

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OFFICE FOR NUMBER
OF COPIES REQUIRED
(Other instructions on
reverse side)

30-015-26491
BLM Roswell District
Modified Form No.
N060-3160-2

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒

GAR
WELL ☐

OTHER

SINGLE
ZONE ☐

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Collier Petroleum Corporation

3a. Area Code & Phone No.

(915) 683-3171

3. ADDRESS OF OPERATOR

POB 51311, Midland, TX 79710

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

At surface

Unit Letter C

At proposed prod. zone

1170' FNL & 1965' FWL

SEP 27 '90

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

9 mi. Northeast of Carlsbad, New Mexico

15. DISTANCE FROM PROPOSED*

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

1170' FNL

16. NO. OF ACRES IN LEASE

640

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.

389'

19. PROPOSED DEPTH

1100'

20. ROTARY OR CABLE TOOL

Rotary

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

3254' G.L.

22. APPROX. DATE WORK WILL START*

9-15-90

23.

PROPOSED CASING AND CEMENTING PROGRAM

HOLE SIZE	CASING SIZE	WEIGHT/FOOT	GRADE	THREAD TYPE	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24#	J55	STC	300	125 SX CIRCULATE
6 3/4"	4 1/2"	9.5#	J55	STC	1100	150 SX CIRCULATE

8 5/8" casing: circulate to the surface with 125 sx Cl. "C"
with 2% CaCl and 1/4#/sx Flocele

4 1/2" casing: 150 sx Class "C" containing 2% gel, 5#/sx. salt
and 0.75% CFR-2

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

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. Also blowout preventer program, if any.

24.

SIGNED *Michael W. [Signature]*

TITLE Petroleum Engineer

DATE 8-27-90

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY *Daniel Street*

TITLE *Manager*

DATE 9-26-90

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.

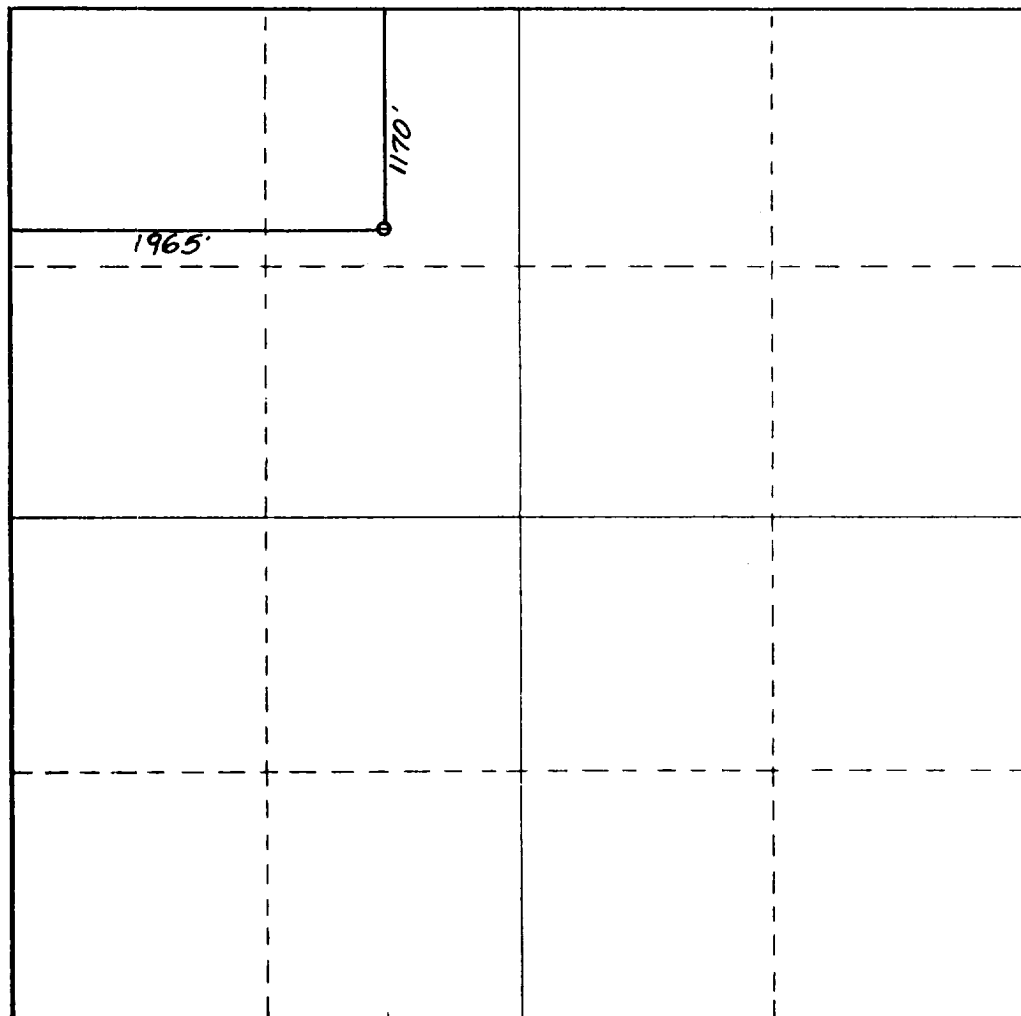
Operator COLLIER PETROLEUM CORPORATION			Lease RUSSELL FEDERAL		Well No. 1
Unit Letter C	Section 13	Township 20 South	Range 28 East	County Eddy County, N.M.	
Actual Footage Location of Well: 1170 feet from the North line and 1965 feet from the West line					
Ground Level Elev. 3254.	Producing Formation Yates		Pool Russell (Yates)		Dedicated Acreage: 40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. *539*
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.) _____

