

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

Amoco Production Company

3. ADDRESS OF OPERATOR

P.O. Drawer A, Levelland, TX 79336

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

At surface

1980' FNL X 1980' FEL (Unit G, Sec. 21)

At proposed prod. zone

U. S. GEOLOGICAL SURVEY
HOBBS, NEW MEXICO

5. LEASE DESIGNATION AND SERIAL NO.

LC-031736 (b)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Gillully "B" Federal

9. WELL NO.

19

10. FIELD AND POOL, OR WILDCAT

Wildcat-Eltonburger

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA

21-20-37

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

4 miles south of Monument, N.M.

12. COUNTY OR PARISH

Lea

13. STATE

NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

16. NO. OF ACRES IN LEASE

800'

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.

19. PROPOSED DEPTH

10500'

20. ROTARY OR CABLE TOOLS

Rotary

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

3510.2 GR

22. APPROX. DATE WORK WILL START*

May 13, 1978

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#	1200'	Circ. to surface
12 1/4"	8 5/8"	24#	5000'	Circ. to surface
8 3/4"	5 1/2"	15.5#, 17#	10500'	Tie back to 8 5/8"

After reaching TD, logs and DST will be run and evaluated. Perforate and/or stimulate as necessary in attempting commercial production.

Mud - 0' - 1200' - Native mud and fresh water.

1200' - 10500' - Brine water and sufficient commercial mud to maintain good hole conditions.

BOP Program attached.

Archaeological Reconnaissance attached.

CONDITIONS OF APPROVAL

8-11-78

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

TITLE

Admin. Analyst (SG)

DATE

5-3-78

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

CONDITIONS OF APPROVAL, IF ANY:

0 + 5 - USGS-H
1 - Div 0
1 - Susp
1 - RC

*See Instructions On Reverse Side

DATE APPROVED
AS AMENDED

MAY 11 1978

A. J. L.
ACTING DISTRICT ENGINEER

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PL.

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

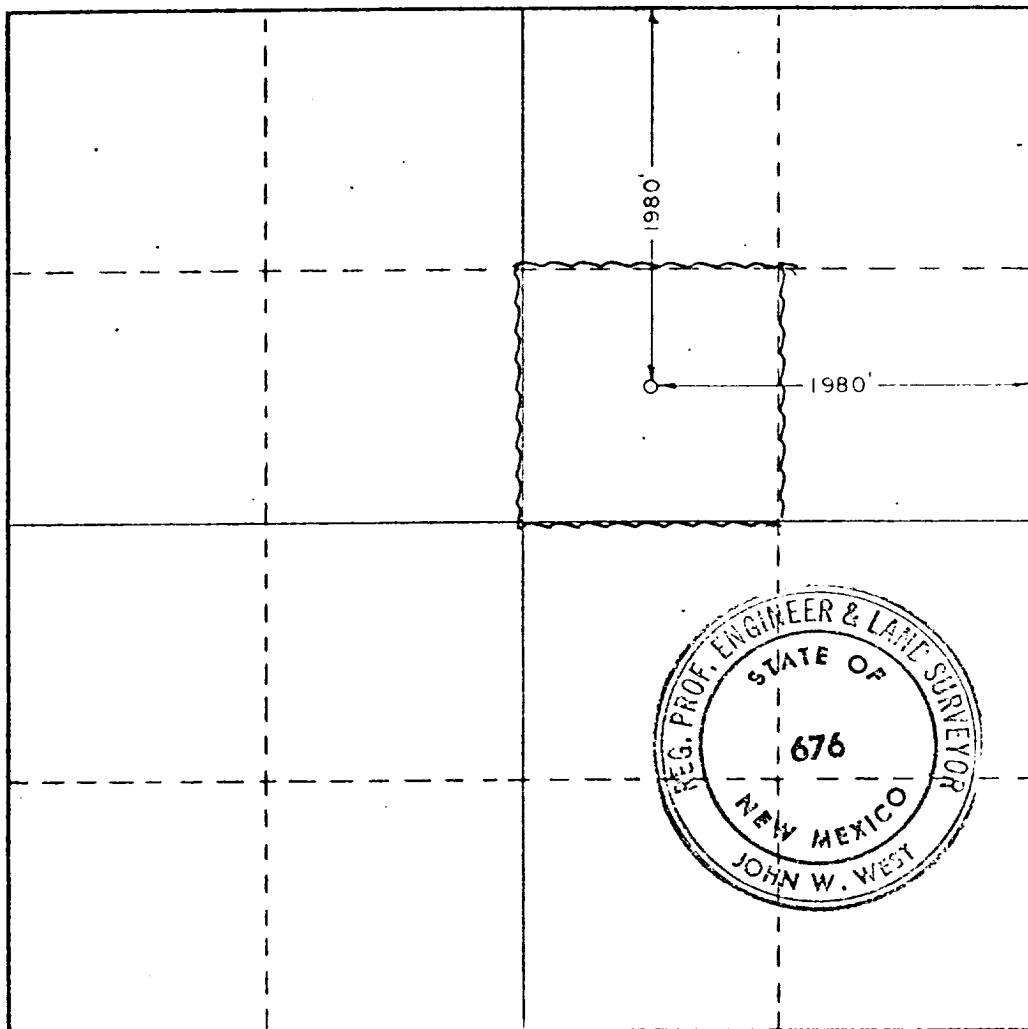
Operator Amoco Production Co.			Lease Gillully "B" Fed.			Well No. 19		
Unit Letter G	Section 21	Township 20 South	Range 37 East	County Lea				
Actual Footage Location of Well:								
1980 feet from the North line and			1980 feet from the East line					
Ground Level Elev. 3510.2	Producing Formation ELLENBURGER			Pool WILDCAT			Dedicated Acreage 40 Acres	

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 _____

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.

