

February 18, 1992

United States Department of
the Interior
Bureau of Land Management
101 E. Mermod
Carlsbad, NM 88220

Re: **Application for Permit to Drill**
Geronimo Federal Well No. 10
Lea County, New Mexico



Gentlemen:

Enclosed you will find an original and five (5) copies of Form 3160-3 and various other information to aid you in permitting the subject well.

Thank you in advance for your prompt attention to this matter and if I can be of any further help, kindly advise.

Very truly yours,

MITCHELL ENERGY CORPORATION

George Mullen
Regulatory Affairs Specialist

GM:lgb
3gfd.lt
Enc.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1A. TYPE OF WORK
 DRILL DEEPEN PLUG BACK
 B. TYPE OF WELL
 OIL WELL GAS WELL OTHER
 SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 Mitchell Energy Corporation

3. ADDRESS OF OPERATOR
 P. O. Box 4000, The Woodlands, Texas 77387-4000

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
 At surface
 660' FNL and 1,575' FWL (NE/NW)
 At proposed prod. zone
 660' FNL and 1,575' FWL (NE/NW)

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 32 miles SW of Hobbs, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 660

16. NO. OF ACRES IN LEASE 321.72

17. NO. OF ACRES ASSIGNED TO THIS WELL 40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 75

19. PROPOSED DEPTH 3,300

20. ROTARY OR CABLE TOOLS Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3,577

22. APPROX. DATE WORK WILL START* 3-20-92

5. LEASE DESIGNATION AND SERIAL NO.
 NM 67111
 6. IF INDIAN, ALLOTTEE OR TRIBE NAME
 N/A
 7. UNIT AGREEMENT NAME
 N/A
 8. FARM OR LEASE NAME
 Geronimo Federal
 9. WELL NO.
 10
 10. FIELD AND POOL, OR WILDCAT
 Tonto, South
 (Yates-Seven Rivers)
 11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA
 Sec. 31, T19S, R33E
 12. COUNTY OR PARISH
 Lea
 13. STATE
 NM

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24#	500'	300 Sx Class C-circulate to surface
7 7/8"	5 1/2"	15.5#	TD	800 Sx Class C-circulate to surface

The operator proposes to drill to a depth sufficient to test the Yates formation for oil. If productive, 5-1/2" casing will be cemented at TD. If non-productive, the well will be plugged and abandoned in a manner consistent with federal regulations. Specific programs as per Onshore Oil and Gas Order #1 are outlined in the following attachments:

Drilling Program

- Surface Use & Operating Plan
- Exhibit #1 & 1A - Blowout Preventer Equip.
- Exhibit #2 - Location & Elevation Plat
- Exhibit #3 - Planned Access Roads
- Exhibit #4 - One-mile Radius Map

- Exhibit #5 - Production Facilities Layout
- Exhibit #6 - Drilling Rig Layout
- Exhibit #7 - Cultural Resources Examination

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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 George Mullen George Mullen TITLE Regulatory Affairs Specialist DATE 2-18-92

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

DRILLING PROGRAM

Attached to Form 3160-3
Mitchell Energy Corporation
Geronimo Federal #10
660' FNL & 1575' FWL
NE/NW, Sec 31, T-19-S, R-33-E
Lea Co., N.M.

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

Permian	Surface
Top Salt	1350'
Base Salt	2740'
Yates	2970'

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

Upper Permian Sands	100'	fresh water
Yates	2970'	oil

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 8-5/8" csg at 500' and circulating cement back to surface. Any shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them behind the 5-1/2" csg.

4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>OD csg</u>	<u>Weight, Grade, Jt, Cond, Type</u>
12-1/4"	0-500'	8-5/8"	24#, K-55, ST&C, New, R-3
7-7/8"	500-TD'	5-1/2"	15.5#, ST&C, New, R-3

Cement Program:

8-5/8" Surface casing:

Cemented to surface with 300 sacks of Class "C" + 2% CaCl₂ + 1/4 #/sack Flocele.

5-1/2" Production casing:

Cemented to surface with 800 sacks Class "C" + 5#/sack salt + 1/4#/sack Flocele.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (3000 psi WP) preventer. The ram-type preventer will be equipped with blind rams on top and 4-1/2" drill pipe rams on bottom. The BOP's will be nipped up on the 8-5/8" surface csg and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 3" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

6. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with brine and starch/saltwater gel mud system. The applicable depths and properties of this system are as follows:

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (sec)</u>	<u>Waterloss (cc)</u>
0-500'	Freshwater (spud)	8.5	40-45	N.C.
500-2800'	Brine Water	10.5	30	N.C.
2800'-TD'	Brine/starch/Gel	10.5	34-38	10-20

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary Well Control and Monitoring Equipment:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

8. Logging, Testing and Coring Program:

- (A) No Drillstem tests are anticipated.
- (B) The open-hole electric logging program will consist of GR-DLL-MSFL TD to 2800' and GR-CNL-LDT TD to surface.
- (C) No conventional coring is anticipated.
- (D) Further testing procedures will be determined after the 5-1/2" production casing has been cemented at TD based on drill shows, and log evaluation.

9. Abnormal Conditions, Pressures, Temperatures, & Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is 100°F and estimated bottom-hole pressure (BHP) is 1400 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells at this depth.

10. Anticipated Starting Date and Duration of Operations:

Road location work will not begin until approval has been received from the BLM. The anticipated spud date is March 20, 1992. Once commenced, the drilling operation should be finished in approximately 10 days. If the well is productive, an additional 20 days will be required for completion and testing before a decision is made to install permanent facilities.

SURFACE USE AND OPERATING PLAN

Attached to Form 3160-3
Mitchell Energy Corporation
Geronimo Federal #10
660' FNL & 1575' FWL
NE/NW, Sec. 31, T-19-S, R-33-E
Lea Co., New Mexico

1. Existing Roads:

- A. The well site and elevation plat for the proposed well is shown in Exhibit #2. It was staked by John Jacquess Consulting Engineers, Artesia, N.M. on the same pad with the Geronimo Federal #5 well.
- B. All roads to the location are shown in Exhibit #3. The existing roads are illustrated in red and are adequate for travel during drilling and production operations. Upgrading of the road prior to drilling will be done where necessary as determined during the onsite inspection.
- C. Directions to Location: Go west 26.2 miles from Hobbs, New Mexico on Hwy 62/180. Turn northwest thru cattleguard on lease road and go 2.0 miles. Turn left thru second cattleguard then immediately turn left again (by-passing Smith Ranch House). Go 0.9 miles thru third cattleguard, then proceed 0.8 miles. Turn northwest (left) and follow main lease road 4.3 miles. Turn south (left) for 2.1 miles. Turn southwest (right) for 1.5 miles. Turn south (left) for 0.5 miles. Turn east (left) and go 0.2 miles to Geronimo Federal #1 and Geronimo Federal #3 twin well pad. Proceed east across Geronimo Federal #1 and #3 pad to Geronimo Federal #10 located on the same pad with Geronimo Federal #5.
- D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

2. Proposed New Road:

Access to Geronimo Federal #10 will be on same roads as the Geronimo Federal #5. No new access road will be required.

