

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TYPE (See other instr.)

Form approved.

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK: DRILL ☒ DEEPEN ☐

b. TYPE OF WELL:

OIL WELL ☐ GAS WELL ☒ Other 6137 SINGLE ZONE ☒ MULTIPLE ZONE ☐2. NAME OF OPERATOR
(6137) Devon Energy Production Company, L.P. Wally Frank, Sr Ops
Engr 405/552-45953. ADDRESS AND TELEPHONE NO.
20 N. BROADWAY, SUITE 1500, OKC, OK 73102 (405) 235-36114. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 680' FSL & 1100' FEL, Lot 20, Section 30-T21S-R24E, Eddy Cnty, NMAt top proposed prod. zone 660' FSL & 660' FEL, Lot 20, Section 30-T21S-R24E, Eddy Cnty, NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

24 miles NW of Carlsbad, NM15. DISTANCE FROM PROPOSED
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line if any)
660' at BHL16. NO. OF ACRES IN LEASE
64018. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.19. PROPOSED DEPTH
TVD 8500'

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

GL 3810'

22. APPROX. DATE WORK WILL START*

November, 2001

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
<u>12 1/4"</u>	<u>J-55 9 5/8"</u>	<u>36</u>	<u>1,700'</u>	<u>750 sx Pozmix & 200 sx Class C</u>
<u>8 3/4"</u>	<u>J-55 7"</u>	<u>23 & 26</u>	<u>8,500' TVD</u>	<u>350 sx Class H</u>

We plan to circulate cement to surface on the 9 5/8" casing string. The cement top will be brought to approximately 6,000' on the 7" casing string.

Devon Energy proposes to drill a Penn gas well to TVD 8,500'± for commercial quantities. If the well is deemed noncommercial, the well bore 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 = Blowout Prevention Equipment

Exhibit #2 = Location and Elevation Plat

Exhibits #3 = Road Map and Topo Map

Exhibit #4 = Wells Within 1 Mile Radius

Exhibits #5 = Production Facilities Plat

Exhibit #6 = Rotary Rig Layout

Exhibit #7 = Casing Design

H₂S Operating Plan

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

Lease #: SHL & BHL = NM-NM029301Legal Description: Section 30-T21S-R24EBond Coverage: NationwideBLM Bond #: CO-1104

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

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. Carlsbad Controlled Water BasinSIGNED Candace R. Graham

Candace R. Graham

TITLE Engineering TechnicianDATE October 8, 2001

*(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 /s/ LESLIE A. THEISSTITLE FIELD MANAGERDATE JAN 17 2002

See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001, makes 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

RECEIVED

2001 OCT 17 AM 8:34

BUREAU OF LAND MGMT.
ROSWELL OFFICE

DRILLING PROGRAM

Attached to Form 3160-3

Devon Energy Production Company, L.P.

MARTHA CREEK GAS COM. #6

SHL: 680' FSL & 1100' FEL

BHL: 660' FSL & 660' FEL

Section 30-T21S-R24E, Lot 20

Eddy County, New Mexico

All depths assumed TVD unless otherwise qualified.

1. Geologic Name of Surface Formation

Queen-Grayburg

2. Estimated Tops of Important Geologic Markers

Glorietta	2,176'
Bone Spring	3,439'
3 rd Bone Spring	6,278'
Wolfcamp Shale	6,481'
Wolfcamp Lime	6,931'
Cisco/Canyon	7,319'
Strawn Lime	8,390'
TVD	8,500'

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 250'

Oil and Gas: Wolfcamp 6,931' to 7,319' - possible gas

Cisco/Canyon 7,319' to 7,950' - possible gas, oil, brackish water

Morrow 9,010' to 9,495' - possible gas

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 9 5/8" casing at 1,700' and circulating cement to surface. The oil and gas intervals will be isolated by setting 7" casing to total depth and bringing the cement top to approximately 6,000'.

4. Casing Program

<u>Hole Size</u>	<u>Interval</u>	<u>Casing OD</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>
17 1/2"	0' - 40'	14"		Conductor	0.30" wall
12 1/4"	0' - 1,200'	9 5/8"	36#	J-55	ST&C, new R-3
8 3/4"	0' - TD	7"	23 & 26#	J-55	ST&C, new R-3

MARTHA CREEK GAS COM. #6
DRILLING PLAN
PAGE 2

Cementing Program

- 14" Conductor Casing: Cement with Redi-mix to surface.
- 9 5/8" Surface Casing: -- Cement to surface -- 750 sx Lite (35% Poz, 65% Class C, 6% gel) with 2% CaCl₂ and 1/4 lb/sx Cellophane flakes + 200 sx Class C with 2% CaCl₂ and 1/4 lb/sx Cellophane flakes.
- 7" Production Casing: -- Cement to 6,500' -- 350 sx Class H with 3 lb/sx salt, .4% FL-52, 12 lb/sx BA-90 bonding, .2% CD-32 and 1/4 lb/sx Celloflakes.

The cement volumes for the 7" casing will be revised pending the caliper measurement from the open hole logs.

5. Minimum Specifications for Pressure Control

The blowout preventor equipment (BOP) shown in Exhibit #1 will consist of a (3M system) double ram type (3,000 psi WP) preventor and a bag-type (Hydril) preventor (3,000 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 9 5/8" surface casing and utilized continuously until total depth is reached. As per BLM Drilling Operations Order #2, prior to drilling out the 9 5/8" casing shoe, the BOP's and Hydril will be function tested.

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 brine with starch mud systems. Depths of systems are as follows.

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (1/sec)</u>	<u>Water Loss (cc)</u>
0' -1,700	Fresh Water	8.0-8.8	34-36	No control
1,700' - TD	Brine with starch	8.2-10	28-30	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 testing is planned.
- B. The open hole electrical logging program will be:

CNL/FDC/LDT/GR from TD to 1,700' with GR/CNL to surface
DLL/MSFL/GR from TD to 1,700'
- C. No coring program is planned.
- D. Additional testing will be initiated subsequent to setting the 7" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drillstem tests.

9. Abnormal Pressures, Temperatures and Potential Hazards

No abnormal pressures or temperatures are foreseen. The anticipated bottom hole temperature at total depth is 170 degrees and maximum bottom hole pressure is 3,500 psig. Hydrogen sulfide gas is associated with the Penn formation in this area. A hydrogen sulfide operations plan will be implemented prior to penetrating the Penn formation (see attached "Hydrogen Sulfide Operations Plan"). No major loss circulation intervals have been encountered in adjacent wells.

10. Anticipated Starting Date and Duration of Operations

The Carlsbad, New Mexico, BLM office has performed the onsite inspection for the proposed pad site of this location. A Cultural Resources Examination will be performed by Desert West Archaeological Services 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. If approved, this well will be drilled as part of a development project. The anticipated spud date for the project is approximately November, 1999. The drilling operation should require approximately 35 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 Production Company, L.P.
MARTHA CREEK GAS COM. #6
SHL: 680' FSL & 1100' FEL
BHL: 660' FSL & 660' FEL
Section 30-T21S-R24E, Lot 20
Eddy County, New Mexico

1. Existing Roads

- A. The well site and elevation plat for the proposed Martha Creek Gas Com. #6 are reflected on Exhibit #2. This well was staked by Topographic Land Surveyors in Midland, TX.
- B. All roads into the location are depicted in Exhibit #3. US Hwy 285, NM Hwy 137 and the existing lease road will be used to access the location. New construction from the existing lease road will be used to access the location. Approximately 200' of additional lease road will need to be constructed to access the location. New construction will conform to the specifications outlined in Item #2 below.
- C. Directions to location: Go north of Carlsbad, NM, on US Hwy 285 to the intersection with NM Hwy 137. Go west approximately 12 miles west-southwest to lease road. Turn north and continue 0.3 mile then northeast 0.5 mile on lease road. Turn east into the proposed Martha Creek Gas Com. #6 location.

2. Proposed Access Road

Exhibit #3 shows the 200' (\pm) of new access road to be constructed. Road construction will be as follows.

- A. The maximum width of the road will be 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%.
- E. No cattle guards, grates or fence cuts will be required.
- F. No turnouts are planned.

