Form 3160-3
(December 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE* (See other instruct. reverse side)

Form approved.

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 PRODUCTION COMPANY, L.P. 6137

3. ADDRESS AND TELEPHONE NO.
20 N. BROADWAY, SUITE 1500, OKC, OK 73102 Wally Frank Senior Ops Engr 405-552-4595

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface **660' FNL & 660' FEL, Unit A, Section 34-T21S-R24E, Eddy Cnty, NM**

At top proposed prod. zone 1960' FNL & 760' FEL, Unit H, Section 34-T21S-R24E, Eddy Cnty, NM

5. LEASE DESIGNATION AND SERIAL NO.
SHL & BHL: NM-NM53218

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
N/A

7. UNIT AGREEMENT NAME
N/A 30642

8. FARM OR LEASE NAME, WELL NO.
RIGHTHAND CANYON "34" FEDERAL #6

9. API WELL NO.
30-015- 32593

10. FIELD AND POOL, OR WILDCAT
Indian Basin (Upper Penn) Assoc.

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
SHL: Unit A, Section 34-T21S-R24E
BHL: Unit H, Section 34-T21S-R24E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
25 miles NW of Carlsbad, NM

SUBJECT TO LIKE APPROVAL BY STATE

12. COUNTY OR PARISH
Eddy County

13. STATE
New Mexico

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line if any) **760'**

16. NO. OF ACRES IN LEASE
1134.47

17. NO. OF ACRES ASSIGNED TO THIS WELL
320.00

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

19. PROPOSED DEPTH
TVD 8,600'

20. ROTARY OR CABLE TOOLS*
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
GL 3657'

Carlsbad Controlled Water Basin

22. APPROX. DATE WORK WILL START*
January, 2003

RECEIVED
OCD - ARTESIA

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	Conductor 20"		40'	Redi-mix to surface
12 1/4"	H-40 9 5/8"	36#	1,600'	400 sx Pozmix C+ 200 sx Class C
8 3/4"	L-80/HCL-80 7"	23#	8,600'	320 sx Class H

WITNESS

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 8,600'± 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
H_2S 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.
Legal Description:
SHL & BHL= NM-NM53218; all of Section 34-T21S-R24E

Bond Coverage: Nationwide
BLM 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.

SIGNED Candace R. Graham TITLE Candace R. Graham, Engineering Technician (450)235-3611 X4520 DATE December 3, 2002

*(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:

/s/ LESLIE A. THEISS

APPROVED BY _____ TITLE FIELD MANAGER DATE JAN 14 2003

See Instructions On Reverse Side

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

APPROVAL FOR 1 YEAR

D[illegible] LING PROGRAM - Attachment to Form [illegible]-3

Devon Energy Production Company, L.P.
Righthand Canyon 34 Federal #6
SHL= 660' FNL & 660' FEL, Unit A; BHL= 1960' FNL & 760' FEL, Unit H
Section 34-T21S-R24E, Eddy County, New Mexico

1. Geologic Name of Surface Formation
Quaternery Aeolian deposits

2. Estimated Tops of Important Geologic Markers

San Andres	550'
Glorieta	2,556'
Bone Spring	3,550'
3rd Bone Spring	6,675'
Wolfcamp	7,040'
Cisco	7,667'
Canyon	8,300'
ETD	8,600'

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: Capitan Reef at surface to 1600'
Oil: Glorieta, Yeso, Bone Spring
Gas: Wolfcamp, Cisco-Canyon
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 ±1,600' and circulating cement back to surface. The oil and gas intervals will be isolated by setting 7" casing to ±8,600' TVD and bringing the cement top to approximately 6000' (or 500' above the Wolfcamp).

4. Casing Program

Hole Size	Interval	Casing OD	Weight	Grade	Type
25"	0' – ±40'	20"		Conductor	
12 1/4"	0' – ±1600'	9 5/8"	36#	H-40	8rd ST&C
8 3/4"	0' – to TD	7"	23#	L-80 & HCL-80	8rd LT&C

Cementing Program

20" Conductor Casing: -- Cement to surface -- Redi-mix.

9 5/8" Surface Casing: -- Cement to surface -- -- 400 sx 35/65 Poz (Fly Ash)/Class C with 2% $CaCl_2$, 1/4 lb/sx Cellophane flakes, 3 lbs/sx Kol Seal and 6% Bentonite + 200 sx Class C with 2% $CaCl_2$ and 1/4 lb/sx Celloflakes.

7" Production Casing: -- Cement to 6000' – 320 sx 15/61/11 Poz (Fly Ash)/Class C with 5 lb/sx LCM-1, 2% KCl_2, 1% EC-1, 0.6% FL-25, 0.6% FL-52, 0.3% CD-32, 0.3% Sodium Metasilicate, and 1/4 lb/sx Celloflakes.

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

Depth	Type	Weight (ppg)	Viscosity (1/sec)	Water Loss (cc)
0' –1600'	Air or Fresh Water	8 - 8.6	28 - 31	No control
1600' – TD	Fresh water or Cut Brine with starch	8.4 - 8.8	28 - 31	8 - 16

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.

C. Hydrogen Sulfide detection equipment (Compliance Package) will be in operation from drilling out 9 5/8" casing shoe until 7" casing is cemented.

8. Logging, Testing and Coring Program

A. Drill stem tests will be run only if geological sample shows warrant same.

B. The open hole electrical logging program will be as follows.

a) Platform Express HALS with CNL-LDT from TD to base of the surface casing at 1,600' with NGT from TD to 6,000' and GR-Neutron through casing to surface.

b) FMI from TD to top of Cisco-Canyon (Devon geologist may revise this interval after seeing Platform Express log).

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 drill stem tests.

E. Mud logger may be placed on hole at the discretion of Devon engineers.

9. Abnormal Pressures, Temperatures and Potential Hazards

No abnormal pressures or temperatures are foreseen. The anticipated bottom hole temperature at total depth is 144 degrees and maximum bottom hole pressure is 3800 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

A Cultural Resources examination has been completed by Southern New Mexical Archaeological Services, Inc. as report #SNMAS-02NM-928 and has been submitted to the BLM in Carlsbad, New Mexico. This BLM office has performed the onsite inspection for the proposed pad site of this location. 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 anticipated to be January, 2003. The drilling operation should require approximately 35 days. If the well is deemed productive, completion operations will require, at minimum, an additional 21 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.
Righthand Canyon 34 Federal #6
SHL= 660' FNL & 660' FEL, Unit A; BHL= 1960' FNL & 760' FEL, Unit H
Section 34-T21S-R24E, Eddy County, New Mexico

1. Existing Roads

A. The well site and elevation plat for the proposed Righthand Canyon "34" Federal #6 are reflected on Exhibit #2. This well was staked by John West Surveying in Hobbs, New Mexico.

B. All roads into the location are depicted in Exhibit #3. Only minimal new construction from the existing lease road will be needed to access the location.

C. Directions: From Carlsbad go approx 12 miles to the junction of US Hwy 285 and State Hwy 137 and turn left. Then travel approx 6 miles on State Hwy 137 to the lease road sign on the left side of the road. Turn onto lease road and travel approx 4 miles to the proposed location.

2. Proposed Access Road

Exhibit #3 shows the existing lease road. Any new construction will adhere to the following.

A. The maximum width of the road will be 15'.

B. It will be crowned and made of 6" 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. No turnouts are planned.

3. Location of Existing Wells
Exhibit #4 shows all existing wells within a one-mile radius of the proposed Righthand Canyon "34" Federal #6.

4. Location of Existing and/or Proposed Facilities

A. In the event the well is found productive, the necessary production equipment will be built on the proposed well pad. The flow lines and power lines will be laid along the existing road (ROW #NM-93095) and tied into existing pipelines to the IBCTB in Section 8 (NMOCD Comm. order #CTB-400). Produced water will go to JC 4-6 SWD (order #SWD-756) or ORK 8-4 (order #SWD-585) or ORC 7-5 SWD (order #SWD-736). Refer to Exhibit #5.

B. The well will be operated by means of an electric submersible pump.

C. If the well is productive, rehabilitation plans are as follows.

a) The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after completion, weather permitting).

b) 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.

5. Location and Type of Water Supply
The Righthand Canyon "34" Federal #6 will be drilled using a combination of air, fresh water, brine and starch mud systems (outlined in the 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 steel mud tanks. 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 125' x 125' x 6', 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 and saturation of the ground with brine water used during drilling.

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. 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 and tank battery) 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, pits and general location of the rig equipment 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 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.

11. Surface Ownership
The well site is owned by the Bureau of Land Management.
Road routes have been approved and the surface location will be restored as directed by the BLM.

