Form 3160-3 (April 2004)

N.M. Oil Cons. DIV-Dist. 2 1301 W. Grand Avenue

Artesia, NM 88210

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

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT 5. Lease Serial No.

NM-24160 6/582 6. If Indian, Allotee or Tribe Name

APPLICATION FOR PERMIT	TO DRILL	OR REENTER
------------------------	----------	------------

la. Type of work: DRILL REENTER		7 If Unit or CA Agreement, Name and No. Parkway Delaware Unit		
lb. Type of Well: Oil Well Gas Well Other Single Zone Multiple Zone		iple Zone	8. Lease Name and Well No. PDU #206 192 45	
2. Name of Operator St Mary Land & Exploration Company 154903			9. API Well No. 30 - 015 - 34/28	
3a. Address 580 Westłake Park Blvd., Suite 600 Houston, TX 77079	3b. Phone No. (include area code) 281-677-2800		10. Field and Pool, or Exploratory Parkway Delaware 49425	
4. Location of Well (Report location clearly and in accordance with a	ny State requirements.*)		11. Sec., T. R. M. or I	3lk. and Survey or Area
At surface (B) 1000' FNL & 2452' FEL  At proposed prod. zone " Service Type Principle  The principle Type Princ			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
15. Distance from proposed*	16. No. of acres in lease	17. Spacing	Unit dedicated to this	well
location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	920	20		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.  150'	19. Proposed Depth 4600'	20. BLM/B 604187	IA Bond No. on file 72	RECEIVED
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will star	rt*	23. Estimated duration	
3316'	05/01/2005		15 days	ODD-AHTEON
	24. Attachments			
<ol> <li>The following, completed in accordance with the requirements of Onshor</li> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System I SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>	4. Bond to cover the ltem 20 above).  Lands, the 5. Operator certification	ne operations ation specific infor		existing bond on file (see
25. Signature	Name (PrintedTyped) Alan D. Means			Date /29/05-
Title Operations Engineer				
Approved by (Signature) /S/ Linda S. C. Rundell	Name (Printed/Typed) /s/ Linda S	. C. Ru	•	Date MAY 1 7 2005
STATE DIRECTOR	Office NM	STATE	OFFICE	20
Application approval does not warrant or certify that the applicant holds conduct operations thereon. Conditions of approval, if any, are attached.			t lease which would en	* JSRQ*
Fitle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cristates any false, fictitious or fraudulent statements or representations as to	ne for any person knowingly and wi any matter within its jurisdiction.	llfully to mak	e to any department or	agency of the United

\*(Instructions on page 2)

APPROVAL SUBJECT TO General requirements and SPECIAL STIPULATIONS ATTACHED

5alt. >9.5

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 Fc. NM 87504~,

### State of New Mexico Energy Minerals and Natural Resources

Pit or Below-Grade Tank Registration or Closure

For dri appropri For dov office

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

Form C-144

June 1, 2004

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

Is pit below-grade tank covered by a "general plan" Yes No X
Type of action Registration of a pit or below-grade tank X Closures of a pit of below-grade tank [ Operator: St Mary Land & Exploration Company Telephone Address: 580 Westlake Park Blvd, #600, Houston, TX 77079 (21) Facility or well name: Parkway Delaware 200 API 4 pendings county: Lea NAD: 1927 1983 Surface Owner Federal X State Private Indian Latitude Longitude Wells #514; 402(206) 207 plats attached Type: Drilling X Production Disposal Volume: bbI Type of fluid: Workover Emergency Construction material: Double-walled, with leak detection? Yes 0 If not, explain why not, Lined Unlined Liner type: Synthetic X Thickness 12 MIII Clay Pit Volume 3500 bhi Less than 100 feet (20 points) Depth to ground we (10 points) 100 feet or more, build less than 100 feet water elevation of ground water.) Ann (0 points) 100 ft. Ves (20 points) Wellhead protection area: (Less than 200 feet from a private domestic ( 0 points) No water source, or less than 1000 feet from all other water sources.) No Less than 200 feet (20 points) Distance to surface water: (horizontal distance to all wetlands, playas, (10 points) 200 feet or more, but less than 1000 feet irrigation canals, ditches, and perennial and ephemeral watercourses.) (0 points) I 600 feet or more 1000 ft or more 0 Points Ranking Score (Total Points) Is this an oil closure, (I) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box ifyou are burying in place) onsite: offsite O 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 0 Yes \_\_\_ If yes, show depth below ground surface PL and attach sample results. (:,) (2) 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 by constructed or closed according to NMOCD guidelines X . n general permit, ed) alternativ@OCD-approved plan Printed Name title Alan D. Means, Operations Engineer Your certification and NMOCD approval of this application/closure does not relieve the op 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: MAY 17 2005 Printed Name/Title As Set Guidenses,

