

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEYC/SF
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

William B. Barnhill

(Ph. 505-623-2733)

3. ADDRESS OF OPERATOR

P. O. Box 1354, Roswell, New Mexico 88201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

660' FSL & 660' FWL of Sec. 35-19S-25E

At proposed prod. zone

same

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

16 air miles south of Artesia, New Mexico

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

280

17. NO. OF ACRES ASSIGNED
TO THIS WELL

320

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

N.A.

19. PROPOSED DEPTH

10,000' Morrow

20. ROTARY OR CABLE TOOLS

Rotary

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

3500' G.L.

22. APPROX. DATE WORK WILL START*

4-27-82

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48.0#	350'	Sufficient to circulate
12 1/4"	8 5/8"	24.0#	1400'	Sufficient to circulate
7 7/8"	4 1/2"	11.6#	TD	250 sacks

Producing zone will be perforated and stimulated as necessary.

Attached are: 1. Well Location & Acreage Dedication Plat
2. Supplemental Drilling Data
3. Surface Use PlanOil & Gas Lease NM-15291-A is due to expire on 4-30-82. S $\frac{1}{2}$ of Sec. 35-19S-25E is being communitized and operator plans to be drilling this well over 4-30-82.

Gas is not dedicated.

Unorthodox location approved by Order R-6948

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.

SIGNED	<i>James A. Knaut</i>	TITLE	Agent	DATE	3-29-82
(This space for Federal or State office use)					
V. G. S. GEORGE H. STEWART					
PERMIT NO.	APR 27 1982	APPROVAL DATE			
FOR					
APPROVED BY	JAMES A. GILLHAM	TITLE		DATE	
CONDITIONS OF APPROVAL OF ASST. DISTRICT SUPERVISOR					

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-122
Supersedes C-122
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

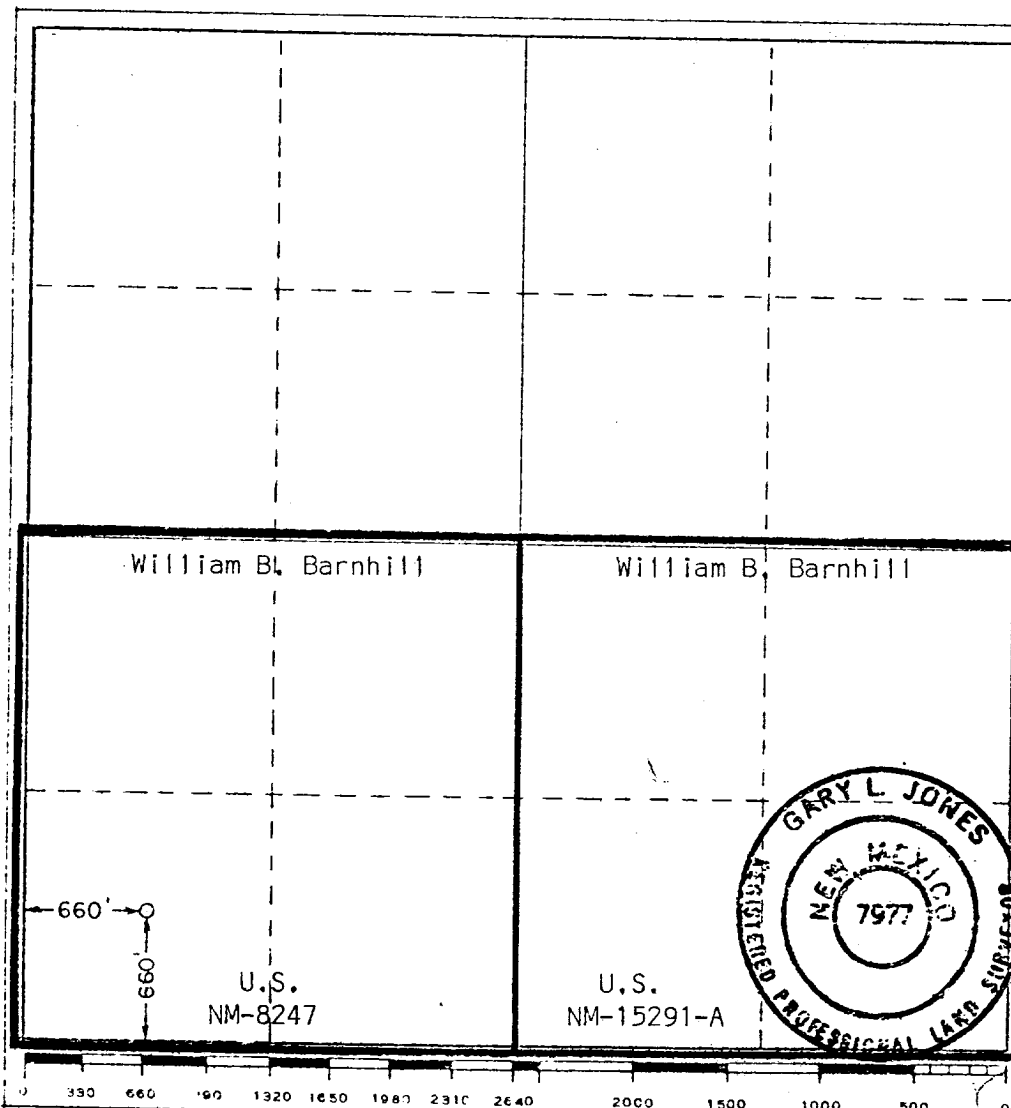
Operator WILLIAM B. BARNHILL		Lease Gulf Federal Com		Well No. 1	
Section 35	Township 12 South	Range 25 East	County Lddy		
Actual Acreage Dedicated to Well:					
660	feet from the West	660	feet from the South	Line	
3492.5	Containing Morrow	Undesignated	Morrow	Dedicated Acreage 320	

