

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

b. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒OTHER ☐SINGLE
ZONE ☒MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

DAVID H. ARRINGTON OIL & GAS, INC.

3. ADDRESS AND TELEPHONE NO.

P.O. BOX 2071 MIDLAND, TEXAS 79702

(Ph. 915-682-6685)

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

At surface

1980' FWL & 660' FSL SEC. 21 T20S-R24E EDDY CO. NM

At proposed prod. zone SAME

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

Approximately 25 miles Southwest of Artesia New Mexico

15. DISTANCE FROM PROPOSED*

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

660'

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

NA

16. NO. OF ACRES IN LEASE

320

19. PROPOSED DEPTH

7800'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

320

20. ROTARY OR CABLE TOOLS
ROTARY

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

3749' GR.

22. APPROX. DATE WORK WILL START*

WHEN APPROVED

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	CONDUCTOR 20"	NA	40'	Cement to surface with Redi-mix
12 1/2"	K-55 9 5/8"	40	1200'	400 Sx circulate to surface.
8 3/4"	S-95, K-55 7"	23 & 26#	7800'	600 Sx. estimate top cement 3000' from surface.

Known Controlled Water Basin

1. Drill 26" hole to 40'. Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
2. Drill 12 1/2" hole to 1200'. Run and set 1200' of 9 5/8" 40# K-55 ST&C casing. Cement with 400 Sx. of Class "C" cement + additives, circulate cement to surface.
3. Drill 8 3/4" hole to 7800'. Run and set 7800' of 7" casing as follows: 500' of 7" 23# S-95 LT&C, 2200' of 7" 26# K-55, 4700' of 7 23# K-55 LT&C, 400' of 7" 26# K-55 LT&C. Cement with 600 Sx. of Class "H" cement + additives, estimate top of cement 3000' from surface.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL REGULATIONS
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.

SIGNED Leslie A. Heiss TITLE Agent

DATE 02/01/01

(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 /s/ LESLIE A. HEISS FIELD MANAGER

DATE MAY 18 2001

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

RECEIVED

FEB 05 '01

BLM
RESWELL, NM

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code South Dagger Draw	³ Pool Name Upper Penn
⁴ Property Code	⁵ Property Name Royal Caddis "21" Fed.		⁶ Well Number 1
⁷ OGRID No.	⁸ Operator Name David H. Arrington Oil & Gas, Inc.		⁹ Elevation 3749'

¹⁰ Surface Location

UL or lot no. N	Section 21	Township 20-S	Range 24-E	Lot Idn	Feet from the 660	North/South line South	Feet from the 1980	East/West line West	County Eddy
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¹¹ 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
¹² Dedicated Acres 320		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

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

¹⁶ 	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief Signature Joe T. Janica Printed Name Agent Title 02/01/01 Date			
	¹⁸ 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 supervision, and that the same is true and correct to the best of my belief. December 7, 2000 Date of Survey Signature and Seal of Professional Surveyer Max A. Schumann, Jr. Certificate 1510 Certificate Number Job No. 66,241-B			
	David H. Arrington Oil & Gas, Inc. Royal Caddis "21" Fed. Com.			

Corrected Dedicated Acres - 01/31/01

EXHIBIT "A"

APPLICATION TO DRILL

DAVID H. ARRINGTON OIL & GAS, INC.
 ROYAL CADDIS "21" FEDERAL # 1
 UNIT "N" SECTION 21
 T20S-R24W EDDY CO. NM

In response to questions asked under Section II of Bulletin NCL-6 the following information on the above well is provided for your consideration.

1. Location: 1980' FWL & 660' FSL SEC. 21 T20S-R24E EDDY CO. NM
2. Elevation above Sea Level: 3749' GR.
3. Geologic name of surface formation: Quaternary Aeolian Deposits.
4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
5. Proposed drilling depth: 7800'
6. Estimated tops of geological markers:

San Andres	435'	Canyon	7275'
Glorietta	1930'	Canyon "B"	7375'
Bone Spring	3175'	Canyon "C"	7510'
Wolfcamp	5380'	Strawn	7750'
7. Possible mineral bearing formations:

Wolfcamp	Gas
Canyon	Gas
Strawn	Gas
8. Casing program:

Hole size	Interval	CD of casing	Weight	Thread	Collar	Grade
26"	0-40	20"	NA	NA	NA	Conductor
12½"	0-1200'	9 5/8"	40	8-R	ST&C	K-55
8 3/4"	0-7800'	7"	23	8-R	LT&C	S-95
			26			K-55

APPLICATION TO DRILL

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9. CEMENTING & SETTING DEPTH:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
9 5/8"	Surface	Set 1200' of 9 5/8" 40# K-55 ST&C casing. Cement with 400 Sx. of Class "C" + additives, circulate cement to surface.
7"	Production	Set 7800' of 7" 23&26# K-55 ST&C casing. Cement with 600 Sx. of Class "H" cement + additives, estimate top of cement 3000' from surface.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E". A Series 900 3000 PSI working pressure B.O.P. consisting of a double ram type preventor with a bag type annular preventor. The B.O.P. unit will be hydraulically operated. Exhibit "E-1". Choke manifold and closing unit. The B.O.P. will be nipped up on 9 5/8" casing and will be operated at least once each 24 hour period while drilling and blind rams will be operated when out of hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. No abnormal pressure or temperature is expected while drilling.