12. Other Information

A. The well site is located in a canyon bottom with arroya drainages and hill slopes. The top soil is tan-brown then sandy silts.
Regionally drainage is eastward toward the Pecos River. The major drainage in the area is Rocky Arroyo. There is no permanent water in the area.
The vegetation is moderate and mainly consists of prickly pear, sumac, cat claw, yucca, hackberry, yucca, snakeweed, cactus, willow, annuals and range grasses.
Wildlife in the area includes mountain lions, coyotes, deer, raccoons, badgers, ringtail cats, skunks, rabbits, rodents, reptiles, dove and quail.

B. A Cultural Resources examination has been completed by Southern New Mexico Archaeological Services, Inc. as report #SNMAS-02NM-928 and has been forwarded to the BLM office in Carlsbad.

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 as follows.

Walter Frank, Senior Operations Engineer
20 North Broadway, Suite 1500
Oklahoma City, OK 73102-8260
(405) 552-4595 (office)
(405) 364-3504 (home)

Cecil Thurmond, Superintendent
Post Office Box 250
Artesia, NM 88211-0250
(505) 748-3371 (office)
(505) 887-1479 (home)

Certification
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite 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 Date: December 3, 2002
Candace R. Graham, Engineering Tech.

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

3,000 psi Working Pressure

3 MWP

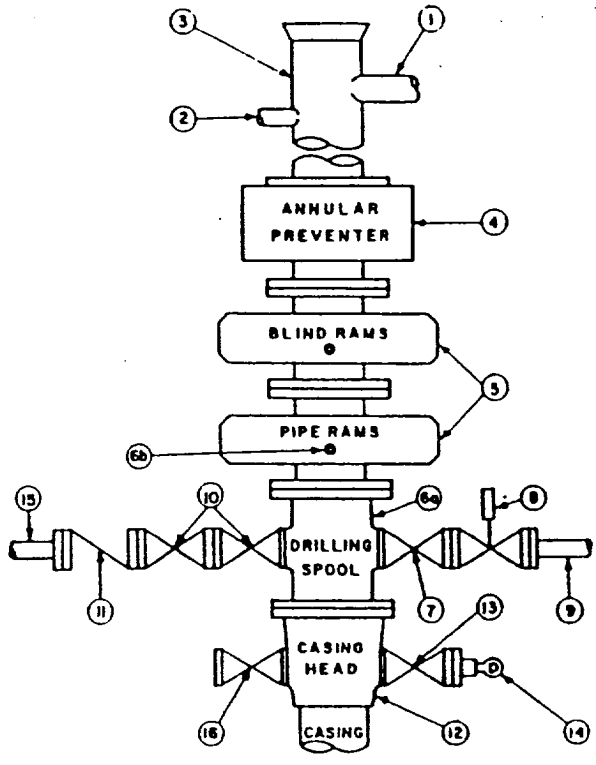
EXHIBIT # 1

STACK REQUIREMENTS

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

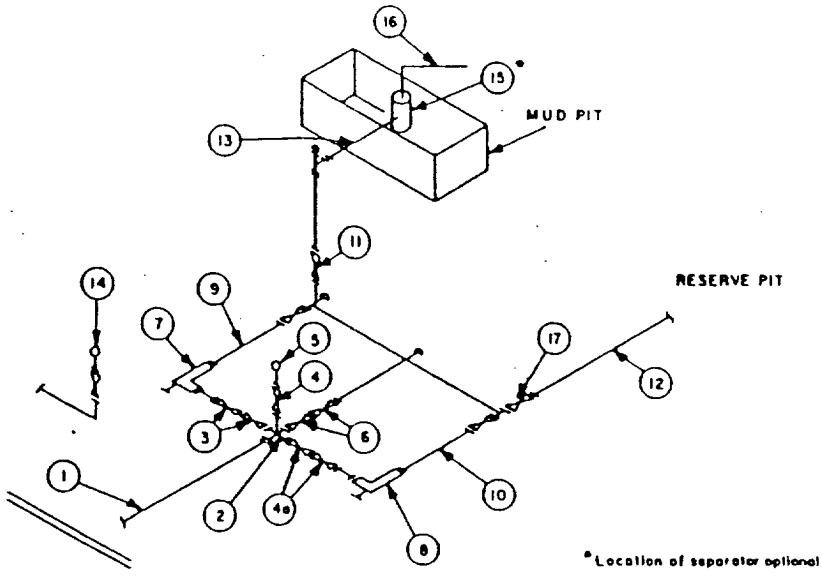
GENERAL NOTES:

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



BEYOND SUBSTRUCTURE

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.

Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTORS
Devon Energy Production Company, L.P.
Righthand Canyon 34 Federal #6
SHL: 660' FNL & 660' FEL, Unit A
BHL: 1960' FNL & 760' FEL, Unit H
Section 34-T21S-R24E, 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.

EXHIBIT 2

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

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

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-	33685	Indian Basin (Upper Penn) Assoc.

Property Code	Property Name	Well Number
25146	RIGHT HAND CANYON 34 FEDERAL	6

OGRID No.	Operator Name	Elevation
6137	DEVON ENERGY PRODUCTION, CO., LP	3657

Surface Location

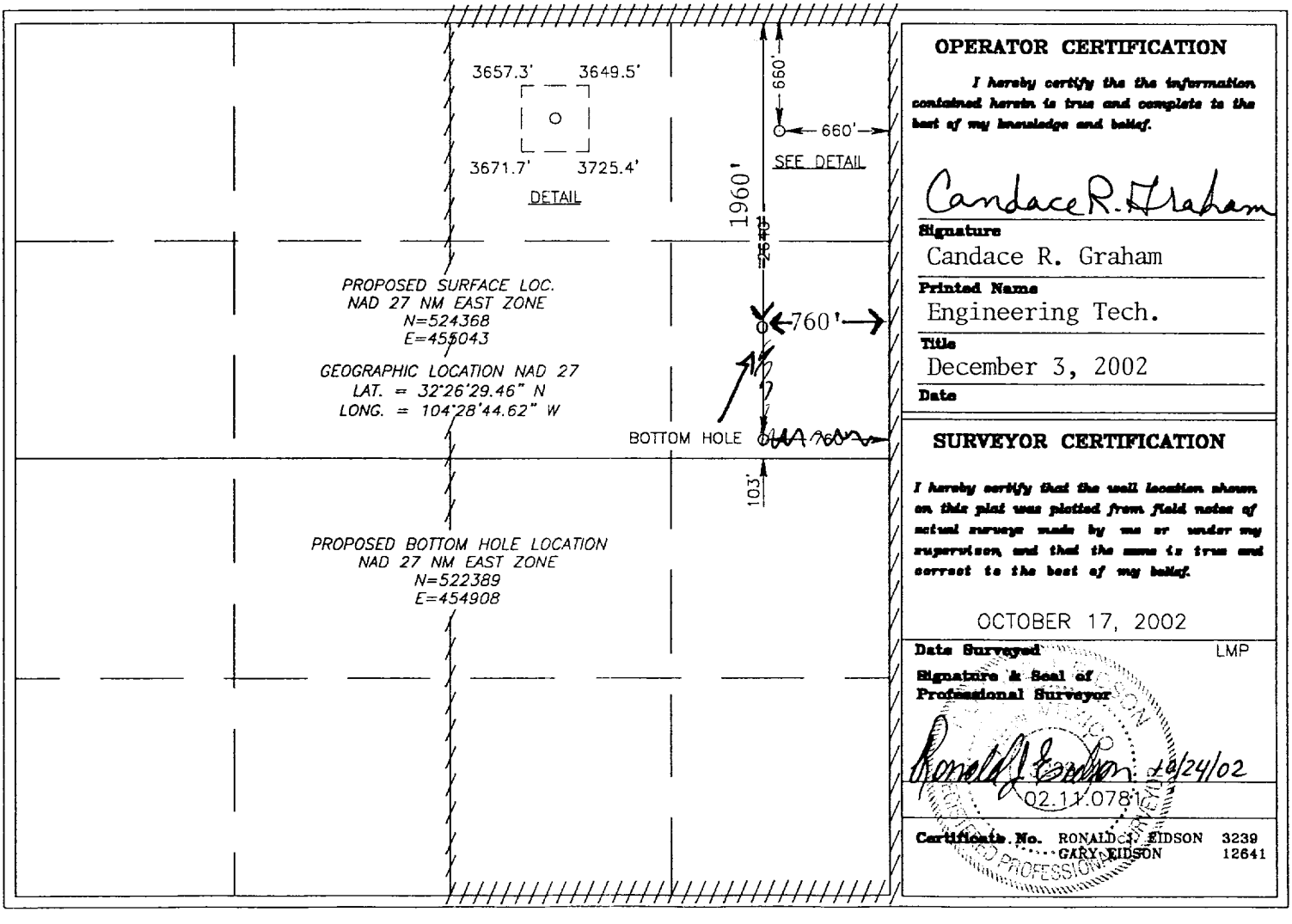
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	34	21 S	24 E		660	NORTH	660	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	34	21 S	24 E		~~2640~~ 1960	NORTH	760	EAST	EDDY

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



OPERATOR CERTIFICATION

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

Candace R. Graham

Signature
Candace R. Graham

Printed Name
Engineering Tech.

