

# TXO

**TXO PRODUCTION CORP.**

1800 LINCOLN CENTER BUILDING  
DENVER, COLORADO 80264

TELEPHONE (303) 861-4246

**RECEIVED**

**JUL 23 1984**

**DIVISION OF OIL  
GAS & MINING**

July 18, 1984

Utah Division of Oil, Gas and Mining  
Department of Natural Resources & Energy  
4241 State Office Building  
Salt Lake City, Utah 84114

Attn: Norm Stout

Re: North Credo Federal #1  
Section 33-T 15 1/2 S-R 26 E  
Grand County, Utah

Gentlemen:

Enclosed please find a copy of the Application for Permit to Drill (Form 3160-3) and Drilling Plan for the above-referenced well.

If you have any questions please contact me at this office.

Very truly yours,

TXO PRODUCTION CORP.



Terry L. Blankenship  
Environmental Scientist

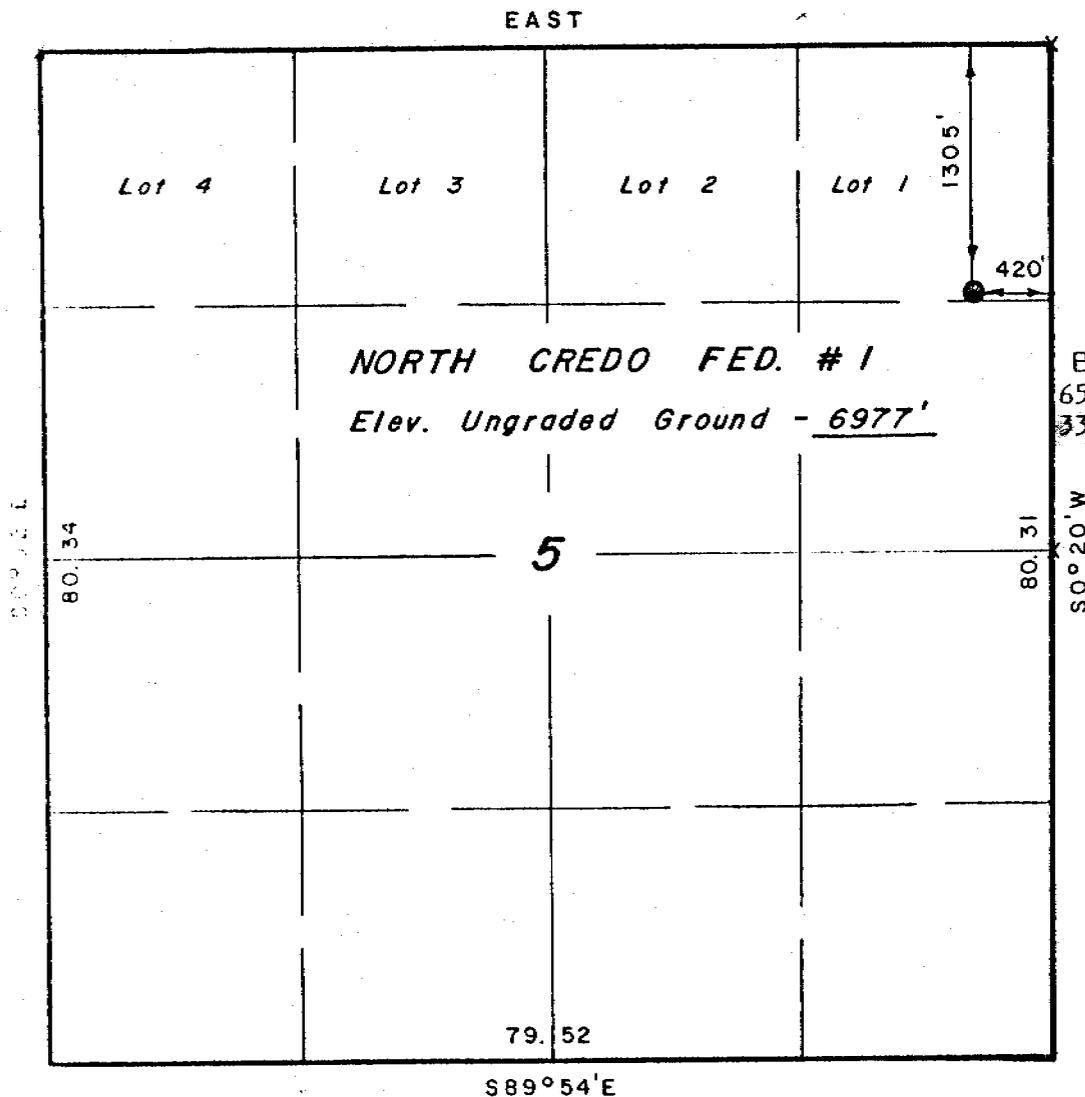
TLB/gbp

Enclosure/as stated

T 16 S, R 26 E, S.L.B.&M.

PROJECT  
TXO PRODUCTION CORP.

Well location, NORTH CREDO  
FED. #1, located as shown in  
Lot 1, Section 5, T16S, R 26 E,  
S.L.B.&M. Grand County, Utah.



(surface location)  
Bottomhole location is  
650' FSL, 700' FWL of Sec.  
33-T 15 1/2 S - R 26 E  
43 019 3117/



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM  
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF

*[Signature]*  
REGISTERED LAND SURVEYOR  
REGISTRATION NO 2454  
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING  
P.O. BOX Q - 85 SOUTH - 200 EAST  
VERNAL, UTAH - 84078

SCALE	1" = 1000'	DATE	9/6/84
PARTY	D.B. C.M. G.B. S.B.	REFERENCES	GLO Plat
WEATHER	Warm	FILE	TXO PRODUCTION

X = Section Corners Located

# TXO

**TXO PRODUCTION CORP.**  
1800 LINCOLN CENTER BUILDING  
DENVER, COLORADO 80264  
TELEPHONE (303) 861-4246

**RECEIVED**

July 27, 1984

Utah Division of Oil, Gas and Mining  
Department of Natural Resources & Energy  
4241 State Office Building  
Salt Lake City, Utah 84114

JUL 27 1984  
DIVISION OF OIL  
GAS & MINING

Attn: Arlene Sollis

Re: North Credo Federal #1  
Application for Permit to Drill

Dear Ms. Sollis:

Enclosed please find Form 3160-3 that was inadvertently omitted from the July 18, 1984 APD package you received from us. I apologize for any inconvenience this might have caused you.

Very truly yours,

TXO PRODUCTION CORP.



Georgia Petranoff  
Environmental Dept.

TLB/gbp

Enclosure/as stated

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED BACK

5. LEASE DESIGNATION AND SERIAL NO.  
U-50435 - *Utah lease #*

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
---

7. UNIT AGREEMENT NAME  
---

8. FARM OR LEASE NAME  
North Credo Federal

9. WELL NO.  
#1

10. FIELD AND POOL, OR WELL NAME  
San Arroyo *WFLDCAT*  
*UNDESIGNATED*

11. SEC., T., E., M., OR BLK.  
AND SURVEY OR AREA  
650' FSL, 700' FWL  
Sec. 33-T15 1/2S-R26E

12. COUNTY OR PARISH | 13. STATE  
Grand | Utah

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
DRILL  DEEPEN  PLUG BACK

b. TYPE OF WELL  
OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
TXO Production Corp.

3. ADDRESS OF OPERATOR  
1800 Lincoln Center Building, Denver, CO 80264

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
At surface  
1497' FSL, 22' FWL Sec. 13-T7S-R105W Garfield County, Colorado  
At proposed prod. zone  
650' FSL, 700' FWL Sec. 33-T15 1/2S-R26E Grand County, Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
Approximately 18 miles northwest of Mack, Colorado

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
650'

16. NO. OF ACRES IN LEASE  
197

17. NO. OF ACRES ASSIGNED TO THIS WELL  
197

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

19. PROPOSED DEPTH  
5300'

20. ROTARY OR CABLE TOOLS  
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
5946' GR

22. APPROX. DATE WORK WILL START\*  
August 10, 1984

JUL 30 1984  
DIVISION OF OIL  
GAS & MINING

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	36.0#	300'	160 sacks
8 3/4"	7"	20.0#	2200' MD (2300' TVD)	200 sacks
6 1/4"	4 1/2"	10.5#	5300' MD (5793' TVD)	150 sacks

TXO Production Corp. proposes to directionally drill the subject well using an angle building rate of 2°/100' in accordance with the above table.

	TVD	Deviation	Angle	MD
Kickoff Depth	500'	0.0	0.0	500'
Angle Established	1824'	325'	27.5°	1877'
Initial Objective	4965'	1962'	27.5°	5418'
Total Objective	5300'	2085'	27.5°	5793'

The initial target (Dakota Sands) is located 650' FSL and 700' FWL of Sec. 33-T15-1/2S-R26E Grand County, Utah and is planned with a 150' target radius to comply with applicable State Spacing regulations.

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 R.E. Dashner TITLE Dist. Drlg. & Prod. Manager DATE 7/19/84  
R.E. Dashner

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_

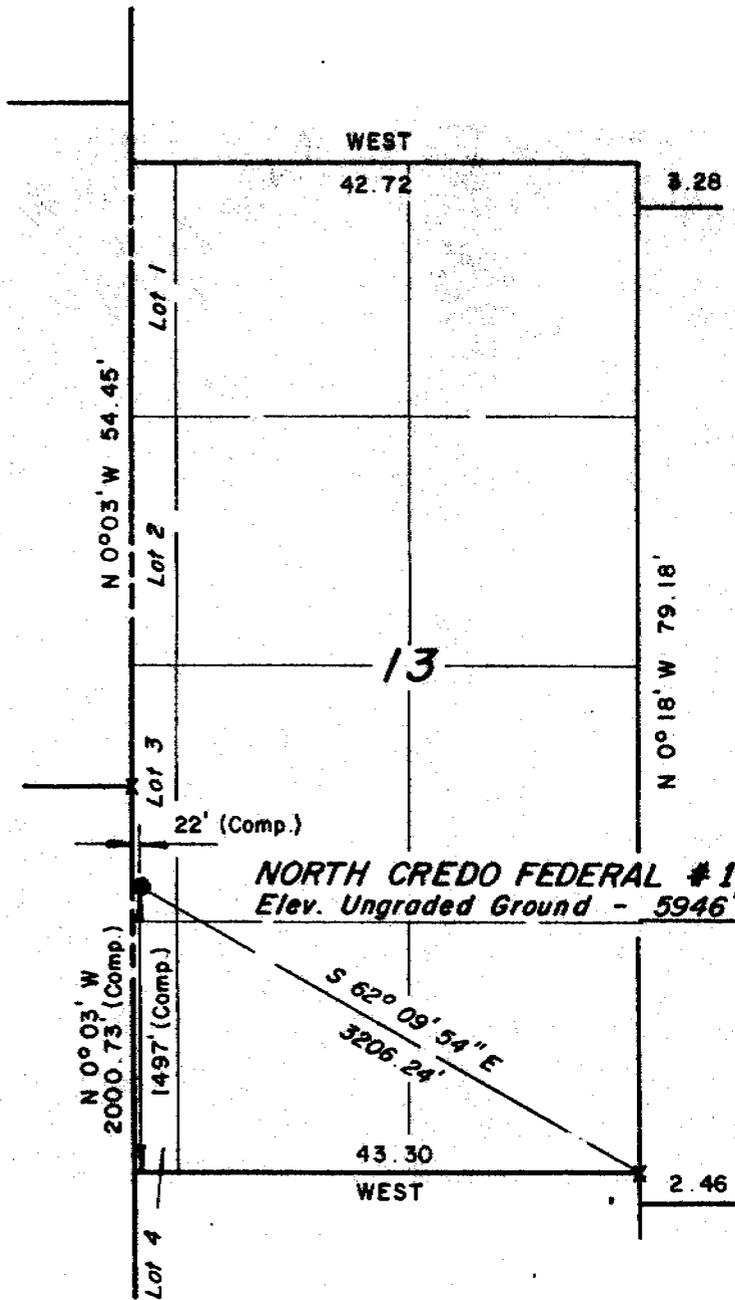
APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING  
DATE: 7/23/84  
BY: John R. Beers

\*See Instructions On Reverse Side

T 7 S, R 105 W, 6<sup>th</sup> P.M.

PROJECT  
TXO PRODUCTION CORP.

Well location, NORTH CREDO FED.  
# 1, located as shown in Lot 3,  
Section 13, T 7 S, R 105 W, 6<sup>th</sup> P.M.  
Garfield County, Colorado.



X = Section Corners Located



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM  
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF.

*William J. Marshall*

REGISTERED LAND SURVEYOR  
REGISTRATION NO 5839  
STATE OF COLORADO

UTAH ENGINEERING & LAND SURVEYING P.O. BOX Q - 85 SOUTH - 200 EAST VERNAL, UTAH - 84078	
SCALE 1" = 1000'	DATE 6 / 18 / 84
PARTY D.A. D.K. J.H.      BFW	REFERENCES GLO Plat
WEATHER Fair	FILE TXO

## DRILLING PLAN

DATE: July 18, 1984

WELL NAME: North Credo Federal #1

SURFACE LOCATION: 1497' FSL, 22' FWL, Section 33-T15 1/2 S-R26E, Garfield  
County, Colorado

BOTTOMHOLE LOCATION: 650' FSL, 700' FWL Section 33-T 15 1/2 S -R 26 E  
Grand County, Utah

FEDERAL OIL & GAS LEASE NO.: U-50435

TXO Production Corp. is covered by Nationwide Bond No. 679 F 434 A; evidence of bond coverage for Credo Petroleum, Lessee of Record, will be forwarded if necessary. Credo Petroleum has designated TXO Production Corp. as Operator. Designation of Operator forms will be forwarded under separate cover.

### I. DRILLING PROGRAM

1. SURFACE FORMATION: Mesa Verde

2. ESTIMATED FORMATION TOPS:

Castlegate	1023'	Depths given are true vertical depths (TVD)
Mancos	1106'	
Dakota	4756'	
Morrison	5002'	
Total Depth	5300'	

3. ESTIMATED DEPTH AT WHICH OIL, GAS, WATER OR OTHER MINERAL BEARING ZONES ARE EXPECTED TO BE ENCOUNTERED:

Expected Gas Zones:	Dakota	4756'	(TVD)
	Morrison	5002'	

Water may be encountered in the Mesaverde and Castlegate Formations.

4. DIRECTIONAL DRILL PROGRAM:

As indicated on Form 3160-3, TXO Production Corp. proposes to directionally drill the subject well. Major depths and angles are listed below:

	<u>TVD</u>	<u>Deviation</u>	<u>Angle</u>	<u>MD</u>
Kickoff depth	500'	0.0'	0.0°	500'
Angle established	1824'	325'	27.5°	1877'
Initial objective	4965'	1962'	27.5°	5418'
Total depth	5300'	2085'	27.5°	5793'

During kickoff, an angle building rate of 2°/100' will be employed with surveys to be taken at between 30 and 90 foot intervals as required by hole conditions. When a total angle of 27.5°, from vertical is established, the angle will be held to the proposed TD of 5300' (TVD). The bottomhole target (Dakota sand group) is located 650' FSL, 700' FWL of Section 33 and is planned with a 150' target radius to comply with applicable state spacing regulations. Again, surveys through this stage of the hole will be dictated by hole conditions.

5. PRESSURE CONTROL EQUIPMENT:

- A. After surface casing is set, a double ram-type blowout preventer with blind rams and pipe rams, with minimum working pressure of 2000 psi (greater than the anticipated bottomhole pressure of 1100 psi), will be installed. See Exhibit 1.
- B. A choke control, fill and kill lines with minimum working pressure of 2000 psi will be installed.
- C. A rotating pack-off head will be installed above the blowout preventer to control flow while drilling with air.
- D. The equipment in A and B will be pressure-tested to 2000 psi before drilling surface pipe cement, and the blowout preventer will be tested for operations daily and during trips.

6. CASING PROGRAM AS PER FORM 3160-3.

7. MUD PROGRAM:

0-TD                      Air or air mist. If necessary will use spud mud at 8.8-9.0#/gal. vis. 35-45 sec., WL < 10 cc.

8. CORING, LOGGING, TESTING PROGRAM:

- A. No coring is anticipated.
- B. Logging program will consist of: DIL from TD to intermediate pipe, GR from TD to surface pipe and FDC-SNP-GR-CAL from TD to 2000' above TD; if logged wet, FDC-CNL-GR-CAL from TD to 2000' above TD.
- C. No testing is anticipated.

9. ABNORMAL CONDITIONS:

- A. No abnormal pressures or temperatures are expected.
- B. No hazardous gases such as H<sub>2</sub>S are expected.
- C. While drilling with gas or air, return fluids will be directed through the blow line to the reserve pit. All open fires or ignition sources will be prohibited on location while gas or air drilling. A pilot flame will be maintained at the end of the blow line (located 125' from the wellhead) to insure burning of return gases that are combustible.

10. AUXILIARY EQUIPMENT

- A. A kelly cock will be used.
- B. A float valve will be run in the drill string above the bit.
- C. A sub with full opening valve will be kept on the derrick floor to stab into DP when kelly is not in use.