11. PROPOSED MUD CIRCULATING SYSTEM:

Depth	Mud Wt.	Visc.	Fluid Loss	Type Mud System
40-1200'	8.4-8.7	29-34	NC	Fresh water Gel add paper to control seepage.
1200-7800'	8.8-9.5	36-38	10 cc or less	Cut brine Polymer mud system with water loss to be reduced in pay intervals, and for logging and running casing.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing the viscosity and/or water loss may have to be adjusted to meet these needs.

APPLICATION TO DRILL

DAVID H. ARRINGTON OIL & GAS, INC.
ROYAL CADDIS "21" FEDERAL # 1
UNIT "N" SECTION 21
T20S-R24W EDDY CO. NM

12. TESTING, LOGGING, & COREING PROGRAM:

- A. Open hole logs: Run Gamma Ray, Caliper, PEX/AIT from TD to 1200', run Gamma Ray Neutron from 1200' to surface.
- B. DST's to be run in the Canyon and sidewall cores will be taken as shows dictate.
- C. A two man mud logging unit will be put on hole at 1500' and remain on hole to TD.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. Hydrogen Sulfide gas may be encountered, H₂S detectors will be in place to detect any presence of unsafe levels of H₂S. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operations of all equipment that will be used. Estimated BHP 3500 PSI & estimated BHT 165°.

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Roads and location construction will begin after the BLM approves the APD. Anticipated spud date will be as soon as pad & road construction has been completed. Drilling time for the well is estimated to take 25 days. If production casing is run an additional 30 days will be required to complete well and construct surface facilities.

15. OTHER FACETS OF OPERATION:

After running production casing, cased hole Gamma-Neutron & Collar logs will be run over all possible pay intervals. If commercial production from the Canyon pay is indicated it will be perforated and stimulated. Then if necessary the pay will be swab tested and completed as a gas well.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H₂S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
2. H₂S Detection and Alarm Systems
 - A. H₂S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
3. Windsock and/or wind streamers
 - A. Windsock at mudpit area should be high enough to be visible.
 - B. Windsock at briefing area should be high enough to be visible.
 - C. There should be a windsock at entrance to location.
4. Condition Flags and Signs
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H₂S present in dangerous concentration. Only emergency personnel admitted to location.
5. Well control equipment
 - A. See exhibit "E"
6. Communication
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.
7. Drillstem Testing
 - A. Exhausts will be watered.
 - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
 - C. If location is near any dwelling a closed D.S.T. will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.
9. If H_2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H_2S scavengers if necessary.

SURFACE USE PLAN

DAVID H. ARRINGTON OIL & GAS, INC.

ROYAL CADDIS "21" FEDERAL # 1

UNIT "N"

SECTION 21

T20S-R24E

EDDY CO. NM

1. EXISTING ROADS: Area maps, Exhibit "B" is a reproduction of a County General Highway Map. Exhibit "C" is a reproduction of a USGS Topographic Map, showing existing roads and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.
 - A. Exhibit "A" shows the proposed well site as staked.
 - B. From Artesia New Mexico take U.S. Hi-way 285 South for 18± miles to CR-28, turn West on CR-28 follow for 4.2± miles to CR-27 take CR-27 follow for 7± miles turn South to wells in Section 21, follow lease road 1 mile location is on the West side of road turn Northwest go 600±' to location.
 - C. Lay flowlines along road R-O-W's if necessary to make a sales connection.
2. PLANNED ACCESS ROADS: Approximately 650' of new road will be constructed.
 - A. The access road will be crowned and ditched to a 12'00" wide travel surface with a 40' right-of-way.
 - B. Gradient on all roads will be less than 5.00%.
 - C. No turnouts will be necessary.
 - D. If needed, road will be surfaced with a minimum of 4" of caliche. This material will be obtained from a local source.
 - E. Centerline for the new access road has been flagged. Earthwork will be as required by field conditions.
 - F. Culverts in the access road will not be used. The road will be constructed to utilize low water crossings for drainage as required by the Topography.
3. LOCATION OF EXISTING WELLS IN A ONE-MILE RADIUS EXHIBIT "A-1"

A. Water wells	-	Water well ½ mile North
B. Disposal wells	-	None known
C. Drilling wells	-	None Known
D. Producing wells	-	As shown on Exhibit "A-1"
E. Abandoned wells	-	As shown on Exhibit "A-1"

SURFACE USE PLAN

DAVID H. ARRINGTON OIL & GAS, INC.
ROYAL CADDIS "21" FEDERAL # 1
UNIT "N" SECTION 21
T20S-R24E EDDY CO. NM

4. If, upon completion this well is productive David H. Arrington Oil & Gas, Inc. will furnish plats/or maps showing on site production facilities or off site facilities, that will require flow lines and possible powerlines to be laid and constructed along Road Right-of ways. See Exhibit "F".

