

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-015-23891

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
ZONES ☐

2. NAME OF OPERATOR

Amoco Production Company

3. ADDRESS OF OPERATOR

P. O. Box 68, Hobbs, NM 88240

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

At surface

1980' FSL X 1980' FWL, Sec. 1, T-17-S, R-17-E, OFFICE

At proposed prod. zone Unit K, NE/4, SW/4

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

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

17. NO. OF ACRES ASSIGNED
TO THIS WELL18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

19. PROPOSED DEPTH

9700'

20. ROTARY OR CABLE TOOLS

Rotary

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

3528.2' GR

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#	400'	Circ.
12-1/4"	9-5/8"	36#	2000'	Circ.
8-3/4"	5-1/2"	17#	9700'	Cement to 500' above Abp (approx. 4600')

Propose to drill and equip well in the Morrow formation. After reaching TD logs will be run and evaluated, perforate and/or stimulate as necessary in attempting commercial production.

MUD PROGRAM: 0'-400' Native mud and fresh water
400'-2000' Native mud and brine water
2000'-TD Commercial mud and brine with minimum properties for safe hole conditions in the Morrow formation. Raise viscosity and reduce water loss prior to Morrow penetration.

BOP Program Attached.
Archaeological Survey Attached.
Gas is not dedicated.

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

Greg Mitchell

TITLE

Admin. Analyst

DATE

7-20-81

(This space for Federal or State office use)

APPROVED

PERMIT NO.

015-23891 GEORGE H. STEWART

APPROVAL DATE

APPROVED BY

AUG 5 1981

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY

0+6-USGS, A

FOR 1-Hou 1-Exxon
JAMES A. GILLHAM
DISTRICT SUPERVISOR

1-W. Stafford, Hou

1-Susp

1-GPM

1-Cities Svc.

See Instructions On Reverse Side

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.

Applicant Amoco Production Co.		License Federal C.E. Gas Comm.		Well No. 1
Section K	Section 1	Township 17 South	Range 27 East	County Eddy
Field of Footnote Location of Well				
1980 feet from the South line and		1980 feet from the West line		
Ground Elev. 3528.2'	Producing Formation Morrow	Pool Wildcat Morrow	Dedicated Acreage 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure 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

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.

Royalty		United States/Working Interest	
40.77 ①	40.55 ③	Coquina Oil Corp.	32.9889
		Amoco Prod. Co.	19.8849
		Yates Pet. Corp.	16.4223
		MWJ Prod. Co.	9.8533
		Mountain Fuel Supply	9.3414
		Exxon Corp.	3.2844
		Gulf Oil Corp.	3.2844
		Eagle Oil & Gas Co.	0.7452
		J.C. Thompson	0.7452
		Mark Wilson	0.1656
		Cal-Mon Oil Co.	0.2792
		John H. Hendrix	0.4105
		Estoril Prod. Corp.	0.4105
		J. H. Herd	0.3285
		Marshal & Winston	0.3285
		Hill Revocable Trusts	0.3285
		Ernest Angelo Jr.	0.1642
		Jack Markham	0.1095
		J. M. Welborn	0.1095
		Victor H. Zoller	0.2190
		Hoe R. Henderson	0.1095
		Horseshoe Oil & Gas	0.1095
		Barnes Adelante Tr. #2	0.0469
		Robert Monaghan	0.0328
		A. T. Carleton	0.0163
		Barnes Adelante Tr. #1	0.2815
		Total: 100.0000%	

