

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

ARTESIA, NM 8710

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK
DRILL ☒ DEEPEN ☐

b. TYPE OF WELL
OIL WELL ☒ GAS WELL ☐ OTHER ☐ SINGLE ZONE ☐ MULTIPLE ZONE ☐

2. NAME OF OPERATOR
Devon Energy Corporation (Nevada) ✓

3. ADDRESS AND TELEPHONE NO.
20 North Broadway Suite 1500 Oklahoma City, OK 73102 (405) 552-4511

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface 330' FNL & 1140' FEL
At proposed prod. zone same
WELL LOCATION IS:
Subject to State Approval
SEP 16 1993

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE
15 1/2 miles southeast of Loco Hills, NM.

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)
330'

16. NO. OF ACRES IN LEASE
560

17. NO. OF ACRES ASSIGNED TO THIS WELL
40

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
900'

19. PROPOSED DEPTH
4500'

20. ROTARY OR CABLE TOOLS
rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3638.5'

22. APPROX. DATE WORK WILL START
October 30, 1993

5. LEASE DESIGNATION AND SERIAL NO.
NM 10190

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
NA

7. UNIT AGREEMENT NAME
Shugart

8. FARM OR LEASE NAME, WELL NO.
East Shugart Unit #42

9. AN WELL NO.
30-015-27670

10. FIELD AND POOL, OR WILDCAT
Shugart; Y-7R-2-6B

11. SEC., T., R., M., OR B.L.E. AND SURVEY OR AREA
A Section 34-T18S-R31E

12. COUNTY OR PARISH
Eddy

13. STATE
NM

23. PROPOSED CASING AND CEMENTING PROGRAM * Capitan Controlled Water Basin

| SIZE OF HOLE | GRADE, SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|--------------|-----------------------|-----------------|---------------|--------------------------------|
| 17 1/2" | 14" | | 40' | cmt with readi-mix to surface |
| 12 1/4" | 8 5/8", J-55 | 24 ppf | 950' | 280 sx LITE + 200 sx Class "C" |
| 7 7/8" | 5 1/2", J-55 | 15.5 ppf | 4500' | 550 sx LITE + 500 sx Class "C" |

* We plan to circulate cement to surface on all casing strings.

Devon Energy proposes to drill to 4500' (+) to test the Queen sand formation for commercial quantities oil oil. If the Queen sand is deemed non-commercial, the wellbore will be plugged and abandoned per Federal regulations. Programs to adhere to onshore oil and gas regulations are outlined in the following exhibits and attachments.

Drilling Program

Surface Use and Operating Plan

Exhibits #1/#1-A = Blowout Prevention Equipment

Exhibit #2 = Location & Elevation Plat

Exhibit #3 = Planned Access Roads

Exhibit #4 = Wells Within One Mile Radius

Exhibit #5 = Production Facilities Plat

Exhibit #6 = Rotary Rig Layout

Exhibit #7 = Casing Design Program
Evidence of Bond Coverage
H₂S Operating Plan

Approved by
General Agent and
Superintendent
Approved

AUG 19 11 54 AM '93
CARTER AREA

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Randy Jackson TITLE District Engineer DATE August 13, 1993

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY Scott Powers TITLE Acting Area Manager DATE 9-14-93

*See Instructions On Reverse Side

DRILLING PROGRAM

Attached to Form 3160-3
Devon Energy Corporation
East Shugart Unit #42
330' FNL & 1140' FEL
Section 34-T18S-R31E
Eddy County, New Mexico

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

| | |
|------------|--------|
| Yates | 2,300' |
| Queen | 3,300' |
| Grayburg | 4,000' |
| San Andres | 4,400' |

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

The estimated depths at which water, oil and gas will be encountered are as follows:

Water: Random fresh water from surface to approximately 300' and a water injection interval at 3,200'.

Oil: Yates at 2,300' and Queen at 3,200'.

Gas: None anticipated.

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 8 5/8" casing at 950' and circulating cement back to surface. The Yates and Queen intervals will be isolated by setting 5-1/2" casing to total depth and circulating cement to surface.

EAST SHUGART UNIT #42
 DRILLING PROGRAM
 PAGE 2

4. Casing Program:

| <u>Hole Size</u> | <u>Interval</u> | <u>Casing OD</u> | <u>Weight, Grade, Type</u> |
|------------------|------------------|------------------|----------------------------|
| 17 1/2" | 0' - 40' | 14" | Conductor, 0.30" wall |
| 12 1/4" | 0' - 950' | 8 5/8" | 24#, WC, ST&C, new R-3 |
| 7 7/8" | 0' - TD (4500'±) | 5 1/2" | 15.5#, J-55, ST&C, new R-3 |

Cementing Program:

14" Conductor Casing: Cemented with ready-mix to surface.

8 5/8" Surface Casing: Cemented to surface with 280 sks LITE (35% Poz: 65% Class C) + 6% gel + 2% CaCl₂ + 1/4 lb/sk cellophane flakes
 200 sks Class C + 2% CaCl₂ + 1/4 lb/sk cellophane flakes.

5-1/2" Production: Cemented to surface with 550 sks LITE (35% Poz: 65% Class C) + 6% gel + 1/4 lb/sk cellophane flakes
 500 sks Class C + 4% gel + 1/4 lb/sk cellophane flakes.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach surface.

5. Minimum Specifications for Pressure Control:

The blowout preventor equipment (BOP) shown in Exhibit #1 will consist of a (3M system) double ram type (3000 psi WP) preventor and a bag-type (Hydril) preventor (3000 psi WP). Both units will be hydraulically operated and the ram type preventor will be equipped with blind rams on top and 4-1/2" drill pipe rams on bottom. Both BOP's will be installed on the 8 5/8" surface casing and utilized continuously until total depth is reached. As per BLM Drilling Operations Order #2, prior to drilling out the 8-5/8" casing shoe, the BOP's and Hydril will be function tested.

EAST SHUGART UNIT #42
DRILLING PROGRAM
PAGE 3

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a kelly cock, floor safety valve, choke lines and choke manifold having 3000 psi WP rating.

6. Types and Characteristics of the Proposed Mud System:

The well will be drilled to total depth using brine, cut brine and polymer mud systems. Depths of systems are as follows:

| <u>Depth</u> | <u>Type</u> | <u>Weight</u> (ppg) | <u>Viscosity</u> (1/sec) | <u>Water Loss</u> (cc) |
|--------------|-------------------|------------------------|-----------------------------|---------------------------|
| 0' - 950' | Fresh Water | 8.8 | 34-36 | No control |
| 950' - TD | Cut brine polymer | 8.8 | 32-36 | 10-20 |

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

7. Auxiliary Well Control and Monitoring Equipment:

- A. A kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.

8. Logging, Testing and Coring Program:

- A. No drill stem tests are planned.
- B. The open hole electrical logging program will be:

CNL/FDC/LDT/GR from T.D. to 2,300'
DLL/MSFL/GR from TD to surface

EAST SHUGART UNIT #42
DRILLING PROGRAM
PAGE 4

- C. No coring program is planned.
- D. Additional testing will be initiated subsequent to setting the 5-1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

9. Abnormal Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are foreseen. The anticipated bottom hole temperature at total depth is 104 degrees and maximum bottom hole pressure is 800 psig. No hydrogen sulfide gas has been reported or is known to exist at these depths in this area. No major loss circulation intervals have been encountered in adjacent wells.