5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction will be obtained from the excavation of drill site, if additional material is needed it will be purchased from a local source and transported over the access route as shown on Exhibit "G".

7. METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the reserve pit.
- B. All trash, junk and other waste material will be contained in trash cages or bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.
- C. Salts remaining after completion of well will be picked up by supplier including broken sacks.
- D. Sewage from living quarters will drain into holes with a minimum depth of 10'. These holes will be covered during drilling and will be back filled upon completion. A Porta-John will be provided for the rig crews. This equipment will be properly maintained during the drilling operations and removed upon completion of the well.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pit until the pit is dry enough for breaking out. In the event that drilling fluids do not evaporate in a reasonable time they will be hauled off by transports and be disposed of at a state approved disposal facility. Later pits will be broken out to speed drying. Water produced during testing will be put in reserve pits. Any oil or condensate produced will be stored in test tanks until sold and hauled from the site.

8. ANCILLARY FACILITIES:

- A. No camps or airstrips to be constructed.

DAVID H. ARRINGTON OIL & GAS, INC.
ROYAL CADDIS "21" FEDERAL # 1
UNIT "N" SECTION 21
T20S-R24E EDDY CO. NM

9. WELL SITE LAYOUT

- A.
- B. This exhibit indicates proposed location of reserve and trash pits; and living facilities.
- C. Mud pits in the active circulating system will be steel pits and the reserve pit is proposed to be unlined, unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- D. If needed, the reserve pit is to be lined with PVC or polyethylene line. The pit liner will be 6 mils thick. Pit liner will extend a minimum, 2'00" over the reserve pits dikes where the liner will be anchored down.
- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. 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 a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with 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 provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. 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.

SURFACE USE PLAN

DAVID H. ARRINGTON OIL & GAS, INC.
ROYAL CADDIS "21" FEDERAL # 1
UNIT "N" SECTION 21
T20S-R24E EDDY CO. NM

11. Other Information:

- A. Topography in the area of well shows loamy soil ranging from shallow to deeper soil under lain by caliche. The dip is Easterly toward the Pecos River. The soil supports Cresote, littleleaf horsebush, acacia, cholla cactus and native grasses.
- B. The surface where the well is located belongs to the U.S. Department of Interior and is administered by The Bureau of Land Management. The surface is used for livestock grazing and the production of Oil & Gas.
- C. An Archaeological survey will be conducted and filed with the Bureau of Land Management, Carlsbad Field Office.
- D. A dwelling is located approximately ½ mile North of location.

12. Operator's Representative:

Field representative for contact regarding compliance with the surface use plan is:

Before Construction.

TIERRA EXPLORATION INC.
P.O. BOX 2188
HOBBS, NEW MEXICO 88241
OFFICE PHONE
JOE T. JANICA

After and during construction.

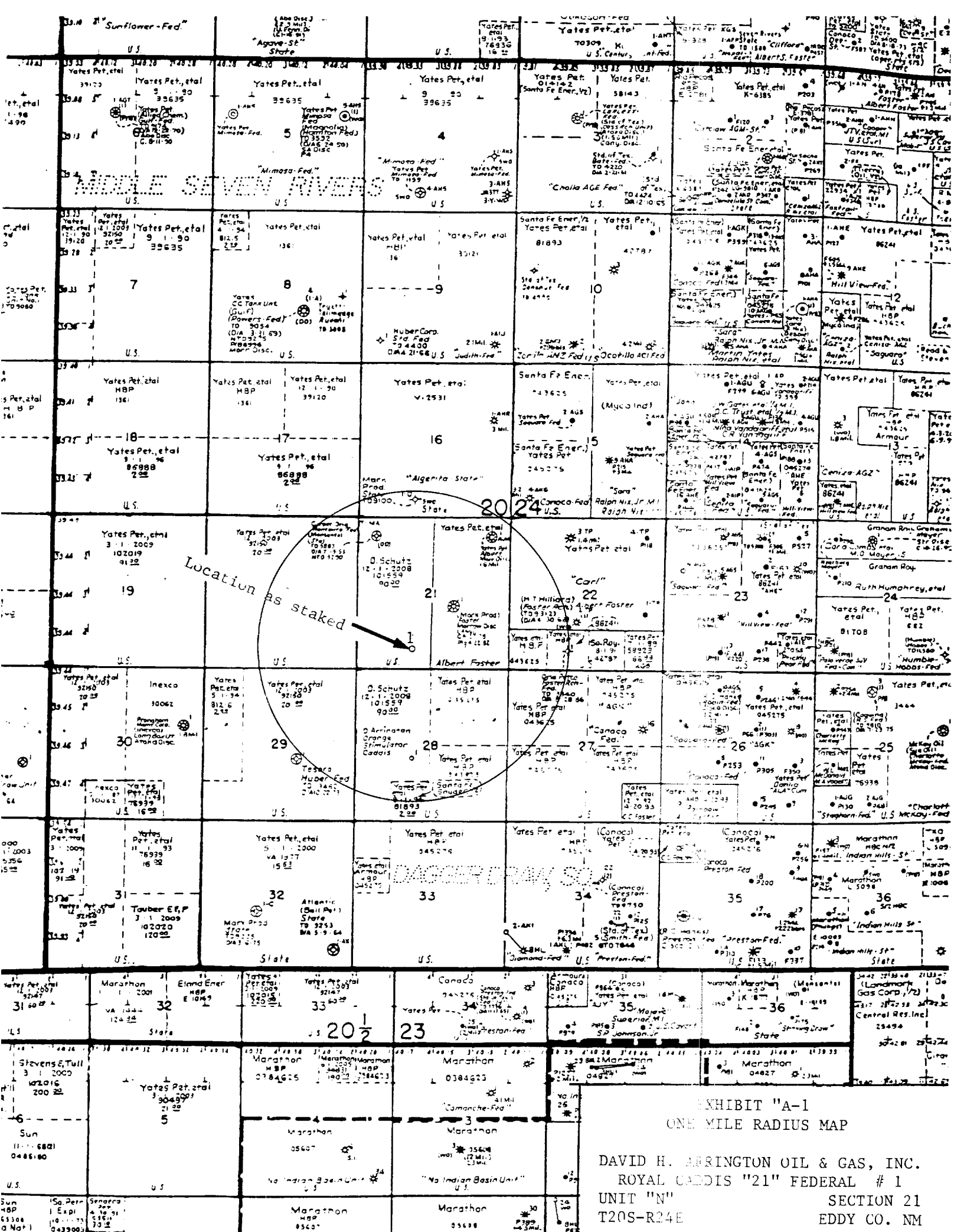
DAVID H. ARRINGTON OIL & GAS, INC.
P.O. BOX 2071
MIDLAND, TEXAS 79702
OFFICE PHONE 915-682-6685
MR. JEFF BANE