MARTHA CREEK GAS COM. #6
SURFACE USE AND OPERATING PLAN
PAGE 2

3. Location of Existing Wells

Exhibit #4 shows all existing wells within a one-mile radius of the proposed Martha Creek Gas Com. #6.

4. Location of Existing and/or Proposed Facilities

Devon Energy Production Company, L.P. operates one production facility in this unit in Section 30-21S-R24E. All fluids produced at the Martha Creek Gas Com. #6 will be piped to this production facility. It is as follows.

- A. FWKO, heater treater, 3 phase separator, 3 water tanks and 2 oil tanks
- B. In the event the well is found productive, a flowline will be laid to the above tank battery (refer to Exhibit #5).
- C. The well will be operated by means of an electric submersible pump.
- D. If the well is productive, the reserve pit will be back-filled after the contents of the pit are dry (within 120 days after completion, weather permitting).

5. Location and Type of Water Supply

The Martha Creek Gas Com. #6 will be drilled using a combination of brine and fresh water mud systems (outlined in Drilling Program). The water will be obtained from commercial sources and will be transported over the existing and proposed roads. 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 an 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 earthen working pits 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 120' x 110' x 6' in size.

MARTHA CREEK GAS COM. #6
SURFACE USE AND OPERATING PLAN
PAGE 3

- C. The working pits and 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.
- F. Garbage, trash and waste paper produced during drilling operations will be collected in a contained trailer and disposed at an 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 permanent 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 and pits and general location of the rig are 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.

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 after the completion date.

11. Surface Ownership

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

12. Other Information

- A. The area surrounding the well site is hilly with some areas nearly level to gently sloping. The top soil is shallow, gravelly loam in nature. Regionally drainage is eastward toward the Pecos River. The major drainage in the area is Rocky Arroyo. There are no rivers or lakes in the area. The vegetation is moderate and includes catclaw, yucca, javelina bush, weeds, juniper and range grass. Wildlife in the area is that typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove and quail.
- B. There is permanent water in the immediate area.
- C. A Cultural Resources Examination will be performed by Desert West Archaeological Services and forwarded to the Carlsbad, New Mexico, BLM office.

MARTHA CREEK GAS COM. #6
SURFACE USE AND OPERATING PLAN
PAGE 5

13. Lessee's and Operator's Representative

The Devon Energy Production Company, L.P. representatives responsible for ensuring compliance of the surface use plan are listed below.

Walter Frank
District Engineer

Don Mayberry
Superintendent

Devon Energy Production Company, L.P.
20 North Broadway, Suite 1500
Oklahoma City, OK 73102-8260

Devon Energy Production Company, L.P.
Post Office Box 250
Artesia, NM 88211-0250

(405) 552-4595 (office)
(405) 364-3504 (home)

(505) 748-3371 (office)
(505) 746-4945 (home)

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: Candace R. Graham
Candace R. Graham
Engineer Tech.

Date: October 8, 2001

MINIMUM BLOWOUT PREVENTER REQUIREME.

3,000 psi Working Pressure

3 MWP

EXHIBIT # 1

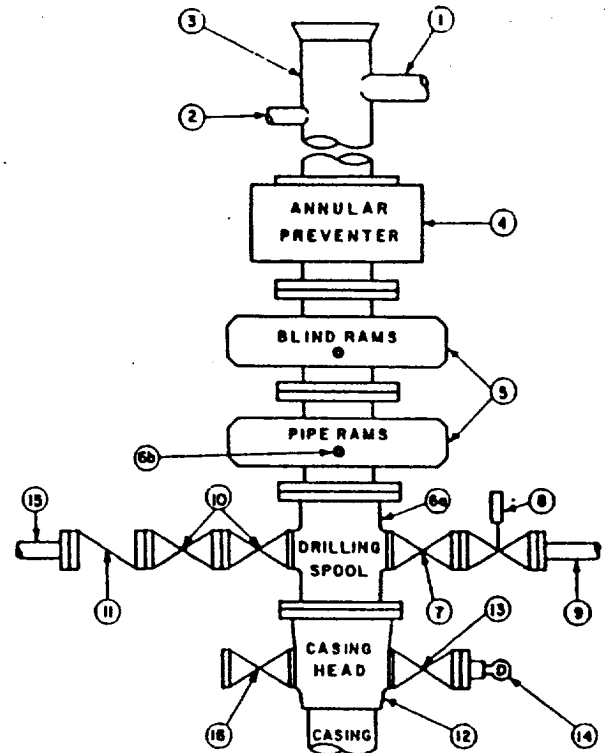
STACK REQUIREMENTS

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 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"	
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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:

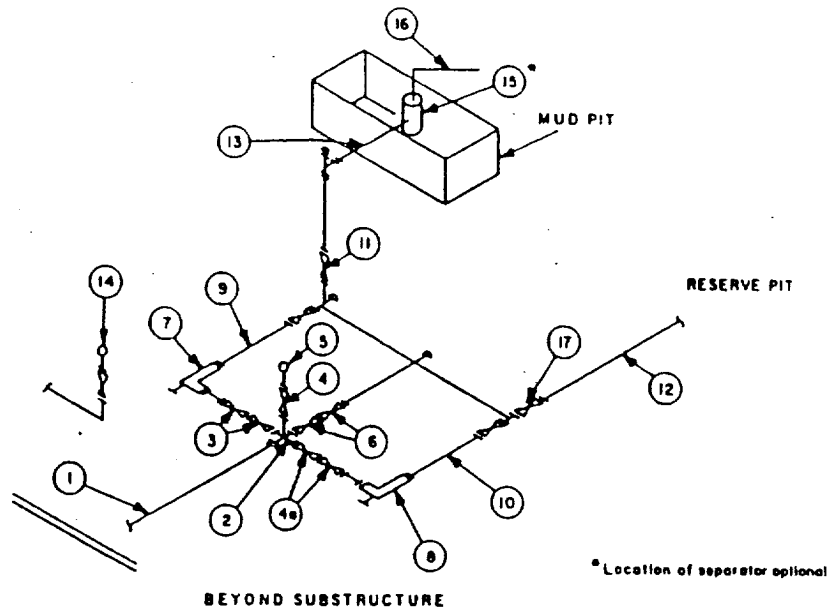
1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working 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 CHOKE 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 <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

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.

Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTORS
Devon Energy Production Company, L.P.
MARTHA CREEK GAS COM. #6
SHL: 680' FSL & 1100' FEL
BHL: 660' FSL & 660' FEL
Section 30-T21S-R24E, Lot 20
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.

