EC

OCD-HOBBS

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Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

A49

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM96244

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

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

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

8. Lease Name and Well No.
SAPPHIRE 8 FEDERAL 1

2. Name of Operator
DEVON ENERGY CORPORATION

Contact: KAREN COTTOM
E-Mail: karen.cottom@dvn.com

9. API Well No.
30-025-36096

3a. Address
1500 MID-AMERICA TOWER 20 N. BROADWAY
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)
Ph: 405.228.7512
Fx: 405.552.4621

10. Field and Pool, or Exploratory
UNDESIGNATED
Beetle; Morrow

4. Location of Well (Report location clearly and in accordance

At surface SENW 1980FNL 1980FWL

At proposed prod. zone F

OPER. OGRID NO. 6137
PROPERTY NO. 31004
POOL CODE 72650
EFF. DATE 1-3-03
API NO. 30-025-36096

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 8 T22S R33E Mer NMP

14. Distance in miles and direction from nearest town or post offi
18 MILES SW OF OIL CENTER

12. County or Parish
LEA

13. State
NM

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
993

16. No. of Acres in Lease
2360.00

17. Spacing Unit dedicated to this well
320.00

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
1320 PLUGGED

19. Proposed Depth
15200 MD

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KB, RT, GL, etc.
3605 GL

22. Approximate date work will start
12/15/2002

23. Estimated duration
70 DAYS

24. Attachments

Carlsbad Controlled Water Basin

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
(Electronic Submission)	KAREN COTTOM	10/31/2002

Title
ENGINEERING TECHNICIAN

Approved by (Signature)	Name (Printed/Typed)	Date
/S/ TIMOTHY R SPISAK	/S/ TIMOTHY R SPISAK	DEC 19 2002

Title	Office
ACTING STATE DIRECTOR	NM STATE OFFICE

Application approval does not warrant or certify 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.

Additional Operator Remarks (see next page)

Electronic Submission #15641 verified by the BLM Well Information System
For DEVON ENERGY CORPORATION, sent to the Hobbs
Committed to AFMSS for processing by Armando Lopez on 11/04/2002 (03AL0004AE)

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

Hobbs OCD

** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED **

J
C
A

KZ

Additional Operator Remarks:

see attachments

EXHIBIT #4

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
30-025-36096	72650	UNDESIGNATED Bottleg; Morrow

Property Code	Property Name	Well Number
31004	SAPPHIRE "8" FEDERAL	1

OGRID No.	Operator Name	Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, LP	3605'

Surface Location

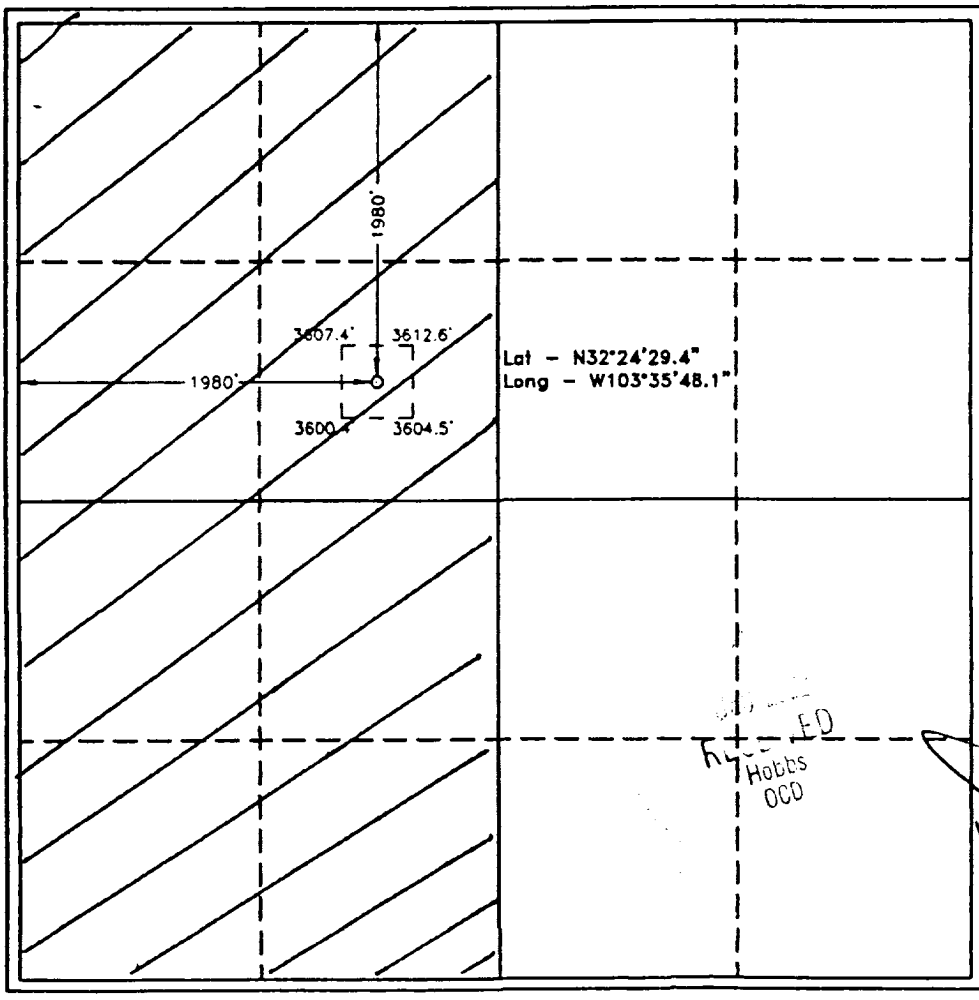
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	8	22 S	33 E		1980	NORTH	1980	WEST	LEA

Bottom Hole Location If Different From Surface

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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



RECEIVED
HOBBS
OCD

OPERATOR CERTIFICATION

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

Signature
Bill Greenlees
Printed Name
Operations Engineer Advisor
Title
October 31 2002
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

SEPTEMBER 26, 2002
Date Surveyed
Signature & Seal of Professional Surveyor
W.O. No. 2758
Certificate No. Gary L. Jones 7977
BASIN SURVEYS

DRILLING PROGRAM

Attached to Form 3160-3
Devon Energy Production Company, LP
SAPPHIRE 8 FEDERAL #1
(F) 1980' FNL & 1980' FWL, Section 8, T-22-S, R-33-E
Lea County, New Mexico

1. Geologic Name of Surface Formation

   Ogalaua

2. Estimated Tops of Important Geologic Markers

Delaware	4900'
Bone Spring	8600'
Wolfcamp	11,950'
Strawn;	13,460'
Atoka	13,660'
U. Morrow Sand	14,450'
L. Morrow	15,000'
TD	15,200'

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:	None expected in area
Oil:	Bone Spring 8600'
Gas:	Atoka 13,700'
	Morrow 14,500'

4. Casing Program

Hole Size	Interval	OD Csg	Weight	Collar	Grade
17 ½"	0-950	13 3/8"	54.5#	ST&C	J-55
12 ¼"	0-5000'	9 5/8"	40#	LT&C	J-55 & HCK-55
8 ¾"	0 - 12,150'	7"	26#	LT&C	HCP-110
6 1/8"	11,850' – 15,200'	4 ½" Liner	15.1#	LT&C	P-110