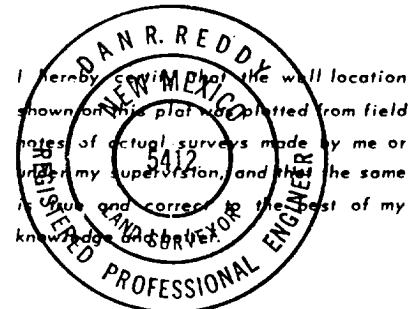
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

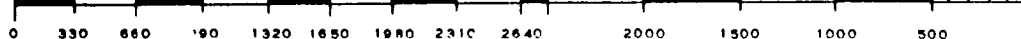
Name *Greg McCabe*
Position *Partner*
Company *Collier Petroleum Corp.*
Date *7-31-90*



Date Surveyed
July 13, 1990
Registered Professional Engineer
and/or Land Surveyor

Dan R. Reddy
Certificate No. _____

NM PE&LS NO. 5412



APPLICATION FOR PERMIT TO DRILL

Collier Petroleum Corporation
Russell Federal, Well No. 1
1170' FNL & 1965' FWL
Sec. 13, T-20-S, R-28-E; NMPM

In conjunction with Form 3160-3, Application for Permit to Drill, Collier Petroleum Corporation submits the following items of pertinent information in accordance with Onshore Oil & Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

1. The geologic surface formation is of Permian Age.
2. Estimated tops of geologic markers are as follows:

T/Salt - 360'	T/Yates - 725'
B/Salt - 520'	T/Seven Rivers - 910'
T/Anhydrite - 530'	
3. The estimated depths at which water, oil, or gas formations are expected to be encountered:
 - * - water: 150'
 - ** - oil or gas: Yates - 750' - 800'
 - Seven Rivers - 920' - 950'
 - * Groundwater to be protected by 8 5/8" surface casing with cement circulated to the surface
 - **Potentially productive horizons to be protected by 4 1/2" production casing with cement tied back to approximately 300'
4. Proposed Casing Program: See Form 3160-3 and Exhibit F
5. Pressure Control Equipment: See Exhibit E
6. Mud Program: See Exhibit G
7. Auxiliary Equipment: BOP only
8. Testing, Logging, and Coring Program:
 - Electric logs:
 - Dual Induction Laterolog
 - Neutron Porosity Log
 - No mud loggers anticipated
 - No coring is anticipated
 - No DST's are anticipated
9. Abnormal pressures, temperatures, or other hazards:
 - Lost circulation is anticipated in the surface interval of the hole
10. Anticipated starting date: As soon as possible

SUMMARY

Drilling, Drill Stem Tests, Casing and Cementing Program

1. Drill 11" hole to 300' \pm before top of salt.
2. Cement 8 5/8", 24#, J-55 casing with 125 sx of Class "C" cement with 2% CaCl + 1/4#/sx Flocele. Run floatshoe and 5 centralizers.
3. Nipple up and install BOPs. Test casing to 500 PSI after 18 hours. Drill out cement.
4. Drill 6 3/4" hole to 1100' (Seven Rivers). Fresh water mud system (9.0 - 9.5 #1 gal). Return anticipated from salt section from 360' - 520'. No anticipated lost circulation zones.
5. Cement 4 1/2", 9.5#, J-55 Casing with 150 sx of Class "C" cement with 2% gel, 5# sx salt and 0.75% CFR-2. Use guide shoe and float collar, and 10-12 centralizers where necessary. Use top and bottom rubber plugs, displace cement with clean, fresh water treated with 2% KCL.
6. Perforations, acid job, and additional stimulation to be determined after completion.

EXHIBIT F

Collier Petroleum Corporation
Russell Federal, Well No. 1
1170' FNL & 1965' FWL
Sec. 13, T-20-S, R-28-E; NMPM

Drilling Fluid Program

Surface: Spud with fresh water gel. Build viscosity to 33-35 SEC with native mud. Add paper or other non-toxic LCM to combat seepage and lost circulation. If loss of circulation occurs we will "dry" drill to our surface target of 300'.