10. Anticipated Starting Date and Duration of Operations:

Notice of Staking (NOS) was sent to the Carlsbad, New Mexico BLM office on July 9, 1993. Barry Hunt of that office has reviewed the proposed pad site for the location. A Cultural Resources Examination has been completed by Archaeological Survey Consultants and a copy forwarded to the Carlsbad, New Mexico BLM office.

Road and location preparation will not be undertaken until approval has been received from the BLM. The anticipated spud date is approximately October 30, 1993. The drilling operation should require approximately 10 days. If the well is deemed productive, completion operations will require, at minimum, an additional 30 days of testing to ascertain whether permanent production facilities will be constructed.

SURFACE USE AND OPERATING PLAN

Attachment to Form 3160-3
Devon Energy Corporation
East Shugart Unit #42
330' FNL & 1140' FEL
Section 34-T18S-R31E
Eddy County, New Mexico

1. Existing Roads:

- A. The well site and elevation plat for the proposed East Shugart Unit #42 is reflected on Exhibit #2. It was staked by John West Engineering of Hobbs, New Mexico.
- B. All roads into the location are depicted in Exhibit #3. County Road #249 and existing lease roads will be used to access the location. No upgrades to roads other than the access into location from the lease road will be necessary.
- C. Directions to location: Turn right (south) off Highway 82 onto County Road 222 and go approximately 8.2 miles through the cattle guard to County Road 249. Turn left (east) and go approximately 2.0 miles east-northeast. Turn left (west) onto lease road and go 0.4± mile to intersection. Turn right (north) and go 0.35 mile. Turn left (west) into location.

2. Proposed Access Road:

Exhibit #3 shows the new access road to be constructed from the existing lease road. It will be constructed as follows:

- A. The maximum width of the road will be fifteen (15) feet.
- B. It will be crowned and made of 6 inches of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.
- C. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location.
- D. The average grade will be approximately 1%.

EAST SHUGART UNIT #42
SURFACE USE AND OPERATING PLAN
PAGE 2

- E. No cattle guards, grates or fence cuts will be required.
- F. No turnouts are planned.

3. Location of Existing Wells:

Exhibit #4 shows all existing wells within a one-mile radius of the proposed East Shugart Unit #42. There are 63 total wells which include 25 active Yates/Queen/Seven Rivers/Grayburg producers, 13 active Queen producers, 5 active Penn (Penn/Silurian) producers, 1 active Atoka well, 10 inactive wells, 1 inactive Penn well, 6 water injection wells and 2 plugged and abandoned wells. A list of the wells is depicted on Exhibit #4 attachment.

4. Location of Existing and/or Proposed Facilities:

- A. Devon Energy Corporation operates one production facility in this unit in Section 35. It is as follows:
 - (3) Heater treaters & tank battery (NW SW)
 - Water injection plant and (2) water tanks
- B. In the event the well is found productive, it will be added to the central production facility (refer to Exhibit #5).
- C. The well will be operated by means of an electric motor.
- D. If the well is productive, rehabilitation plans are as follows:
 - 1. The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after completion, weather permitting).
 - 2. Caliche from unused portions of the drill pad will be removed. The original topsoil from the well site will be returned to the location. The drill site will then be contoured to the original natural state.

EAST SHUGART UNIT #42
SURFACE USE AND OPERATING PLAN
PAGE 3

5. Location and Type of Water Supply:

The East Shugart Unit #42 will be drilled using a combination of brine and fresh water mud systems (outlined in Drilling Program). The water will be obtained from the existing water line presently supplying fresh water to the unit. Additionally, produced salt water from lease gathering tanks may be used. No water well will be drilled on the location.

6. Source of Construction Materials:

All caliche utilized for the drilling pad and proposed access road will be obtained from a existing BLM approved pit. All roads will be constructed of 6" rolled and compacted caliche.

7. Methods of Handling Water Disposal:

- A. Drill cuttings will be disposed into the reserve pit.
- B. Drilling fluids will be contained in steel mud tanks and the reserve pit. The reserve pit will contain excess drilling fluid or fluid from the well during drilling, cementing, and completion operations. The reserve pit will be an earthen pit roughly 70' x 70' x 5', or smaller, in size.
- C. The reserve pit will be fenced on three sides throughout drilling operations and will be totally isolated upon removal of the rotary rig. The pit will be lined using a 5-7 mil plastic to minimize loss of drilling fluids.
- D. Water produced from the well during completion operations will be disposed into a steel tank or reserve pit, if volumes prove excessive. After placing the well on production through the production facilities, all water will be collected in tanks and injected into the water injection system. Produced oil will be separated into steel stock tanks until sold.
- E. A portable chemical toilet will be available on the location for human waste during the drilling operations.

EAST SHUGART UNIT #42
SURFACE USE AND OPERATING PLAN
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- F. Garbage, trash and waste paper produced during drilling operations will be collected in a contained trailer and disposed at a approved landfill. All waste material will be contained to prevent scattering by the wind. All water, fluids, salt or other chemicals will be disposed into the reserve pit. No toxic waste or hazardous chemicals will be generated by this operation.
- G. All waste material will be removed within 30 days after the well is either completed or abandoned. The reserve pit will be completely fenced until it has dried. At the point the reserve pit is found sufficiently dry, it will be backfilled and reclaimed as per BLM specifications. Only the portion of the drilling pad used by the production equipment (pumping unit) will remain in use. If the well is deemed non-commercial, only a dry hole marker will remain.

8. Ancillary Facilities:

No campsite or other facilities will be constructed as a result of this well.

9. Well Site Layout:

- A. The drill pad is shown on Exhibit #6. Approximate dimensions of the pad, pits and general location of the rig equipment is displayed. Top soil will be stored adjacent to the pad until reclamation efforts are undertaken. Only modest cuts will be necessary to build the pad which will be covered with 6" of compacted caliche.
- B. No permanent living facilities are planned, but temporary trailers for the tool pusher, drilling foreman and mud logger may be on location throughout drilling operations.
- C. The reserve pit will be lined using plastic sheeting of 5-7 mil thickness.

EAST SHUGART UNIT #42
SURFACE USE AND OPERATING PLAN
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10. Plans for Restoration of Surface:

- A. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The reserve pit area will be broken out and leveled after drying to a condition where these efforts are feasible. The original top soil will again be returned to the pad and contoured, as close as possible, to the original topography.
- B. The pit lining will be buried or hauled away in order to return the location and road to their pristine nature. All pits will be filled and location leveled, weather permitting, within 120 days after abandonment.
- C. The location and road will be rehabilitated as recommended by the BLM.
- D. The reserve pit will be fenced on three sides throughout drilling operations. After the rotary rig is removed, the reserve pit will be fenced on the fourth side to preclude endangering wildlife. The fencing will be in place until the pit is reclaimed.
- E. If the well is deemed commercially productive, the reserve pit will be restored as described in 10 (A) within 120 days subsequent to the completion date. Caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.

EAST SHUGART UNIT #42
SURFACE USE AND OPERATING PLAN
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11. Surface Ownership:

The well site is owned by the Bureau of Land Management.

12. Other Information:

- A. The area surrounding the well site is grassland. The top soil is very sandy in nature. The vegetation is moderately sparse with native prairie grass.
- B. There is permanent water (Laguna Plata) approximately 9.0 miles S/SE of the location.
- C. A Cultural Resources Examination has been completed by Archaeological Survey Consultants and forwarded to the Carlsbad, New Mexico BLM office. The report references no cultural areas on either the access road or drilling pad.

