

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No.  
NM-66425

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.  
Laguna Salado 22 Federal 2

9. API Well No.  
30-015-34677

10. Field and Pool, or Exploratory  
Laguna Salado; Bone Springs

11. Sec. T. R. M. or Blk. and Survey or Area  
Lot C Sec 22, T23S R29E

1a. Type of work: ☒ DRILL ☐ REENTER R-111-POTASH

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

2. Name of Operator  
Devon Energy Production Company, LP

3a. Address 20 North Broadway  
Oklahoma City, Oklahoma City 73102-8260

3b. Phone No. (include area code)  
405-552-7802

4. Location of Well (Report location clearly and in accordance with any state requirements)  
At surface 1090' FNL & 2510' FWL  
At proposed prod. zone 1090' FNL & 2510' FWL

14. Distance in miles and direction from nearest town or post office\*  
Approximately 7 miles east of Loving, NM

12. County or Parish  
Eddy County

13. State  
NM

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  
40

17. Spacing Unit dedicated to this well  
40

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

19. Proposed Depth  
8600'

20. BLM/BIA Bond No. on file

MAR 09 2006

OCD-ARTESIA

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
2978'

22. Approximate date work will start\*  
10/15/2005

23. Estimated duration  
45 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)

Date

Stephanie A. Ysasaga

10/05/2005

Title

Senior Engineering Technician

Approved by (Signature)

Name (Printed/Typed)

Date

151 DAVID E. SINCLAIR

151 DAVID E. SINCLAIR

MAR 07 2006

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 page 2)

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

Controlled Water Depth

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

NSL - Drill only

**Additional Operator Remarks:**

Devon Energy Production Company, LP proposes to drill a Laguna Salado well to 8,600' for commercial quantities of oil and gas. If the well is deemed noncommercial, the wellbore will be plugged and abandoned per Federal regulations. Devon Energy Production Co., LP plans to drill the well per the currently attached Drilling and Surface Use Plan.

**Directions:** From mile marker #4 on State Hwy 128, go east on Hwy 128 for 0.4 mile to Co. Rd 793; thence south on 793 for 3.5 miles to lease road; thence west for 3.0 miles; thence north for 1.0 mile to location.

**H2S:** No H2S is expected to be encountered.

**Other Operator Remarks:**

Well was previously APD'd on 06/02/05, location moved required by BLM.

Original location: Sec 22 T23S-R29E Unit C; 660' FNL & 2140' FWL  
Current location: Sec 22 T23S-R29E Unit C; 1090' FNL & 2510' FWL

DISTRICT I  
1825 N. French Dr., Hobbs, NM 88240

DISTRICT II  
811 South First, Artesia, NM 88210

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

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 96721	Pool Name Laguna Salado
Property Code	Property Name LAGUNA SALADO "22" FEDERAL	Well Number 2
OGRID No. 6137	Operator Name DEVON ENERGY PRODUCTION CO., L.P.	Elevation 2978'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	22	23 S	29 E		1090	NORTH	2510	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
Dedicated Acres 40	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

	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature: </p> <p>Printed Name: Stephanie A. Ysasaga</p> <p>Title: Senior Engineering Technician</p> <p>Date: 10/05/05</p> <p><b>SURVEYOR CERTIFICATION</b></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>AUGUST 23, 2005</p> <p>Date Surveyed: </p> <p>Signature: Gary L. Jones</p> <p>Professional Surveyor</p> <p>W.O. No. 5724</p> <p>Certificate No. Gary L. Jones 7977</p> <p>PROFESSIONAL LAND SURVEYOR</p>
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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

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

Form C-144  
June 1, 2004

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: Devon Energy Production Company, L.P. Telephone: (405)-552-7802 e-mail address: Stephanie.Ysasaga@dvn.com

Address: P.O. Box 250 Artesia, NM 88211

Facility or well name: Laguna Salado 22 Federal #2 API #: \_\_\_\_\_ U/L or Qtr/Qtr C Sec 22 T 23S R 29E

County: Eddy Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ NAD: 1927 ☐ 1983 ☐

Surface Owner: Federal ☒ State ☐ Private ☐ Indian ☐

**Pit**

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☒ Thickness 12 mil Clay ☐

Pit Volume 15,000 bbl

**Below-grade tank**

Volume: \_\_\_\_\_ bbl Type of fluid: \_\_\_\_\_

Construction material: \_\_\_\_\_

Double-walled, with leak detection? Yes ☐ If not, explain why not. \_\_\_\_\_

RECEIVED

JAN 18 2006

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)

100 feet or more

( 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)

No

( 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)

1000 feet or more

( 0 points)

Ranking Score (Total Points)

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: (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 \_\_\_\_\_ ft. and attach sample results. (5) 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 ☐, a general permit ☒, or an (attached) alternative OCD-approved plan ☐.

Date: 01/16/06

Printed Name/Title Stephanie A. Ysasaga/Sr. Staff Engineering Technician Signature \_\_\_\_\_