Name *R. R. Couch*
Administrative Analyst (SG)

Company *Amoco Production Company*
Date *5-4-78*

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.

4/4/78

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. **John W. West 676**

Ronald J. Eidson 3239

0 320 640 960 1280 1600 1920 2240 2560 2880 3200 3520 3840 4160 4480 4800 5120 5440 5760 6080 6400

1. BOP'S TO BE FULLY OPERATED.
2. BOP'S AND ALL FITTINGS MUST BE IN GOOD CONDITION AND RATED AT 3000 PSI W.P. MINIMUM.
3. DEFLECTOR THROAT WHICH MUST BEAT DOWN SHALL BE AT LEAST AS LARGE AS CASING SIZE BEING DRILLED THROUGH.
4. MINIMUM ABOVE BOP'S SHALL BE SAME SIZE AS LAST CASING SET.
5. UPPER KILLY COCK IS REQUIRED AND SHALL BE 3000 PSI W.P. MINIMUM.
6. T. I. W. OR COMPENSABLE SAFETY VALVE SHALL BE AVAILABLE ON RIG FLOOR WITH CONNECTION OR SURE TO FIT ANY TOOL JOINT IN THE STRING. VALVE TO BE FULL BORE 5000 PSI MIN.
7. VALVE NEXT TO SPOOL SHALL BE 4". OTHER EQUIPMENT MAY BE 3" OR 4". ALL CROSS MANIFOLD EQUIPMENT SHALL BE FLANGED. BLOW LINE FROM MANIFOLD TO BE MINIMUM OF 3" AND STRAIGHT AS POSSIBLE WITH MINIMUM BENDS.
8. FLUID LINES FROM ACCUMULATOR TO BOP'S AND ALL REMOTE CONTROL FLUID LINES SHALL BE STEEL, AND RATED AT OR ABOVE MAXIMUM WORKING PRESSURE. LINES SHALL BE BUNDLED IN BUNDLES AND ADEQUATELY PROTECTED FROM DAMAGE.
9. USE RAYS IN FOLLOWING POSITIONS:*

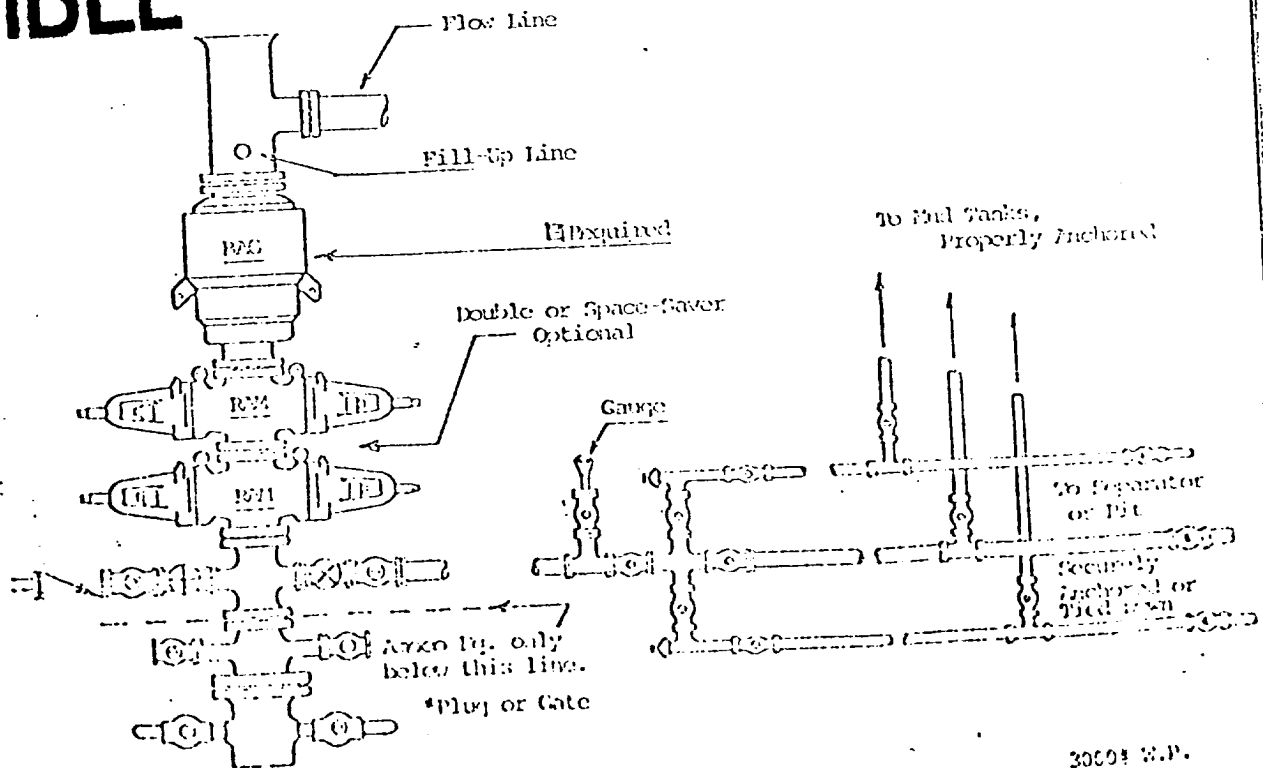
	DRILLING	RUNNING CASING
UPPER RAY	DRILL PIPE	CASING
LOWER RAY	BLIND	BLIND

*KILCO AREA SUPT. MAY INVERSE LOCATION OF RAY'S.