11. ANTICIPATED STARTING DATES:

Start location construction	August 23, 1984
Spud date	August 29, 1984
Complete drilling	September 14, 1984
Completed, ready for pipeline	September 29, 1984

12. Productive zones will be perforated, tested and treated as necessary. Gas will be flared during testing. Produced water will be contained in the unlined drilling reserve pit. The extent of treatment of a zone (acidizing and/or fracing) can only be determined after the zone has been tested. A completion program will be furnished after drilling and logging.

## II. SURFACE USE PROGRAM

### 1. EXISTING ROADS

- A. Route and distance from nearest town or locatable reference point to where proposed access route leaves main road: From Mack Colorado, proceed west 2.3 miles on State Highway 6 & 50 to Eight Road in Colorado. Turn right on Eight Road and proceed north 2.7 miles. Turn left, remaining on pavement, and proceed west 3.0 miles to a curve. Continue to follow the well-traveled and maintained gravel road northwest for 3.1 miles to a fork. Take the left fork and proceed 3.1 miles to a fork. Take the right fork (left fork continues up Jim Canyon) and proceed up Prairie Canyon 1.8 miles to a fork. Take the right fork and continue up Prairie Canyon for 2.0 miles to a fork. Take the left fork and proceed up Hells Hole Canyon for 1.3 miles to a Quinico well location (end of road). The planned access road to the North Credo Federal #1 begins at this point.
- B. Access route to location color coded in red and labeled. Refer to Exhibit 2.
- C. For development well, all existing roads within one mile color coded in yellow. Refer to Exhibit 3.
- D. Plans for improvement and maintenance of existing roads: The existing roads should not require any upgrading. During wet periods some maintenance may be necessary to allow passage by drilling rigs and well servicing vehicles. Dry periods necessitate watering the road to control dust.

### 2. PLANNED ACCESS ROAD

The access road will be approximately 1500 feet long and 18-20 feet wide with grades ranging from 1 to 4 percent. The road will require cuts ranging from 5 to 15 feet and will be constructed with inside bar ditches and water bars to allow for proper drainage. The use of culverts is not anticipated and no gates or cattleguards will be needed.

### 3. LOCATION OF EXISTING WELLS

Exhibit 5 is a one-mile radius locating and identifying the following:

- A. Water Wells-None
- B. Injection Wells-None
- C. Abandoned Wells-Coseka State, Sec. 32-T15 1/2S-R26E
- D. Disposal Wells-None
- E. Producing Wells-TXO Credo #1 Sec. 5-T16S-R26E  
TXO Credo "A" #1 Sec. 5-T16S-R26E  
TXO Moxa Fed. "A" #1 Sec. 4-T16S-R26E  
Quinico Fuller #6 Sec. 13-T2S-R106W  
Quinico Fuller #12 Sec. 18-T7S-R104W
- F. Drilling Wells-None
- G. Shut-in Wells - None
- H. Injection Wells-None

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

A. On well pad production facilities, if well is successfully completed for production.

1. Proposed facilities and attendant lines in relation to the well pad. Refer to Exhibit 6.
2. Dimensions of facilities: Refer to Exhibit 6.
3. The production facilities will include a production pit, a production unit, a meter run, and dehydrator. It is anticipated that the meter and dehydrator will be owned, installed, and maintained by the gas purchaser. The anticipated location of these facilities is shown on Exhibit 6. The pit will be located in cut, will contain all water production and be built in accordance with NTL-2B IV.4. specifications for disposal of less than five barrels of produced water per day. In the event the volume of produced water exceeds 5 BWPD, TXO will investigate alternate disposal methods and obtain approval as required by NTL-2B.
4. Protective devices and measures to protect livestock and wildlife: The water production pit will be fenced with barbed wire to protect livestock and wildlife.

B. Off well pad production facilities

No off well pad facilities, other than a gas pipeline, are anticipated.

5. LOCATION AND TYPE OF WATER SUPPLY

- A. Location and type of water supply: Water will be obtained from West Salt Wash in Colorado.
- B. Method of transporting water: The water will be hauled in trucks by a certified water hauler along the route shown in green on Exhibit 2.
- C. If water well is to be drilled, so state: No water well is contemplated.

6. SOURCES OF CONSTRUCTION MATERIALS

- A. Show information either on map or by written description: It is anticipated that cuts on location will furnish sufficient quantities of materials to construct a level location. Topsoil will be stockpiled on the southeast end of the pad for later use during rehabilitation on the disturbed areas. Excess excavated material will be stockpiled for use during rehabilitation.
- B. Identify if from Federal or Indian Land: The affected land is Federal and under the management of the Bureau of Land Management.

7. METHODS OF HANDLING WASTE DISPOSAL

- A. Cuttings will be contained and disposed of in the reserve pit.
- B. Drilling fluids will be contained and disposed of in the reserve pit. While drilling with air or gas, a dust arresting system will be installed on the blow line.
- C. Produced fracturing fluids will be directed to the reserve pit for evaporation.
- D. Sewage: A portable chemical toilet will be on location during operations.
- E. Garbage and other trash will be placed in a trash bin and removed to a sanitary landfill upon completion.
- F. Protective Devices: The flare pit (if necessary) will be fenced and flagged to protect animals. The drilling reserve pit will be fenced on three sides during drilling, and on the fourth side prior to the rig moving off location. If any oil is in the reserve pit, it will be removed and overhead flagging will be installed.
- G. Statement regarding proper cleanup when rig moves out: When the rig moves out, all trash and refuse will be removed from the location and hauled to a sanitary landfill. All pits will be filled after drying and the area restored as under Item 10 of this plan.

8. ANCILLARY FACILITIES

Identify all proposed camps and airstrips on a map as to their location, area required and construction methods: None planned.

9. WELL SITE LAYOUT ATTACHMENT AND PROPOSED RIG LAYOUT

- A. Cross section of drill pad with cuts and fills: Refer to Exhibit 7.
- B. Location of mud tank, reserve pit, trash bin, pipe racks and other facilities: Refer to Exhibit 7.
- C. Statement regarding pit lining: Reserve pit will be unlined. However, if the sub-surface structure is too porous or is highly fractured, a 1 to 2 inch layer of bentonite or a commercial plastic liner will be placed in the pit to prevent excessive seepage and groundwater contamination.

10. PLANS FOR RESTORATION OF SURFACE

- A. Backfilling, leveling, contouring, and waste disposal: Upon completion of the well, the site will be cleared of all debris and the mouse and rat holes filled. The reserve pit will be allowed to dry by evaporation and then will

be backfilled. Cuttings, drilling muds, and similar spent chemicals directed to the reserve pit pursuant to Item 7 above will be buried as the pit is backfilled. Disturbed areas of the pad not needed for production facilities will be graded to an appearance consistent with the natural contours. These areas will then be covered with topsoil, disked and reseeded with a seed mixture recommended by the BLM. If the well is not commercially productive, the entire pad will be reclaimed as described above.

- B. In the event the well is not commercially productive, that portion of the access road requested by BLM to be rehabilitated will be recontoured, cover with topsoil, disked and reseeded with the BLM-recommended seed mixture. Shrubby plants removed during road construction will be scattered randomly along the road to provide a natural appearance, control erosion and enhance seed production.
- C. Timetable for commencement and completion of rehabilitation operations: Rehabilitation will commence when drilling operations are completed, approximately September 29, 1984 and will be completed within approximately one year. It is anticipated that seeding of the recontoured pad would be performed in the Fall following pit backfill and recontouring operations.

11. SURFACE OWNERSHIP

The access road and the majority of the well pad location are located in Garfield County, Colorado and a small portion of the well pad is located in Grand County, Utah. The above lands are administered by the BLM. A right-of-way is being obtained from the BLM Grand Junction Area Office.

12. OTHER INFORMATION

General description of:

- A. Topography, soil characteristics, geologic features, flora, fauna: The well site is located on moderately sloped ground. The soil in the area consists of a silty loam. Vegetation accounts for approximately 60 percent of the ground cover and is comprised of big sagebrush, juniper, and native grasses. Animals inhabiting the area include deer, small mammals, and birds.
- B. Other surface-use activities include: oil and gas production and livestock grazing.
- C. Proximity of water, occupied dwellings, archeological, historical or cultural sites: There are no live streams in the immediate area. An intermittent stream flows through Hells Hole Canyon. An archeological survey will be performed for the road and well pad.

13. LESSEE'S OR OPERATOR'S REPRESENTATIVES AND CERTIFICATION

- A. Name, address and phone number of the lessee's or operator's field rep-

representative who is responsible for assuring compliance with the approved surface use and operations plan.

R.E. Dashner  
District Drilling & Production Manager  
TXO Production Corp.  
1800 Lincoln Center Building  
1660 Lincoln Street  
Denver, Colorado 80264  
(303) 861-4246 - Business  
(303) 690-5658 - Residence

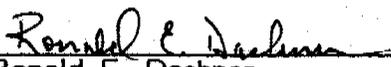
Comments regarding the content of this plan or arrangements for an on-site inspection should be directed to:

Terry Blankenship  
Environmental Scientist  
TXO Production Corp.  
1800 Lincoln Center Building  
1660 Lincoln Street  
Denver, Colorado 80264  
(303) 861-4246 - Business  
(303) 988-9343 - Residence

- B. 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 TXO Production Corp. 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.

DATE: July 18, 1984

NAME AND TITLE:

  
\_\_\_\_\_  
Ronald E. Dashner  
District Drilling and Production Manager

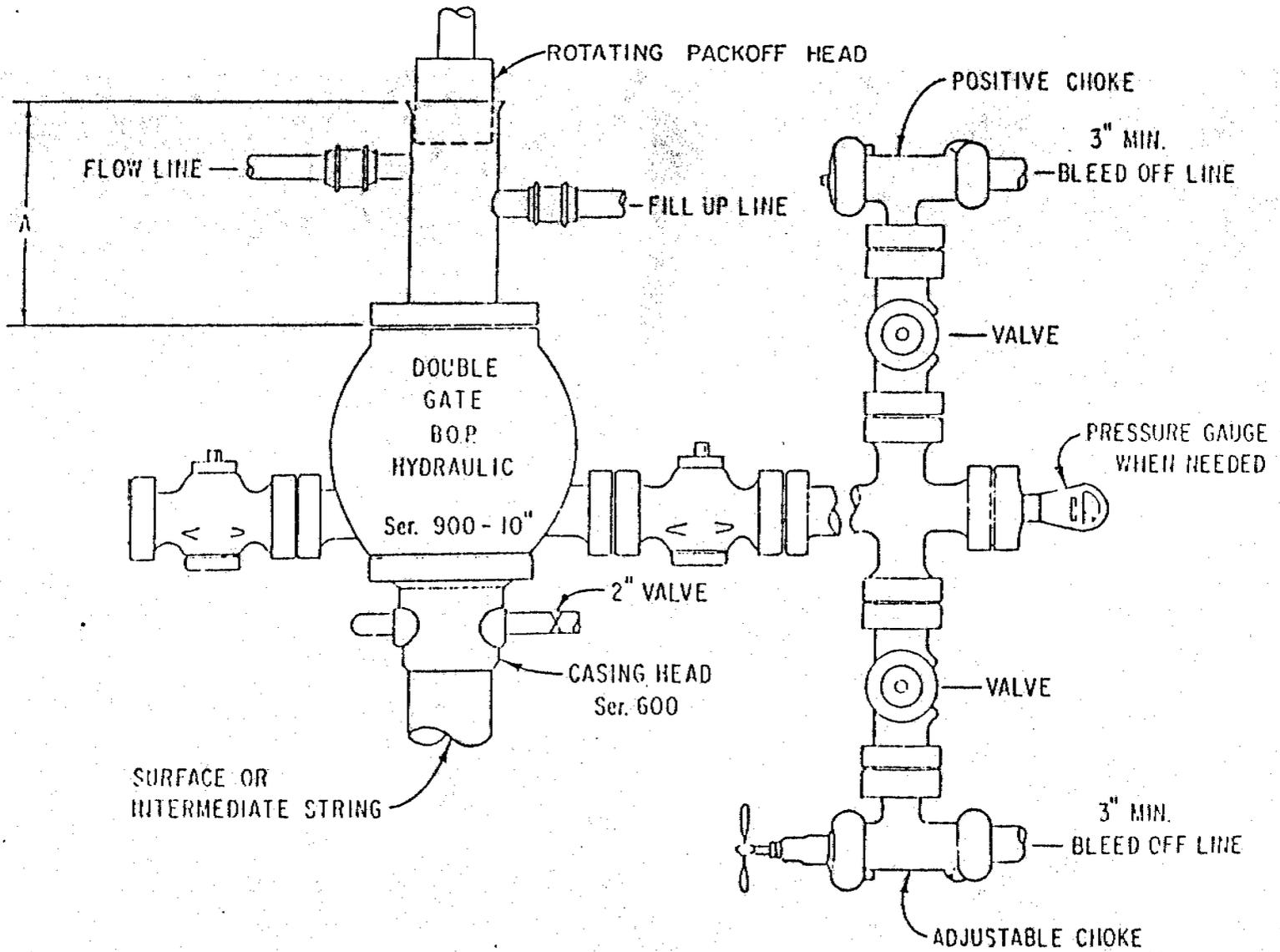


EXHIBIT I  
 BLOWOUT PREVENTER DIAGRAM

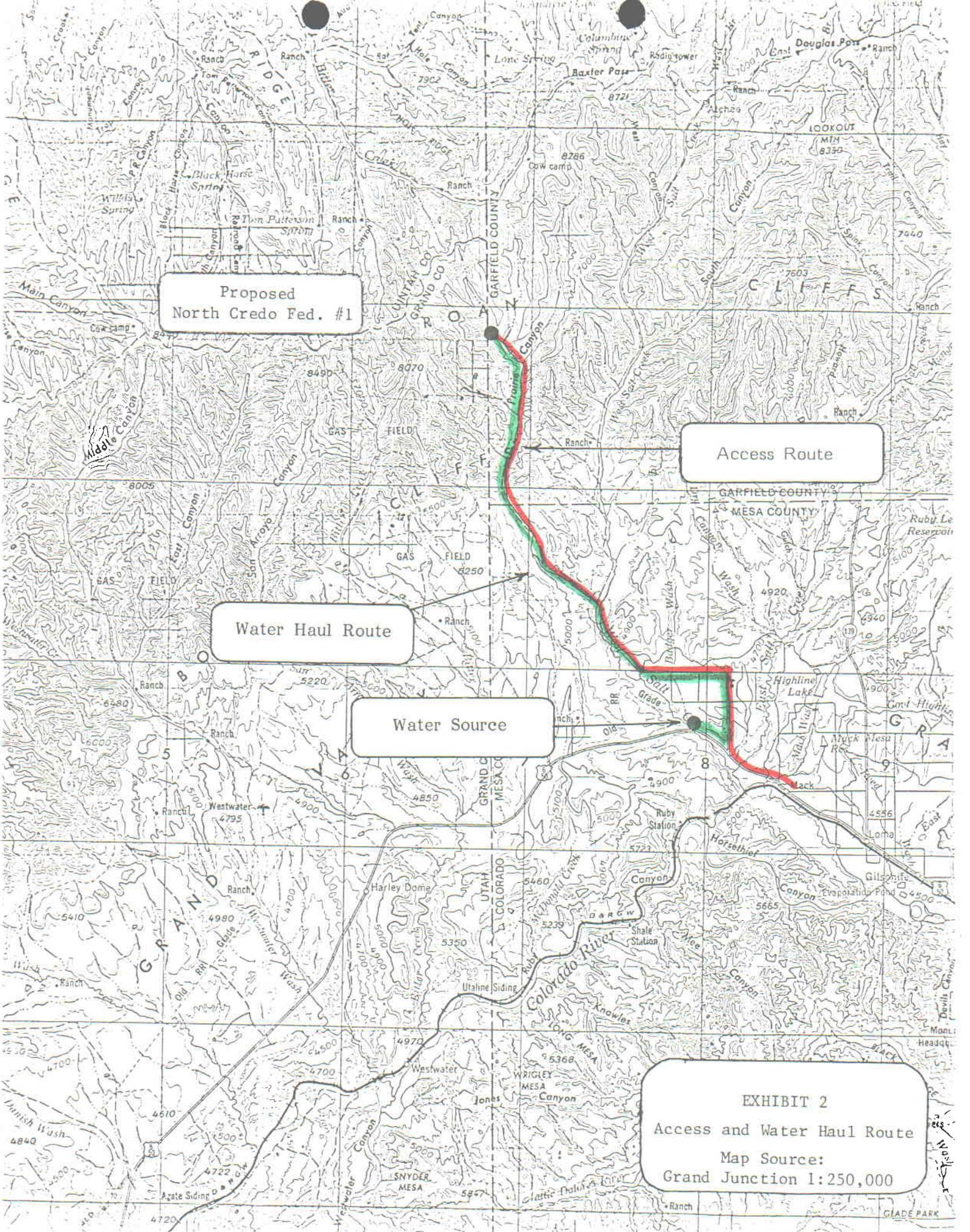
Proposed  
North Credo Fed. #1

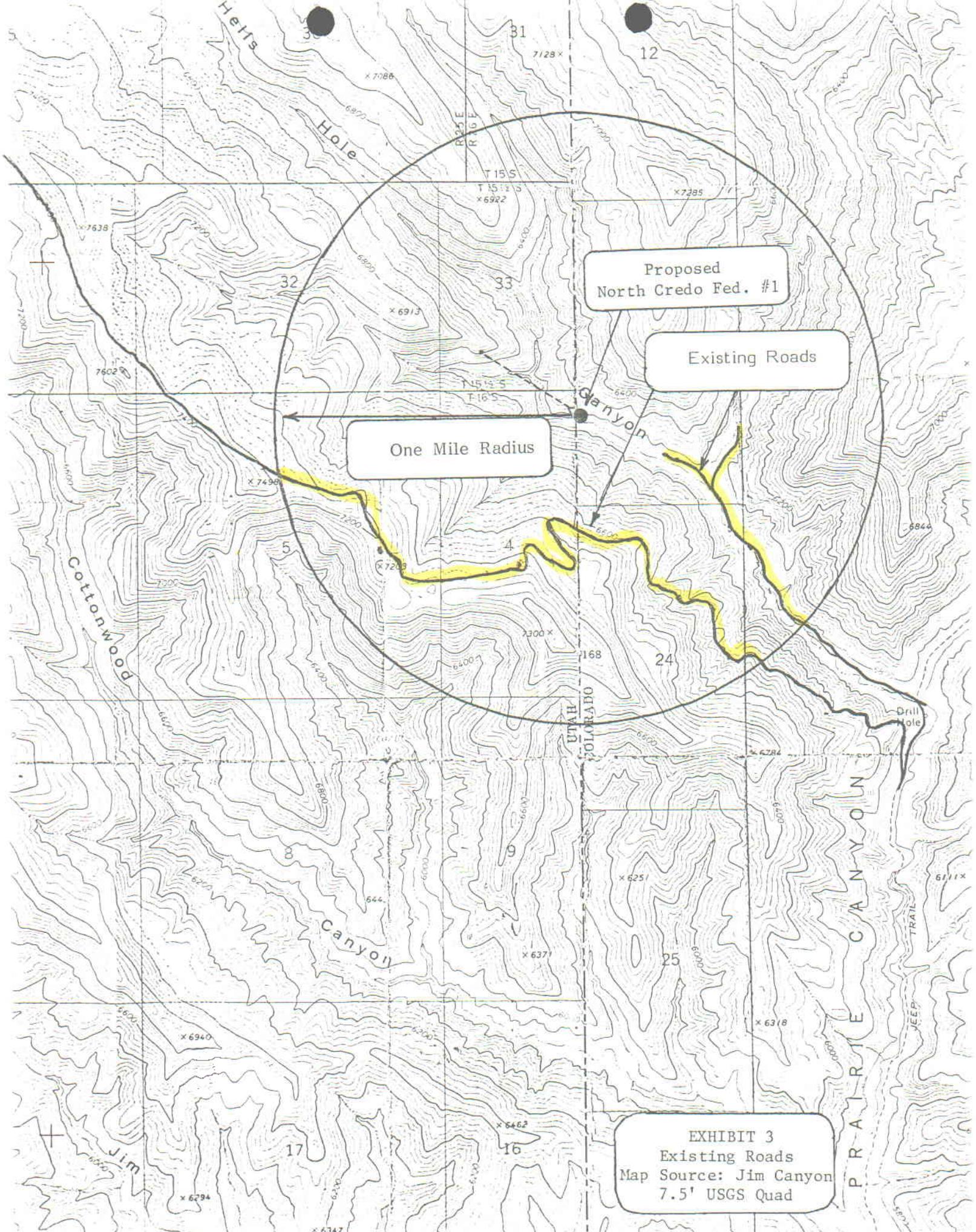
Access Route

Water Haul Route

Water Source

EXHIBIT 2  
Access and Water Haul Route  
Map Source:  
Grand Junction 1:250,000





Proposed  
North Credo Fed. #1

Existing Roads

One Mile Radius

EXHIBIT 3  
Existing Roads  
Map Source: Jim Canyon  
7.5' USGS Quad

R 25 E

R 26 E

R 104 W

FUEL  
8 Fed  
844 25

T  
6  
S

Utah

Colorado  
36

22

23

24

T  
15  
S

27

28

29

30

1

6

BUTTERMILK CA

34

35

36

31

12

7

8

T  
15  
S

1  
2

31

TXO  
1 Teton Fed

32

CUSF 22  
3 32 15 5 26 State

TXO  
N. Credo Fed 1

1 Mile

13

TENNECO  
12 Fulkner-USA

BELCO  
1 P.C. Fed

PALMER  
10 Fed

TXO  
2 Credo Fed 'A'

6550'

TXO  
1 Arco Fed 'A'

6360'

TXO  
1 Credo

6250'

TXO  
A-Mesa Fed.

6060'

TENNECO  
18 Fulkner-USA

PALMER  
10-16 Fed X

6070'

PALMER  
7 Fed.

6340'

TEYON  
2 Fed

6600'

SAN ARROYO SPACED AREA

TXO  
BMG Fed

6056'

CO  
24

FUEL RES.  
A-S Fed

4782'

PALMER  
6 Fed

6153'

TXO  
Arco Fed M

12

7

8

TXO  
Mesa Fed

5156'

25

4782'

PALMER  
8 Fed

6580'

TENNECO  
4 Carlson-USA

6810'

6810'-GREEN  
6840'

13

18

17

TENNECO  
6 State

4990'

PALMER  
16 Fed

4745'

PALMER  
3 Fed

4782'

PALMER  
8 Fed

6580'

29

T  
16  
S

TENNECO  
9 Federal

6437'

6810'-GREEN  
6840'

18

17

TENNECO  
6 State

4990'

PALMER  
16 Fed

4745'

PALMER  
3 Fed

4782'

PALMER  
8 Fed

6580'

29

24

20

**TXO**  
**TXO PRODUCTION CORP.**  
 DENVER DISTRICT  
 EXHIBIT 5  
 NORTH CREDO FEDERAL #1  
 Section 33-T15½S-R26E  
 Grand County, Utah  
 ONE MILE RADIUS MAP

Scale: 1" = 4000'  
 Geologist:  
 C.I.: Date: 7/18/84

6840'

PALMER  
16 Fed.

4512'

POLYMER  
1 Fed

5999'

LUMBER  
X Fed

PALMER  
9 Fed

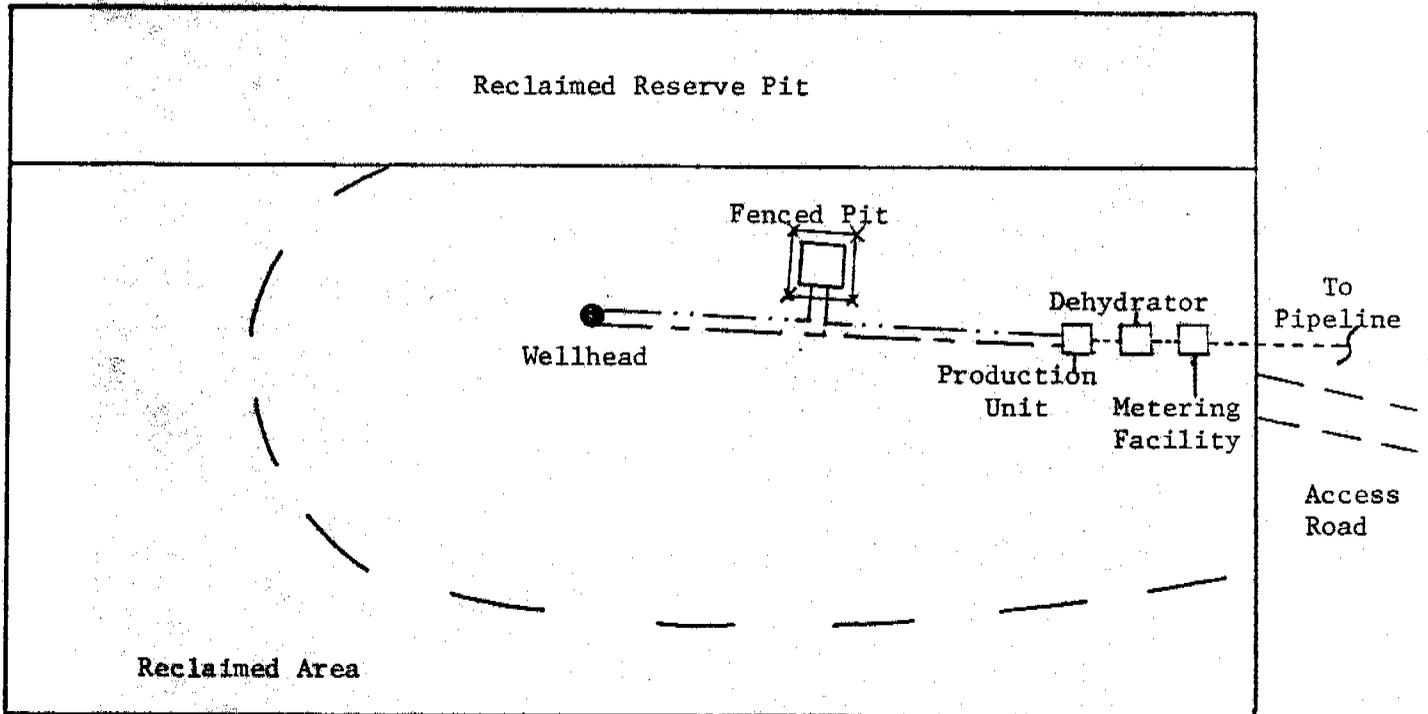
4425'

4240'

FEEES  
Gov

3803'





Scale: 1"=50'

- 1) Pits will be 10' x 10' x 6' deep and will be surrounded by fence.
- 2) Sacrificial magnesium anodes will be used, if necessary, to control corrosion.
- 3) All pipelines will be coated and wrapped, then buried.
- 4) A surface mounted high/low safety shutdown system will be installed.
- 5) The separator will be an ASME coded vessel.

TXO PRODUCTION CORP.  
 North Credo Federal #1  
 PRODUCTION FACILITIES  
 Exhibit 6

TXO PRODUCTION CORP.  
NORTH CREDO FEDERAL #1

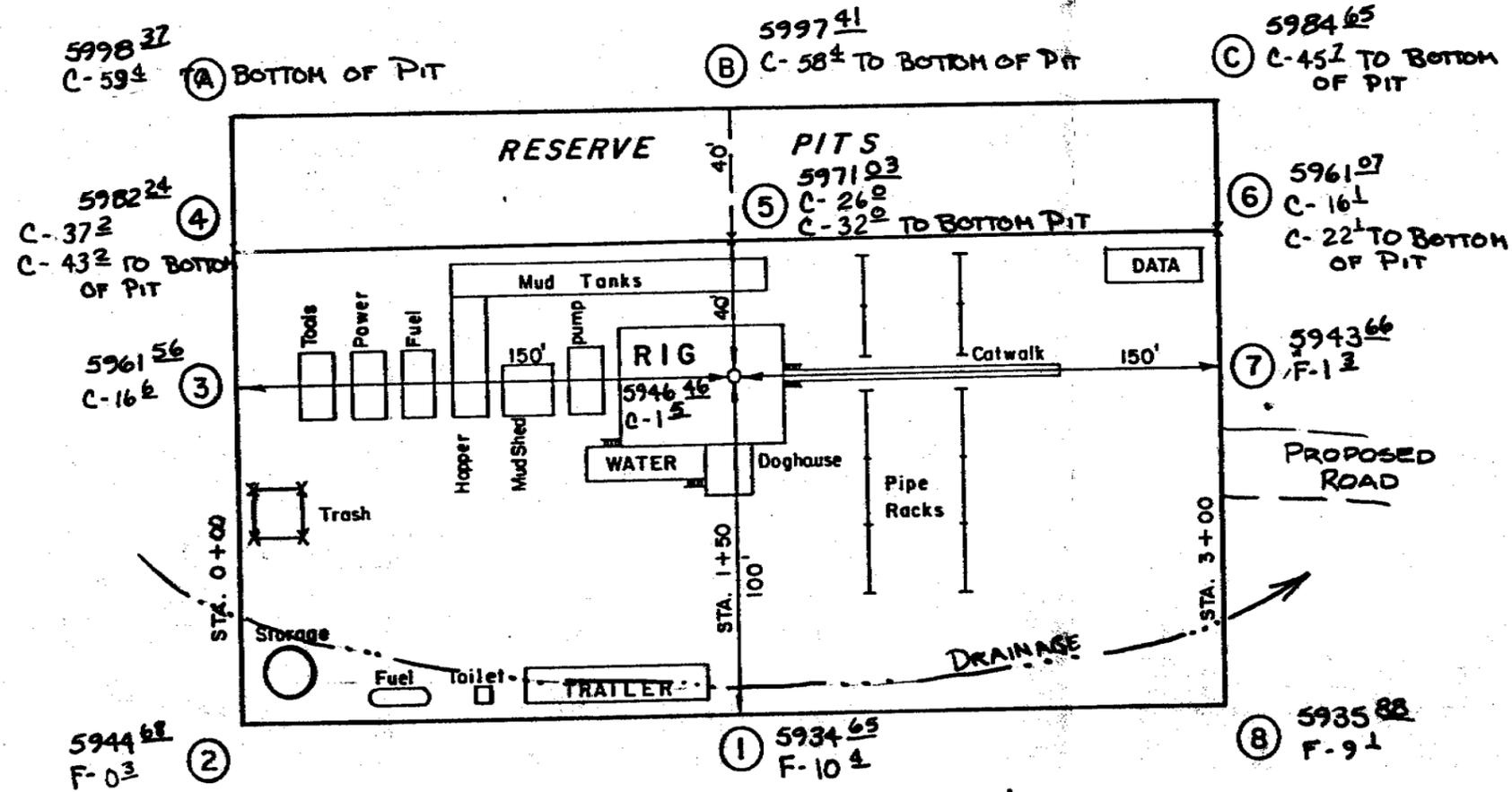


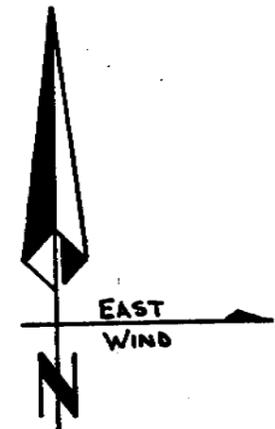
Exhibit 7  
Pit and Pad Lay-out

SOILS LITHOLOGY

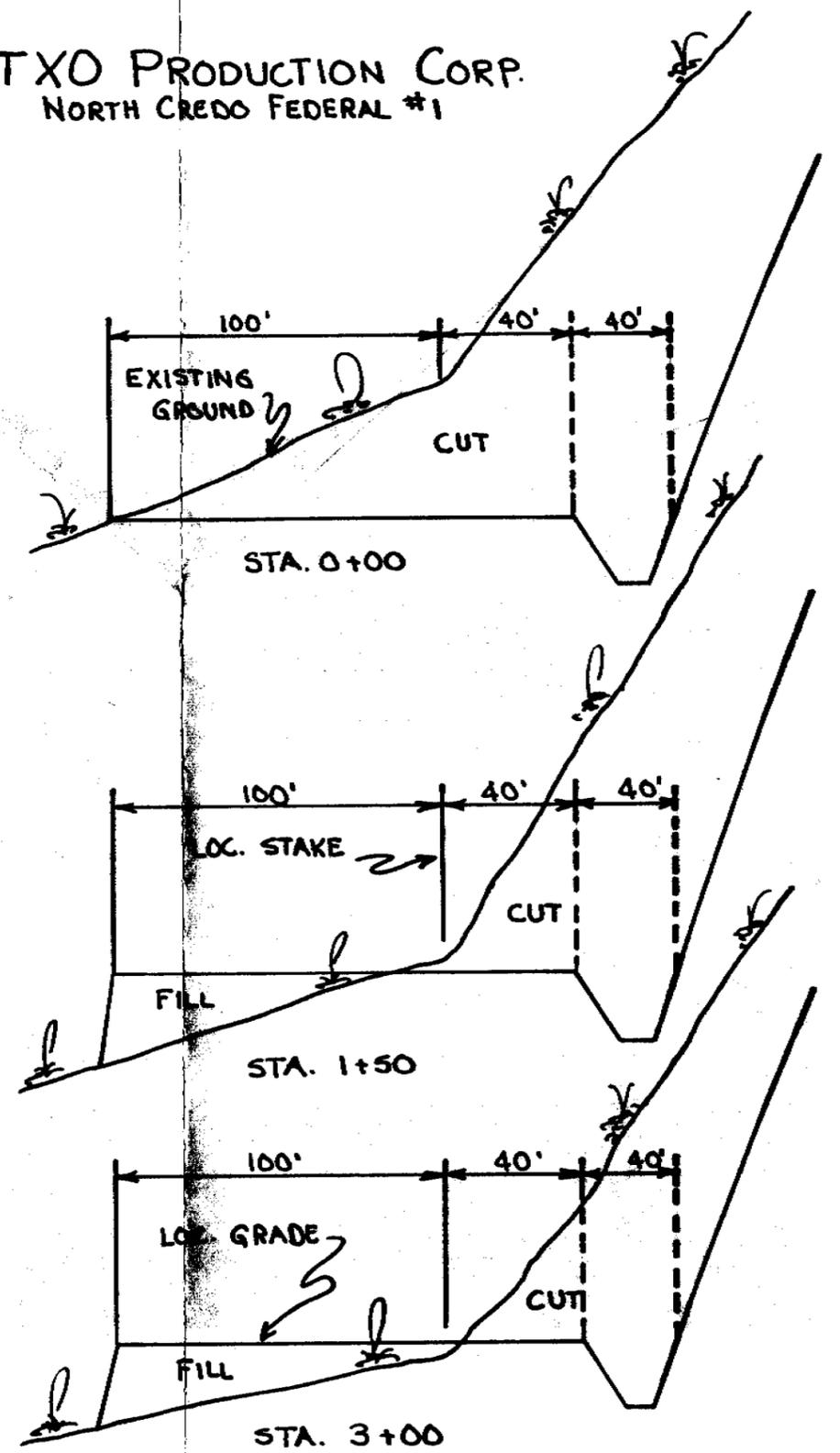
- No Scale -



Light Brown  
Sandy Clay



C  
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Scales

1" = 50'

Exhibit 7  
Cut & Fill Diagram

APPROX. YARDAGES

Cubic Yards Cut - 54,299

Cubic Yards Fill - 4,706

OPERATOR TXO Production Corp DATE 8/1/84  
WELL NAME North Credo Federal #1  
SEC SWSW 33 T 15 1/2 S R 26E COUNTY Dread

43-019-31171  
API NUMBER

Fed  
TYPE OF LEASE

POSTING CHECK OFF:

<input type="checkbox"/>	INDEX	<input type="checkbox"/>	MAP	<input type="checkbox"/>	HL
<input type="checkbox"/>	NID	<input type="checkbox"/>		<input type="checkbox"/>	PI

PROCESSING COMMENTS:

Exception Location  
Water - Obtained from Colorado  
2 TXO gas wells closer than 4960'

CHIEF PETROLEUM ENGINEER REVIEW:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

APPROVAL LETTER:

SPACING:  A-3 \_\_\_\_\_ UNIT  c-3-a \_\_\_\_\_ CAUSE NO. & DATE

c-3-b  c-3-c

SPECIAL LANGUAGE:

1. Exception Location  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

RECONCILE WELL NAME AND LOCATION ON APD AGAINST SAME DATA ON PLAT MAP.