CERTIFICATION

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

Name Greg Mitchell
Position Admin. Analyst

Company Amoco Production Company

Date 7-20-81

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 June 29, 1981

Registered Professional Engineer and/or Land Surveyor

Patrick A. Romero

Certificate No. JOHN W. WEST 576
PATRICK A. ROMERO 5453
Angela J. Edison 3239

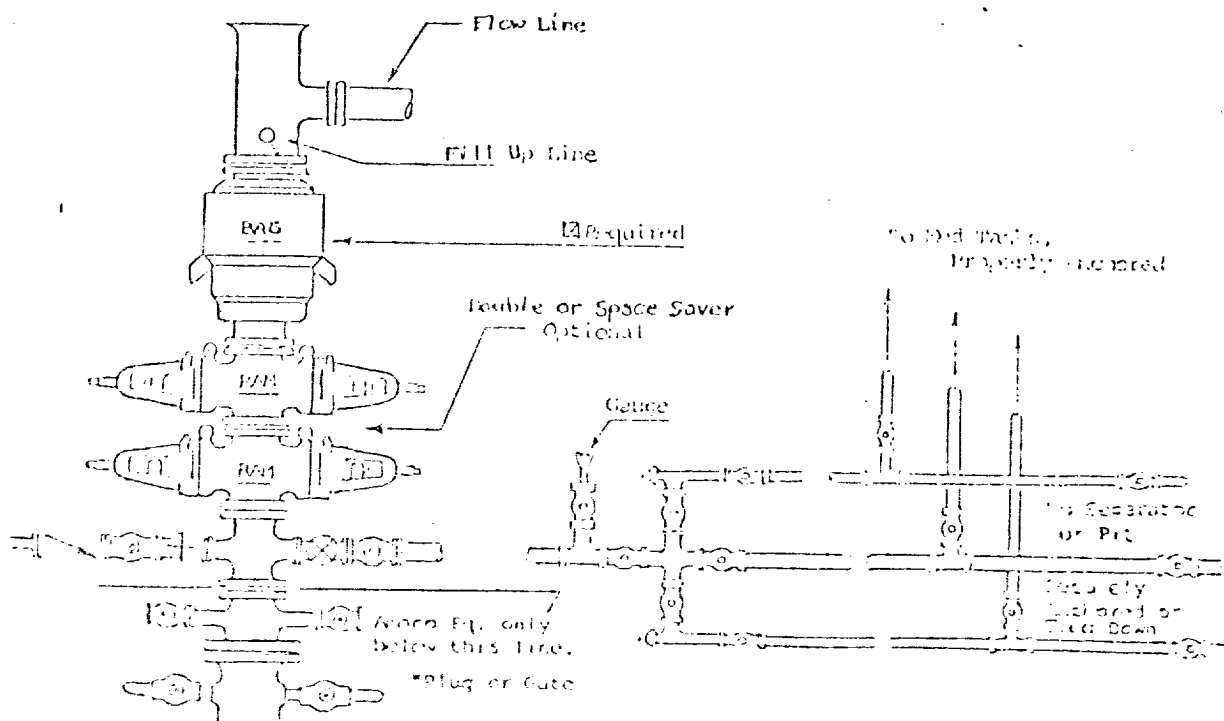
1. BOP'S TO BE FLUID OPERATED.
2. BOP'S AND ALL FITTINGS MUST BE IN GOOD CONDITION AND RATED AT 3000 PSI W.P. MINIMUM.
3. EQUIPMENT THROUGH WHICH BIT MUST PASS SHALL BE AT LEAST AS LARGE AS CASING SIZE BEING DRILLED THROUGH.
4. NIPPLE ABOVE BOP'S SHALL BE SAME SIZE AS LAST CASING SET.
5. UPPER KELLY COCK IS REQUIRED AND SHALL BE 3000# W.P. MINIMUM.
6. T. I. W. OR COMPARABLE SAFETY VALVE SHALL BE AVAILABLE ON RIG FLOOR WITH CONNECTION OR SUBS TO FIT ANY TOOL JOINT IN THE STRING. VALVE TO BE FULL BORE 5000# MIN.
7. VALVE NEXT TO SPOOL SHALL BE 4". OTHER EQUIPMENT MAY BE 3" OR 4". ALL CHOKE MANIFOLD EQUIPMENT SHALL BE FLANGED. FLOW 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 ACCUMULATOR PRESSURE. LINES SHALL BE ROUTED IN BUNDLES AND ADEQUATELY PROTECTED FROM DAMAGE.
9. USE RAMS IN FOLLOWING POSITIONS:*

	<u>DRILLING</u>	<u>RUNNING CASING</u>
UPPER RAM	DRILL PIPE	CASING
LOWER RAM	BLIND	BLIND

*AMOCO AREA SUPT. MAY REVERSE LOCATION OF RAMS.

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

NOTE: ALL UNMARKED VALVES MAY BE PLUG OR GATE VALVE, METAL TO METAL SEAL.



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

Federal CE Gas Com. #1
1980' FSL X 1980' FWL, Sec. 1, T-17-S, R-27-E
Eddy County, NM

1. Location

See attached Form C-102

2. Elevation

See attached Form C-102

3. Geologic name of surface formation.

Permian

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.

San Andres	1600'	Penn	7500'
Glorieta	3000'	Strawn	8700'
Tubb	4400'	Morrow	9450'
Abo	5100'	Chester	9700'

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

San Andres	1600'	Abo	5100'	Morrow	9450'
Glorieta	3000'	Penn	7500'	Chester	9700'
Tubb	4400'	Strawn	8700'		

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>
400'	13-3/8"	48#	H-40	New
2000'	9-5/8"	36#	K-55	New
9700'	5-1/2"	17#	K-55, N-80	New

9. Proposed cementing program.

13-3/8" Circulate to surface
9-5/8" Circulate to surface
5-1/2" Cement to 500' above Abo (Approx. 4600')

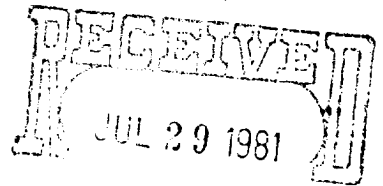
10. Blowout Preventer Program is attached.
11. Type and characteristics of the proposed circulating medium or mediums to be employed for rotary drilling, and the quantities and types of mud and weighting material to be maintained.
 - 0'- 400' Native mud and fresh water
 - 400'-2000' Native mud and brine water
 - 2000'-TD Commercial mud and brine with minimum properties for safe hole conditions.
12. Testing, logging and coring programs to be followed with provisions made for required flexibility.
 - 400'-TD Compensated Neutron Formation Density
 - 400'-TD Dual Laterolog Micro SFL
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.
 - 8-24-81 10-24-81
15. Other facets of the proposed operation operator wishes to point out for the Geological Survey's consideration of the application.

Request exemptions from the painting stipulations of Sec. 102 (a) (8) of the "Federal Land Policy and Management Act of 1976" to paint any tanks, separators, and treaters required for the production of this well, Amoco's standard gray color. If a pumping unit is required for the continued production of this well, it will be painted black with orange safety color coding which conforms with your current painting guidelines.

Proposed Development Plan for Surface Use
Federal CE Gas Com. #1
1980' FSL X 1980' FWL, Sec. 1, T-17-S, R-27-E



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

Detailed map showing drillsite location in relation to the nearest town and all existing roads within one mile of the wellsite are shown on Exhibit A.