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

☒ Yes ☐ No If answer is "yes," type of consolidation Communitization Agreement is being processed.

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 interests, has been approved by the Commission.



CERTIFICATION

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

James A. Knauft
Name
James A. Knauft

Position
Agent

Company
William B. Barnhill

Date
March 29, 1982

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
March 24, 1982

Registered Professional Engineer and/or Land Surveyor

Gary L. Jones
Certificate No.

7977

RECEIVED

APR 28 1982

O. C. D.
ARTESIA, OFFICE

SUPPLEMENTAL DRILLING DATA

WILLIAM B. BARNHILL
WELL #1 GULF FEDERAL COM
SW $\frac{1}{4}$ SW $\frac{1}{4}$ SEC. 35-19S-25E
EDDY COUNTY, NEW MEXICO

1. SURFACE FORMATION: Permian (Queen Formation).

2. ESTIMATED TOPS OF GEOLOGIC MARKERS:

San Andres	900'	Canyon	8250'
Glorietta	2450'	Strawn	8580'
Wolfcamp	6620'	Atoka	8950'
Cisco	7850'	Morrow	9350'
		Chester	9650'

3. ANTICIPATED POROSITY ZONES:

Water:	900 - 1050'
Oil:	San Andres, Cisco
Gas:	Atoka, Morrow

4. CASING DESIGN:

<u>Size</u>	<u>Interval</u>	<u>Weight</u>	<u>Grade</u>	<u>Joint</u>	<u>Condition</u>
13 3/8"	0 - 350'	48.0#	J-55	STC	New
8 5/8"	0 - 1400'	24.0#	J-55	STC	New
4 1/2"	0 - 1400'	11.6#	N-80	LTC	New
	1400 - 8600'	11.6#	J-55	STC	New
	8600 - TD	11.6#	N-80	LTC	New

5. SURFACE CONTROL EQUIPMENT: One annular and two ram-type preventers (900 Series). BOP Sketch attached.

6. DRILLING FLUID:

- 0 - 350' Fresh water.
- 350 - 8500' Fresh water with gel or lime as necessary for viscosity.
- 8500 - TD Salt water conditioned as necessary for control of viscosity and water loss.

7. AUXILIARY EQUIPMENT: Drill string safety valve.

8. TESTING, LOGGING AND CORING PROGRAMS:

- DST's: As warranted.
- Coring: None planned.
- Logging: A Compensated Neutron/Formation Density Log w/Gamma Ray and a Dual Laterolog/Micro-Spherically Focused Log.

