased in 11 days. This estimate is based on previous programs. The well will be drilled by a contractor having experience in the area, and will be monitored/directed by an on-site drilling consultant at all times.

Twelve Point Plan for Surface Use & Certification
(additional data for form 3160-3)

1. EXISTING ROADS – A "VICINITY MAP" and a "LOCATION VERIFCATION 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 Pecos River bridge in Carlsbad, proceed east on hiway 62-180 for 13.5 miles.
   b) Turn north on County Road 238 and proceed for 2.1 miles.
   c) Where CR 238 turns to west, turn north on caliche road for 4.1 miles.
   d) Turn east and proceed for 1 mile to PDU Tract #1 battery.
   e) Turn north for .2 miles to PDU # 301.
   f) Turn east on new road to location.

2. PLANNED ACCESS ROADS – Approximately 156' of new access road will be built from the west offset producer #301 pad to the proposed pad for PDU #305.

3. LOCATION OF EXISTING WELLS – EXHIBIT B shows the location of other wells within a mile radius of the proposed location. (NOTE: actual staked new well locations had to shifted slightly to avoid buried and overhead lines)

4. LOCATION OF EXISTING OR PROPOSED FACILITIES – The well will be tied into existing PDU facilites.

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 in T20S-R29E. 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.
   - 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 shows the anticipated orientation of the drilling rig. The pad however will be *smaller* and built as shown on EXHIBIT D. To fit the area it may have to be rotated to avoid buried lines. (For #305, the location should fit with the pits constructed on the north side.) A "double horseshoe" pit design will allow us to use fresh water or brine water in anticipation of having lost circulation in the Capitan Reef. 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
620 E. Greene St.
Carlsbad, New Mexico 88220
505-234-5972

The BLM representative for this area is Barry Hunt who can be reached at the above number.

The site was archaeologically surveyed by Mesa Field Services. A copy of that report was submitted to the BLM.

12. OPERATORS REPRESENTATIVE - St. Mary Land and Exploration is covered by Nationwide Bond No. 6041872. Nance Petroleum Corporation, a wholly owned subsidiary, will operate the well for St. Mary and is represented by:

Robert L. Nance, President
Gary Evertz, VP Operations
Terry Holzwarth, VP Acquisitions
Herb Thackeray, Operations Engineer
550 North 31st Street, Suite 500
P.O. Box 7168
Billings, MT 59103
406-255-8627 (o)
406-861-7372 (m)
406-656-7250 (h)

Jackie Herron, Contract Pumper
Lake Arthur, NM
505-746-7601 (m)
505-365-3067 (h)

OPERATORS CERTIFICATION

I hereby certify that I, Herb Thackeray-Operations Engineer, or persons under my direct supervision, 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 L&E/NANCE PETROLEUM CORP 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.