10. CROSS MANIFOLD, BEYOND SECOND VALVE FROM CROSS MAY BE OPTIONALLY POSITIONED OUTSIDE OF SUBSTRUCTURE.
11. EXTENSIONS AND HAND WHEELS TO BE INSTALLED AND SPACED AT ALL TIMES.
12. TWO INCH (2") LINES AND VALVES ARE PERMITTED ON THE KILL LINE.

NOTE: ALL UNFORCED VALVES MAY BE PLUG OR GATE VALVE, RETAL TO RETAL SEAL.

ILLEGIBLE



Attachment to "Application for Permit to Drill", Form 9-331 C

Gillully "B" Federal Well No. 19, 1980' FNL X 1980' FEL, Section 21,
T-20-S, R-37-E, Lea County, New Mexico

1. Location

See attached Form C-102

2. Elevation

See attached Form C-102

3. Geologic name of surface formation.

Quaternary

4. Type of drilling tools and associated equipment to be utilized.

See Form 9-331 C

5. Proposed drilling depth.

See Form 9-331 C

6. Estimated tops of important geologic markers.

Rustler	-	1150'	Tubb	-	6290'	Silurian	-	8220'	Ellenburger-101
Queen	-	3370'	Drinkard	-	6500'	Fusselman	-	9100'	
Penrose	-	3450'	Abo	-	7050'	Montoya	-	9550'	
Paddock	-	5020'	Penn	-	7680'	Simpson	-	9850'	
						McKee	-	10130'	

7. Estimated depths at which anticipated water, oil, gas or other mineral-bearing formations are expected to be encountered.

Queen	-	3370'	Abo	-	7050'
Paddock	-	5020'	Penn	-	7680'
Tubb	-	6290'	Ellenburger	-	10140'

8. Proposed casing program, including size, grade, and weight of each string and whether it is new or used.

<u>Depth</u>	<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>New or Used</u>
1200'	13-3/8"	48#	K-55	New
5000'	8-5/8"	24#	K-55	New
10500'	5-1/2"	15.5#, 17#	K-55	New

9. Proposed cementing program.

13 3/8" casing-sufficient cement to circulate to surface.
8 5/8" casing-sufficient cement to circulate to surface.
5 1/2" casing-Tie back to 8 5/8".

10. Blowout Preventer Program is attached.
11. Type and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling, and the quantities and types of mud and weighting material to be maintained.
- Surface to 1200' - Native mud and fresh water.
1200' - 10500' TD - Brine water sufficient commercial mud to maintain good hole conditions.
12. Testing, logging and coring programs to be followed with provisions made for required flexibility.
- Surface to 10500' - Dual laterolog-Micro SFL.
Surface to 10500' - Compensated Neutron Formation density.
13. Any anticipated abnormal pressure or temperatures expected to be encountered or potential hazards, such as hydrogen sulfide gas, along with plans for mitigating such hazards.
- None anticipated.
14. Anticipated starting date and duration of operation.
- Start May 15, 1978. Complete June 15, 1978.
15. Other facets of the proposed operation operator wishes to point out for the Geological Survey's consideration of the application.

None.


ATTACHMENT TO FORM 9-331C

APPLICATION FOR PERMIT TO DRILL

LEASE Gillully "B" Federal WELL NO. 19
LOCATION Unit G, Section 21, T-20-S, R-37-E
POOL Wildcat
COUNTY Lea State New Mexico

The undersigned hereby states that Amoco's representative, Mr. E.E. Pauley, personally contacted W.T. Stradley (SW Cattle Co.), the owner/~~lessor~~ of the surface land where the proposed work is to be conducted and advised him of the proposed work, the construction site and pertinent roads included in the project. It is further stated that, upon being fully advised of the extent of the work and the effect upon the surface, said owner has consented to the said work and that agreement as to the compensation for damages to the surface estate has been reached.

If the well is a producer, all pits will be cut, filled and leveled as soon as practical after the pits are dry. If the well is a dry hole, pits will be filled as above, a dry hole marker will be installed, and the location and pad will remain intact.


D.R. Couch
Administrative ~~Engineer~~
ANALYST (SG)

May 4, 1978

Date

Proposed Development Plan for Surface Use

1. Existing roads including location of exit from main highway.

Detailed map showing drillsite location in relation to nearest town and all existing roads within one mile of the wellsite are shown on Exhibit A. From Monument, N.M., go south on paved road 4 miles, turn east at cattleguard on dirt lease road .2 mile, turn south on 1300' new lease road to wellsite.

2. Planned access roads.

1300' new road - caliche

3. Location of existing wells.

All existing wells within two mile radius are shown on Exhibit C .

4. Location of tank batteries and flow lines.

If the well is commercially productive, the producing facilities (i.e. tanks, separators, & treaters) will be located on the southeast end of drilling pad. See Exhibit "D".

5. Location and type of water supply.

Water to be hauled from 3 miles south of Monument, N.M.

6. Source of construction materials.

Caliche will be obtained from an existing pit located 1 mile NE of the well location. NW/4 NW/4 Section 22, T-20-SR-37-E. *< See Exhibit "C" >*

7. WASTE DISPOSAL -

- a. Drill cuttings will be disposed of in the reserve pit.
- b. Drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry.

- c. Trash, waste paper, garbage and junk will be burned or buried with a minimum of 24" cover. Waste material will be contained to prevent scattering by wind prior to ultimate disposal.
- d. Any produced water will be contained in tanks and be disposed of in an approved manner. Oil produced will be stored in tanks until sold, at which time it will be hauled from location.
- e. Current laws and regulations pertaining to disposal of human waste will be complied with.
- f. If productive, maintenance waste will be placed in special containers and buried or hauled away periodically.

8. ANCILLARY FACILITIES -

No camps, airstrips, etc. will be constructed.