Location is 10 miles east of Artesia on Hwy. 82. Then turn North at electric substation and go 2.9 miles. There turn northeast for .4 miles and back north for .6 miles.

2. Planned access roads.

Approx. 3000' of access road will be built.

3. Location of existing wells.

All existing well within one mile radius are shown on Exhibit C.

4. Location of tank batteries and flow lines

If the well is commercially productive, the production facilities (i.e. tanks, separators, & treaters) will be

5. Location and type of water supply.

Fresh & brine water to be hauled by commercial hauler.

6. Source of construction materials.

Caliche will be obtained from a pit located in NE/4, NW/4, Sec. 1, T-17-S, R-27-E

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 - 600' x 800' x 6"
- b. Compacted - Caliche
- c. Surfaced - No
- d. 450' 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 120 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 - Rolling plain
- b. Soil - Brown loam
- c. Vegetation - Blue grama, creosote bush, desert holly, prickly pear, yucca, ring
- d. Surface Use - Grazing
- e. Ponds and Streams - None
- f. Water Wells
- g. Residences and Building - None
- h. Arroyos, Canyons, etc. - Location is north of Hart Canyon
- i. Well Sign - Posted at drill site
- j. Open Pits - All pits containing liquid or mud will be fenced
- k. Archaeological Resources - None

12. OPERATOR'S REPRESENTATIVE -

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

J. H. Hankins, Drilling Supervisor

P. O. Box 68

Hobbs, NM 88240

Office Phone: (505) 393-2167

LEASE & WELL NUMBER Federal CE Gas Com. #1

LOCATION 1980' FSL X 1980' FWL, Sec. 1, T-17-S, R-27-E

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.

7-20-81
DATE

J. H. Hankins Drilling Supervisor
NAME AND TITLE

Federal C. E. Gas Com. #1
Unit K, Sec. 1, T-17-S, R-27-E
Eddy County
1980' from the South line and 1980' from the West line
Exhibit A

T.16 S.

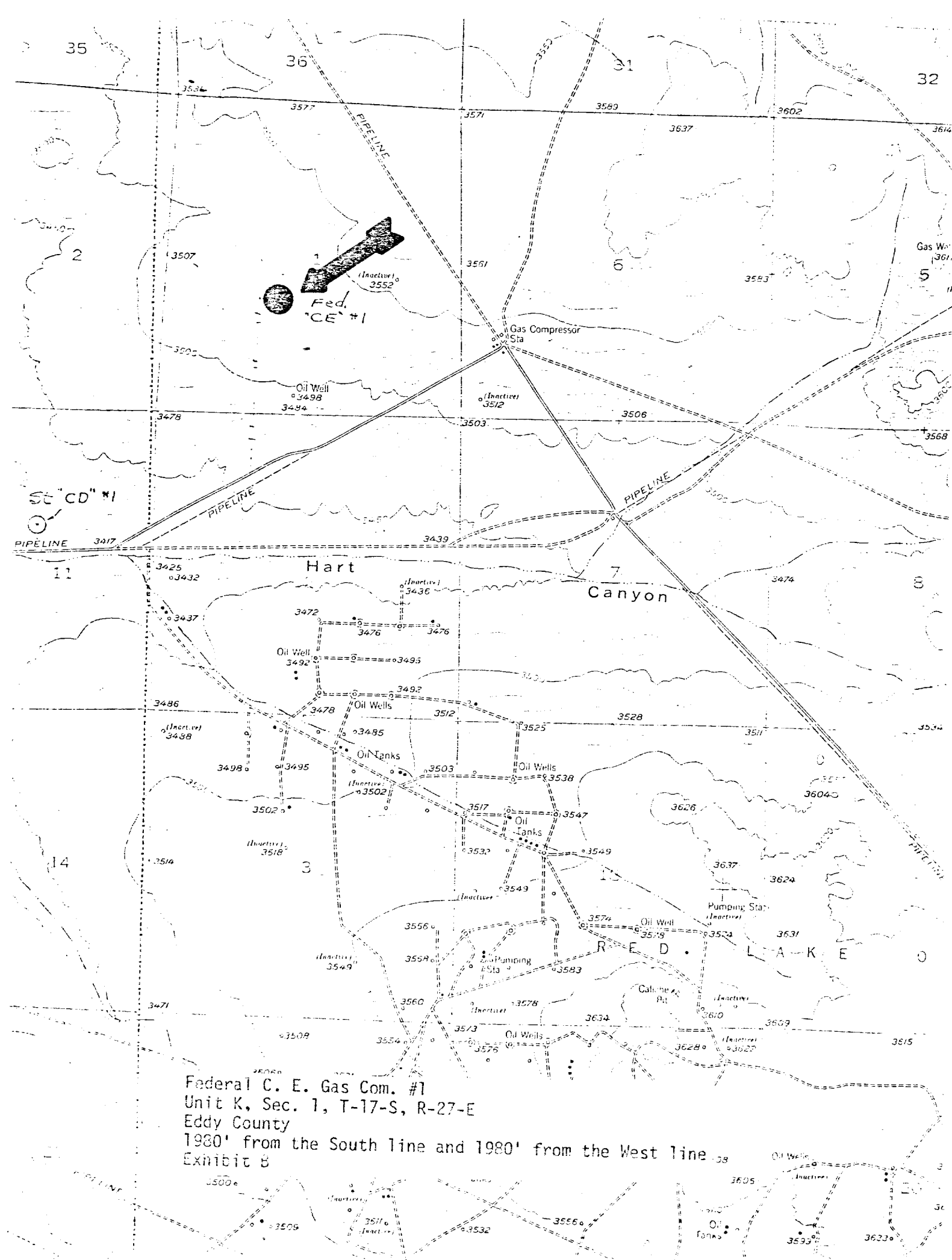
T.17 S.