Production: Drill out from under surface with fresh water using caustic to control pH. Mud up prior to drilling Yates Formation with drispac. Attempt to maintain a 33-35 SEC viscosity and ⁺20 cc water loss. Increase viscosity to 45 SEC at TD to run electric logs. Mud program may be altered as conditions dictate.

EXHIBIT G

Collier Petroleum Corporation
Russell Federal, Well No. 1
1170' FNL and 1965' FWL
Sec. 13, T-20-S, R-28-E; NMPM

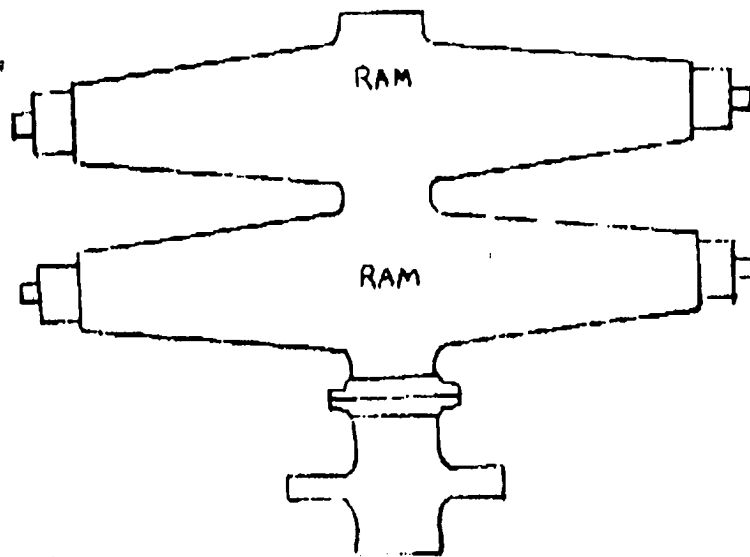


EXHIBIT E

-Blowout Preventer-

Collier Petroleum Corporation
Russell Federal, Well No. 1
1170' FNL & 1965' FWL
Sec. 13, T-20-S, R-28-E, NMPM



Proposed Well Plan Outline

<u>Depth</u>	<u>Formation Tops & Type</u>	<u>Drilling Problems</u>	<u>Hole Size</u>	<u>Casing Size-Depth</u>	(PPG) <u>Mud wt. & Type</u>	<u>Days</u>
100'	Red Beds	Sloughing	11"		Spud 8.33	
300'	Surface	Clays	11"	8 5/8"-300'		1
360'	Salt	Washout	6 3/4"			
530'	Anhydrite		6 3/4"			
725'	Sand		6 3/4"		9.5-9.8	
1000'	Dolomite		6 3/4"			
1100'	Sand	TD	6 3/4"	4 1/2"-1100'		2

Collier Petroleum Corporation
Russell Federal, Well No. 1
1170' FNL & 1965' FWL
Sec. 13, T-20-S, R-28-E; NMPM

Surface Use Plan

Collier Petroleum Corporation
Russell Federal, Well No. 1
1170' FNL & 1965' FWL
Sec. 13, T-20-S, R-28-E; NMPM
Eddy County, New Mexico

1. Existing Roads - Area map, Exhibit "A", is a reproduction of the U.S.G.S. New Mexico 7.5 Minute Series. Existing and proposed roads are shown on the exhibit. No new roads will need to be constructed. All old roads shall be maintained in a condition equal to that which existed prior to the construction of a new location.
2. Planned Access Roads - No new roads will be constructed.
3. Location of Existing Wells in a One-mile Radius -
 - A. Water wells - none known
 - B. Disposal wells - 1 active, 23 inactive
 - C. Drilling wells - none known
 - D. Producing wells - Wills Federal No. 24
 - E. Abandoned wells - 61 wells currently TA in Russell (Yates) Field
4. If, upon completion, the well is a producer, Collier Petroleum Corporation will furnish maps or plats showing On Well Pad Facilities and Off Well Pad Facilities (if needed) on a Sundry Notice before construction of these facilities starts.
5. Location and Type of Water Supply -

Water will be purchased locally from a private source and trucked over the access roads or piped through fast line layed on top of the ground.
6. Source of Construction Materials -

If needed, construction materials will be obtained from the drill site's excavations or from a local source.
7. Methods for Handling Waste Disposal -
 - A.
 - 1) Drill cuttings will be disposed of in the reserve pit
 - 2) Trash, waste paper, and garbage will either be contained in a trash pit or fenced with mesh wire to prevent wind scattering during storage. When the rig moves out, the trash will be buried at least 36" deep within a reasonable period of time.
 - 3) Salts remaining after completion of the well will be picked up by the supplier, including broken sacks.
 - 4) Chemicals remaining after completion of the well will be stored in the manufacturer's containers and picked up by the supplier.
 - B. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for backfilling.