Title
December 3, 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.

OCTOBER 17, 2002

Date Surveyed LMP

Signature & Seal of Professional Surveyor

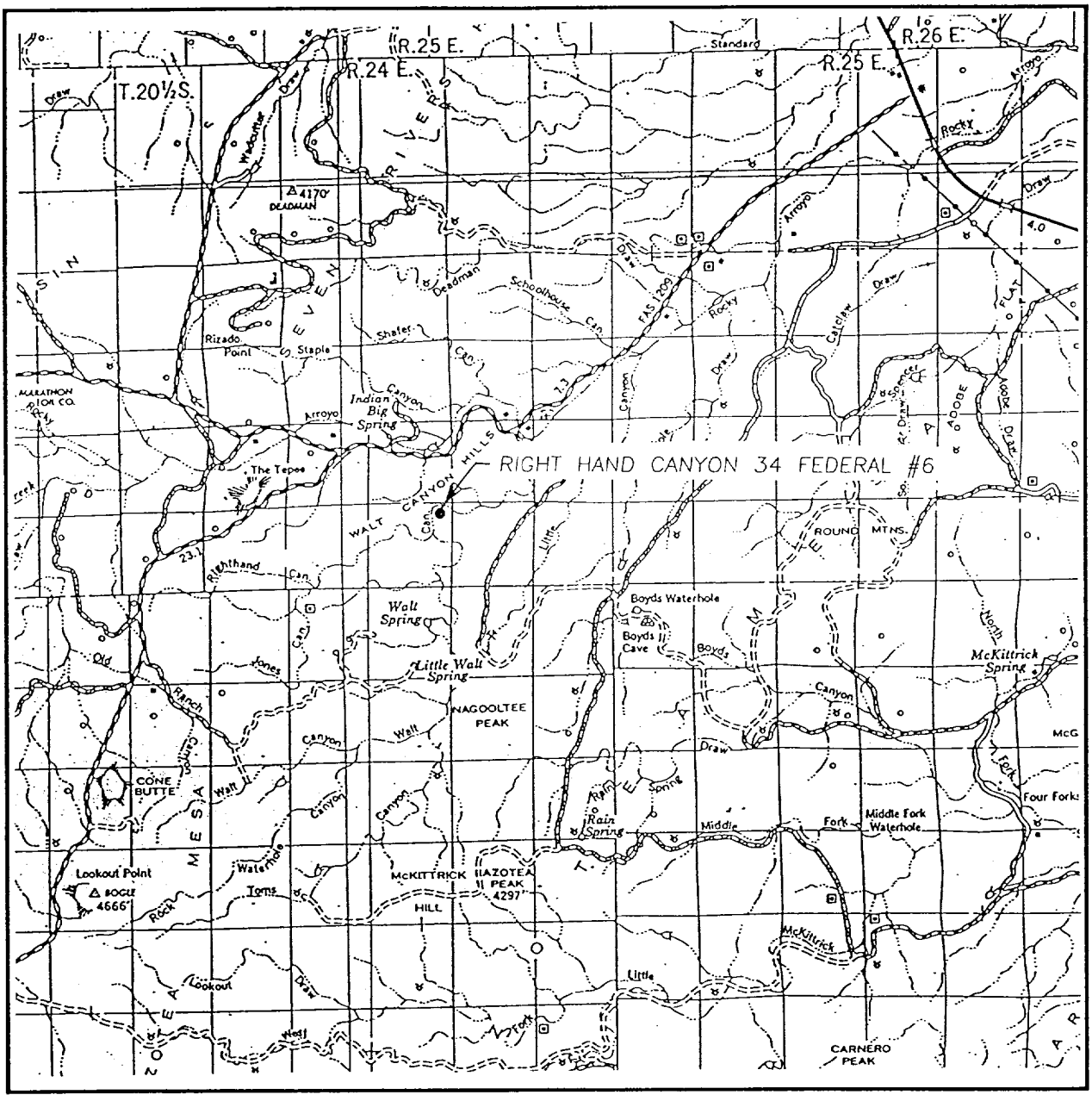
Ronald J. Eidson 10/24/02

02.11.0781

Certificate No. RONALD J. EIDSON 3239
GARY L. EIDSON 12641

VICINITY MAP

EXHIBIT 2



SCALE: 1" = 2 MILES

SEC. 34 TWP. 21-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FNL & 660' FEL

ELEVATION 3657

OPERATOR DEVON ENERGY PRODUCTION, CO., LP

LEASE RIGHT HAND CANYON 34 FEDERAL

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

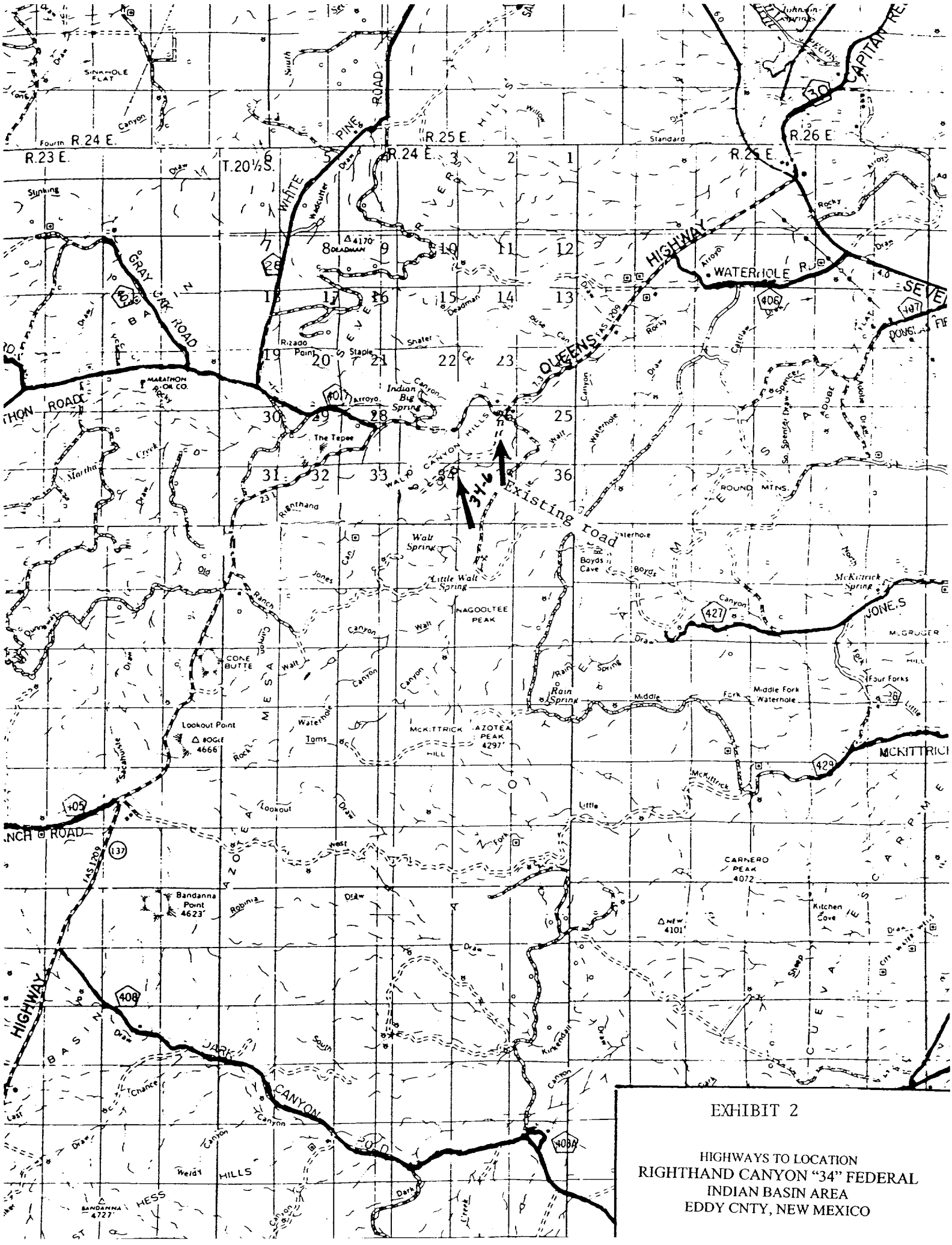
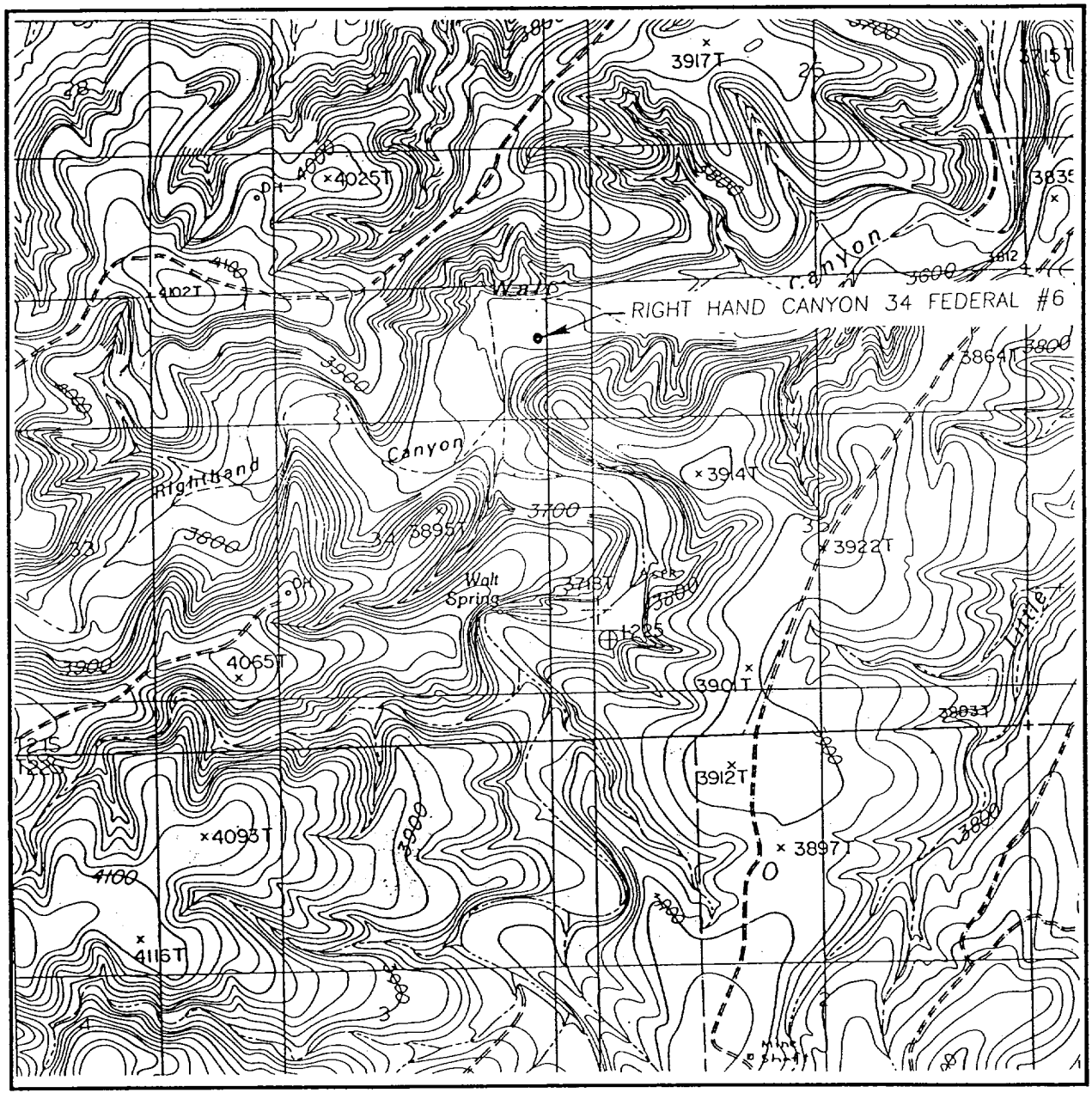