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

State of New Mexico
Energy, Minerals, and Natural Resources Department

Form C-102
Revised 02-10-94

Instructions on back

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

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

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

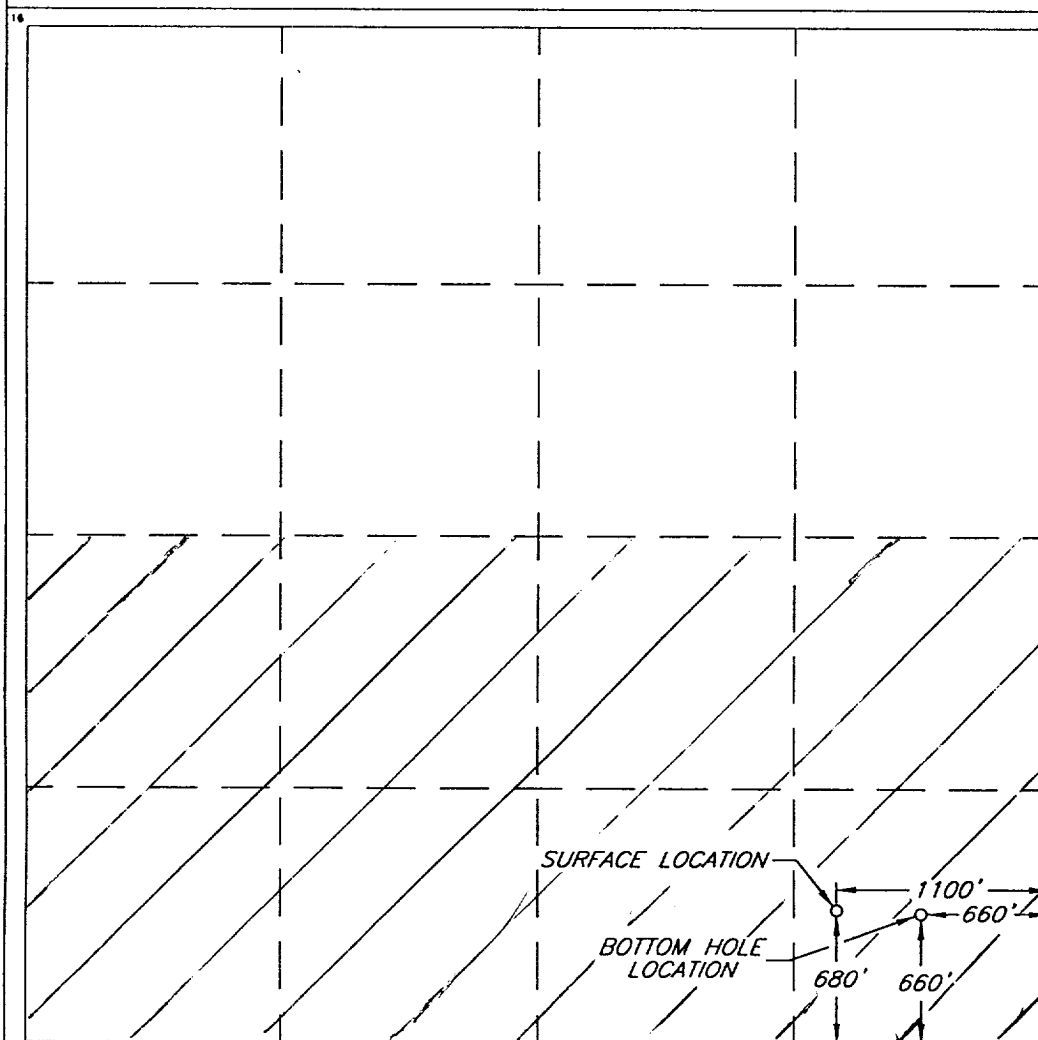
DISTRICT III
1000 Rio Brazos Rd.
Aztec, NM 87410

DISTRICT IV
P. O. Box 2088
Santa Fe, NM 87507-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number		2 Pool Code		3 Pool Name INDIAN BASIN (UPPER PENN ASSOC.)					
4 Property Code		5 Property Name MARTHA CREEK GAS COM. PRODUCTION COMPANY, L.P. DEVON ENERGY CORPORATION						6 Well Number 6	
7 OGRID No. 6137		8 Operator Name						9 Elevation 3810'	
10 SURFACE LOCATION									
UL or lot no. LOT 20	Section 30	Township 21 SOUTH	Range 24 EAST, N.M.P.M.	Lot Ida	Feet from the 680'	North/South line SOUTH	Feet from the 1100'	East/West line EAST	County EDDY
11 BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE									
UL or lot no. LOT 20	Section 30	Township 21 SOUTH	Range 24 EAST, N.M.P.M.	Lot Ida	Feet from the 660'	North/South line SOUTH	Feet from the 660'	East/West line EAST	County EDDY
12 Dedicated Acres 320		13 Joint or Infill		14 Consolidation Code		15 Order No.			
NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION									



OPERATOR CERTIFICATION

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

Signature

Candace R. Graham

Printed Name

Candace R. Graham

Title

Engineering Tech.

Date

October 8, 2001

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 belief.

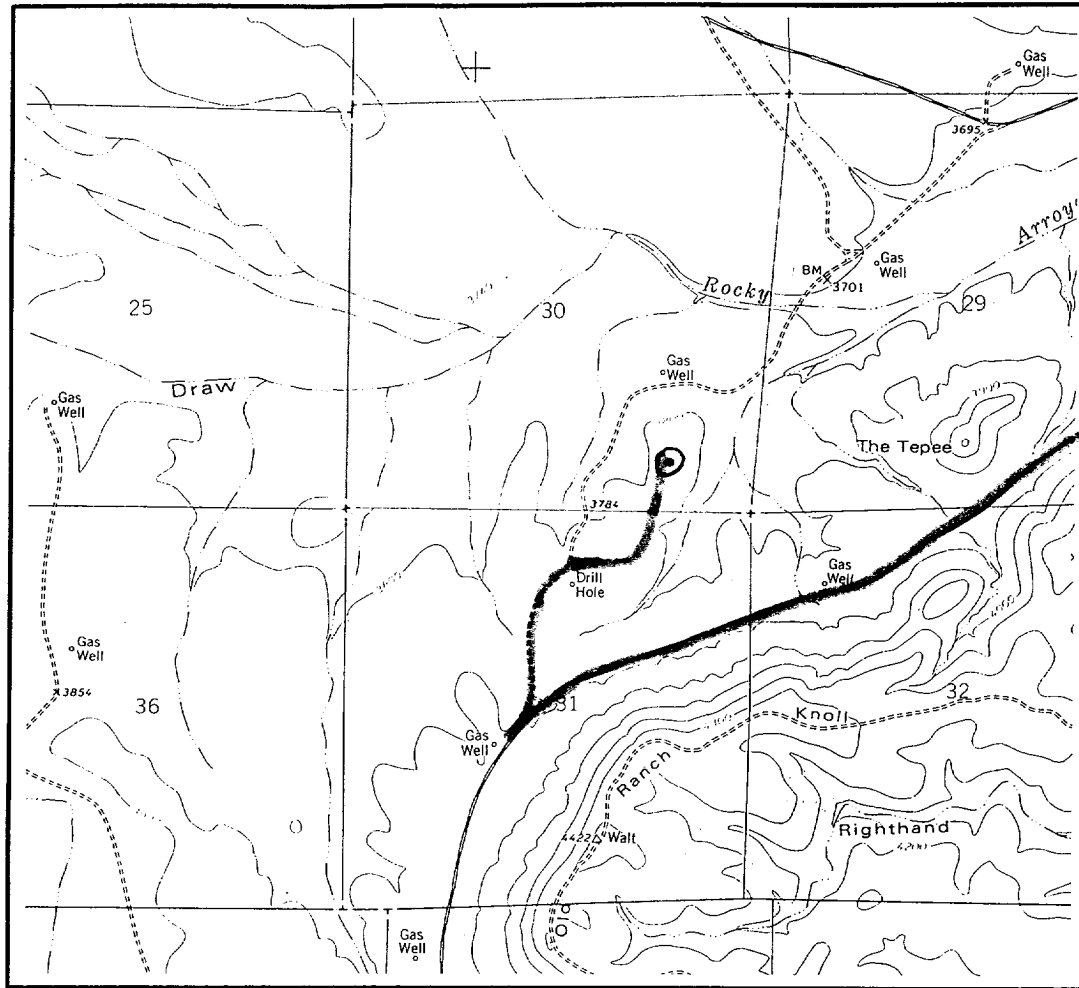
Date of Survey

DECEMBER 11, 2001

Signature

Professional

ROGER M. ROBBINS
REGISTERED PROFESSIONAL SURVEYOR
NEW MEXICO
12128
Certificate No. 12128
ROGER M. ROBBINS, S. #12128
JOB #61513 / 51 NE / V.H.B.



SCALE : 1" = 2000'

CONTOUR INTERVAL 20'

SECTION 30 TWP 21-S RGE 24-ESURVEY NEW MEXICO PRINCIPAL MERIDIANCOUNTY EDDY STATE NMDESCRIPTION 680' FSL & 1100' FELELEVATION 3810'OPERATOR DEVON ENERGY CORPORATIONLEASE MARTHA CREEK #6

U.S.G.S. TOPOGRAPHIC MAP

MARTHA CREEK, NEW MEXICOSCALED LAT. N 32°26'39.4"LONG. W 104°31'58.9"

This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.

Review this plot and notify us immediately of any possible discrepancy.