13. Certification: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drilling site and access route, and 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. The work associated with the operations proposed herein will be performed by David H. Arrington Oil & Gas, Inc., its contractors/sub contractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of 18 U.S.C. 1001 for the filing of a false statement.

NAME : Joe T. Janica

DATE : 02/01/01

TITLE : Agent



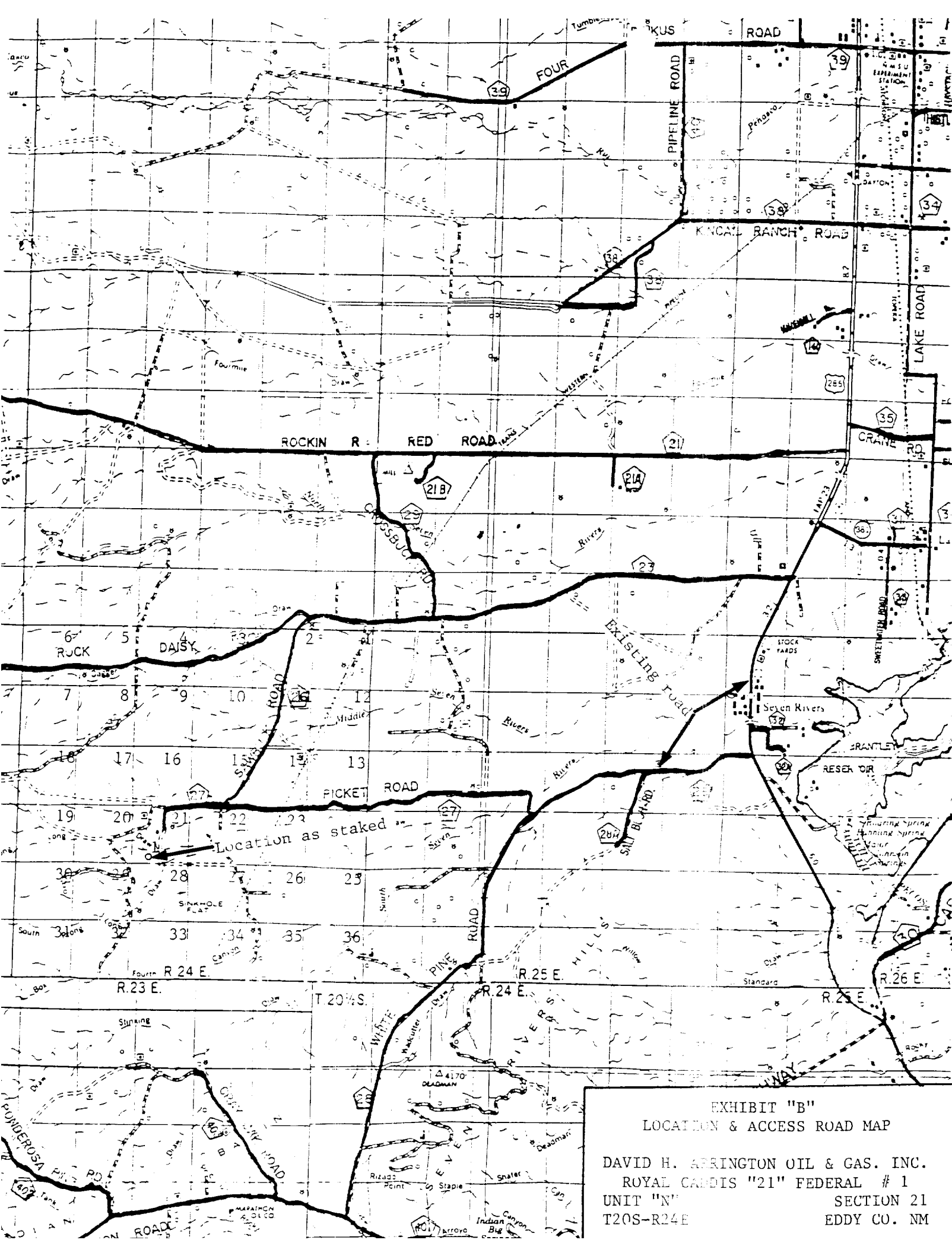
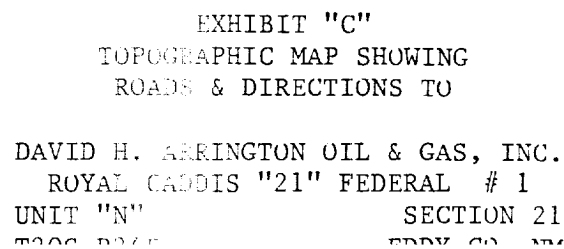
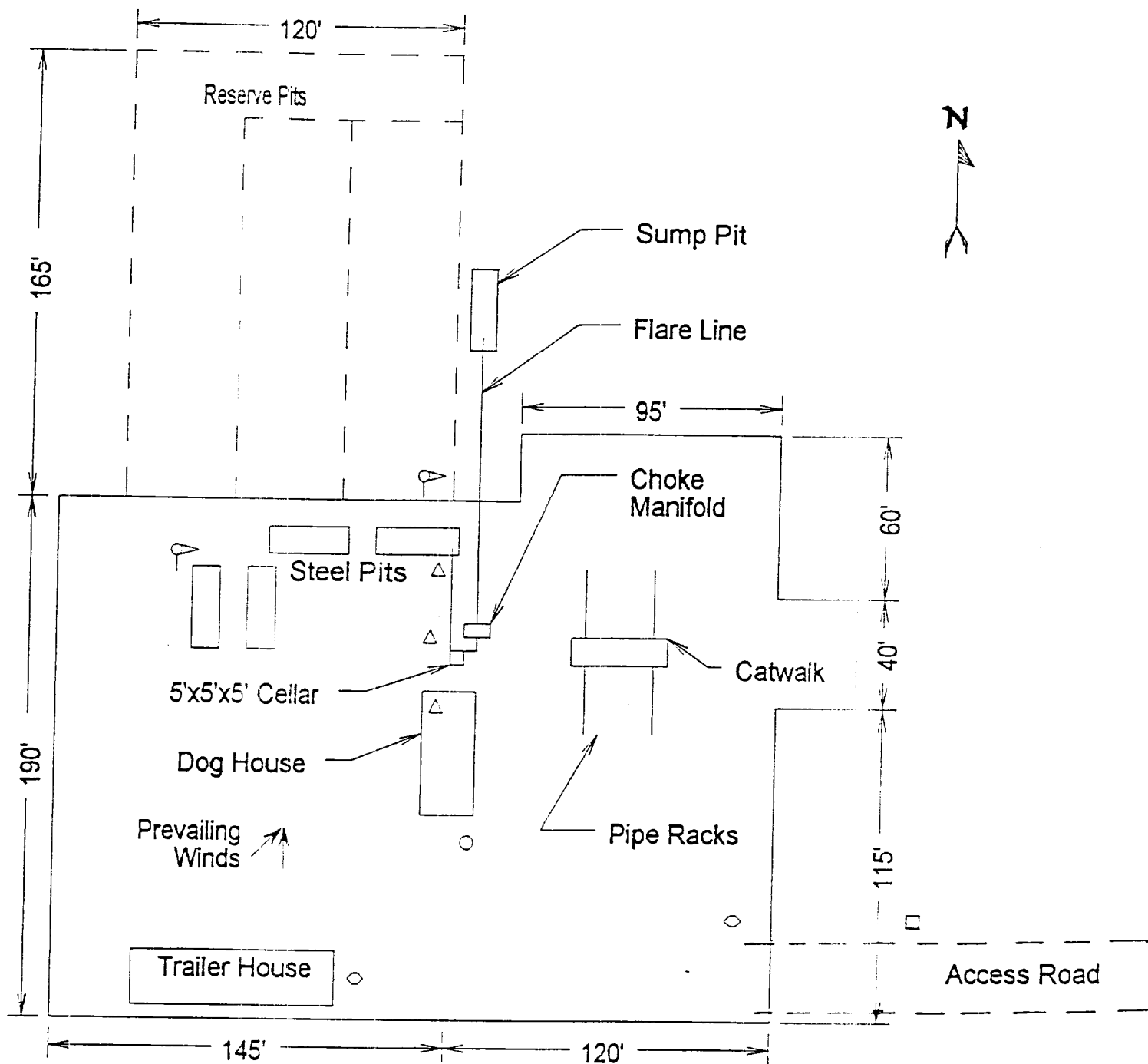