9. WELLSITE LAYOUT -

- a. Size of Drilling Pad - 220' x 150' x 6"
- b. Compacted - Caliche
- c. Surfaced - No
- d. 300' square area around wellsite has been cleared by archaeologist.
- e. See Exhibit D.

10. RESTORATION OF SURFACE -

Producing Well - all pits will be cut, filled, and leveled as soon as practical to original condition with rehabilitation to commence following removal of drilling and completion equipment. Rehabilitation to be completed in 180 days if possible.

Dry Hole - same as above with dry hole marker to be installed and surface reseeded if required.

11. OTHER INFORMATION -

- a. Terrain - Undulating plain with small depressions formed by wind & water erosion.
- b. Soil - Deep loamy sands.
- c. Vegetation - Sparse, Catclaw, greasewood, sage & Shinoak.
- d. Surface Use - Grazing.
- e. Ponds and Streams - None
- f. Water Wells - None
- g. Residences and Buildings - None.
- h. Arroyos, Canyons, etc. - None.
- i. Well Sign - Posted at drillsite.
- j. Open Pits - All pits containing liquid or mud will be fenced.
- k. Archaeological Resources - Drillsite, which is in undulating plain, semi-arid, desert country, is in a low environmental risk area. The total effect of drilling and producing in this area would be minimal. No known archeological historical, or cultural sites exist in the drill area.

12. OPERATOR'S REPRESENTATIVE -

Field personnel responsible for compliance with development plan for surface use is:

J. H. Hankins, Senior Drilling Foreman
P. O. Drawer "A"
Levelland, TX 79336
Office Phone: 806-894-3163

LEASE & WELL NUMBER Gillully B Federal Well No. 19.

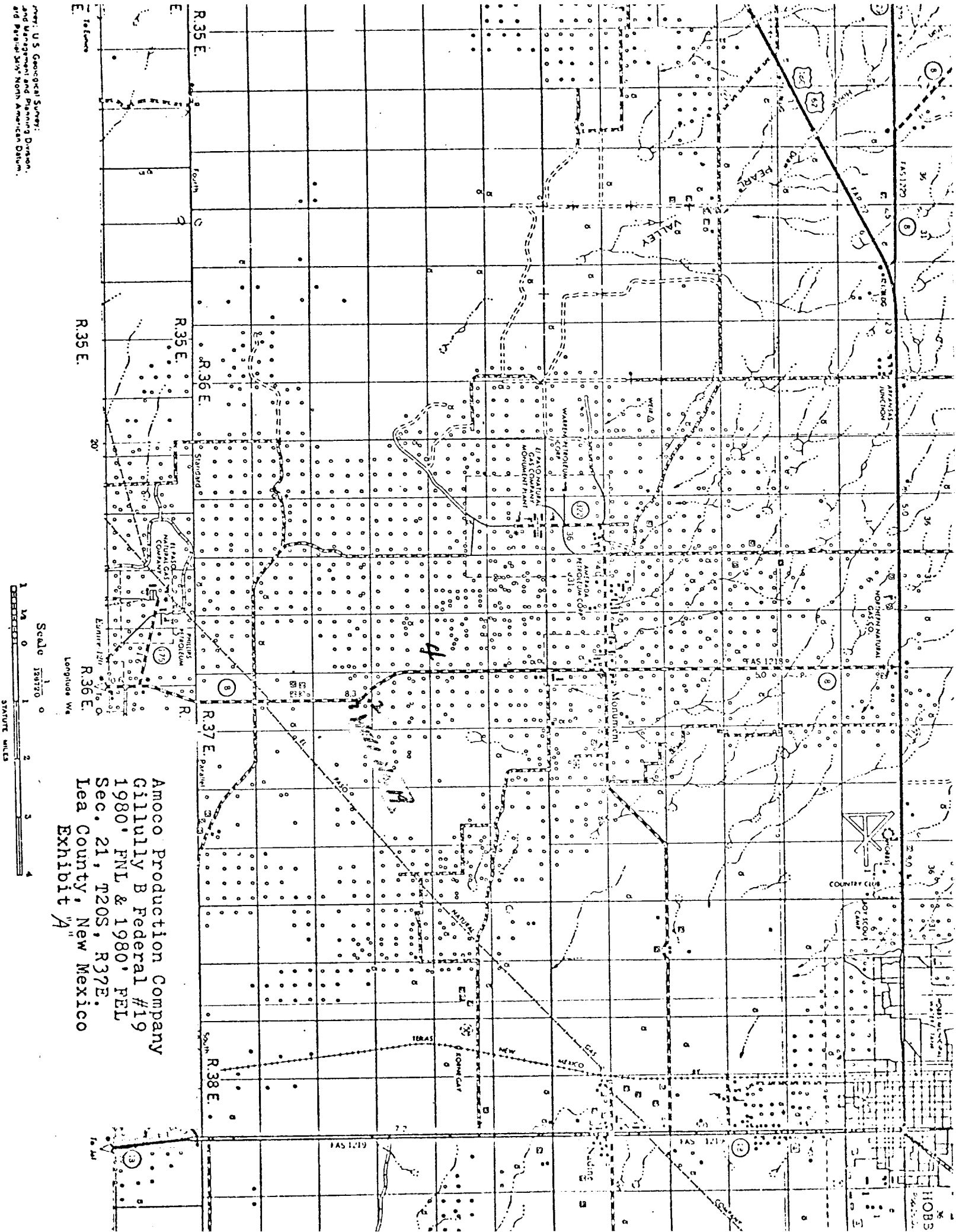
LOCATION Unit G, 1980' FNL X 1980' FEL, Sec. 21, T- 20 S, R- 37 E, Lea County

Certification: The following statement is to be incorporated in the plan and must be signed by the lessee's or operator's field representative who is identified in Item No. 12 of the plan.