13. Lessees's and Operator's Representative:

The Devon Energy Corporation representatives responsible for assuring compliance of the surface use plan are:

Randy Jackson
District Engineer

20 North Broadway
Suite 1500
Oklahoma City, OK 73102

(405) 552-4560 (office)
(405) 340-8939 (home)

Dan Talley
Production Foreman

422 West Main
Suite F
Artesia, NM 88210

(505) 748-3371 (office)
(505) 748-3671 (home)

EAST SHUGART UNIT #42
SURFACE USE AND OPERATING PLAN
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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 Corporation (Nevada) and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Date: August 13, 1993

Signed: Randy Jackson
Randy Jackson
District Engineer

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

3,000 psi Working Pressure

3 MWP

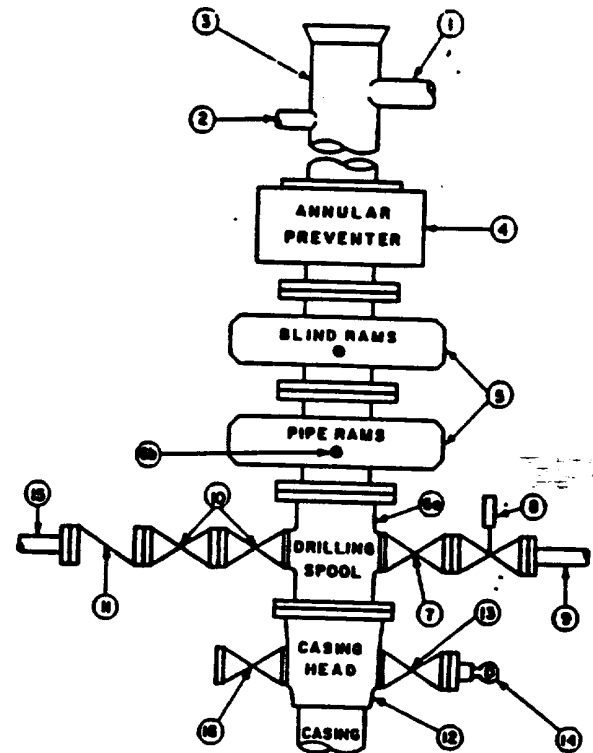
STACK REQUIREMENTS

| 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 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 Gate <input type="checkbox"/> Plug <input type="checkbox"/> | 2-1/16" | |
| 11 | Check valve | 2-1/16" | |
| 12 | Casing head | | |
| 13 | Valve 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" | |
|----|---------------|----------|--|

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.

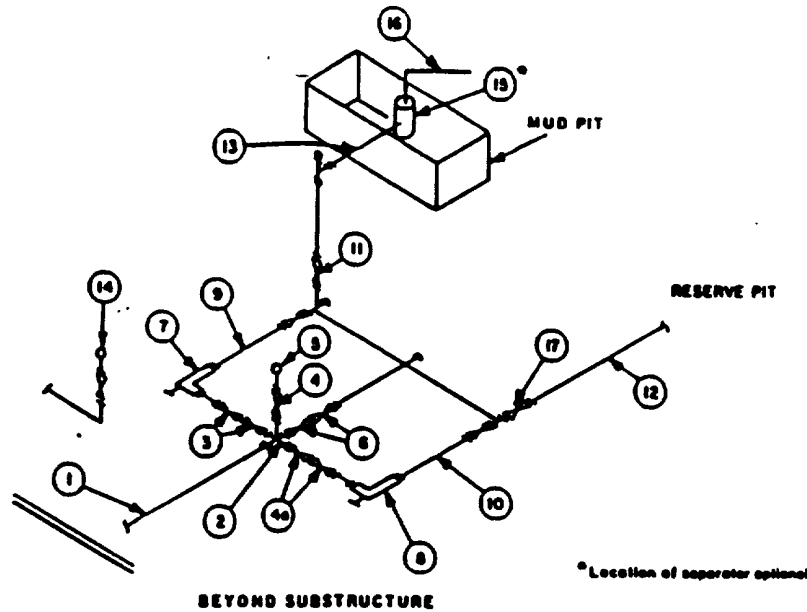
7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead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

Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTORS
East Shugart Unit #42
Eddy County, New Mexico

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 preventor 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 preventor 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 CHOKE MANIFOLD 3,000, 5,000 and 10,000 PSI Working Pressure

3 MWP - 5 MWP - 10 MWP



| 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 <input type="checkbox"/> Plug <input type="checkbox"/> (2) | 3-1/8" | | 3,000 | 3-1/8" | | 5,000 | 3-1/8" | | 10,000 |
| 4 | Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/> (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 <input type="checkbox"/> Plug <input type="checkbox"/> (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 <input type="checkbox"/> Plug <input type="checkbox"/> (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 <input type="checkbox"/> Plug <input type="checkbox"/> (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 10M.

(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, studded, 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 bull plugged tees.
- Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

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

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Artec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

| | | | | | |
|---|---|-----------------------------|-----------------------------------|---------------------------------------|-----------------------|
| Operator DEVON ENERGY CORPORATION | | | Lease EAST SHUGART UNIT | | Well No. 42 |
| Unit Letter A | Section 34 | Township 18 SOUTH | Range 31 EAST | County LEA | |
| Actual Footage Location of Well: 330 feet from the NORTH line and 1140 feet from the EAST line | | | | | |
| Ground Level Elev. 3638.5' | Producing Formation Yates and Queen Sands | | Pool Shugart | Dedicated Acreage: 40 Acres | |

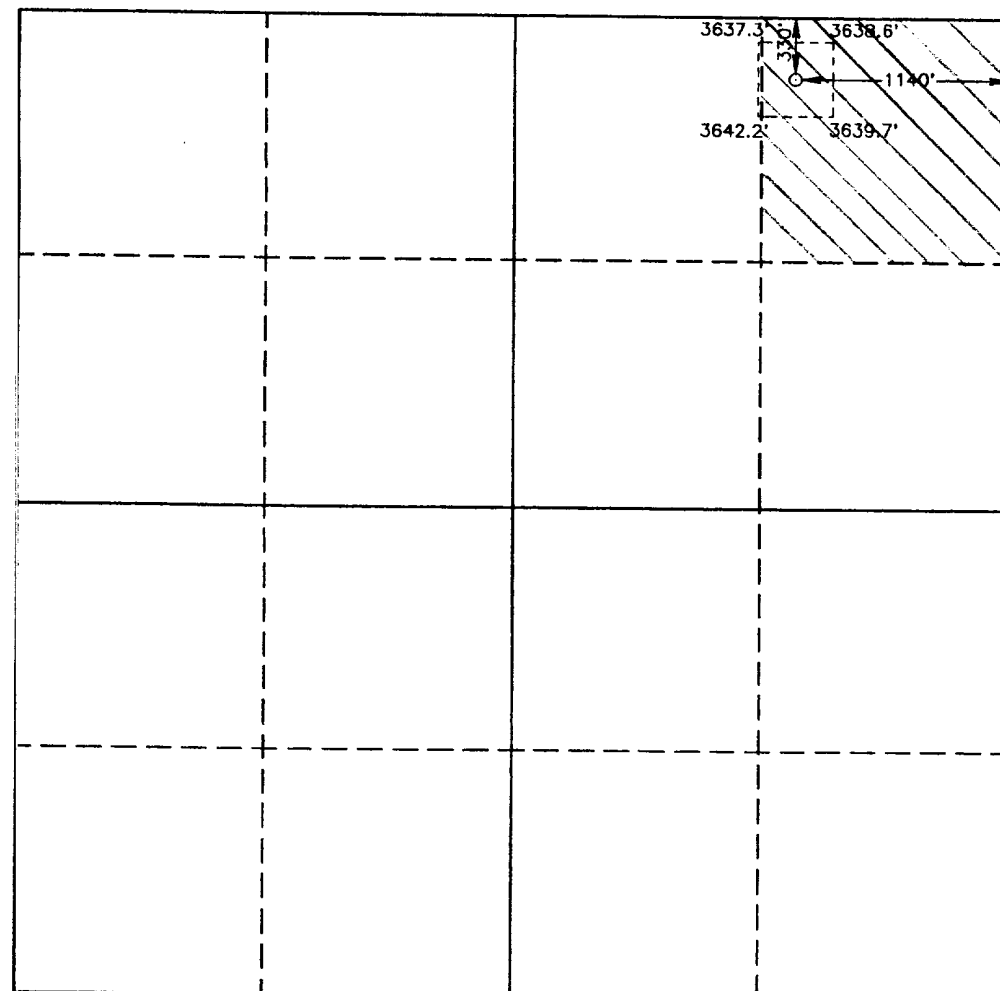
1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?

