



Sirgo-Collier, Inc.

P. O. Box 3531, Midland, Texas 79702 (915) 685-0878

August 11, 1987

Texaco Inc.
P. O. Box 3109
Midland, TX 79702

Attention: Mr. Gary Kern

RE: Unorthodox Location
West Dollarhide Queen Sand Unit
Well No. 84
2300' FSL and 1000' FWL of Section 29
T24S, R38E, Lea County, New Mexico

Dear Mr.

Sirgo-Collier, Inc. has staked an unorthodox location for the above referenced well which offsets your acreage in Section 29.

If you have no objections to this location, please sign one copy of this letter and return it to me in the enclosed stamped, self-addressed envelope. The other copy is for your file.

Should you have any questions, please do not hesitate to call me.

Very truly yours,

Leah Atchley

cc: Mr. David Catanach-NMOCC-Santa Fe, NM

Texaco Inc. has no objection to this unorthodox location and hereby waives any right of appeal.

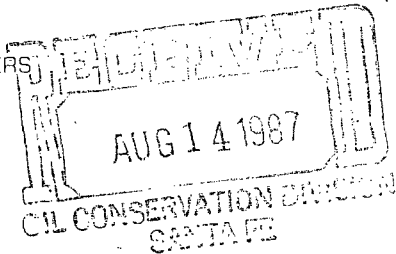
TEXACO INC.

BY _____



STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

GARREY CARRUTHERS
GOVERNOR



8-11-87

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

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

RE: Proposed:

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

Gentlemen:

I have examined the application for the:

Surgo Collier Inc. WDQSU 84-L 29-24-38
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

Release Date: Aug 31 1987



Sirgo-Collier, Inc.

P. O. Box 3531, Midland, Texas 79702 (915) 685-0878

August 3, 1987

State of New Mexico
Energy and Mineral Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

NSL-2395
RULE-104 F(I)
West Dollarhide Queen Sand
Unit No. 84
40 Acres ded.
NW1/4 SW1/4 Section 29
Dollarhide Queen Pool

Re: Unorthodox Locations
WDQSU ~~29~~-84
2300' FSL, 1000' FWL, Section 29,
T-24-S, R-38-E, Lea County, NM

Ladies and Gentlemen:

This letter shall serve as our request to have the unorthodox locations described above approved by your office.

On the attached plat you will note our locations lie within the unit boundaries of the West Dollarhide Queen Sand Unit. We are requesting these locations be approved because these locations will allow us to establish a more efficient waterflood pattern in the field.

Should you have additional questions, please call.

Sincerely,

Brian M. Sirgo

BMS:ba

attachment

cc: OCD - Hobbs
Jerry Sexton

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO.	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR SIRGO-COLLIER, INC.			7. UNIT AGREEMENT NAME WDQSU	
3. ADDRESS OF OPERATOR P. O. Box 3531, Midland, TX 79702			8. FARM OR LEASE NAME	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface 2300' FSL and 1000' FWL of Section 29, T24S, R38E At proposed prod. zone Queen			9. WELL NO. 84	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 7 miles Northeast of Jal, New Mexico			10. FIELD AND POOL, OR WILDCAT Dollarhide Queen	
10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 29, T24S, R38E	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.			12. COUNTY OR PARISH Lea	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3188 GL			13. STATE NM	
16. NO. OF ACRES IN LEASE 320			17. NO. OF ACRES ASSIGNED TO THIS WELL 40	
19. PROPOSED DEPTH 3900			20. ROTARY OR CABLE TOOLS Rotary	
22. APPROX. DATE WORK WILL START* September 12, 1987				

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	400	200 sx 100% excess
7 7/8	5 1/2	15.50	3900	circulate to surface

Queen zone will be selectively perforated and stimulated as needed for optimum production.

- Attached:
1. Well location and acreage dedication plat.
 2. Supplemental drilling data.
 3. Surface use plan.

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 Leah Attchileij TITLE Agent DATE August 3, 1987
(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

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

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

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

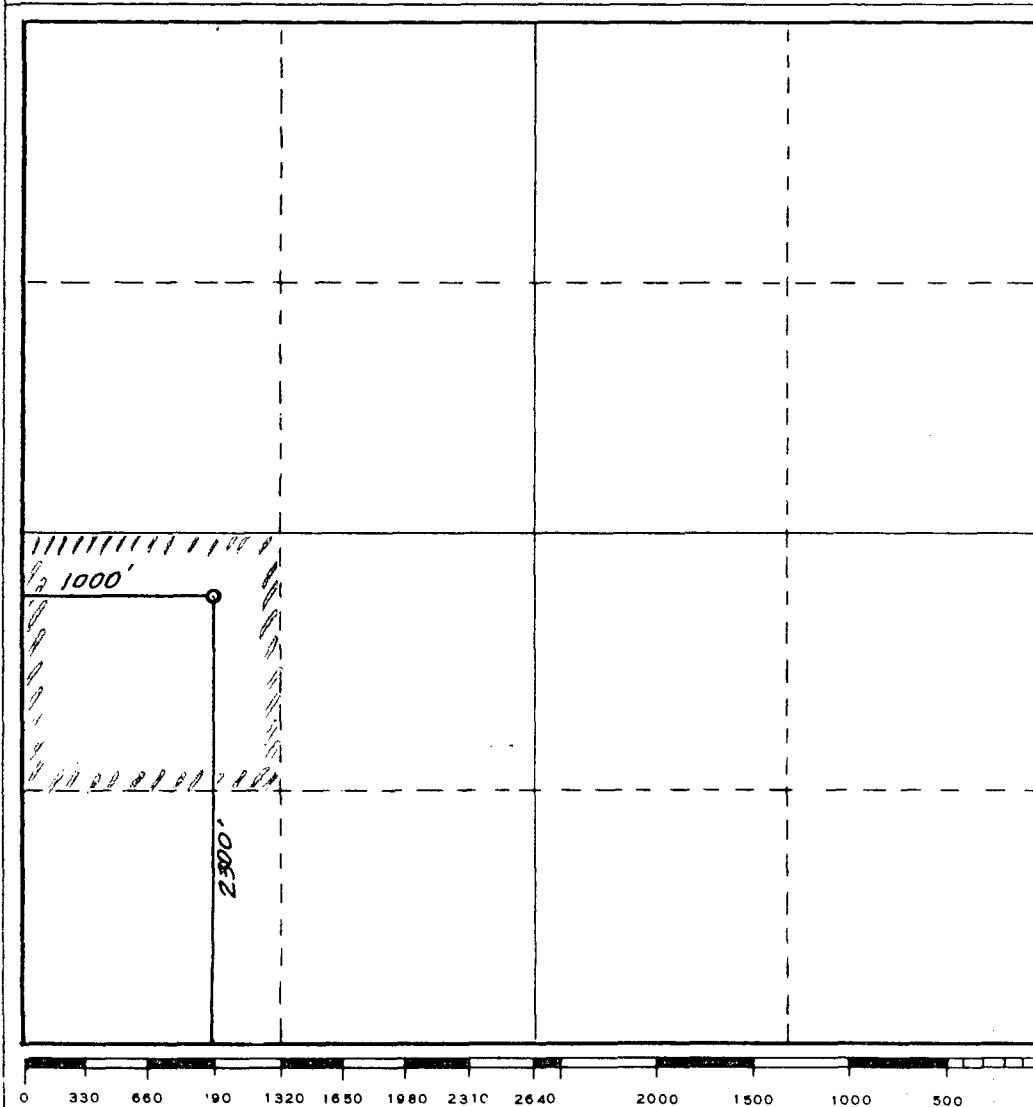
Operator SIRGO-COLLIER INC.			Lease WDQSU 29		Well No. 84
Unit Letter L	Section 29	Township 24 South	Range 38 East	County Lea	
Actual Footage Location of Well: <div style="display: flex; justify-content: space-between;"> 2300 feet from the South line and 1000 feet from the West line </div>					
Ground Level Elev. 3188.	Producing Formation Queen		Pool Dollarhide Queen		Dedicated Acreage: 40 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 R2356

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.

Leah Atchley

Name

Leah Atchley

Position

Agent

Company

Sirgo-Collier, Inc.

Date

August 3, 1987

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

July 15, 1987

Registered Professional Engineer
and/or Land Surveyor

Dan R. Reddy

Certificate No.