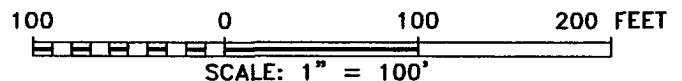
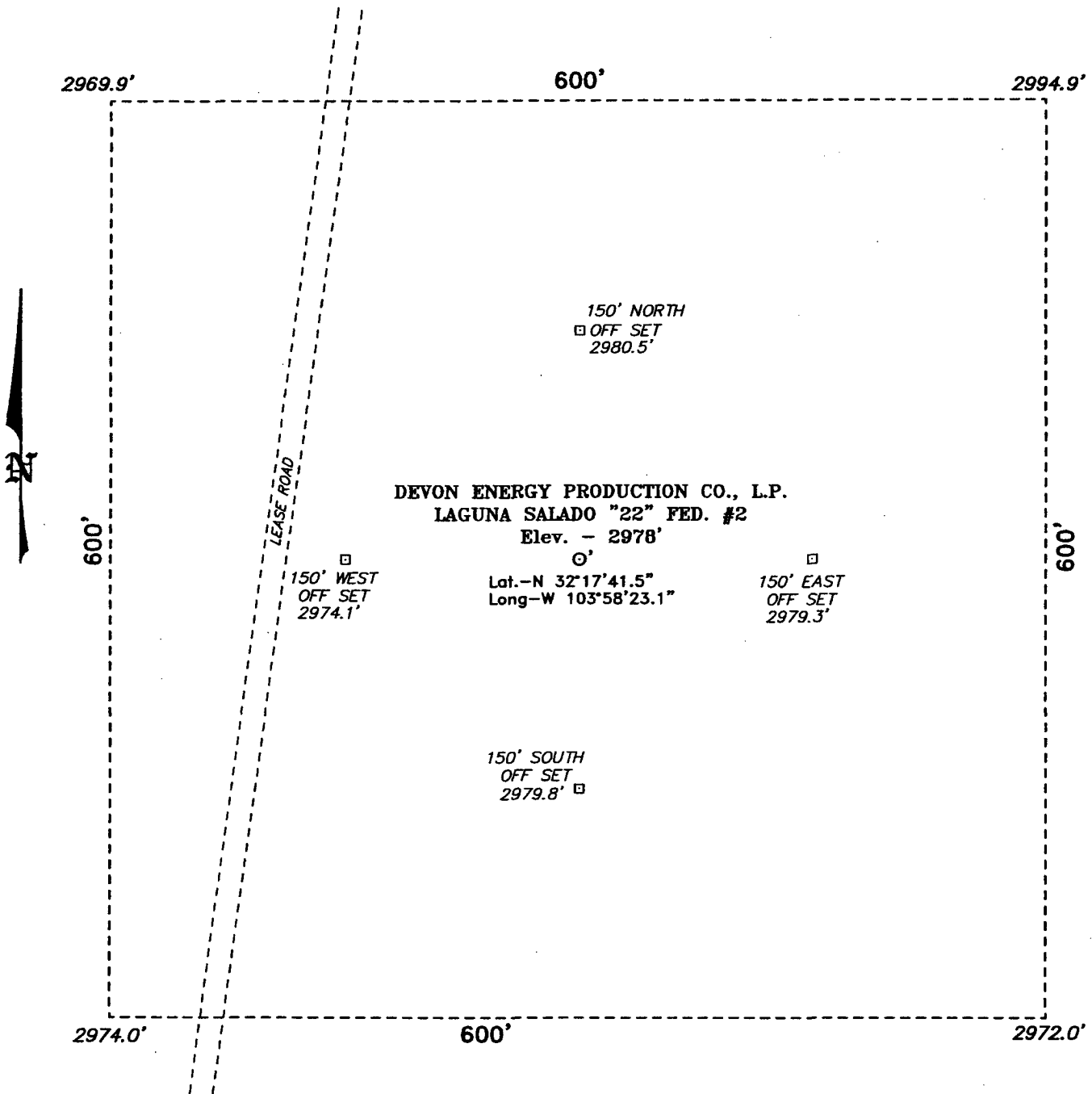
Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title \_\_\_\_\_ Signature \_\_\_\_\_

Date: 1-19-06

SECTION 22, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM MILE MARKER #4 ON STATE HWY 128, GO EAST ON HWY 128 FOR 0.4 MILE TO CO. RD. 793; THENCE SOUTH ON 793 FOR 3.5 MILES TO LEASE ROAD; THENCE WEST FOR 3.0 MILES; THENCE NORTH FOR 1.0 MILE TO LOCATION.

**BASIN SURVEYS** P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 5724 Drawn By: K. GOAD

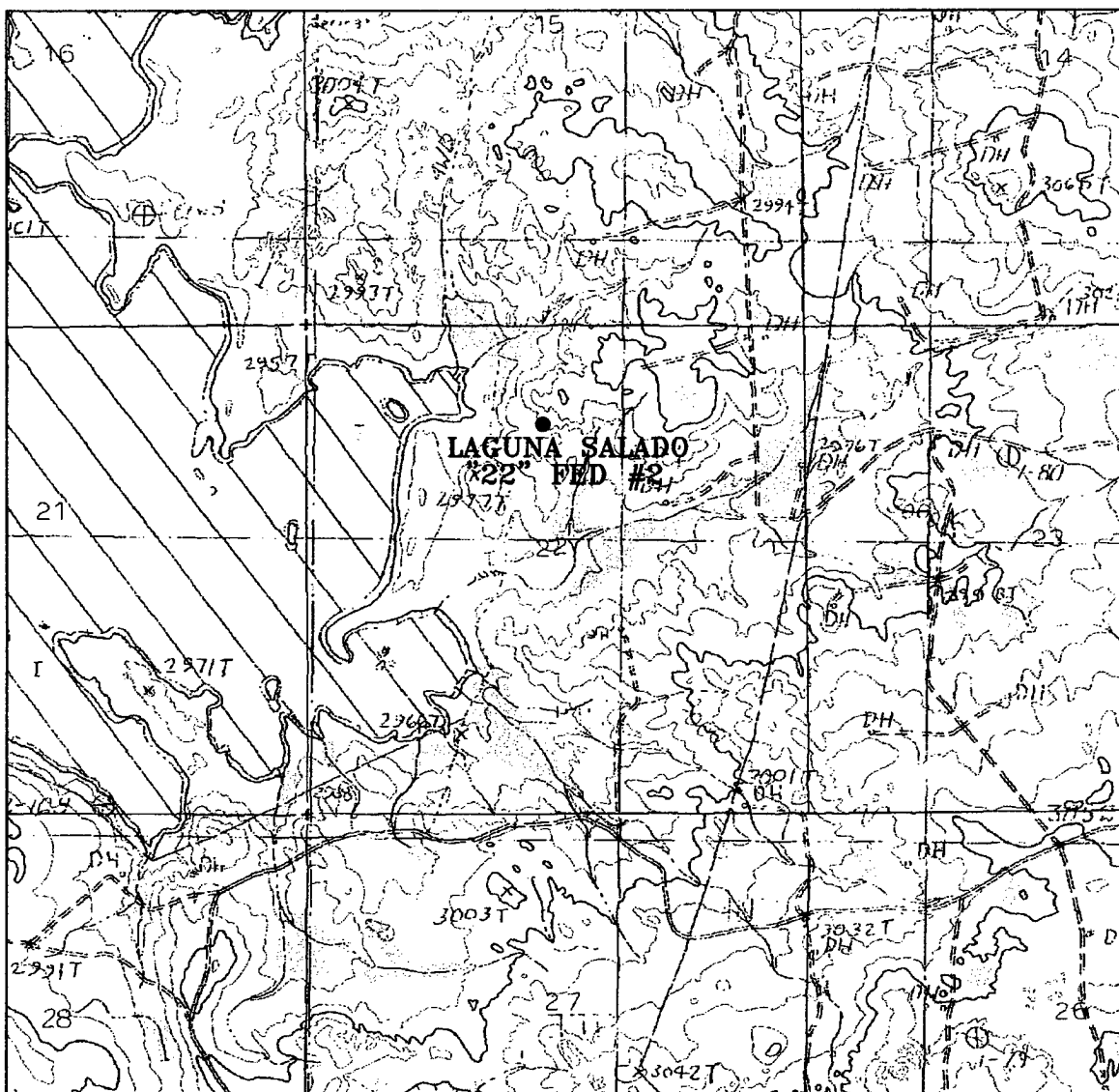
Date: 08-24-2005 Disk: KJG CD#4 - 5724A.DWG

**DEVON ENERGY PROD. CO., L.P.**

REF: LAGUNA SALADO "22" FED. No. 2 / Well Pad Topo

THE LAGUNA SALADO "22" FED. No. 2 LOCATED 1090'  
FROM THE NORTH LINE AND 2510' FROM THE WEST LINE OF  
SECTION 22, TOWNSHIP 23 SOUTH, RANGE 29 EAST,  
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 08-23-2005 Sheet 1 of 1 Sheets



LAGUNA SALADO "22" FEDERAL #2  
 Located at 1090' FNL and 2510' FWL  
 Section 22, Township 23 South, Range 29 East,  
 N.M.P.M., Eddy County, New Mexico.