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

DAVID H. ABRINGTON OIL & GAS, INC.
ROYAL CADDIS "21" FEDERAL # 1
UNIT "N" SECTION 21
T20S-R24E EDDY CO. NM

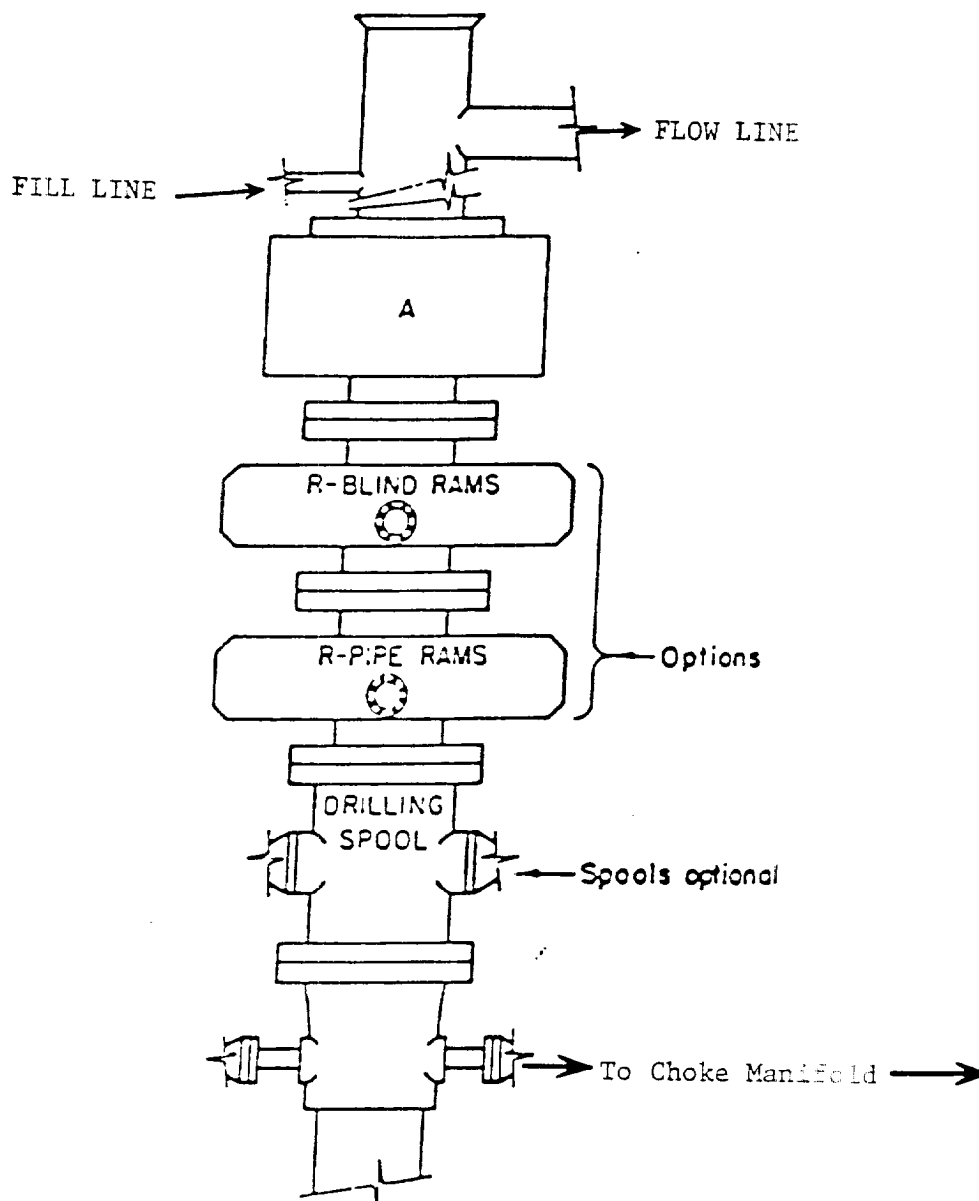




- ⌋ Wind Direction Indicators
(wind sock or streamers)
- △ H2S Monitors
(alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote BOP Closing Unit
- Sign and Condition Flags

