Form 3160-3
(December 1990)

UNITED S
DEPARTMENT OF
BUREAU OF LAND

OPER. OGRID NO. 18917 E*
PROPERTY NO. 16900
POOL CODE 32584
EFF. DATE 11/1/96
API NO. 30-025-33663

Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

APPLICATION FOR PERMI

1a. TYPE OF WORK
DRILL [X] Resubmittal DE... [ ]
Prev. approval: 4/17/95

b. TYPE OF WELL
OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [ ] MULTIPLE ZONE [ ]

5. LEASE DESIGNATION AND SERIAL NO.
NM-84902

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.
Quail Federal

9. API WELL NO.
2

10. FIELD AND POOL, OR WILDCAT
NE Lea
Quail Ridge Delaware

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 3-T20S-R34E

2. NAME OF OPERATOR
Read & Stevens, Inc. 505/622-3770

3. ADDRESS AND TELEPHONE NO.
P. O. Box 1518 Roswell, NM 88202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
2310' FNL & 1980' FWL
SEP 20 1996
Unit F
At proposed prod. zone
Same

12. COUNTY OR PARISH
Lea

13. STATE
New Mexico

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
30 miles SW of Hobbs, 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	17. NO. OF ACRES ASSIGNED TO THIS WELL
330'	282.4	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
1361'	8,400'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3653'

22. APPROX. DATE WORK WILL START*
Oct 5, 1996

CAPITAN CONTROLLED WATER BASIN

23. PROPOSED CASING AND CEMENTING PROGRAM

Secretary's Potash

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"J-55	54.5#	1600'	Circ 1000 sx Lite "C"
11"	8 5/8"S-80	32.0#	5000'	Circ 1100 sx** see note
7 7/8"	5 1/2"N-80	17#	8400'	Tieback w/500 or 975 sx *

WITNESS

Mud Program:

		Mud Wt.	Vis.	W/L Control
0' - 1600':	Fresh water native mud:	8.4 ppg	32	No W/L control
1600' - 5000':	Brine mud:	10 ppg	28-32	No W/L control
5000' - 8400':	Cut brine mud w/starch:	8.8 ppg	32-40	W/L control 15cc

BOP Program:
A 11" 5000 psi wp Shaffer Type LWS BOP, with a 5000 psi wp 11" GK Hydril, will installed on the 13 3/8" casing. Casing and BOP will be tested before drilling out with 11". BOP will be tested daily as a 3000 psi wp system.

* NOTE: If severe lost circulation is not encountered, hole will be reduced at 5000' to 7 7/8" and drill ahead WITHOUT setting the 8 5/8" casing.

** 8 5/8": Cement with DV tool in two stages starting at 3800':
1st stage: Lead 200 sx lite, tail in w/200 sx "C".
2nd stage: Lead 500 sx lite cement, tail w/200 sx "C". Cement to surface.

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 Georgia Smith TITLE Agent for: Read & Stevens, Inc. DATE Sept. 20, 1996

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY Bernard Chacy TITLE Acting State Director DATE 10-16-96

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

STRICT I
). Box 1980, Hobbs, NM 88240

STRICT II
). Drawer DD, Artesia, NM 88210

STRICT III
00 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-33663	37584	NE Lea ~~Quail Ridge~~ Delaware