**basin**  
**surveys**  
 focused on excellence  
 in the oilfield

P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
 basinsurveys.com

W.O. Number: 5724AA - KJG #1

Survey Date: 08-23-2005

Scale: 1" = 2000'

Date: 08-24-2005

**DEVON ENERGY**  
**PROD. CO., L.P.**

## DRILLING PROGRAM

Devon Energy Production Company, LP

### **Laguna Salado 22 Federal 2**

Surface Location: 1090' FNL & 2510' FWL, Unit C, Sec 22 T23S R29E, Eddy, NM

Bottom hole Location: 1090' FNL & 2510' FWL, Unit C, Sec 22 T23S R29E, Eddy, NM

#### **1. Geologic Name of Surface Formation**

- a. Quaternary Aeolian Deposits

#### **2. Estimated tops of geological markers:**

a. Lamar	3050'
b. Bell Canyon	3100'
c. Brushy Canyon	5500'
d. Bone Spring	6800'
e. First Bone Spring	7100'
f. Total Depth	8600'

#### **3. Estimated Depths of Anticipated Fresh Water, Oil or Gas**

a. Lamar	3050'	
b. Bell Canyon	3100'	Oil
c. Brush Canyon	5500'	Oil
d. Bone Spring	6800'	
e. First Bone Spring	7100'	Oil

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 415' and circulating cement back to surface. Freshwater will be protected by setting 8 5/8" casing at 3000' and circulating cement to surface. The Laguna Salado intervals will be isolated by setting 5 1/2" casing to total depth and circulating cement above the base of the 8 5/8" casing.

#### **4. Casing Program:**

<u>Hole Size</u>	<u>Interval</u>	<u>OD Csg</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>	
17 1/2"	0' - 300'	13 3/8"	48#	ST&C	H-40	<b>WITNESS</b>
11"	300' - 3000'	8 5/8"	32#	ST&C	J-55	<b>WITNESS</b>
7 7/8"	3000' - <del>6900'</del> 8600'	5 1/2"	15.5#	ST&C	J-55	<b>WITNESS</b>

#### **5. Cement Program:**

- a. 13 3/8" Surface Cement to surface with 100 sx Poz 35:65 + 2% CaCl + 1/4 lb/sx Cello Flakes, tail with 200 sx Cl C w/2% CaCl. .
- b. 8 5/8" Intermediate Cement to surface with 650 sx Poz 35:65 + 15% salt + 1/4 lb/sx Cello Flakes, tail with 200 sx Cl C + 1/4 lb/sx Celloflakes.

- c. 5 1/2"      Production      Cement with 400 sx Class H + 3% salt + 1/4 lb/sx Celloflakes, tail w/400 sx Cl H + 5% salt + 1/4 lb/sx Celloflakes.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach approximately 500' above the 8 5/8" casing shoe.

**6. Pressure Control Equipment:**

Exhibit "E". A Blowout Preventor (no less than 900 Series 3000 PSI working pressure) consisting of double ram type preventor with bag type preventor. Units will be hydraulically operated. Exhibit E-1 Choke Manifold and Closing Unit. Blind rams on top, pipe rams on bottom to correspond with size of drill pipe in use. BOP will be tested as well as choke manifold. BOP will be worked at least once a day while drilling & blind ram will be worked on trips when no drill pipe is in the hole. Full opening stabbing valve and upper Kelly cock will be utilized. Anticipated BHP 3000 PSI and 125 degree BHT. Note: A 2000# drilling head will be installed on the 13 3/8" & tested to 1215# (70% burst rating) with the rig pump.

**7. Proposed Mud Circulation System**

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' – 300'	8.8	34-36	NC	Fresh Water
300' – 3000'	10.0	28	NC	Brine Water
3000' – TD	10.0	28	NC	Fresh Water

The necessary mud products for weight addition and fluid loss control will be on location at all times.

**8. Testing, Logging, and Coring Program:**

- CNL-FDC, Gamma Ray, Caliper from TD to base of intermediate casing.
- AIT-Dual Laterolog – Micro SFL from TD to base of intermediate casing.
- Gamma Ray, Neutron, Caliper to surface.
- Mud Logger on from 2800' to TD (Two man unit)
- Side wall cores taken between 3100'-6700' in Laguna Salado where shows occur.

**9. Potential Hazards:**

- a. No abnormal pressures or temperatures are expected. There is no known presence of H2S in this area. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3000 psi and Estimated BHT 135°.

**10. Anticipated Starting Date and Duration of Operations:**

- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional



30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

**11. Other Facets of Operations:**

After running casing, cased hole gamma ray neutron collar logs may be run from total depth over possible pay intervals. The Laguna Salado pay will be perforated stimulated. The well will be swab tested and potentialed as an oil well.

## **SURFACE USE AND OPERATING PLAN**

Devon Energy Production Co., LP  
Laguna Salado 22 Federal 2  
Lot C, Sec 22 T23S-R29E  
1090 FNL & 2510' FWL  
Eddy County, New Mexico

1. **Existing Roads:** Area maps are included and show existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions.
  - A. Exhibit A shows the proposed well site as staked
  - B. From mile marker #4 on State Hwy 128, go east on Hwy 128 for 0.4 mile to Co. Rd. 793; thence south on 793 for 3.5 miles to lease road; thence west for 3.0 miles; thence north for 1.0 mile to location.

If a new access road will be required, it will be constructed as follows:

- C. The access road will be crowned and ditched to a 14' wide travel surface with a 30' right-of-way. This Right of Way will be used for flow lines and power lines.
- D. Gradient on all roads will be less than 1.00%
- E. There will be turnouts as needed.
- F. If needed, road will be surfaced with a minimum of 6" of compacted caliche. This material will be obtained from a local source.
- G. Earthwork will be as required by field conditions.
- H. Culverts in the access road will not be used.

### **2. LOCATION AND TYPE OF WATER SUPPLY**

Water will be purchased locally from a private source and trucked over the access roads or piped in flexible lines laid on top of the ground.

### **3. SOURCES OF CONSTRUCTION MATERIALS**

- A. If needed, construction materials will be obtained from the drill site's excavations or from a local source. These materials will be transported over the access route as shown on Exhibit "A".