NM PE&LS NO, 5412

Surface Use Plan For
Drilling, Completing and Producing

Sirgo-Collier, Inc.
WDQSU 29-84
2300' FSL, 1000' FWL, Section 29, T-24-S, R-38-E
Lea County, New Mexico
GL 3188'

Located: Approximately 5 air miles northeast of Jal, New Mexico

Lease Number: LC-067968

Record Lessee: Sinclair

Bond Coverage: Sirgo-Collier, Inc., Federal Statewide

Acres in Lease: 320

Surface Owner: Bill & L.B. Grove and Estate of Clyde Cooper, Jal, New Mexico

Well Spacing: 40 acre West Dollarhide Queen Sand Unit

Exhibits: A - WDQSU Lease Map
 B - Topo
 C - Sketch of Well Pad
 D - Sketch of electrical lines if any and flow lines
 E - Road Map
 F - Well locations adjacent to drill location

Supplemental Drilling Data
Sirgo-Collier, Inc.
WDQSU 29-84
2300' FSL, 1000' FWL, Section 29, T-24-S, R-38-E
Lea County, New Mexico

1. Surface Formation: Tertiary Pliocene, GL 3188'

2. Estimated Tops of Geologic Markers:

Rustler	1140'	T/Yates	2802'
Top/Salt	1300'	T/Queen	3718'
Base/Salt	2580'	B/Queen	
		TD	3900'

3. Anticipated Porosity Zones: Queen 3677'. Oil

4. Casing Design:

<u>Size</u>	<u>Interval</u>	<u>Weight</u>	<u>Grade</u>	<u>Joint</u>
8-5/8"	0 - 400'	24.00#	J-55	STC
5-1/2"	0 -	15.50#	J-55	STC

5. Surface Control Equipment: Double RAM-type, Series 900 + BOP with annular (See Exhibit).

6. Circulating Medium: Native, cut brine conditioned as necessary for control of viscosity and water loss.

7. Auxiliary Equipment: None

8. Testing, Logging and Coring Programs: Electric Logs - Dual Laterlog/MICRO Laterlog/Gamma Ray/Caliper Compensated Density Log. Possible core from 3750' - 3850'.

9. Abnormal Pressure, Temperature of Gases: None anticipated.

10. Anticipated Starting Date: Operations will commence upon approval approximately May 5, 1987. Duration of drilling, completion and testing, about 5 weeks.

ROAD LOG TO SIRGO-COLLIER, INC.
WDQSU 29-84

Starting Point is Jal, New Mexico. Go north on State Road 18 $3\frac{1}{2}$ miles to El Paso Natural Gas Plant #3 road. (If you check road mile marker #13 is about a $\frac{1}{2}$ mile north of this turn off.)

Turn east at plant #3 road, follow black top approximately 5 miles until it dead ends, turn north for one mile, turn east and continue $1\frac{1}{2}$ miles. You enter WDQSU about 300' north of well #22.

Drill Site: 2300' FSL, 1000' FWL, Section 29, T-24-S, R-38-E,
Lea County, New Mexico

THIRTEEN POINT PROGRAM

1. Existing Roads: Existing roads which lead to the proposed drillsite are shown on Exhibit "B".
2. Proposed New Road: Proposed new access road will be 50' (see Exhibit "B"). Road will terminate at south end of proposed well pad. The road has been flaged and staked.
 - A. Width: 15 feet with 25 feet Right of Way.
 - B. Surfacing Material: Caliche
 - C. Road Design: New road will be constructed by grading Right of Way and surfacing driving area with caliche.
 - D. Culverts: None Necessary
 - E. Gates, Cattleguards: None Necessary
3. Location of Existing Wells: Existing wells in vacinity of proposed drill-site are shown on Exhibit "F".
4. Location of Existing and/or Proposed Facilities:
 - A. This is a producing unit and a tank battery is located in the NW/SW section 32-24-38 Unit L.
 - B. If the well is productive, a flow line will be laid on top of the ground to existing facility via nearest flow line.
5. Location and Type of Water Supply: It is not planned to drill a water supply well. Water for operations will be transported via 3" line from existing battery. Temporary line will be laid on surface along existing road right of way.
6. Source of Construction Materials: Materials for construction of the proposed new well pad and road will be obtained from an existing pit on private land (Clyde Cooper Pit) if any.
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.
 - C. Water produced during test will be disposed in drill pit.
 - D. Oil produced during test will be stored in test tank to sell.
 - E. Trash, waste paper, garbage, and junk will be buried in trash pit with a minimum of 24" of dirt. All waste material will be contained to prevent scattering by wind. Location of trash pit see Exhibit "C".

7. Methods of Handling Waste Disposal: (Continued)

- F. All trash and debris will be buried or removed from wellsite in a prudent manner upon completion.

8. Auxiliary 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 wellsite are shown on Exhibit "C".

10. Plans for Restoration of the Surface:

- A. After completion, materials not needed will be removed. Pits will be filled and the location cleaned.
- B. Any unguarded pits will be fenced until filled.
- C. After abandonment, all equipment, trash and junk will be removed. Fee surface land will be rehabilitated as to owners agreement.

11. Other Information:

- A. Topography: Undisturbed wellsite elevation is 3161' situated on the west-facing shoulder of a prominent ridge system which overlooks monument draw.
- B. Soil: Sandy clay loam soils hosting caliche inclusions.
- C. Land Type and Use: The vicinity surrounding drillsite is semi-arid rangeland and its primary use is for the production of oil and gas for grazing.
- D. Flora: Vegetation cover is grassland type.
- E. Fauna: None Observed
- F. Ponds and Streams: None
- G. Water Wells: One mile to south, water for flood operations not known if portable.
- H. Residences and Other Structures: None in area.
- I. Archaeological, Historical and Cultural Sites: No sites observed.

12. Operator's Representative: Representative responsible for assuring compliance with the approved surface use plan.

Timothy D. Collier
P.O. Box 3531
Midland, Texas 79702
Work - 915/685-0878
Home - 915/684-7757

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 knowledge true and correct; and, that the work associated with the operations proposed herein will be performed by SIRGO-COLLIER, INC. and its sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

June 23, 1987



Leah Atchley, Agent for
Sirgo-Collier, Inc.

Peterson Drilling Company Rig 2 location plat

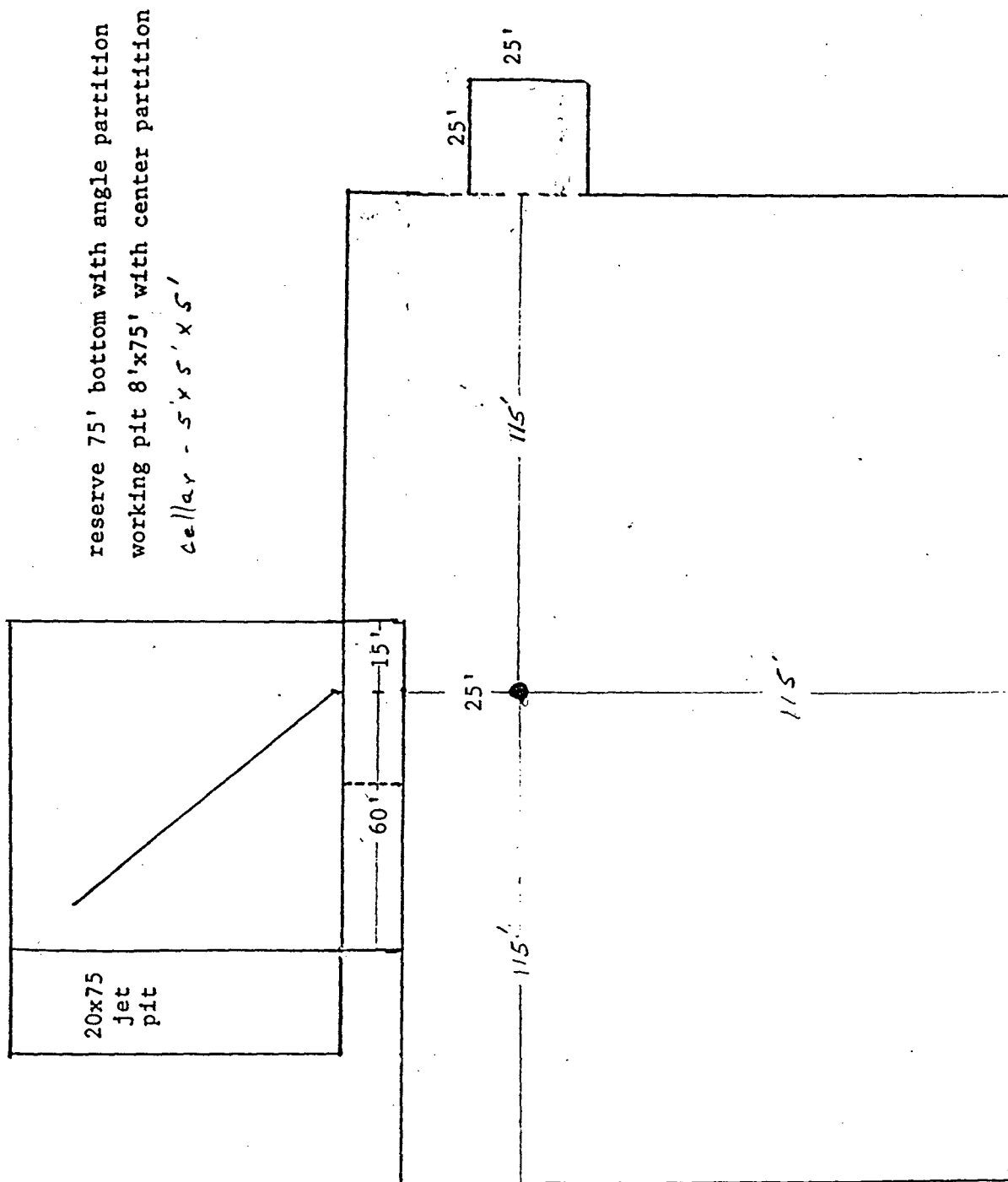
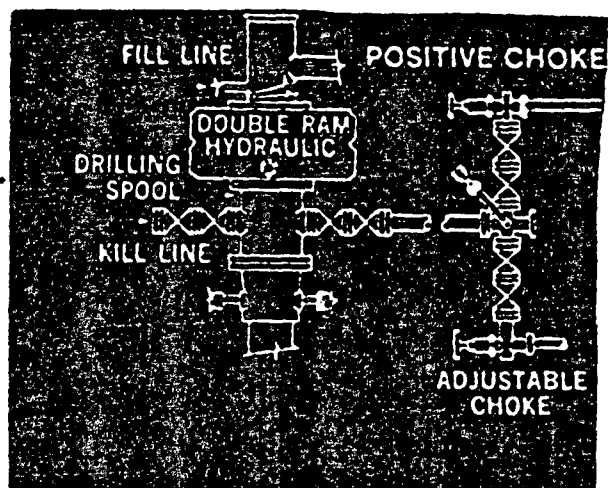