detailed closure plan must be submitted prior to closure.

#### State of New Mexico

FRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NW 88216

DISTRICT IV

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

1220 S. ST. FRANCIS DR., SANTA FE, NM 67505

API Number

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

Pool Code

Form C-102
Revised JUNE 10, 2003
Submit to Appropriate District Office
State Lease ~ 4 Copies
Fee Lease ~ 3 Copies

Pool Name

☐ AMENDED REPORT

Property Code Well Number Property Name PARKWAY DELAWARE UNIT 206 Operator Name Elevation OGRID No. ST. MARY LAND & EXPLORATION COMPANY 3316 Surface Location Range Lot Idn Feet from the North/South line Feet from the East/West line III. or lot No. Section Township County В 1000 **NORTH** 2452 **EAST EDDY** 35 19-S 29-E Bottom Hole Location If Different From Surface Lot Idn North/South line UL or lot No. Section Township Range Feet from the Feet from the East/West line County Joint or Infill Consolidation Code Dedicated Acres 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 ed herein is true and complete to the 3316.0 3319.9 knowledge and belief. Signatu 3315.8 3312.5 Printed Title Dete SURVEYOR CERTIFICATION GEODETIC COORDINATES I hereby certify that the well location shown NAD 27 NME 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 Y=589929.0 N correct to the best of my belief. X=588942.0 E **DECEMBER 28, 2004** LAT.=32°37′17.35″ N Date Surveyed Signature & Seal of Professional Surveyor LONG.=104'02'40.03" W E 05/05 Certificate No. GARY EIDSON 12641 W. NOESSION

#### 'ON 35, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M., NEW MEXICO EDDY COUNTY, 3319.9' 3316.0' 600' 덞 150' NORTH **OFFSET** 3317.0 2" STL. FLOW LINE PARKWAY DELAWARE UNIT #206 150' WEST 150' EAST OFFSET 🗆 0 OFFSET 3317.0' 3314.3' ELEV. 3315.7' LAT.=32°37'17.35" N LONG.=104°02'40.03" W 150' SOUTH 3 WIRE ELECTRIC LINE **OFFSET** 3313.9 3312.5' 3315.8 600' 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 100 100 200 Feet TO A LEASE RD. ON LEFT. TURN ON AND GO SOUTH TO WEST TO SOUTH APPROX. 1.4 MILES TO Scale: 1 "= 100" A "T". TURN RIGHT (WEST) AND GO APPROX. 0.9 MILE TO A LEASE RD. ON RIGHT. GO NORTH ST. MARY LAND & EXPLORATION COMPANY APPROX. 0.4 MILE TO A WELL PAD ON RIGHT. GO EAST 300± FEET TO PROPOSED LOCATION. PARKWAY DELAWARE UNIT #206 WELL LOCATED 1000 FEET FROM THE NORTH LINE AND 2452 FEET FROM THE EAST LINE OF SECTION 35, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M., PROVIDING SURVEYING SERVICES EDDY COUNTY, NEW MEXICO. **SINCE 1946** JOHN WEST SURVEYING COMPANY Survey Date: 12/28/04 Sheet Sheets of 412 N. DAL PASO

W.O. Number: 04.11.1749 | Dr By: DEL

Date: 01/03/05 | Disk: CD#3

Rev 1:N/A

04111749

Scale: 1 "= 100

HOBBS, N.M. 88240

(505) 393-3117

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

St. Mary Land and Exploration Co.