AUTHENTICATE LEASE AND OPERATOR INFORMATION

VERIFY ADEQUATE AND PROPER BONDING

AUTHENTICATE IF SITE IS IN A NAMED FIELD, ETC.

APPLY SPACING CONSIDERATION

ORDER \_\_\_\_\_

UNIT \_\_\_\_\_

c-3-b

c-3-c

CHECK DISTANCE TO NEAREST WELL.

CHECK OUTSTANDING OR OVERDUE REPORTS FOR OPERATOR'S OTHER WELLS.

IF POTASH DESIGNATED AREA, SPECIAL LANGUAGE ON APPROVAL LETTER

IF IN OIL SHALE DESIGNATED AREA, SPECIAL APPROVAL LANGUAGE.

VERIFY LEGAL AND SUFFICIENT DRILLING WATER

August 2, 1984

T&O Production Corporation  
1800 Lincoln Center Building  
Denver, Colorado 80264

RE: Well No. North Credo Federal #1  
SWSW Sec. 33, T. 15 1/2S, R. 26W  
650' FSL, 700' FWL  
Grand County, Utah

Gentlemen:

Approval to drill the above referenced gas well is hereby granted in accordance with Rule C-3(c), General Rules and Regulations and Rules of Practice and Procedure, subject to the following stipulation:

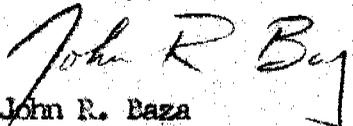
1. Submittal to the Division of information justifying the necessity for an exception location and verification of ownership within a radius of 660 feet of the proposed location.

In addition, the following actions are necessary to fully comply with this approval:

1. Spudding notification to the Division within 24 hours after drilling operations commence.
2. Submittal to the Division of completed Form CGC-8-X, Report of Water Encountered During Drilling.
3. Prompt notification to the Division should you determine that it is necessary to plug and abandon this well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 533-5771, (Home) 298-7695 or R. J. Firth, Associate Director, (Home) 571-6068.
4. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

The API number assigned to this well is 43-019-31171.

Sincerely,

  
John R. Baza  
Petroleum Engineer

JRB/el  
cc: Branch of Fluid Minerals  
Enclosures

# TXO

**TXO PRODUCTION CORP.**

1800 LINCOLN CENTER BUILDING  
DENVER, COLORADO 80264

TELEPHONE (303) 861-4246

**RECEIVED**

SEP 13 1984

**DIVISION OF OIL  
GAS & MINING**

September 10, 1984

Utah Division of Oil, Gas and Mining  
Department of Natural Resources & Energy  
4241 State Office Building  
Salt Lake City, Utah 84114

Attn: Arlene Sollis

Re: North Credo Federal #1  
Section 33-T 15 1/2 S - R 26 E  
Grand County, Utah

Dear Ms. Sollis:

Enclosed please find three copies of the Application for Permit to Drill for the above referenced well. Also enclosed is a copy of the Drilling Plan and Surface Use Program submitted to the Bureau of Land Management.

Another APD was submitted for this well, however the surface location of the proposed well was changed. This is a revised permit for the above referenced well.

If you have any questions, please contact me at this office.

Very truly yours,

TXO PRODUCTION CORP.



Terry L. Blankenship  
Environmental Scientist

TLB/gbp

Enclosures/as stated

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

3

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL       DEEPEN       PLUG BACK

b. TYPE OF WELL  
 OIL WELL       GAS WELL       OTHER       SINGLE ZONE       MULTIPLE ZONE

2. NAME OF OPERATOR  
 TXO Production Corp.      Attn: T.L. Blankenship

3. ADDRESS OF OPERATOR  
 1800 Lincoln Center Bldg. Denver, CO 80264 (303) 861-4246

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 420' FEL, 1305' FNL Section 5-T16S-R26E  
 At proposed prod. zone  
 650' FSL, 700' FWL Section 33-T15 1/2S-R26E Grand County, UT

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Approximately 18 miles northwest of Mack, Colorado

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)      650'

16. NO. OF ACRES IN LEASE      197

17. NO. OF ACRES ASSIGNED TO THIS WELL      197

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

19. PROPOSED DEPTH      5470'

20. ROTARY OR CABLE TOOLS      Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 6977' GR

22. APPROX. DATE WORK WILL START\*  
 October 5, 1984

5. LEASE DESIGNATION AND SERIAL NO.  
 U-50435

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 ---

7. UNIT AGREEMENT NAME  
 ---

8. FARM OR LEASE NAME  
 North Credo Federal

9. WELL NO.  
 #1

10. FIELD AND POOL, OR WILDCAT  
 San Arroyo

11. SEC. T., R., M., OR BLK. AND SURVEY OR ASKA  
 Sec. 33-T15 1/2S-R26E  
 650' FSL, 700' FWL

12. COUNTY OR PARISH      13. STATE  
 Grand      Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	36.0#	300'	175 sacks
8 3/4"	7"	20.0#	2300' MD (2150' TVD)	150 sacks
6 1/4"	4 1/2"	10.5#	5887' MD (5470' TVD)	125 sacks

TXO Production Corp. proposes to directionally drill the subject well using an angle building rate of 2°/100' in accordance with the following table:

	TVD	Deviation	Angle	MD
Kickoff Depth	500'	0.0	0.0	500'
Angle Established	2054'	458'	32.8°	2142'
Initial Objective	5110'	2360'	32.8°	5649'
Total Objective	5470'	2489'	32.8°	5887'

The initial target (Dakota Sands) is located 650' FSL and 700' FWL of Section 33-T15 1/2S-R26E Grand County, Utah and is planned with a 150' target radius to comply with applicable State spacing regulations.

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 R.E. Dashner TITLE Dist. Drlg. & Prod. Mgr. DATE September 10, 1984

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_

APPROVED BY \_\_\_\_\_  
 CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY THE STATE  
 OF UTAH DIVISION OF  
 OIL, GAS, AND MINING

DATE: 9/17/84  
 BY: John R. Bay

\*See Instructions On Reverse Side

RECEIVED

SEP 13 1984

DIVISION OF OIL  
 GAS & MINING

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER  SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
 TXO Production Corp. Attn: T.L. Blankenship

3. ADDRESS OF OPERATOR  
 1800 Lincoln Center Bldg. Denver, CO 80264 (303) 861-4246

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)  
 At surface: 420' FEL, 1305' FNL Section 5-T16S-R26E-*NE NE*  
 At proposed prod. zone: 650' FSL, 700' FWL Section 33-T15 1/2S-R26E Grand County, *UT SW SW*

5. LEASE DESIGNATION AND SERIAL NO.  
 U-50435

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 ---

7. UNIT AGREEMENT NAME  
 ---

8. FARM OR LEASE NAME  
 North Credo Federal

9. WELL NO.  
 #1

10. FIELD AND POOL, OR WILDCAT  
 San Arroyo

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
 Sec. 33-T15 1/2S-R26E  
 650' FSL, 700' FWL

12. COUNTY OR PARISH  
 Grand

13. STATE  
 Utah

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Approximately 18 miles northwest of Mack, Colorado

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 ---

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 5470'

20. ROTARY OR CABLE TOOLS  
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21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 6977' GR

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 October 5, 1984

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6 1/4"	4 1/2"	10.5#	5887' MD (5470' TVD)	125 sacks

TXO Production Corp. proposes to directionally drill the subject well using an angle building rate of 2°/100' in accordance with the following table:

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Total Objective	5470'	2489'	32.8°	5887'

The initial target (Dakota Sands) is located 650' FSL and 700' FWL of Section 33-T15 1/2S-R26E Grand County, Utah and is planned with a 150' target radius to comply with applicable State spacing regulations.

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 R.E. Dashner TITLE Dist. Drlg. & Prod. Mgr. DATE September 10, 1984  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY: \_\_\_\_\_

**APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING**

DATE: 9/17/84  
 BY: John R. Boye

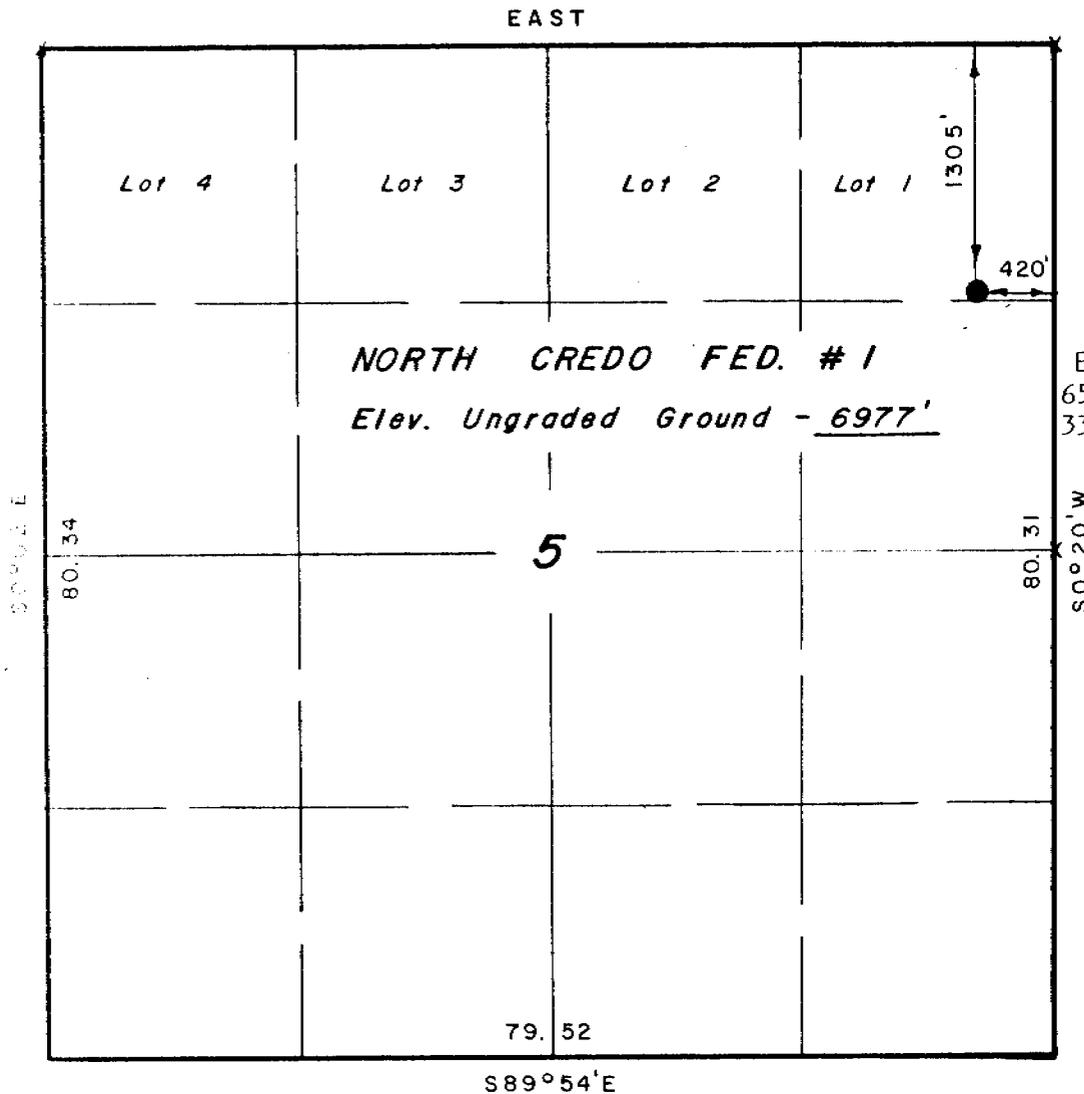
\*See Instructions On Reverse Side

**RECEIVED**  
 SEP 13 1984  
 DIVISION OF OIL GAS & MINING

T 16 S , R 26 E , S.L.B.&M.

PROJECT  
TXO PRODUCTION CORP.

Well location, NORTH CREDO  
FED. #1, located as shown in  
Lot 1, Section 5, T16 S, R 26 E,  
S.L.B.&M. Grand County, Utah.



NORTH CREDO FED. #1  
Elev. Ungraded Ground - 6977'

(surface location)

Bottomhole location is  
650' FSL, 700' FWL of Sec.  
33-T 15 1/2 S - R 26 E



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM  
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF

*W. J. ...*

REGISTERED LAND SURVEYOR  
REGISTRATION NO 2454 -  
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING  
P.O. BOX Q - 85 SOUTH - 200 EAST  
VERNAL, UTAH - 84078

SCALE 1" = 1000'	DATE 9/6/84
PARTY D.B. C.M. G.B. S.B.	REFERENCES GLO Plat
WEATHER Warm	FILE TXO PRODUCTION

X = Section Corners Located

DRILLING PLAN

DATE: September 10, 1984

WELL NAME: North Credo Federal #1

SURFACE LOCATION: 420' FEL, 1305' FNL, Section 5-T16S-R26E Grand  
County, Utah

BOTTOMHOLE LOCATION: 650' FSL, 700' FWL Section 33-T 15 1/2 S-R 26 E  
Grand County, Utah

FEDERAL OIL & GAS LEASE NO.: U-50435

TXO Production Corp. is covered by Nationwide Bond No. 679 F 434 A; evidence of bond coverage for Credo Petroleum, Lessee of Record, will be forwarded if necessary. Credo Petroleum has designated TXO Production Corp. as Operator. Designation of Operator forms have been submitted.

I. DRILLING PROGRAM

1. SURFACE FORMATION: Mesa Verde

2. ESTIMATED FORMATION TOPS:

Castlegate	1623'	Depths given are true vertical depths (TVD)
Mancos	1810'	
Dakota	5110'	
Morrison	5400'	
Total Depth	5470'	

3. ESTIMATED DEPTH AT WHICH OIL, GAS, WATER OR OTHER MINERAL BEARING ZONES ARE EXPECTED TO BE ENCOUNTERED:

Expected Gas Zones: Dakota 5110' (TVD)  
Morrison 5400'

Water may be encountered in the Mesaverde and Castlegate Formations.

4. DIRECTIONAL DRILL PROGRAM:

As indicated on Form 3160-3, TXO Production Corp. proposes to directionally drill the subject well. Major depths and angles are listed below:

	<u>TVD</u>	<u>Deviation</u>	<u>Angle</u>	<u>MD</u>
Kickoff depth	500'	0.0'	0.0°	500'
Angle established	2054'	458'	32.8°	2142'
Initial objective	5110'	2360'	32.8°	5649'
Total depth	5470'	2489'	32.8°	5887'

During kickoff, an angle building rate of 2°/100' will be employed with surveys to be taken at between 30 and 90 foot intervals as required by hole conditions. When a total angle of 32.8°, from vertical is established, the angle will be held to the proposed TD of 5470' (TVD). The bottomhole target (Dakota sand group) is located 650' FSL, 700' FWL of Section 33 and is planned with a 150' target radius to comply with applicable state spacing regulations. Again, surveys through this stage of the hole will be dictated by hole conditions.