5. CASING CEMENTING & SETTING DEPTH:

13 3/8"	Surface	Set 950' of 13 3/8", 54.5#, J-55, ST&C casing. Cement w/330 sx 35:65 POZ; Class C + 2% CaCl2 followed by 300 sx Class C + 2% CaCl2. Circulate to surface.
9 5/8"	Intermediate	Run 1500' of 9 5/8", 40#, HCK-55, LT&C followed by 3500' 9 5/8" 40#, J-55 LT&C. Cement w/1087 sx 50:50 Poz + additives followed by 300 sx 60:40 Poz Class C + additives. Circulate cement to surface
7 ½"	Production	Set 12,150' of 7", 26#, HCP-110 LT&C casing. Cement w/439 sx 15:61:11 POZ, Class C, CSE + additives estimated TOC @8000'
4 ½"	Liner	Set liner from 11,850' to 15,200' using 4 ½", 15.1#, HCP-110 LTC, Cement w/466 sx Class H + additives, Estimated TOC @11,650'

6. PRESSURE CONTROL EQUIPMENT: Exhibit "1". A Blow-out Preventer (no less than 900 Series 5000/10000 PSI working pressure) consisting of double ram type preventer with bag type preventer. 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 each day while drilling & blind ram will be worked on trips when no drill pipe is in hole. Full opening stabbing valve and upper Kelly cock will be utilized. Anticipated BHP 8600 PSI and 200° BHT.

7. PROPOSED MUD CIRCULATION SYSTEM:

DEPTH	MUD. WT.	MUD VISC.	FLUID LOSS	TYPE MUD
0' – 950'	8.4- 8.8	29-36	NC	Fresh water spud mud use paper for seepage.
950' – 5000'	10 – 11.0	29-32	NC	Brine water use paper for seepage control and lim for pH control.
5000' – 12150'	8.4 – 9	29-34	NC	Cut Brine Use paper for seepage control.
12,150' – 15200'	9 – 12.5	34 –38	10 cc's or less for drilling Morrow	Cut Brine. Mud up at Atoka

Sufficient mud materials to maintain mud properties, meet lost circulation and weight increase requirement will be kept at wellsite at all times. In order to run casing and log well viscosity may have to be raised and water loss may have to be lowered.

8. TESTING, LOGGING AND CORING PROGRAM:

   1) CNL-FDC, Gamma Ray, Caliper from TD to base of intermediate casing.

   2) AIT-Dual Laterolog – Micro SFL from TD to base of intermediate casing.

   3) Gamma Ray, Neutron, Caliper to surface

   4) Mud Logger on from 5000' to TD (Two man unit)

9. POTENTIAL HAZARDS:
   No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H_2S detectors will be in place to detect any presence. Lost circulation could occur from 4000' to 4900'. All personnel will be familiar with all aspects of safe operations of equipment being used. Estimated BHP 8600 psi, estimated BHT 200°

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:
    Road and location construction will begin after BLM approval of APD. Anticipated spud date is December 15, 2002. Drilling is expected to take 70 days. If production casing is run and additional 30 days will be required to complete and construct surface facilities.

SURFACE USE AND OPERATING PLAN

Attached to Form 3160-3
SAPPHIRE 8 FEDERAL #1
(F) 1980' FNL & 1980' FWL, Section 8, T-22-S, R-33-E
Lea County, New Mexico

1. Existing Roads: Area maps, Exhibit "2" is a reproduction of Lea Co. General Highway Map. Exhibit 3 is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. There will be approximately 1083' of new road construction to BLM specifications.

   A. Exhibit 4 shows the proposed well site as staked

   B. From the junction of Co. Rd. 176 and US Hwy 62/180, go Southeast on Co. Rd. 176 for 6.2 miles to Bootleg Road; thence South for 0.6 mile to a "Y", and go right for 1.6 mile; thence South for 0.8 mile to a "Y" and go left for 1.3 mile to an El Paso pipeline R-O-W; thence South for 6.3 miles; thence East 0.6 mile; thence North for 1.9 mile past Conoco Bootleg compressor; thence Northeast for 0.8 mile; thence South 0.1 mile to dry hole and proposed lease road.

   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 OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "5"

   A. Water wells – Non in immediate vicinity.

   B. Disposal wells – None known

   C. Drilling wells – As shown on Exhibit "5"

   D. Producing wells – As shown on Exhibit "5"

E. Abandoned wells – As shown on Exhibit "5". If, upon completion this well is a producer, Devon Energy Production Company LP. will furnish maps and/or plats showing on site facilities or off site facilities if needed. This will be accompanied with a Sundry Notice.

3. 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.

4. SOURCES OF CONSTRUCTION MATERIALS

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 "3".

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.~~ CANNOT BURY TRASH. MUST BE HAULED AWAY WITHIN 30 DAYS.

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.

Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for backfilling. In the event drilling fluids will not evaporate in a reasonable period of time they will be transported by tank truck to a state approved disposal site.

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.

a. ANCILLARY FACILITIES

No camps or airstrips will be constructed

6. WELL SITE LAYOUT

A. Exhibit "6" 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. If needed, the reserve pit is to be lined with polyethylene. The pit liner will be 6 mils thick. 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. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded, as close 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 area will then be leveled and contoured to conform, as closely as possible to the original and surrounding area. Drainage systems, if any, will be reshaped , as close as possible, to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. 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 close 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 project area is located on open dune hill formations with stabilized coppice dunes 10-50 cm in height. Soils are tan-red silty sand mixed with caliche nodules and lag gravels. Vegetation consists of grasses, shinkoak, mesquite, snakeweed, sand sage, and yucca.

B. The surface is owned by the U. S. Department of the Interior (Bureau of Land Management).

C. An archaeological survey has been 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: Oil and gas production and grazing.

F. Surface ownership: BLM, Carlsbad, N.M.

OPERATORS REPRESENTIVE:

DEVON ENERGY PRODUCTION COMPANY , LP
20 NORTH BROADWAY, STE 1500
OKLAHOMA CITY, OK 73102

BILL GREENLEES SR. OPERATIONS ENGINEERING ADVISOR
WORK PHONE (405)552-8194
CELLULAR (405)203-7778

9. CERTIFICATION: - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statement 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, LP. it's contractors/subcontractors is in the conformity with this plan and the terms and condition under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME: _____
Bill Greenlees
DATE: _____
Title: Sr. Operations Engineering Advisor