☐ Yes
 ☐ No

If answer is "yes" type of consolidation _____

If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary.) _____

No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, 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

Randy Jackson

Printed Name

Randy Jackson

Position

District Engineer

Company **Devon Energy Corporation (Nevada)**

Date

July 28, 1993

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 knowledge and belief.

Date Surveyed

JULY 1, 1993

Signature & Seal of Professional Surveyor

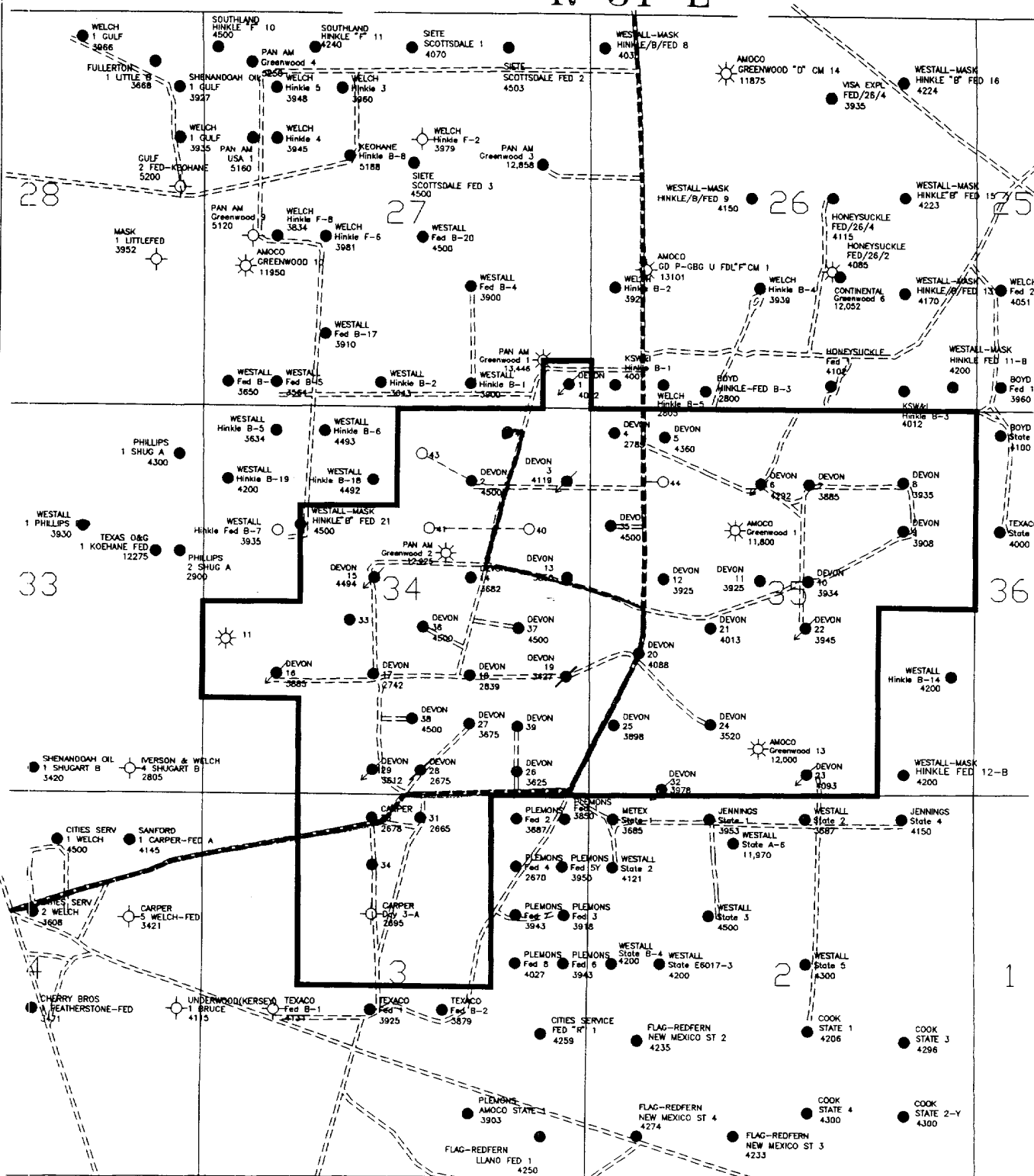
[Signature]

GARY L. JONES
NEW MEXICO
2027
Professional Surveyor

Certificate No. **JOHN W. WEST** 676
RONALD J. FROST 3239
PROFESSIONAL SURVEYOR 7977