5. PRESSURE CONTROL EQUIPMENT:

- A. After surface casing is set, a double ram-type blowout preventer with blind rams and pipe rams, with minimum working pressure of 2000 psi (greater than the anticipated bottomhole pressure of 1100 psi), will be installed. See Exhibit 1.
- B. A choke control, fill and kill lines with minimum working pressure of 2000 psi will be installed.
- C. A rotating pack-off head will be installed above the blowout preventer to control flow while drilling with air.
- D. The equipment in A and B will be pressure-tested to 2000 psi before drilling surface pipe cement, and the blowout preventer will be tested for operations daily and during trips.

6. CASING PROGRAM AS PER FORM 3160-3.

7. MUD PROGRAM:

0-TD                      Air or air mist. If necessary will use spud mud at 8.8-9.0#/gal. vis. 35-45 sec., WL 10 cc.

8. CORING, LOGGING, TESTING PROGRAM:

- A. No coring is anticipated.
- B. Logging program will consist of: DIL-GR from TD to surface pipe and FDC-SNP-GR-CAL from TD to 2000' above TD; if logged wet, FDC-CNL-GR-CAL from TD to 2000' above TD.
- C. No testing is anticipated.

9. ABNORMAL CONDITIONS:

- A. No abnormal pressures or temperatures are expected.
- B. No hazardous gases such as H<sub>2</sub>S are expected.
- C. While drilling with gas or air, return fluids will be directed through the blow line to the reserve pit. All open fires or ignition sources will be prohibited on location while gas or air drilling. A pilot flame will be maintained at the end of the blow line (located 125' from the wellhead) to insure burning of return gases that are combustible.

10. AUXILIARY EQUIPMENT

- A. A kelly cock will be used.
- B. A float valve will be run in the drill string above the bit.
- C. A sub with full opening valve will be kept on the derrick floor to stab into DP when kelly is not in use.

11. ANTICIPATED STARTING DATES:

Start location construction	October 5, 1984
Spud date	October 10, 1984
Complete drilling	October 25, 1984
Completed, ready for pipeline	November 10, 1984

12. Productive zones will be perforated, tested and treated as necessary. Gas will be flared during testing. Produced water will be contained in the unlined drilling reserve pit. The extent of treatment of a zone (acidizing and/or fracing) can only be determined after the zone has been tested. A completion program will be furnished after drilling and logging.

## II. SURFACE USE PROGRAM

### 1. EXISTING ROADS

- A. Route and distance from nearest town or locatable reference point to where proposed access route leaves main road: From Mack Colorado, proceed west 2.3 miles on State Highway 6 & 50 to Eight Road in Colorado. Turn right on Eight Road and proceed north 2.7 miles. Turn left, remaining on pavement, and proceed west 3.0 miles to a curve. Continue to follow the well-traveled and maintained gravel road northwest for 3.1 miles to a fork. Take the left fork and proceed 3.1 miles to a fork. Take the right fork (left fork continues up Jim Canyon) and proceed up Prairie Canyon 1.8 miles to a fork. Take the right fork and continue up Prairie Canyon for 2.0 miles to a fork. Take the left fork and proceed up the hill for 2.2 miles to the flagging which marks the beginning of the planned access road to the North Credo Federal #1.
- B. Access route to location color coded in red and labeled. Refer to Exhibit 2.
- C. For development well, all existing roads within one mile color coded in yellow. Refer to Exhibit 3.
- D. Plans for improvement and maintenance of existing roads: The existing roads should not require any upgrading. During wet periods some maintenance may be necessary to allow passage by drilling rigs and well servicing vehicles. Dry periods necessitate watering the road to control dust.

### 2. PLANNED ACCESS ROAD

The access road will be approximately 2000 feet long and 18-20 feet wide with grades ranging from 4 to 8 percent. The road will require cuts ranging from 5 to 15 feet and will be constructed with inside bar ditches and water bars to allow for proper drainage. The use of culverts will be determined during construction and no gates or cattleguards will be needed.

### 3. LOCATION OF EXISTING WELLS

Exhibit 5 is a one-mile radius locating and identifying the following:

- A. Water Wells-None
- B. Injection Wells-None
- C. Abandoned Wells-Coseka State, Sec. 32-T15 1/2S-R26E
- D. Disposal Wells-None
- E. Producing Wells-TXO Credo #1 Sec. 5-T16S-R26E  
TXO Credo "A" #1 Sec. 5-T16S-R26E  
TXO Moxa Fed. "A" #1 Sec. 4-T16S-R26E  
Quinico Fuller #6 Sec. 13-T25-R106W  
Quinico Fuller #12 Sec. 18-T75-R104W
- F. Drilling Wells-None
- G. Shut-in Wells - None
- H. Injection Wells-None

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

- A. On-well-pad production facilities, if well is successfully completed for production.
1. Proposed facilities and attendant lines in relation to the well pad. Refer to Exhibit 6.
  2. Dimensions of facilities: Refer to Exhibit 6.
  3. The production facilities will include a production pit, a production unit, a meter run, and dehydrator. It is anticipated that the meter and dehydrator will be owned, installed, and maintained by the gas purchaser. The anticipated location of these facilities is shown on Exhibit 6. The pit will be located in cut, will contain all water production and be built in accordance with NTL-2B IV.4. specifications for disposal of less than five barrels of produced water per day. In the event the volume of produced water exceeds 5 BWP, TXO will investigate alternate disposal methods and obtain approval as required by NTL-2B.
  4. Protective devices and measures to protect livestock and wildlife: The water production pit will be fenced with barbed wire to protect livestock and wildlife.
- B. Off well pad production facilities
- No-off-well pad facilities, other than a gas pipeline, are anticipated.

5. LOCATION AND TYPE OF WATER SUPPLY

- A. Location and type of water supply: Water will be obtained from West Salt Wash in Colorado.
- B. Method of transporting water: The water will be hauled in trucks by a certified water hauler along the route shown in green on Exhibit 2.
- C. If water well is to be drilled, so state: No water well is contemplated.

6. SOURCES OF CONSTRUCTION MATERIALS

- A. Show information either on map or by written description: It is anticipated that cuts on location will furnish sufficient quantities of materials to construct a level location. Topsoil will be stockpiled on the northeast end of the pad for later use during rehabilitation on the disturbed areas. Excess excavated material will be stockpiled for use during rehabilitation.
- B. Identify if from Federal or Indian Land: The affected land is Federal and under the management of the Bureau of Land Management.

7. METHODS OF HANDLING WASTE DISPOSAL

- A. Cuttings will be contained and disposed of in the reserve pit.
- B. Drilling fluids will be contained and disposed of in the reserve pit. While drilling with air or gas, a dust arresting system will be installed on the blow line.
- C. Produced fracing fluids will be directed to the reserve pit for evaporation.
- D. Sewage: A portable chemical toilet will be on location during operations.
- E. Garbage and other trash will be placed in a trash bin and removed to a sanitary landfill upon completion.
- F. Protective Devices: The flare pit (if necessary) will be fenced and flagged to protect animals. The drilling reserve pit will be fenced on three sides during drilling, and on the fourth side prior to the rig moving off location. If any oil is in the reserve pit, it will be removed and overhead flagging will be installed.
- G. Statement regarding proper cleanup when rig moves out: When the rig moves out, all trash and refuse will be removed from the location and hauled to a sanitary landfill. All pits will be filled after drying and the area restored as under Item 10 of this plan.

8. ANCILLARY FACILITIES

Identify all proposed camps and airstrips on a map as to their location, area required and construction methods: None planned.

9. WELL SITE LAYOUT ATTACHMENT AND PROPOSED RIG LAYOUT

- A. Cross section of drill pad with cuts and fills: Refer to Exhibit 7.
- B. Location of mud tank, reserve pit, trash bin, pipe racks and other facilities: Refer to Exhibit 7.
- C. Statement regarding pit lining: Reserve pit will be unlined. However, if the sub-surface structure is too porous or is highly fractured, a 1 to 2 inch layer of bentonite or a commercial plastic liner will be placed in the pit to prevent excessive seepage and groundwater contamination.

10. PLANS FOR RESTORATION OF SURFACE

- A. Backfilling, leveling, contouring, and waste disposal: Upon completion of the well, the site will be cleared of all debris and the mouse and rat holes filled. The reserve pit will be allowed to dry by evaporation and then will

be backfilled. Cuttings, drilling muds, and similar spent chemicals directed to the reserve pit pursuant to Item 7 above will be buried as the pit is backfilled. Disturbed areas of the pad not needed for production facilities will be graded to an appearance consistent with the natural contours. These areas will then be covered with topsoil, disked and reseeded with a seed mixture recommended by the BLM. If the well is not commercially productive, the entire pad will be reclaimed as described above.

- B. In the event the well is not commercially productive, that portion of the access road requested by BLM to be rehabilitated will be recontoured, cover with topsoil, disked and reseeded with the BLM-recommended seed mixture. Shrubby plants removed during road construction will be scattered randomly along the road to provide a natural appearance, control erosion and enhance seed production.
- C. Timetable for commencement and completion of rehabilitation operations: Rehabilitation will commence when drilling operations are completed, approximately November 10, 1984 and will be completed within approximately one year. It is anticipated that seeding of the recontoured pad would be performed in the Fall following pit backfill and recontouring operations.

11. SURFACE OWNERSHIP

The access road and the well pad are on lands administered by the BLM.

12. OTHER INFORMATION

General description of:

- A. Topography, soil characteristics, geologic features, flora, fauna: The well site is located on moderately sloped ground. The soil in the area consists of a silty loam. Vegetation accounts for approximately 60 percent of the ground cover and is comprised of mountain mahogany, juniper, and native grasses. Animals inhabiting the area include deer, small mammals, and birds.
- B. Other surface-use activities include: oil and gas production and livestock grazing.
- C. Proximity of water, occupied dwellings, archeological, historical or cultural sites: There are no live streams in the immediate area. An archeological survey will be performed for the road and well pad.

13. LESSEE'S OR OPERATOR'S REPRESENTATIVES AND CERTIFICATION

- A. Name, address and phone number of the lessee's or operator's field representative who is responsible for assuring compliance with the approved

surface use and operations plan.

R.E. Dashner  
District Drilling & Production Manager  
TXO Production Corp.  
1800 Lincoln Center Building  
1660 Lincoln Street  
Denver, Colorado 80264  
(303) 861-4246 - Business  
(303) 690-5658 - Residence

Comments regarding the content of this plan or arrangements for an on-site inspection should be directed to:

Terry Blankenship  
Environmental Scientist  
TXO Production Corp.  
1800 Lincoln Center Building  
1660 Lincoln Street  
Denver, Colorado 80264  
(303) 861-4246 - Business  
(303) 988-9343 - Residence

- B. 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 TXO Production Corp. 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.

DATE:

NAME AND TITLE:

Ronald E. Dashner  
Ronald E. Dashner  
District Drilling and Production Manager

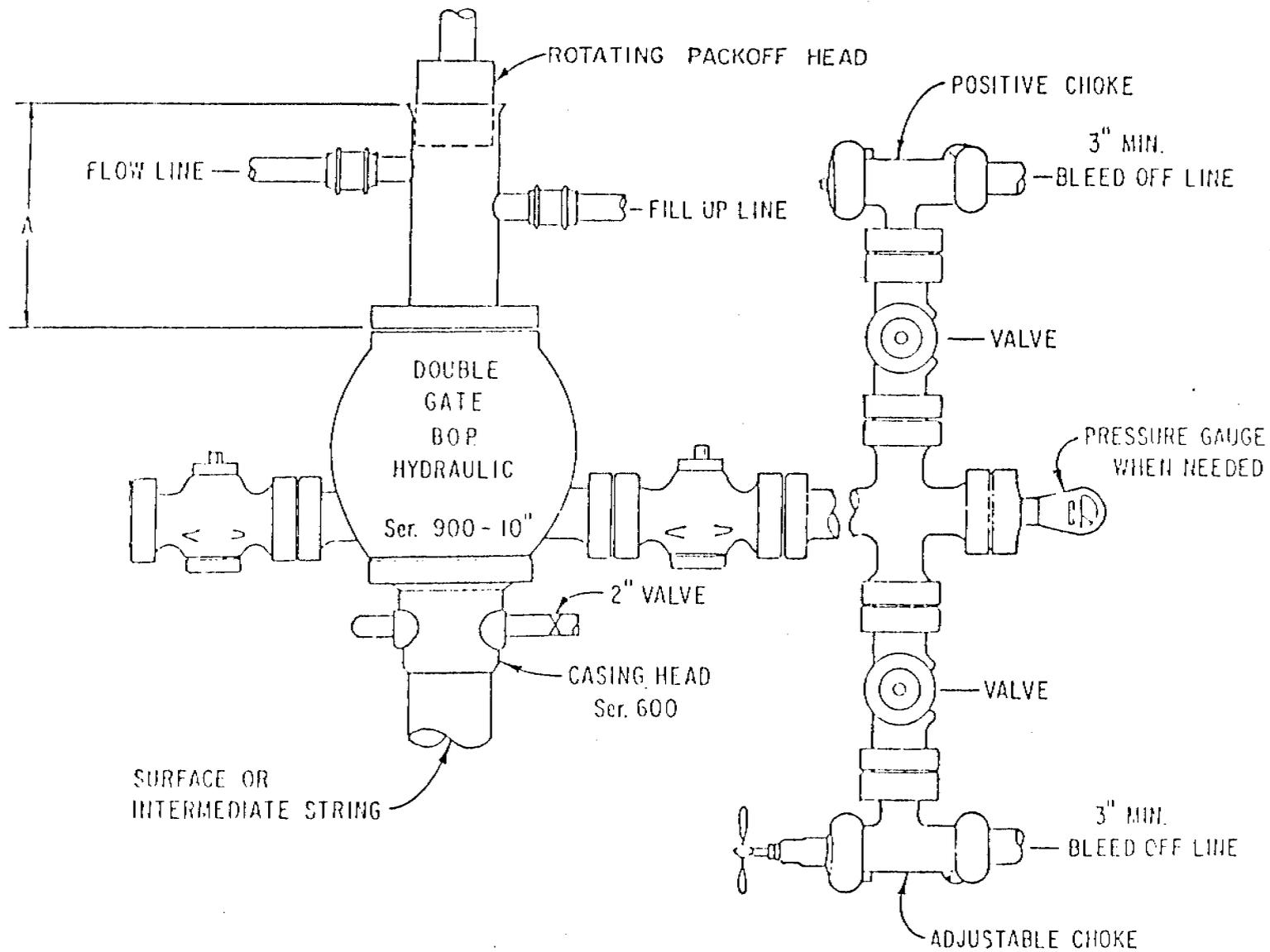
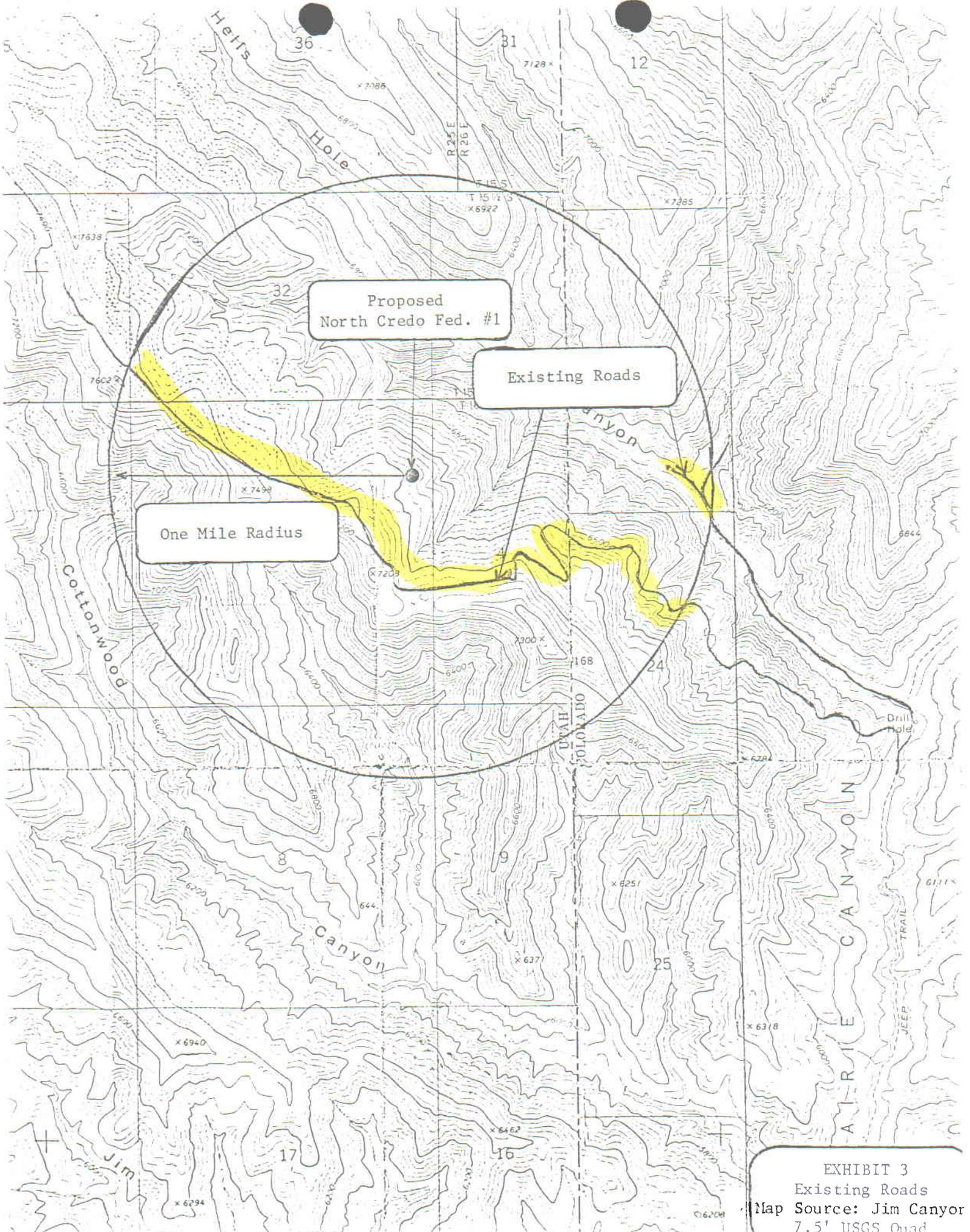