EXHIBIT 2

HIGHWAYS TO LOCATION
RIGHTHAND CANYON "34" FEDERAL
INDIAN BASIN AREA
EDDY CNTY, NEW MEXICO

EXHIBIT 3

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
MARTHA CREEK, N.M. - 20'

SEC. 34 TWP. 21-S RGE. 24-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 660' FNL & 660' FEL

ELEVATION 3657

OPERATOR DEVON ENERGY PRODUCTION, CO., LP

LEASE RIGHT HAND CANYON 34 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
MARTHA CREEK, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

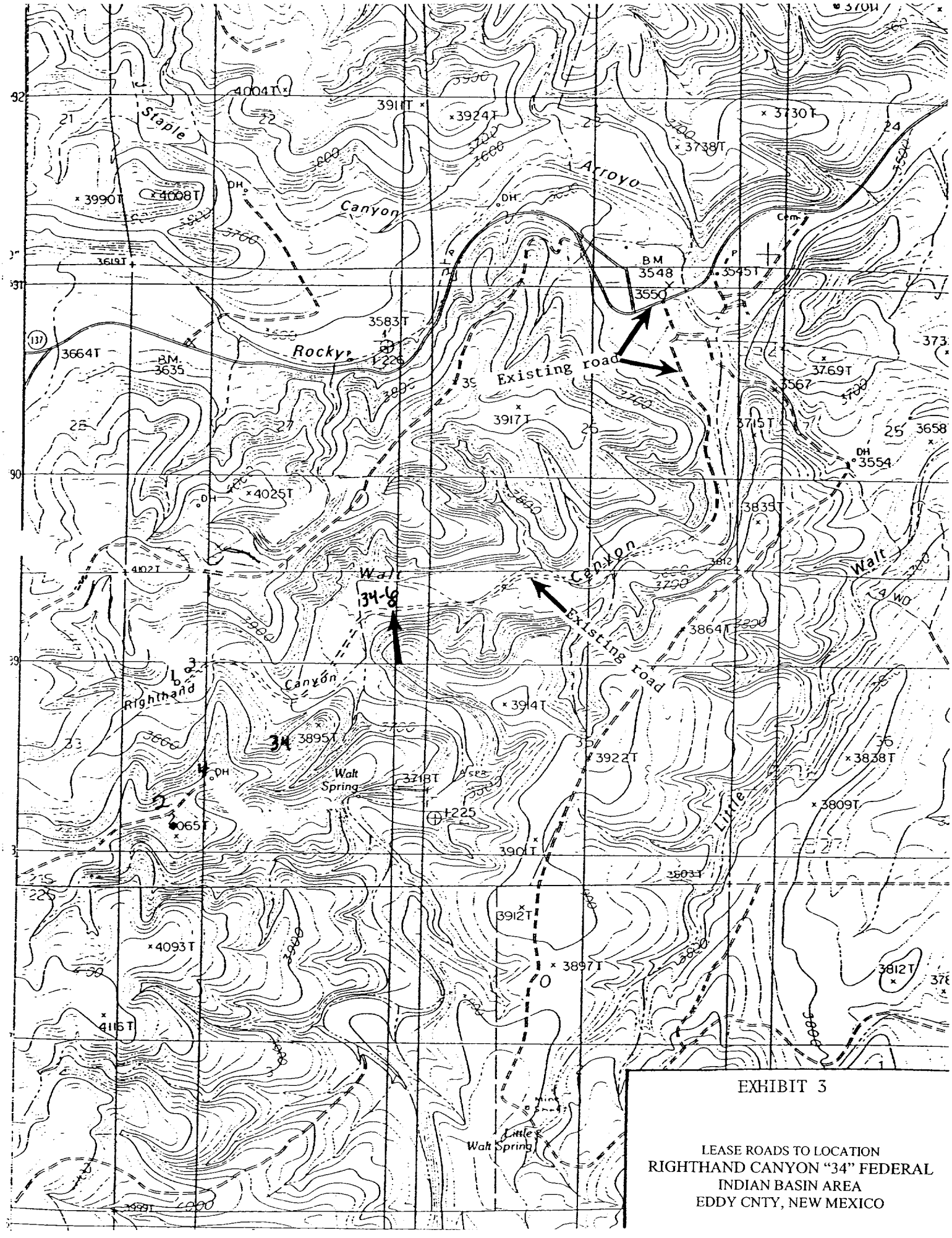
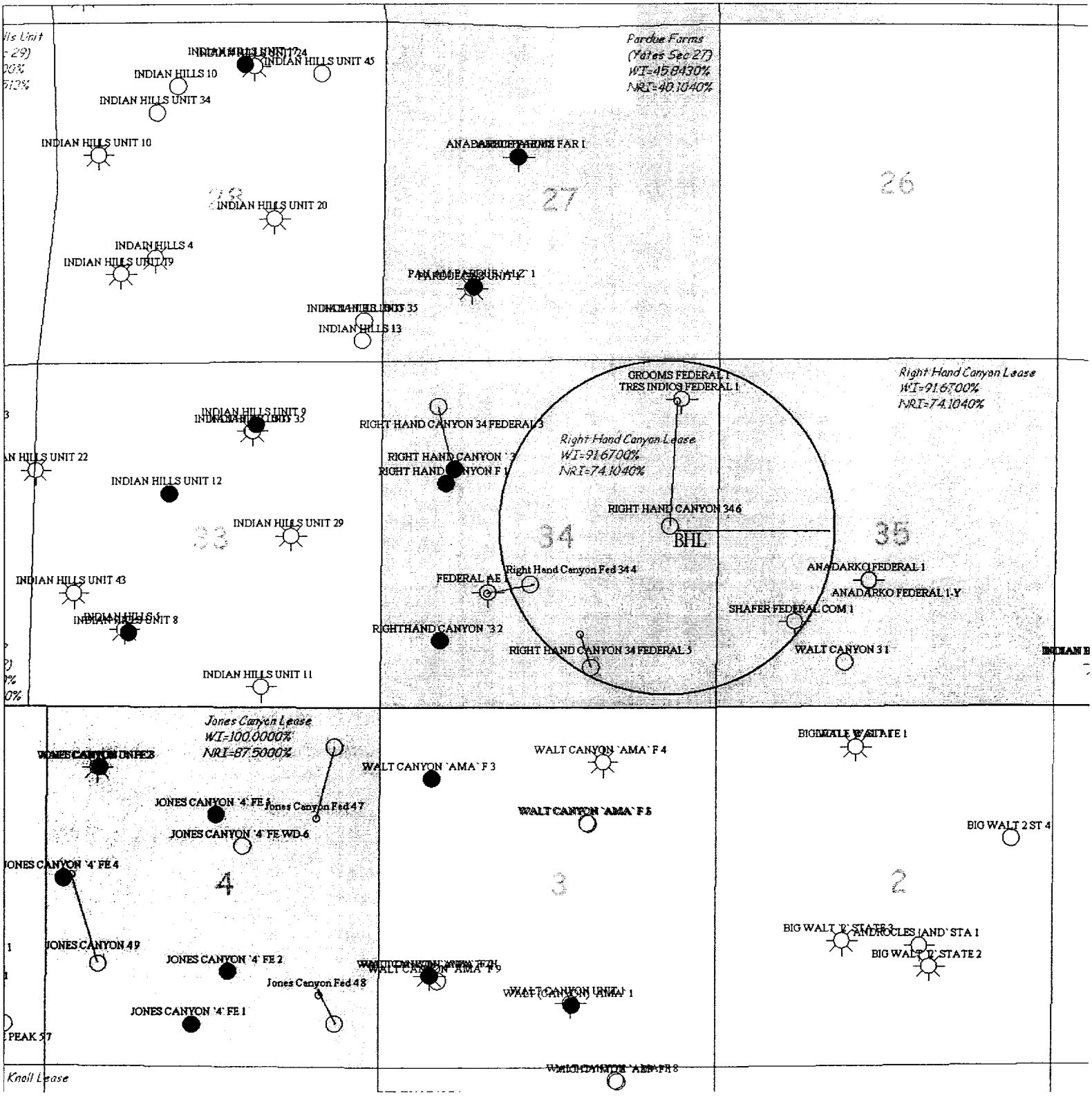