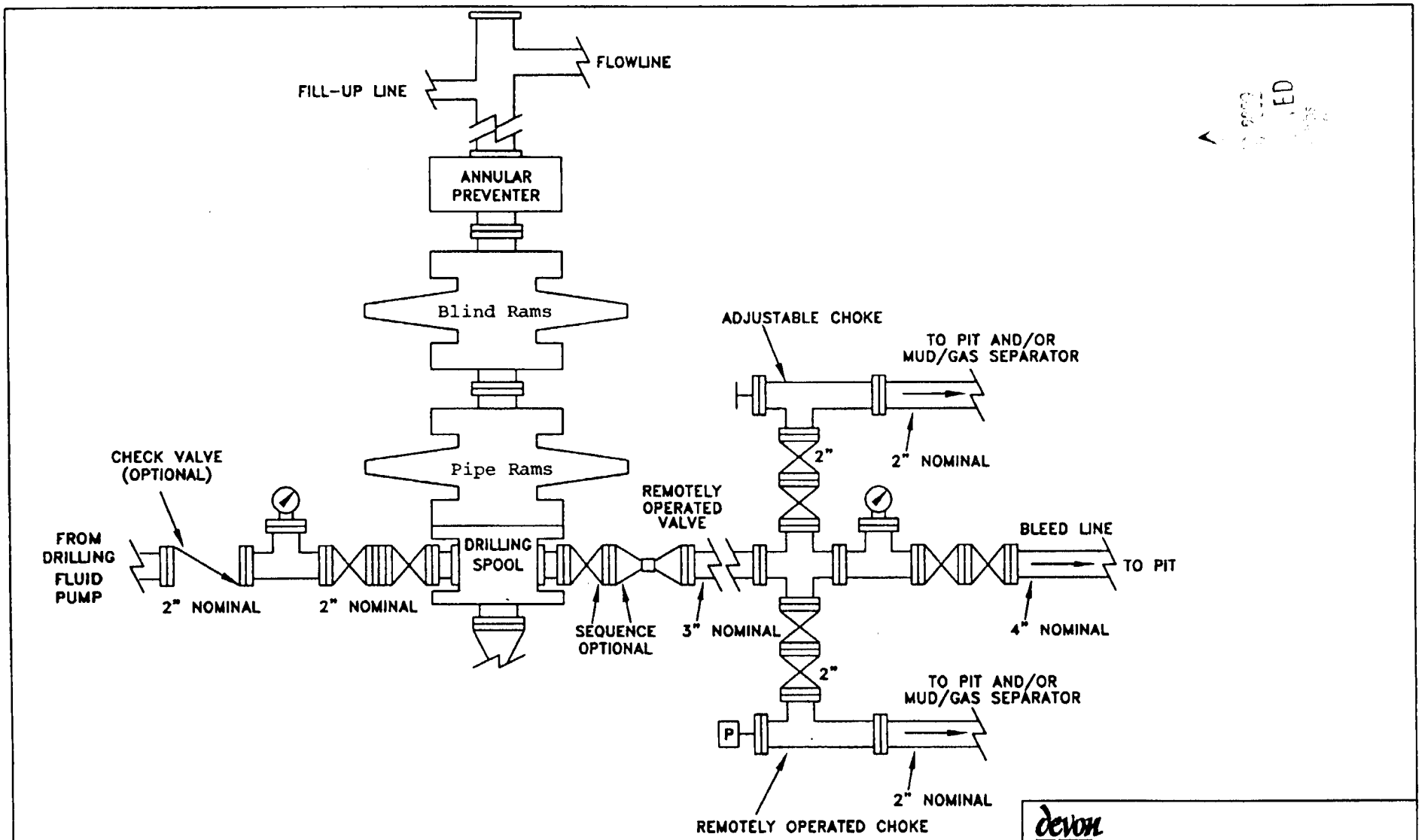
UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201-1287

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-3000179**
Legal Description of Land:	**320 acres 8-T22S - R33E**
Formation(s):	**Undesignated**
Bond Coverage:	**Nationwide**
BLM Bond File No.:	**CO-1104**
Authorized Signature:	**Bill Greenlees**
Title:	**SR. Oper. Engineering Advisor**
Date:	10/31/02