3. Location of Existing Wells:

Exhibit #4 shows all existing wells within a one-mile radius of this well. As shown on this plat there are eight abandoned oil/gas wells, three Bone Springs oil wells, four Morrow gas wells, eleven Yates oil wells and two Delaware oil wells. A list of these wells is shown on the Attachment to Exhibit #4. There are no disposal, drilling, SI, injection, or observation wells within a one-mile radius.

4. Location of Existing and/or Proposed Facilities:

- A. MEC operates four separate production facilities on this lease. They are as follows:
Tonto, South (Yates-Seven Rivers) Field-Tank Battery-Unit Letter D
Geronimo (Delaware) Field-Tank Battery-Unit Letter D
Gem (Bone Spring) Field - Tank Battery-Unit Letter F
Gem (Morrow) Field-Tank Battery-Unit Letter E
- B. If the well is productive, contemplated facilities will be as follows:
- (1) A buried 2" steel flowline will be laid along the road ROW as shown in Exhibit #3 to the Tonto, South (Yates-Seven Rivers) Field Tank Battery in Unit Letter D, which is located on the Geronimo Federal #1 and #3 twin well pad.
 - (2) The tank battery and facilities including all flowlines and piping will be installed according to API specifications.
 - (3) Any additional caliche which is required for firewalls, etc. will be obtained from the BLM-approved caliche pit shown on Exhibit #3. Any additional construction materials will be purchased from contractors.
 - (4) No power will be required if the well is productive of gas. However, if productive of oil, a gas or LPG fueled, self-contained pumping unit may be required.
- C. If the well is productive, rehabilitation plans are as follows:
- (1) The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after the well is completed).
 - (2) Caliche from unused portions of the drill pad will be removed. Topsoil removed from the drill site will be used to recontour the pit area and any unused portions of the drill pad to the original natural level, as nearly as possible, and reseeded as per BLM specifications.
- D. In the event that gas production is established, plans for permanent gas lines will be submitted to the appropriate agencies for ROW approval.

5. Location and Type of Water Supply:

The well will be drilled with a combination brine and fresh water mud system as outlined in the drilling program. The brine water will be obtained from commercial water stations in the area and hauled to the location by transport truck over the existing access roads shown in Exhibit #3. No water well will be drilled on this lease. The fresh water will be obtained by transport truck from a water station in the area or brought in by fas-line along existing road ROW's.

6. Source of Construction Materials:

Any additional caliche required for modification of the drill pad will be obtained from BLM - approved caliche pit as shown on Exhibit #3. All roads and pads will be constructed of 6" of rolled and compacted caliche.

7. Methods of Handling Water Disposal:

- A. Drill cuttings not retained for evaluation purposes will be disposed into the reserve pit.
- B. This well will utilize the reserve pit which was constructed when Geronimo Federal #4 was drilled. The reserve pit will contain any excess drilling fluid or flow from the well during drilling, cementing, and completion operations. The reserve pit will be an earthen pit, approximately 125' x 100' x 6' deep and fenced on three sides prior to drilling. It will be fenced on the fourth side immediately following rig removal. The reserve pit will be plastic-lined (5-7 mil thickness) to minimize loss of drilling fluids and saturation of the ground with the brine water.
- C. Water produced from the well during completion may be disposed into the reserve pit or a steel tank (depending on the rates). After the well is permanently placed on production, produced water will be collected in tanks (fiberglass or steel) until hauled by transport to an approved disposal system; produced oil will be collected in steel tanks until sold.
- D. A portable chemical toilet will be provided on the location for human waste during the drilling and completion operations.
- E. Garbage and trash produced during drilling or completion operations will be contained in a trash bin to prevent scattering by the wind. All water and fluids will be disposed of into the reserve pit. Salts and other chemicals produced during drilling or testing will be disposed into the reserve pit. No toxic waste or hazardous chemicals will be produced by this operation.

- F. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned-up within 30 days. No adverse materials will be left on the location. The reserve pit will be completely fenced and kept closed until it has dried. When the reserve pit is dry enough to breakout and fill and, as weather permits, the unused portion of the well site will be leveled and reseeded as per BLM specifications. Only that part of the pad required for production facilities will be kept in use. In the event of a dry hole, only a dry hole marker will remain.

8. Ancillary Facilities:

No airstrip, campsite, or other facilities will be built as a result of the operations on this well.

9. Well Site Layout:

- A. The drill pad layout, the elevations staked by Jacquess Engineers, is shown in Exhibit #5. Dimensions of the pad and pits and location of major rig components are shown.
- B. Exhibit #5 shows the planned orientation for the rig and associated drilling equipment, reserve pit, trash pit, pipe racks, turn-around and parking areas, and access road. No permanent living facilities are planned but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.
- C. The reserve pit remaining from the Geronimo Federal #5 is lined with a high-quality plastic sheeting (5-7 mil thickness).

10. Plans for Restoration of the Surface:

- A. Upon completion of the proposed operations, if the well is to be abandoned, the caliche will be removed from the location and road and returned to the pit from which it was taken. The pit area, after allowing to dry, will be broken out and leveled. The original top soil will be returned to the entire location which will be leveled and contoured to as nearly the original topography as possible. All trash, garbage and pit lining will be buried or hauled away in order to leave the location in an aesthetically pleasing condition. All pits will be filled and the location leveled within 120 days after abandonment.

- B. The distributed area will be revegetated by reseeding during the proper growing season with a seed mixture of native grasses as recommended by the BLM.
- C. Three sides of the reserve pit will be fenced prior to and during drilling operations. At the time that the rig is removed, the reserve pit will be fenced on the rig (fourth) side and netted to prevent livestock or wildlife from being entrapped. The fencing will remain in place until the pit area is cleaned-up and leveled. No oil will be left on the surface of the fluid in the pit.
- D. Upon completion of the proposed operations, if the well is completed, the reserve pit area will be treated as outlined above within the same prescribed time. The caliche from any area of the original drillsite not needed for production operations or facilities will be removed and used for construction of thicker pads or firewalls for the tank battery installation. Any additional caliche required for facilities will be obtained from the BLM - approved caliche pit shown in Exhibit #3. Topsoil removed from the drill site will be used to recontour the pit area and any unused portions of the drill pad to the original natural level and reseeded as per BLM specifications.

11. Surface Ownership:

The well site and lease is located entirely on Federal surface.

12. Other Information:

- A. The area around the well site is grassland and the top soil is sandy. The vegetation is native scrub grasses with abundant oakbrush, sagebrush, yucca, and prickly pear.
- B. There is no permanent or live water in the immediate area.
- C. There are no houses or other permanent structures within a one-mile radius of the well site.
- D. There is no evidence of any archaeological, historical, or cultural sites in the vicinity of the location (see Exhibit #7, Cultural Resources Examination conducted for Geronimo Federal #5).