Property Code	Property Name	Well Number
16990	QUAIL FEDERAL	2

OGRID No.	Operator Name	Elevation
18917	READ & STEVENS, INC.	3649

Surface Location

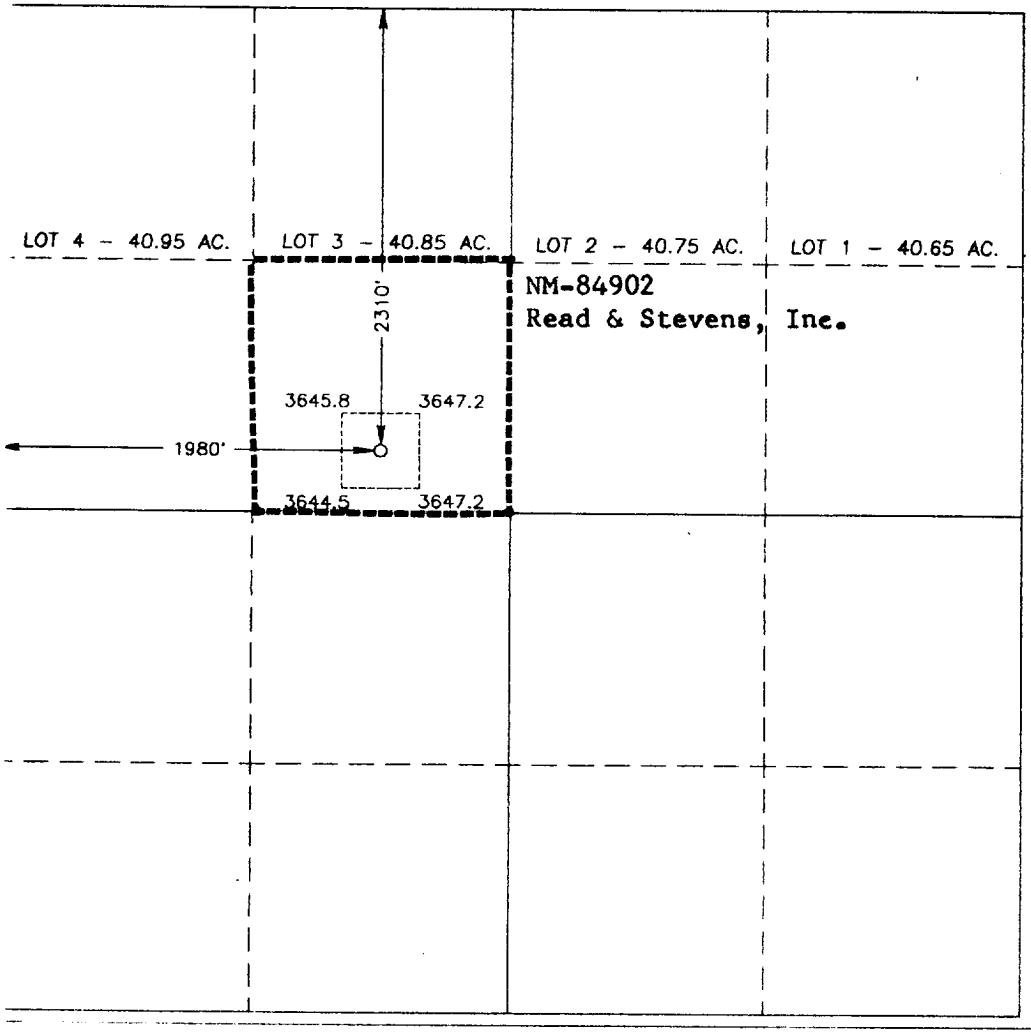
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	3	20 S	34 E		2310	NORTH	1980	WEST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

NO ALLOWABLE WILL BE ASSGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

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

George R. Smith
Signature

George R. Smith
Printed Name

Agent for Read & Stevens, Inc.
Title

Sept. 20, 1996
Date

SURVEYOR CERTIFICATION

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 supervison, and that the same is true and correct to the best of my belief.

FEBRUARY 27, 1995
Date Surveyed JSR

Signature & Seal of Professional Surveyor

NEW MEXICO 3239 RONALD J. EIDSON

W.O. Num. 95-11-0299

Certificate No. JOHN W. WEST 676
RONALD J. EIDSON 3239

APPLICATION FOR DRILLING
READ & STEVENS, INC.
Quail Federal, Well No. 2
2310' FNL & 1980' FWL, Sec. 3-T20S-R34E
Lea County, New Mexico
Lease No.: NM-84902
(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Read & Stevens, Inc. submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.

2. The estimated tops of geologic markers are as follows:

Rustler	1,580'	Bone Spring	8,250'
Top of Salt	1,770'	T.D.	8,400'
Base of Salt	3,120'		
Yates	3,200'		
7 Rivers	3,670'		
Delaware	5,200'		

3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:

   Water: Surface water in the Triassic between 80' - 230'.

   Oil: Possible in the Delaware below 5500'.

   Gas: None expected.

4. Proposed Casing Program: See Form 3160-3.

5. Proposed Control Equipment: See Form 3160-3 and Exhibit "E".

6. Mud Program: See Form 3160-3.

7. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock, pit level monitor, flow sensors and stabbing valve.