EXHIBIT 3

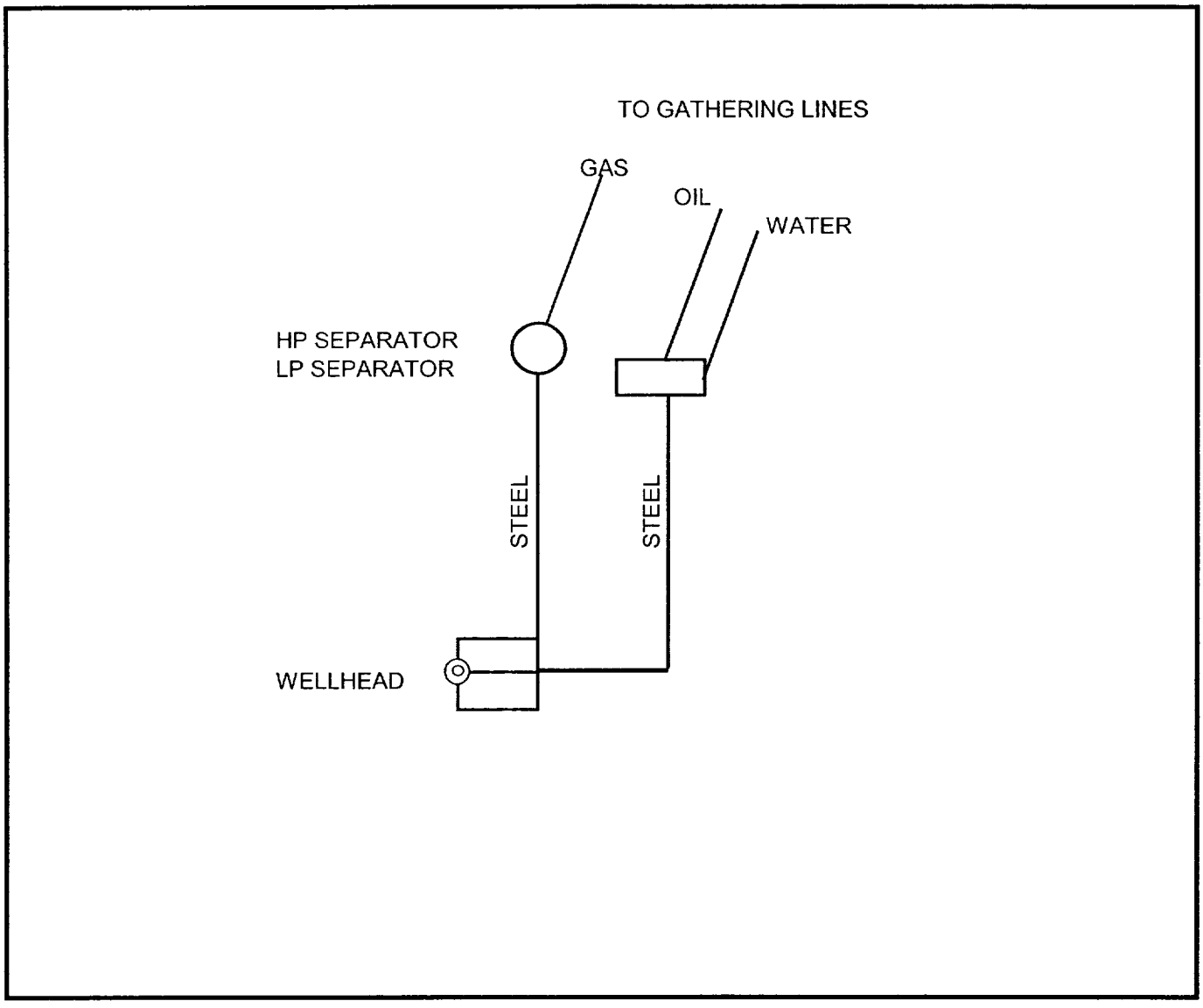
LEASE ROADS TO LOCATION
RIGHTHAND CANYON "34" FEDERAL
INDIAN BASIN AREA
EDDY CNTY, NEW MEXICO