13. Lessee's and Operator's Representative:

The Mitchell Energy Corporation representative responsible for assuring compliance with the surface use plan is as follows:

George W. Tullos
District Drilling Manager
Mitchell Energy Corp.
400 W. Illinois, Suite 1000
Midland, Texas 79701

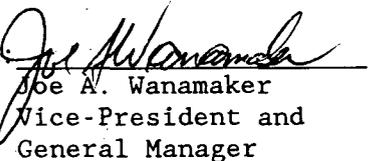
Phone: 915/682-5396 (office)
915/683-9747 (home)

Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Mitchell Energy Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date: February 18, 1992

Signed:


Joe A. Wanamaker
Vice-President and
General Manager

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

3,000 psi Working Pressure

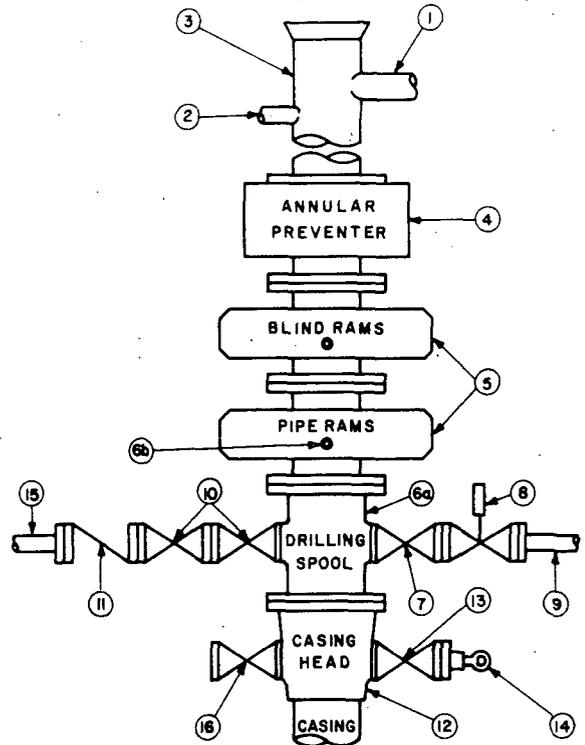
3 MWP

STACK REQUIREMENTS

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

OPTIONAL			
16	Flanged valve	1-13/16"	

EXHIBIT 1
Geronimo Federal # 10
Lea County, New Mexico
CONFIGURATION A



CONTRACTOR'S OPTION TO FURNISH:

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

MEC TO FURNISH:

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

GENERAL NOTES:

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

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

Attachment to Exhibit #1

NOTES REGARDING THE BLOWOUT PREVENTERS

Geronimo Federal No. 10

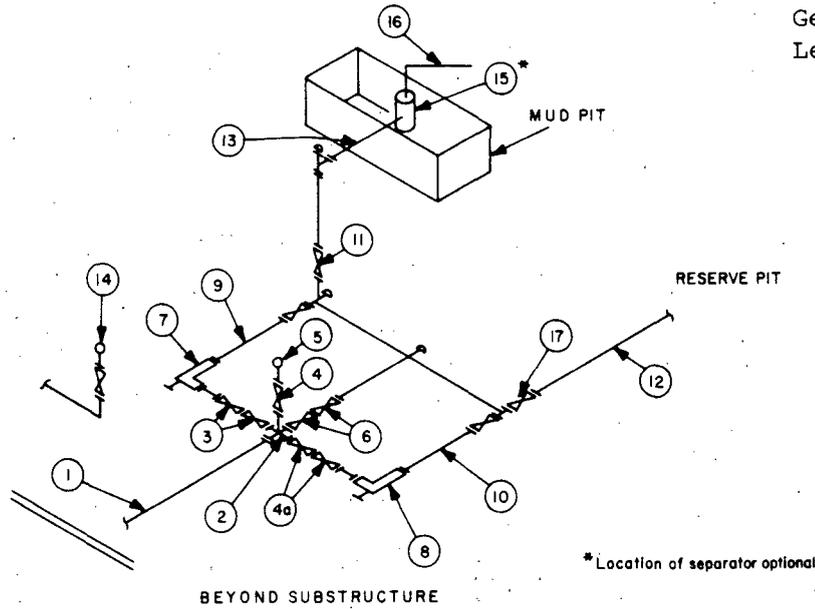
Lea County, New Mexico

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
2. Wear ring to be properly installed in head.
3. Blow out preventer and all fittings must be in good condition, 3000 psi W.P. minimum.
4. All fittings to be flanged.
5. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 3000 psi W.P. minimum.
6. All choke and fill lines to be securely anchored, especially ends of choke lines.
7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
8. Kelly cock on kelly.
9. Extension wrenches and hand wheels to be properly installed.
10. Blow out preventer control to be located as close to driller's position as feasible.
11. Blow out preventer closing equipment to include minimum 40 gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

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

3 MWP - 5 MWP - 10 MWP

EXHIBIT 1-A
 Geronimo Federal # 10
 Lea County, New Mexico



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" x 3" x 3" x 2"			3,000			5,000			
	Cross 3" x 3" x 3" x 3"									10,000
3	Valves(1) Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
4	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	1-13/16"		3,000	1-13/16"		5,000	1-13/16"		10,000
4a	Valves(1)	2-1/16"		3,000	2-1/16"		5,000	3-1/8"		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
7	Adjustable Choke(3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		3"	10,000
11	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
12	Lines		3"	1,000		3"	1,000		3"	2,000
13	Lines		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound standpipe pressure gauge			3,000			5,000			10,000
15	Gas Separator		2'x5'			2'x5'			2'x5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000

(1) Only one required in Class 3M.