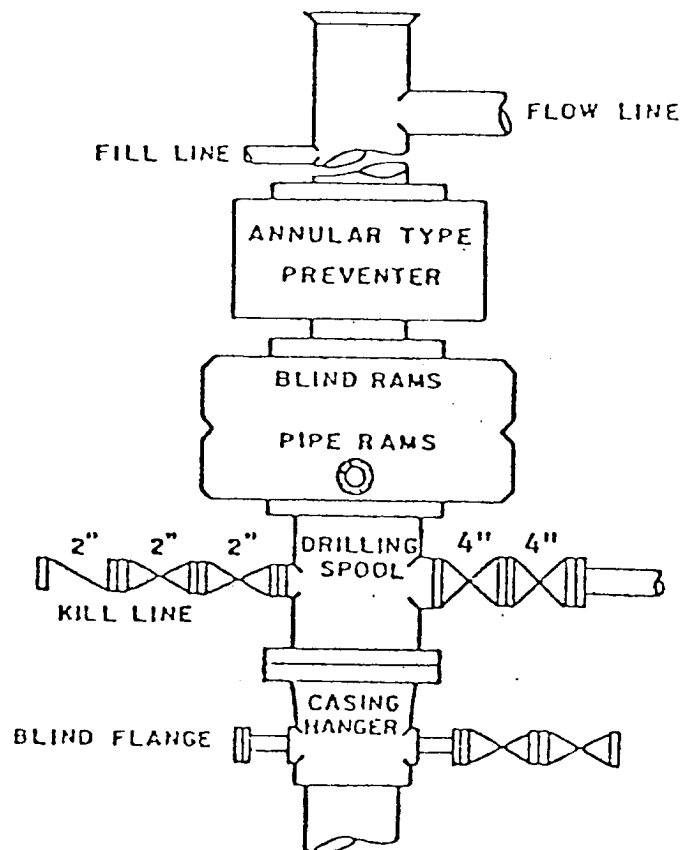
9. ABNORMAL PRESSURES, TEMPERATURES OR GASES: None anticipated.

10. ANTICIPATED DATES:

- Road and pad construction: 4-24-82
- Spud well: 4-27-82
- Duration of drilling & testing: 35 - 65 days.

BLOWOUT PREVENTER SKETCH

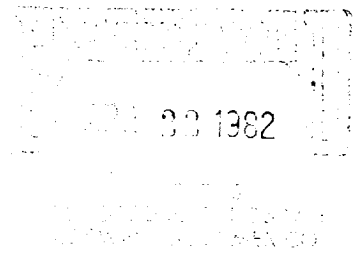
William B. Barnhill
Well #1 Gulf Federal Com
SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 35-19S-25E



SURFACE USE PLAN

FOR

DRILLING, COMPLETING AND PRODUCING



WILLIAM B. BARNHILL
WELL #1 GULF FEDERAL COM
660' FSL & 660' FWL SEC. 35-19S-25E
EDDY COUNTY, NEW MEXICO

LOCATED: 16 air miles south of Artesia, New Mexico

FEDERAL LEASE NUMBER: NM-8247

LEASE ISSUED: 12-1-68 for a primary term of 10 years and is
in its extended term by communitized production.

RECORD LESSEE: Gulf Oil Corporation

OPERATOR'S AUTHORITY: Designation of Operator from lessee
(to be furnished later)

BOND COVERAGE: Lessee's \$150,000 nation-wide bond

ACRES IN LEASE: 280

SURFACE OWNER: U. S. Government with grazing permit issued to
Ernest McGonagill
P. O. Box 184, Lakewood, New Mexico 88254

POOL: Undesignated Morrow

WELL SPACING: 320-acre

EXHIBITS:

- A. Area Road Map
- B. Topographic Map
- C. Oil & Gas Lease Map
- D. Sketch of Well Pad

ROAD LOG TO PROPOSED DRILLSITE

STARTING POINT is 15 miles south of Artesia, New Mexico at the intersection of County Road E-23 with Federal Highway US-285. This intersection is at Mile Post 53.72 and is just south of the electric substation.