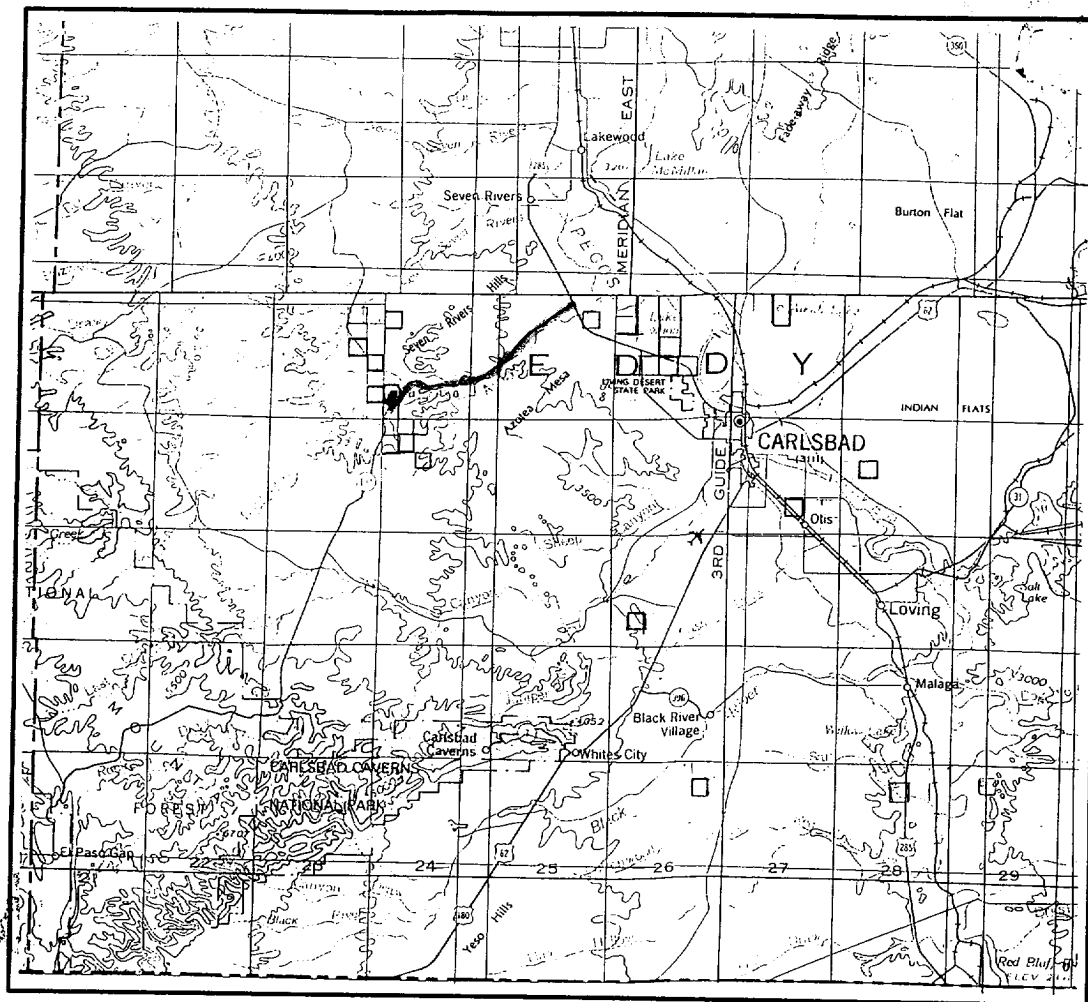
TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

1307 N. HOBART
PAMPA, TX. 79065
(800) 658-6382

6709 N. CLASSEN BLVD.
OKLAHOMA CITY, OK. 73116
(800) 654-3219

2903 N. BIG SPRING
MIDLAND, TX. 79705
(800) 767-1653



SECTION 30 TWP 21-S RGE 24-E
 SURVEY NEW MEXICO PRINCIPAL MERIDIAN
 COUNTY EDDY STATE NM
 DESCRIPTION 680' FSL & 1100' FEL

OPERATOR DEVON ENERGY CORPORATION
 LEASE MARTHA CREEK #6

DISTANCE & DIRECTION FROM THE JCT. OF U.S. HWY. 285
& STATE HWY. 137, 12.0 MILES NORTHWEST OF CARLSBAD,
GO SOUTHWEST 11.6 MILES ON STATE HWY. 137, THENCE
NORTH 0.3 MILE ON LEASE ROAD, THENCE NORTHEAST 0.5
MILE ON LEASE ROAD TO A POINT ±50' WEST OF THE
LOCATION.



This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.

Review this plat and notify us immediately of any possible discrepancy.

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

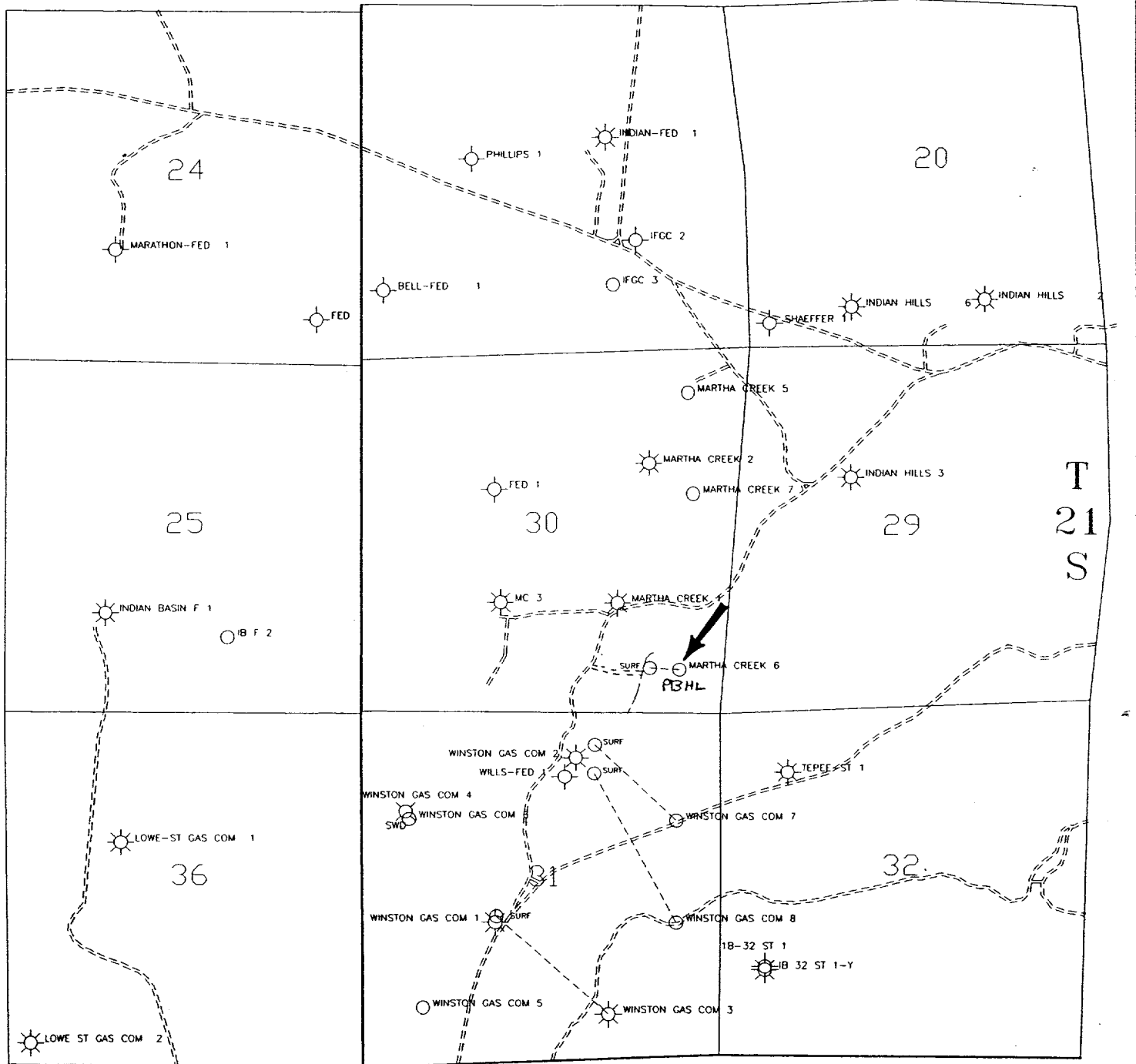
1307 N. HOBART
 PAMPA, TX. 79065
 (800) 658-6382