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

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

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

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

Exhibit # 2
Geronimo Federal # 10
Lea County, New Mexico

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

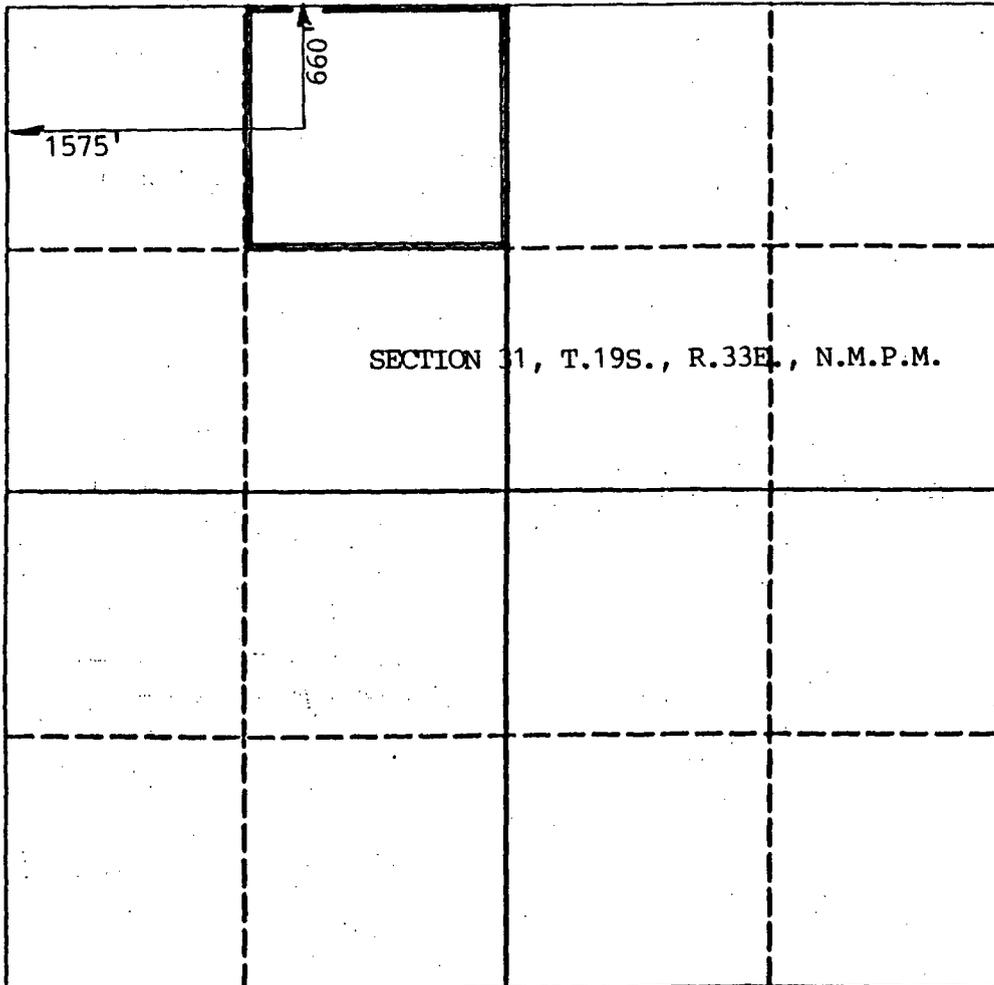
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator MITCHELL ENERGY Corporation			Lease GERONIMO FEDERAL			Well No. #10
Unit Letter C	Section 31	Township 19S.	Range 33E.	County NMPM	LEA	
Actual Footage Location of Well: 660 feet from the NORTH line and 1575 feet from the WEST line						
Ground level Elev. 3577	Producing Formation Yates-Seven Rivers		Pool Tonto, South (Yates-Seven Rivers)	Dedicated Acreage: 40 Acres		

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
 Yes No If answer is "yes" type of consolidation _____
 If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary).
 No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

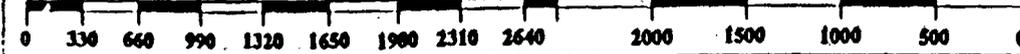
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: *George Mullen*
 Printed Name: **George Mullen**
 Position: **Reg. Affairs Specialist**
 Company: **Mitchell Energy Corp.**
 Date: **2-18-92**

SURVEYOR CERTIFICATION

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

Date Surveyed: **1/28/92**
 Signature & Seal of Professional Surveyor: *[Signature]*
 Certificate No. **6290**
 Seal: **JOHN J. ADUESS, NEW MEXICO, 6290, SURVEYOR, PROFESSIONAL ENGINEER**