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 AMOCO PRODUCTION COMPANY and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

May 4, 1978
DATE

L. H. Hauken Sr. Drlg. Foreman
NAME AND TITLE

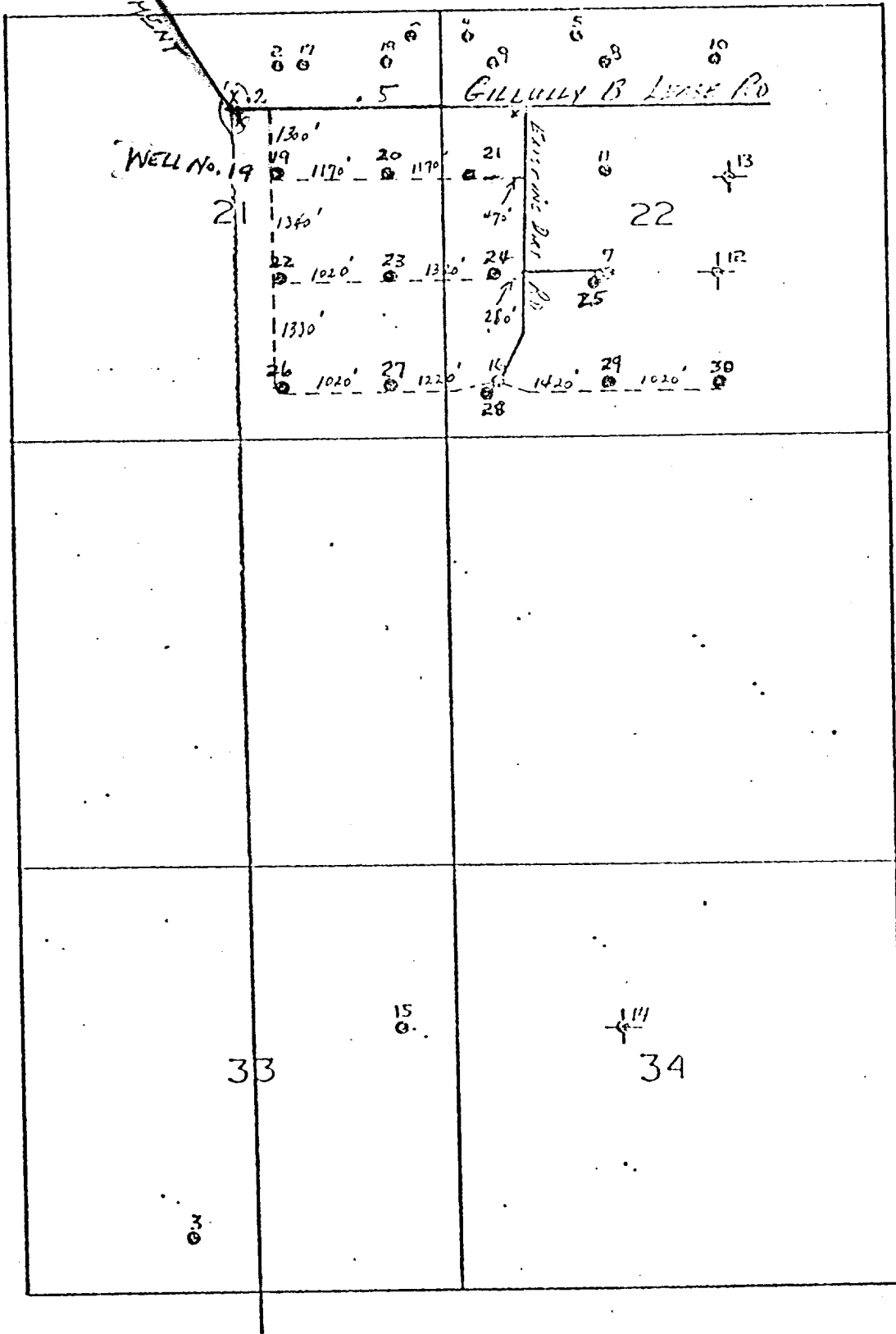


Amoco Production Company
Gilluly B Federal #19
1980, FNL & 1980, FEL
Sec. 21, T20S, R37E.
Lea County, New Mexico
Exhibit "A"