6709 N. CLASSEN BLVD.
 OKLAHOMA CITY, OK. 73116
 (800) 654-3219

2903 N. BIG SPRING
 MIDLAND, TX. 79705
 (800) 767-1653

R 23 E

R 24 E



MARTHA-6

Map updated to 9/99

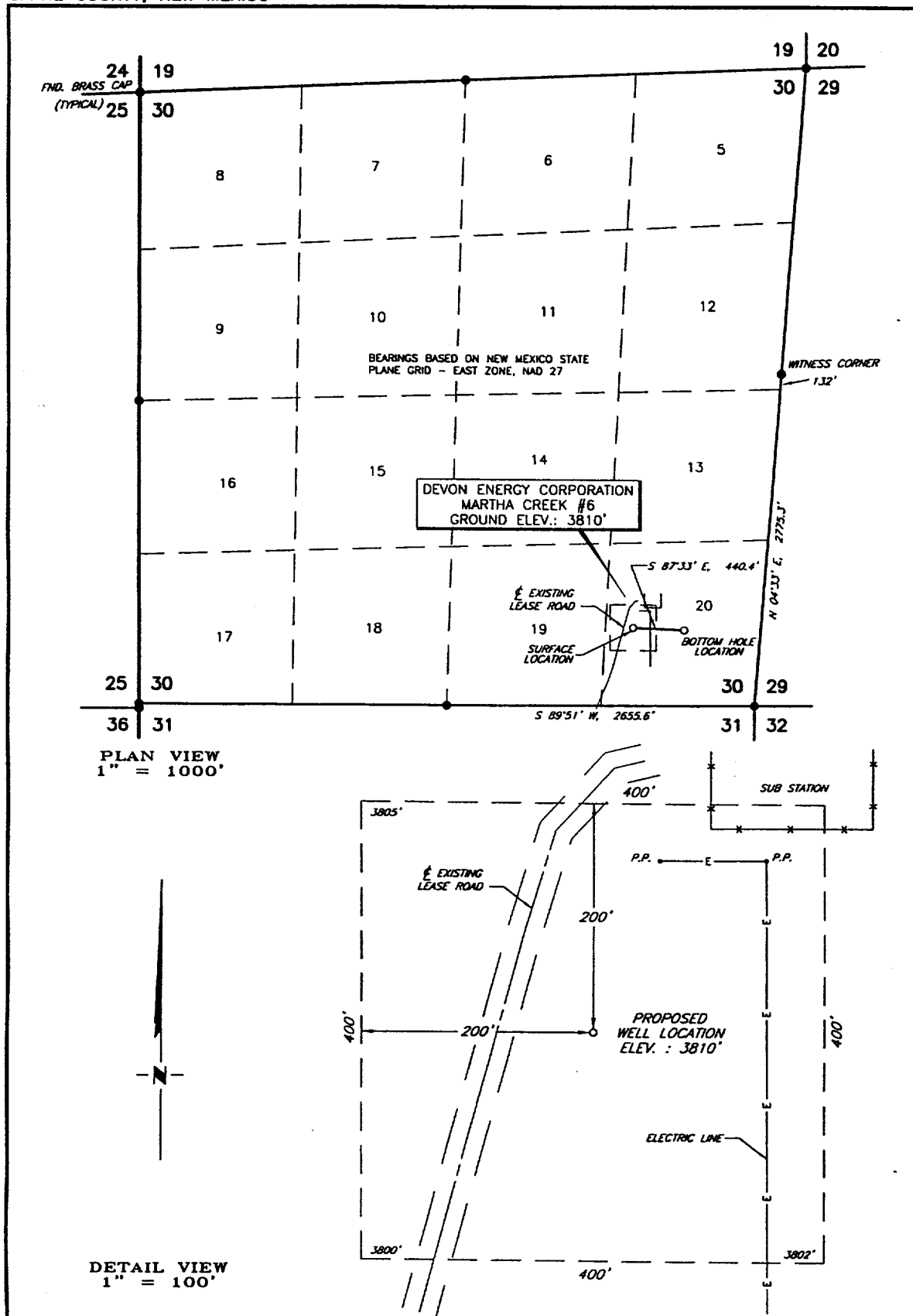
devon
Energy CorporationINDIAN BASIN AREA
EDDY COUNTY, NEW MEXICOROAD PLAT MARTHA CREEK GAS COM 6
EXHIBIT 3Scale in Feet
1000 0 1000 2000 3000 4000

WMF

9/99

PLAT SHOWING PROPOSED
WELL LOCATION AND LEASE ROAD IN
SECTION 30, T-21-S, R-24-E, N.M.P.M.
CRANE COUNTY, NEW MEXICO

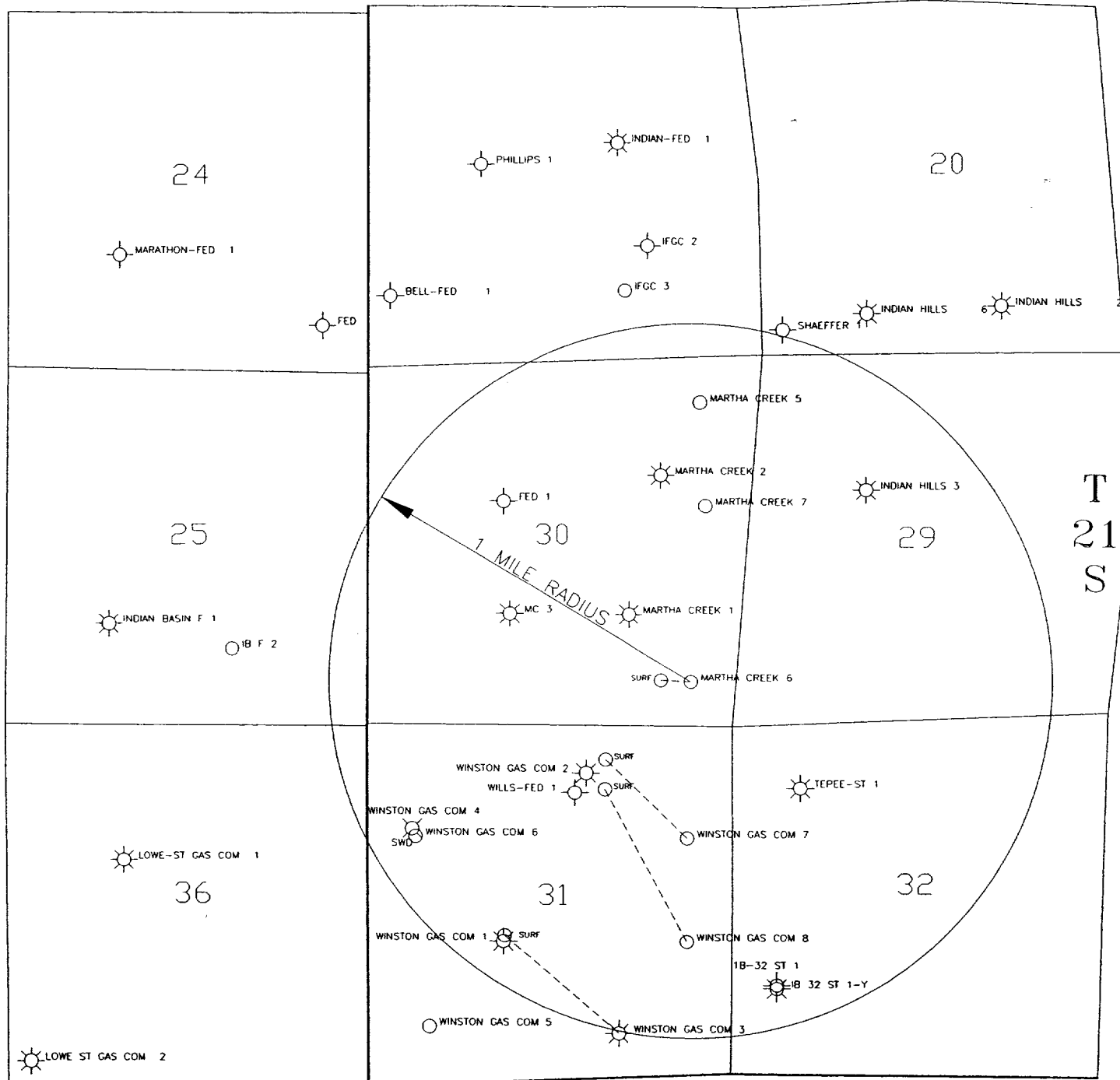
EXHIBIT # 3



				DEVON ENERGY CORPORATION		SCALE: AS SHOWN
NO.	REVISION	DATE	BY			DATE: DECEMBER 2, 1998
SURVEYED BY: B.R.B.						JOB NO.: 61513-F
DRAWN BY: V.H.B.						QUAD NO.: 51 NE
APPROVED BY: R.M.R.						SHEET: 1 OF 1
				SURVEYING AND MAPPING BY TOPOGRAPHIC LAND SURVEYORS MIDLAND, TEXAS		