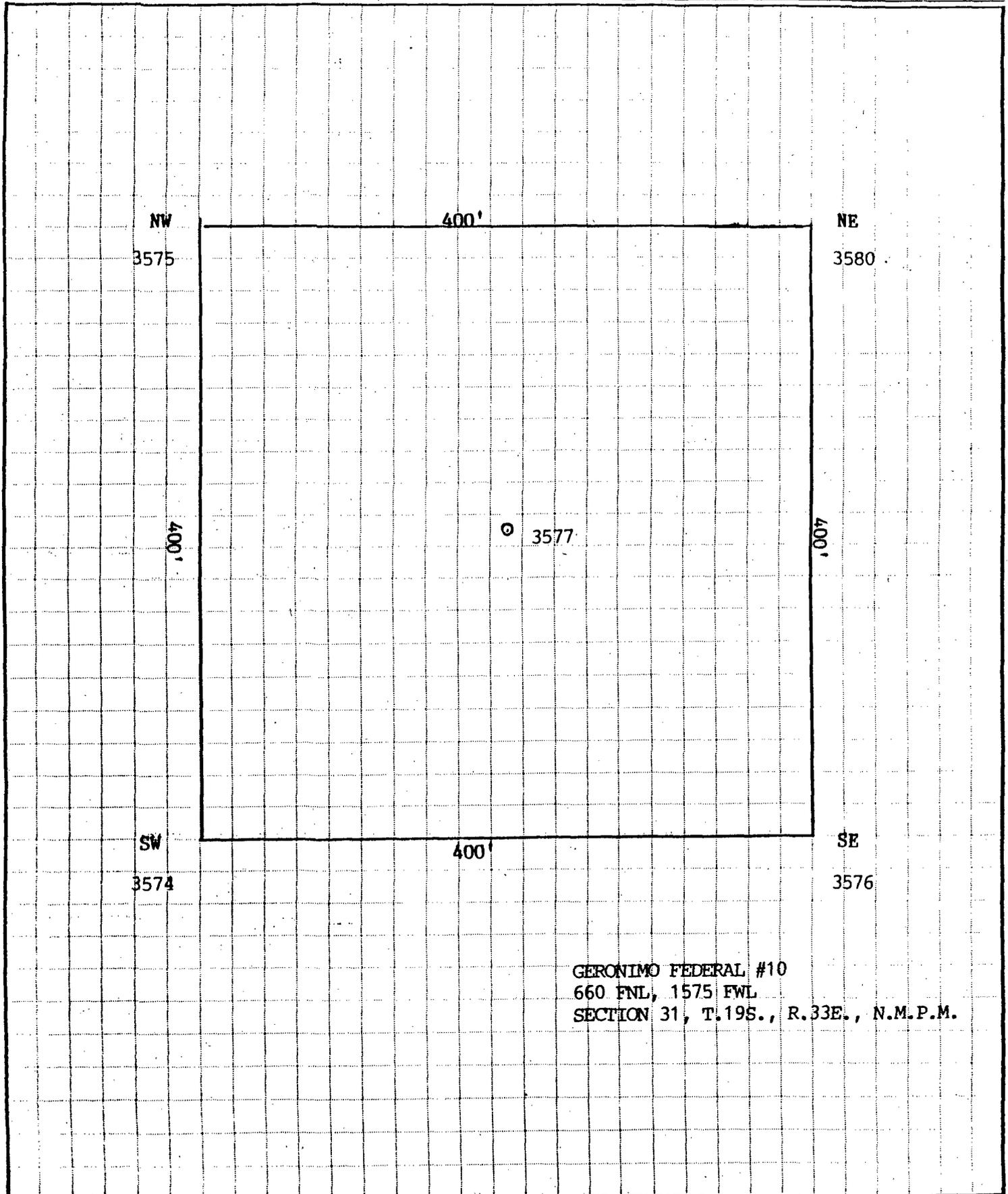


JOHN D. JAQUESS
CONSULTING ENGINEERS
P.O. Box 2565
ROSWELL, NEW MEXICO 88201
(505) 622-8866

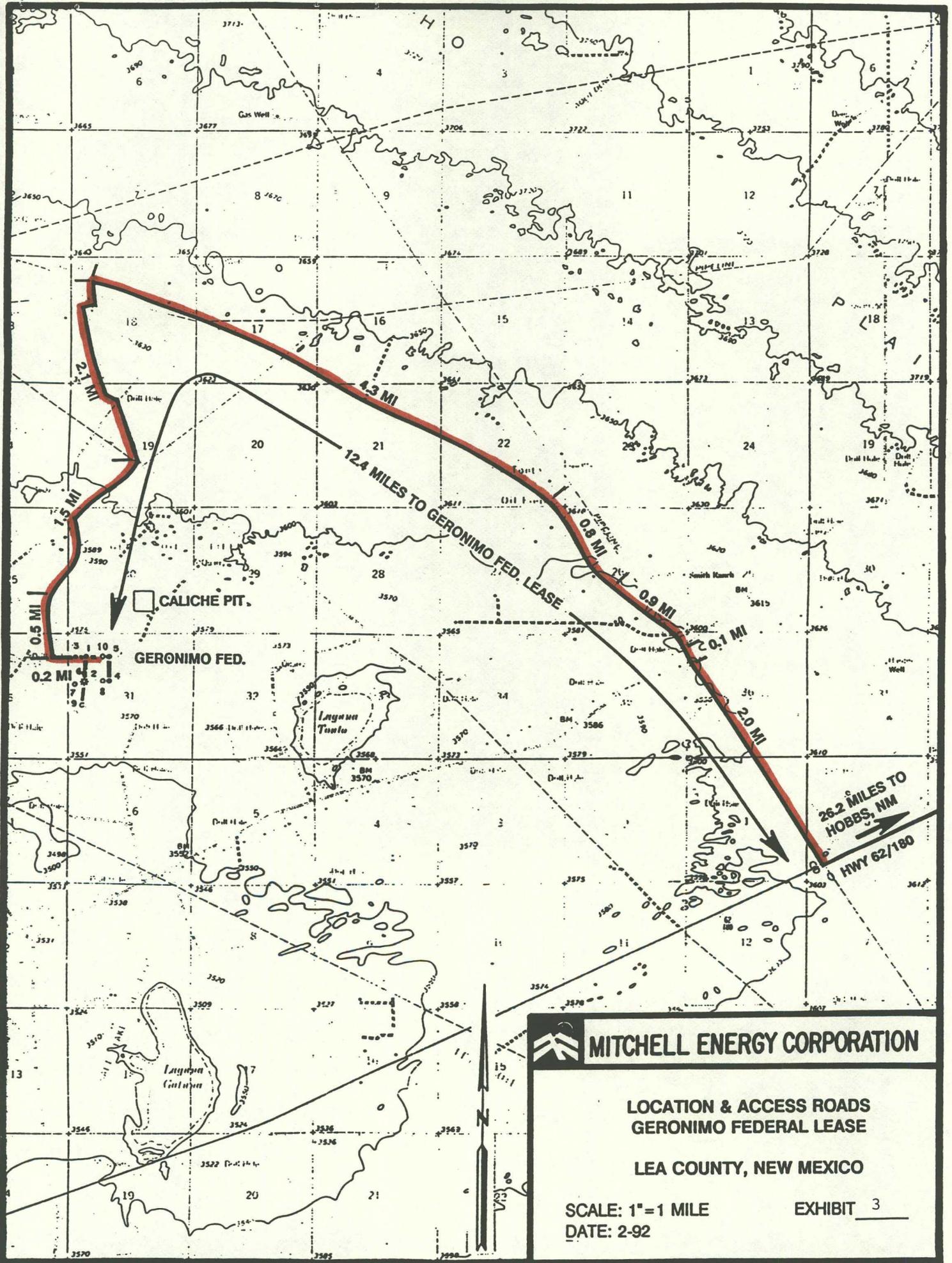
GRID ELEVATIONS

JOB _____
SHEET NO. _____ OF _____
CALCULATED BY _____ DATE _____
CHECKED BY _____ DATE _____
SCALE _____

Attachment to EXHIBIT # 2



GERONIMO FEDERAL #10
660 FNL, 1575 FWL
SECTION 31, T.19S., R.33E., N.M.P.M.



MITCHELL ENERGY CORPORATION

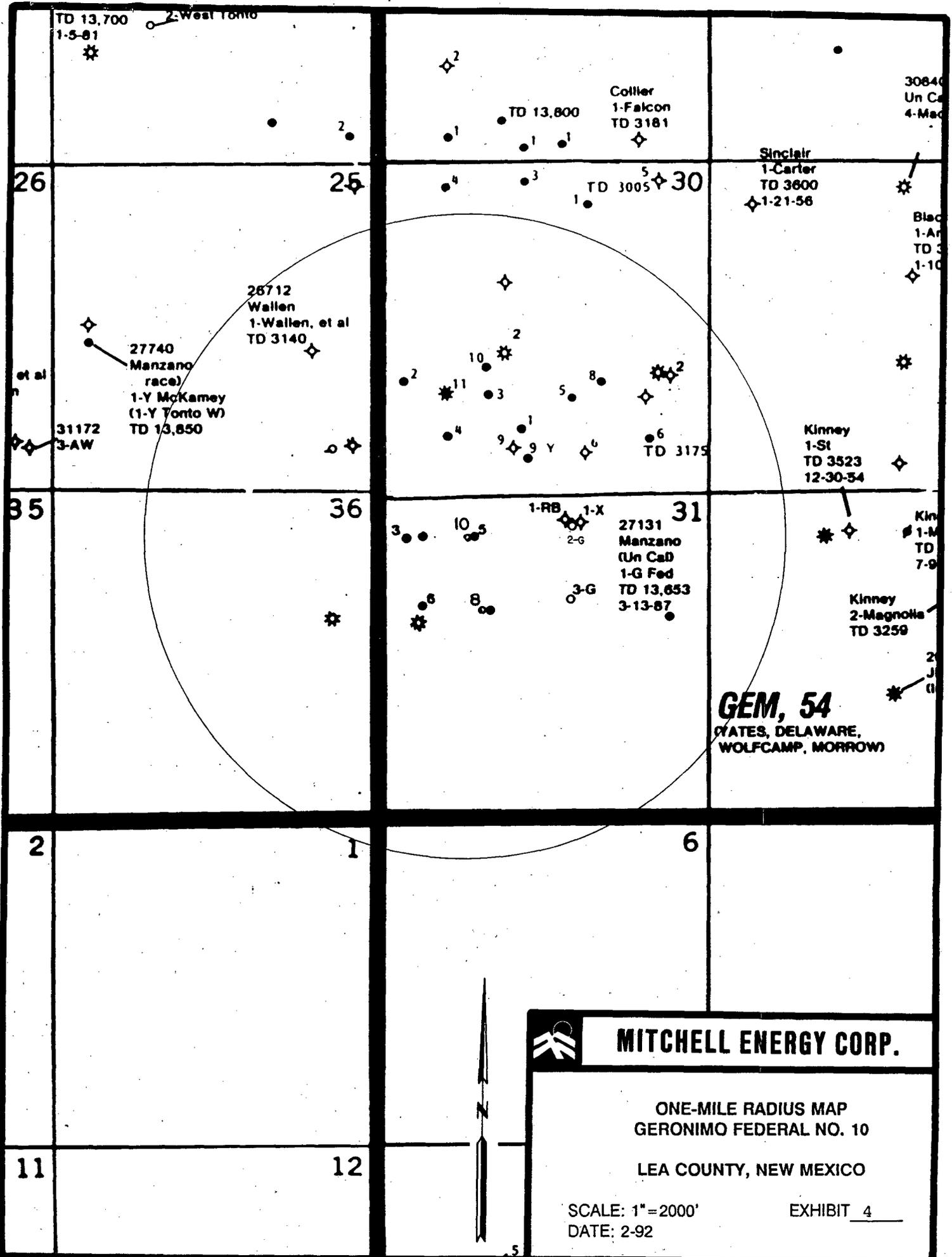
**LOCATION & ACCESS ROADS
GERONIMO FEDERAL LEASE**