93-11-1250

R 31 E



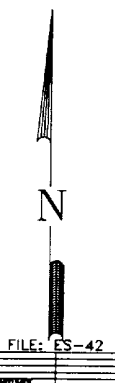
T 18 S

T 19 S



EAST SHUGART UNIT EDDY COUNTY, NEW MEXICO

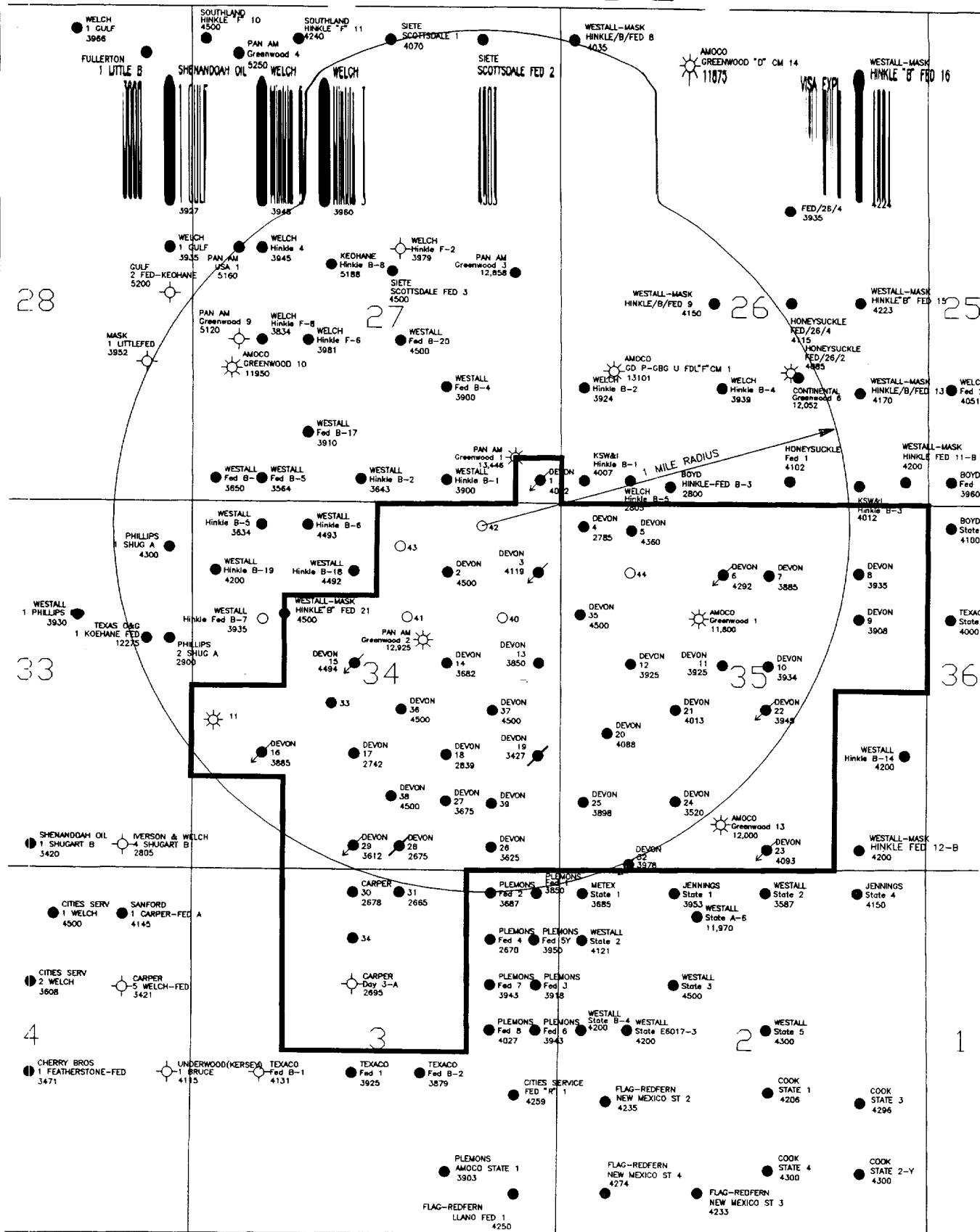
ESU #42
EXHIBIT 3



Scale in Feet
1000 0 1000 2000 3000 4000

FILE: ES-42

R 31 E



T 18 S

T 19 S



EAST SHUGART UNIT EDDY COUNTY, NEW MEXICO

WELLS WITHIN A ONE MILE RADIUS
ESU #42

EXHIBIT 4

FILE: ES-42

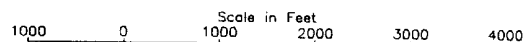


EXHIBIT 4

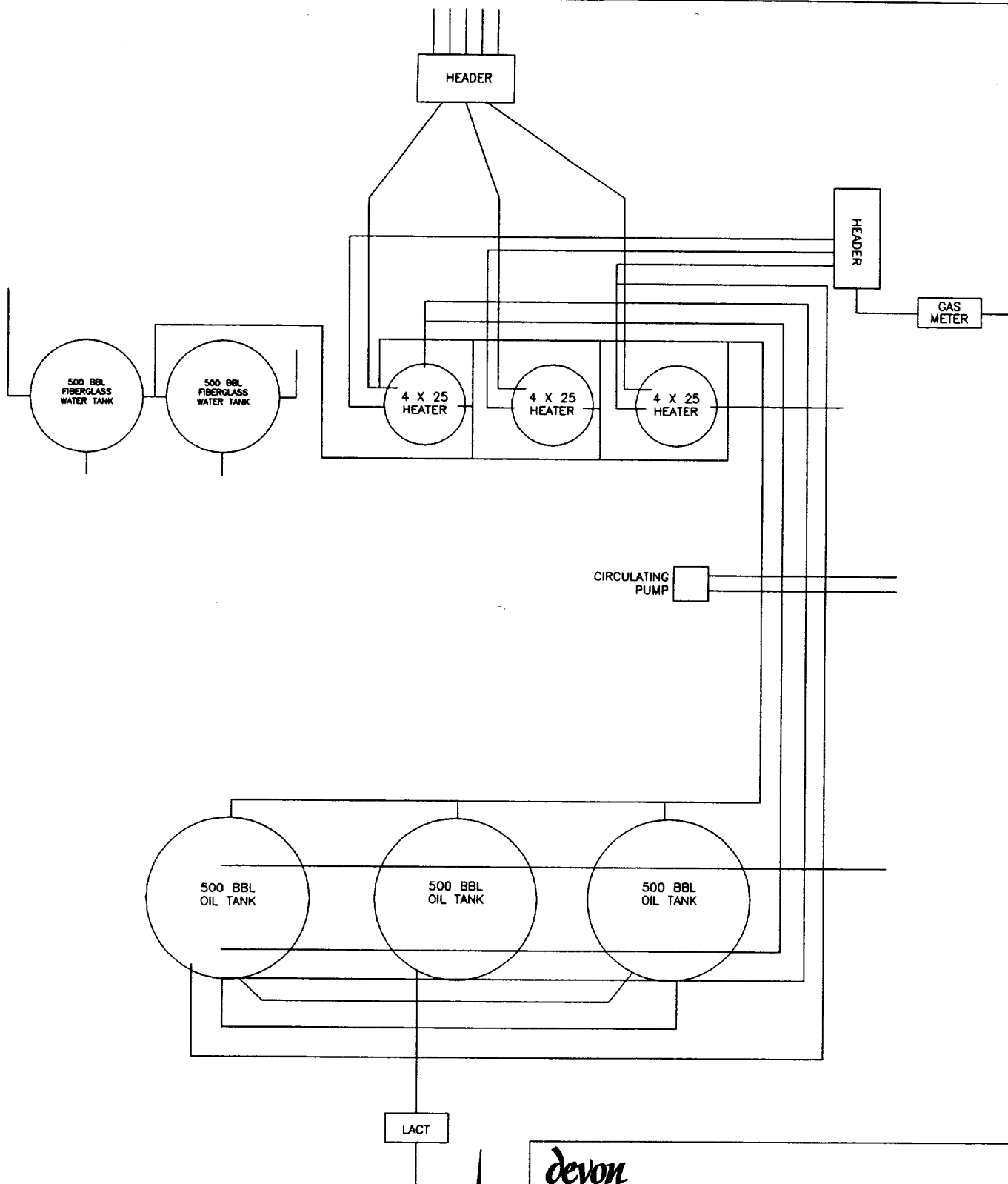
ESU #42 - STATUS OF WELLS WITHIN 1 MILE

330 FNL & 1140 FEL, Section 34-18S-31E, Eddy County, New Mexico

| WELL NAME | SPOT LOC | SEC | COMP DATE | TD | STATUS | PRODUCTIVE HORIZON |
|-----------------------------------|----------|-----|-----------|-------|----------|------------------------|
| 18S-31E | | | | | | |
| GREENWOOD PG UNIT #1-F (AMOCO) | NWSW | 26 | 2/81 | 13101 | INACTIVE | |
| HINKLE #1B (TOM BOYD DRLG) | SWSWSW | 26 | 4/57 | 4007 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE #2B (TOM BOYD DRLG) | SWNWSW | 26 | 8/57 | 3924 | INACTIVE | |
| HINKLE #3B (TOM BOYD DRLG) | SWSESW | 26 | 1/81 | 2800 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE #4B (WELCH) | SESESW | 26 | 3/61 | 3939 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE #5B (TOM BOYD DRLG) | SESWSW | 26 | 6/61 | 2805 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| FEDERAL #1 (OZARK EXPL) | SESWSE | 26 | 6/76 | 4102 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| FEDERAL #2 (OZARK EXPL) | SENWSE | 26 | 10/76 | 4085 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| GREENWOOD #6 (CONOCO) | SENWSE | 26 | | 12052 | P&A | |
| HINKLE FEDERAL B-9 (WESTALL MASK) | SESENW | 26 | 3/78 | 4150 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| ESU #1 (HINKLE 3B) | SESESE | 27 | 2/58 | 4012 | INJECTOR | |