devon

EXHIBIT #1

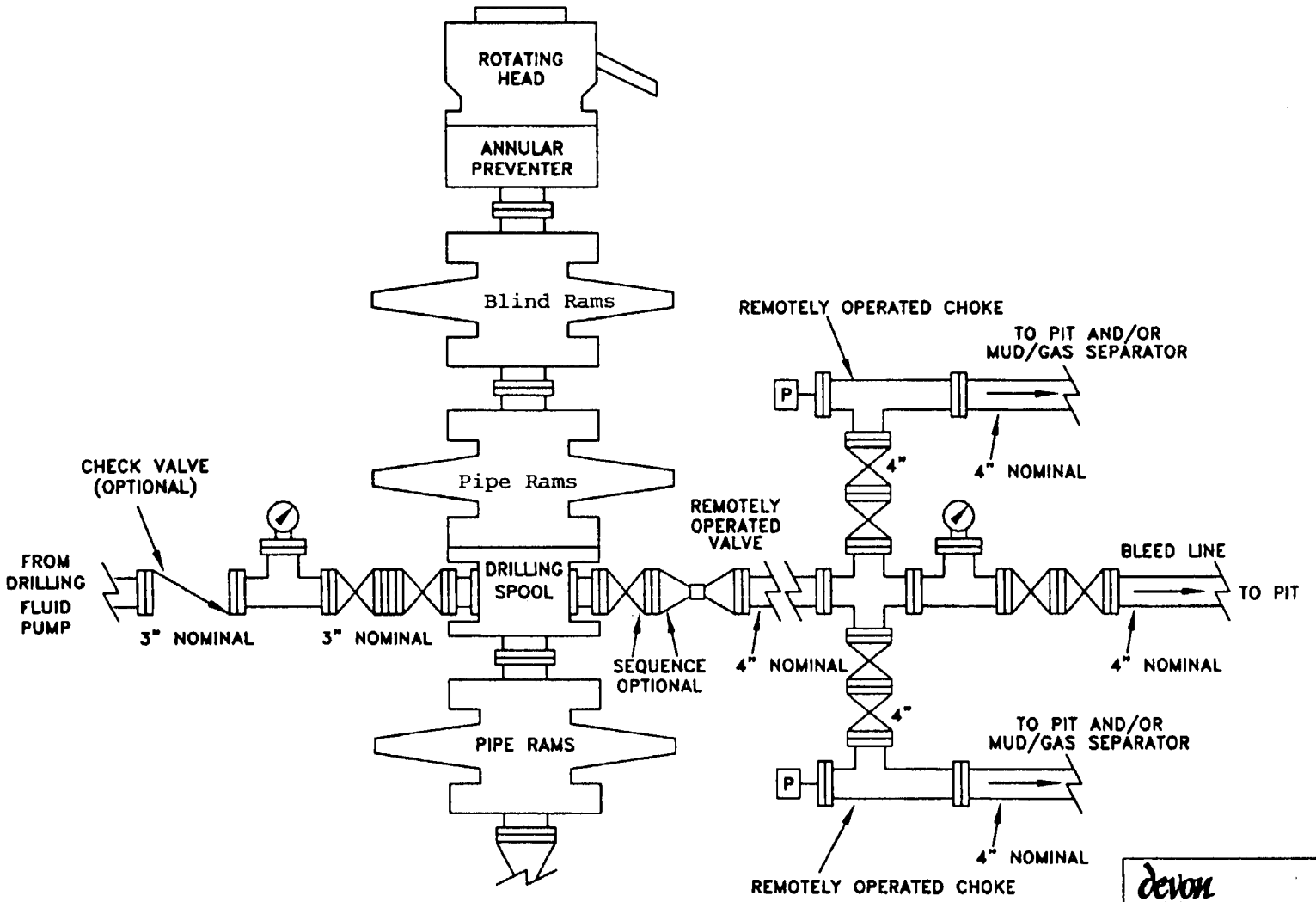
SCHEMATIC

PROPOSED 5-M BOPE AND CHOKE ARRANGEMENT

s:\..\nm\plats
5mbope.dwg

SC

10/00



devon

EXHIBIT #1

SCHEMATIC

PROPOSED 10-M BOPE AND CHOKE ARRANGEMENT

s:\...\nm\plots
10mbope.dwg

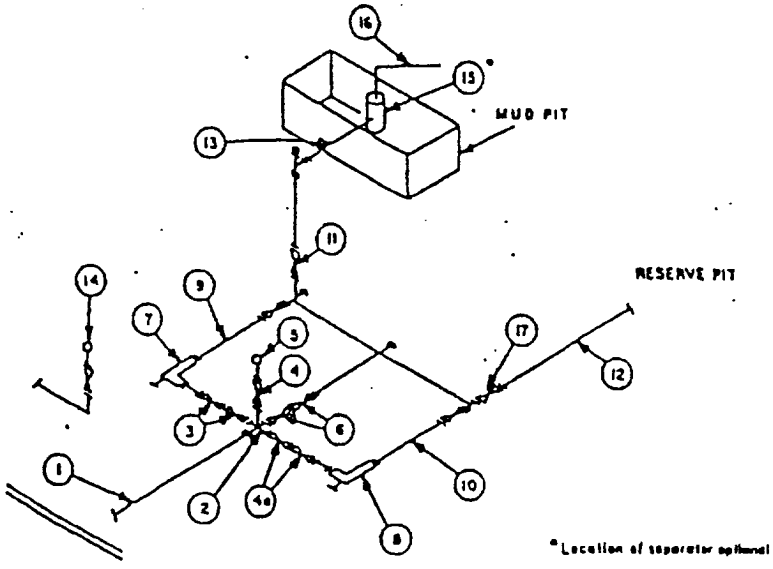
SC

10/00

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

3 MWP - 5 MWP - 10 MWP

EXHIBIT # 1



MINIMUM REQUIREMENTS										
		3,000 MWP			5,000 MWP			10,000 MWP		
No.		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

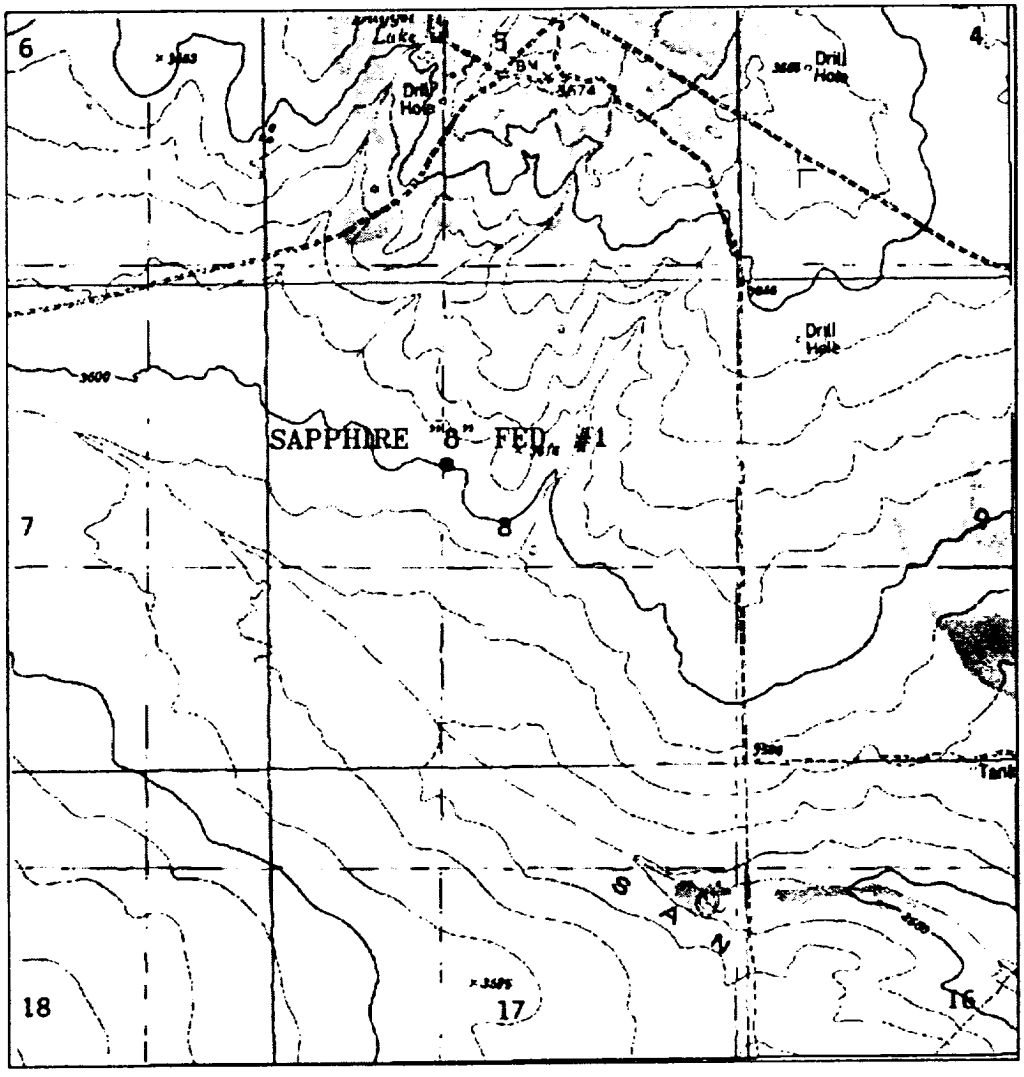
(1) Only one required in Class 3M.

(2) Gate valves only shall be used for Class 10M.

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

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

1. All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
2. All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
3. All lines shall be securely anchored.
4. Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
5. 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.
6. 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.
7. Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.