8. Testing, Logging, and Coring Program:

   Drill Stem Tests: None unless warranted.
   Logging: T.D. to 5000': G/R, CNL-FDC, DLL, MSFL
   T.D. to surface: G/R, neutron
   Coring: None planned.

9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated BHP = 3300 psi (evac. hole) with temperature of 140°.

10. H_2S: None expected. None in previously drilled wells, but a Drilling Operations Plan, Exhibit "F", is being submitted to cover this this contingency.

11. Anticipated starting date: October 15, 1996
    Anticipated completion of drilling operations: Approx. 3 weeks.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

READ & STEVENS, INC.
Quail Federal, Well No. 2
2310' FNL & 1980' FWL, Sec. 3-T20S-R34E
Lea County, New Mexico
Lease No.: NM-84902
(Development Well)

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, to be followed in rehabilitating the surface environmental effects associated with the operations.

1. EXISTING ROADS:

   A. Exhibit "A" is a portion of a USGS/BLM Topo map showing the location of the proposed well as staked. The well site location is approximately 51 road miles northeast of Carlsbad, New Mexico or 30 road miles southwest of Hobbs, NM. Traveling east from Carlsbad there will be approximately 48 miles of paved highway and 1.2 mile of gravel ranch/oilfield road.

   B. Directions: Travel east from Carlsbad, NM on U.S. Highway 62/180 for approximately 42 miles; turn south .3 mile east of MM 78 at a cattle guard with a steel unlocked gate. Continue south for .4 mile, then turn east for 1.2 mile to the location, which is approximately 110 feet west of the existing access road. The existing access road will be moved to the east side of the proposed pad, creating a detour around and an access for the pad.

2. PLANNED ACCESS ROAD:

   A. Length and Width: The proposed reroute of the access road will be constructed to a width of 12 feet and will be approximately 400 feet in length. The proposed access road is color coded red on Exhibit "B".

   B. Construction: The proposed access road will be constructed by grading and topping with compacted caliche and will be properly drained.

   C. Turnouts: None required.

   D. Culverts: None required.

   E. Cuts and Fills: Will require leveling of 2 to 3 foot sand dunes and deflation basins.

   F. Gates, Cattleguards: None required.

   G. Off Lease R/W: The existing off lease R/W No. NM-70565, as amended, will cover the off lease portion of the existing access road on Federal surface back to US Highway 62/180. See Exhibit "B".

3. LOCATION OF EXISTING WELLS:

   A. Existing wells within a two mile radius are shown on Exhibit "C".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

   A. There are no oil production facilities on the lease at this time.

   B. If the well proves to be commercial, the necessary production facilities,gas production-process equipment and tank battery will be installed on the drilling pad, or flow line consisting of a 5,000 psi 2 3/8" steel tubing will be run parallel to the existing access roads to the Quail Fed., Well No. 1 pad 2310' FNL & 1980' FEL Sec. 3-T20S-R34E.

5. LOCATION AND TYPE OF WATER SUPPLY:

   A. It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing access roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

   A. Caliche for surfacing the proposed access road and well site pad will be obtained from an approved Federal pit in the SW¼SW¼ of Section 26-T19S-R34E. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access road.

7. METHODS OF HANDLING WASTE DISPOSAL:

   A. Drill cuttings will be disposed of in the reserve pits.

   B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.

   C. All pits will be fenced with normal fencing materials to prevent livestock and wildlife from entering the area.

   D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.

   E. Oil produced during operations will be stored in tanks until sold.

   F. Current laws and regulations pertaining to the disposal of human waste will be complied with.

   G. Trash, waste paper, garbage and junk will be contained in trash bins to prevent scattering and will be removed for deposit in an approved sanitary land fill within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

   A. None required.

9. WELL SITE LAYOUT:

A. Exhibit "D" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area has been staked and flagged, 400' X 400'.

B. Mat Size: 200' X 300', plus 100' X 75' reserve pits. The pits will be turned to the northwest to parallel the existing access road.

C. Cut & Fill: There will be a leveling of 3 to 5 foot sand dunes and deflation basins.

D. The surface will be topped with compacted caliche and the reserve pits will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in an aesthetically pleasing a condition as possible.