- 0.00 Turn west on E-23 and proceed in a westerly direction for a distance of 3.01 miles.
- 3.01 Turn left (south) on an all-weather oilfield road and proceed in a southerly direction for a distance of 0.89 mile.
- 3.90 New road will start at this point. Turn left (east) and go 0.03 mile to the southwest corner of the proposed well pad.
- 3.93 DRILLSITE (Well #1 Gulf Federal Com)

THIRTEEN POINT PROGRAM

- 1. EXISTING ROADS: Existing roads, which lead to the proposed drillsite, are shown on Exhibits "A" & "B".
- 2. PROPOSED NEW ROAD: Proposed new access road will be 0.03 mile in length. Exhibit "B" shows proposed route which will originate at mileage-3.90 on the road log and will terminate at the southwest corner of the proposed drill pad. The center of the proposed new road has been staked and flagged.
 - A. Width: 15 feet with 24-foot R-O-W.
 - B. Surfacing Material: The new road will be surfaced with caliche.
 - C. Maximum Grade: Less than one percent.
 - D. Turnouts: None necessary.
 - E. Road Design: New road will be constructed by grading R-O-W and surfacing driving area with 6-7" of caliche.
 - F. Culverts: None necessary.
 - G. Gates, Cattleguards: None necessary.
- 3. LOCATION OF EXISTING WELLS: Existing wells in the vicinity of the proposed drillsite are shown on Exhibit "C".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. This is the first well to be drilled on the lease and there are no production facilities on the leasehold.
- B. If the well is productive, production and storage facilities will be located on the well pad.

5. LOCATION AND TYPE OF WATER SUPPLY: It is not planned to drill a water supply well. Water for leasehold operations will be purchased from a commercial water hauler.

6. SOURCE OF CONSTRUCTION MATERIALS: Material for construction of the proposed new road and well pad will be obtained from an existing Federal pit located in the NW-NW 35-19S-25E.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
- C. Water produced during tests will be disposed of in the drilling pits.
- D. Oil produced during tests will be produced into temporary test tanks.
- E. Trash, waste paper, garbage, and junk will be buried in a trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind. Location of the trash pit is shown on Exhibit "D".
- F. All trash and debris will be buried or removed from the wellsite within 30 days after finishing each drilling and/or completion operation.

8. ANCILLARY FACILITIES: None anticipated.

9. WELLSITE LAYOUT:

- A. The wellsite has been surveyed and a 400' x 400' area has been staked and flagged.
- B. The dimensions and relative location of the drill pad, mud pit, and trash pit with respect to the well bore are shown on Exhibit "D".

- C. Except for a 3-4' cut in the northwest corner, the location is nearly level.
- D. The well pad will be surfaced with caliche.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. After abandonment, all equipment, trash and junk will be removed and the location cleaned. Any special rehabilitation and/or special revegetation requirements of the Bureau of Land Management will be complied with and accomplished as expeditiously as possible.

11. OTHER INFORMATION:

- A. Topography: The surface of the location slopes from the northwest. See Exhibit "B". Regional slope is to the southeast toward the Pecos River.
- B. Soil: Top soil at the wellsite is silty clay loam.
- C. Land Type & Use: The vicinity surrounding the drillsite is semi-arid rangeland and its primary use is for grazing.
- D. Flora: Vegetative cover is sparse. Flora consists primarily of greasewood, broomweed and range grasses.
- E. Fauna: No wildlife was observed, however fauna for this type of habitat normally consists of rabbits, rodents, coyotes, skunks, lizards, snakes, quail, dove, and other small birds.
- F. Ponds & Streams: Middle Seven Rivers Fork is approximately $1\frac{1}{2}$ miles to the south.
- G. Water Wells: Nearest water well is $\frac{3}{8}$ mile to the northwest.
- H. Residences & Other Structures: Nearest occupied dwelling is $1\frac{1}{2}$ miles to the north.
- I. Archaeological, Historical & Cultural Sites: New Mexico Archaeological Services, Inc. of Carlsbad, New Mexico has made a survey of the proposed drillsite and new road areas and has recommended that the proposed construction work be approved.