PDU #206

1000' FNL, 2452' FEL; Sec 35, TI9S, 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 5.5" 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 @ 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

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 H2S 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 #206

1000' FNL, 2452' FEL; Sec 35, TI9S, R29E

Parkway Delaware Unit

Parkway (Delaware)

Eddy Co., NM

NM-24160 6/582

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 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 .9 miles to lease road on the right.
- d) Turn north and proceed for .4 miles.
- e) Turn east and go 300' to location.
- 2. PLANNED ACCESS ROAD —Approximately 300' of new E-W access road will be built from the existing N-S 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.

#### 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 #206 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.

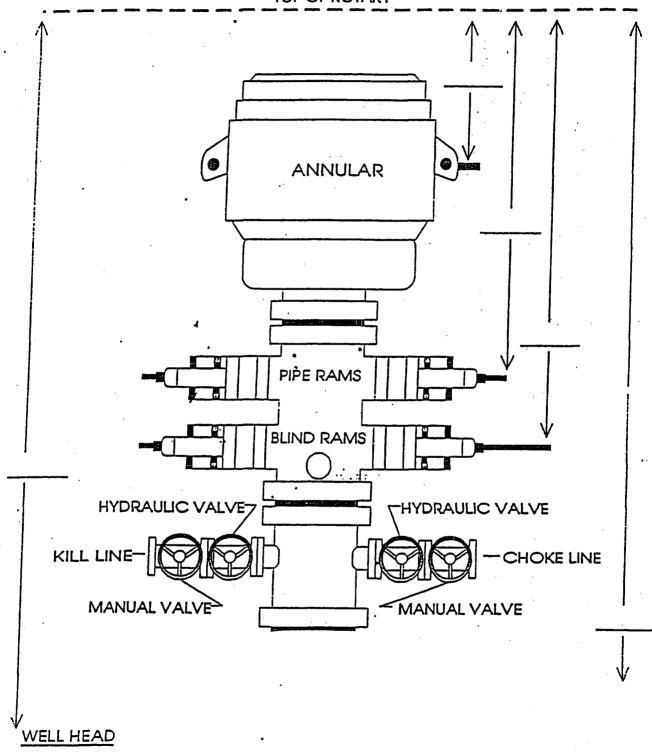
Name and title:	Alan D. Means, Consulting Operations Engineer for St. Mary Land & Exploration Company
Signature:	Lipotation Company // her
Date:	4/4/05