In the event drilling fluids will not evaporate, they will be transported by tank truck to a state approved disposal site. Water produced during testing of the well will be disposed of in the reserve pit. Oil produced during testing of the well will be stored in test tanks until sold and hauled from the site.

8. Ancillary Facilities - No camps or airstrips will be constructed.

9. Well Site Layout -

- A. Exhibit "B" shows the proposed well site layout.
- B. This exhibit indicates proposed location of reserve and trash pits.
- C. Mud pits in the active Circulatory System will be earthen pits lined with plastic. The reserve pit is proposed to be unlined.
- D. If needed, the reserve pit is to be lined with PVC or polyethylene liner. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pit dikes where the liner will be anchored down.
- E. The reserve pit will be fenced on three sides if livestock is present on the acreage surrounding the well site. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10. Plans for Restoration of Surface -

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance to Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provision made to alleviate erosion. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be recountered to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

11. Other Information -

- A. The topography is of a rolling terrain with vegetation of sagebrush and native grass. The soils are clay sand over caliche base.

- B. The surface is used to mainly access producing wells in the area and minimal grazing for livestock. It is administered by the BLM.
- C. An archaeological study was conducted. The report is enclosed for BLM review.
- D. There are no commercial or residential buildings of any kind in the area.

12. OPERATOR'S REPRESENTATIVE - field representative for contact regarding compliance with the Surface Use Plan is:

Before and During Construction

M. G. Mooney
P. O. Box 51311
Midland, TX 79710
(915) 683-3171

After Construction

Larry Threadgill
1210 Selman
Hobbs, NM 88240
(505) 393-5813
overdial-02033102

13. Certification -

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

Name

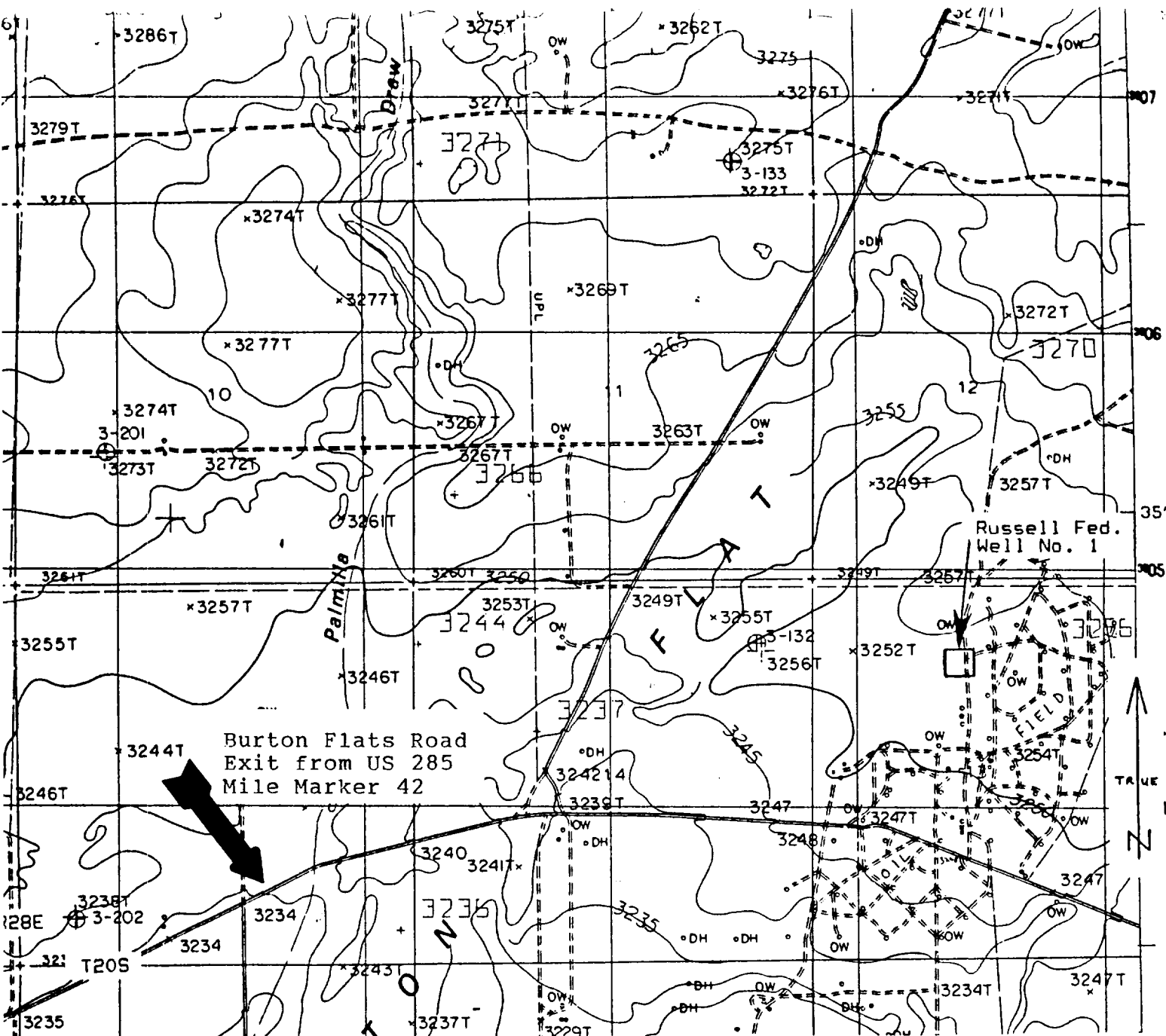
Michael G. Mooney

Date

8/29/90

Title

Petroleum Engineer



Map showing the location of the Collier Energy, Inc., Russell Federal Well No. 1. T20S, R28E, Section 13, Eddy County, New Mexico [BLM, Roswell District, Carlsbad Resource Area, New Mexico]. Square shows location of well pad. U.S.G.S. 7.5 minute series, ANGEL DRAW, NEW MEXICO, 1985. ASC Project 90-84.

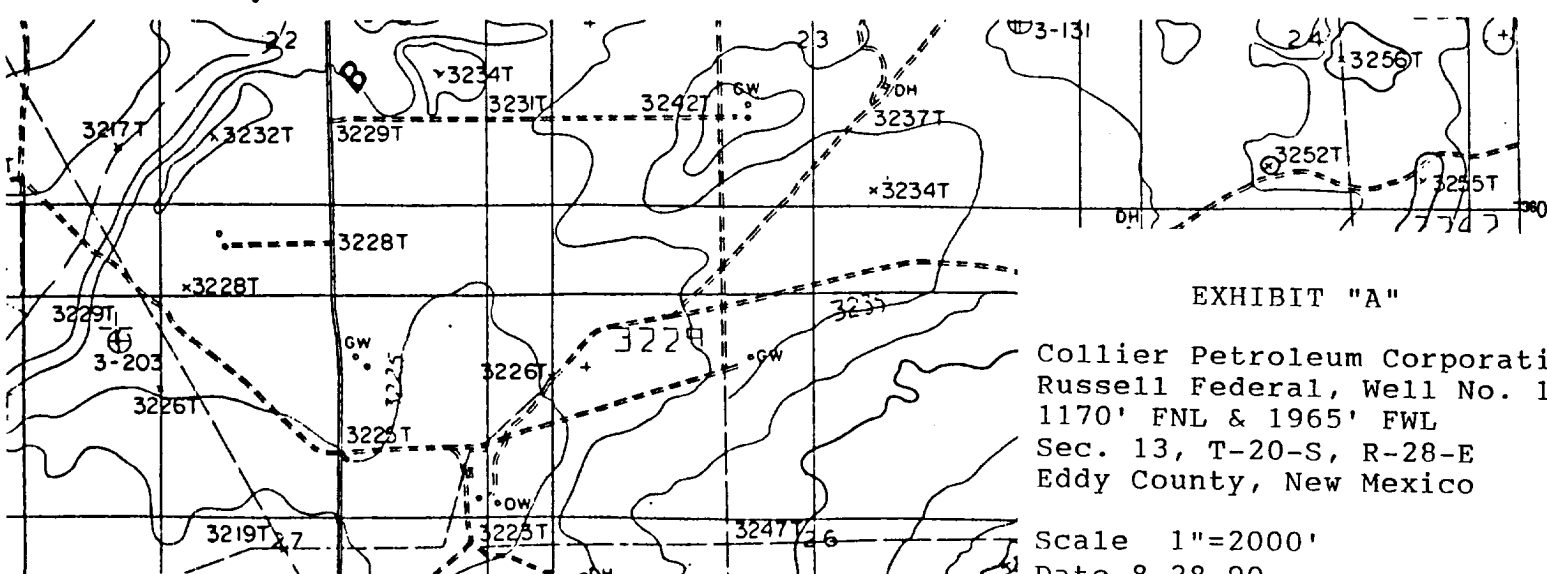


EXHIBIT "A"

Collier Petroleum Corporation
 Russell Federal, Well No. 1
 1170' FNL & 1965' FWL
 Sec. 13, T-20-S, R-28-E
 Eddy County, New Mexico