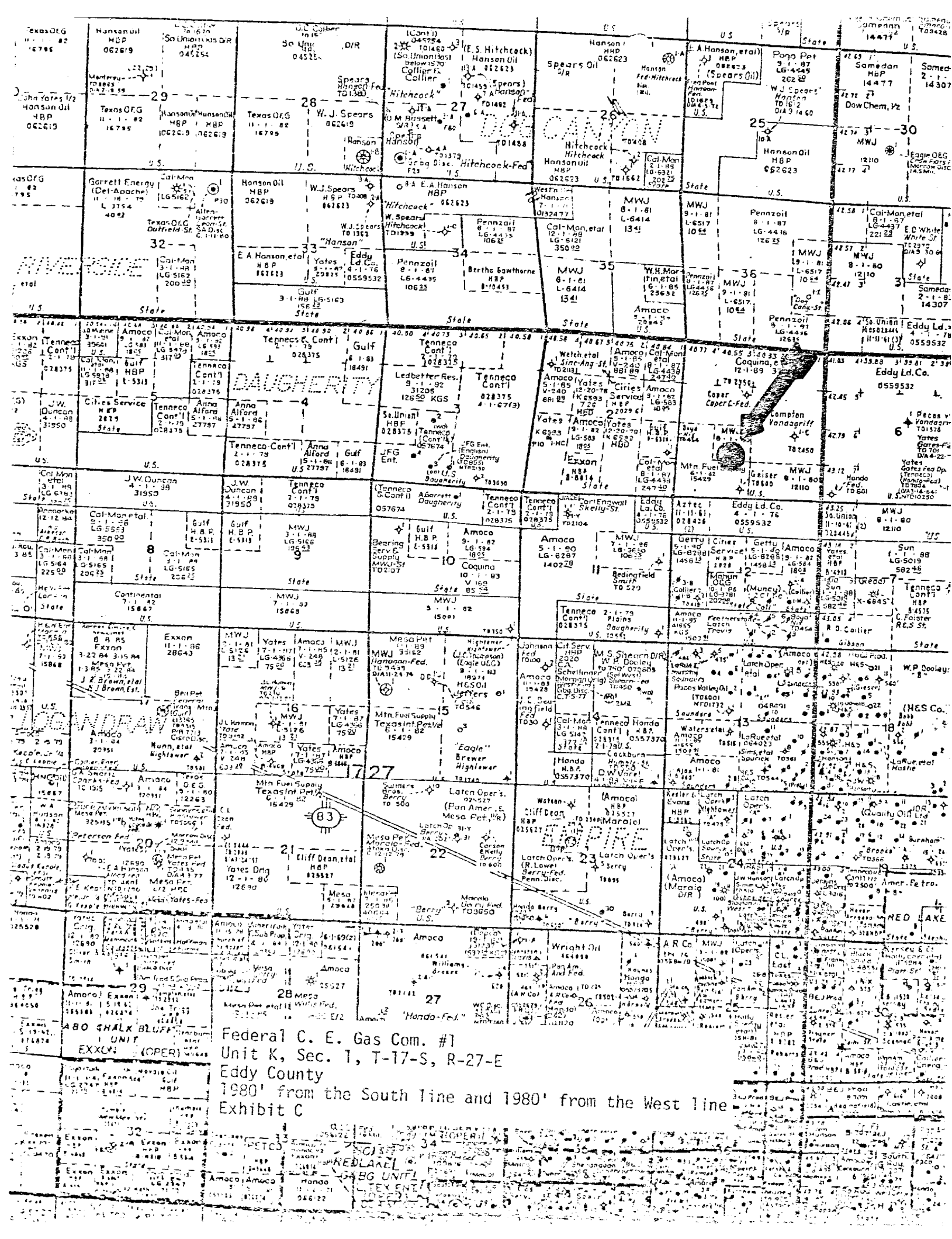
T.18 S.

T.19 S.