# EXHIBIT A

B.O.P. STACK SPACING SIZE: 11" 3000#

TOP OF ROTARY

4. 5. 1. 2

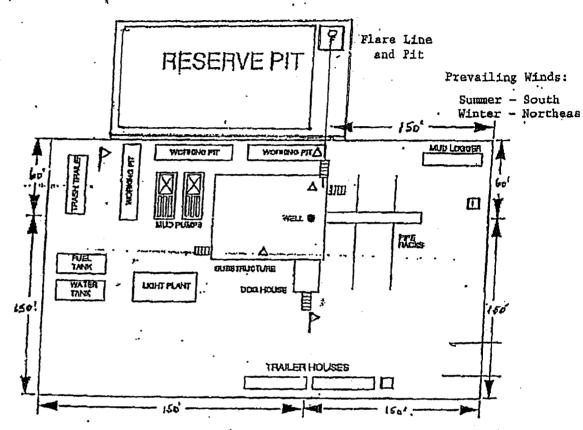


WELL PDU 512 CONTRACTOR

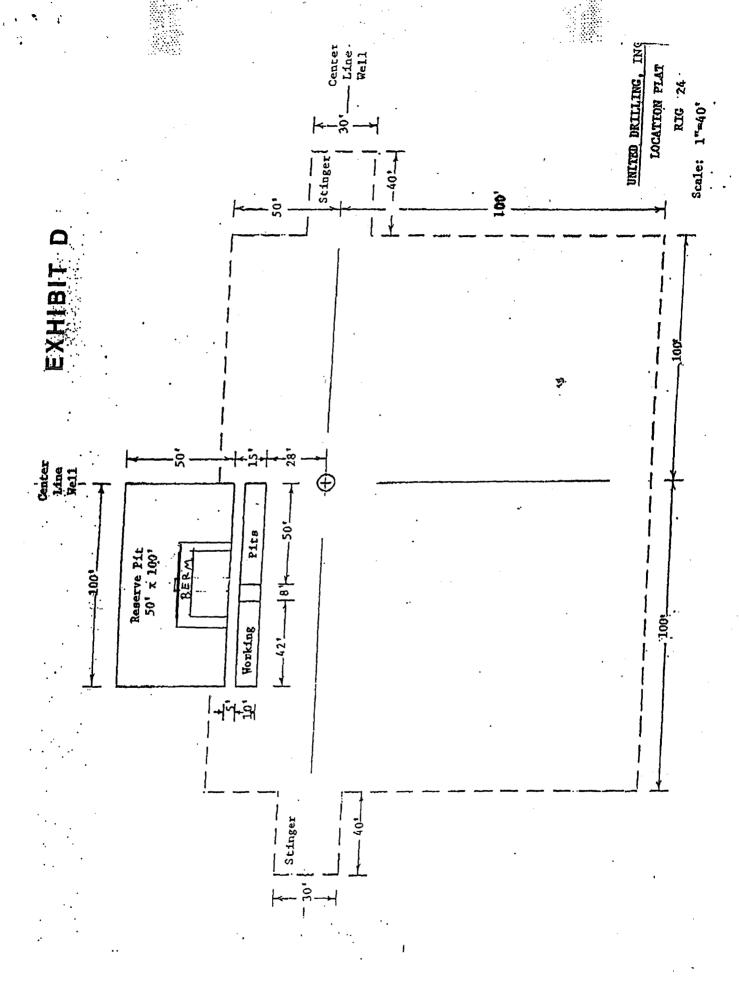
CONTRACTOR UNITED DRILLING

## EXHIBIT C

Typical United Drilling Rig Layout



- $\Delta$  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. I designates primary area.





# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON** 

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

May 23, 2005 St. Mary Land & Exploration Company 580 Westlake Parkway Blvd. Suite # 600 Houston, TX 77079 Attn: Mr. Alan Means

Re: St. Mary Land & Exploration Company's Parkway Delaware Unit Wells: located in the

Parkway Delaware Unit Area Unit, Eddy County,

New Mexico, NMPM

Dear Mr. Means or to Whom It May Concern:

In regards with conditions for approval (in part) for the above captioned well, the New Mexico Oil Conservation Division (NMOCD) will require the following:

This is for St. Mary Land & Exploration Company to take samples from the flow line of the drilling mud every 100 'in order to determine the chloride levels staring at the 1<sup>st</sup> intermediate casing point down through the 2<sup>nd</sup> intermediate casing point.

In addition, the 2<sup>nd</sup> intermediate borehole (in drilling the Capitan Reef) is to be drilled with fresh water mud as noted in your APD.

The results of this data are to be submitted to the NMOCD in Artesia and the Bureau of land Management.

Please call our office if you have any questions regarding this matter.

Respectfully yours.

Bryan 6. Arrant

**PES** 

CC: Well File

John Simitz-Geologist-Bureau of Land Management/Roswell