LEA COUNTY, NEW MEXICO

SCALE: 1" = 1 MILE
DATE: 2-92

EXHIBIT 3

**26.2 MILES TO
HOBBS, NM**
→
HWY 62/180



TD 13,700
1-5-81
*
2-West Tonto

Collier
1-Falcon
TD 3181
◇

30840
Un Ca
4-Mad

26

25

TD 3005
◇ 30

Sinclair
1-Carter
TD 3600
◇ 1-21-56

Bla
1-A
TD 3
1-10
◇

26712
Wallen
1-Wallen, et al
TD 3140
◇

27740
Manzano
(race)
1-Y McKamey
(1-Y Tonto W)
TD 13,850

31172
3-AW
◇

TD 3175
◇

Kinney
1-St
TD 3523
12-30-54
◇

35

36

31

1-RB
1-X
2-G

27131
Manzano
(Un CaD)
1-G Fed
TD 13,653
3-13-87
◇

Kin
1-M
TD
7-9

Kinney
2-Magnolia
TD 3259

GEM, 54
STATES, DELAWARE,
WOLFCAMP, MORROW

2

1

6



 **MITCHELL ENERGY CORP.**

ONE-MILE RADIUS MAP
GERONIMO FEDERAL NO. 10

LEA COUNTY, NEW MEXICO

SCALE: 1"=2000'
DATE: 2-92

EXHIBIT 4

11

12

5

ATTACHMENT TO EXHIBIT #4

STATUS OF WELLS WITHIN ONE-MILE RADIUS

Geronimo Federal #10
 Sec. 31-T19S-R33E
 Lea County, New Mexico
 February 1992

Sec. 25-T19S-R32E

Cleary Pet. Corp	#1 Hi-Yo Silver Fed.	(660' FSL/330' FEL)	D&A
Wallen Prod. Co.	#1 Wallen Cleary	(2310' FSL/990' FEL)	D&A

Sec. 36-T19S-R32E

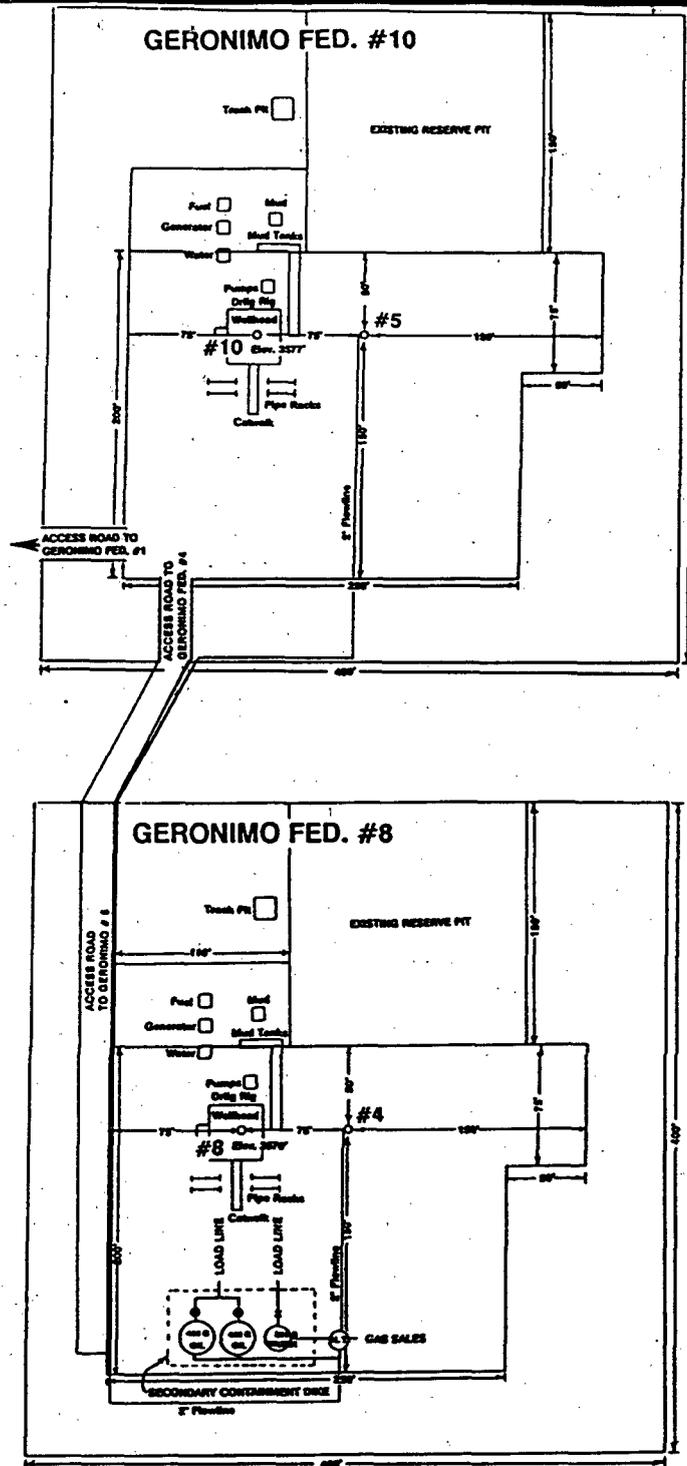
Union Oil	#1 State "HH"	(1980' FNL/660' FEL)	Morrow Gas Well
-----------	---------------	----------------------	-----------------