Exhibit C



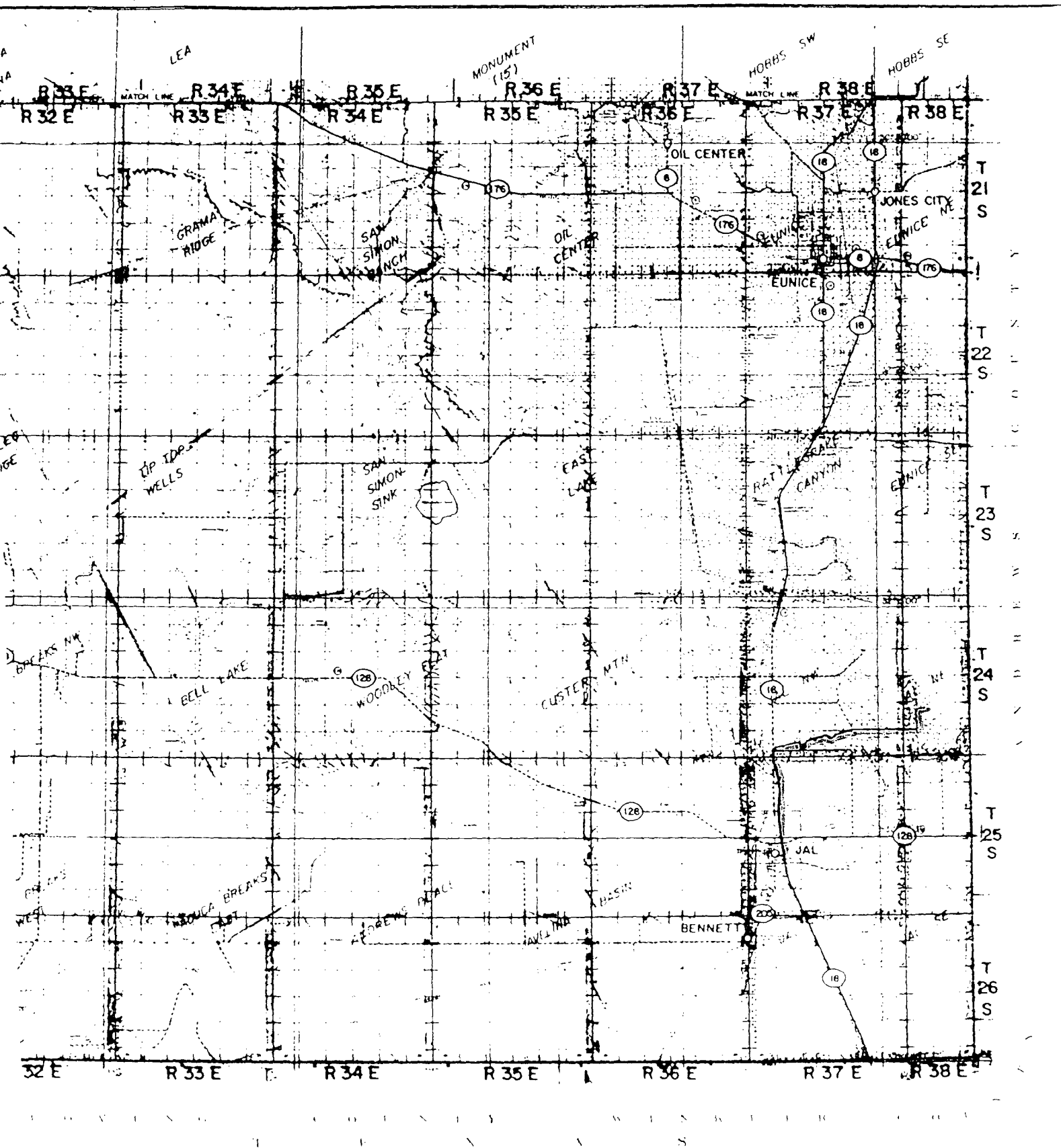
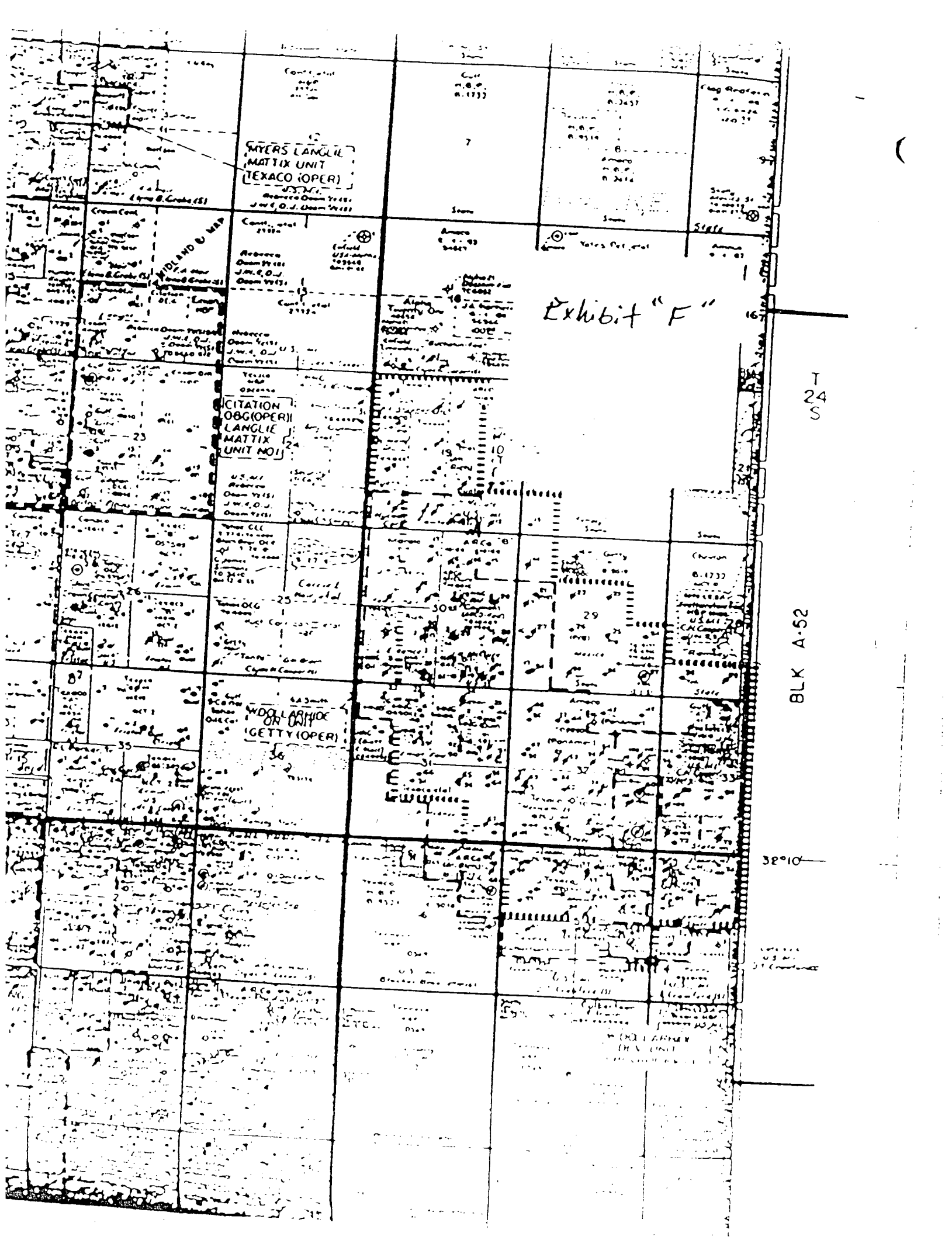