12. OPERATOR'S REPRESENTATIVE: Representative responsible for assuring compliance with the approved Surface Use Plan:

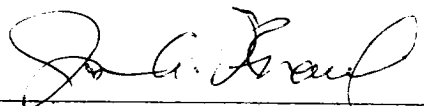
William A. McAlpine, Jr.
P. O. Box 1136
Roswell, New Mexico 88201
Phone 623-2733

13. 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 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 WILLIAM B. BARNHILL and his sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

March 29, 1982

Date



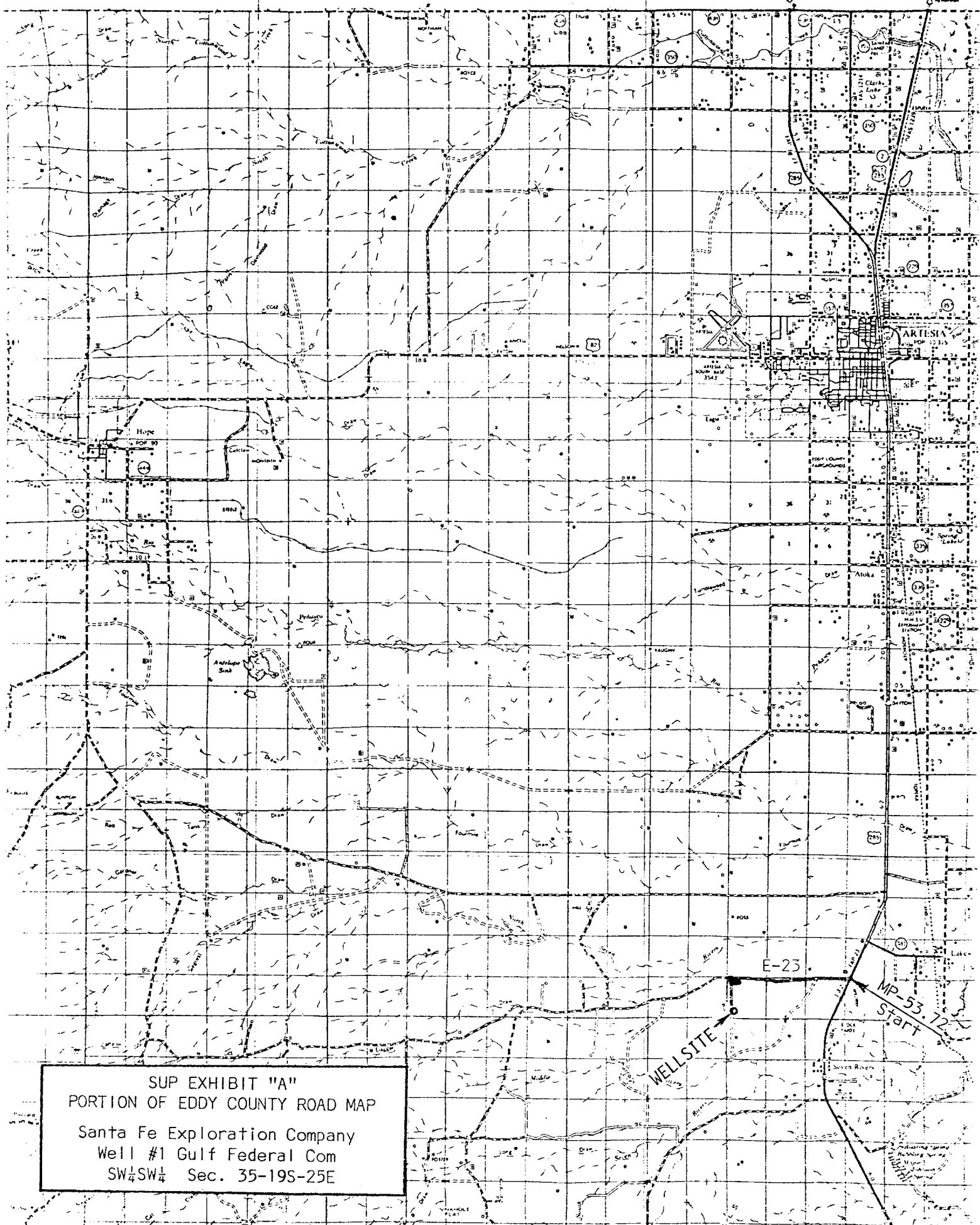
James A. Knauf, Agent

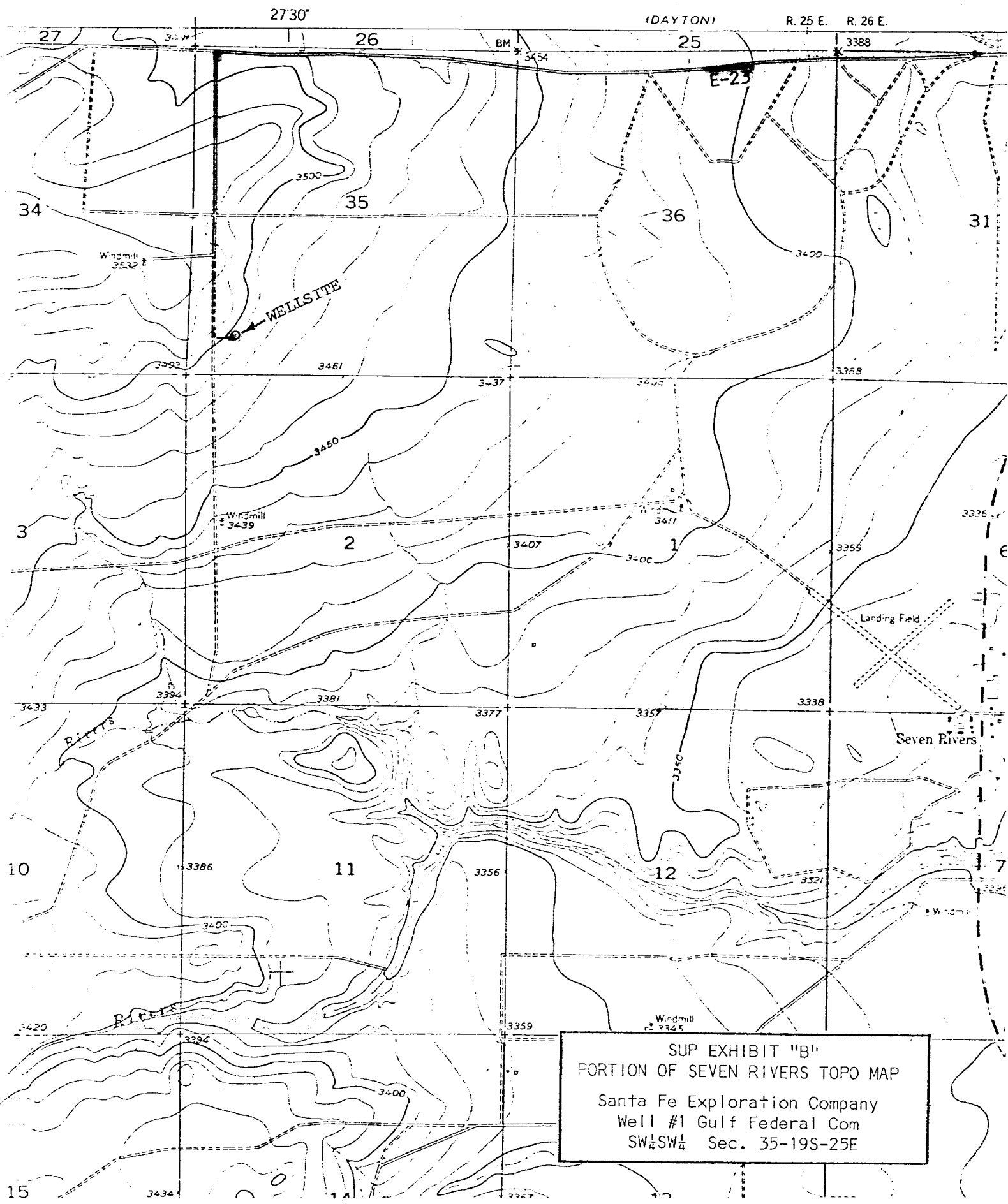
R.23 E.