EXHIBIT 4



WELLS WITHIN 1 MILE RADIUS
RIGHTHAND CANYON "34" FEDERAL
INDIAN BASIN AREA
EDDY CNTY, NEW MEXICO

EXHIBIT 5



PRODUCTION FACILITES SCHEMATIC
RIGHTHAND CANYON "34" FEDERAL
INDIAN BASIN AREA
EDDY CNTY, NEW MEXICO

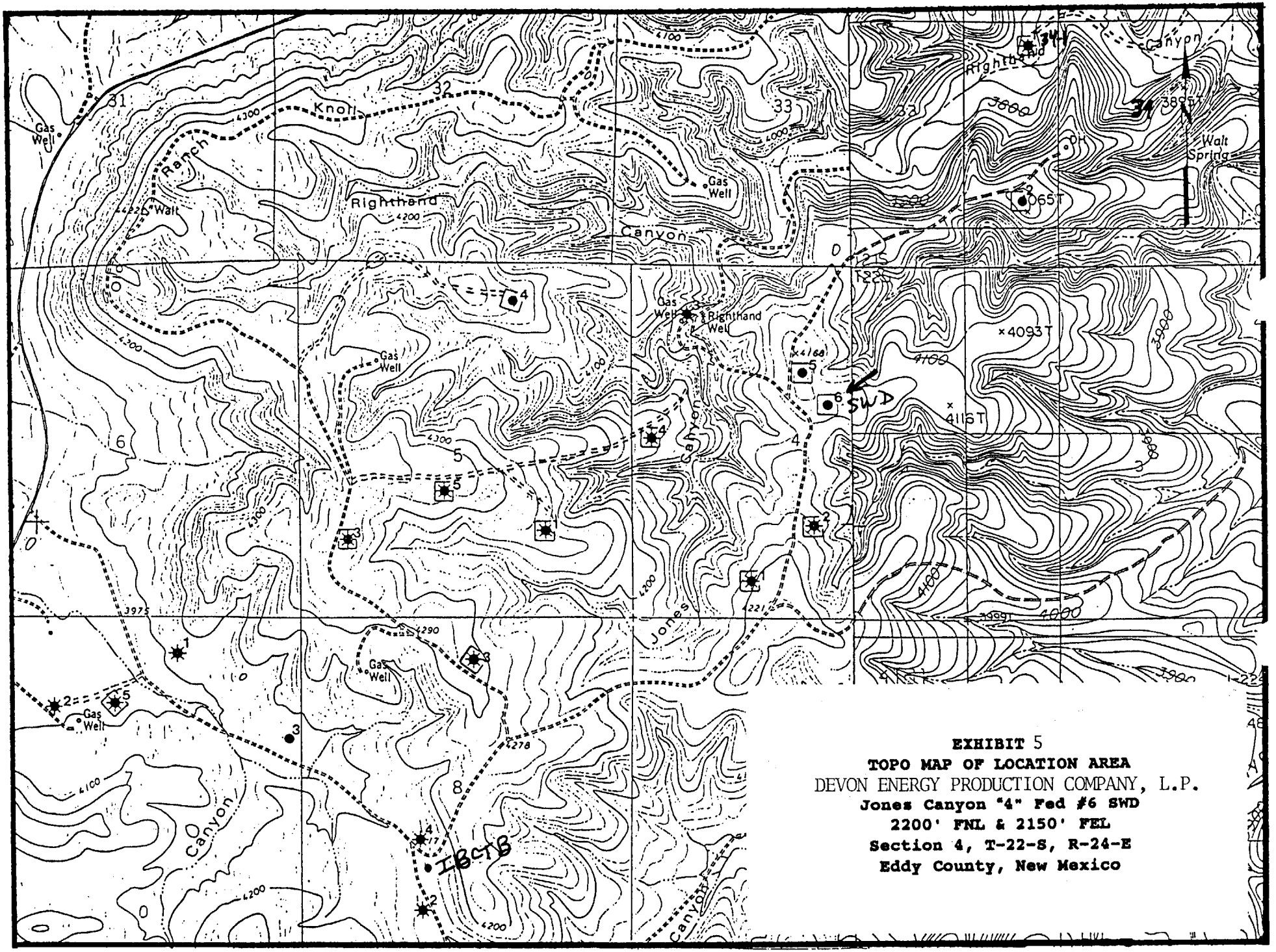


EXHIBIT 5
TOPO MAP OF LOCATION AREA
DEVON ENERGY PRODUCTION COMPANY, L.P.
Jones Canyon "4" Fed #6 SWD
2200' FNL & 2150' FEL
Section 4, T-22-S, R-24-E
Eddy County, New Mexico

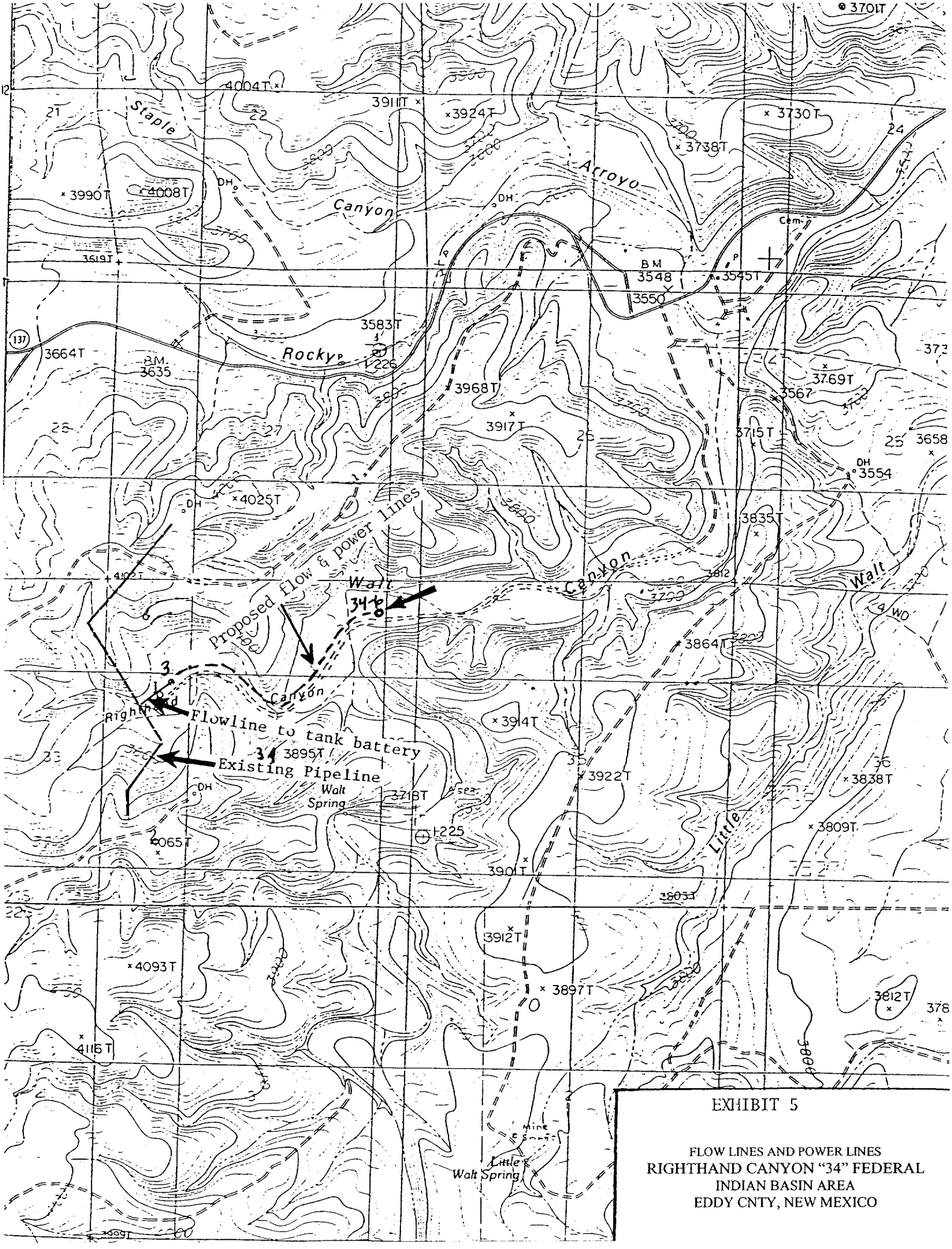
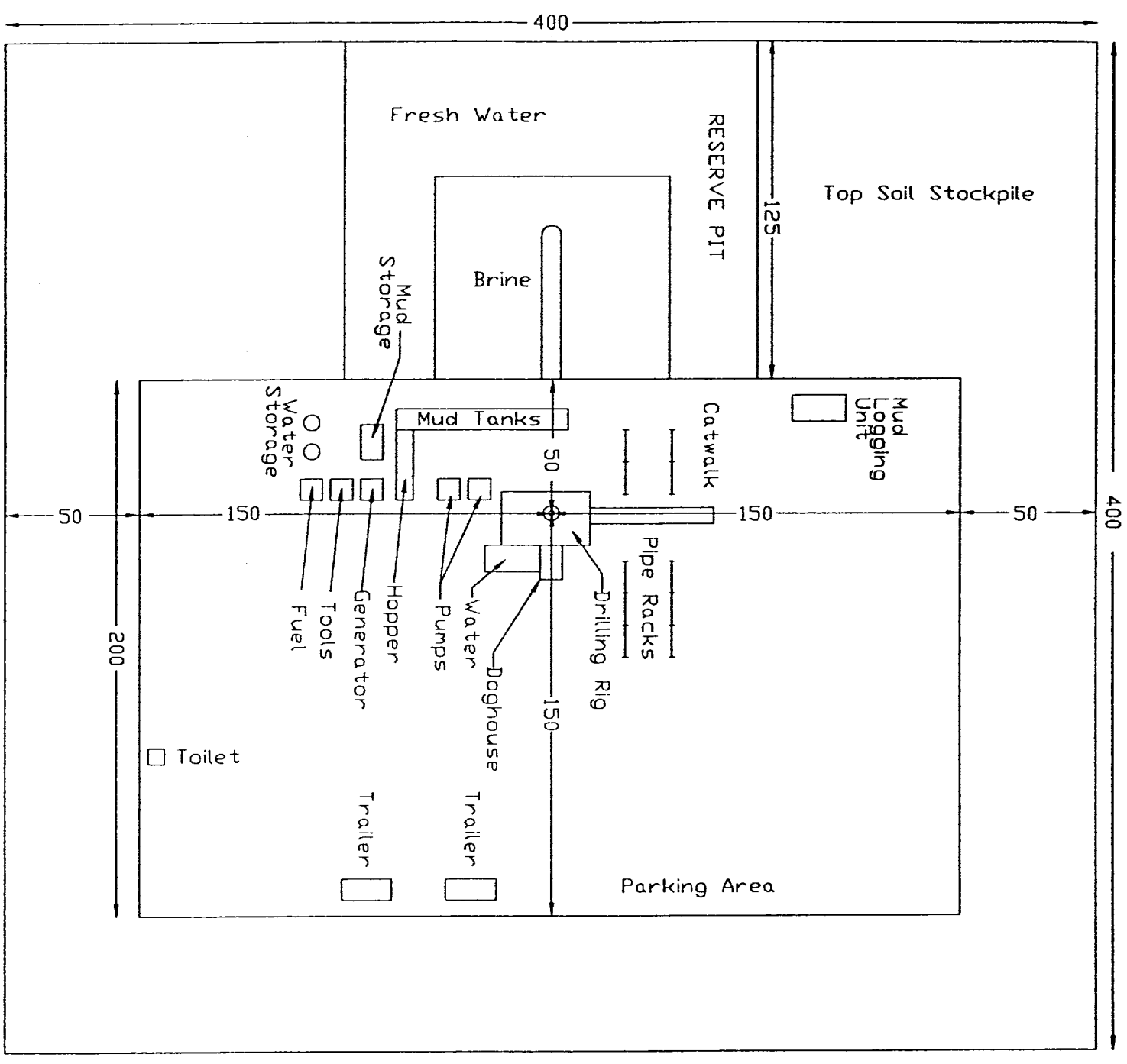