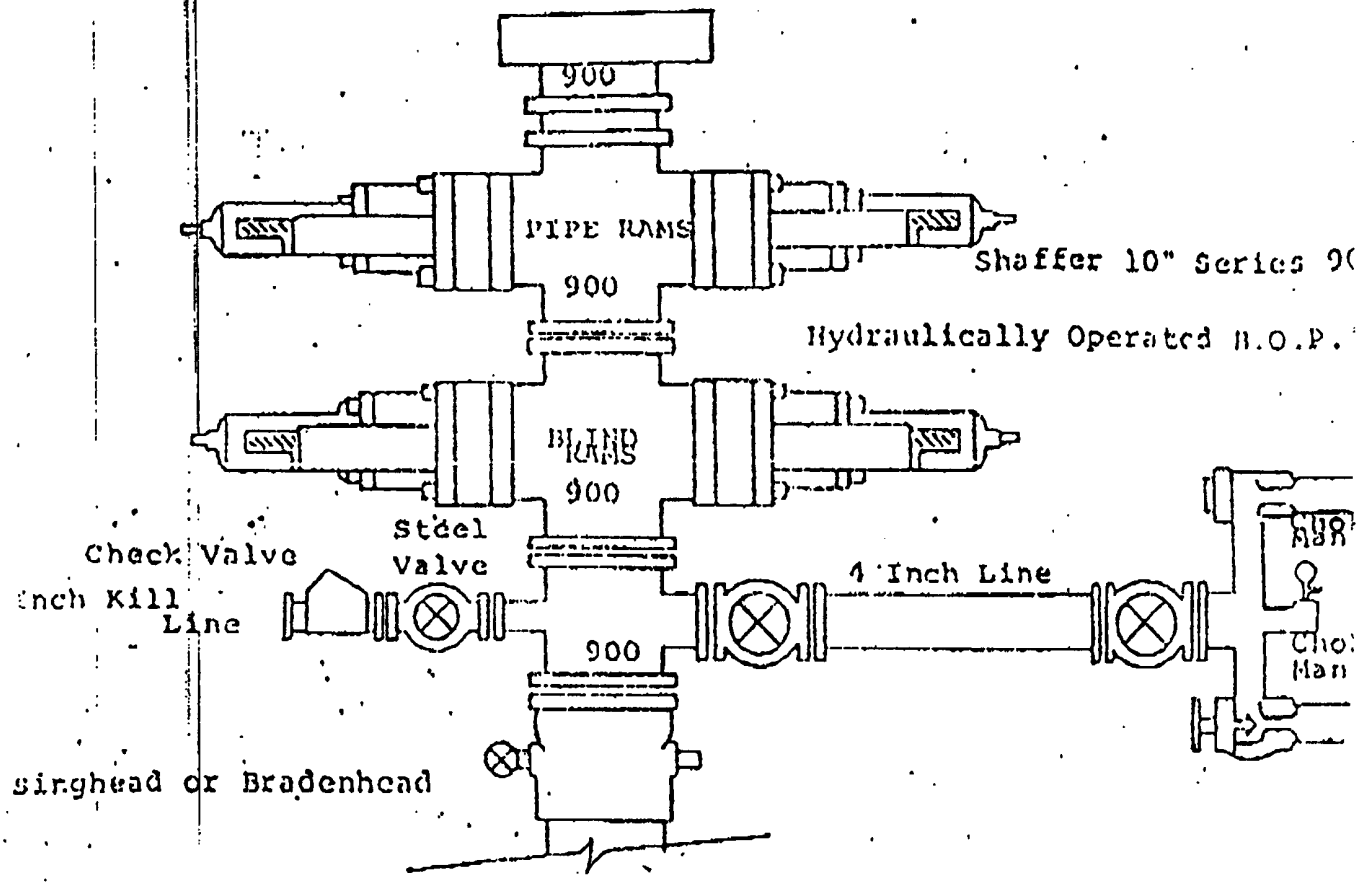
This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Name and title: Herb Thackeray, Operations Engineer for Nance Petroleum Corp.
A wholly owned subsidiary of St. Mary Land & Exploration Co.

Signature: Herbert R. Thackeray

Date: 9/19/03

EXHIBIT A



FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

All preventers to be hydraulically operated with secondary manual con
installed prior to drilling out from under casing.
Choke outlet to be a minimum of 4" diameter.
Kill line to be of all steel construction of 2" minimum diameter.
All connections from operating manifolds to preventers to be all stee
hole or tube a minimum of one inch in diameter.
The available closing pressure shall be at least 15% in excess of tha
required with sufficient volume to operate the B.O.P.'s.
All connections to and from preventer to have a pressure rating equiv
to that of the B.O.P.'s.
Inside blowout preventer to be available on rig floor.
Operating controls located a safe distance from the rig floor.
Hole must be kept filled on trips below intermediate casing. Operato
not responsible for blowouts resulting from not keeping hole full.
D. P. float must be installed and used below zone of first gas intrus

NANCE PETROLEUM CORPORATION

A Subsidiary of
St. Mary Land & Exploration Co.