R 23 E

R 24 E



MARTHA-6	

Wells updated to 9/99

devon
ENERGY CORPORATION

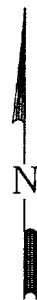
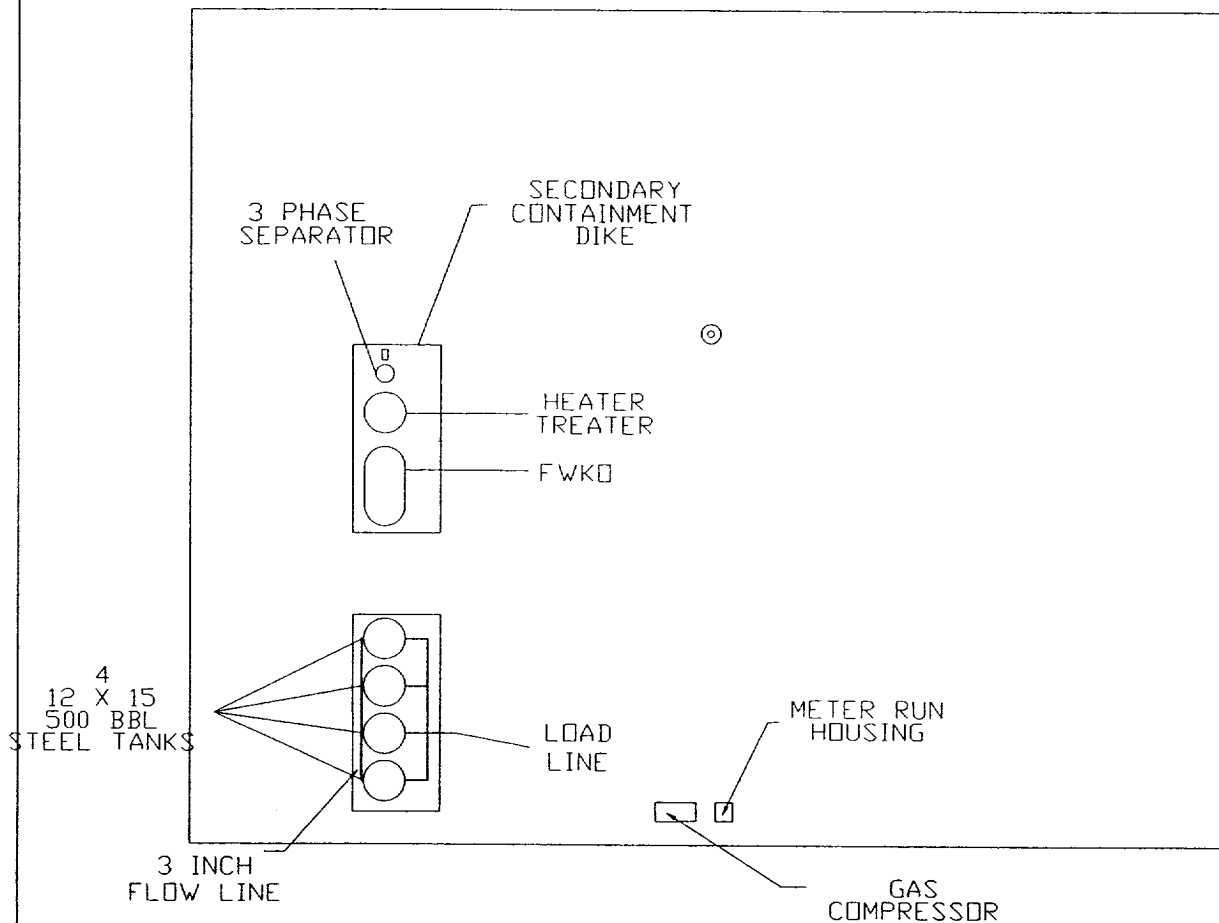
INDIAN BASIN AREA EDDY COUNTY, NEW MEXICO

WELLS WITHIN 1 MILE RADIUS - MARTHA CREEK GAS COM 6
EXHIBIT 4

Scale in Feet
1000 0 1000 2000 3000 4000

WMF

9/99



INDIAN BASIN AREA

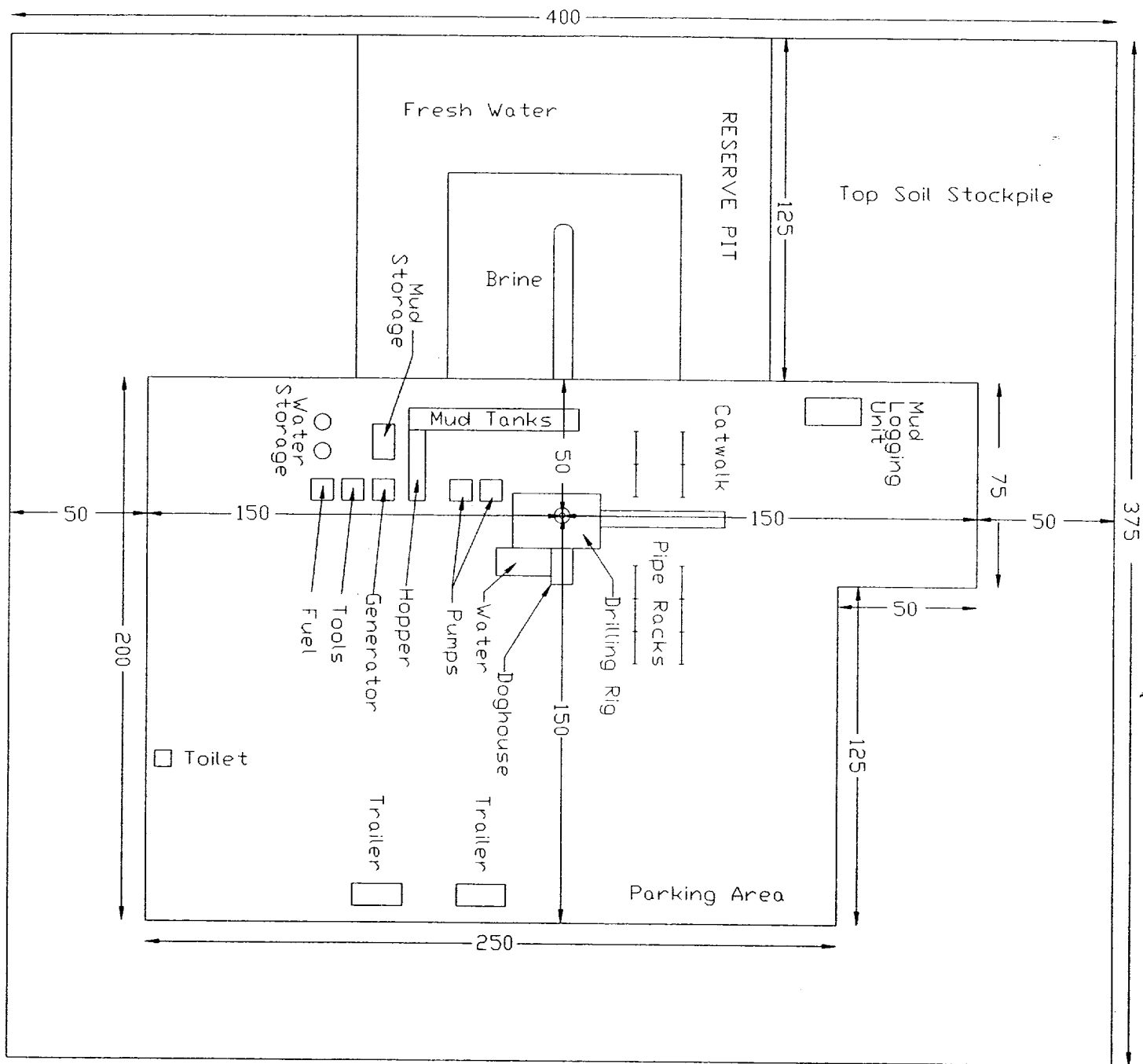
EDDY COUNTY, NEW MEXICO

PRODUCTION FACILITIES LAYOUT AT DRILLING PAD FOR
MARTHA CREEK GAS COM 6

EXHIBIT 5

9/99

File: MARTHA-6



ELEV 3810 FEET



File: MARTHA-6

devon
ENERGY CORPORATION

SAND DUNES FIELD
EDDY COUNTY, NEW MEXICO

DRILLING RIG LAYOUT AND ELEVATIONS
MARTHA CREEK GAS COM 6

EXHIBIT 6

Scale in Feet
25 0 25 50 75 100

9/99

Well name:	Martha Creek #6
Operator:	Devon Energy Corporation (Nevada)
String type:	Surface
Location:	Section 30, T21S, R24E, Eddy Co. NM