Sec. 30-T19S-R33E

Wallen Prod. Co.	#2 Wallen-Tonto	(1925' FSL/330' FWL)	Yates/7-Rivers Oil Well
Wallen Prod. Co.	#1 Wallen-Tonto	(990' FSL/2310' FWL)	Yates/7-Rivers Oil Well
Wallen Prod. Co.	#11 Wallen-Tonto	(1700' FSL/990' FWL)	Yates/7-Rivers Oil Well
Wallen Prod. Co.	#5 Wallen-Tonto	(1650' FSL/2310' FEL)	Yates/7-Rivers Oil Well
Wallen Prod. Co.	#10 Wallen-Tonto	(1980' FSL/1650' FWL)	Yates/7-Rivers Oil Well
Wallen Prod. Co.	#8 Wallen-Tonto	(1790' FSL/1710' FEL)	Yates/7-Rivers Oil Well
Wallen Prod. Co.	#9-Y Wallen-Tonto	(660' FSL/2300' FWL)	Yates/7-Rivers Oil Well
Wallen Prod. Co.	#6 Wallen-Tonto	(990' FSL/990' FEL)	Yates/7-Rivers Oil Well
Wallen Prod. Co.	#4 Wallen-Tonto	(990' FSL/990' FWL)	Yates/7-Rivers Oil Well
Wallen Prod. Co.	#3 Wallen-Tonto	(1650' FSL/1650' FWL)	Yates/7-Rivers Oil Well
Wallen Prod. Co.	#7 Wallen-Tonto	(1650' FSL/990' FEL)	D&A
Hudson	#6 Signal Ross Fed.	(660' FSL/1980' FEL)	D&A
Hudson	#2 Signal Ross Fed.	(1980' FNL/2004' FWL)	D&A
Sinclair O&G	#2 Carter Fed.	(1980' FSL/660' FEL)	D&A
Kaiser-Francis	#1 Fed. "30"	(1980' FSL/760' FEL)	Morrow Gas Well
Kaiser-Francis	#2 Fed. "30"	(2310' FSL/1980' FWL)	Morrow Gas Well

Sec. 31-T19S-R33E

Trigg	#1 "RB" Fed.	(330' FNL/2310' FEL)	J&A
Trigg	#1X "RB" Fed.	(335' FNL/2223' FEL)	D&A
Manzano	#1 Fed. "31-G"	(1980' FNL/660' FEL)	Bone Spring Oil Well
Mitchell Energy	#1 Geronimo Fed.	(660' FNL/660' FWL)	Delaware Oil Well
Mitchell Energy	#2 Geronimo Fed.	(1980' FNL/660' FWL)	Morrow Gas Well
Mitchell Energy	#3 Geronimo Fed.	(660' FNL/585' FWL)	Yates/7-Rivers Oil Well
Mitchell Energy	#4 Geronimo Fed.	(1980' FNL/1980' FWL)	Bone Spring Oil Well
Mitchell Energy	#5 Geronimo Fed.	(660' FNL/1650' FWL)	Bone Spring Oil Well
Mitchell Energy	#6 Geronimo Fed.	(1725' FNL/660' FWL)	Delaware Oil Well



MITCHELL ENERGY CORP.

**DRILLING RIG LAYOUT AND ELEVATIONS
GERONIMO FEDERAL NO. 8 & 10**

LEA COUNTY, NEW MEXICO

SCALE: 1"=60'
DATE: 2-92

EXHIBIT 6

Exhibit # 7
Geronimo Federal # 10
Lea County, New Mexico

ARCHAEOLOGICAL SURVEY CONSULTANTS
P.O. Drawer D
Roswell, New Mexico 88202
Phone: 505-623-5012

RECEIVED

JUN 05 1991

Geronimo Fed. Well
5 & Access Road
REGULATORY AFFAIRS
ASC Job 91-83

Date: 5/28/1991

George Tullas
Mitchell Energy Corporation
400 West Illinois St., Suite 1000
Midland, Texas 79701

Dear George:

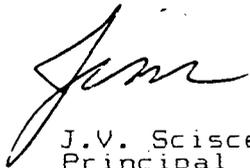
Enclosed please find ASC Report 91-83, covering the archaeological survey of the Geronimo Federal Well No. 5 and access road R/W.

An archaeological site occurred in the initially staked location at 660 FNL, 1980 FWL; movement of the location to 660 FNL, 1650 FWL has avoided the site. Therefore, we have recommended archaeological clearance for the well pad and access road R/W. Copies of the report have been distributed as per the list on the title page, and you need not concern yourself with distribution to those agencies.

Also enclosed please find ASC Invoice 91-83, for performance of the survey.

We are pleased to have been of service with this project, and hope to assist you in the future. Should you have questions concerning the project, please call our office.

Sincerely,



J.V. Sciscenti
Principal Investigator

enclosure: report (1); invoice (1)

cc: ASC File 91-83 (1)

ARCHAEOLOGICAL SURVEY of the MITCHELL ENERGY CORPORATION
GERONIMO FEDERAL WELL NO. 5 & ACCESS ROAD R/W
T19S, R33E, SECTION 31, NE $\frac{1}{4}$ NW $\frac{1}{4}$
[660 FNL, 1650 FWL]. LEA COUNTY, NEW MEXICO

FEDERAL LAND SURFACE [USGS 7.5', LAGUNA GATUNA, N.M., 1984]

ASC Report 91-83

by Dorothy M. Griffiths, Project Archaeologist
and James V. Sciscenti, Principal Investigator

ARCHAEOLOGICAL SURVEY CONSULTANTS
P.O. Drawer D, Roswell, New Mexico 88202
[505] 623-5012

PERMIT NO.: 18-2920-90-E

May 25, 1991

Prepared for:

Mitchell Energy Corporation
400 West Illinois St., Suite 1000
Midland, Texas 79701

Attention: George Tullas

Distribution:

~~Mitchell Energy Corporation (1)~~
BLM - Carlsbad Resource Area (2)
New Mexico SHPD (1)
Griffiths (1)

on lands administered by the
Department of the Interior
Bureau of Land Management
Roswell District, New Mexico

ASC PERMIT NO.: 18-2920-90-E
ASC JOB NO.: 91-83; Mitchell
Energy Corp. Geronimo Federal
Well No. 5 & Access Road R/W

1. ABSTRACT: intensive archaeological survey of the Mitchell Energy Corporation Geronimo Federal Well No. 5 (730 ft. EW x 400 ft. NS, 6.7 acres) and access road R/W (590 ft. long X 100 ft. wide, 1.36 acres), with a total federal land surface of 8.06 acres inspected for cultural remains.

The well pad was originally staked at 660 FNL, 1980 FWL; archaeological survey of the originally staked location revealed the occurrence of a BLM Category 2, temporary camp locale, Type 2C (ASC Site 91-83-S1), consisting of artifact material exposed in 10 or more deflation basins situated on several adjacent dune rises within the eastern part of the proposed well pad (n.b.: some unknown remains of the site were originally noted as "I.M. # 2" during survey of an EW pipeline by P.A.C.; BLM Project 90-553).