EXHIBIT 1  
BLOWOUT PREVENTER DIAGRAM



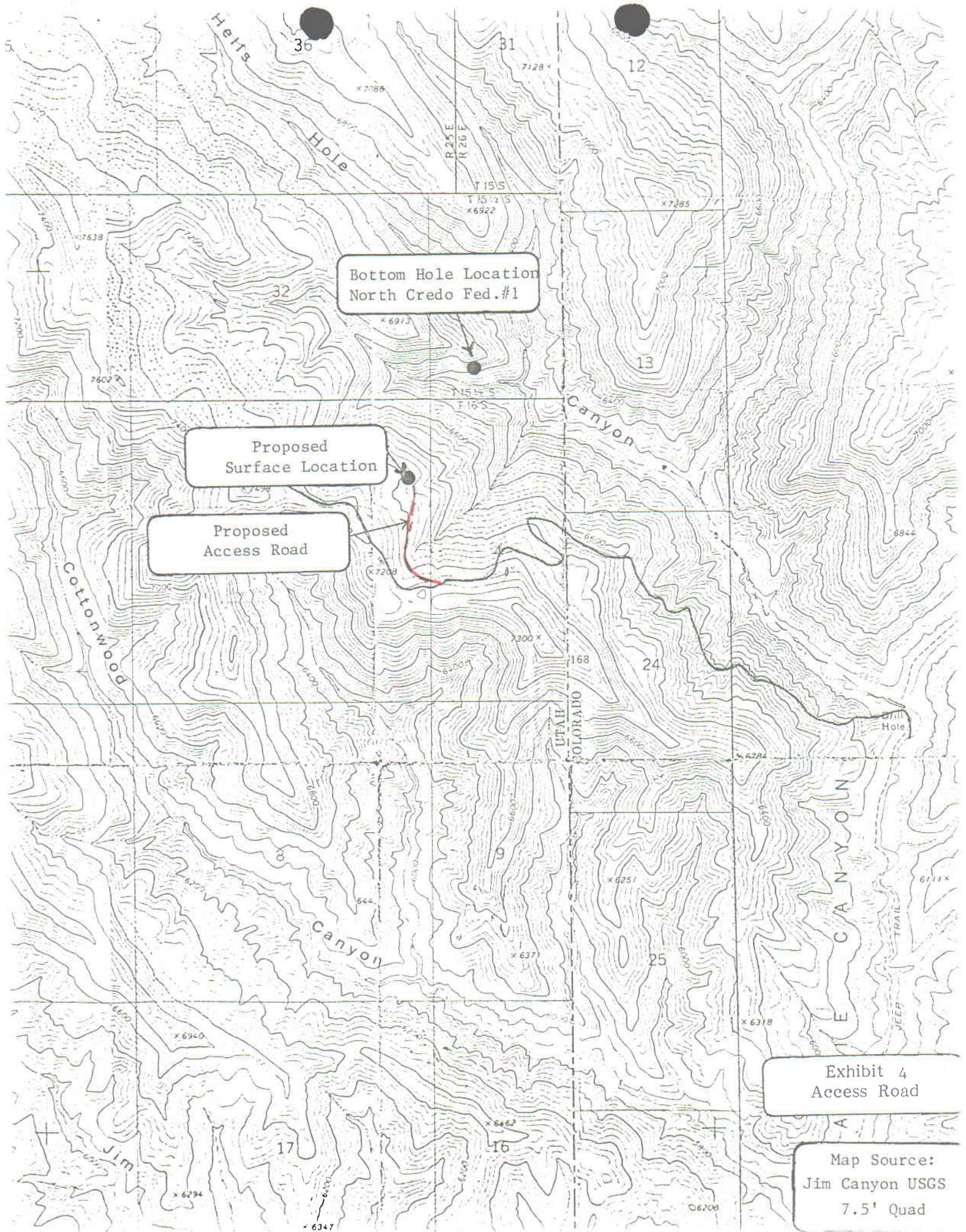


Proposed  
North Credo Fed. #1

Existing Roads

One Mile Radius

EXHIBIT 3  
Existing Roads  
Map Source: Jim Canyon  
7.5' USGS Quad



Bottom Hole Location  
North Credo Fed.#1

Proposed  
Surface Location

Proposed  
Access Road

Exhibit 4  
Access Road

Map Source:  
Jim Canyon USGS  
7.5' Quad

R 25 E

R 26 E

R 104 W

R 105 W

Utah

Colorado

T 6 S

T 15 S

T 15 1/2 S

T 7 S

T 16 S

22

23

24

27

28

25

30

34

35

36

31

1

6

12

7

1

31

32

13

18

17

1

TXO  
E Credo - Fed 'A'  
6630'

TXO  
I Credo 'A'  
6360'

TXO  
I Credo  
6250'

TXO  
A-Home - Fed.  
6088'

TENNECO  
12 Fuller - USA

TENNECO  
16 Fuller - USA

TENNECO  
5040'  
Hughes - USA

PALMER  
18-16 Fed  
X  
5270'

FUEL RES.  
A-S Fed.  
4782'

PALMER  
6 Fed  
6153

PALMER  
7 Fed.  
6349

TETON  
2 Fed  
6600'

SAN ARROYO SPACED AREA

TXO  
0400 Fed.  
6056'

TXO  
Mesa Fed  
5156

CO  
24

HONOLULU  
I.P.C. Serv.  
5120'

PALMER  
3 Fed  
4782'

PALMER  
6 Fed  
8605'

TXO  
Arco Fed M  
6610'

12

7

8

25

30

29

TENNECO  
4 Corlean - USA  
6610'

T 13

TENNECO  
9 Federal  
6237'

18

17

PALMER  
18 Fed  
4780'

PALMER  
1 Fed  
4650'

PALMER  
16 Fed  
4512'

POLUBUS  
1 Fed  
3999'

T 16 S

24

20

DESLAN  
7 Fed  
4400'

6600'

6600'

6600'

### TXO TXO PRODUCTION CORP.

DENVER DISTRICT  
EXHIBIT 5

NORTH CREDO FEDERAL #1

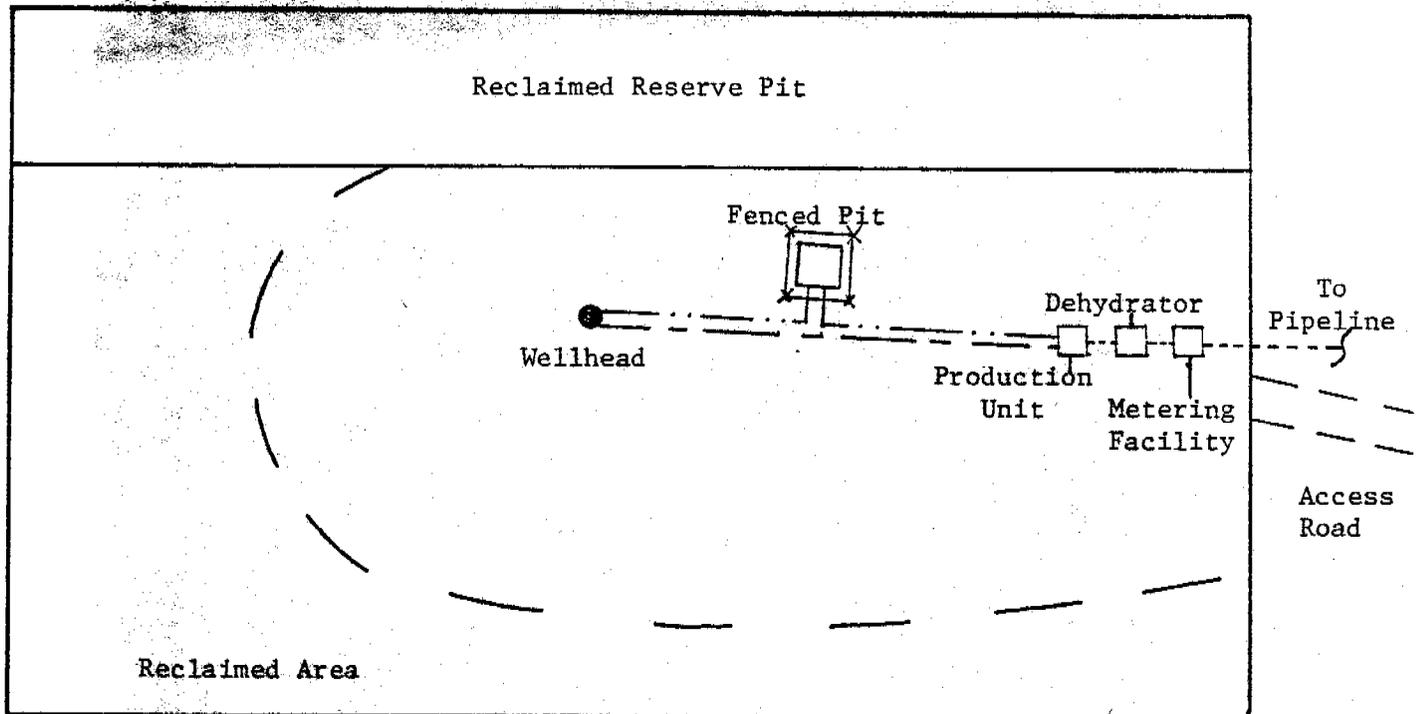
Section 33-T15 1/2 S-R26 E  
Grand County, Utah  
ONE MILE RADIUS MAP

Scale: 1" = 4000'

Geologist:

C.I.:

Date: 7/18/84



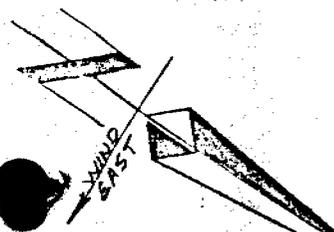
Scale: 1"=50'

- 1) Pit will be 10' x 10' x 6' deep and will be surrounded by fence.
- 2) Sacrificial magnesium anodes will be used, if necessary, to control corrosion.
- 3) All pipelines will be coated and wrapped, then buried.
- 4) A surface mounted high/low safety shutdown system will be installed.
- 5) The separator will be an ASME coded vessel.

TXO PRODUCTION CORP.  
 North Credo Federal #1  
 PRODUCTION FACILITIES  
 Exhibit 6

# TXO PRODUCTION CORP.

## NORTH CREDO FED. #1



SCALE - 1" = 50'  
DATE - 9-6-84

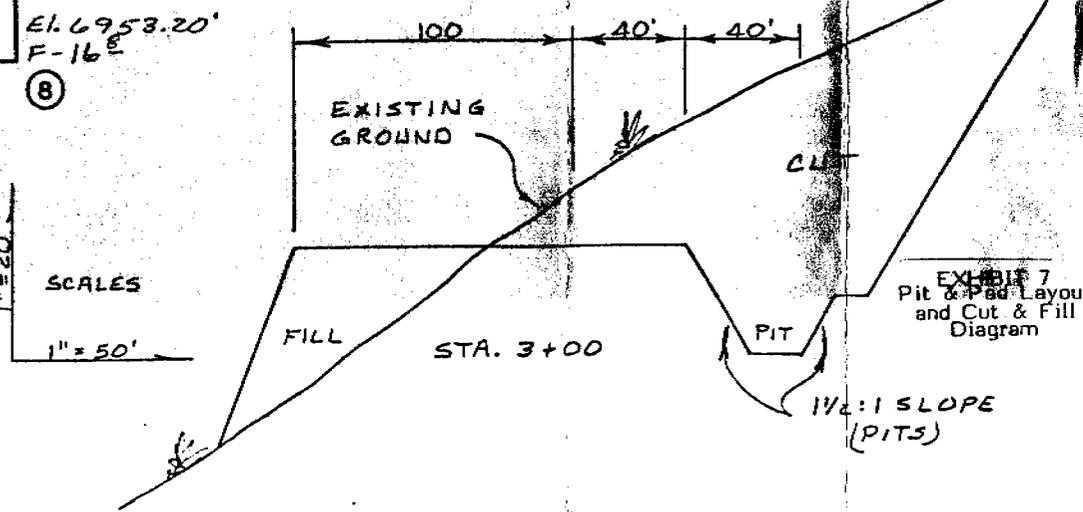
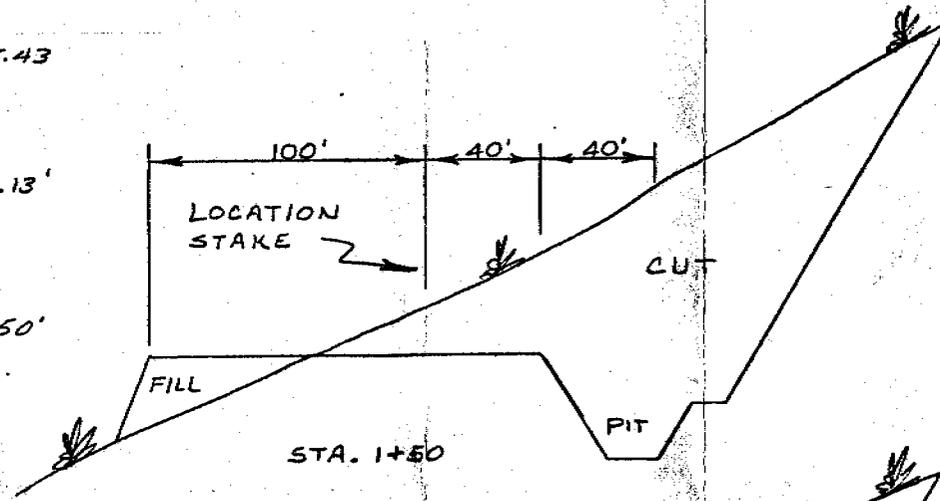
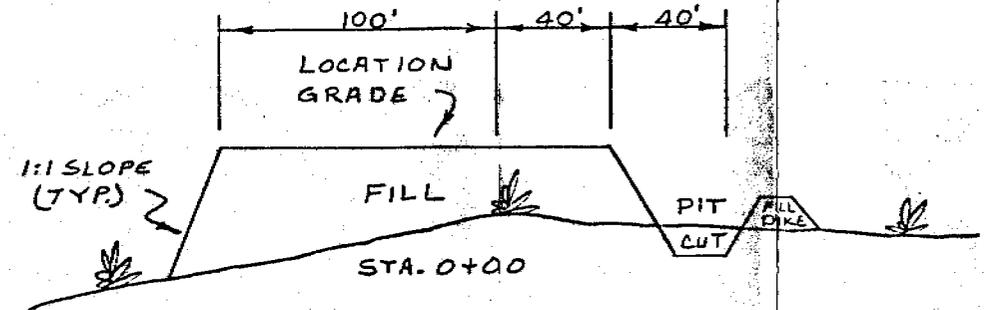
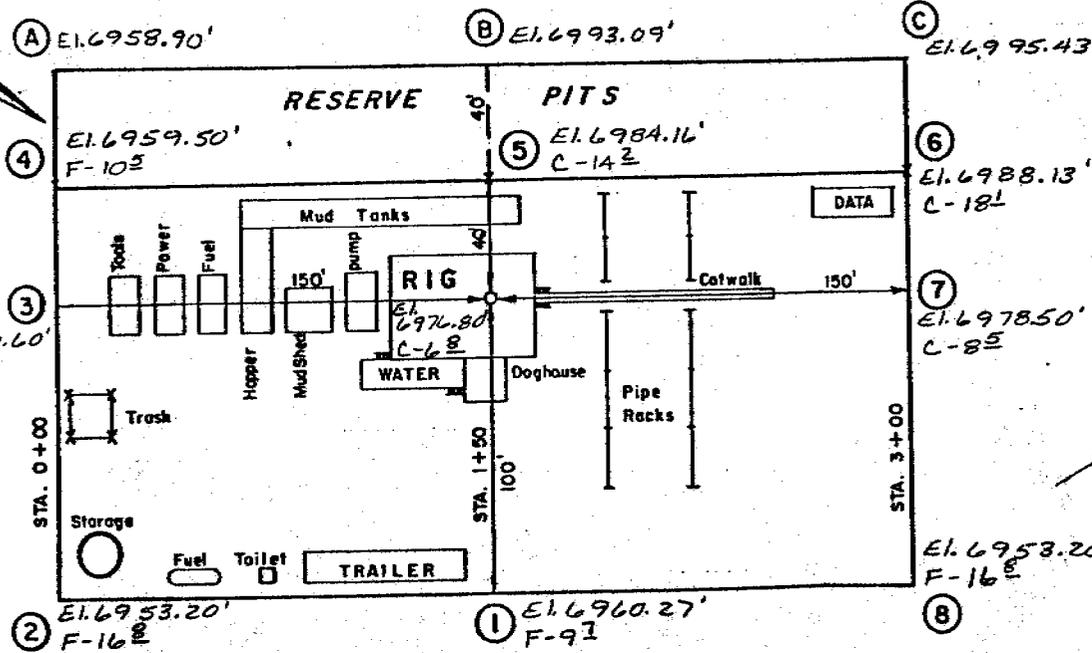
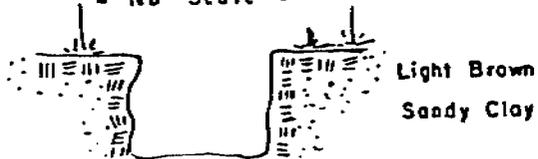