4. METHODS FOR HANDLING WASTE DISPOSAL

- A. Drill cuttings will be disposed of in the reserve pit.
- B. Trash, waste paper, and garbage will either be contained in a fenced trash trailer or in a trash pit, fenced with mesh wire to prevent wind-scattering and will be buried at least 36" deep within a reasonable period of time.
- C. Salts remaining after completion of the well will be picked up by the supplier, including broken sacks.
- D. Sewage from trailer houses will drain into holes with minimum depth of 10'. These holes will be covered during drilling and backfilled upon completion.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for closing pursuant to OCD rules and guidelines. Water produced during testing of the well will be disposed of in the reserve pit. Oil produced during testing of the well will be stored in test tanks until sold and hauled from the site.

5. WELL SITE LAYOUT

- A. Exhibit "D" shows the proposed well site layout.
- B. This exhibit indicated proposed location of reserve and sump pits and living facilities
- C. Mud pits in the active circulating system will be steel pits and the reserve pits is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- D. The reserve pit is to be lined with a synthetic 12 mil liner. Pit liner will extend a minimum 2' 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 are ceased. If the well is a producer, the reserve pit fence will be torn down and the reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded, as closely as possible, to BLM requirements.

7. 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. The pit will be closed pursuant to OCD rules and guidelines. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be contoured to match, as closely as possible, 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.

8. OTHER INFORMATION:

- A. Topography: The proposed well site and access road consists of sand dunes with native grasses and catchlaw.
- B. The surface is owned by the U. S. Department of the Interior (Bureau of Land Management).
- C. An archaeological survey will be conducted for the location and road and will be submitted to the BLM office in Carlsbad, New Mexico
- D. Residences and Other Structures: None in the immediate area, except oil production facilities.
- E. Land Use: Cattle grazing
- F. Surface ownership: BLM, Carlsbad, N.M.

**OPERATORS REPRESENTATIVE:**

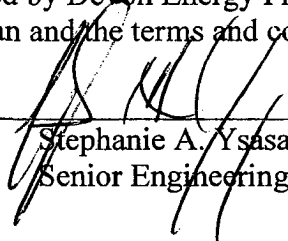
**Devon Energy Production Company, LP**  
20 North Broadway, Ste 1500  
Oklahoma City, OK 73102

**James Blount Operations Engineering Advisor**  
Work Phone (405)228-4301  
Home Phone (405)348-0102  
Cellular (405)834-9207

**Certification**

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road; that I am familiar with the conditions that presently 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 Devon Energy Production Company, L.P. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Signed: \_\_\_\_\_

  
Stephanie A. Ysasaga  
Senior Engineering Technician

Date: October 5th, 2005

Attachment to Exhibit #1  
NOTES REGARDING BLOWOUT PREVENTERS  
Devon Energy Production Company, LP  
Laguna Salado 22 Federal 2

Surface Location: 1090' FNL & 2510' FWL, Unit C, Sec 22 T23S R29E, Eddy, NM  
Bottom hole Location: 1090' FNL & 2510' FWL, Unit C, Sec 22 T23S R29E, Eddy, NM

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
2. Wear ring will be properly installed in head.
3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 3000 psi working pressure.
4. All fittings will be flanged.
5. A full bore safety valve tested to a minimum 3000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
6. All choke lines will be anchored to prevent movement.
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
8. Will maintain a kelly cock attached to the kelly.
9. Hand wheels and wrenches will be properly installed and tested for safe operation.
10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

# MINIMUM BLOWOUT PREVENTER REQUIREMENTS

3,000 psi Working Pressure

3 MWP

EXHIBIT # 1

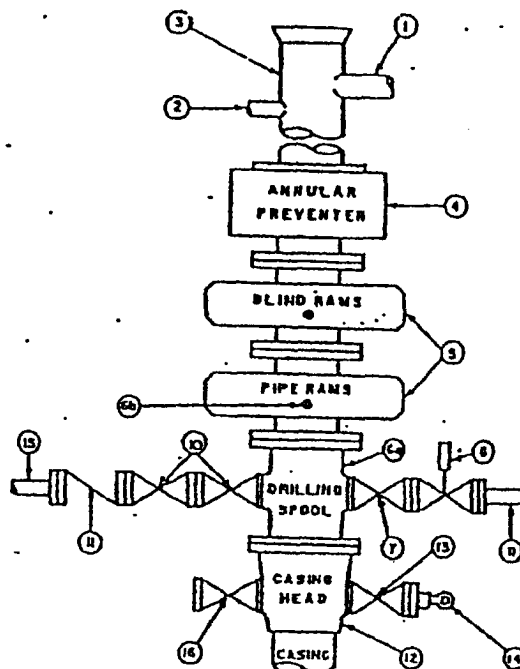
## STACK REQUIREMENTS

No.	Item	Min. I.D.	Min. Nominal
1	Flowline		
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.)		
7	Valve <input type="checkbox"/> Gate <input type="checkbox"/> Plug <input type="checkbox"/>	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves <input type="checkbox"/> Gate <input type="checkbox"/> Plug <input type="checkbox"/>	2-1/16"	
11	Check valve	2-1/16"	
12	Casing head		
13	Valve <input type="checkbox"/> Gate <input type="checkbox"/> Plug <input type="checkbox"/>	1-13/16"	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"

## OPTIONAL

16	Flanged valve	1-13/16"	
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CONFIGURATION A



## CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 3,000 psi, minimum.
2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver/sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.

## MEC TO FURNISH:

1. Bradenhead or casinghead and side valves.
2. Wear bushing, if required.

## GENERAL NOTES:

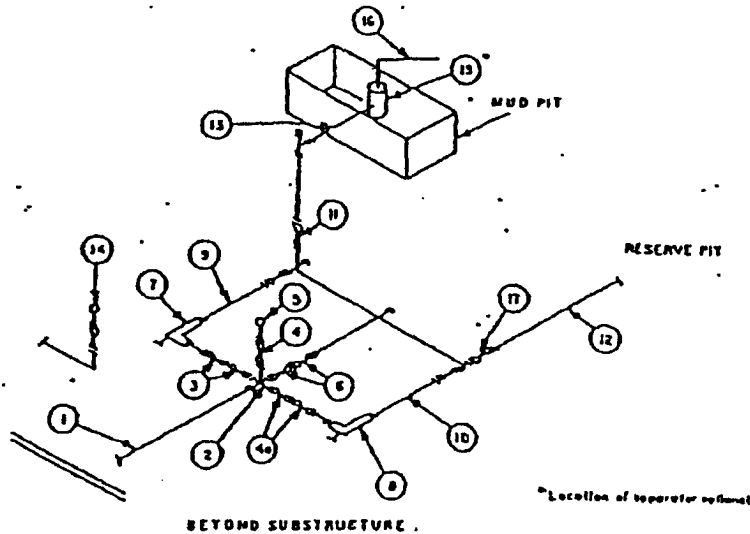
1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke. Valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position.
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with handwheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.

7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Do not use kill line for routine fill-up operations.