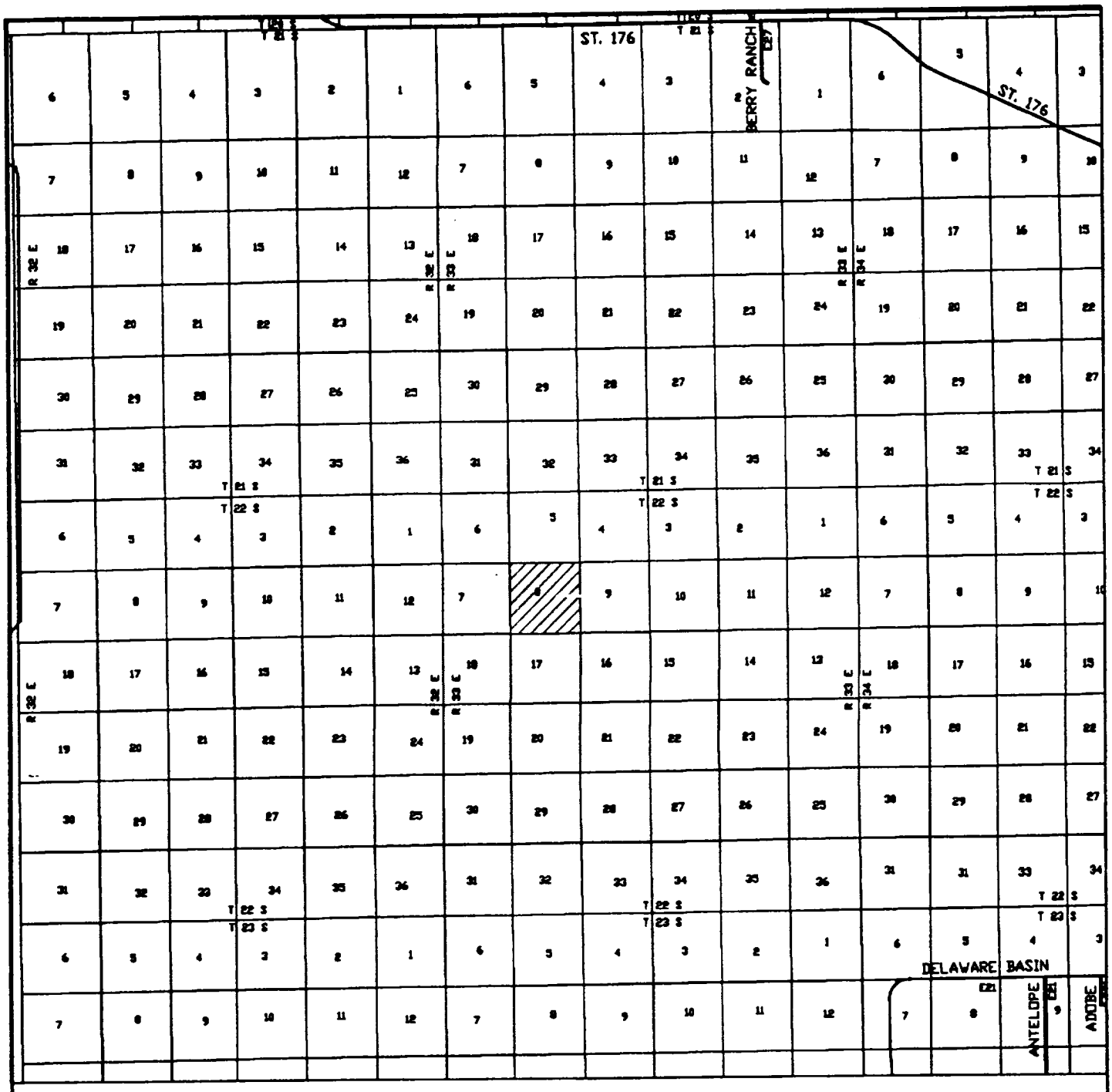


SAPPHIRE "8" FEDERAL #1
Located at 1980' FNL and 1980' FWL
Section 8, Township 22 South, Range 33 East,
N.M.P.M., Lea County, New Mexico.

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:	2758AA - KJG CD#4
Survey Date:	09-26-2002
Scale:	1" = 2000'
Date:	10-02-2002

EXHIBIT 2



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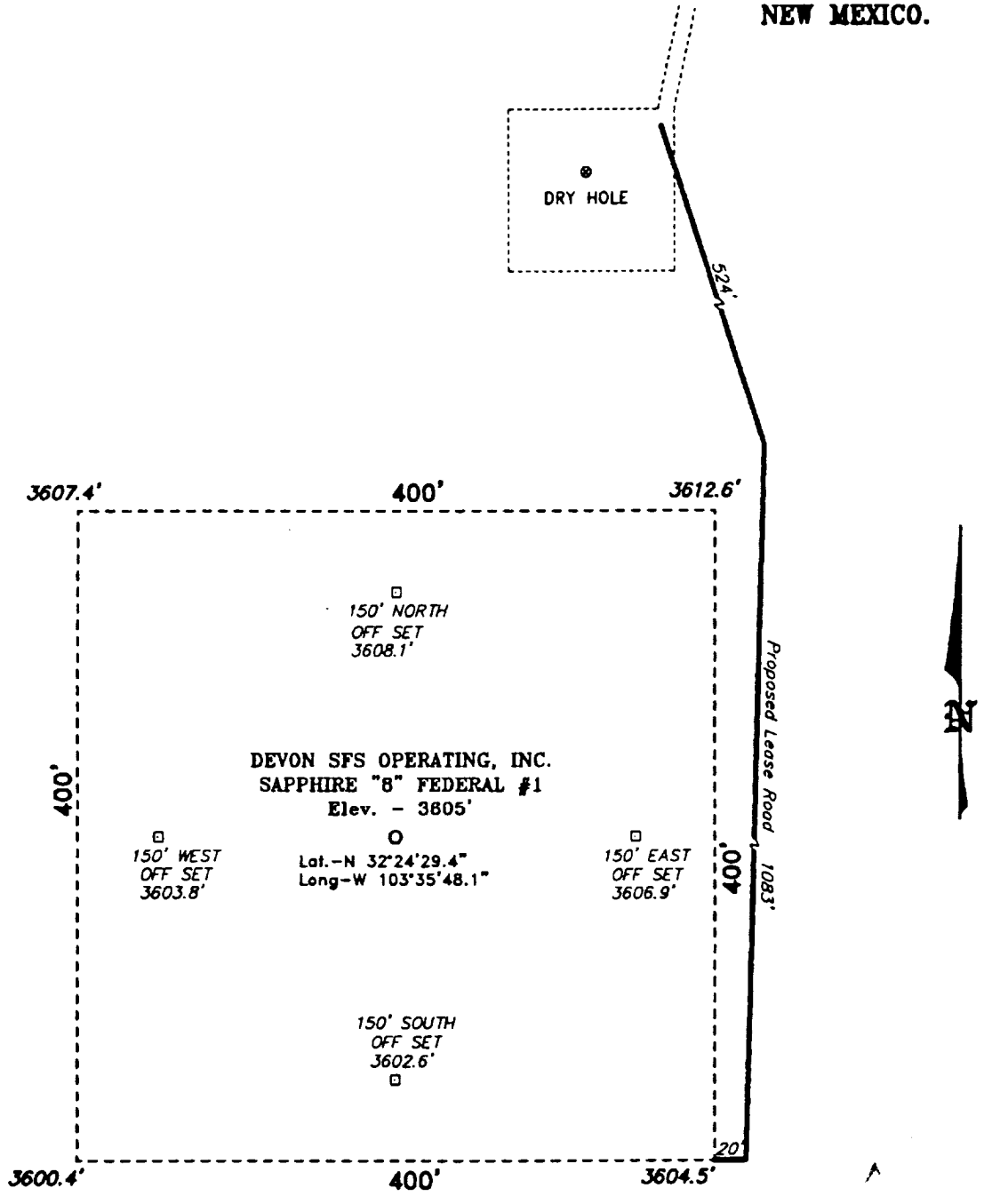
Hobbs, New Mexico 88241
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W.O. Number: 2758AA - KJG CD#4
Survey Date: 09-26-2002
Scale: 1" = 2 miles
Date: 10-02-2002

EXHIBIT #2

SECTION 8, TOWNSHIP 22 SOUTH, RANGE 33 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF CO. RD. 176 AND US HWY 62/180, GO SOUTHEAST ON CO. RD. 176 FOR 6.2 MILES TO BOOTLEG ROAD; THENCE SOUTH FOR 0.6 MILE TO A "Y", AND GO RIGHT FOR 1.6 MILE; THENCE SOUTH FOR 0.8 MILE TO A "Y" AND GO LEFT FOR 1.3 MILE TO AN EL PASO PIPELINE R-O-W; THENCE SOUTH FOR 6.3 MILES; THENCE EAST 0.6 MILE; THENCE NORTH FOR 1.9 MILE PAST CONOCO BOOTLEG COMPRESSOR; THENCE NORTHEAST FOR 0.8 MILE; THENCE SOUTH 0.1 MILE TO DRY HOLE AND PROPOSED LEASE ROAD.