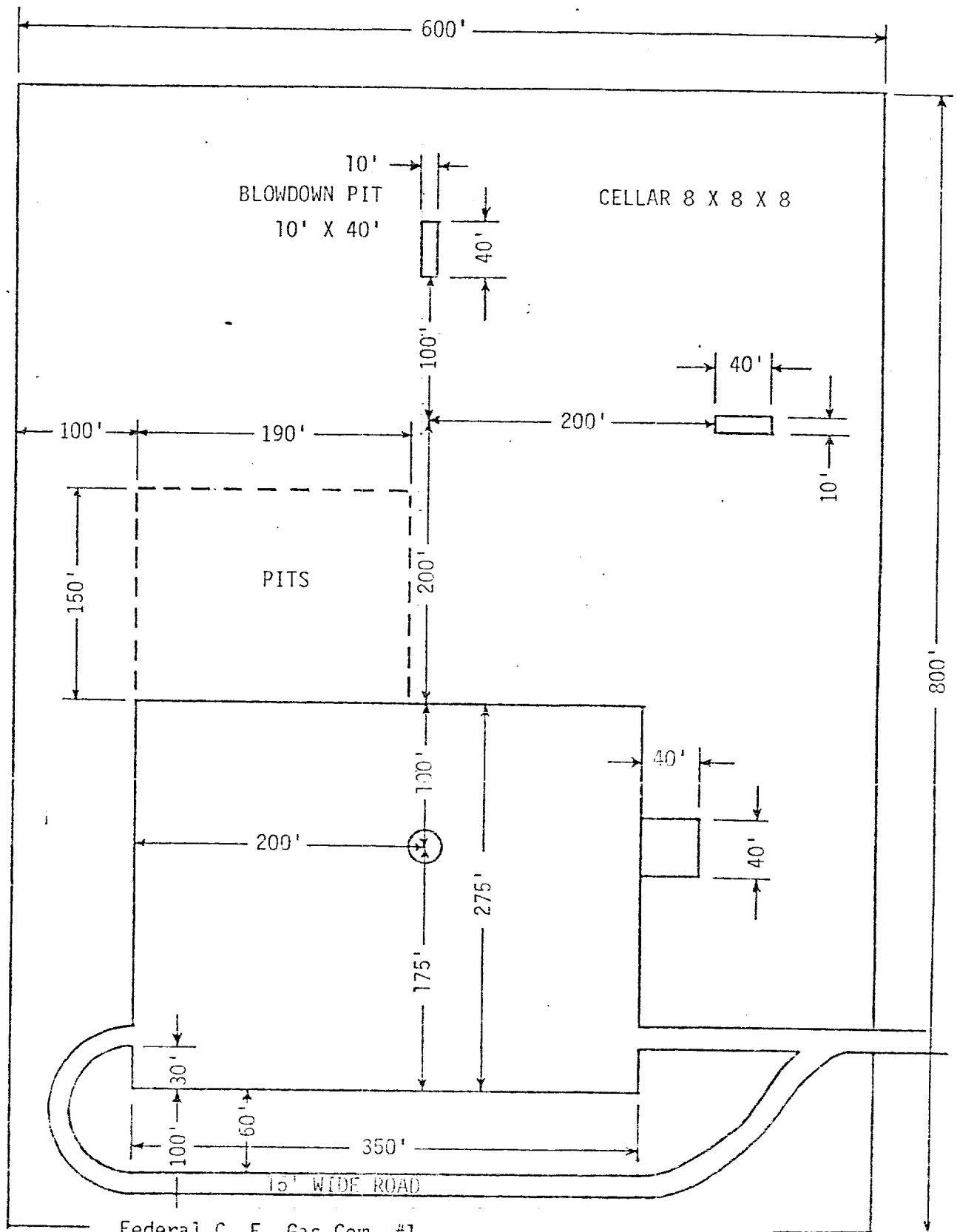
T.20 S.

T.21 S.





DRILL SITE DIMENSIONS



Federal C. E. Gas Com. #1
 Unit K, Sec. 1, T-17-S, R-27-E
 Eddy County
 1980' from the South line and 1980' from the West line
 Exhibit D

FOR WELL 8000' OR DEEPER

Introduction

An archaeological reconnaissance was recently completed by the Agency for Conservation Archaeology (A.C.A.) at Eastern New Mexico University for Amoco Production Company in Eddy County, New Mexico. The reconnoitered area will be impacted by the construction of a caliche pit expansion zone, a well pad and an access road. The project was administered by Mr. Dusty Weaver for Amoco Production Company and Dr. Colleen M. Beck, Director of ACA. This report was prepared by the Portales office of ACA.

The field work was conducted on 9 July 1981 by Beth Misner. Good field and weather conditions prevailed throughout the course of this reconnaissance. This survey was conducted under Federal Antiquities Permit number 81-NM-223. A search of the National Register has been made and properties within this area are not listed on the Register.

Survey Technique

Visual inspection of the pad was completed by walking a series of parallel transects. Each transect was covered in a tightly spaced zigzag pattern. The access road was treated as a single transect with a closely spaced zigzag pattern covering its length and breadth. This method maximized the opportunity of observing any cultural resources within or near the proposed area of impact.

Caliche Pit Expansion Zone

Location

The proposed caliche pit expansion zone is located 10 miles southwest of Artesia, New Mexico, near the Pecos River Valley. The caliche pit expansion zone measures 264 X 530 feet (80.4 X 161.5 meters) and is situated as follows:

SE 1/4 SE 1/4, Section 35, T17S R27E, NMPM, Eddy County, NM (BLM)

Map Reference: USGS Red Lake Quadrangle 7.5 minute series, 1955 (figure 1)

Terrain

The proposed caliche pit expansion zone is located near the Pecos River Valley, 3960 feet north of Scoggin Draw. It is situated on a rolling plain. The elevation varies from 3645 to 3655 feet (1110.9 to 1114 meters). The soil encountered in the area is predominantly a red clay loam. Taxonomically it can be classified as a member of the