B. Any unguarded pits containing fluids will be fenced and screened until they are filled.

C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled as soon as they are dry enough to work after abandonment.

11. OTHER INFORMATION:

A. Topography: The proposed well site and access road is located in an area of sand dunes and deflation basins which is part of the Querecho Plains. The location has a slight southwesterly slope of .7% from an elevation of 3649'.

B. Soil: The topsoil at the well site is a light yellowish-brown fine to course sand of the Pyote soils and Dune land Series.

C. Flora and Fauna: The vegetation cover is a poor grass cover of three-awn, sand and spike dropseed, grama and other miscellaneous native grasses along with plants of mesquite, yucca, shinnery oak brush, sage, sunflowers, broomweed, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.

D. Ponds and Streams: None in area.

E. Residences and Other Structures: None in the immediate area, except oil production facilities.

F. Land Use: Cattle grazing.

11. OTHER INFORMATION; cont.....

G.. Surface Ownership: The proposed well site and access road are on Federal surface.

H. There is no evidence of archaeological, historical or cultural sites on the proposed 400' X 400 site and access road. An archaeological survey has been conducted by Archaeological Survey Consultants, P. O. Box D, Roswell, NM 88202, and their report will be submitted to the appropriate government agencies.

12. OPERATOR'S REPRESENTATIVE:

A. The field representative responsible for assuring compliance with the approved surface use and operations plan is as follows:

Carl Little
Read & Stevens, Inc.
P.O. Box 1719
Lovington, NM 88261
Roswell Office Phone: (505) 622-3770
Lovington Office Phone: (505) 392-8777
Cellular Phone: (505) 626-7421

3. CERTIFICATION:

I hereby certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the 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 Read & Stevens, Inc. and its contractors and 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.

September 20 1996

George R. Smith
Agent for: Read & Stevens, Inc.