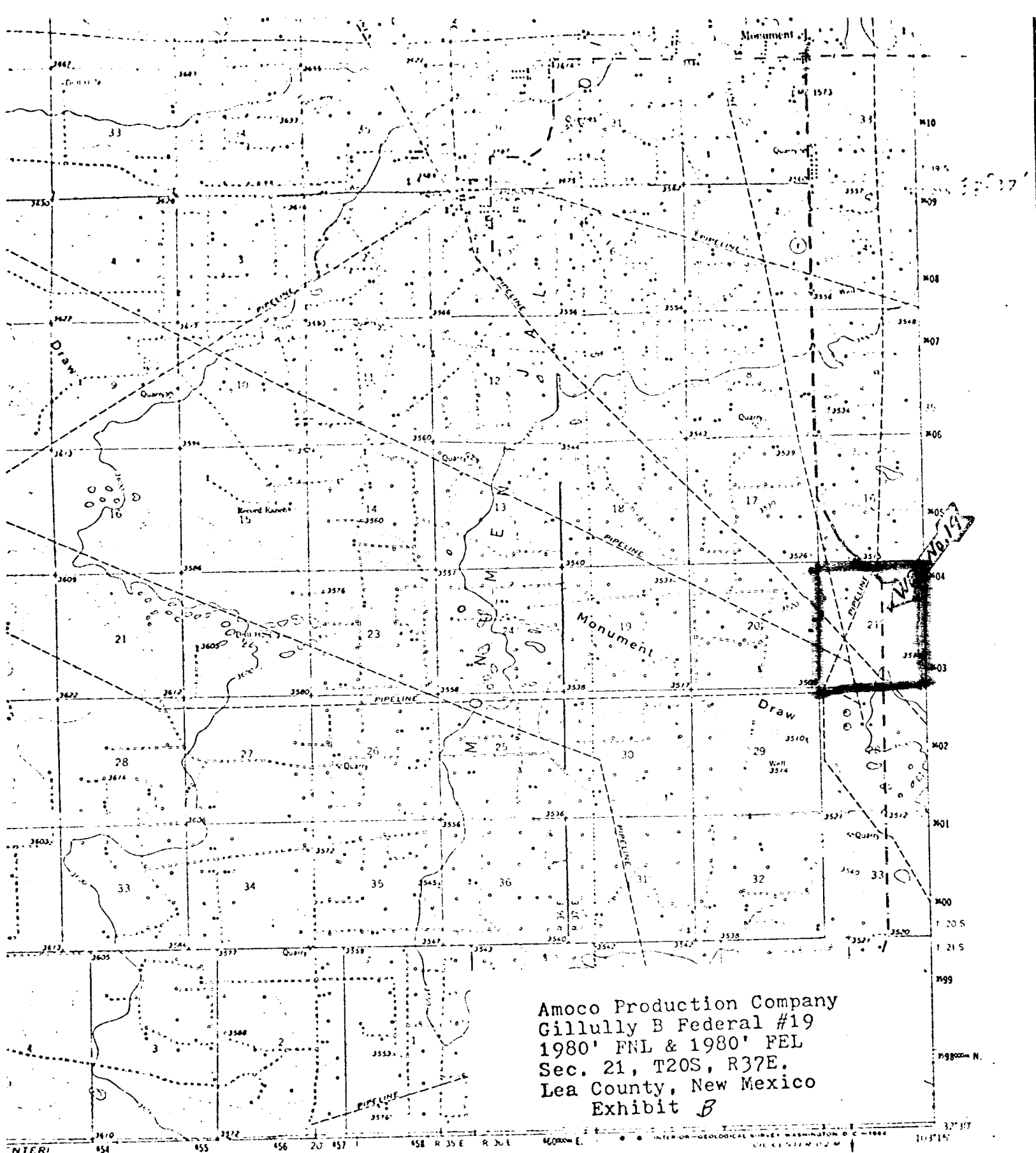
8

4 MILES
TO MOUNTAIN

DOTTED LINES ARE PROPOSED
LOCATION ROADS



Gillully "B" Lease Wells #19-30



Amoco Production Company
 Gillully B Federal #19
 1980' FNL & 1980' FEL
 Sec. 21, T20S, R37E.
 Lea County, New Mexico
 Exhibit B