| HINKLE FED #B-1 (MASK) | SESWSE | 27 | 3/73 | 3900 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE FED #B-2 (MASK) | SESESW | 27 | 4/74 | 3643 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE FED #B-3 (MASK) | SESWSW | 27 | 9/74 | 3650 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE FED #B-4 (WESTALL) | SENWSE | 27 | 12/74 | 3989 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE FED #B-10 (WESTALL) | SWSWSW | 27 | 2/78 | 3650 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE FED #B-17 (WESTALL) | NWSESW | 27 | 11/81 | 3984 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE FED #B-20 (WESTALL) | NWNWSE | 27 | 3/88 | 4300 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| GREENWOOD UNIT #1 (PAN AM) | SESE | 27 | 2/57 | 13446 | ACTIVE | PENN/SIL DEV |
| HINKLE #6-F (WELCH) | NWNESW | 27 | 11/65 | 3981 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE #8-F (SOUTHLAND ROYALTY) | NENWSW | 27 | | 3834 | P&A | |
| GREENWOOD PG UNIT #3 (AMOCO) | SENE | 27 | 7/58 | 12858 | ACTIVE | PENN |
| GREENWOOD PG UNIT #10 (AMOCO) | NWSW | 27 | 3/79 | 11950 | ACTIVE | PENN |
| SCOTTSDALE FED #3 (SIETE) | W2SWNE | 27 | 8/85 | 4500 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE F-1 (SOUTHLAND ROYALTY) | NWSENW | 27 | | 5188 | INACTIVE | |
| SHUG A-1 (PHILLIPS) | SENE | 33 | 9/77 | 4300 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| SHUG A-2 (PHILLIPS) | E2SENE | 33 | 10/77 | 2900 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| KEOHANE FED COM #1 (TXO) | W2SENE | 33 | 6/78 | 12275 | ACTIVE | ATOKA |
| ESU #2 (HINKLE 14A) | SENWNE | 34 | 8/59 | 4500 | ACTIVE | QUEEN |
| ESU #3 (HINKLE 13A) | SENE | 34 | 11/58 | 4117 | INJECTOR | |
| ESU #13 (HINKLE 6A) | SESENE | 34 | 4/57 | 3853 | ACTIVE | QUEEN |
| ESU #14 (HINKLE 11A) | SESWNE | 34 | 5/58 | 3862 | ACTIVE | QUEEN |
| ESU #15 (HINKLE 5B) | SESENW | 34 | 1/59 | 4494 | INJECTOR | |
| ESU #16 (HINKLE 6B) | SENWSW | 34 | 10/59 | 3885 | INJECTOR | |
| ESU #17 (HINKLE 2B) | SESESW | 34 | 10/69 | 3925 | ACTIVE | QUEEN |
| ESU #18 (HINKLE 2A) | SENWSE | 34 | 2/59 | 3571 | ACTIVE | QUEEN |
| ESU #19 (HINKLE 3A) | SESESE | 34 | 1/57 | 3870 | INACTIVE | |
| ESU #26 (HINKLE 2A) | SWSESE | 34 | 12/40 | 3625 | ACTIVE | QUEEN |