Exhibit E



MYERS LANGLIE
MATTIX UNIT
(TEXACO OPER)

CITATION
OBG (OPER)
LANGLIE
MATTIX
UNIT NO. 1

WOLLARHIDE
OR DAY
(GETTY OPER)

Exhibit "F"

BLK A-52

T
24
S

32°10'



NMAS

New Mexico Archaeological Services, Inc.

P. O. Box 1341

Carlsbad, New Mexico 88220

(505) 887-7646

Reconnaissance

Excavation

Analysis

Explanation

Curation

27 July 1987

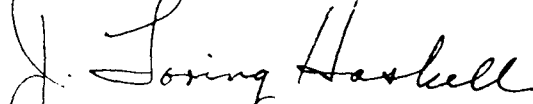
Mr. Timothy D. Collier
Agent
SIRGO-COLLIER, INCORPORATED
P.O. Box 3531
Midland, Texas 79702

Dear Mr. Collier:

Enclosed please find NMAS' Archaeological Clearance Report for WDQSU "30" Well No. 81, WDQSU "32" Well No. 82, WDQSU "29" Well No. 84, WDQSU "29" Well No. 84 Alternate, WDQSU "29" Well No. 85 and their associated access roads in Lea County, New Mexico. No cultural resources were encountered during these surveys; therefore, NMAS is suggesting clearance for these projects.

If you have any questions pertaining to this report, please call my office. Thank you for asking NMAS to do these surveys.

Yours sincerely,


Dr. J. Loring Haskell
Principal Investigator

Enclosure

cc: Mr. Dave Kayser, BLM, Carlsbad

as

Archaeological Clearance Report
for

SIRGO-COLLIER, INCORPORATED

WDQSU "30" Well No. 81
WDQSU "32" Well No. 82
WDQSU "29" Well No. 84
WDQSU "29" Well No. 84 Alternate
WDQSU "29" Well No. 85

Prepared

By

Dr. J. Loring Haskell

Submitted

By

Dr. J. Loring Haskell
Principal Investigator
New Mexico Archaeological Services, Inc.
Carlsbad, New Mexico

27 July 1987

Permit No. 14-2920-87-G

Report Number: NMAS-1987-12-JY

ABSTRACT

New Mexico Archaeological Services, Inc., representing SIRGO-COLLIER, INCORPORATED, Midland, undertook a Class III survey of Bureau of Land Management lands scheduled to be impacted by the construction of five drill locations and their associated access roads. Field work was conducted under mostly cloudy conditions with light winds during the afternoon. The proposed locations will measure 400 X 400 feet (actual area surveyed 18.77 acres). WDQSU "30" Well No. 81's access road will measure 100 X 600 feet (actual area surveyed 1.37 acres). WDQSU "29" Well No. 82's access road will measure 100 X 200 feet (actual area surveyed 0.45 acre). WDQSU "29" Well No. 84's access road will measure 100 X 50 feet (actual area surveyed 0.17 acre). WDQSU "29" Well No. 84 Alternate's access road will measure 100 X 50 feet (actual area surveyed 0.17 acre). WDQSU "29" Well No. 85's access road will measure 100 X 50 feet (actual area surveyed 0.17 acres). Total acreage 21.1 acres. No cultural properties were recorded during these surveys; therefore, NMAAS is suggesting clearance for all proposed work as presently staked.

Introduction

On 26 July 1987, New Mexico Archaeological Services, Inc., (NMAS), Carlsbad, (Permit Number 14-2920-87-G), undertook for SIRGO-COLLIER, INCORPORATED, Midland, an archaeological survey of federal lands administered by the Bureau of Land Management in Lea County, New Mexico. Reconnoitered areas will be impacted by the construction of five drill locations and their associated access roads. This project was advanced by Mr. Timothy D. Collier, Agent, SIRGO-COLLIER, INCORPORATED. These surveys were undertaken by Dr. Haskell.

Survey Technique

For these investigations, SIRGO-COLLIER, INCORPORATED's proposed locations were reconnoitered for evidence of man's past activities by walking them in a series of 8.0 m wide, close intervals (15° or less), zigzag transects. In addition, added zones extending 20 feet on each side of the staked 400 X 400 foot locations, and lying outside the bounds of their proposed work areas, were reconnoitered by a similar means. At their juncture with the existing lease roads, the surveyed area was broadened to embrace an area measuring 100 X 150 feet. Lathe is considered to be the center of the proposed roads. Methodologically, these procedures served to promote optimal conditions for the visual examination of the areas to be impacted by construction-related activities. Field work was conducted under mostly cloudy conditions with light winds during the afternoon. Ground visibility ranges between 70 and 95%. Field time four hours.

WDQSU "30" Well No. 81

Location

The proposed location will measure 400 X 400 feet (actual area surveyed 4.44 acres) on federal land and will be situated 1700 feet from the north line and 330 feet from the east line.

Section 30, T24S, R38E, NMPM, Lea County, NM

Thus it will be situated in the:

SE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 30, T24S, R38E, NMPM, Lea County, NM

The associated access road will measure 100 X 600 feet (actual area surveyed 1.37 acres) and will be situated in the:

SE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 30, T24S, R38E, NMPM, Lea County, NM

Map Reference: USGS JAL NE QUADRANGLE, 7.5 Minute Series,
1969.

The proposed location and access road have not been previously impacted by mechanical means.

Environmental Setting

SIRGO-COLLIER, INCORPORATED's proposed location will be situated on the west-facing shoulder of a rolling ridge system lying due east of Monument Draw. Elevation is 3,182 feet. Slope averages 1°; aspect is west, north and south. Nearest water is in the form of possible seeps and springs within Monument Draw. Seasonal runoff collects in areal subsidence basins during periods of heavy rainfall. Water is perennially scarce locally. Local soil individuals are composed of sandy clay loams which harbor caliche inclusions. Croute calcaire underlies the coeval surface. Soil individuals fall within an intergrade of the Typic Torrip-samment subgroup. Local soils, heavily disturbed by chaining, host a grassland, floral community, largely dominated by broom

snakeweed. Overall, the surface is subject to the full effects of ephemeral sheetwash. Presently, the surface is subject to colluvial movement and limited aeolian activity.

Cultural Resources

Prefield 17 July 1987, Arita K. Slate, no archaeological sites.

No cultural properties were recorded during the course of this survey. Their absence is due to shortages of siliceous lithic material, the openness of the landform itself, and a bonafide dearth of water. Land usage was brief and transitory throughout prehistory. Temporally, actual utilization dates back to Paleoindian times. Economic pursuits focused primarily on hunting- and hunting-related tasks. Major mammalian forms taken in the past included Lepus, Sylvilagus, Antilocapra and Bison.

Recommendations

NMAS recommends clearance for SIRGO-COLLIER, INCORPORATED's proposed WDQSU "30" Well No. 81 and its access road and suggests that work-related activities proceed in accordance with company plans (Fig. 1). Clearance, of course, is granted by the Bureau of Land Management. If cultural resources are encountered during construction, the BLM and NMAS should be notified immediately.

WDQSU "32" Well No. 82

Location

The proposed location will measure 400 X 400 feet (actual area surveyed 4.44 acres) on federal land and will be situated 330 feet from the north line and 1150 feet from the west line.