EXHIBIT 5

FLOW LINES AND POWER LINES
RIGHTHAND CANYON "34" FEDERAL
INDIAN BASIN AREA
EDDY CNTY, NEW MEXICO



GL 3657'

devon

INDIAN BASIN AREA

EDDY COUNTY, NEW MEXICO

DRILLING RIG LAYOUT AND ELEVATIONS

RIGHTHAND CANYON 34 FEDERAL 6

EXHIBIT 6

8/98

Well name: **Righthand Canyon 34-6**
Operator: **Devon-SFS Operating, Inc.**
String type: Surface

Location: Section 34, T21S, R24E

Design parameters:

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

Burst
Max anticipated surface pressure: 914 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 914 psi

Annular backup: 8.50 ppg

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: 1,399 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 88 °F
Temperature gradient: 0.80 °F/100ft
Minimum section length: 1,000 ft
Minimum Drift: 8.750 in

Non-directional string.

Re subsequent strings:
Next setting depth: 8,600 ft
Next mud weight: 8.500 ppg
Next setting BHP: 3,797 psi
Fracture mud wt: 11.000 ppg
Fracture depth: 1,600 ft
Injection pressure 914 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	1600	9.625	36.00	H-40	ST&C	1600	1600	8.765	14371

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	706	1720	2.43	914	2560	2.80	57.6	294	5.10 J

Prepared by: W.M. Frank, Devon Energy
Phone: (405) 552-4595
FAX: (405) 552-4621
Date: November 12,2002
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 1600 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:	**Righthand Canyon 34-6**
Operator:	**Devon-SFS Operating, Inc.**
String type:	Production
Location:	Section 34, T21S, R24E

Design parameters:

Collapse
Mud weight: 8.600 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 3,842 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 3,842 psi
Annular backup: 8.60 ppg

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: 7,591 ft

Estimated cost: 81,630 ($)

Environment:
H2S considered? Yes
Surface temperature: 75 °F
Bottom hole temperature: 144 °F
Temperature gradient: 0.80 °F/100ft
Minimum section length: 1,000 ft

Directional Info - Build & Hold
Kick-off point 5500 ft
Departure at shoe: 1324 ft
Maximum dogleg: 1.5 °/100ft
Inclination at shoe: 34.86 °

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	7000	7	23.00	L-80	LT&C	6962	7000	6.25	62786
1	1941	7	23.00	HCL-80	LT&C	8600	8941	6.25	18844

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
2	3110	3713	1.19	3842	6340	1.65	197.8	435	2.20 J
1	3842	5650	1.47	732	6340	8.66	37.7	485	12.87 J

Prepared by: W.M. Frank
Devon Energy
Phone: (405) 552-4595
FAX: (405) 552-4621
Date: November 12,2002
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 8600 ft, a mud weight of 8.6 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

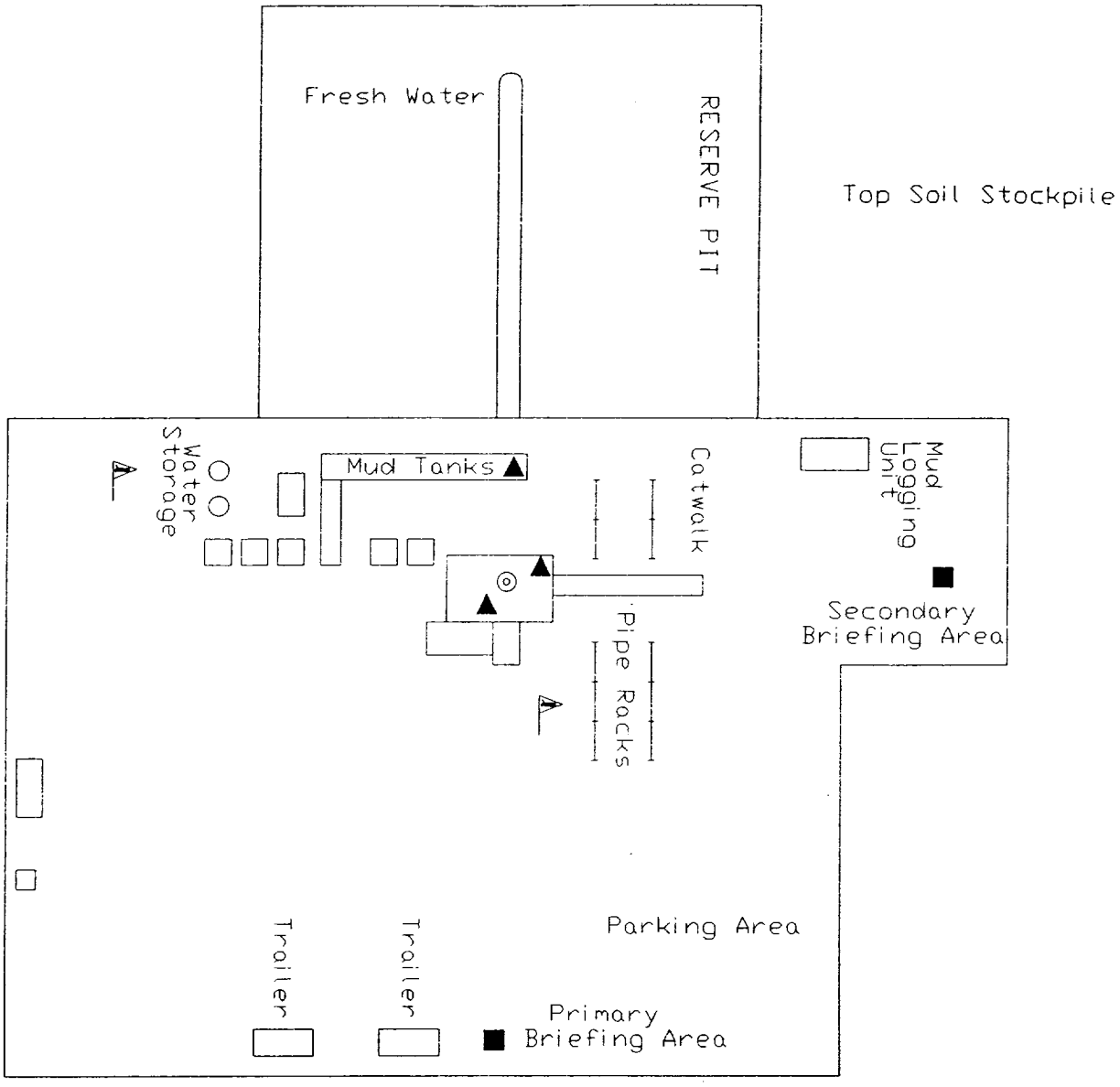
   All drill strings, casings, tubing, wellhead, blowout preventers, drilling spools, kill lines, choke manifold and lines and valves shall be suitable for H2S service.