**MINIMUM CHOKES MANIFOLD**  
3,000, 5,000 and 10,000 PSI Working Pressure

3 MWP - 5 MWP - 10 MWP

EXHIBIT # 1



MINIMUM REQUIREMENTS										
No.		3,000 MWP			5,000 MWP			10,000 MWP		
		I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING
1	Line from drilling spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3"x3"x3"x2"			3,000			5,000			
	Cross 3"x3"x3"x3"									10,000
3	Valves (1) Gate □ Plug □ (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
4	Valve Gate □ Plug □ (2)	1-13/16"		3,000	1-13/16"		5,000	1-13/16"		10,000
4a	Valves (1)	2-1/16"		3,000	2-1/16"		5,000	3-1/8"		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valves Gate □ Plug □ (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
7	Adjustable Choke (3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		3"	10,000
11	Valves Gate □ Plug □ (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
12	Lines		3"	1,000		3"	1,000		3"	2,000
13	Lines		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound standpipe pressure gauge			3,000			5,000			10,000
15	Gas Separator		2'x5'			2'x5'			2'x5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valves Gate □ Plug □ (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000

(1) Only one required in Class 3M.

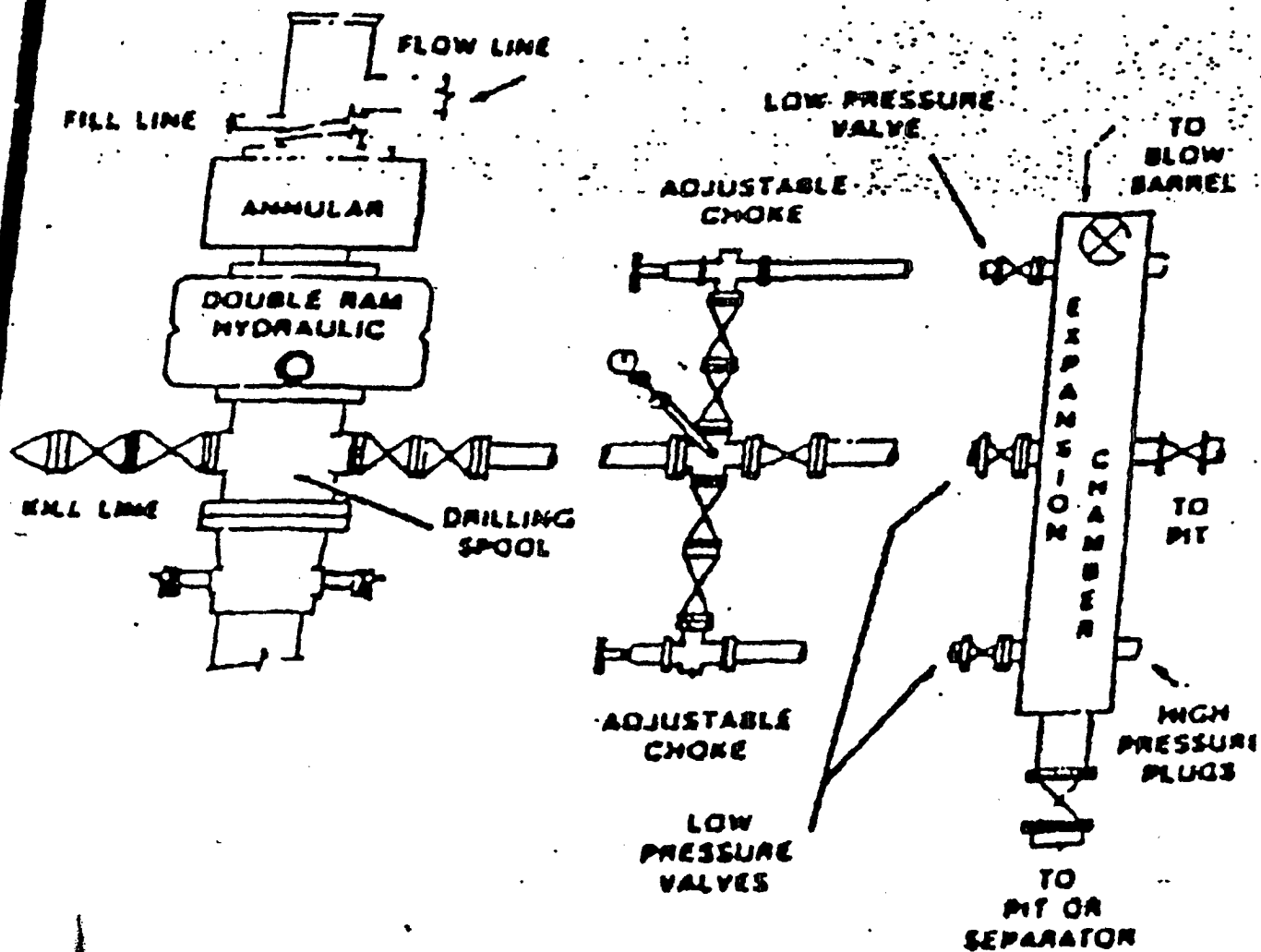
(2) Gate valves only shall be used for Class 3DM.