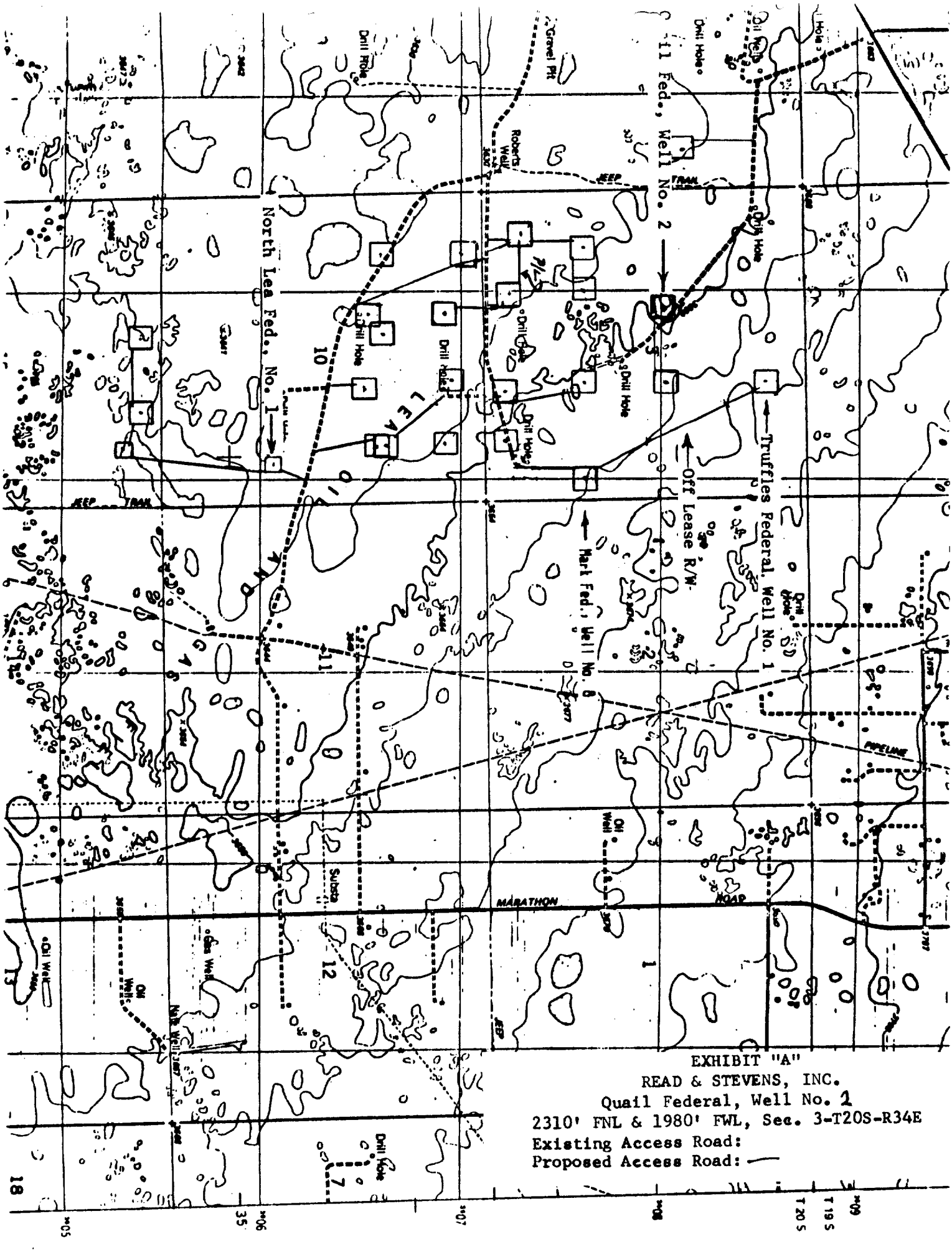