EXHIBIT B

2003 PDU
Infill Drilling Program

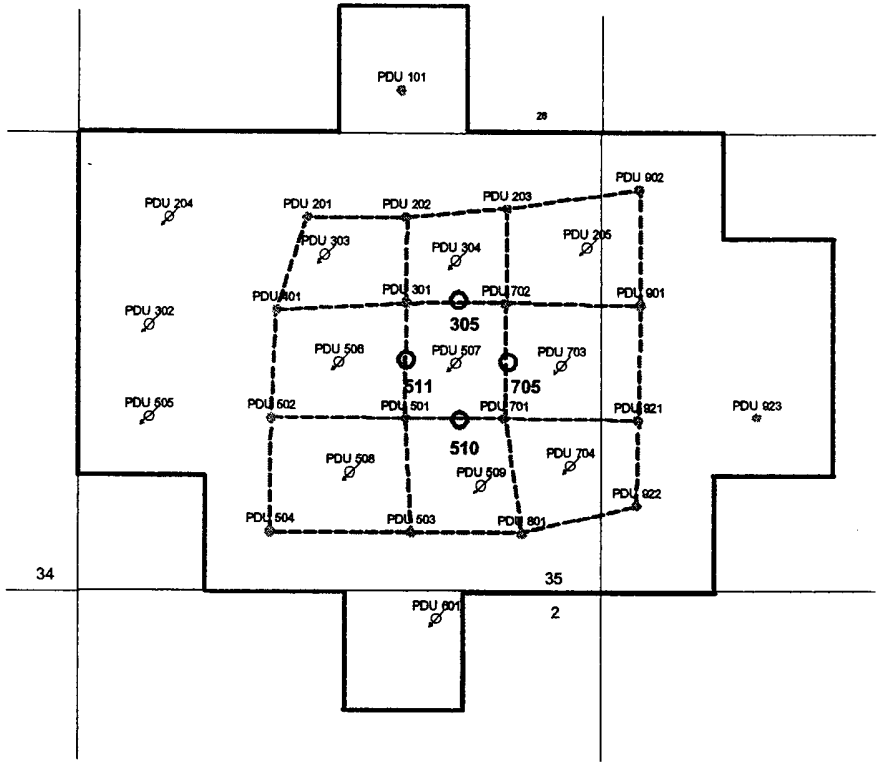
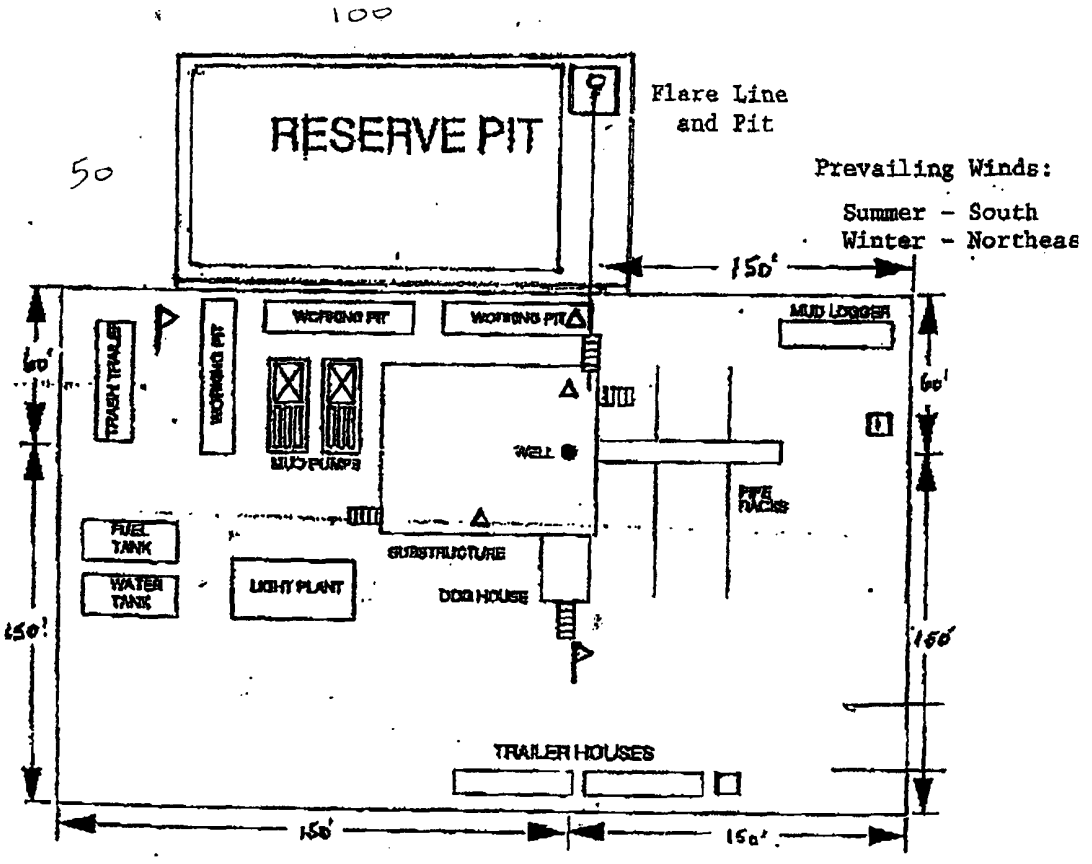


EXHIBIT C

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