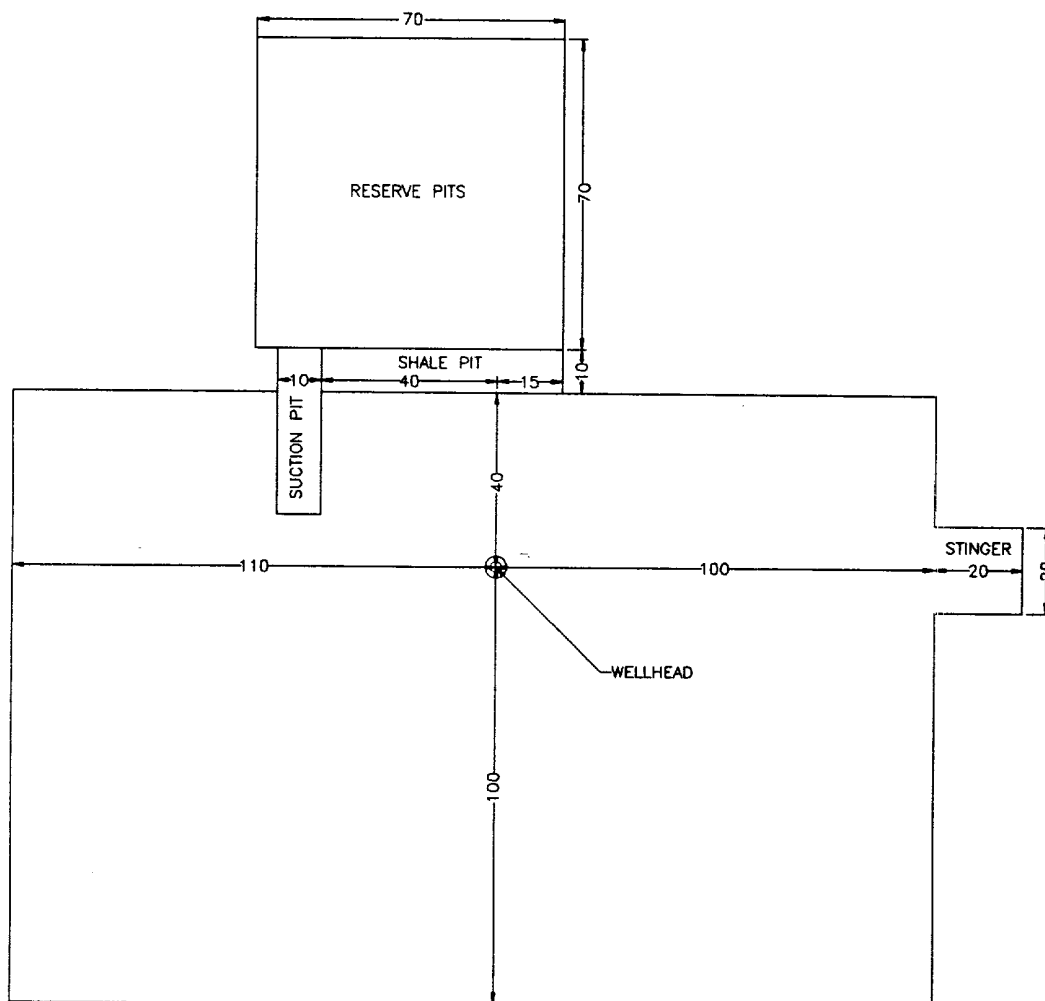
EXHIBIT 4

| WELL NAME | SPOT LOC | SEC | COMP DATE | TD | STATUS | PRODUCTIVE HORIZON |
|-------------------------------|----------|-----|-----------|-------|----------|------------------------|
| 18S-31E | | | | | | |
| ESU #27 (CARPER-HINKLE #3) | NESWSE | 34 | 8/52 | 3845 | ACTIVE | QUEEN |
| ESU #28 (HINKLE A1) | SWSWSE | 34 | 9/40 | 2678 | INACTIVE | |
| ESU #29 (HINKLE 1B) | SESESW | 34 | 7/59 | 3612 | INJECTOR | |
| GREENWOOD UNIT #2 | SWNE | 34 | 1/58 | 12925 | INACTIVE | PENN |
| HINKLE B-19 (WESTALL) | SWNWNW | 34 | 11/83 | 4200 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE B-6 (WESTALL) | NWNENW | 34 | 1/76 | 4493 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE B-18 (WESTALL) | SEENENW | 34 | 11/82 | 4492 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE B-5 (WESTALL) | NENWNW | 34 | 9/75 | 3634 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE B-7 (WESTALL) | NESWNW | 34 | 10/76 | 3935 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| HINKLE B-21 (WESTALL) | SWSWNW | 34 | 9/91 | 4500 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |
| ESU #4 (HINKLE 7A) | NWNWNW | 35 | 5/86 | 2785 | ACTIVE | QUEEN |
| ESU #5 (HINKLE 15A) | NENWNW | 35 | 7/89 | 4360 | ACTIVE | QUEEN |
| ESU #6 (HINKLE 12A) | SEENENW | 35 | 1/59 | 4294 | INACTIVE | |
| ESU #7 (HINKLE 2) | SWNWNE | 35 | 2/58 | 3885 | ACTIVE | QUEEN |
| ESU #10 (HINKLE B 1-35) | SWSWNE | 35 | 5/57 | 3935 | INACTIVE | |
| ESU #11 (HINKLE 10A) | SESEENW | 35 | 5/58 | 3925 | ACTIVE | QUEEN |
| ESU #12 (HINKLE 9A) | SESWNW | 35 | 9/57 | 3923 | INACTIVE | |
| ESU #20 (HINKLE 1A) | NWSW | 35 | 5/38 | 4088 | ACTIVE | QUEEN |
| ESU #21 (HINKLE 8A) | NWNESW | 35 | 8/57 | 4013 | INACTIVE | |
| ESU #22 (HINKLE 4B) | NWNWSE | 35 | 11/58 | 3940 | INJECTOR | |
| ESU #23 (HINKLE 7B) | SWSWSE | 35 | 3/60 | 4104 | INACTIVE | |
| ESU #24 (HINKLE 5A) | NWSSESW | 35 | 2/57 | 3520 | INACTIVE | |
| ESU #25 (HINKLE 4A) | NWSWSW | 35 | 7/56 | 3905 | ACTIVE | QUEEN |
| GREENWOOD UNIT FED "A" COM #1 | N2SEENW | 35 | 6/79 | 11800 | ACTIVE | PENN |
| 19S-31E | | | | | | |
| MCFADDEN #2 (JACK PLEMONS) | NWNENE | 3 | 10/75 | 3687 | ACTIVE | YTS, QN, 7RVRS, GRYBRG |



EAST SHUGART AREA
EDDY COUNTY, NEW MEXICO

EXHIBIT #5
EAST SHUGART TANK BATTERY
Sec 35 - T18S - R31E



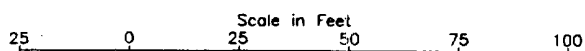
FILE: ES-42



EAST SHUGART AREA

EDDY COUNTY, NEW MEXICO

DRILLING PAD FOR
ESU #42
EXHIBIT 6



CH

7/93

EXHIBIT #7**DEVON ENERGY**

| | |
|------------------------------------|-------------------------------------|
| Operator: DEVON ENERGY CORP | Well Name: EAST SHUGART UNIT |
| Project ID: | Location: |

Design Parameters:

Mud weight (9.00 ppg) : 0.468 psi/ft
 Shut in surface pressure : 855 psi
 Internal gradient (burst) : 0.100 psi/ft
 Annular gradient (burst) : 0.000 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125
 Burst : 1.00
 8 Round : 1.80 (J)
 Buttress : 1.60 (J)
 Body Yield : 1.50 (B)
 Overpull : 0 lbs.

| Length (feet) | Size (in.) | Weight (lb/ft) | Grade | Joint | Depth (feet) | Drift (in.) | Cost | | |
|------------------|---|-------------------|------------------------|----------------------------|-----------------|--|-------|-----|---------|
| 1 | 950 | 8-5/8" | 24.00 | J-55 | ST&C | 950 | 7.972 | | |
| | Collapse Load Strgth S.F. (psi) (psi) | | Burst Load (psi) | Min Int Strgth (psi) | Yield S.F. | Tension Load Strgth S.F. (kips) (kips) | | | |
| 1 | 444 | 1370 | 3.086 | 950 | 2950 | 3.11 | 22.80 | 244 | 10.70 J |

Prepared by : , Oklahoma City, OK
 Date : 08-09-1993
 Remarks :

Minimum segment length for the 950 foot well is 900 feet.

Surface string:

Next string will set at 4,500 ft. with 10.10 ppg mud (pore pressure of 2,361 psi.) The frac gradient of 1.000 at the casing seat results in an injection pressure of 950 psi. Effective BHP (for burst) is 950 psi.

The minimum specified drift diameter is 7.972 in.

NOTE: The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1990 pricing model. (Version 1.0G)

DEVON ENERGY

| | |
|-----------------------------|------------------------------|
| Operator: DEVON ENERGY CORP | Well Name: EAST SHUGART UNIT |
| Project ID: | Location: |

Design Parameters:

Mud weight (10.10 ppg) : 0.525 psi/ft
 Shut in surface pressure : 1911 psi
 Internal gradient (burst) : 0.100 psi/ft
 Annular gradient (burst) : 0.000 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125
 Burst : 1.00
 8 Round : 1.80 (J)
 Buttress : 1.60 (J)
 Body Yield : 1.50 (B)
 Overpull : 0 lbs.

| Length (feet) | Size (in.) | Weight (lb/ft) | Grade | Joint | Depth (feet) | Drift (in.) | Cost |
|------------------|---|-------------------|---------------------|-------------------------|-----------------|--|------------------|
| 1 | 4,500 | 5-1/2" | 15.50 | J-55 | ST&C | 4,500 | 4.825 |
| | Collapse Load Strgth S.F. (psi) (psi) | | Burst Load (psi) | Min Int Strgth (psi) | Yield S.F. | Tension Load Strgth S.F. (kips) (kips) | |
| 1 | 2361 | 4040 | 1.711 | 2361 | 4810 | 2.04 | 69.75 202 2.90 J |

Prepared by : , Oklahoma City, OK

Date : 08-09-1993

Remarks :

Minimum segment length for the 4,500 foot well is 1,500 feet.

The mud gradient and bottom hole pressures (for burst) are 0.525 psi/ft and 2,361 psi, respectively.