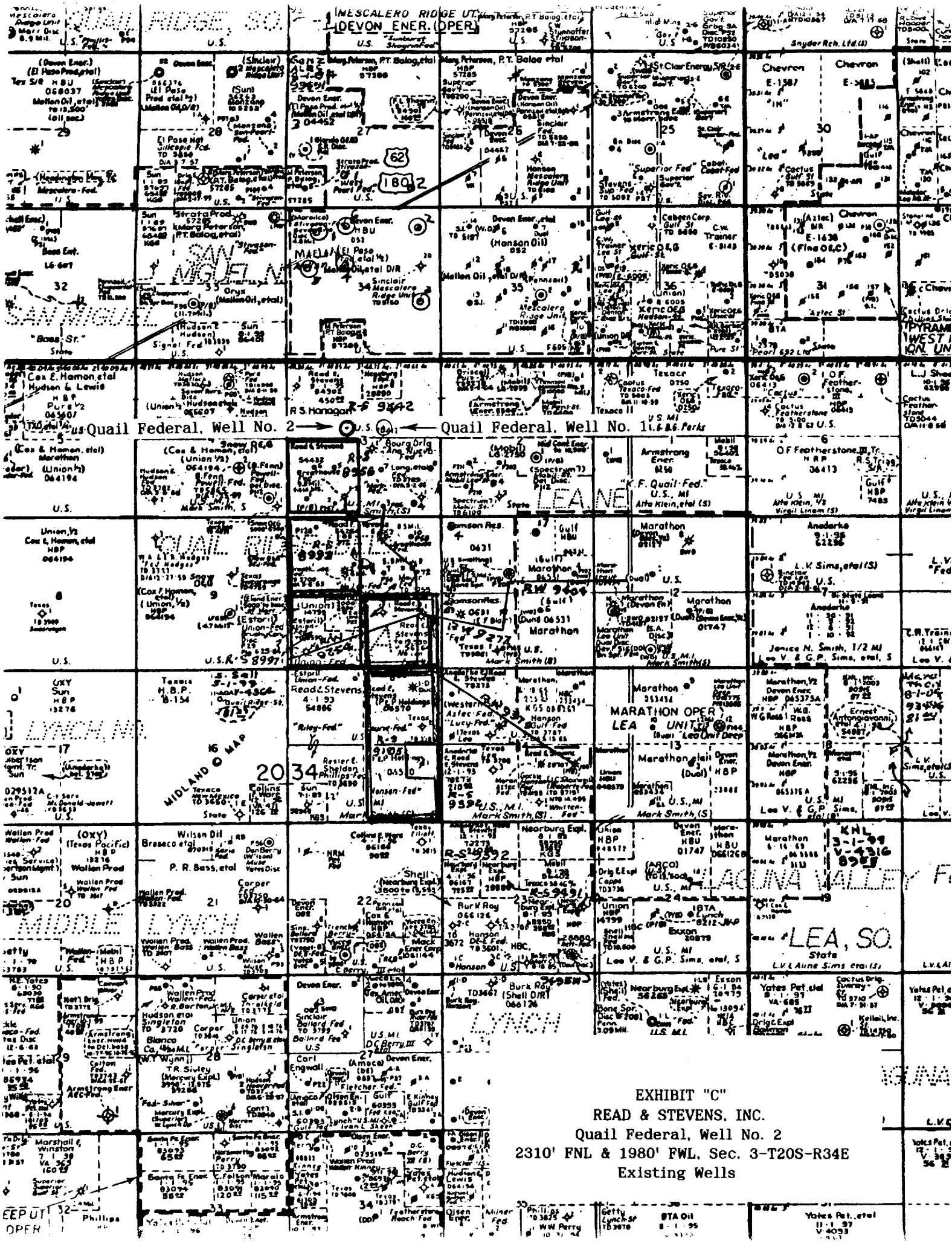