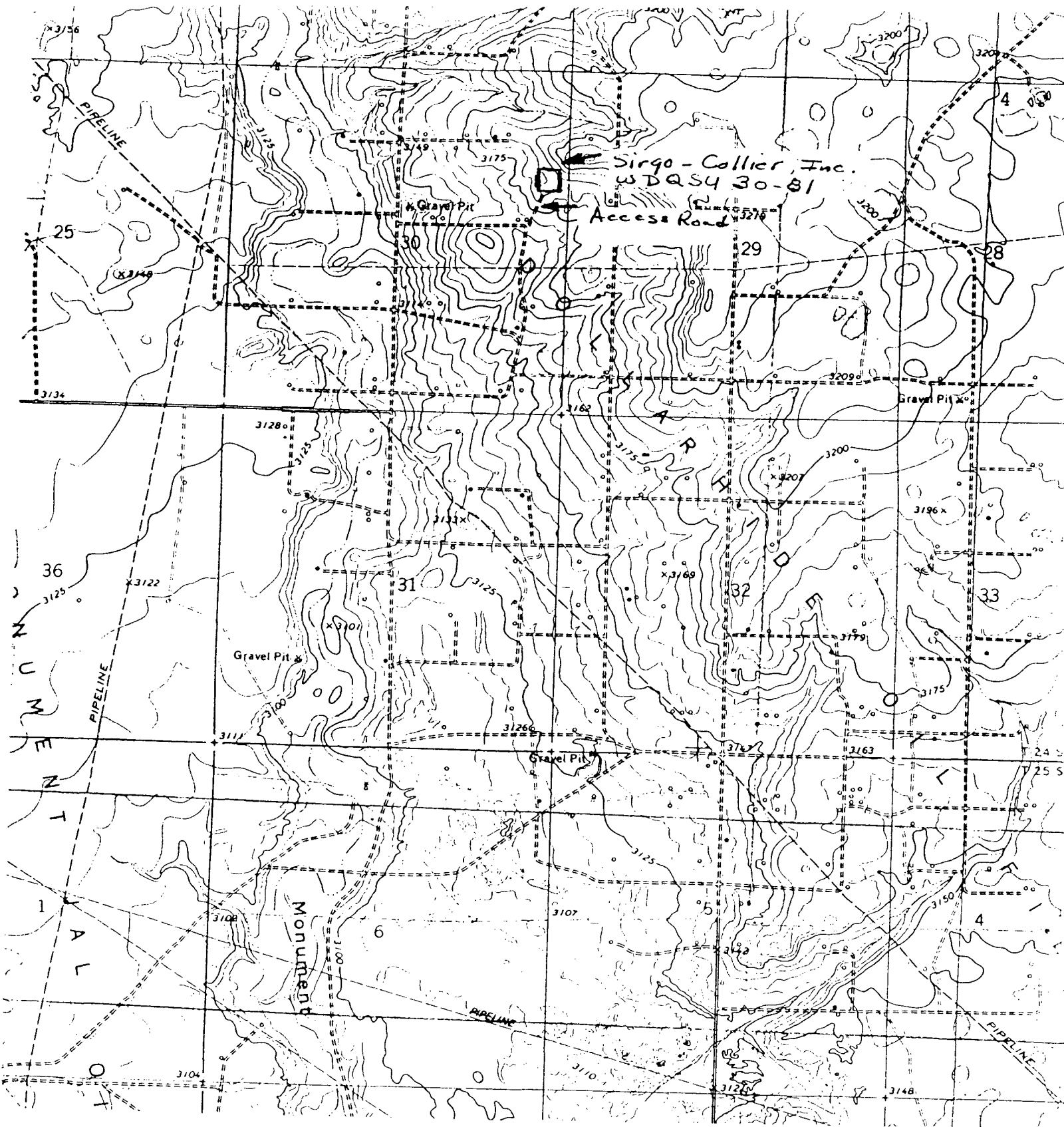


Fig. 1. USGS JAL NE QUADRANGLE, 7.5 Minute Series, 1:24,000, 1969, photorevised 1979, showing SIRGO-COLLIER, INCORPORATED's proposed WDQSU "30" Well No. 81, 1700 FNL, 330 FEL, and access road, Section 30, T24S, R38E, NMPM, Lea County, New Mexico.

Section 32, T24S, R38E, NMPM, Lea County, NM

Thus it will be situated in the:

NW¼NW¼, Section 32, T24S, R38E, NMPM, Lea County, NM

The associated access road will measure 100 X 200 feet
(actual area surveyed 0.45 acre) and will be situated in the:

SW¼NW¼, Section 32, T24S, R38E, NMPM, Lea County, NM

Map Reference: USGS JAL NE QUADRANGLE, 7.5 Minute Series,
1969.

The proposed location is flanked on the north and east by power lines, a Texaco Tank Battery and Pumping Station on the south, and three flow lines on the west.

Environmental Setting

SIRGO-COLLIER, INCORPORATED's proposed location will be situated on a long, gently sloping ridge system which forms the east side of the Monument Draw catchment. Elevation is approximately 3,180 feet. Slope averages 1°/aspect is west, north and south. Nearest water occurs in the form of possible seeps and springs within the Monument Draw catchment. Additionally, low spots within the catchment host water for short periods following flooding. Water is universally scarce throughout the district. Soil individuals are composed of sandy clay loams which fall within an intergrade of the Typic Torripsamment subgroup. Caliche gravels commonly constitute a light scree. A grassland, floral community is hosted by local soils. Soils are subject to colluvial movement and limited aeolian processes.

Cultural Resources

Prefield 17 July 1987, Arita K. Slate, no archaeological sites.

No cultural properties were recorded during the course of this survey. Absences of siliceous lithic material, shelter and potable water combined to restrict land usage to hunting- and hunting-related tasks. Expected cultural properties, reflecting this type of utilization, should include isolated, random occurrences of débitage, multidirectional- unidirectional- or exhausted-cores, projectile points, scrapers, gravers, etc. While occupancy dates back to Paleoindian times, most utilization occurred during Archaic- and Jornada Mogollon times.

Recommendations

NMAS recommends clearance for SIRGO-COLLIER, INCORPORATED's proposed WDQSU "32" Well No. 82 and its access road and suggests that work-related activities proceed in accordance with company plans (Fig. 2). Clearance, of course, is granted by the Bureau of Land Management. If cultural resources are encountered during construction, the BLM and NMAS should be notified immediately.

WDQSU "29" Well No. 84

Location

The proposed location will measure 400 X 400 feet (actual area surveyed 4.44 acres) on federal land and will be situated 2450 feet from the south line and 1000 feet from the west line.

Section 29, T24S, R38E, NMPM, Lea County, NM

Thus it will be situated in the:

NW¼SW¼, Section 29, T24S, R38E, NMPM, Lea County, NM

The associated access road will measure approximately

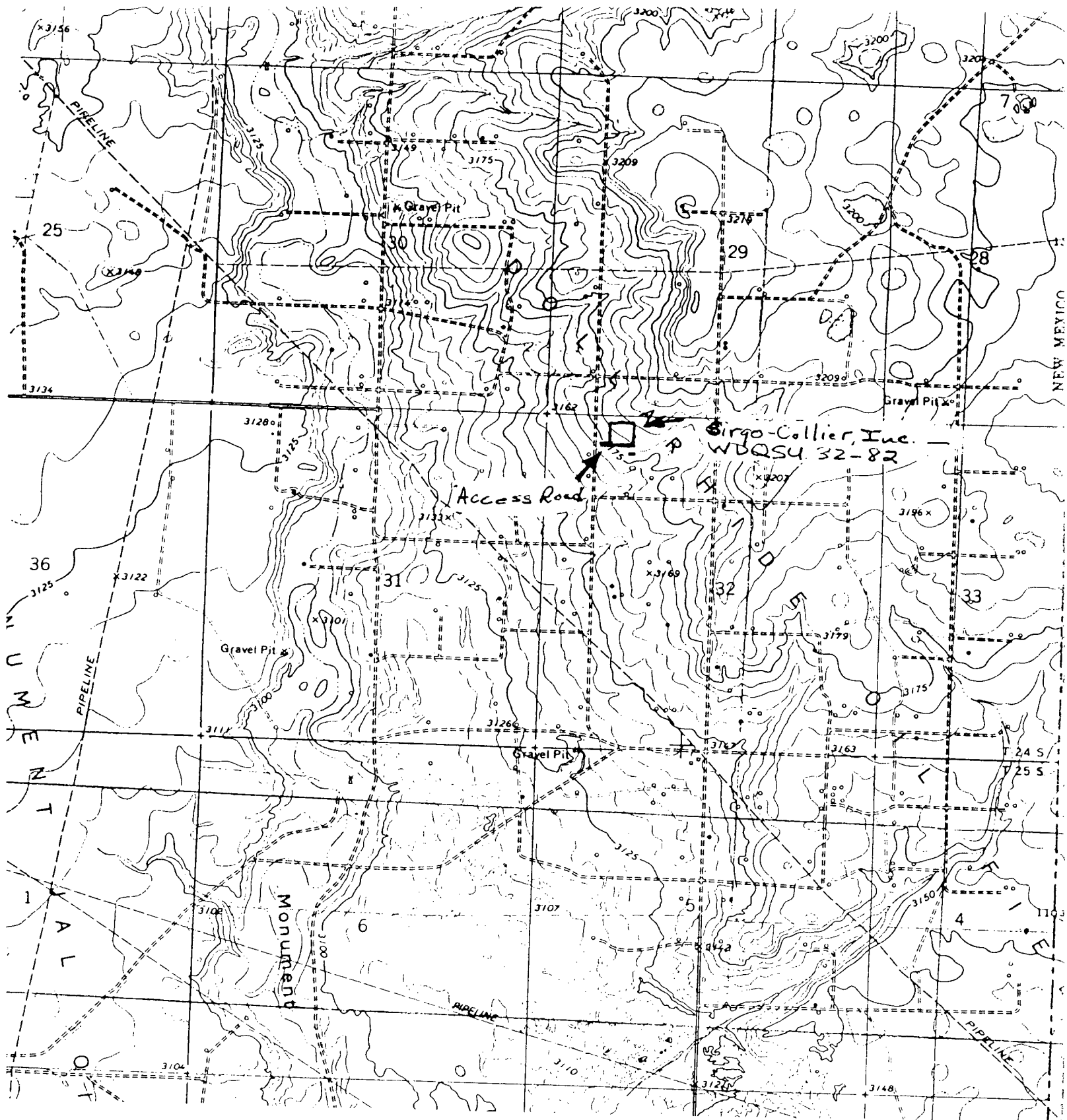


Fig. 2. USGS JAL NE QUADRANGLE, 7.5 Minute Series, 1:24,000, 1969, photorevised 1979, showing SIRGO-COLLIER, INCORPORATED's proposed WDQSU "32" Well No. 82, 1150 FWL, 330 FNL, and access road, Section 32, T24S, R38E, NMPM, Lea County, New Mexico.

100 X 50 feet (actual area surveyed 0.17 acre) and will be situated in the:

NW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 29, T24S, R38E, NMPM, Lea County, NM

Map Reference: USGS JAL NE QUADRANGLE, 7.5 Minute Series,
1969.

The proposed location is crossed by a flow line and two, two-track roads which parallel each side of the flow line.

Environmental Setting

SIRGO-COLLIER, INCORPORATED's proposed location will be situated on the west-facing shoulder of a rolling ridge system lying immediately east of Monument Draw. Elevation is 3,190 feet. Drainage is toward the west to west-southwest and moves as a result of ephemeral sheetwash. Slope averages 1°/aspect is west, north and south. Nearest water is possible seeps and springs within the Monument Draw catchment and runoff collecting in areal subsidence basins and low spots in the draw. Soil individuals are made up of sandy clay loams and commonly host caliche inclusions. Taxonomically, soils fall within the Typic Torripsamment subgroup. Croute calcaire underlies surficial deposits at variable depths. Although the area has been chained, local soils are supportive of a grassland-type, floral community. Depositional history is one of colluvial movement and mass wasting of the surface by weathering and limited aeolian activity.

Cultural Resources

17 July 1987, Arita K. Slate, no archaeological site.

No cultural properties were recorded during the course of this survey. Their absence is due chiefly to an extreme dearth

of siliceous lithic material, the openness of the potable water. Archaeological sites, should they occur, should be of the task locus type. Sites of this type, often consisting of isolated fire hearths, should occur along the crest of the catchment as well as around the rim areas of areal subsidence structures, i.e., localities affording good visibility for game movement.

Recommendations

NMAS recommends clearance for SIRGO-COLLIER, INCORPORATED's proposed WDQSU "29" Well No. 84 and its access road and suggests that work-related activities proceed in accordance with company plans (Fig. 3.). Clearance, of course, is granted by the Bureau of Land Management. If cultural resources are encountered during construction, the BLM and NMAS should be notified immediately.

WDQSU "29" Well No. 84 Alternate

Location

The proposed location will measure 400 X 400 feet (actual area surveyed 4.44 acres) on federal land and will be situated 2300 feet from the south line and 1000 feet from the west line.

Section 29, T24S, R38E, NMPM, Lea County, NM

Thus it will be situated in the:

NW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 29, T24S, R38E, NMPM, Lea County, NM

The associated access road will measure approximately 100 X 50 feet (actual area surveyed 0.17 acre) and will be situated in the:

NW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 29, T24S, R38E, NMPM, Lea County, NM

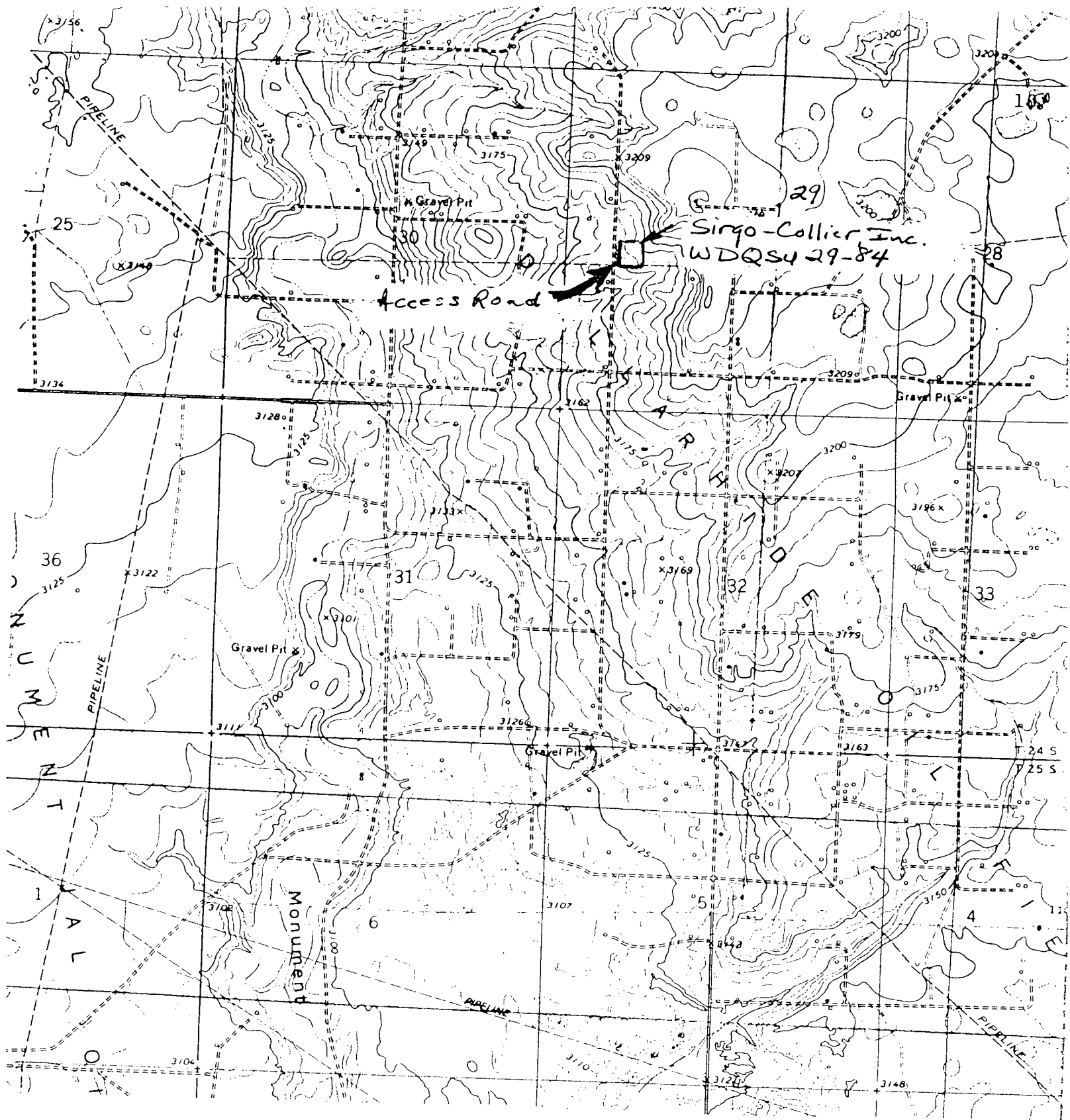


Fig. 3. USGS JAL NE QUADRANGLE, 7.5 Minute Series, 1:24,000, 1969, photorevised 1979, showing SIRGO-COLLIER, INCORPORATED's proposed WDQSU "29" Well No. 84, 2450 FSL, 1000 FWL, and access road, Section 29, T24S, R38E, NMPM, Lea County, New Mexico.