NOTE: The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1990 pricing model. (Version 1.0G)

DEVON ENERGY CORPORATION

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

A. Hydrogen Sulfide Training

All rig crews and company personnel will receive training from a qualified instructor in the following areas prior to penetrating any hydrogen sulfide bearing formations during drilling operations:

1. The hazards and characteristics of hydrogen sulfide (H₂S).
2. The proper use and maintenance of the H₂S safety equipment and of personal protective equipment to be utilized at the location such as H₂S detection monitors, alarms and warning systems, and breathing equipment. Briefing areas and evacuation procedures will also be discussed and established.
3. Proper rescue techniques and procedures will be discussed and established.

In addition to the above, supervisory personnel will be trained in the prevention of oil and gas well blowouts in accordance with Minerals Management Service Standards Subpart - 0 - 250 - 212.

Prior to penetrating any known H₂S bearing formation, H₂S training will be provided at the rig sight for all rig crews and company personnel that have not previously received such training. This instruction will be provide by a qualified instructor with each individual being required to pass a 20 question test regarding H₂S safety procedures. All contract personnel employed on an unscheduled basis will be required to have received appropriate H₂S training.

This Hydrogen Sulfide Drilling And Operations Plan shall be available at the wellsite during drilling operations.

B. H₂S Safety Equipment And Systems

All H₂S safety equipment and systems will be installed, tested, and operational when drilling operations reaches a depth approximately 500' above any known or probable H₂S bearing formation. The safety systems to be utilized during drilling operations are as follows:

1. Well Control Equipment

- (a) Double ram BOP with a properly sized closing unit and pipe rams to accommodate all pipe sizes in use.
- (b) A choke manifold with a minimum of one remote choke.

Note: BOP's will be in place prior to drilling out surface casing.

2. H2S Detection And Monitoring Equipment

- (a) Three (3) H2S detection monitors will be placed in service at the location. One monitor will be placed near the bell nipple on the rig floor; one will be placed at the rig substructure; and, one will be at the working mud pits or shale shaker. This monitoring system will have warning lights and audible alarms that will alert personnel when H2S levels reach 20 ppm.
- (b) One (1) Sensidyne Pump with the appropriate detection tubes will also be available to perform spot checks for H2S concentrations in any remote or isolated areas.

3. Protective Equipment For Essential Personnel

Protective equipment will consist of the following:

- (a) Four (4) - five minute escape packs located at strategic points around the rig.
- (b) Four (4) - thirty minute rescue packs to be located at the designated briefing areas.
- (c) Breathing air cascade manifold system complete with 10 - 300 cubic feet air cylinders with four hose line work units.

4. Visual Warning System

Visual warning system will consist of the following:

- (a) Two wind direction indicators.
- (b) One condition / warning sign which will be posted on the road providing direct access to the location. The sign will contain lettering of sufficient size to be readable at a reasonable distance from the

immediate location. The sign will inform the public that a hydrogen sulfide gas environment could be encountered be at the location.

5. Mud Program

- (a) The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight and safe drilling practices (for example, keeping the hole filled during trips) will minimize hazards when drilling in H₂S bearing formations.

6. Metallurgy

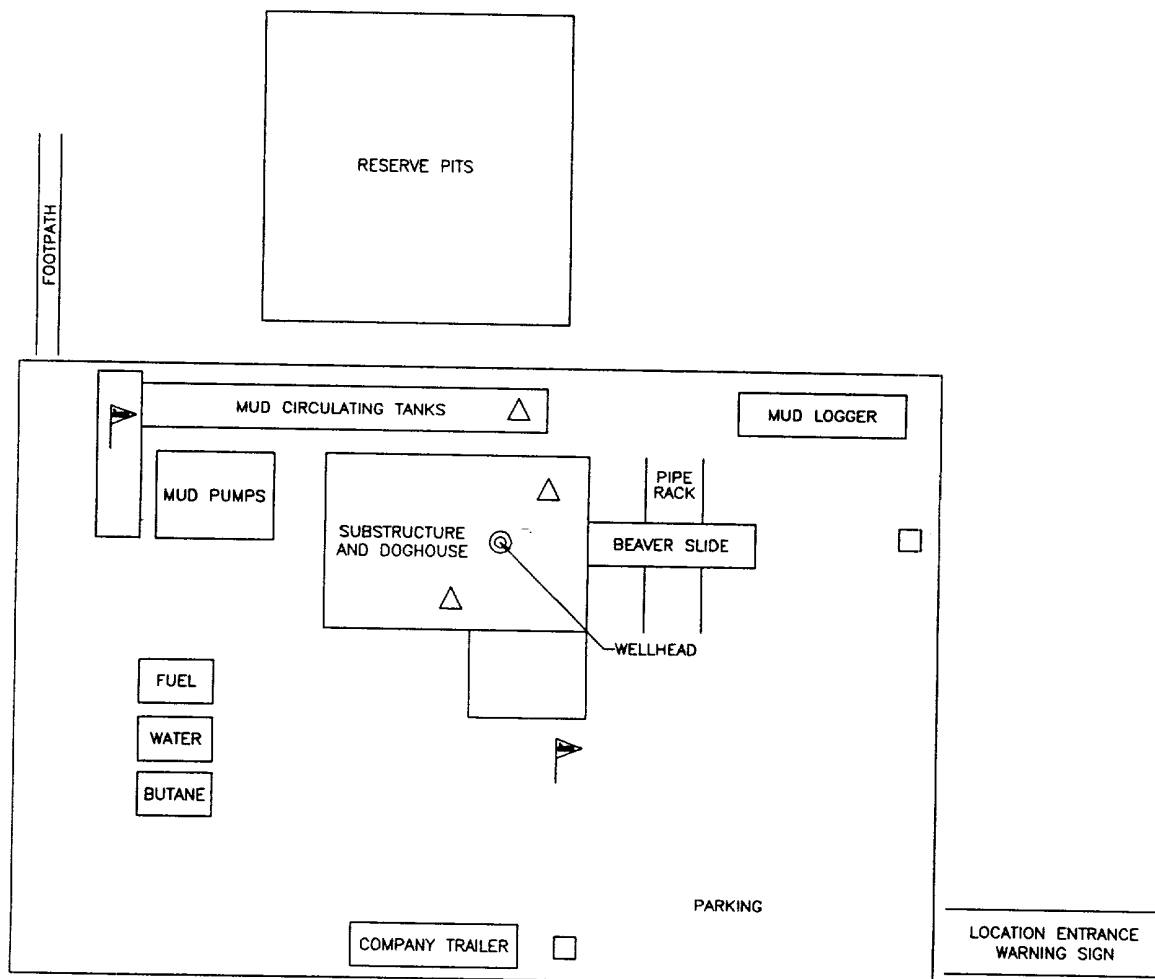
- (a) All drill strings, casings, tubing, wellhead, blowout preventers, drilling spools, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.

7. Communication

- (a) Two way radio and cellular telephone communication will be available in company vehicles.

C. Diagram Of Drilling Location

1. Attached is a diagram representing a typical location layout as well as the location of H₂S monitors, briefing areas, and wind direction indicators.



- △ H2S MONITORS WITH ALARMS AT THE BELL NIPPLE, SUBSTRUCTURE, AND SHALE SHAKER
- WIND DIRECTION INDICATORS
- SAFE BRIEFING AREAS WITH CAUTION SIGNS AND PROTECTIVE BREATHING EQUIPMENT



FILE: ES-42

devon
ENERGY CORPORATION

EAST SHUGART AREA
EDDY COUNTY, NEW MEXICO

ES - #42
H2S PLAN

Scale in Feet

25 0 25 50 75 100

CH 7/93