(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

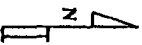
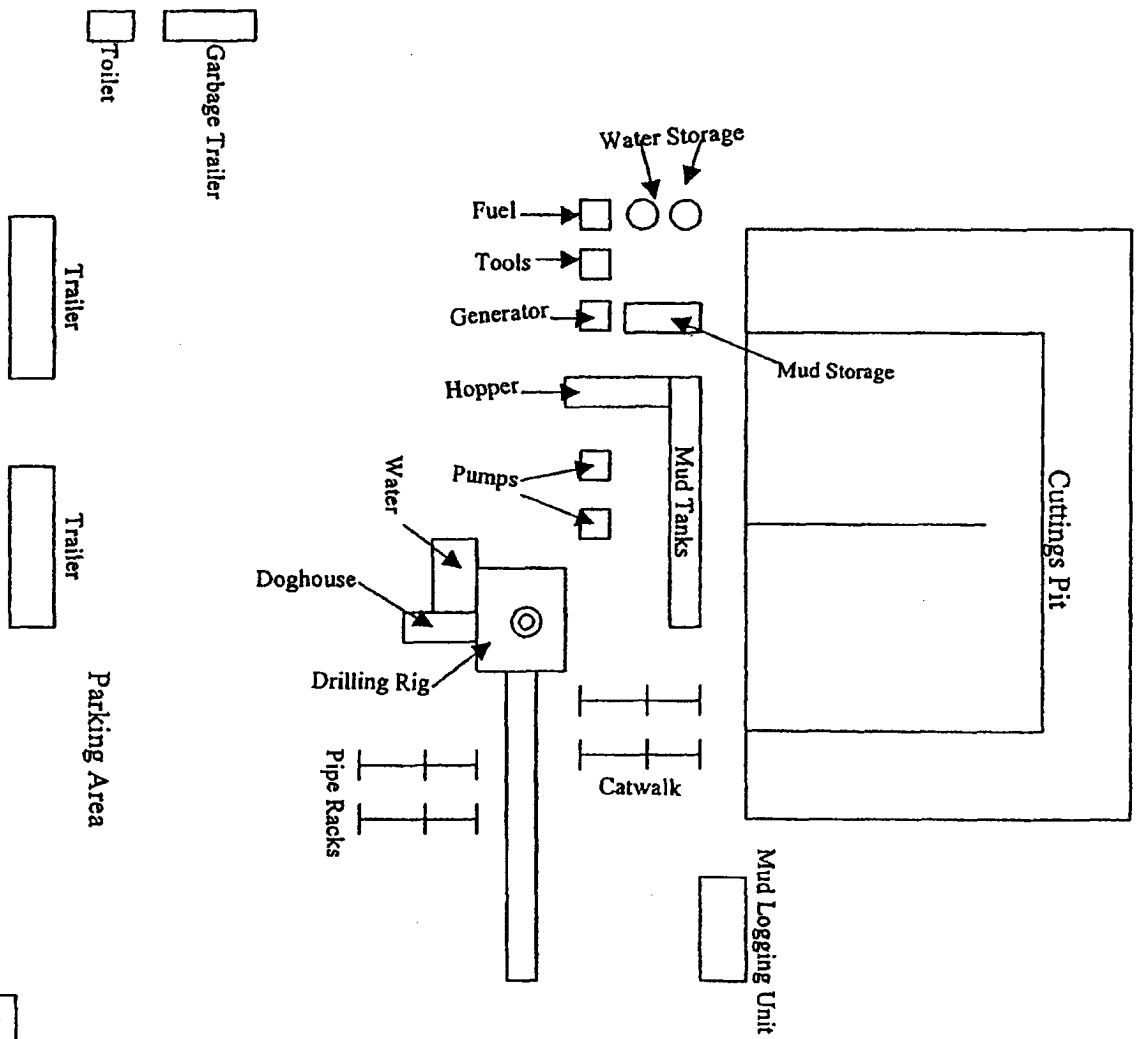
**EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS**

- All connections in choke manifold shall be welded, flanged, flanged or Cameron clamp of comparable rating.
- All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
- All lines shall be securely anchored.
- Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
- Choke manifold pressure and standpipe pressure gauges shall be available at the choke manifold to assist in regulating chokes. As an alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
- Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90° bends using butt plugged tees.
- Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.





**Standard Blowout Preventer Stack**



Devon Energy Production Company, LP HB 10 FEDERAL #	Drilling Pad Exhibit #
--	---------------------------

## **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 areas
  - e. Evacuation procedures, routes and first aid.
  - f. Proper use of 30-minute pressure demand air pack.
2. H2S Detection and Alarm System
  - a. H2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
3. Windsock and/or wind streamers
  - a. Windsock at mud pit area should be high enough to be visible
  - b. Windsock at briefing area should be high enough to be visible
  - c. There should be a windsock at entrance to location
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" & "E-1"
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. Drill stem Testing
  - a. Exhausts will be watered
  - b. Flare line will be equipped with an electric igniter or a propane pilot light in case gas reaches the surface.
  - c. If the location is near to a dwelling a closed DST will be performed.
8. Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.

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

**UNITED STATES DEPARTMENT OF THE INTERIOR**

**Bureau of Land Management**  
**Roswell Field Office**  
**2909 West Second Street**  
**Roswell, New Mexico 88201-1287**

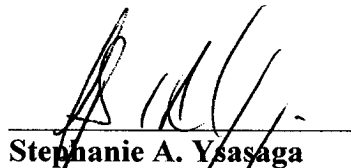
**Statement Accepting Responsibility for Operations**

Operator Name: **Devon Energy Production Company, LP**  
Street or Box: **20 North Broadway, Suite 1500**  
City, State: **Oklahoma City, Oklahoma**  
Zip Code: **73102-8260**

The undersigned accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described below.

Lease No.: **NM-66425**  
Legal Description of Land: **40 acres 22-T23S-R29E**  
Formation(s): **Laguna Salado**  
Bond Coverage: **Nationwide**  
BLM Bond File No.: **CO-1104**

Authorized Signature:

  
**Stephanie A. Ysasaga**

Title: **Senior Engineering Technician**

Date: **10/05/05**

## CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Devon Energy Production Company, L.P.  
Well Name & No. Laguna Salado 22 Federal #2  
Location: 1090' FNL, 2510' FWL, Section 22, T. 23 S., R. 29 E., Eddy County, New Mexico  
Lease: NM-66425

### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:
  - A. Well spud
  - B. Cementing casing: 13-3/8 inch 8-5/8 inch 5-1/2 inch
  - C. BOP tests
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing ( size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.
4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.
5. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface; cable speed not to exceed 30 feet per minute.

### II. CASING:

1. The 13-3/8 inch surface casing shall be set at approximately 300 feet and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is to be circulated to the surface.
3. The minimum required fill of cement behind the 5-1/2 inch production casing is to be circulated to the surface.
4. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

### III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 3000 psi.
3. A variance to test the BOP's to 1200 psi with the rig pumps before drilling out of the 13-3/8 inch surface casing shoe is granted.
4. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
  - The tests shall be done by an independent service company.
  - The results of the test shall be reported to the appropriate BLM office.
  - Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
  - Testing must be done in a safe workman-like manner. Hard line connections shall be required.

10/12/05 – rev  
acs



Devon Energy Corporation  
20 North Broadway  
Oklahoma City, Oklahoma 73102-8260  
Fax 405-552-8113

March 10, 2006

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

Re: Laguna Salado 22 Federal #2  
Section 22-T23S-R29E  
Eddy County, New Mexico

Gentlemen:

Devon Energy Production Company, L.P. (Devon), as Operator, intends to drill the referenced Delaware well to a depth of approximately 6,850'. Devon initially attempted to stake and permit this well at numerous orthodox locations. However, due to the proximity of the location to the Laguna Salado, the Bureau of Land Management (BLM) has required Devon to move the location. The closest drillable location as approved by the BLM is located 1090' FNL & 2510' FWL which is an unorthodox location as it is closer than 330' to the outer boundary of the designated spacing unit pursuant to the Statewide Pool Rules.

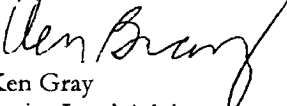
Inasmuch as this well will be producing from an unorthodox location from that permitted by the Statewide Pool Rules, Devon respectfully requests that the Commission administratively approve this application for an unorthodox location in accordance with Division Rule 104(F)(3). Devon's records reflect that, in addition to Devon, Chesapeake Exploration Limited Partnership, Pogo Producing Company, and Liberty Energy Corporation are the owners of the operating rights under NMNM-66425 covering all of said Section 22 and are the only parties affected by this application.