Map Reference: USGS JAL NE QUADRANGLE, 7.5 Minute Series,
1969.

The proposed location is crossed by a lease road, a flow line and two, two-track roads.

Environmental Setting

SIRGO-COLLIER, INCORPORATED's proposed location will be situated on a saddle-like feature connecting a westerly extension of the ridge with its main block to the east. Elevation averages 3,188 feet. Slope averages 1°/aspect is west and southwest. Water is universally scarce and limited to runoff collecting in subsidence basins and low spots in the Monument Draw catchment. Seeps and springs may occur in the catchment. Local soils are made up of sandy clay loams which harbor caliche inclusions. Soil individuals fall within an intergrade of the Typic Torripsamment subgroup. Croute calcaire underlies the coeval surface at variable depths. Drainage is by ephemeral sheetwash with runoff being to the south to southwest into a tertiary water course discharging into Monument Draw. Major factors influencing the depositional history of the landform are colluvial movement and limited aeolian activity.

Cultural Resources

Prefield 17 July 1987, Arita K. Slate, no archaeological sites.

No cultural properties were recorded during the course of this survey. Albeit occupied from time- to- time, this area because of its limited resources did not permit sustained occupancy. Utilization of the landform by the autochthonous peoples was brief and transitory at any one time. Locally, the emphasis was on hunting- and hunting-related tasks throughout prehistory. Land

usage increases toward the south.

Recommendations

NMAS recommends clearance for SIRGO-COLLIER, INCORPORATED's proposed WDQSU "29" Well No. 84 Alternate and its access road and suggests that work-related activities proceed in accordance with company plans (Fig. 4). Clearance, of course, is granted by the Bureau of Land Management. If cultural resources are encountered during construction, the BLM and NMAS should be notified immediately.

WDQSU "29" Well No. 85

Location

The proposed location will measure 400 X 400 feet (actual area surveyed 4.44 acres) on federal land and will be situated 1400 feet from the south line and 1000 feet from the west line.

Section 29, T24S, R38E, NMPM, Lea County, NM

Thus it will be situated in the:

NW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 29, T24S, R38E, NMPM, Lea County, NM

The associated access road will measure approximately 100 X 50 feet (actual area surveyed 0.17 acre) and will be situated in the:

NW $\frac{1}{4}$ SW $\frac{1}{4}$, Section 29, T24S, R38E, NMPM, Lea County, NM

Map Reference: USGS JAL NE QUADRANGLE, 7.5 Minute Series,
1969.

A flow line crosses the southwest quadrant of the proposed location.

Environmental Setting

SIRGO-COLLIER, INCORPORATED's proposed location will be situ-

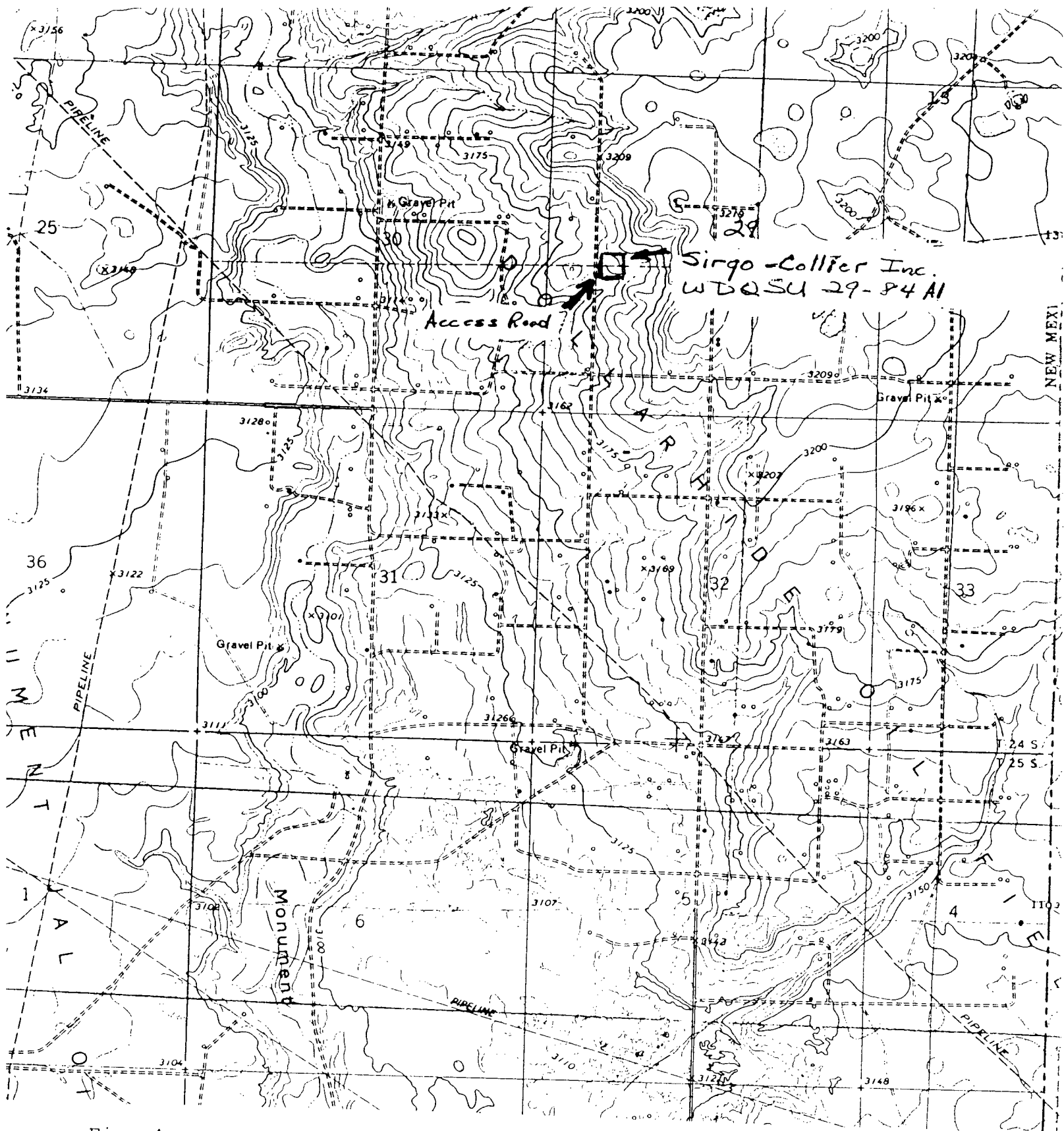


Fig. 4. USGS JAL NE QUADRANGLE, 7.5 Minute Series, 1:24,000, 1969, photorevised 1979, showing SIRGO-COLLIER, INCORPORATED's proposed WDQSU "29" Well No. 84 Alternate, 2300 FSL, 1000 FWL, and access road, Section 29, T24S, R38E, NMPM, Lea County, New Mexico.

ated on the mid-slope of a rolling ridge system due east of Monument Draw. Elevation is 3,187 feet. Slope is 1°; aspect is west, north and south. Water is locally scarce and limited to possible seeps and springs in the Monument Draw catchment. Additionally, seasonal sources occur in areal subsidence structures during periods of heavy rainfall. Soil individuals are composed of loose, non-calcareous, sandy clay loams and commonly harbor caliche inclusions. Croute Calcaire underlies the coeval surface. Associated soils fall within an intergrade of the Typic Torripsamment subgroup. Overall, the coeval surface is subject to ephemeral sheetwash with runoff discharging into Monument Draw. Local soils are largely of aeolian origin and are subject to colluvial movement. Contemporary aeolian processes are minimal. Soils are supportive of a grassland floral community.

Cultural Resources

Prefield 17 July 1987, Arita K. Slate, no archaeological sites.

No cultural properties were recorded during the course of this survey. Their absence is attributable to a lack of siliceous lithic material in local soils along with dearths of water and shelter. Land usage throughout prehistory focused on hunting- and hunting-related tasks. Cultural resources, should they occur, should reflect this type usage. Débitage, cores, finished artifacts such as projectile points, scrapers, gravers, etc., should occur on a random, non-patterned basis.