EXHIBIT 7  
Pit & Pad Layout  
and Cut & Fill  
Diagram

### SOILS LITHOLOGY

- No Scale -



Light Brown  
Sandy Clay

### APPROX. YARDAGES

Cu. Yds. Cut - 38,175  
Cu. Yds. Fill - 12,207

SCALES

1" = 20'

1" = 50'

RECEIVED

Form 3160-3  
(November 1983)  
(formerly 9-3160)

SUBMIT IN TRIPLICATE  
(Other instructions on reverse side)

SEP 14 1984  
REC'D MOO SEP 13 1984  
Down Approved  
Budget Bureau No. 1004-0136  
Expires August 31, 1985

OCT 15 1984

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

DIVISION OF OIL  
APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK  
GAS & MINING

1a. TYPE OF WORK  
 DRILL  DEEPEN  PLUG BACK

b. TYPE OF WELL  
 OIL WELL  GAS WELL  OTHER   
 SINGLE ZONE  MULTIPLE ZONE

2. NAME OF OPERATOR  
 TXO Production Corp. Attn: T.L. Blankenship

3. ADDRESS OF OPERATOR  
 1800 Lincoln Center Bldg. Denver, CO 80264 (303) 861-4246

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)\*  
 At surface  
 420' FEL, 1305' FNL Section 5-T16S-R26E U-24638  
 At proposed prod. zone  
 650' FSL, 700' FWL Section 33-T15 1/2S-R26E Grand County, UT

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 Approximately 18 miles northwest of Mack, Colorado

15. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)  
 650'

16. NO. OF ACRES IN LEASE  
 197

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 197

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

19. PROPOSED DEPTH  
 5470'

20. ROTARY OR CABLE TOOLS  
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 6977' GR

22. APPROX. DATE WORK WILL START\*  
 October 5, 1984

5. LEASE DESIGNATION AND SERIAL NO.  
 U-50435

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
 ---

7. UNIT AGREEMENT NAME  
 ---

8. FARM OR LEASE NAME  
 North Credo Federal

9. WELL NO.  
 #1

10. FIELD AND POOL, OR WILDCAT  
 San Arroyo

11. SEC., T., E., M., OR BLK. AND SURVEY OR AREA  
 Sec. 13-T15 1/2S-R26E  
 650' FSL, 700' FWL

12. COUNTY OR PARISH  
 Grand

13. STATE  
 Utah

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	36.0#	300'	175 sacks
8 3/4"	7"	20.0#	2300' MD (2150' TVD)	150 sacks
6 1/4"	4 1/2"	10.5#	5887' MD (5470' TVD)	125 sacks

TXO Production Corp. proposes to directionally drill the subject well using an angle building rate of 2°/100' in accordance with the following table:

	TVD	Deviation	Angle	MD
Kickoff Depth	500'	0.0	0.0	500'
Angle Established	2054'	458'	32.8°	2142'
Initial Objective	5110'	2360'	32.8°	5649'
Total Objective	5470'	2489'	32.8°	5887'

The initial target (Dakota Sands) is located 650' FSL and 700' FWL of Section 33-T15 1/2S-R26E Grand County, Utah and is planned with a 150' target radius to comply with applicable State spacing regulations.

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 R.E. Dashner TITLE Dist. Drlg. & Prod. Mgr. DATE September 10, 1984  
 (This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY Kenneth V. Rhee TITLE Acting DISTRICT MANAGER DATE 10 OCT 1984

CONDITIONS OF APPROVAL, IF ANY:

FLARING OR VENTING OF GAS IS SUBJECT OF NTL 4-A DATED 1/1/80  
 CONDITIONS OF APPROVAL ATTACHED  
 \*See Instructions On Reverse Side

SUBJECT TO RIGHT OF WAY APPROVAL

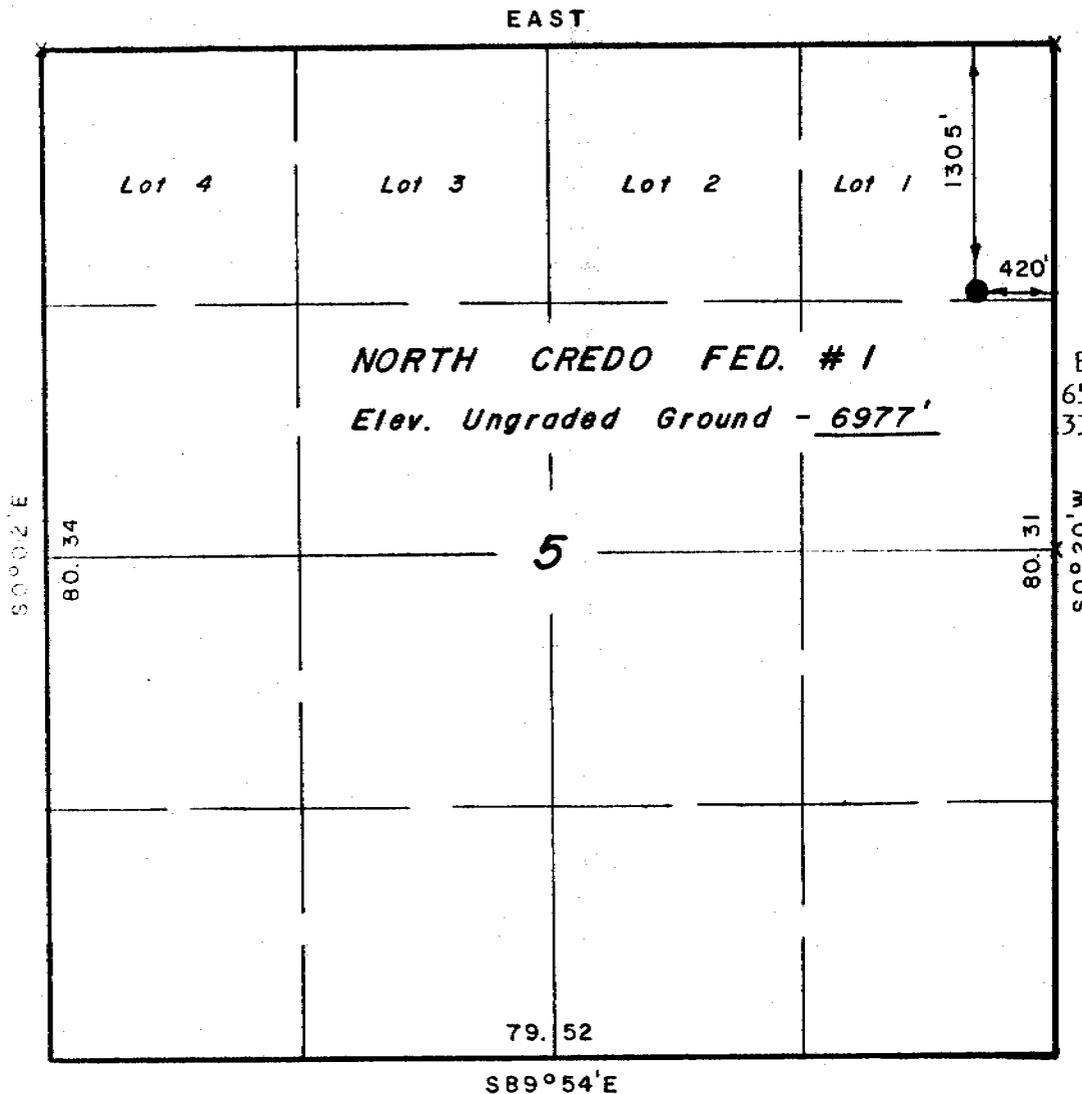
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

State of Utah - DOGM

T 16 S, R 26 E, S.L.B.&M.

PROJECT  
TXO PRODUCTION CORP.

Well location, NORTH CREDO  
FED. #1, located as shown in  
Lot 1, Section 5, T16 S, R 26 E,  
S.L.B.&M. Grand County, Utah.



(surface location)

Bottomhole location is  
650' FSL, 700' FWL of Sec.  
33-T 15 1/2 S - R 26 E



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM  
FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY  
SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE  
BEST OF MY KNOWLEDGE AND BELIEF

*[Signature]*

REGISTERED LAND SURVEYOR  
REGISTRATION NO 2454  
STATE OF UTAH

UINTAH ENGINEERING & LAND SURVEYING  
P. O. BOX Q - 85 SOUTH - 200 EAST  
VERNAL, UTAH - 84078

SCALE 1" = 1000'	DATE 9/6/84
PARTY D.B. C.M. G.B. S.B.	REFERENCES GLO Plat
WEATHER Warm	FILE TXO PRODUCTION

X = Section Corners Located

Rec'd CPA

SEP 12 1984

TXO North Credo #1  
Sec. 13, T.15S.,R.26E.  
Grand County, Utah  
U-50435

### Conditions of Approval

1. Vegetation will be bladed off and windrowed along the access road. Utilize flatter areas for vegetation/firewood stockpiles. Turnouts can be constructed for stockpiling vegetation.
2. 6 inches of topsoil will be stripped off the pad and stockpiled to the northwest.
3. Round off the north corner of the pad to eliminate excessive fill.
4. Clear 2 dozer width of vegetation around east corner (flare pit) to minimize fire hazard.
5. Cut ditch along west edge of pit in order to divert water away from pad and reserve pit.
6. Access will be from the south corner of the pad.
7. Use excess material for road access and stockpile surplus to the north of the reserve pit.
8. Surface disturbance and vehicular travel will be limited to the approved location and access road. Any additional area needed will be approved by the Area Manager in advance.

The access road will be rehabilitated within sixty (60) days of dismantling of the drilling rig. If this time frame cannot be met, the Area Manager will be notified so that temporary drainage control can be installed along the access road.

### 9. Location of Tank Batteries and Production Facilities

All permanent (onsite for six (6) months or longer) structures constructed or installed (including oil well pump jacks) will be painted a flat, nonreflective, earth tone color to match the standard environmental colors, as determined by the Rocky Mountain Five-State Interagency Committee. All facilities will be painted within six (6) months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) may be excluded. Colors will be as follows: Juniper Green.

10. If a tank battery is constructed on this lease, it will be surrounded by a dike of sufficient capacity to contain 1-1/2 times the storage capacity of the battery.
11. All loading lines and valves will be placed inside the berm surrounding the tank battery.

12. All site security guidelines identified in 43 CFR 3162.7 regulations will be adhered to.
13. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the District Manager.
14. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.
15. Gas meter runs for each well will be located within five hundred (500) feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and downstream for the remainder of the pad. Meter runs will be housed and/or fenced.
16. The oil and gas measurement facilities will be installed on the well location. The oil and gas meters will be calibrated in place prior to any deliveries. Tests for meter accuracy will be conducted monthly for the first three (3) months on new meter installations and at least quarterly thereafter. The Area Manager will be provided with a date and time for the initial meter calibration and all future meter-proving schedules. A copy of the meter calibration reports will be submitted to the Resource Area Office. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.
17. The reserve pit will not be lined.
18. Three sides of the reserve pit will be fenced with 4 strands of barbed wire before drilling starts. The fourth side will be fenced as soon as the drilling is completed. The fence will be kept in good repair while the pit is drying.
19. Produced waste water will be confined to a unlined pit for a period not to exceed ninety (90) days after initial production. During the ninety (90) day period, an application for approval of a permanent disposal method and location, along with the required water analysis, will be submitted for the District Manager's approval pursuant to Onshore Oil and Gas order No. 3 (NTL-2B).
20. The operator or his contractor will notify the Grand Resource Area at (801) 259-8193 forty-eight (48) hours before starting reclamation work that involves earthmoving equipment and upon completion of restoration measures.
21. Prior to reseeding, all disturbed areas, including the access roads, will be scarified and left with a rough surface.
22. Seed will be broadcast or drilled during the fall (Oct. - Dec.). If broadcast, a harrow or some other implement will be dragged over the seeded area to assure seed coverage. If broadcast double the application rate.
23. The seed mixture for the right-of-way grant will be used for the drill pad.

24. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed.
25. There will be no deviation from the proposed drilling and/or workover program without prior approval from the District Manager. Safe drilling and operating practices must be observed. All wells, whether drilling, producing, suspended, or abandoned, will be identified in accordance with 43 CFR 3162.2.
26. "Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3164.
27. The dirt contractor will be provided with an approved copy of the surface use plan.
28. A cultural resource clearance will be required before any construction begins. If any cultural resources are found during construction, all work will stop and the Area Manager will be notified.
29. This permit will be valid for a period of one (1) year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.
30. All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations (43 CFR 3100), Onshore Oil and Gas Order No. 1, and the approved plan of operations. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished the field representative to ensure compliance.
31. BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout preventer controls will be installed prior to drilling the surface casing plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. Preventers will be pressure-tested before drilling casing cement plugs.
32. Blooie line will be misted to reduce fugative dust when air drilling.
33. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) will be submitted to the District Office not later than thirty (30) days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3164. Two copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample description, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, will be filed with Form 3160-4. Samples (cuttings, fluids, and/or gases) will be submitted when requested by the Moab District Manager.

34. The operator will contact the Grand Resource Area at (801) 259-8193, forty-eight (48) hours prior to beginning any dirt work on this location.
35. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the District Manager. If operations are to be suspended, prior approval of the District Manager will be obtained and notification given before resumption of operations.
36. The spud date will be reported orally to the Area Manager within a minimum of twenty-four (24) hours prior to spudding. Written notification in the form of a Sundry Notice (Form 3160-5) will be submitted to the District Office within twenty-four (24) hours after spudding. If the spudding occurs on a weekend or holiday, the written report will be submitted on the following regular work day.
37. In accordance with Onshore Oil and Gas Order No. 1, this well will be reported on Form 9-329, "Monthly Report of Operations", starting with the month in which operations commence and continue each month until the well is physically plugged and abandoned. This report will be filed directly with the BLM District Office, P.O. Box 970, Moab, Utah 84532.
38. Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported to the Resource Area in accordance with requirements of NTL-3A.
39. If a replacement rig is contemplated for completion operations, a "Sundry Notice" (Form 3160-5) to that effect will be filed for prior approval of the District Manager, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig. In emergency situations, verbal approval to bring on a replacement rig will be approved by the District Petroleum Engineer.
40. Should the well be successfully completed for production, the District Manager will be notified when the well is placed in a producing status. Such notification will be sent by telegram or other written communication, not later than five (5) business days following the date on which the well is placed on production.
41. A first production conference will be scheduled within fifteen (15) days after receipt of the first production report. The Resource Area Office will coordinate the field conference.
42. No well abandonment operations will be commenced without the prior approval of the District Manager. In the case of newly-drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the District Petroleum Engineer. A "Subsequent Report of Abandonment" (Form 3160-5) will be filed with the District Manager within thirty (30) days following completion of the well for abandonment. This report will indicate where plugs were placed and the current status of surface restoration. Final abandonment will not be approved until the surface reclamation work required by the approved APD or approved abandonment notice has been completed to the satisfaction of the Area Manager or his representative, or the appropriate surface managing agency.

43. Approval to vent/flare gas during initial well evaluation will be obtained from the District Office. This preliminary approval will not exceed 30 days or 50 MMCF gas. Approval to vent/flare beyond this initial test period will require District Office approval pursuant to guidelines in NTL-4A.
44. Upon completion of approved plugging, a regulation marker will be erected in accordance with 43 CFR 3162.6. The marker will be constructed as follows: 4 ft. tall pile 18 inches of dirt around cellar. The top of the marker will be closed or capped.
45. The following minimum information will be permanently placed on the marker with a plate, cap or beaded-on with a welding torch:  
"Fed" "operator name". "Well number, location by  $\frac{1}{4}$  section, township and range". "Lease number".