INTERIOR
 1:62500
 0 1 2 3 4 MILES
 0 1000 2000 3000 4000 FEET
 0 1 2 3 4 KILOMETERS
 ELEVATION 10 FEET
 AN SEA LEVEL

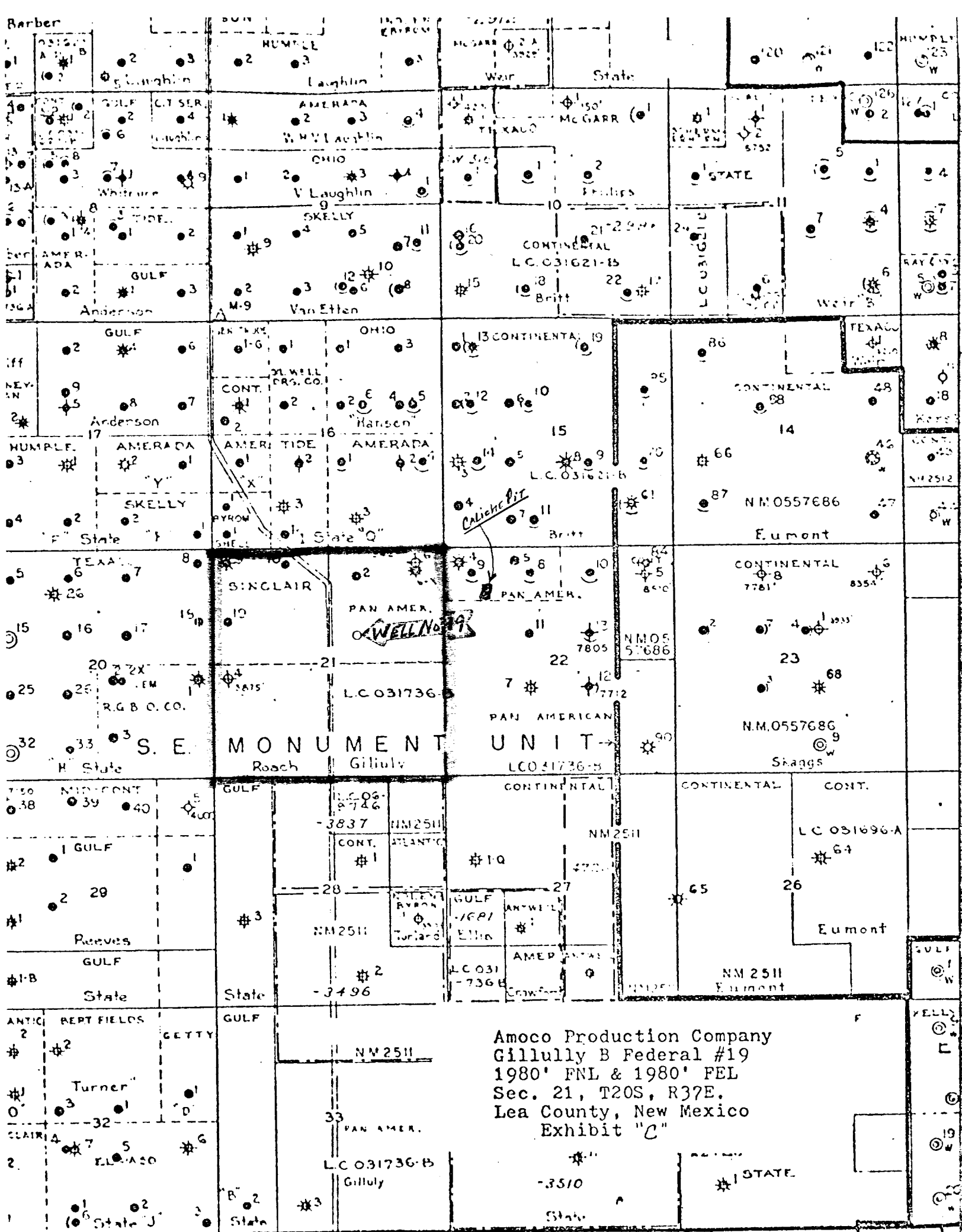


QUADRANGLE LOCATION

ROAD CLASSIFICATION

Heavy duty ———— Light duty - - - - -
 Medium duty - - - - - Unimproved dirt
 U.S. Route () State Route ()

MONUMENT, N. MEX.
 N37°10' W103°15'



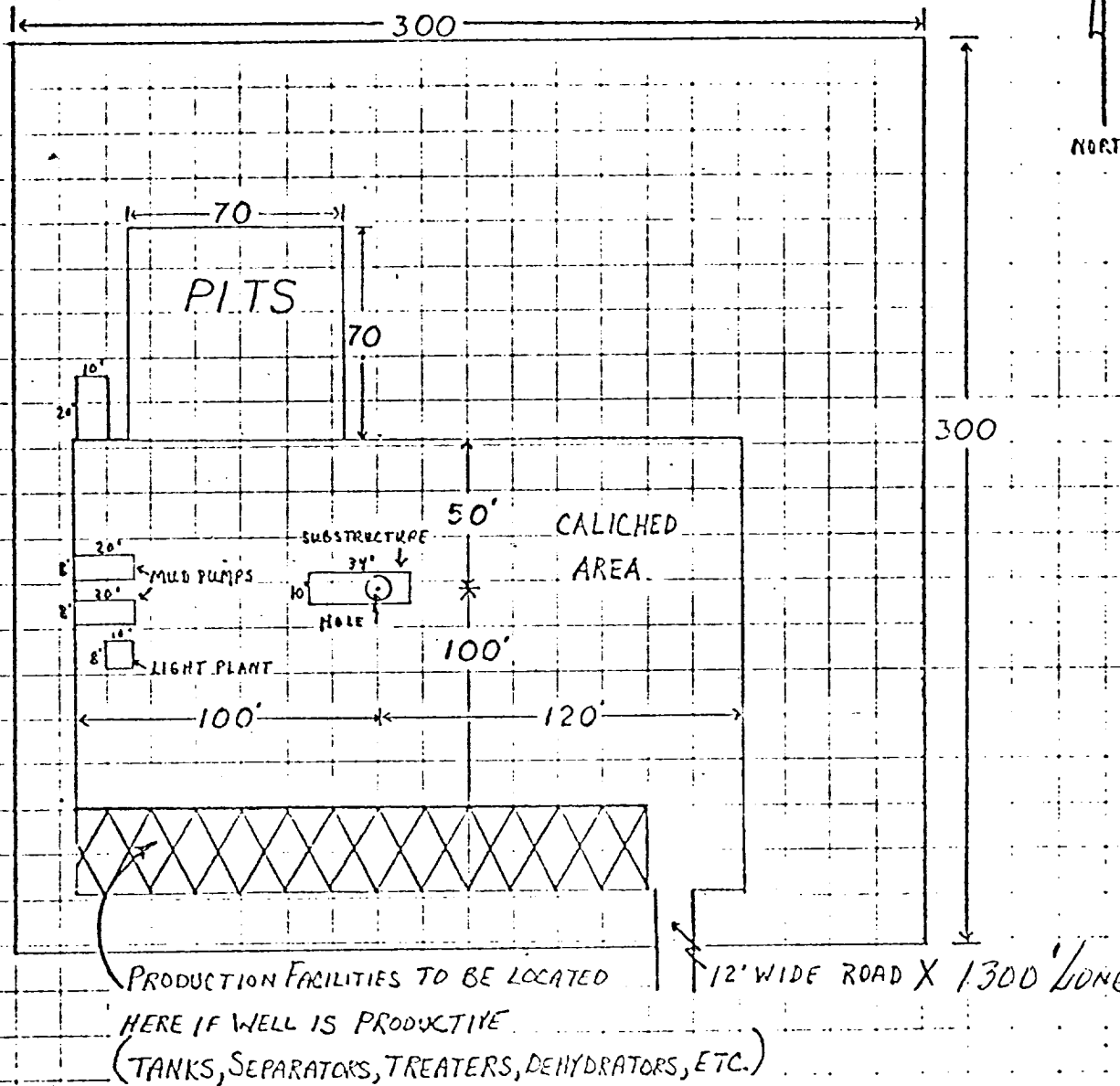


Amoco Production Company

ENGINEERING CHART

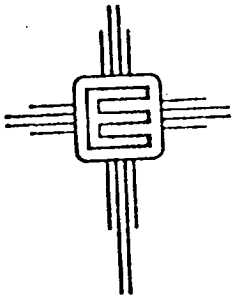
SHEET NO. _____ OF _____
FILE _____
APPN _____
DATE 10-29-76
BY RC
SCALE - 1" = 60'