Recommendations

NMAS recommends clearance for SIRGO-COLLIER, INCORPORATED's

- proposed WDQSU "29" Well No. 85 and its access road and suggests that work-related activities proceed in accordance with company plans (Fig. 5). Clearance, of course, is granted by the Bureau of Land Management. If cultural resources are encountered during construction, the BLM and NMAS should be notified immediately.

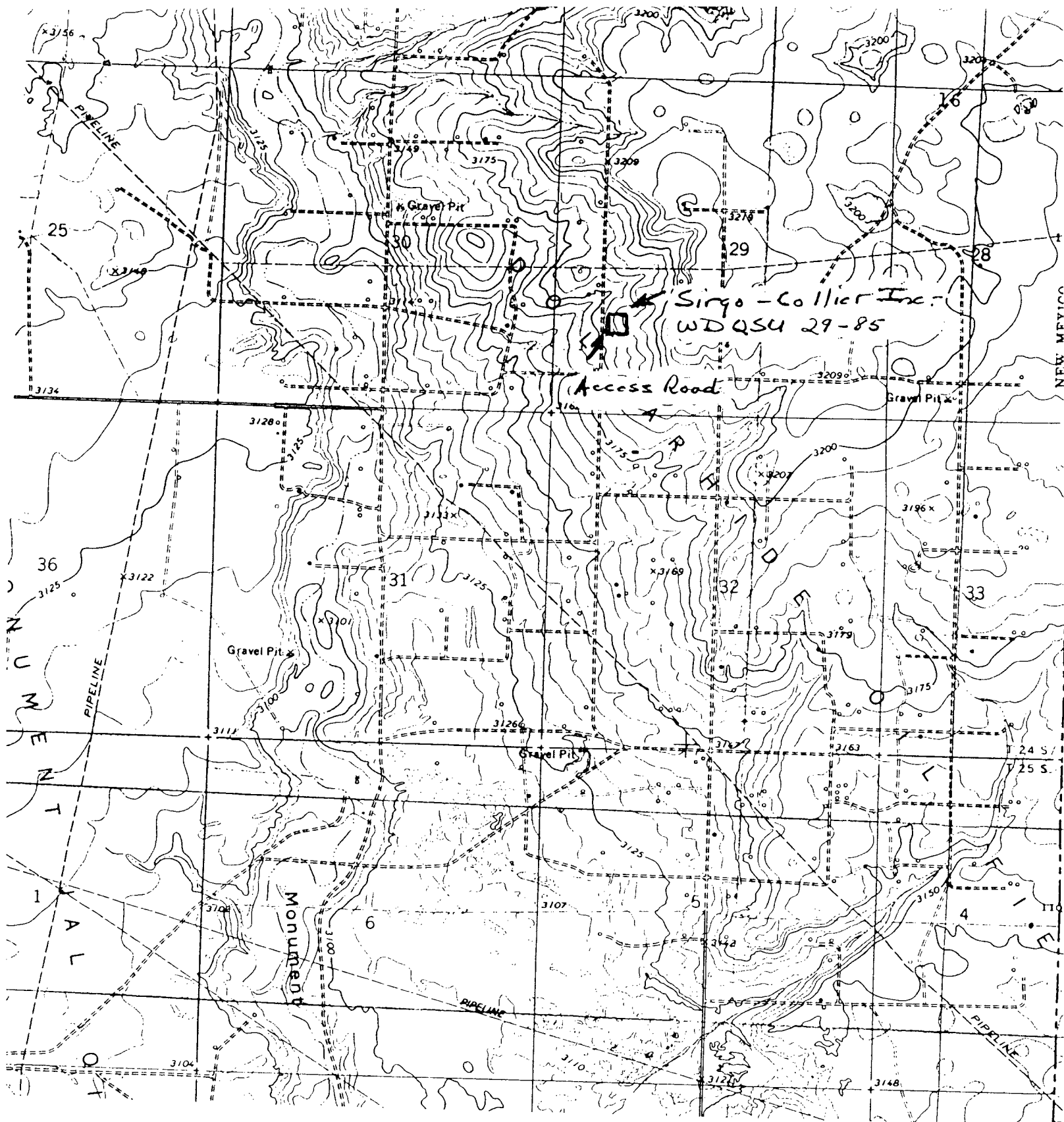
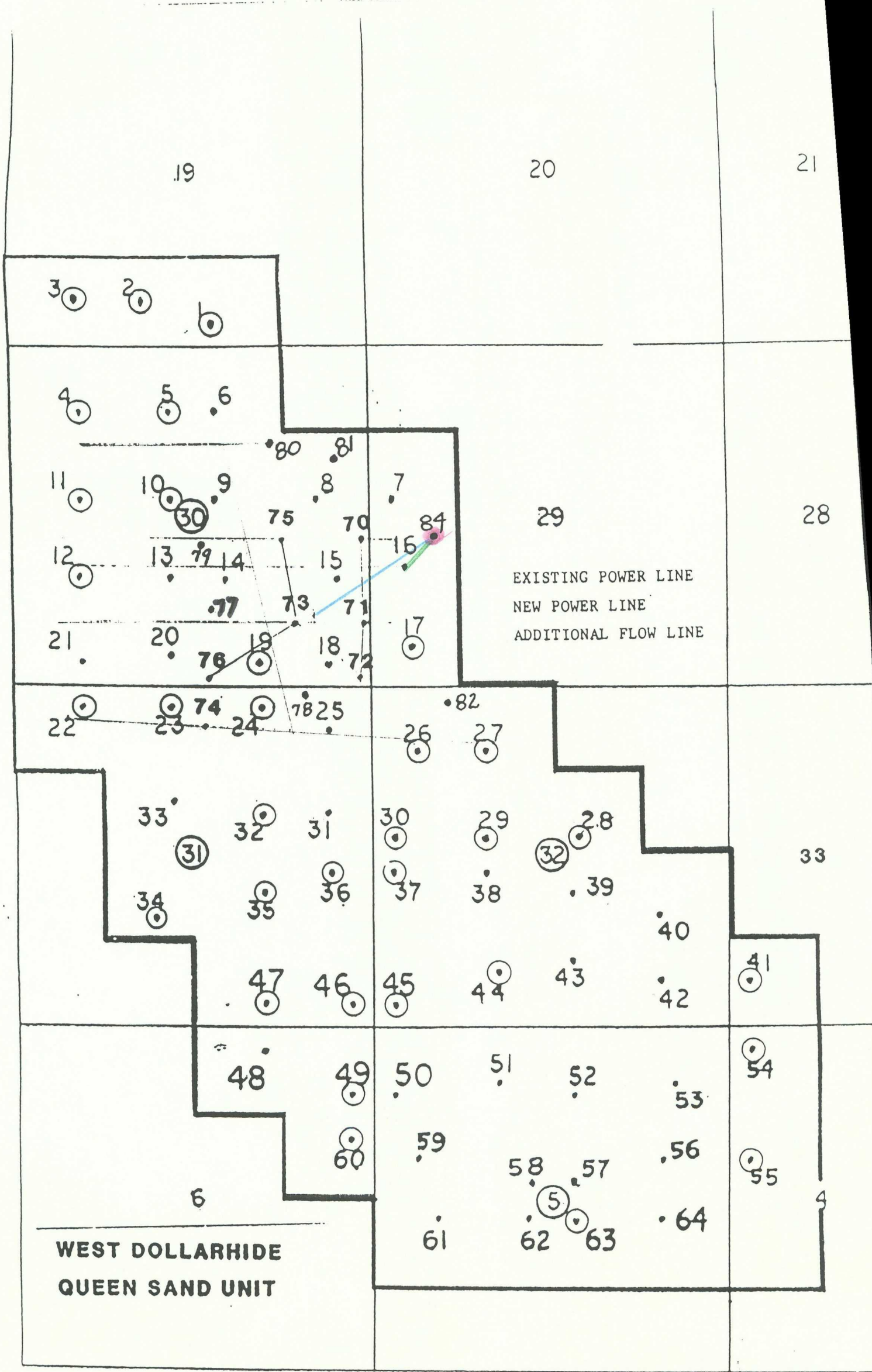


Fig. 5. USGS JAL NE QUADRANGLE, 7.5 Minute Series, 1:24,000, 1969, photorevised 1979, showing SIRGO-COLLIER, INCORPORATED's proposed WDQSU "29" Well No. 85, 1400 FSL, and 1000 FWL, and access road, Section 29, T24S, R38E, NMPM, Lea County, New Mexico.



Plat of Unit wells by Unit well number.