EXHIBIT "A"
READ & STEVENS, INC.
Quail Federal, Well No. 1
2310' FNL & 1980' FWL, Sec. 3-T20S-R34E
Existing Access Road:
Proposed Access Road: —


Quail Federal, Well No. 2
Quail Federal, Well No. 1
MESCALERO RIDGE UT
DEVON ENER. (OPER)
SAN MIGUEL
QUAIL RIDGE
LEA
MARATHON OPER
LEA UNIT
LYNCH
MIDDLE LYNCH
LAGUNA VALLEY
LEA, SO.
MIDLAND MAP
EXHIBIT "C"
READ & STEVENS, INC.
Quail Federal, Well No. 2
2310' FNL & 1980' FWL, Sec. 3-T20S-R34E
Existing Wells

1/22/90

WEK Rig #1

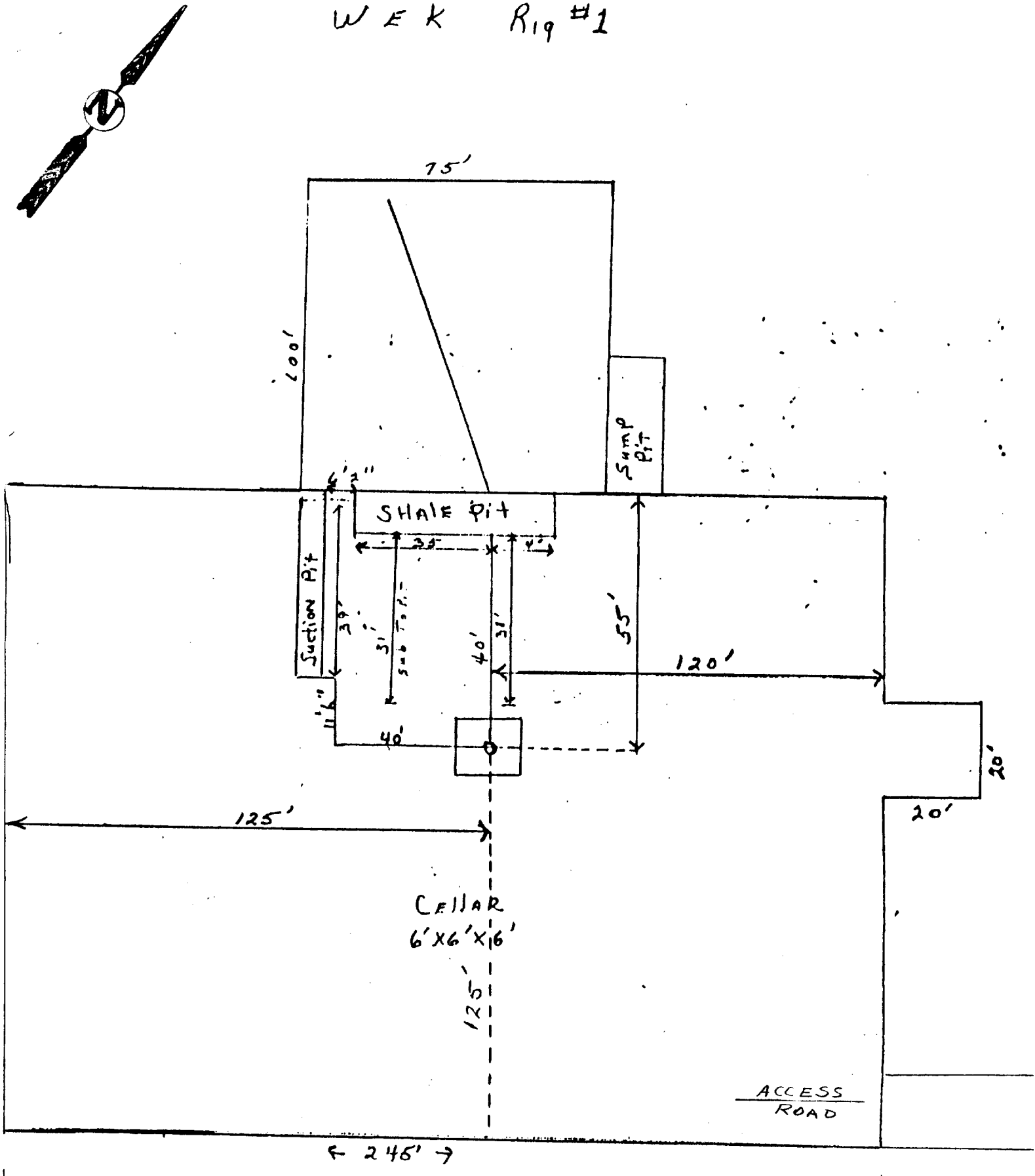


EXHIBIT "D"
READ & STEVENS, INC.
Quail Federal, Well No. 2
Pad & Pit Layout

KEN REYNOLDS—PRESIDENT
ARNIE NEWKIRK—VICE-PRESIDENT

WEK DRILLING CO., INC. — OIL WELL DRILLING CONTRACTORS

P. O. Box 1498 ROSWELL, NEW MEXICO 88202-1498
505/623-5070 ROSWELL, NM
505/746-2719 ARTESIA, NM

RIG # 1

BLOWOUT PREVENTOR ARRANGEMENT

11" SHAFFER TYPE LWS, 5000 psi WP
11" GK HYDRIL, 5000 psi WP
80 GALLON, 4 STATION PAYNE ACCUMULATOR
3000 psi WP CHOKE MANIFOLD