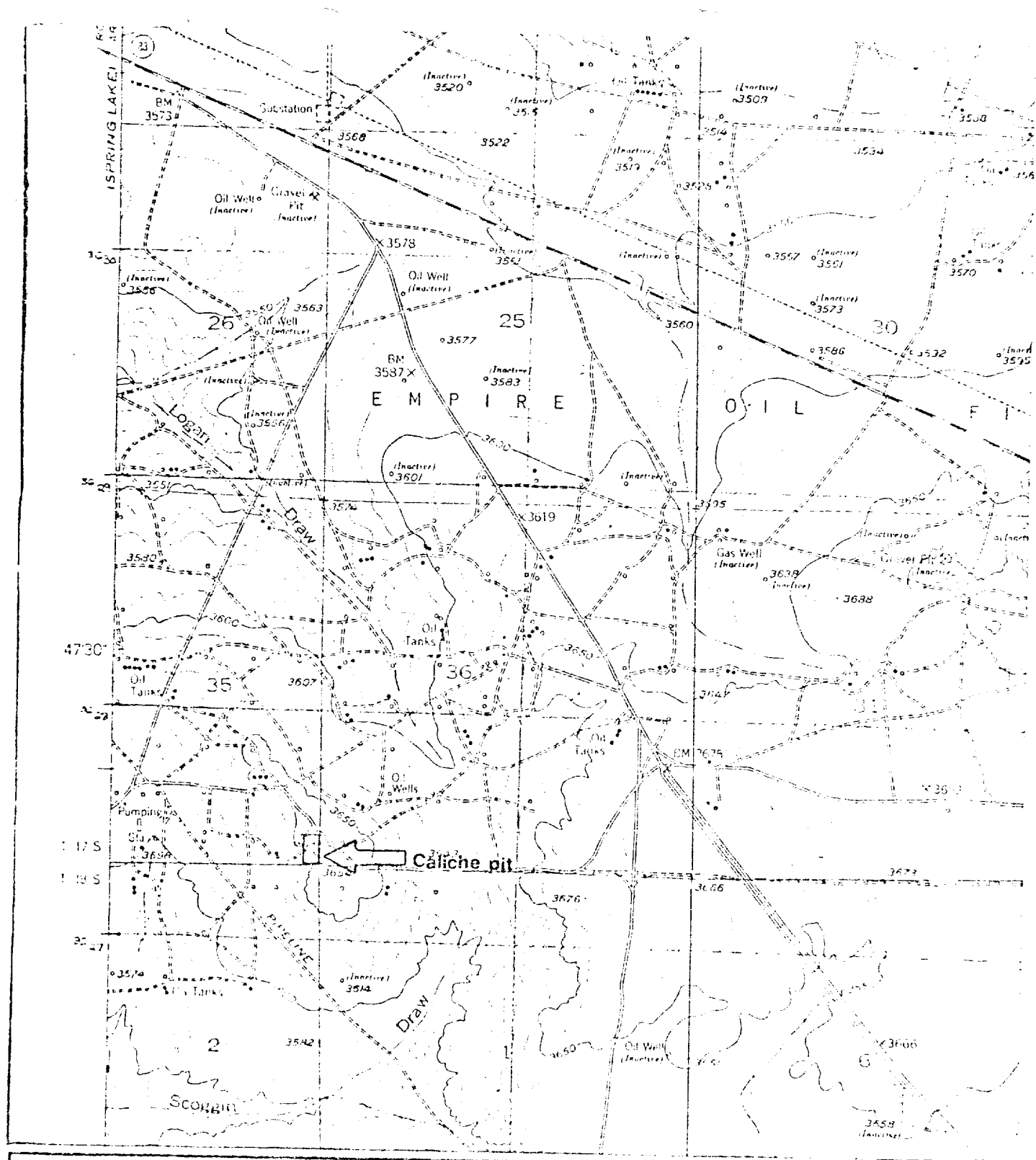
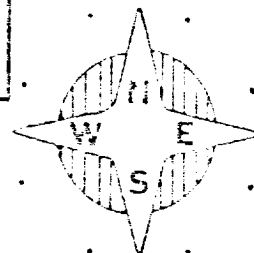


Figure 1: Location of the Caliche Pit Expansion Zone
Section 35, T17S, R27E, Eddy County

Map Reference: USGS Red Lake Quadrangle, 1955

SCALE 1:24,000

7.5 MINUTE
SERIES



ACA F82-102

paleorthids-haplargids association. Lithic inclusions consist of small amounts of caliche, gypsum, chert and quartzite.

Floristics

ACA encountered a sparse floral assemblage at this location. The density of the vegetation in the area is approximately 5 percent, consisting primarily of shrubs. The dominant species is creosote bush (Larrea tridentata). Among other species present are acacia (Acacia constricta), ephedra (Ephedra trifurcata), rabbit bush (Chrysanthomus nauseosus), and broom snakeweed (Gutierrezia Sarothrae).

Cultural Resources

ACA did not encounter any archaeocological sites or isolated manifestations, either within or near the proposed facilities. A review of the National Register did not find any properties listed for this location.

Recommendations

ACA recommends clearance for the proposed caliche pit and suggests that construction be allowed to proceed as currently planned.

Federal "CE" Gas Com. No. 1

Location

The proposed well pad and access road are located 10 miles east of Artesia, New Mexico, near the Pecos River Valley. The pad measures 600 X 800 feet (182.8 X 243.8 meters) and the access road measures 50 X 3000 feet (15.2 X 914.4 meters). They are situated as follows:

Pad:

NE 1/4 SW 1/4, Section 01, T17S R27E, NMFM, Eddy County, NM (BLM)

Access Road:

NE 1/4 SW 1/4, Section 01, T17S R27E, NMFM, Eddy County, NM (BLM)

SE 1/4 SW 1/4, Section 01, T17S R27E, NMFM, Eddy County, NM (BLM)

NE 1/4 NW 1/4, Section 12, T17S R27E, NMFM, Eddy County, NM (BLM)

Plat: Figure 2

Map Reference: USGS Red Lake Quadrangle 7.5 minute series, 1955 (figure 3)