EXHIBIT #3

REF: SAPPHIRE "8" FED. No. 1 / Well Pad Topo

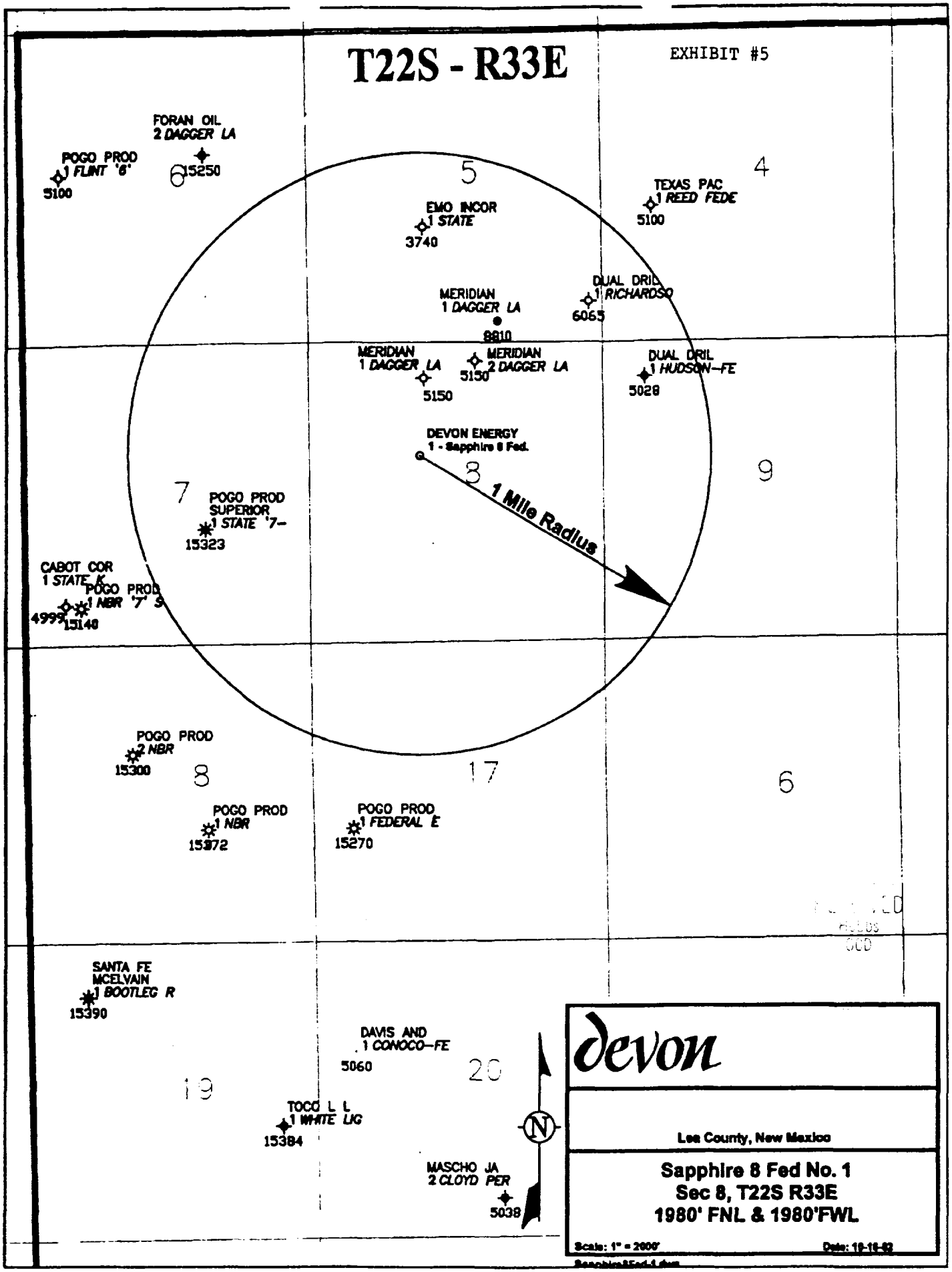
THE SAPPHIRE "8" FED. No. 1 LOCATED 1980' FROM THE NORTH LINE AND 1980' FROM THE WEST LINE OF SECTION 8, TOWNSHIP 22 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

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

W.O. Number: 2758	Drawn By: K. GOAD		
Date: 10-02-2002	Disk: KJG CD#4 - 2758A.DWG	Survey Date: 09-26-2002	Sheet 1 of 1 Sheets

T22S - R33E

EXHIBIT #5



devon

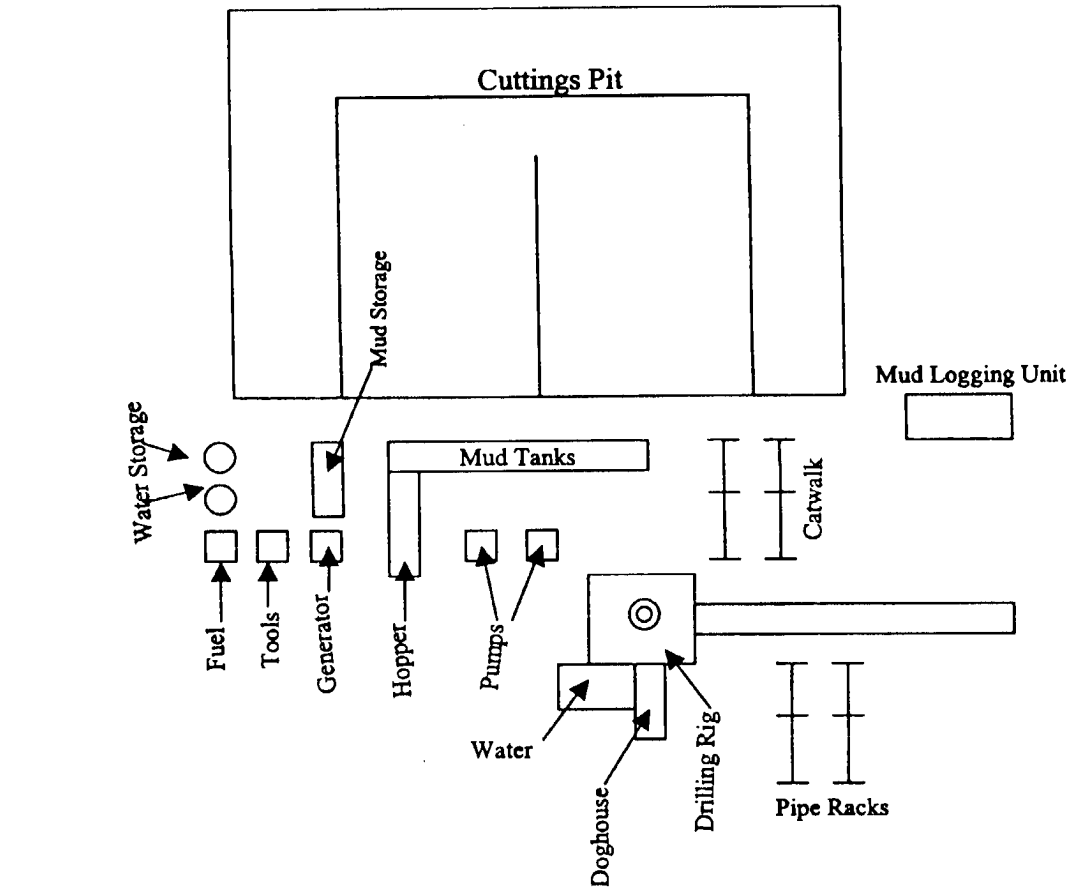
Lea County, New Mexico

Sapphire 8 Fed No. 1
Sec 8, T22S R33E
1980' FNL & 1980'FWL

Scale: 1" = 2000'

Date: 10-16-02

Sapphire8Fed-1.dwg



Devon Energy Production Company, LP
Sapphire 8 Federal #1

Drilling Pad
Exhibit # 6

Well name:	**Sapphire 8 Fed #1**
Operator:	**Devon Energy**
String type:	Surface
Location:	New Mexico

Design parameters:

Collapse

Mud weight: 8.800 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 321 psi

Internal gradient: 0.208 psi/ft

Calculated BHP 518 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC:	1.80 (J)
8 Round LTC:	1.80 (J)
Buttress:	1.60 (J)
Premium:	1.50 (J)
Body yield:	1.60 (B)

Tension is based on air weight.