The cultural material included a carbon stain, in association with a burnt caliche concentration; the possibility of buried cultural material exists. Since the site appears to be eligible according to National Register criteria, the well centre was moved 330 ft. west, thus avoiding ASC Site 91-83-S1 (see site map attached to the ARMS Site Form).

Archaeological survey of the final location of the Geronimo Federal Well No. 5 and access road R/W did not reveal any cultural material. Therefore, archaeological CLEARANCE for the Mitchell Energy Corporation Geronimo Federal Well No. 5 and access road R/W is RECOMMENDED.

2. WELL PAD LOCATION: T19S, R33E, Section 31, NE¼NW¼ (660 FNL, 1650 FWL). **ACCESS ROAD R/W LOCATION:** T19S, R33E, Section 31: NE¼NW¼; NW¼NW¼. Lea County, New Mexico.

Map Reference: U.S.G.S. 7.5 minute series, LAGUNA GATUNA, NEW MEXICO, 1984. **Land Status:** BLM, Roswell District, Carlsbad Resource Area, New Mexico.

3. PROJECT DESCRIPTION: (730 ft. EW x 400 ft. NS, 6.7 acres) and access road R/W (590 ft. long X 100 ft. wide, 1.36 acres), with a total federal land surface of 8.06 acres inspected for cultural remains.

TOPOGRAPHY: the proposed project is on the Mescalero Pediment, Querecho Plains, ca. 2.4 miles northeast of Laguna Plata, straddling 2 soil zones (see below); the eastern 200 ft. of the well pad (original location) is within localized dune rise terrain associated with Pyote soils - Duneland complex; elongate, relatively deep deflation basins occur in the rises, with undulating terrain separating the rises. The Berino-Cacique fine sands area is marked by slightly inclined, relatively level to slightly undulating terrain with shallow, aeolian topography. Minor dune rises occur in the NE and NW quadrants of the re-located well pad. Shallow deflation basins occur in the Berino-Cacique soil area. **Soils:** interface of Berino-Cacique loamy fine sands & Pyote soils-Duneland sands. **Permanent Water:** Laguna Plata, ca. 2.39 miles SW. **Potential Water:** Laguna Tonto, ca. 1.57 miles ESE. **Elevation:** 3571 ft. to 3581 ft. **Slope:** 0.5° to 0.7°. **Aspect:** W/SW. **Lithic Resources:** not available in the immediate project vicinity. **Vegetation:** Grassland Formation, scrub-grass scrub disclimax community.

4. EXAMINATION PROCEDURE: straight and zig-zag transects, spaced no further than 15 metres apart, with inspection of all deflation basins; dogleash transects in the vicinity of cultural material. **Work Hours on ground:** 5.5. **Area Delineation:** staked by client representative. **Visibility:** ground, ca. 65%, with 100% in deflation basins; weather, sunny.

5. FINDINGS: BLM records [Ruebelmann, 4/26/1991] indicate the recording of NM-06-4906 in Section 31 (T19S, R33E); the site will not be endangered by construction activity.

The well pad was originally staked at 660 FNL, 1980 FWL; archaeological survey of the originally staked location revealed the occurrence of a BLM Category 2, temporary camp locale, Type 2C (ASC Site 91-83-S1), consisting of artifact material exposed in 10 or more deflation basins situated on several adjacent dune rises within the eastern part of the proposed well pad (n.b.: remains of the site were originally noted as "I.M. # 2" during survey of an EW pipeline by P.A.C.; BLM Project 90-553).

The cultural material included a carbon stain, in association with a burnt caliche concentration; the possibility of buried cultural material exists. Since the site appears to be eligible according to National Register criteria, the well centre was moved 330 ft. west, thus avoiding ASC Site 91-83-S1 (see site map attached to the ARMS Site Form).

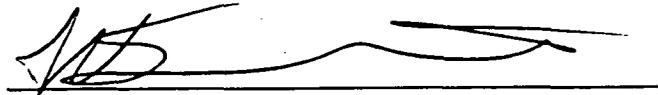
Further data occur in the attached ARMS form, relevant maps and tables.

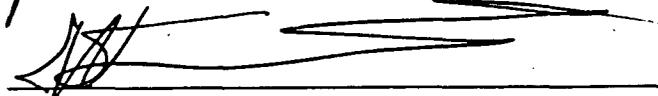
Archaeological survey of the final location of the Geronimo Federal Well No. 5 and access road R/W did not reveal any cultural material.

6. RECOMMENDATIONS: since ASC Site 91-83-S1 has been avoided by movement of the proposed well pad, archaeological CLEARANCE for the Mitchell Energy Corporation Geronimo Federal Well No. 5 and access road R/W is RECOMMENDED without any proviso.

Date of Examination: May 2 & 8, 1991

Project Archaeologist: D.M. Griffiths.



Principal Investigator: 

Certificate of Service

I hereby certify that a true and correct copy of Mitchell Energy Corporation's Application for an Unorthodox Well Location, for its Geronimo Federal No. 10 well, was sent to Wallen Production Company by certified mail on February 26, 1992.

A handwritten signature in cursive script that reads "George Mullen". The signature is written in black ink and is positioned above a horizontal line.

George Mullen
Regulatory Affairs Specialist

February 13, 1992

Wallen Production Company
1310 W. Illinois Street
Midland, Texas 79702

RE: Unorthodox Well Location
Geronimo Federal Well No. 10
Lea County, New Mexico

Gentlemen:

This is to advise that Mitchell Energy Corporation is requesting an exception to the Oil Conservation Division's Rule 104C.1 for the above subject well. Enclosed is a plat indicating the location of our Geronimo Federal Well No. 10 as follows:



660' FNL and 1575' FWL of Section 31, T19S, R33E, Lea County, New Mexico

If you, as an offsetting operator, have no objections to the above request, please indicate by signing in the space provided below and return two copies of this letter to the undersigned in the enclosed self-addressed envelope. The third copy is for your file completion.

Thank you in advance for your prompt attention to this matter and if I can be of any further help, kindly advise.

Very truly yours,

MITCHELL ENERGY CORPORATION

George Mullen

George Mullen
Regulatory Affairs Specialist

GM/lgb
Lea.gm
Enc.

Company: Wallen Prod Co

By: Kalter W. Kemp

Title: Engineer - Owner

Date: 2/26/92



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

RECEIVED

MAR 9 AM 10 18

3-3-92

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

NSL-3102

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

RE: Proposed:

- MC _____
- DHC _____
- NSL _____
- NSP _____
- SWD _____
- WFX _____
- PMX _____

Gentlemen:

I have examined the application for the:

Mitchell Energy Corp. Geronimo Federal #10-C 31-19-33
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OK

Yours very truly,

Jerry Sexton
Jerry Sexton
Supervisor, District 1

/ed