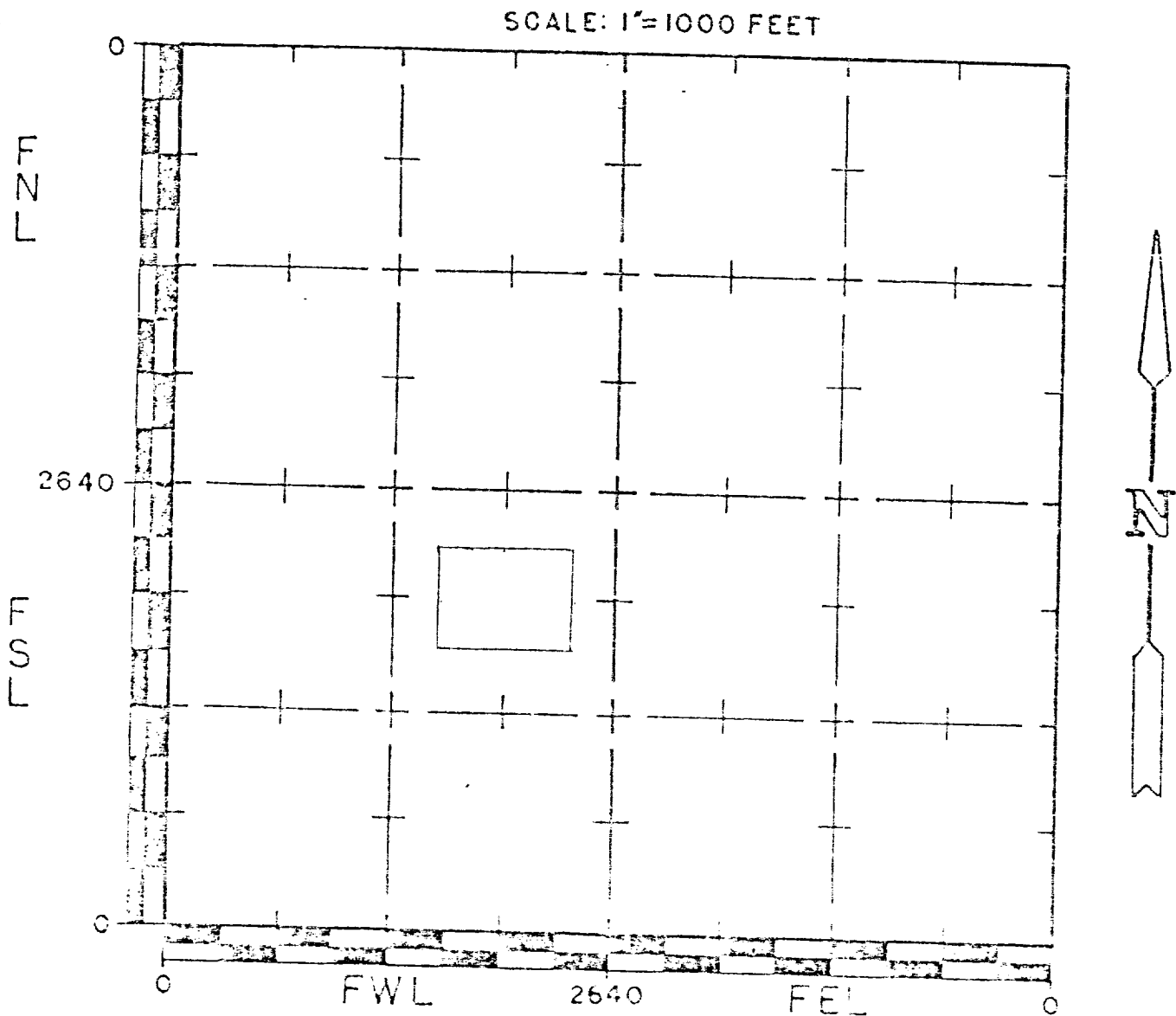
Terrain

The proposed well pad and access road are located near the Pecos

Figure 2

AGENCY FOR CONSERVATION ARCHAEOLOGY WELL LOCATION SCHEMATIC

COMPANY: AMOCO PRODUCTION CO. LEASE: Federal "CE" Gas Com. WELL NO.: 1
1980 FEET FROM THE W LINE 1980 FEET FROM THE S LINE
SECTION: 1 TOWNSHIP: 17S RANGE: 27E
COUNTY: Eddy STATE: New Mexico
OWNERSHIP: BLM