R.24 E.

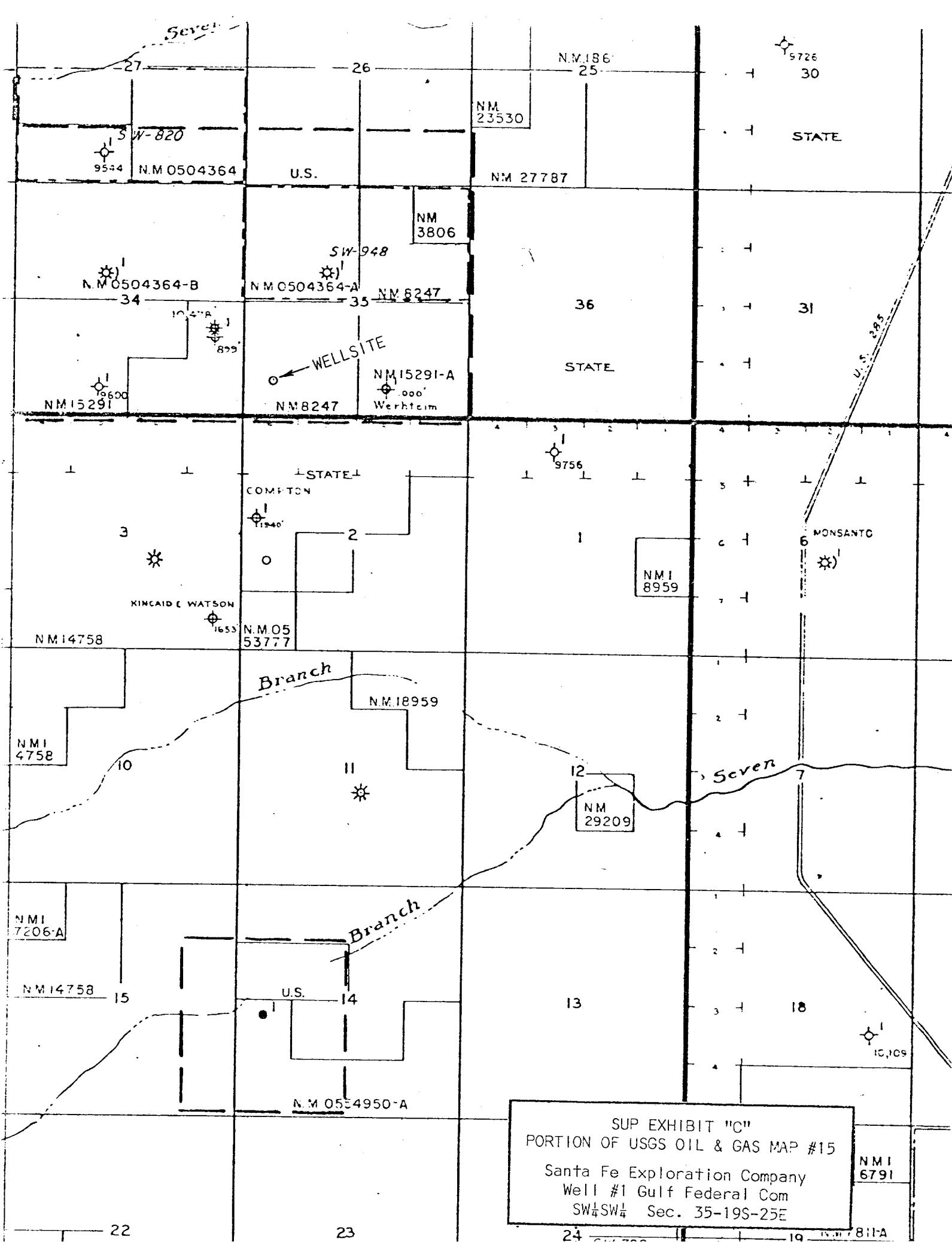
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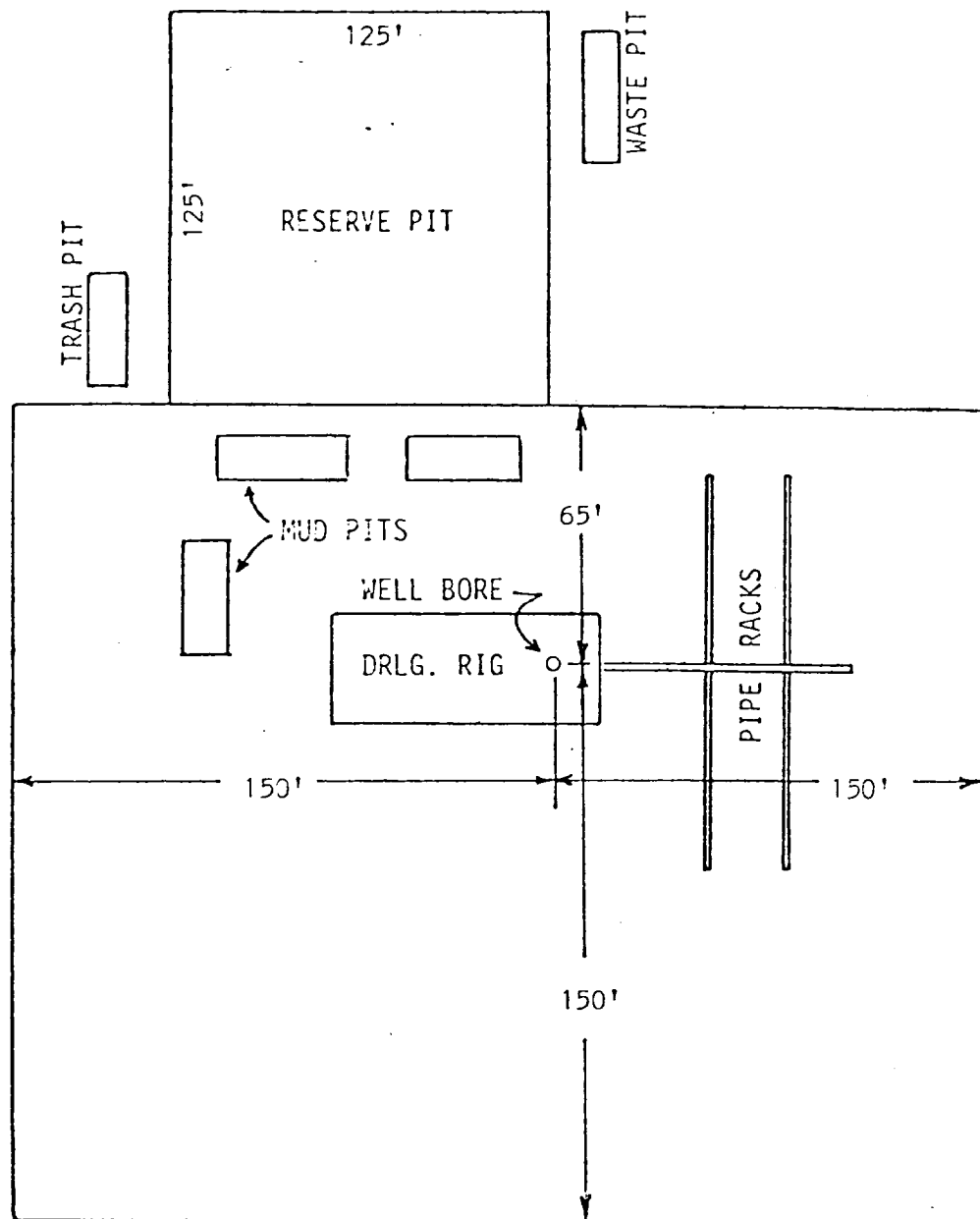
R.26 E.





SUP EXHIBIT "B"
PORTION OF SEVEN RIVERS TOPO MAP
Santa Fe Exploration Company
Well #1 Gulf Federal Com
SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 35-19S-25E





SUP EXHIBIT "D"
SKETCH OF WELL PAD
Santa Fe Exploration Company
Well #1 Gulf Federal Com
SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 35-19S-25E