Neutral point: 826 ft

Environment:

H2S considered?	No
Surface temperature:	75 °F
Bottom hole temperature:	88 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	700 ft
Minimum Drift:	2.250 in

Non-directional string.

Re subsequent strings:

Next setting depth:	5,000 ft
Next mud weight:	10.000 ppg
Next setting BHP:	2,597 psi
Fracture mud wt:	10.500 ppg
Fracture depth:	950 ft
Injection pressure	518 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	950	13.375	54.50	J-55	ST&C	950	950	12.49	11788

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	434	1130	2.60	518	2730	5.27	51.8	514	9.93 J

Date: October 30,2002

Devon Energy Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 950 ft, a mud weight of 8.8 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	**Sapphire 8 Fed #1**
Operator:	**Devon Energy**
String type:	Intermediate
Location:	New Mexico

Design parameters:

Collapse
Mud weight: 10.000 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 1,390 psi
Internal gradient: 0.268 psi/ft
Calculated BHP 2,727 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 4,256 ft

Estimated cost: 50,216 ($)

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 145 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft
Minimum Drift: 8.750 in

Non-directional string.

Re subsequent strings:
Next setting depth: 12,150 ft
Next mud weight: 10.000 ppg
Next setting BHP: 6,312 psi
Fracture mud wt: 10.500 ppg
Fracture depth: 5,000 ft
Injection pressure 2,727 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
2	3500	9.625	40.00	J-55	LT&C	3500	3500	8.75	31762
1	1500	9.625	40.00	HCK-55	LT&C	5000	5000	8.75	18454

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (klps)	Tension Strength (klps)	Tension Design Factor
2	1818	2495	1.37	2326	3950	1.70	200	520	2.60 J
1	2597	4230	1.63	2727	3950	1.45	60	630	10.50 B

Date: September 17,2002
Devon Energy Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 5000 ft, a mud weight of 10 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Sapphire 8 Fed #1

Well name:
Operator: **Devon Energy**
String type: Production
Location: New Mexico

Design parameters:

Collapse
Mud weight: 8.500 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 146 psi
Internal gradient: 0.430 psi/ft
Calculated BHP 5,365 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 10,592 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 245 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,000 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	12150	7	26.00	HCP-110	LT&C	12150	12150	6.151	126299

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	5365	7800	1.45	5365	9950	1.85	315.9	693	2.19 J

Date: September 17,2002
Oklahoma City, Oklahoma

Devon Energy

Remarks:
Collapse is based on a vertical depth of 12150 ft, a mud weight of 8.5 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	**Sapphire 8 Fed #1**
Operator:	**Devon Energy**
String type:	Liner: Production
Location:	New Mexico

Design parameters:

Collapse

Mud weight: 12.500 ppg
Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 3,341 psi
Internal gradient: 0.430 psi/ft
Calculated BHP 9,870 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC:	1.80 (J)
8 Round LTC:	1.80 (J)
Buttress:	1.60 (J)
Premium:	1.50 (J)
Body yield:	1.60 (B)

Tension is based on air weight.
Neutral point: 14,573 ft

Environment:

H2S considered?	No
Surface temperature:	75 °F
Bottom hole temperature:	288 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	1,000 ft

Liner top: 11,850 ft
Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	3400	4.5	13.50	P-110	LT&C	15200	15200	3.795	19051

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	9870	10680	1.08	9870	12410	1.26	45.9	338	7.36 J

Date: September 17,2002
Oklahoma City, Oklahoma

Devon Energy

Remarks:
For this liner string, the top is rounded to the nearest 100 ft.Collapse is based on a vertical depth of 15200 ft, a mud weight of 12.5 ppg The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

SNMAS
SOUTHERN NEW MEXICO ARCHAEOLOGICAL SERVICES, INC.
Post Office Box 1 Bent, New Mexico 88314
Office (505) 671-4797 Fax (505) 671-4760

October 21, 2002

Devon Energy Production Company, L.P.
Ms. Karen Cottom
Post Office Box 108838
Oklahoma City, Oklahoma 73101-8838

Dear Ms. Cottom;

Enclosed is our cultural resource report for the following Devon Energy Production Company, L.P. project:

The Sapphire "8 " Federal Number 1
Proposed Well Location and Access Road
Section 8, T.22S., R.33E
Lea County, New Mexico

Archaeological clearance is recommended for the proposed Sapphire "8" Federal Number 1 well location and access road, located in Section 8 T.22S., R.33E, **with no stipulations.**

If you have any questions regarding the report, please do not hesitate to contact me. Thank you.

Sincerely,

Doralene Sanders
President and Office Manager

Invoice Enclosed

CC: BLM Carlsbad Field Office (2)

CULTURAL RESOURCE

MANAGEMENT REPORT

Devon Energy Production Company, L.P.
The Sapphire "8" Federal Number 1
Proposed Well Location and Access Road
Section 8, T.22S., R.33E
Lea County, New Mexico

Written By:
Doralene Sanders, Trena Moyers
And
Joe Ben Sanders
Principal Investigator

Prepared For:
Devon Energy Production Company, L.P.
Post Office Box 108838
Oklahoma City, Oklahoma 73101-8838

Prepared By:

SOUTHERN NEW MEXICO
ARCHAEOLOGICAL SERVICES, Inc.
Post Office Box 1
Bent, New Mexico 88314-0001

Date:
October 21, 2002

Project # SNMAS-02NM-925
NMCRIS # 80730

TITLE PAGE/ABSTRACT
NEGATIVE SITE REPORT
ROSWELL DISTRICT

BLM/ RDO 1/95 Page 1

1. BLM Report No. **2.** (Accepted) (Rejected) **3. NMCRIS No.** 80730

. Title of Report (Project Title):
A Cultural Resource Inventory
The Sapphire "8" Federal Number 1
Proposed Well Location and Access Road
Section 8, T.22S., R.33E
Lea County, New Mexico

5. Project Date(s)
October 16, 2002

6. Report Date
October 21, 2002

7. Consultant Name & Address:
Direct Charge: Joe Ben Sanders
Name: Southern New Mexico Archaeological Services, Inc.
Address: PO Box 1 Bent, New Mexico 88314
Author's Name: Doralene Sanders and Trena Moyers
Field Personnel Names: Al Rorex
Phone No. (505) 671-4797