Attached you will find a land plat of the area affected by this application, a Lower Brushy Canyon F structure map, a State of New Mexico form C-102 and a Basin Surveys map which reflects the proximity of Laguna Salado to this location .

If there are any questions or if additional information is required feel free to call me at (405) 552-4633.

Yours very truly,

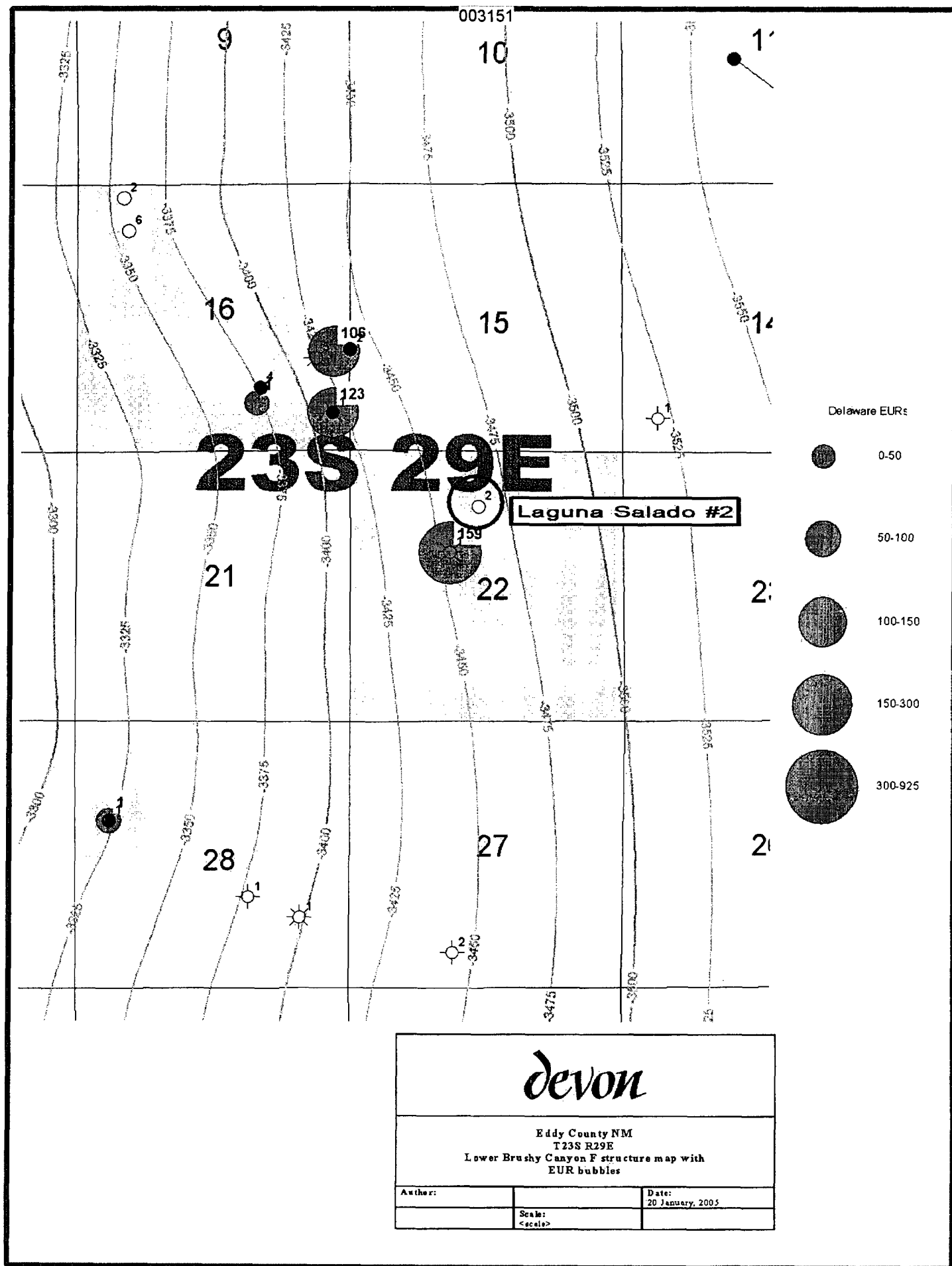
DEVON ENERGY PRODUCTION COMPANY, L.P.

  
Ken Gray  
Senior Land Advisor

Kg/  
Enclosure

The map displays a grid of land sections, each with a unique identifier (e.g., 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100). Each section contains detailed information about the leaseholder, acreage, and well status. Key features include the 'LAGUNA SALADO SO. UNIT', 'REMUUDA BASIN', and 'HARRISON RCH.' The map also shows various geological features like 'LAGUNA GRANDE' and 'LAGUNA SALADO'. The title 'PERMIAN BASIN' is prominently displayed in the center.





003152

**DISTRICT I**

1625 N. French Dr., Hobbs, NM 88240

**DISTRICT II**

811 South First, Artesia, NM 88210

**DISTRICT III**

1000 Rio Brazos Rd., Aztec, NM 87410

**DISTRICT IV**

2040 South Pacheco, Santa Fe, NM 87505

**State of New Mexico**

Energy, Minerals and Natural Resources Department

Form C-102

Revised March 17, 1999

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

**OIL CONSERVATION DIVISION**

2040 South Pacheco

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number	Pool Code	Pool Name Laguna Salado Field
Property Code	Property Name LAGUNA SALADO "22" FEDERAL	Well Number 2
OGRID No. 6137	Operator Name DEVON ENERGY PRODUCTION CO., L.P.	Elevation 2978'

**Surface Location**

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	22	23 S	29 E		1090	NORTH	2510	WEST	EDDY