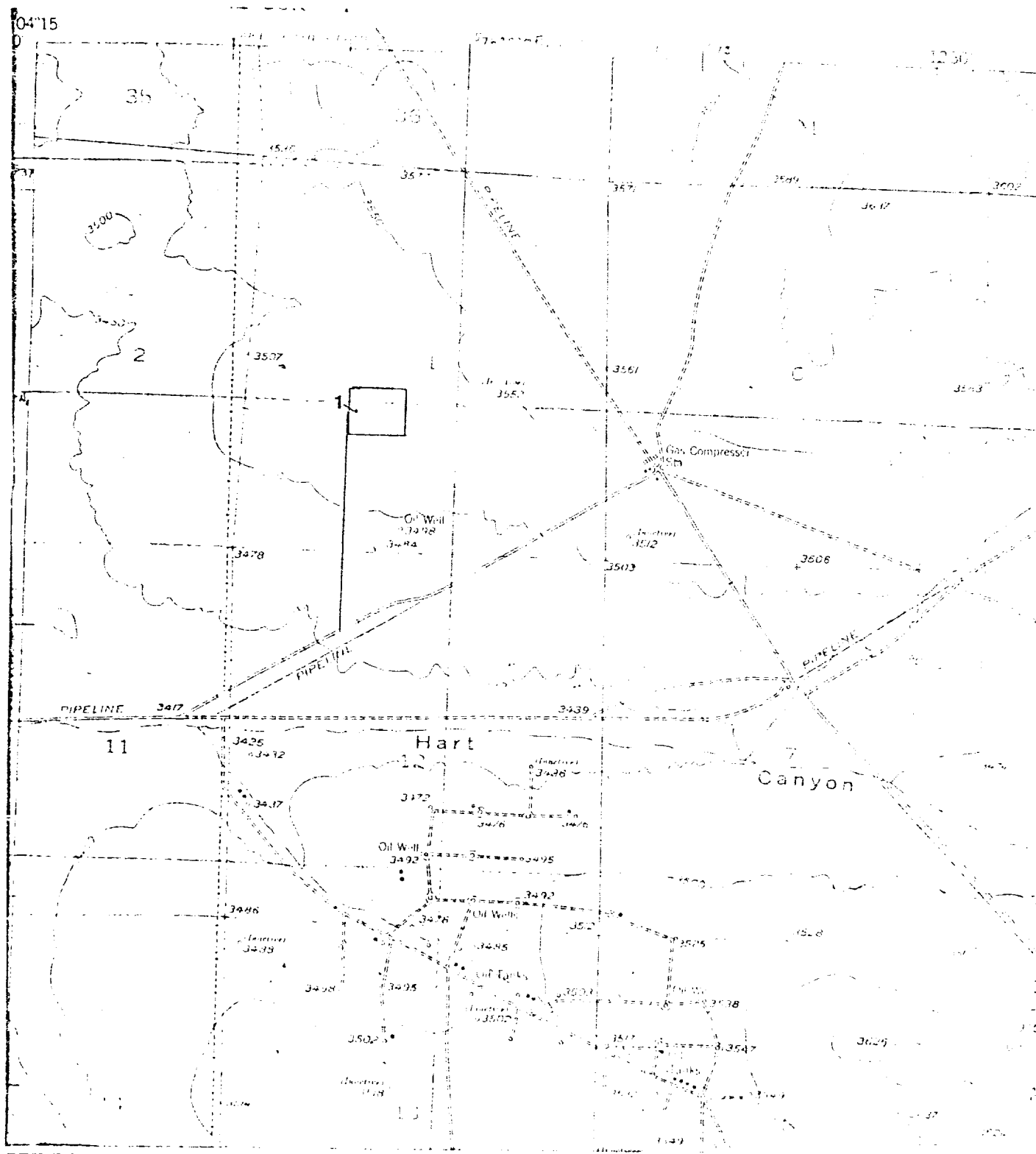
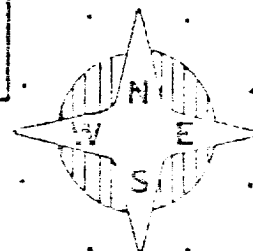


Figure 3: Location of Federal "CE" Gas Com. #1 & Road
Sections 1 & 12, T17S, R27E, Eddy County

Map Reference: USGS Red Lake Quadrangle, 1955

7.5 MINUTE
SERIES

SCALE 1:24,000



ACA F82-102

River Valley, 3960 feet north of Hart Canyon. They are situated on a rolling plain. The elevation varies from 3460 to 3530 feet (1054.6 to 1075.9 meters). The soil encountered in the area is predominantly a brown loam. Taxonomically it can be classified as a member of the paleorthids-haplargids association. Lithic inclusions consist of small amounts of caliche, gypsum, chert and quartzite.

Floristics

ACA encountered a dense floral assemblage at this location. The density of the vegetation in the area is approximately 85 percent, consisting primarily of grasses. The dominant species is blue grama (Bouteloua gracilis). Among other species present are creosote bush (Larrea tridentata), desert holly (Perezia nana), Engelman pricklypear (Opuntia phaeacantha), ephedra (Ephedra trifurcata), mesquite (Prosopis juliflora), plains yucca (Yucca campestris), ring muhly (Muhlenbergia torreyi), tabosa (Hilaria mutica), indian wheat (Plantago Purshii), broom snakeweed (Gutierrezia Sarothrae), and fishhook barrel cactus (Mamillaria micromeris).

Cultural Resources

During this survey ACA did not encounter any archaeological sites. However the following isolated artifact was recorded:

Isolated artifact number 1 is a tertiary flake made from a red medium grained quartzite which measures 3 X 4 cm. found 105 feet from the west side of the pad and 300 feet from the north side of the pad, in the pad interior.

A review of the National Register did not find any properties listed for this location.

Recommendations

ACA recommends clearance for the proposed well pad and access road and suggests that construction be allowed to proceed as currently planned.

DESIGNATION OF OPERATOR

The undersigned is, on the records of the Bureau of Land Management, holder of lease

DISTRICT LAND OFFICE: Santa Fe, New Mexico

SERIAL NO.: NM-12110

and hereby designates

NAME: Amoco Production Company

ADDRESS: P. O. Box 3092, Houston, Texas 77001

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable):

Township 17 South, Range 27 East N.M.P.M.

Section 1: NE/4 SW/4, S/2 SE/4

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.

Martin, Williams & Judson

By: William H. Martin

By: R. Ken Williams (Signature of lessee)

By: Edward H. Judson

1804 First National Bank Bldg., Midland, Tx.

(Address)

79701

May 14, 1981

(Date)