EXHIBIT "D"
RIG LAY OUT PLAT

DAVID H. ARRINGTON OIL & GAS, INC.
ROYAL CADDIS "21" FEDERAL # 1
UNIT "N" SECTION 21
T20S-R24E EDDY CO. NM

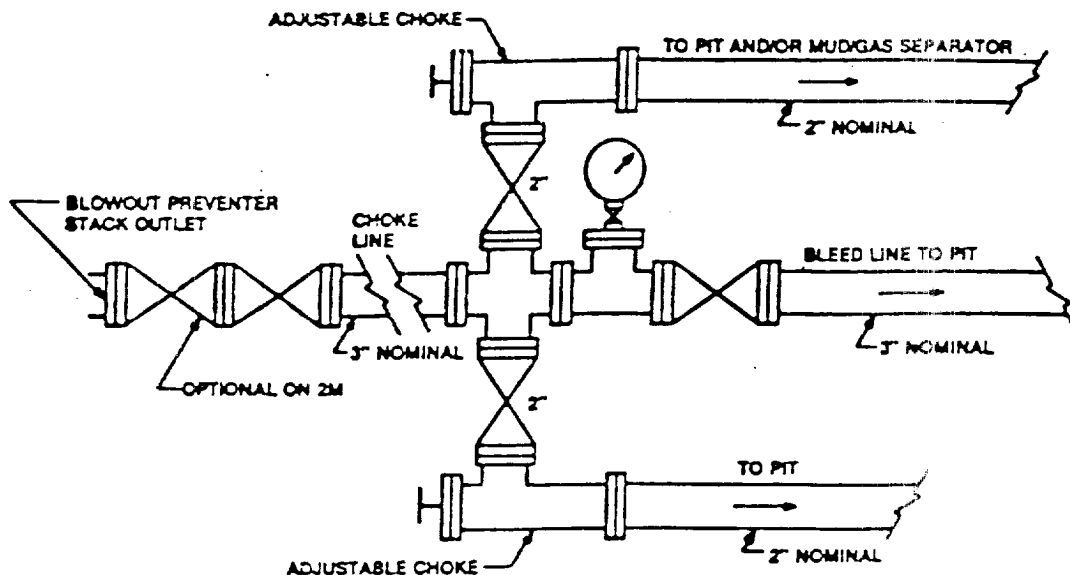


ARRANGEMENT SRRA

900 Series
3000 PSI WP

EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON

DAVID H. ARRINGTON OIL & GAS, INC.
ROYAL CADDIS "21" FEDERAL # 1
UNIT "N" SECTION 21
T20S-R24E EDDY CO. NM