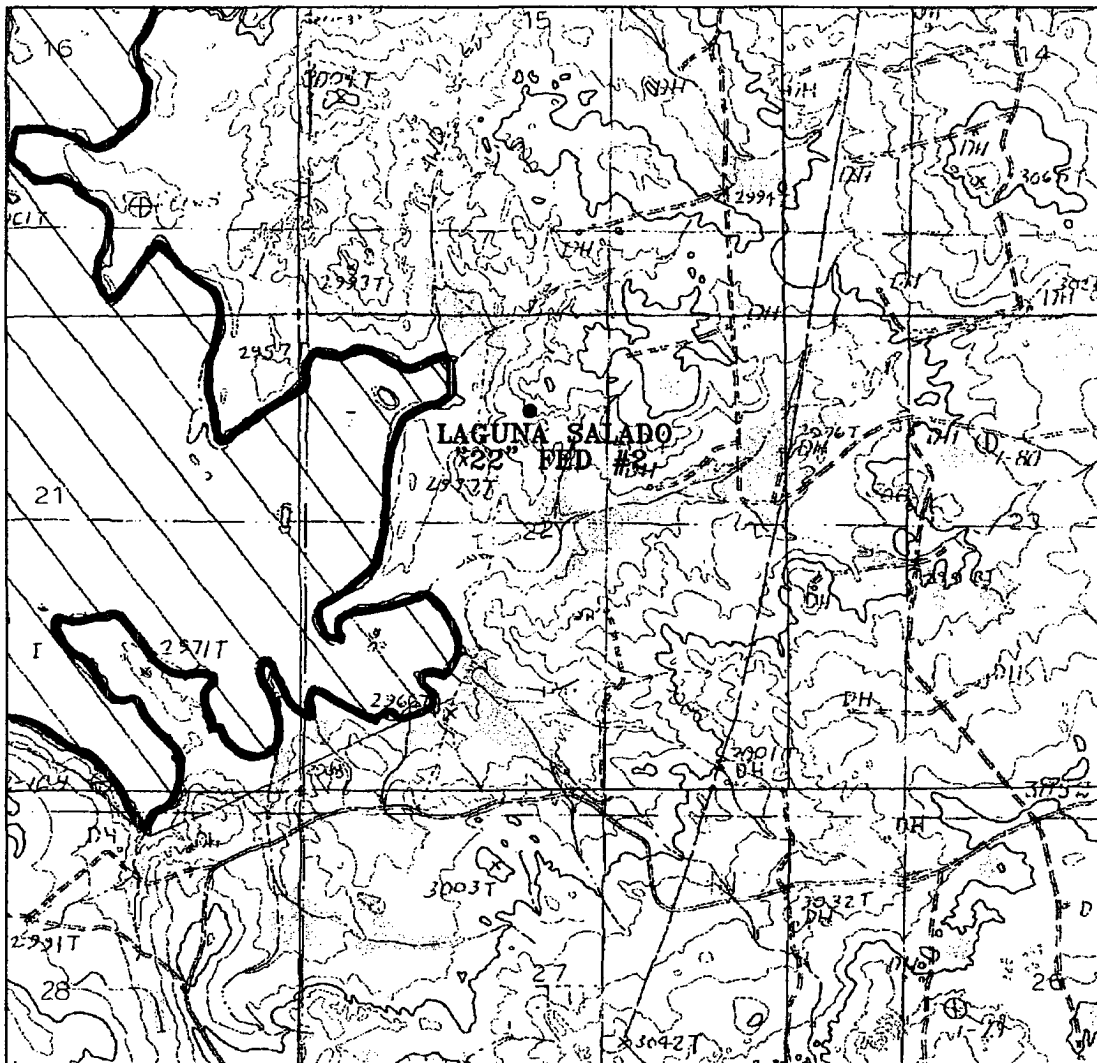
**Bottom Hole Location If Different From Surface**

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

Dedicated Acres 40	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>  I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  Signature _____ Stephanie A. Ysasaga  Printed Name _____ Senior Engineering Technician  Title _____ 10/05/05  Date _____
	<b>SURVEYOR CERTIFICATION</b>  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.  AUGUST 23, 2005  Date Surveyed _____ Signature _____ Professional Surveyor   Certified No. Gary L. Jones 7977 PROFESSIONAL LAND SURVEYOR



LAGUNA SALADO "22" FEDERAL #2  
 Located at 1090' FNL and 2510' FWL  
 Section 22, Township 23 South, Range 29 East,  
 N.M.P.M., Eddy County, New Mexico.

**basin**  
**surveys**

focused on excellence  
 in the oilfield

P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
 basin-surveys.com

W.O. Number: 5724AA - KJG #1

Survey Date: 08-23-2005

Scale: 1" = 2000'

Date: 08-24-2005

**DEVON ENERGY**  
**PROD. CO., L.P.**



Devon Energy Corporation  
20 North Broadway  
Oklahoma City, Oklahoma 73102-8260  
Fax 405-552-8113

March 10, 2006

Chesapeake Exploration Limited Partnership  
6100 N. Western  
Oklahoma City, OK 73118

Re: Laguna Salado 22 Federal #2  
Section 22-T23S-R29E  
Eddy County, New Mexico

Gentlemen:

Attached you will find Devon Energy Production Company, L.P.'s ("Devon") administrative application for approval of an unorthodox well location covering the referenced Delaware test well. As operator under the governing Joint Operating Agreement, Devon's records indicate that your company is the owner of operating rights in an offset spacing unit and are entitled to notice of this application in accordance with Division Rule 104 (f). Objections to this application should be submitted to the NMOCD. If you have no objection to this application, please so indicate by signing and returning one copy of this letter to the undersigned.

If there are any questions or if additional information is required, feel to call me at (405) 552-4633.

Yours very truly,

DEVON ENERGY PRODUCTION COMPANY, L.P.

A handwritten signature in black ink, appearing to read "Ken Gray".

Ken Gray  
Senior Land Advisor

KG:  
Enclosures

Chesapeake Exploration Limited Partnership has no objection to this administrative application for unorthodox location.

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



Devon Energy Corporation  
20 North Broadway  
Oklahoma City, Oklahoma 73102-8260  
Fax 405-552-8113

March 10, 2006

Pogo Producing Company  
P. O. Box 10340  
Midland, TX 79702-7340

Re: Laguna Salado 22 Federal #2  
Section 22-T23S-R29E  
Eddy County, New Mexico

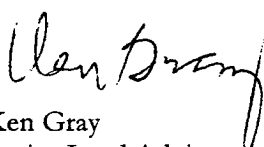
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If there are any questions or if additional information is required, feel to call me at (405) 552-4633.

Yours very truly,

DEVON ENERGY PRODUCTION COMPANY, L.P.

  
Ken Gray  
Senior Land Advisor

KG:  
Enclosures

Pogo Producing Company has no objection to this administrative application for unorthodox location.

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



Devon Energy Corporation  
20 North Broadway  
Oklahoma City, Oklahoma 73102-8260  
Fax 405-552-8113

March 10, 2006

Liberty Energy Corporation  
175 Berkeley Street, 8<sup>th</sup> Floor  
Boston, MA 02116

Re: Laguna Salado 22 Federal #2  
Section 22-T23S-R29E  
Eddy County, New Mexico

Gentlemen:

Attached you will find Devon Energy Production Company, L.P.'s ("Devon") administrative application for approval of an unorthodox well location covering the referenced Delaware test well. As operator under the governing Joint Operating Agreement, Devon's records indicate that your company is the owner of operating rights in an offset spacing unit and are entitled to notice of this application in accordance with Division Rule 104 (f). Objections to this application should be submitted to the NMOCD. If you have no objection to this application, please so indicate by signing and returning one copy of this letter to the undersigned.

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Yours very truly,

DEVON ENERGY PRODUCTION COMPANY, L.P.

A handwritten signature in cursive script, appearing to read "Ken Gray".

Ken Gray  
Senior Land Advisor

KG:  
Enclosures

Liberty Energy Corporation has no objection to this administrative application for unorthodox location.

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_