Scale 1"=2000'
 Date 8-28-00

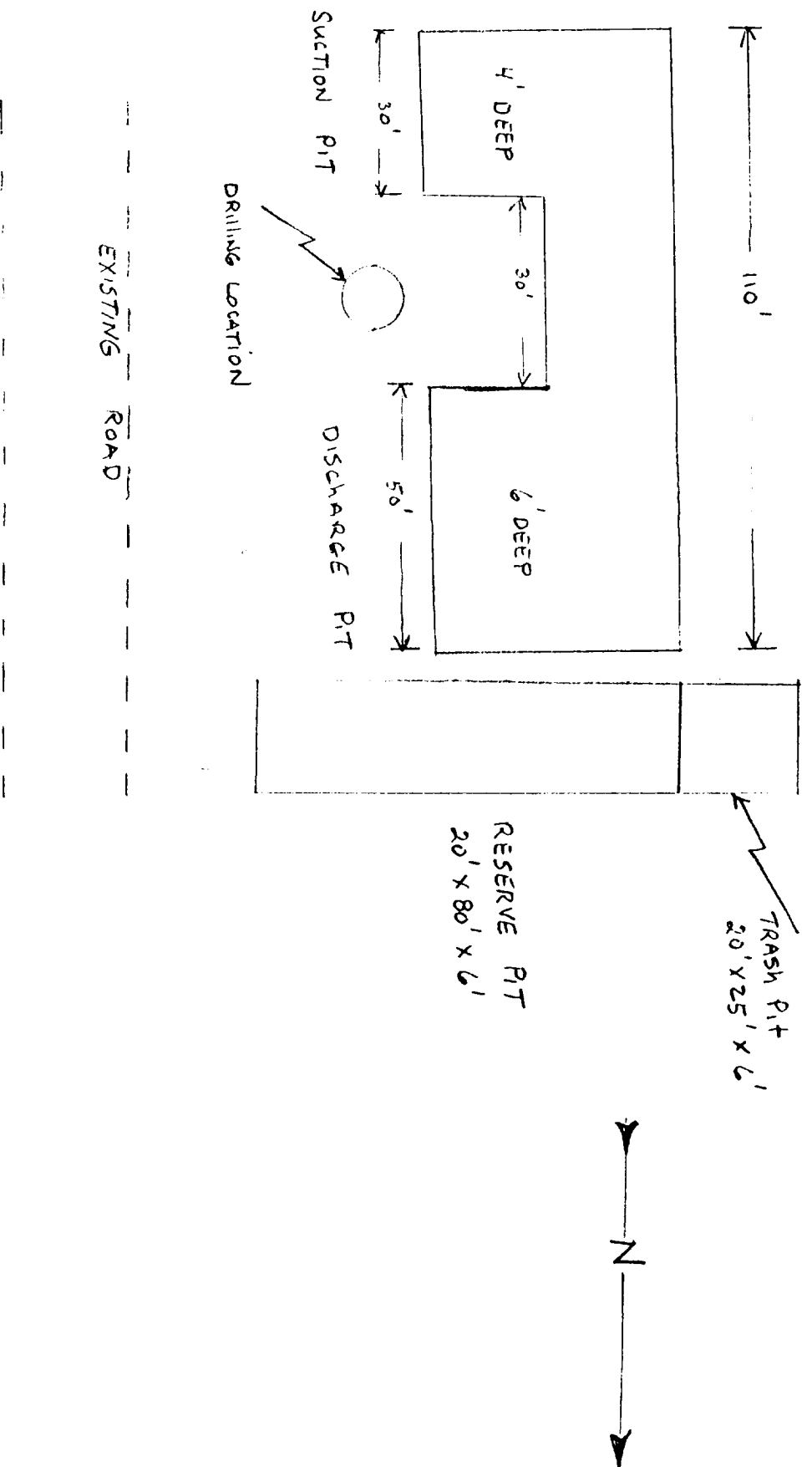


Exhibit "B"

Collier Petroleum Corporation
 Russell Federal, Well No. 1
 1170' FNL & 1965' FWL
 Sec. 13, T-20-S, R-28-E
 Eddy County, New Mexico

ARCHAEOLOGICAL SURVEY CONSULTANTS

CULTURAL RESOURCES EXAMINATION

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

ASC PERMIT NO.: 18-2920-90-E
ASC Job No.: 90-84; Collier En-
ergy, Inc., Russell Federal
Well No. 1, T20S, R28E, Sec. 13

1. **ABSTRACT:** intensive archaeological survey of the Collier Energy, Inc., Russell Federal Well No. 1 (400 ft. sq.), with a total **federal land surface of 3.67 acres** inspected for cultural remains. The proposed location straddles an extant oilfield road, and has been disturbed by a pipeline.

Archaeological survey **did not reveal** any historic or prehistoric cultural material. There-
fore archaeological **CLEARANCE** for the Russell Federal Well No. 1 is **RECOMMENDED**.

2. **WELL PAD LOCATION:** T20S, R28E, Section 13, NE¼NW¼ [1170 FNL, 1965 FWL]. Eddy County, New Mexico.