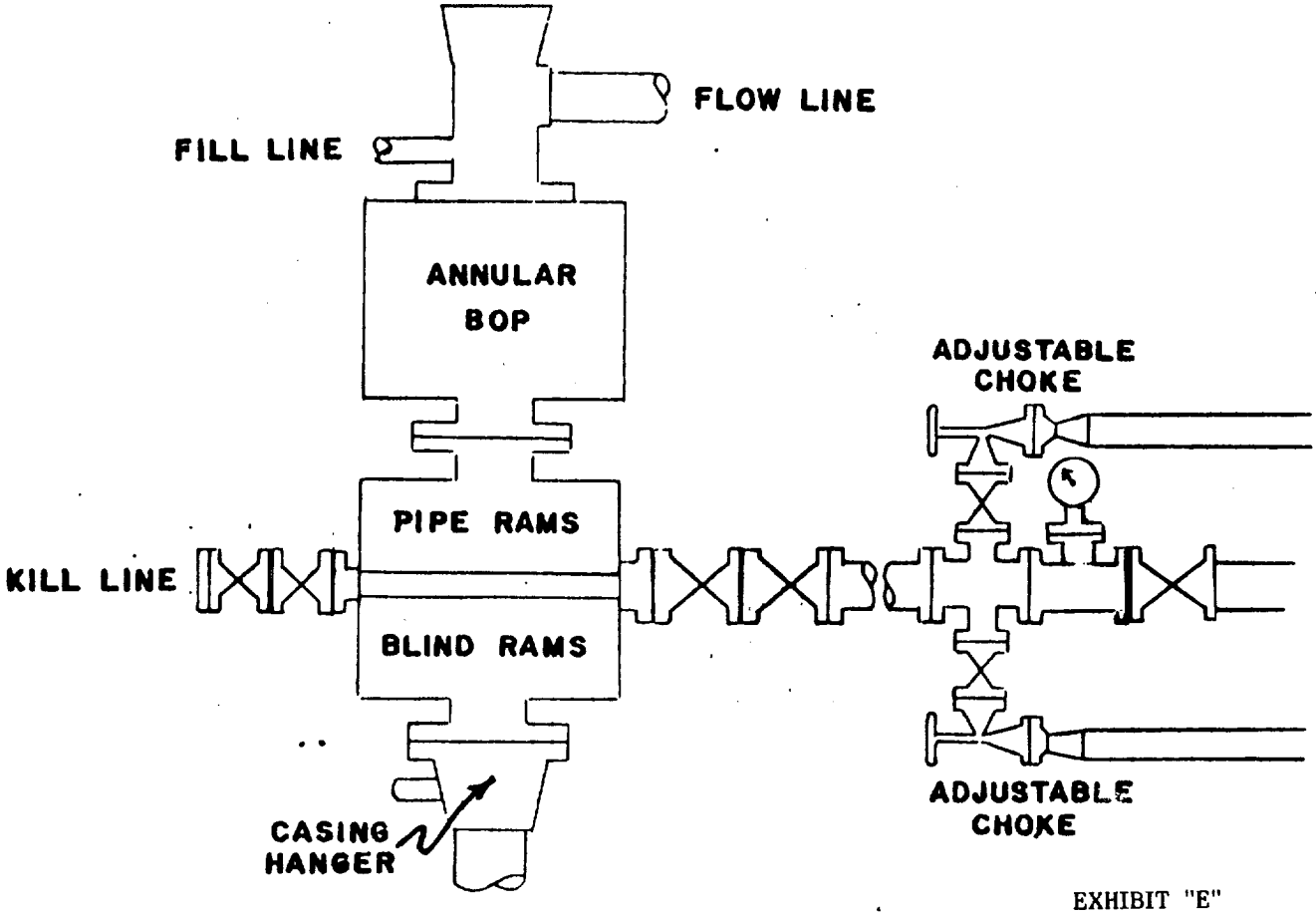


EXHIBIT "E"
READ & STEVENS, INC.
Quail Federal, Well No. 2
BOP Specifications

EXHIBIT "F"

READ & STEVENS, INC.

H_2S DRILLING OPERATIONS PLAN
For:
Quail Federal, Well No. 2
2310' FNL & 1980' FWL, Sec. 3-T20S-R34E

I. HYDROGEN SULFIDE TRAINING

All key personnel whether regularly assigned, contracted or employed on an unscheduled basis will receive or represent that they have received training in accordance with the general training requirements outlined in the API RP49 for safe drilling of wells containing hydrogen sulfide, Section 2.

In addition, supervisory personnel will be trained in the following areas:

1. The corrective action and shut-in procedures when drilling or reworking a well, and blowout prevention in well control procedures.

2. The contents and requirements of the H_2S drilling operations plan.

II. H_2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S safety equipment and systems will be installed, tested and operational when drilling reaches a depth of 500' above the first zone containing or reasonably expected to contain 100 ppm or more hydrogen sulfide.

1. Well Control Equipment:

   a. Flare line with a continuous pilot.
   b. Choke manifold with a minimum of one choke.
   c. Blind rams and pipe rams to accommodate all drill pipe sizes with a properly sized closing unit.
   d. Auxiliary equipment to include and annular preventer and a rotating head.

2. Protective Equipment:

   a. Proper protective breathing apparatus shall be readily accessible to all essential personnel on the drill site

3. H_2S and Monitoring Equipment:

   a. Three portable H_2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens.

4. Visual Warning Systems:

   a. Wind direction indicators as shown on well site diagram.
   b. Caution/Danger signs shall be posted on roads providing direct access to location.

5. Mud Program:

   a. The mud program has been designed to minimize the volume of H_2S circulated to the surface. Proper mud weight and safe drilling practices will minimize hazards when penetrating H_2S bearing zones.

6. Communications:

   a. Radio communications are available in company vehicles and at the rig site.
   b. Land line "telephone" communications at field office.

7. Well Testing:

   a. Drillstem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. When drillstem testing intervals known to or reasonably expected to contain 100 ppm or more H_2S, the drillstem test will be conducted during daylight hours and formation fluids will not be flowed to the surface.