7. Communication

   Cellular telephone communication will be available in company vehicles.

C. Diagram of Drilling Location

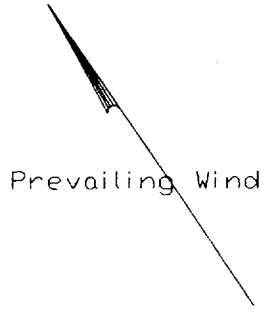
Attached is a diagram representing a typical location layout as well as the location of H2S monitors, briefing areas and wind direction indicators.



▲ 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

devon

EDDY COUNTY, NEW MEXICO

H2S PLAN

Scale in Feet

25 0 25 50 75 100

4/97

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. :
20 N. Broadway, Suite 1500 :
Oklahoma City, OK 73102 :

Oil and Gas Leases

Bond #: CO-1104
Nationwide Oil & Gas
$200,000

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

CULTURAL RESOURCE

MANAGEMENT REPORT

Devon Energy Production Company, L.P.
The Righthand Canyon "34" Number 6
Proposed Well Location
Section 34, T.21S., R. 24E
Eddy 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 24, 2002

Project # SNMAS-02NM-928
NMCRIS # 80794

TITLE PAGE/ABSTRACT
NEGATIVE SITE REPORT
ROSWELL DISTRICT

BLM/ RDO 1/95

1. BLM Report No. **2.** (Accepted) (Rejected) **3. NMCRIS No.** 80794

. Title of Report (Project Title):
A Class III Cultural Resource Inventory
The Righthand Canyon "34" Federal Number 6
Proposed Well Location
Section 34, T.21S., R.24E
Eddy County, New Mexico

5. Project Date(s)
October 22, 2002

6. Report Date
October 24, 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-928

10. SPONSOR NAME AND ADDRESS:
Individual Responsible: Candi Graham

Name: Devon-Energy Production Company L.P.
Address: Post Office Box 250
Artesia, NM 88210
Phone No.(505) 748-0170

11. FOR BLM USE

12. ACREAGE:
Total No. of acres Surveyed 8.3
Per Surface Ownership:
Federal 8.3
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 21S R.24E Sec 34 Well Pad Footage's **660 ft FNL and 660 ft FEL**
Well Pad ¼'s: NE1/4NE1/4
f. 7.5' Map Name(s) and Code Number(s):
USGS Azotea Peak, NM (1985) 32104-D4

g. Area: Block: surveyed: 600' X 600'
Impact: 200' X 200'
Linear: Surveyed: 000' X 000'
Impact: 000' X 000'

14. a. **Records Search**:

Location:	ARMS HPD.	Date: October 18, 2002
	BLM Carlsbad	Date: October 18, 2002

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

b. **Description of Undertaking:**
The proposed Righthand Canyon "34" Federal Number 6 well location is staked 660 ft FNL and 660 ft FEL in Section 34, T.21S., R.24E. The impact area for the proposed well location is an area 200 ft by 200 ft. An area of 600 ft by 600 ft was surveyed for the proposed well location. An existing lease road will access the proposed well pad.

c. **Environmental Setting** NRCS soil designation: vegetative community: etc.:
The project is located in a canyon bottom, with arroyo drainages and hill slopes. Soils are rocky, stony, tan-brown silty thin sands. Vegetation consists of hackberry, sumac, catclaw, mesquite, prickly pear, grasses, other cactus, snakeweed, yucca, willow and annuals. Elevation is 3,657 ft.

d. Field Methods: **Transect Intervals**: 12 parallel transects across well pad
Crew Size: 1
Time in Field: 1.5 hours
Collections: NONE

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

Isolate number one consists of a brown glass beer bottle. Found in the NW1/4NW1/4SE1/4NE1/4NE1/4 of Section 34, T.21S., R.34E.

Isolate number two consists of a metal pipefitting. Found in the SE1/4SE1/4NW1/4NE1/4NE1/4 of Section 34, T.21S., R.34E.

Isolate number three consists of a bucket with a wire handle, smashed flat. Found in the NE1/4NE1/4SW1/4NE1/4NE1/4 of Section 34, T.21S., R.34E.

Isolate number four consists of a horseshoe. Found in the NW1/4NE1/4SW1/4NE1/4NE1/4 of Section 34, T.21S., R.34E.

16. Management Summary (Recommendations):

During the survey, four isolated occurrences were encountered, recorded and their research potential exhausted in the field. **Therefore, archaeological clearance is recommended** for the Devon Energy Production Company, L.P. proposed **Righthand Canyon "34" Federal Number 6 well location,** located in Section 34, T.21S., R.24E., **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 24, 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

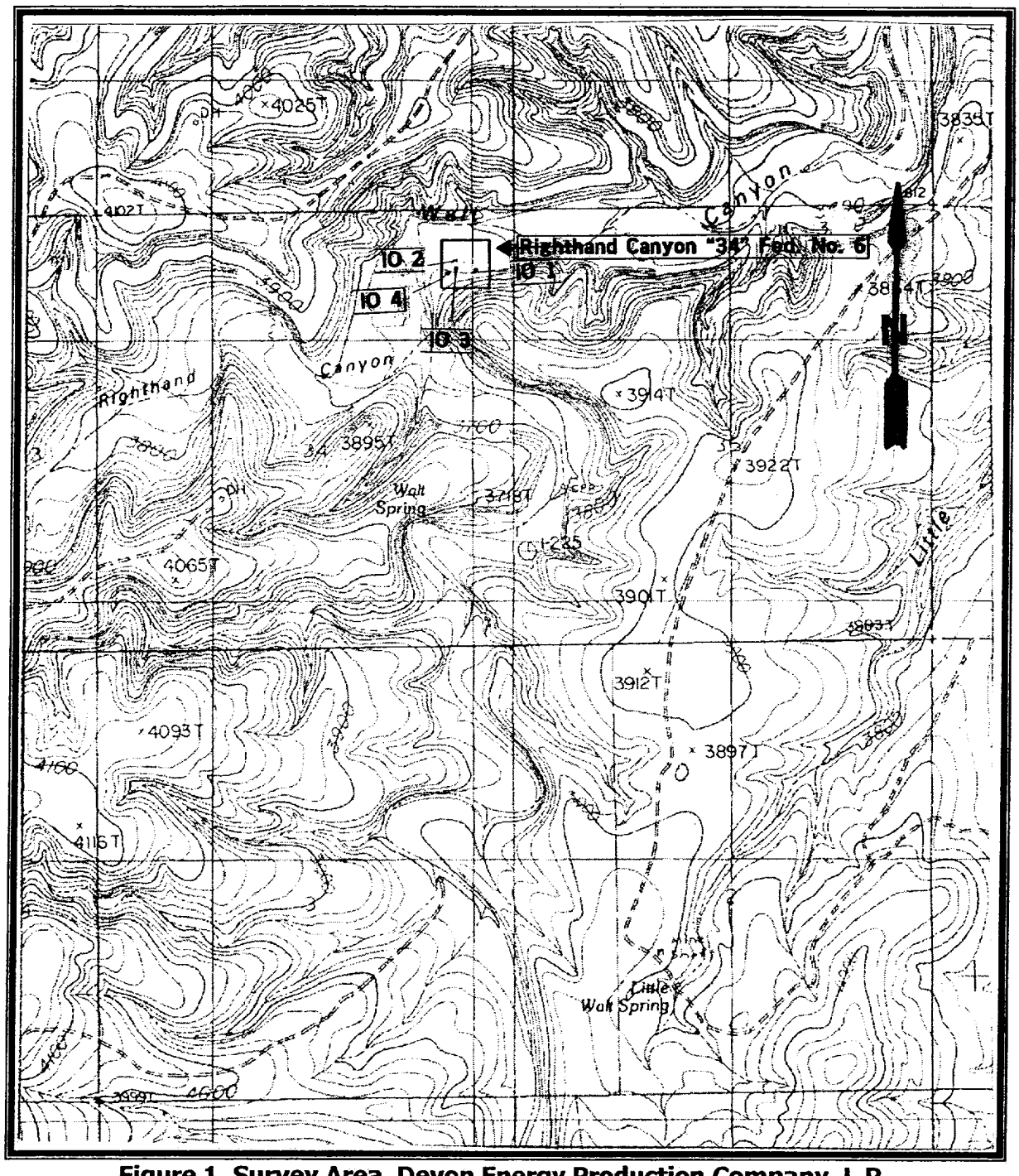


Figure 1. Survey Area Devon Energy Production Company, L.P.
The Righthand Canyon "34" Federal Number 6
Proposed Well Location
Section 34, T.21S., R. 24E
USGS Azotea Peak, NM 1985 7.5' topo map
Eddy County, New Mexico
Scale 1:24,000

Southern New Mexico Archaeological Services, Inc.