MAP REFERENCE: U.S.G.S, 7.5 minute series, ANGEL DRAW, NEW MEXICO, 1985. **LAND STATUS:** BLM, Roswell District, Carlsbad Resource Area, New Mexico.

3. **PROJECT DESCRIPTION:** well pad (400 ft. sq.), with a total **federal land surface of 3.67 acres**.

TOPOGRAPHY: Mescalero Pediment, ca. 1.6 miles east of Palmillas Draw. The terrain is flat to slightly inclined with little relief, except for the occurrence of low coppice dunes, with the interdunal surface consisting of shallow sandy loam soil, on top of sterile gypsiferous deposits. **Soil Type:** Gypsum land-Reeves complex. **Permanent Water:** Pecos River, ca. 7.4 miles West. **Potential Water:** Palmillas Draw, ca. 1.6 miles W. **Elevation:** 3253 ft. to 3254 ft. **Slope:** 0.2°. **Aspect:** S. **Lithic Resources:** not available in project vicinity. **Vegetation Community:** grassland formation, scrub-grass scrub disclimax community.

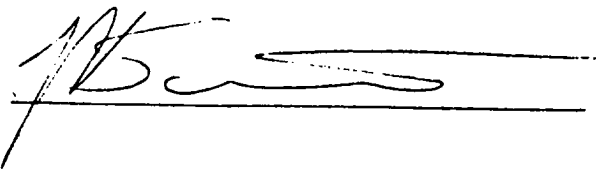
4. **EXAMINATION PROCEDURE:** straight and zig-zag transects spaced no greater than 15 metres apart. **Work Hours on ground:** 2.25 work hours. **Project Delineation:** staked by client representative. **Visibility:** ground, ca. 80% to 100% in denuded areas. Weather, sunny.

5. **FINDINGS:** BLM records [Mendoza, 7/20/90] indicate the recording of NM-06-4667 in Section 13 [T20S, R28E]; the site will not be endangered by construction of the proposed well pad. In any case, the site is a BLM Category 1 designate.

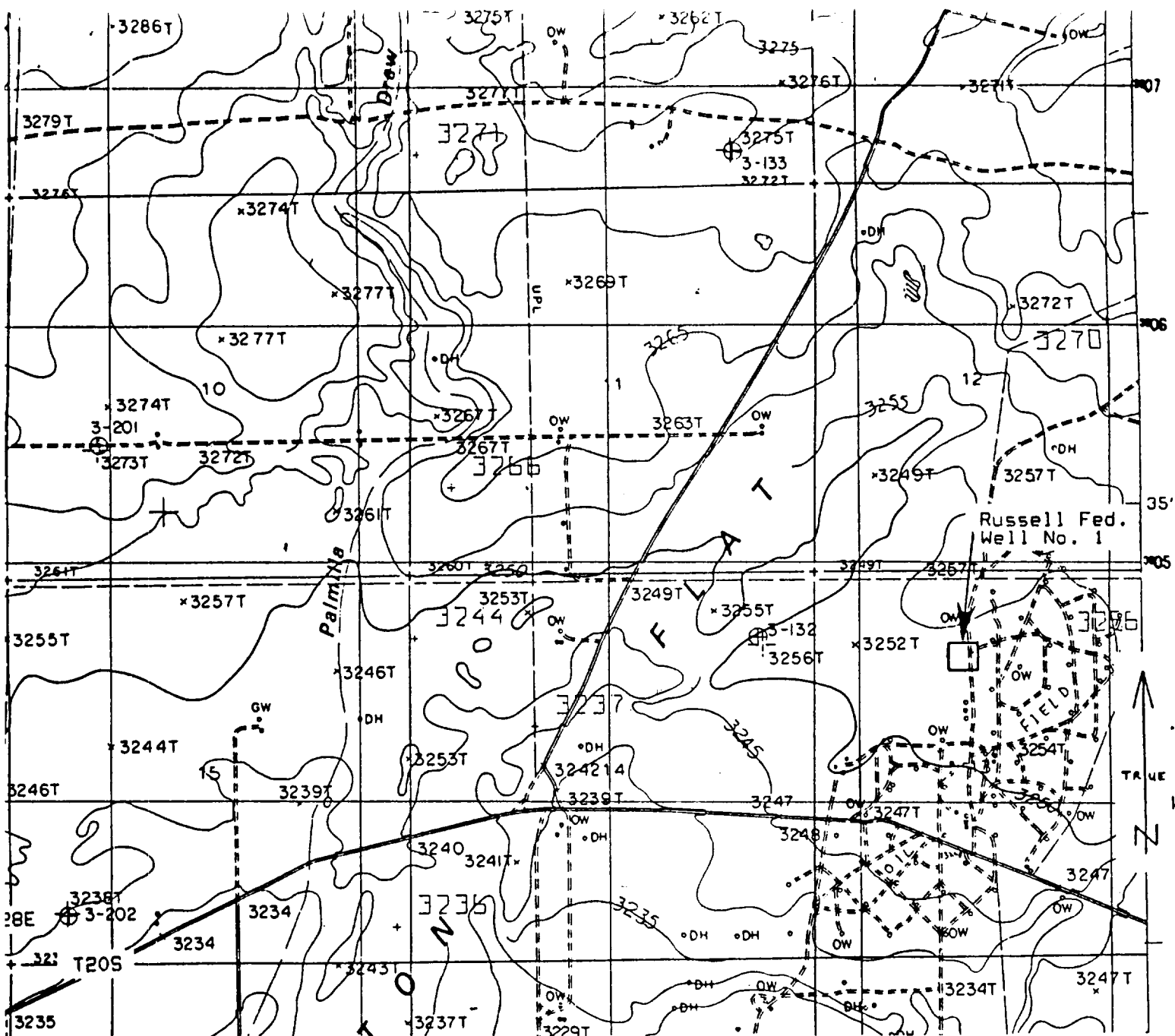
Archaeological survey of the proposed Collier Energy, Inc., Russell Federal Well No. 1 **did not reveal** any historic or prehistoric cultural material.