Design parameters:**Collapse**

Mud weight: 8.400 ppg
Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Burst:

Design factor 1.00

Environment:

H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 99 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 1,500 ft
Minimum Drift: 8.765 in

Burst

Max anticipated surface pressure: 971 psi
Internal gradient: 0.000 psi/ft
Calculated BHP: 971 psi
Annular backup: 8.40 ppg

Tension:

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

Non-directional string.

Tension is based on buoyed weight.
Neutral point: 1,489 ft

Re subsequent strings:

Next setting depth: 8,500 ft
Next mud weight: 8.800 ppg
Next setting BHP: 3,886 psi
Fracture mud wt: 11.000 ppg
Fracture depth: 1,700 ft
Injection pressure: 971 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)	Internal Capacity (ft³)
1	1700	9.625	36.00	J-55	LT&C	1700	1700	8.796	121.1

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	742	2020	2.72	971	3520	3.62	54	453	8.45 J

Prepared W.M. Frank
by: Devon Energy

Phone: (405) 552-4595
FAX: (405) 552-4621

Date: September 27, 1999
Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 1700 ft, a mud weight of 8.4 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.

Well name:	Martha Creek #6
Operator:	Devon Energy Corporation (Nevada)
String type:	Production
Location:	Section 30, T21S, R24E, Eddy Co. NM

Design parameters:**Collapse**

Mud weight: 8.200 ppg
Design is based on evacuated pipe.

Minimum design factors:**Collapse:**

Design factor 1.125

Environment:

H2S considered? Yes
Surface temperature: 80 °F
Bottom hole temperature: 165 °F
Temperature gradient: 1.00 °F/100ft
Minimum section length: 1,500 ft

Burst:

Design factor 1.00

Burst

Max anticipated surface pressure: 3,602 psi
Internal gradient: 0.000 psi/ft
Calculated BHP: 3,602 psi
Annular backup: 8.80 ppg

Tension:

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

Directional Info - Build & Drop

Kick-off point: 4500 ft
Departure at shoe: 441 ft
Maximum dogleg: 3 °/100ft
Inclination at shoe: 0 °

Tension is based on buoyed weight.
Neutral point: 7,519 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
3	2000	7	26.00	J-55	LT&C	2000	2000	6.151	104.8
2	4500	7	23.00	J-55	LT&C	6463	6500	6.25	208
1	2000	7	26.00	J-55	LT&C	8457	8500	6.151	104.8

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
3	852	3855	4.53	3602	4980	1.38	181	367	2.03 J
2	2753	3207	1.17	2688	4360	1.62	129	313	2.43 J
1	3602	4320	1.20	648	4980	7.69	26	367	13.93 J

Prepared W.M. Frank
by: Devon Energy

Phone: (405) 552-4595
FAX: (405) 552-4621

Date: September 27, 1999
Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 8457 ft, a mud weight of 8.2 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.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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 required at the rig sight for all rig crews and company personnel that have not previously received such training. This instruction will be provided 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 reach 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.

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 10 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) Two (2) - thirty minute rescue packs to be located at the designated briefing areas.

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 at the location.

5. Mud Program

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

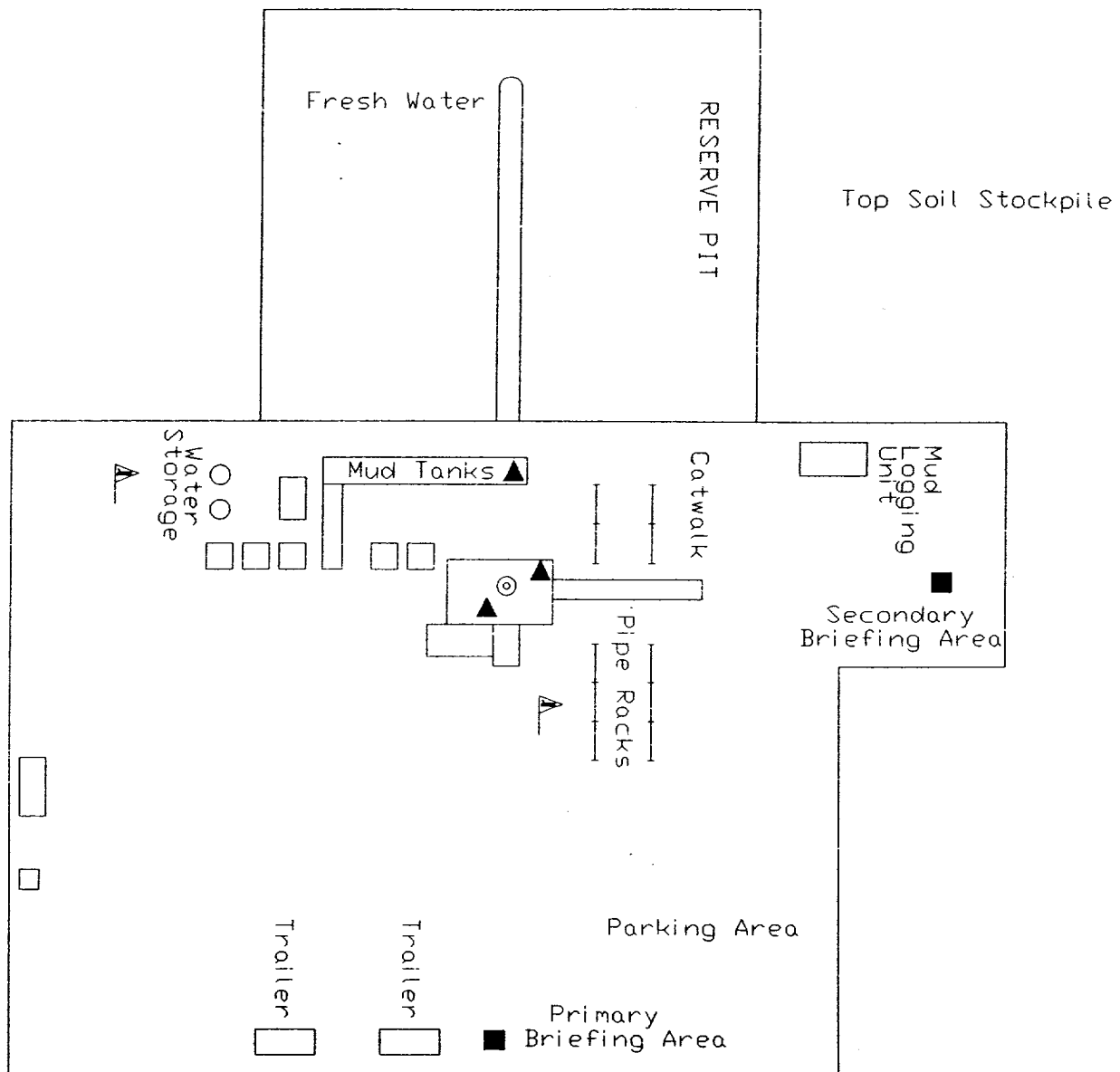
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spools, kill lines, choke manifold and lines and valves shall be suitable for H₂S service.

7. Communication

Cellular telephone communication will be available in company vehicles.