SUBJECT DRILL SITE DIMENSION



CELLAR SIZE
5'X5'X4'

AMOCO PRODUCTION COMPANY
GILLULLY "B" FEDERAL WELLS #19
SEC. 21 T-20-S, R-37-E
LEA Co., N.M.
EXHIBIT "D"



EASTERN NEW MEXICO UNIVERSITY

Portales 88130

Agency for Conservation Archaeology

3 May 1978

Mr. Bob Couch
Amoco Production Company
P. O. Drawer A
Levelland, Texas 79336

Dear Mr. Couch:

Enclosed please find the Agency for Conservation Archaeology's clearance report for Amoco Production Company. Other than contemporary trash, no archaeological sites, or isolated manifestations, were recorded during the course of this reconnaissance.

If I may be of further service to you, do not hesitate to call me at (505) 562-3332.

Yours sincerely,

Dr. J. Loring Haskell
Director - Principal Investigator

dlg

Enclosure

• Archaeological Report

Amoco Production Company

Gillully "B" Federal # 19
Gillully "B" Federal # 20
Gillully "B" Federal # 21
Gillully "B" Federal # 22
Gillully "B" Federal # 23
Gillully "B" Federal # 24
Gillully "B" Federal # 25
Gillully "B" Federal # 26
Gillully "B" Federal # 27
Gillully "B" Federal # 28
Gillully "B" Federal # 29
Gillully "B" Federal # 30

And Proposed accesses to these locations
Langlie B Tract 1 Federal #6

by

Dr. J. Loring Haskell

Submitted
by

Dr. J. Loring Haskell
Director - Principal Investigator
Agency for Conservation Archaeology
Eastern New Mexico University
Portales

1 May 1978

INTRODUCTION

An archaeological reconnaissance was recently performed by the Agency for Conservation Archaeology (ACA), Eastern New Mexico University, Portales, for Amoco Production Company in Lea County, New Mexico. Reconnoitered areas will be impacted by a series of drill locations and access roads. The project was administered for Amoco by Mr. Bob Couch and for ACA by Dr. J. Loring Haskell, Director - Principal Investigator. Dr. Haskell and Scott C. Schermer undertook the project on 26 April 1978 under excellent field and weather conditions. (78-NM-015)

SURVEY TECHNIQUE

Each location was walked in a series of zigzag, north-south and thence south to north transects which measured 15 ft in breadth. Areas lying immediately outside these locations were reconnoitered as well, i.e., a zone measuring an additional 20 ft on all sides. Accesses were investigated by walking them in a close interval, 25 ft wide, zigzag transect. These techniques combined served to maximize the visual examination of areas of primary and secondary impact.

Gillully "B" Federal #19

Location

The proposed pad measures 300 X 300 ft and is situated 1980 ft from the north line and 1980 ft from the east line of the:

NE $\frac{1}{4}$, Section 21, T20S, R37E, NMPM, Lea County, New Mexico (BLM)

More specifically, it is situated in the:

SE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 21, T20S R37E, NMPM, Lea County, New Mexico (BLM)

The associated access will be discussed below.

Map Reference: USGS Monument Quadrangle, 15 Minute Series, 1963.

Terrain

Local terrain consists of a level plain overlain by stabilized coppice dunes. Soils are Typic Haplargids and contain little or no inclusions.

Floristics

Principal plants in the area include Quercus havardii, Bouteloua eriopoda, Artemisia filifolia, Gutierrezia sarothrae, and Yucca glauca. Quercus is dominant throughout the area.

Cultural Resources

No archaeological sites, or isolated manifestations, were recorded during ACA's reconnaissance.

Recommendations

ACA recommends clearance for the proposed location and suggests that construction proceed without modification of existing plans.

Gillully "B" Federal #20

Location

This location measures 300 X 300 ft and is situated 1930 ft from the north line and 760 ft from the east line of the:

NE $\frac{1}{4}$, Section 21, T20S, R37E, NMPM, Lea County, New Mexico (BLM)

More specifically, it is located in the:

SE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 21, T20S, R37E, NMPM, Lea County, New Mexico (BLM)

The associated access will be discussed below.

Map Reference: USGS Hobbs SW Quadrangle, 7.5 Minute Series, 1969.

Terrain

Local terrain consists of a virtually level plain distinguished by low coppice

U. S. Geological Survey

HOBBS DISTRICT

Amoco Production Co.
No. 19 Gillully B Federal
SW $\frac{1}{4}$ NE $\frac{1}{4}$ Sec. 21-20S-37E
Lea County, New Mexico

Above Data Required on Well Sign

CONDITIONS OF APPROVAL

1. Drilling operations authorized are subject to compliance with the attached General Requirements for Drilling Operations on Federal Oil and Gas Leases, dated January 1, 1977.
2. Notify this office (telephone (505) 393-3612) when the well is to be spudded and in sufficient time for a representative to witness all cementing operations. Attached are names and telephone numbers of Geological Survey and Bureau of Land Management personnel who are available for consultation during construction, drilling, completion, and rehabilitation activities.
3. Immediate notice is required of all blowouts, fires, spills, and accidents involving life-threatening injuries or loss of life.
4. Secure prior approval of the District Engineer for variance from the approved drilling program and before commencing plugging operations, plug-back work, casing repair work, corrective cementing operations, or suspending drilling operations indefinitely.
5. Blowout prevention equipment is to be installed, tested, and in working order before drilling below the surface casing and shall be maintained ready for use until drilling operations are completed.
6. Operations must be in compliance with the provisions of the landowner agreement concerning surface disturbance and surface restoration.