6. **RECOMMENDATIONS:** archaeological **CLEARANCE** for the Collier Energy, Inc., Russell Federal Well No. 1 is **RECOMMENDED**.

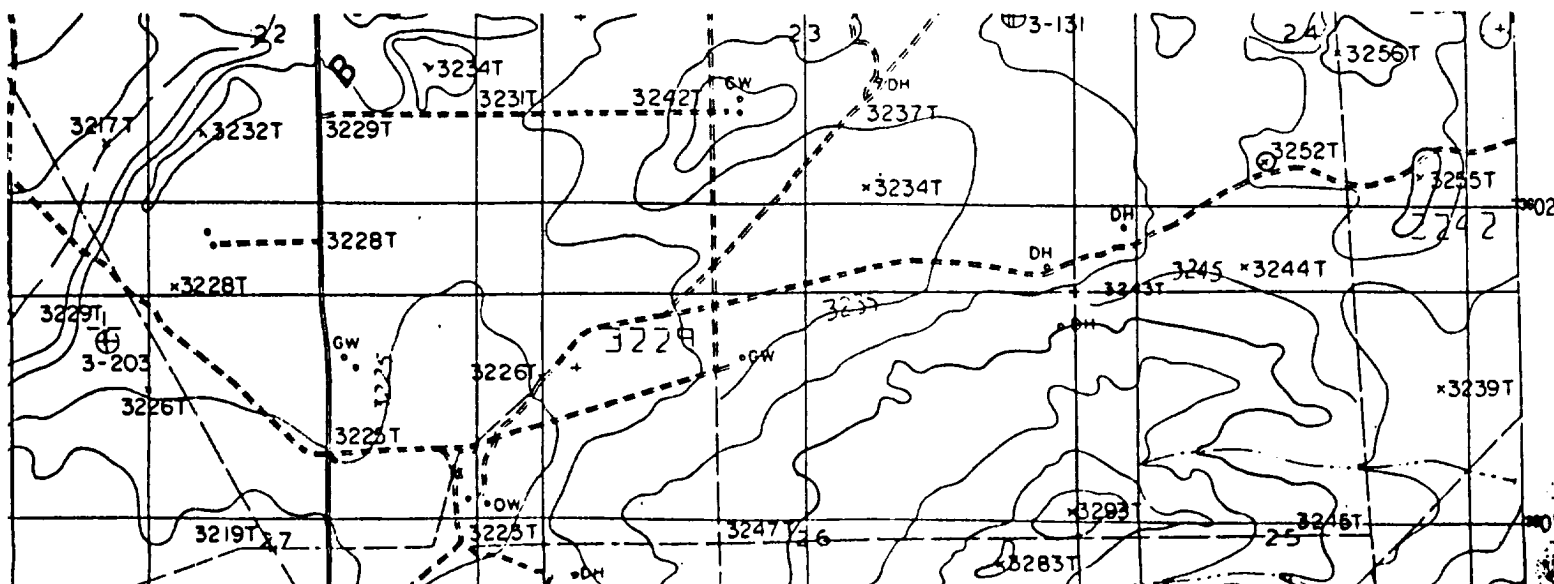
Date of Examination: July 22, 1990

Project Archaeologist: D.M. Griffiths 

Principal Investigator: 



Map showing the location of the Collier Energy, Inc., Russell Federal Well No. 1. T20S, R28E, Section 13, Eddy County, New Mexico [BLM, Roswell District, Carlsbad Resource Area, New Mexico]. Square shows location of well pad. U.S.G.S. 7.5 minute series, ANGEL DRAW, NEW MEXICO, 1985. ASC Project 90-84.



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