Typical choke manifold assembly for 3M WP system

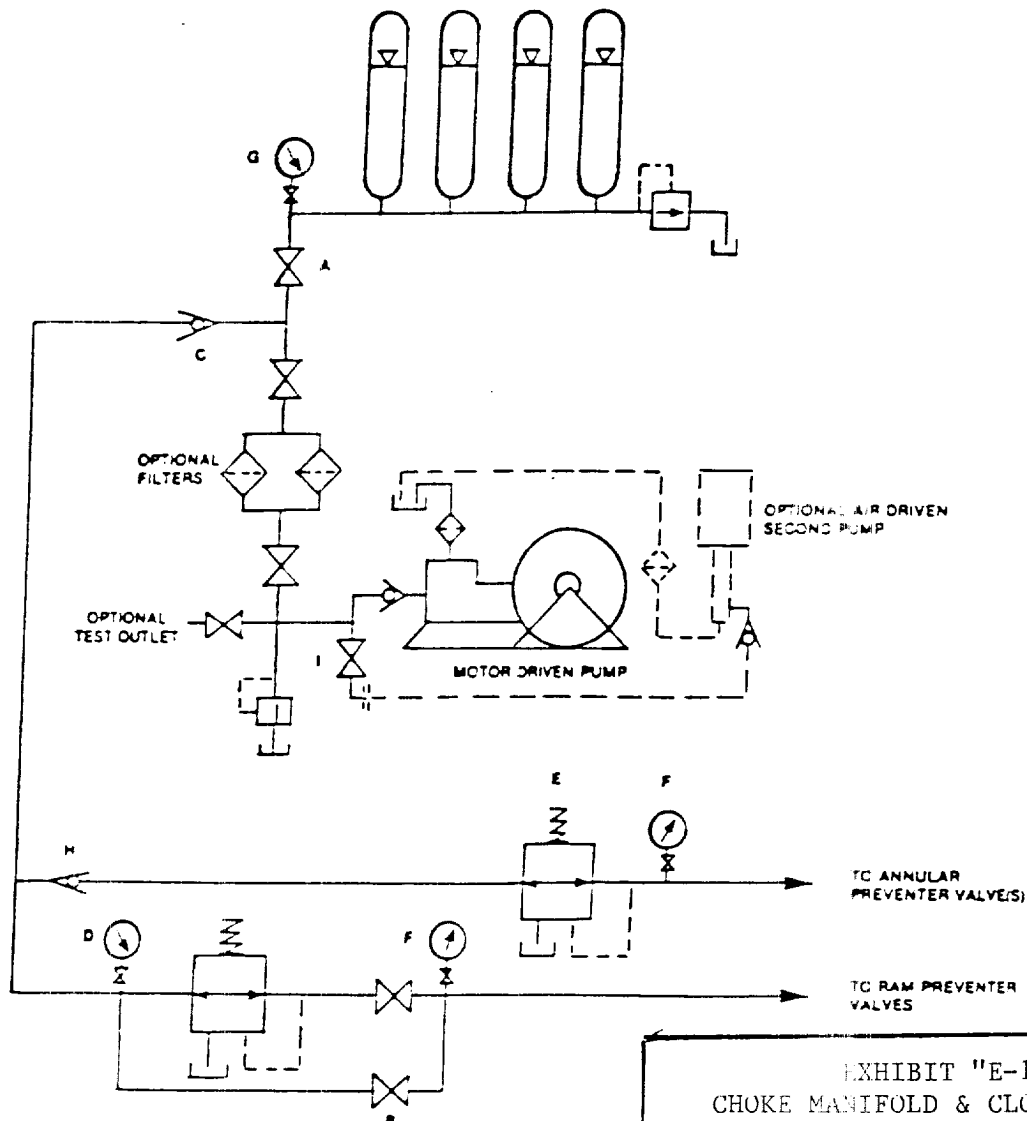


EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT

DAVID H. ARRINGTON OIL & GAS, INC.
ROYAL CADDIS "21" FEDERAL # 1
UNIT "N" SECTION 21
T20S-R24E EDDY CO. NM

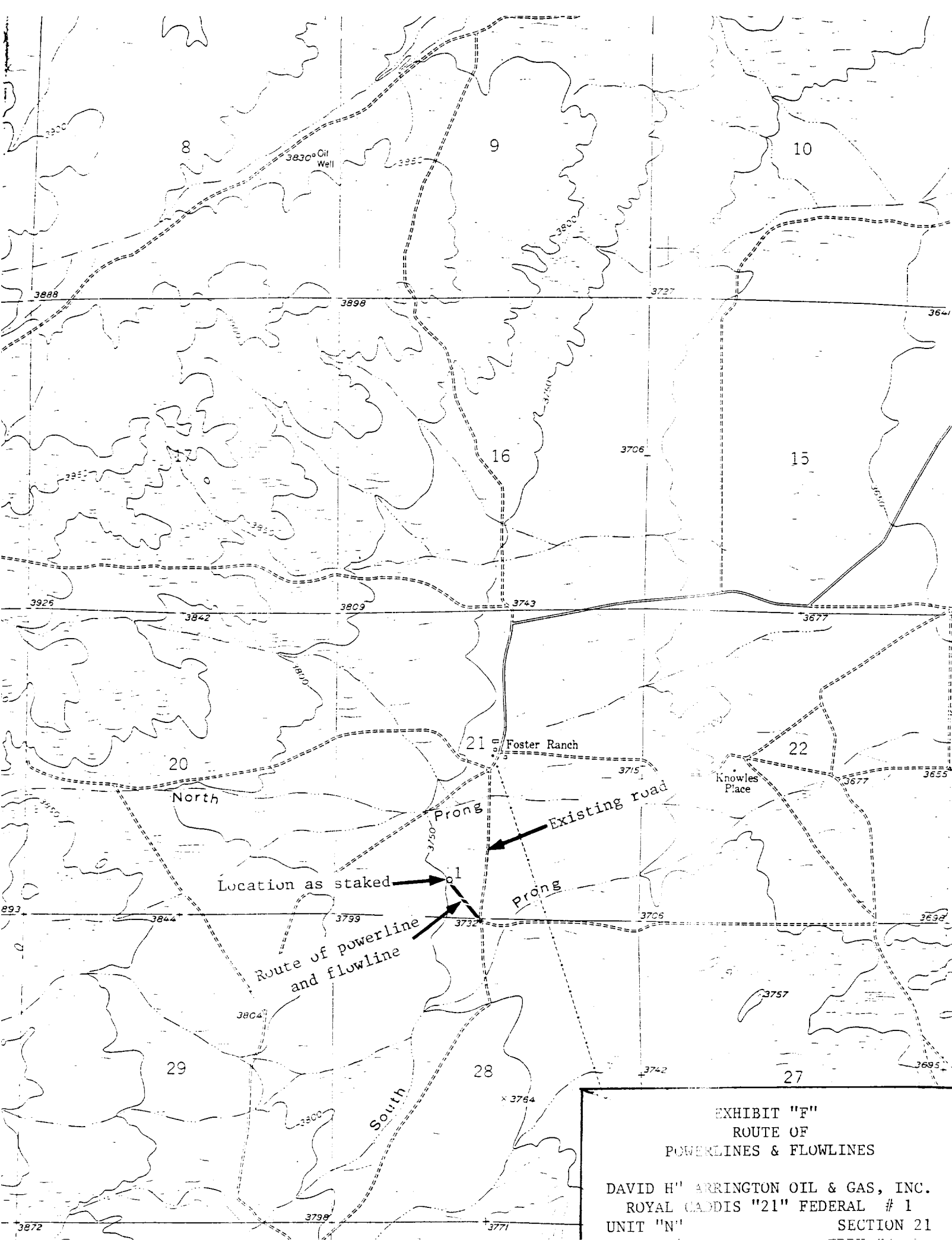


EXHIBIT "F"
ROUTE OF
POWERLINES & FLOWLINES

DAVID H. ARRINGTON OIL & GAS, INC.
ROYAL CADDIS "21" FEDERAL # 1
UNIT "N" SECTION 21