C. Diagram of Drilling Location

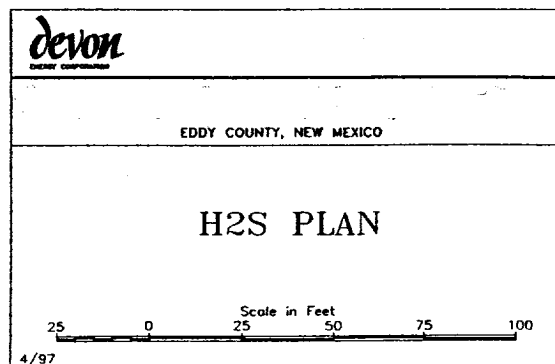
Attached is a diagram representing a typical location layout as well as the location of H₂S monitors, briefing areas and wind direction indicators.



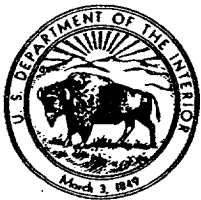
- ▲ H2S MONITORS WITH ALARMS AT THE BELL NIPPLE, SUBSTRUCTURE, AND SHALE SHAKER
- ▲ WIND DIRECTION INDICATORS
- SAFE BRIEFING AREAS WITH CAUTION SIGNS AND PROTECTIVE BREATHING EQUIPMENT



File: Q:\NM\H2S-PLAN



CN



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Colorado State Office
2850 Youngfield Street
Lakewood, Colorado 80215-7076

IN REPLY REFER TO:

3106
COC15976 et al.

November 22, 2000

NOTICE

Devon Energy Production Company, L. P. : Oil and Gas Leases
20 N. Broadway, Suite 1500 :
Oklahoma City, OK 73102 :

Merger Recognized

Acceptable evidence has been received in this office concerning the merger of Devon Energy Corporation (NV) and PennzEnergy Exploration and Production Company, LLC with and into Devon Energy Production Company, L.P., with Devon Energy Production Company, L.P. as the surviving entity.

For our purposes, the merger is recognized effective January 20, 2000 the date the Secretary of State of Colorado certified the merger.

The oil and gas lease files identified on the exhibit, supplied by your office, have been noted as to the merger. We have not abstracted the lease files to determine if the entity affected by the merger holds an interest in the leases identified nor have we attempted to identify leases where the entity is the operator on the ground maintaining no vested record title or operating interests. Minerals Management Service and all applicable Bureau of Land Management State Offices of this merger by a copy of this notice. If additional documentation for changes of operator are required by our Field Offices, you will be contacted by them.

If you have any questions regarding this correspondence, you may contact me at (303) 239-3768, or FAX (303) 239-3799.

Martha L. Maxwell
Martha L. Maxwell, Land Law Examiner
Fluid Minerals Adjudication

Enclosure
Lease Exhibit



Desert West

ARCHAEOLOGICAL SERVICES

October 20, 1999

Mr. Wally Frank
DEVON ENERGY CORPORATION
20 North Broadway, Suite 1500
Oklahoma City, Ok 73102

Dear Mr. Frank:

Enclosed please find your copy of Desert West Archaeological Services (DWAS) Clearance Report for DEVON ENERGY CORPORATION's proposed Martha Creek Gas Com. Well No. 6 (1680' FSL, 1100 FEL Surface Location) (660' FSL; 660' FEL Bottom Hole Location) in Section 30, T21S, R24E, NMPM, Eddy County, New Mexico. No cultural resources were recorded during these surveys. Archaeological clearance is recommended for DEVON ENERGY CORPORATION's proposed Martha Creek Gas Com. Well No. 6 (1680' FSL, 1100 FEL Surface Location) (660' FSL; 660' FEL Bottom Hole Location) as presently staked. No further archaeological work should be required.

The Bureau of Land Management will review this report and make the final decision on archaeological clearance for your project.

If you have any questions, please call our office.

Sincerely,



Arita Slate

Enclosure

Xc: Mr. Daryl Lowder, Devon Energy Corporation, Artesia, NM (1)
Bureau of Land Management, Carlsbad Field Office, Carlsbad, NM (2)

TITLE PAGE/ABSTRACT/NEGATIVE SITE REPORT
CARLSBAD FIELD OFFICE

BLM/ RDO 1/95

1. BLM Report No.	2. (ACCEPTED) (REJECTED)	3. NMCRIS No.: 66102
4. Title of Report (Project Title): Class III archaeological survey for DEVON ENERGY CORPORATION'S (NEVADA) proposed pad for the Martha Creek Gas Com Well No. 6 [(680' FSL, 1100' FEL <i>Surface Location</i>) (660' FSL, 660' FEL <i>Bottom Hole Location</i>)] in Section 30, T21S, R24E, NMPM, EDDY County, NM		5. Project Date(s): 10-20-99
		6. Report Date: 10-20-99
7. Consultant Name & Address: Direct Charge: David Wilcox Name: Desert West Archaeological Services, INC. Address: P.O. Box 645, Carlsbad, NM 88220 Authors Name: Danny Boone Field personnel names: Danny Boone Phone (505) 887-7646		7. Permit No.: BLM: 123-2920-99-T STATE: NM-99-077
		8. Consultant Report No. DWAS 99-33 O
10. Sponsor Name and Address: Indiv. Responsible: Wally Frank Name: Devon Energy Corporation Address: 20 North Broadway, Suite 1500 Oklahoma City, OK. 73102 Phone (405) 552-4595		11. For BLM Use only.
		12 ACREAGE: Total No. of acres surveyed: Per Surface Ownership: 3.67 Federal: 3.67 State: 0 Private: 0
13. Location: (Maps Attached if negative survey) Figure 1. a. State: NM b. County: Eddy c. BLM: Carlsbad Field Office d. Nearest City or Town: Carlsbad, NM Location: T21S, R24E, Sec. 30, <i>SE SE</i> : Well Pad Footages: 680' FSL, 1100' FEL <i>Surface Location</i> 660' FSL, 660' FEL <i>Bottom Hole Location</i> f. USGS 7.5' Series: Map Name(s) and Code Number(s): MARTHA CREEK, NM (1978) 32104-D5 g. Area: Block; Impact: Within Survey Area Surveyed: 400' x 400' Linear: Impact: NA Surveyed: NA		

14. a. Records Search:

Location: BLM and ARMS by D. Boone

Date: 10-20-99

List by LA # all sites within .25 miles of the project: LA 110359, LA 115569

(Those sites within 500' are to shown on the project map)

b. Description of Undertaking: This project is a pad for the surface location for a oil well that has an existing caliche capped road in the western portion. In the north and eastern areas of the proposed project there is an existing electric substation. There is an existing east to west powerline across the north portion of the project and a north to south powerline in the eastern portion. What appears to be some kind of test holes or excavation pits of some kind are also to the east and north of the center stake. This project is located on a north to south trending finger ridge with a very rocky surface with small amounts of loamy soils and vegetation consisting mainly of acacia, agave cactus, yucca cactus, prickly pear cactus, christmas cholla cactus, rainbow cactus, broom snakeweed, juniper, eagle claw cactus, littleleaf horsebrush, walking stick cholla, mormon tea, barberry and various grasses.

d. Field Methods: Straight line and zig-zag transects

Transect Intervals: 15 meters or less

Crew Size: One

Time in Field: 1.5 Hours

Collections: NA

15. Cultural Resource Findings: One Isolated Manifestation (IM) was encountered and recorded.

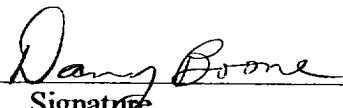
a. Identification and description: (Location shown on Project map)

IM No. 1, T21S, R24E, Sec. 30, NE SW SE SE; consists of one Flake, distal end, 0% cortex, successful termination, possible retouched.

16. Management Summary (Recommendations): Archeological clearance for DEVON ENERGY CORPORATION'S (NEVADA) proposed pad for the Martha Creek Gas Com Well No. 6 [(680' FSL, 1100' FEL *Surface Location*) (660' FSL, 660' FEL *Bottom Hole Location*)] in Section 30, T21S, R24E, NMPM, EDDY County, NM as presently marked. The BLM and DWAS are to be notified immediately if any cultural resources are encountered during construction.

I certify that the information provided above is correct and accurate to the best of my knowledge and meets all appreciable BLM standards.

Responsible Archaeologist


Signature

10-20-99
Date