8. Permit No.
145-2920-02-K

Consultant Report #
SNMAS-02NM-925

10. SPONSOR NAME AND ADDRESS:
Individual Responsible: Karen Cottom

Name: Devon Energy Production Company, L.P.
Address: Post Office Box 108838
Oklahoma City, Oklahoma 73101-8838
Phone No.(405) 228-7512

11. FOR BLM USE

12. ACREAGE:
Total No. of acres Surveyed 7.4
Per Surface Ownership:
Federal 7.4
State
Private

13. Location and Area: (Maps Attached if negative survey)
a. State: New Mexico b. County: Eddy
c. BLM District: Roswell Field Office: Carlsbad
d. Nearest City or Town: Carlsbad, New Mexico
e. Location: T 22S R.33E Sec 8
Well Pad Footage's 1,980 ft FNL and 1,980 ft FWL
Well Pad ¼'s: SE1/4NW1/4
Access Road ¼'s: SE1/4NE1/4SE1/4 of the NW1/4; SE1/4NE1/4NE1/4 of the NW1/4

f. 7.5' Map Name(s) and Code Number(s):
USGS Grama Ridge, NM (1984) 32103-D5

g. Area: Block:
Impact: 200' X 200'
Surveyed: 400' X 400'
Linear: 200' X 1,627'
Surveyed: 100' X 1,627'
Impact: 50' X 1,627'

14. a. **Records Search**:
Location: ARMS HPD. Date: October 3, 2002
BLM Carlsbad Date: October 3, 2002

List by LA # All sites within .25 miles of the project: None

b. **Description of Undertaking:**
The proposed Sapphire "8" Federal Number 1 well location is staked 1,980 ft FNL and 1,980 ft FWL in Section 8, T.22S., R.33E. The impact area for the proposed well location is an area 200 ft by 200 ft. An area of 400 ft by 400 ft was surveyed for the proposed well location. The proposed access road is 1,627 ft long with an impact of 50 ft by 1,627 ft. The proposed access road begins on the abandoned Dagger Lake "8" Federal Number 1 well location and trends 1,607 ft south, thence 20 ft west, ending on the southeast corner of the proposed well location.

c. **Environmental Setting** NRCS soil designation: vegetative community: etc.:
The project is located on open dune field hill formations, with stabilized coppice dunes, ranging form 10-50 cm in height. Soils are tan-red silty sand mixed with caliche nodules and lag gravels. Vegetation consists of grasses, shinoak, mesquite, snakeweed, sandsage, and yucca. Elevation is 3,605 ft.

d. **Field Methods**: **Transect Intervals**: 8 parallel transects across well pad
50 ft intervals over staked corridor
Crew Size: one
Time in Field: 2.5 hours
Collections: NONE

15. **Cultural Resource Findings**:
a. Identification and description: (Location shown on project map)

During the current survey, no cultural resources were encountered.

Page 3

16. Management Summary (Recommendations):

During the current survey, no cultural resources were encountered. **Therefore, archaeological clearance is recommended** for the Devon Energy Production Company, L.P. proposed **Sapphire "8" Federal Number 1 well location and access road,** located in Section 8, T.22S., R.33E., **with no stipulations.**

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

Responsible Archaeologist: Signature _____

Joe Ben Sanders Date: October 21, 2002
Principal Investigator

The above completes a negative report. If eligible of potentially eligible properties are involved, then the above will be the title page and abstract for a complete report

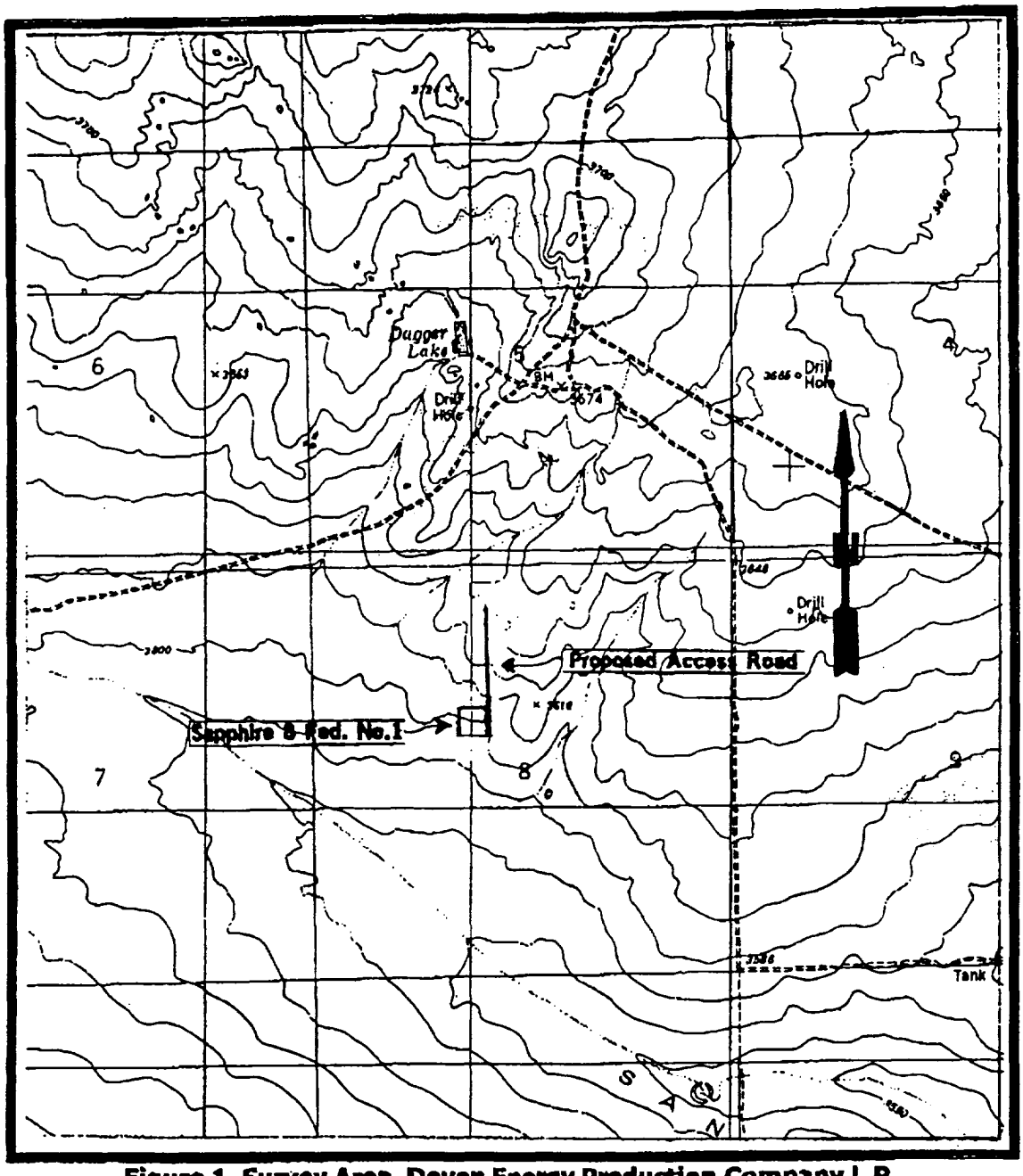


Figure 1. Survey Area Devon Energy Production Company L.P.
The Sapphire "8" Federal Number 1
Proposed Well Location and Access Road
Section 8, T.22S., R.33E
USGS Grama Ridge, NM (1984) 7.5' topo map
Lea County, New Mexico
Scale 1:24,000