## DIVISION OF OIL, GAS AND MINING

SPUDDING INFORMATION

API #43-019-31171

NAME OF COMPANY: TXO PRODUCTION CORP.WELL NAME: NORTH CREDO FED. #1SECTION BHL SWSW TOWNSHIP 15 1/2 RANGE 26E COUNTY GrandDRILLING CONTRACTOR <sup>33</sup>VecoRIG # 9SPUDDED: DATE 10-28-84TIME 2:00 AMHOW Rotary

DRILLING WILL COMMENCE \_\_\_\_\_

REPORTED BY Mark RepaskyTELEPHONE # 303-861-4246DATE 10-29-84 SIGNED AS



MEASURED DEPTH FEET	INCLINATION ANGLE DEG.	HOLE DIRECTION DEG.	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	SUBSEA DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES		DOGLEG SEVERITY DG/100FT
							N/S	E/W	
306.00	0.00	N 00.00 E	306.00	306.00	306.00	0.00	0.00 N	0.00 E	0.00
355.00	.25	S 10.00 E	49.00	355.00	355.00	-.08	.11 S	.02 E	.51
480.00	.50	N 76.00 E	125.00	480.00	480.00	-.12	.50 S	.63 E	.46
508.00	1.25	N 69.00 E	28.00	507.99	507.99	.19	.37 S	1.04 E	2.70
569.00	3.00	N 26.00 E	61.00	568.95	568.95	2.30	1.12 N	2.67 E	3.00
600.00	4.00	N 19.00 E	31.00	599.89	599.89	4.17	2.87 N	3.39 E	3.50
631.00	5.00	N 19.00 E	31.00	630.80	630.80	6.56	5.17 N	4.18 E	3.23
713.00	7.50	N 09.00 E	82.00	712.30	712.30	15.14	13.82 N	6.34 E	3.31
774.00	9.50	N 08.00 E	61.00	772.71	772.71	23.05	22.21 N	7.59 E	1.66
834.00	9.25	N 07.00 E	60.00	831.99	831.99	31.61	31.39 N	8.80 E	1.28
897.00	10.00	N 06.00 E	63.00	894.10	894.10	41.29	41.86 N	9.99 E	1.22
957.00	11.00	N 05.00 E	60.00	953.10	953.10	51.25	52.74 N	11.04 E	1.69
1020.00	12.00	N 04.00 E	63.00	1014.83	1014.83	62.60	65.26 N	12.03 E	1.62
1082.00	13.00	N 04.00 E	62.00	1075.36	1075.36	74.68	78.65 N	12.96 E	1.61
1170.00	14.00	N 01.00 E	88.00	1160.93	1160.93	92.94	99.17 N	13.86 E	1.39
1235.00	15.00	N 01.00 W	65.00	1223.86	1223.86	107.05	115.44 N	13.86 E	1.72
1298.00	15.50	N 01.00 W	63.00	1284.64	1284.64	121.29	132.01 N	13.57 E	.79
1389.00	17.00	N 04.00 W	91.00	1372.00	1372.00	142.81	157.45 N	12.46 E	1.89
1451.00	18.00	N 02.00 W	62.00	1431.13	1431.13	158.48	176.07 N	11.48 E	1.00
1514.00	19.25	N 03.00 W	63.00	1490.83	1490.83	175.48	196.17 N	10.61 E	2.05
1606.00	21.25	N 04.00 W	92.00	1577.14	1577.14	202.09	227.95 N	8.66 E	2.21
1698.00	23.25	N 05.00 W	92.00	1662.28	1662.28	230.87	262.68 N	5.93 E	2.21
1761.00	24.50	N 05.00 W	63.00	1719.89	1719.89	251.80	288.08 N	3.71 E	1.98
1790.00	25.00	N 05.00 W	29.00	1746.23	1746.23	261.77	300.17 N	2.65 E	1.72
1821.00	25.25	N 03.00 W	31.00	1774.29	1774.29	272.70	313.30 N	1.73 E	2.86
1851.00	25.50	N 01.00 W	30.00	1801.40	1801.40	283.63	326.15 N	1.28 E	2.98
1882.00	25.50	N 02.00 E	31.00	1829.38	1829.38	295.26	339.49 N	1.40 E	4.17
1912.00	25.00	N 06.00 E	30.00	1856.51	1856.51	306.78	352.25 N	2.29 E	5.93
1943.00	24.50	N 11.00 E	31.00	1884.67	1884.67	318.86	365.08 N	4.21 E	6.94
1974.00	24.00	N 14.00 E	31.00	1912.93	1912.93	331.02	377.51 N	6.96 E	4.29

MEASURED DEPTH FEET	INCLINATION ANGLE DEG.	HOLE DIRECTION DEG.	COURSE LENGTH FEET	TRUE		VERTICAL SECTION FEET	RECTANGULAR COORDINATES		DOGLEG SEVERITY DG/100FT
				VERTICAL DEPTH FEET	SUBSEA DEPTH FEET		N/S	E/W	
2000.00	23.50	N 17.00 E	26.00	1936.73	1936.73	341.16	387.60 N	9.76 E	5.03
2040.00	23.00	N 23.00 E	40.00	1973.48	1973.48	356.72	402.43 N	15.16 E	6.05
2100.00	23.50	N 24.00 E	60.00	2028.61	2028.61	380.26	424.15 N	24.60 E	1.06
2191.00	24.75	N 22.00 E	91.00	2111.66	2111.66	417.19	458.39 N	39.14 E	1.64
2284.00	25.50	N 21.00 E	93.00	2195.86	2195.86	456.26	495.13 N	53.61 E	.
2377.00	26.25	N 20.00 E	93.00	2279.53	2279.53	496.32	533.15 N	67.82 E	.93
2470.00	27.00	N 19.00 E	93.00	2362.67	2362.67	537.33	572.44 N	81.73 E	.94
2561.00	27.50	N 17.00 E	91.00	2443.57	2443.57	578.11	612.07 N	94.61 E	1.15
2657.00	27.00	N 16.00 E	96.00	2528.92	2528.92	620.89	654.22 N	107.09 E	.71
2610.00	27.00	N 13.00 E	153.00	2665.24	2665.24	687.88	721.46 N	124.48 E	.89
2882.00	24.25	N 13.00 E	72.00	2730.15	2730.15	717.68	751.80 N	131.48 E	3.82
2943.00	24.00	N 12.00 E	61.00	2785.82	2785.82	741.49	776.14 N	136.88 E	.79
2964.00	24.00	N 13.00 E	21.00	2805.01	2805.01	749.64	784.48 N	138.73 E	1.94
2995.00	23.75	N 17.00 E	31.00	2833.36	2833.36	761.77	796.60 N	141.98 E	5.29
3026.00	23.75	N 19.00 E	31.00	2861.73	2861.73	773.99	808.47 N	145.84 E	2.60
3055.00	23.75	N 22.00 E	29.00	2888.27	2888.27	785.52	819.41 N	149.93 E	4.17
3086.00	23.50	N 26.00 E	31.00	2916.68	2916.68	797.88	830.76 N	154.98 E	5.23
3111.00	23.50	N 29.00 E	25.00	2939.60	2939.60	807.83	839.60 N	159.56 E	4.58
3149.00	23.25	N 30.00 E	38.00	2974.48	2974.48	822.91	852.72 N	167.00 E	1.57
3180.00	23.00	N 34.00 E	31.00	3002.99	3002.99	835.07	863.04 N	173.45 E	5.13
3211.00	23.00	N 36.00 E	31.00	3031.53	3031.53	847.13	872.96 N	180.40 E	2.52
3242.00	23.00	N 40.00 E	31.00	3060.06	3060.06	859.12	882.50 N	187.86 E	5.04
3273.00	23.50	N 42.00 E	31.00	3088.55	3088.55	871.12	891.73 N	195.89 E	3.01
3355.00	24.00	N 42.00 E	82.00	3163.60	3163.60	903.40	916.27 N	217.99 E	.61
3417.00	23.00	N 42.00 E	62.00	3220.46	3220.46	927.56	934.64 N	234.53 E	1.61
3480.00	21.00	N 39.00 E	63.00	3278.87	3278.87	950.74	952.58 N	249.85 E	3.64
3510.00	20.00	N 35.00 E	30.00	3306.97	3306.97	961.16	960.97 N	256.17 E	5.74
3557.00	20.50	N 35.00 E	47.00	3351.06	3351.06	977.37	974.30 N	265.50 E	1.56
3588.00	20.50	N 38.00 E	31.00	3380.10	3380.10	988.15	983.03 N	271.96 E	3.39
3619.00	20.25	N 44.00 E	31.00	3409.16	3409.16	998.73	991.17 N	279.04 E	6.78

MEASURED DEPTH FEET	INCLINATION ANGLE DEG.	HOLE DIRECTION DEG.	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	SUBSEA DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES N/S E/W		DOGLEG SEVERITY DG/100FT
3650.00	21.00	N 49.00 E	31.00	3438.17	3438.17	1009.20	998.68 N	286.96 E	6.17
3681.00	22.00	N 51.00 E	31.00	3467.02	3467.02	1019.90	1006.00 N	295.66 E	4.00
3721.00	24.00	N 55.00 E	40.00	3503.83	3503.83	1034.20	1015.40 N	308.14 E	6.34
3782.00	24.50	N 57.00 E	61.00	3559.45	3559.45	1056.70	1029.40 N	328.91 E	1.52
3842.00	23.75	N 55.00 E	60.00	3614.21	3614.21	1078.70	1043.10 N	349.24 E	1.00
3897.00	23.75	N 52.00 E	55.00	3664.55	3664.55	1099.00	1056.30 N	367.04 E	2.20
3928.00	23.75	N 51.00 E	31.00	3692.93	3692.93	1110.60	1064.10 N	376.81 E	1.30
3959.00	23.75	N 52.00 E	31.00	3721.30	3721.30	1122.20	1071.90 N	386.58 E	1.30
3990.00	24.00	N 50.00 E	31.00	3749.65	3749.65	1133.90	1079.80 N	396.33 E	2.73
4021.00	24.00	N 49.00 E	31.00	3777.97	3777.97	1145.80	1088.00 N	405.92 E	1.31
4050.00	24.75	N 47.00 E	29.00	3804.38	3804.38	1157.20	1096.00 N	414.81 E	3.85
4081.00	25.75	N 46.00 E	31.00	3832.42	3832.42	1169.90	1105.10 N	424.40 E	3.51
4112.00	26.00	N 47.00 E	31.00	3860.31	3860.31	1182.80	1114.40 N	434.21 E	1.62
4143.00	26.75	N 48.00 E	31.00	3888.09	3888.09	1195.90	1123.70 N	444.36 E	2.81
4174.00	27.75	N 47.00 E	31.00	3915.65	3915.65	1209.40	1133.30 N	454.82 E	3.55
4204.00	28.75	N 46.00 E	30.00	3942.07	3942.07	1223.10	1143.10 N	465.12 E	3.69
4235.00	30.00	N 47.00 E	31.00	3969.09	3969.09	1237.70	1153.60 N	476.15 E	4.33
4266.00	30.75	N 47.00 E	31.00	3995.83	3995.83	1252.60	1164.30 N	487.61 E	2.00
4297.00	32.00	N 47.00 E	31.00	4022.30	4022.30	1268.10	1175.30 N	499.41 E	4.03
4328.00	33.00	N 47.00 E	31.00	4048.44	4048.44	1284.00	1186.70 N	511.59 E	3.23
4366.00	34.00	N 48.00 E	38.00	4080.13	4080.13	1304.00	1200.90 N	527.05 E	3.01
4396.00	34.50	N 50.00 E	30.00	4104.93	4104.93	1320.00	1212.00 N	539.79 E	4.11
4426.00	34.50	N 50.00 E	30.00	4129.65	4129.65	1335.90	1222.90 N	552.81 E	0.00
4457.00	35.00	N 51.00 E	31.00	4154.97	4154.97	1352.70	1234.30 N	566.61 E	5.18
4488.00	37.00	N 52.00 E	31.00	4179.89	4179.89	1369.80	1245.80 N	581.04 E	3.75
4555.00	39.00	N 51.00 E	67.00	4232.68	4232.68	1408.20	1271.50 N	613.32 E	3.12
4616.00	39.00	N 50.00 E	61.00	4280.09	4280.09	1444.00	1295.90 N	642.94 E	1.03
4710.00	38.00	N 49.00 E	94.00	4353.65	4353.65	1499.10	1333.90 N	687.44 E	1.25
4803.00	37.50	N 48.00 E	93.00	4427.18	4427.18	1553.00	1371.60 N	730.08 E	0.85
4929.00	35.50	N 45.00 E	126.00	4528.46	4528.46	1624.80	1423.20 N	784.44 E	2.13

MEASURED DEPTH FEET	INCLINATION ANGLE DEG.	HOLE DIRECTION DEG.	COURSE LENGTH FEET	TRUE VERTICAL DEPTH FEET	SUBSEA DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES N/S E/W		DOGLEG SEVERITY DG/100FT
5021.00	34.00	N 44.00 E	92.00	4604.05	4604.05	1675.60	1460.60 N	821.19 E	1.74
5115.00	33.25	N 41.00 E	94.00	4682.33	4682.33	1726.40	1499.00 N	856.35 E	1.94
5204.00	32.75	N 41.00 E	89.00	4756.97	4756.97	1773.90	1535.60 N	888.15 E	.56
5329.00	33.00	N 39.00 E	125.00	4861.95	4861.95	1840.70	1587.60 N	931.76 E	.89
5486.00	32.75	N 35.00 E	157.00	4993.81	4993.81	1925.20	1655.60 N	983.04 E	1.1
5641.00	32.50	N 36.00 E	155.00	5124.35	5124.35	2008.40	1723.60 N	1031.60 E	.38
5720.00	31.00	N 33.00 E	79.00	5191.53	5191.53	2049.80	1757.90 N	1055.10 E	2.76
5813.00	27.00	N 29.00 E	93.00	5272.85	5272.85	2094.80	1796.50 N	1078.30 E	4.78
5937.00	24.00	N 24.00 E	124.00	5384.76	5384.76	2148.10	1844.30 N	1102.10 E	2.98
6059.00	24.50	N 12.00 E	122.00	5495.99	5495.99	2197.10	1891.90 N	1117.60 E	4.05
6211.00	24.50	N 02.00 E	152.00	5634.31	5634.31	2255.20	1954.40 N	1125.30 E	2.73
6336.00	27.50	N 02.00 E	125.00	5746.64	5746.64	2303.70	2009.20 N	1127.20 E	2.40
6426.00	27.50	N 00.00 E	90.00	5826.47	5826.47	2340.10	2050.70 N	1127.90 E	1.83
6517.00	26.00	N 00.00 E	91.00	5907.73	5907.73	2375.60	2091.70 N	1127.90 E	1.65
6708.00	26.00	N 00.00 E	191.00	6079.40	6079.40	2448.30	2175.40 N	1127.90 E	0.00
6755.00	26.00	N 00.00 E	47.00	6121.64	6121.64	2466.10	2196.00 N	1127.90 E	0.00

# TXO

## TXO PRODUCTION CORP.

1800 LINCOLN CENTER BUILDING  
DENVER, COLORADO 80264

TELEPHONE (303) 861-4246

RECEIVED

NOV 09 1984

DIVISION OF OIL  
GAS & MINING

November 6, 1984

STATE OF UTAH  
DIVISION OF OIL, GAS, & MINING  
4241 State Office Building  
Salt Lake City, Utah 84114

Attn: Ms. Dianne R. Nielson  
Director

RE: NORTH CREDO FEDERAL #1  
Section 13, T15½S-R26E  
Grand County, Utah

Gentlemen:

Please find enclosed three (3) copies of Form 9-331, "Sundry Notices and Reports on Wells", reporting the spudding of the above referenced well.

If there are any further questions concerning this well, please contact me at this office.

Sincerely,

TXO PRODUCTION CORP.



Mark E. Repasky  
Petroleum Engineer

MER/dee  
encls.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to test for or produce gas or oil in a different reservoir. Use Form 9-331-C for such proposals.)

RECEIVED

1. oil well  gas well  other  **NOV 09 1984**

2. NAME OF OPERATOR  
TXO Production Corp.

3. ADDRESS OF OPERATOR  
1800 Lincoln Center Bldg. **DIVISION OF OIL GAS & MINES**

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 420'FEL, 130S'FNL Sec 5-T16-R26E  
AT TOP PROD. INTERVAL: 650'FEL, 700'FWL Sec 33  
AT TOTAL DEPTH: 650'FEL, 700'FWL Sec 33 T15-R26E

5. LEASE  
U-50435

6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
-

7. UNIT AGREEMENT NAME  
N/A

8. FARM OR LEASE NAME  
North Credo Federal

9. WELL NO.  
#1

10. FIELD OR WILDCAT NAME  
San Arroyo

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec 13-T15-R26E 650'FEL  
700'FWL

12. COUNTY OR PARISH  
Grand

13. STATE  
Utah

14. API NO.  
43-019-31171

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
6977'GR

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input type="checkbox"/>		<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>		<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>		<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>		<input type="checkbox"/>
PULL OR ALTER CASING	<input type="checkbox"/>		<input type="checkbox"/>
MULTIPLE COMPLETE	<input type="checkbox"/>		<input type="checkbox"/>
CHANGE ZONES	<input type="checkbox"/>		<input type="checkbox"/>
ABANDON*	<input type="checkbox"/>		<input type="checkbox"/>
(other) Report of Spud	<input type="checkbox"/>		<input type="checkbox"/>

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Operator spudded the above well at 2:00 a.m. 10/28/84.  
Drilling contractor is Veco Rig #9. Verbal report of spud was given to Arlene Sollis, State of Utah and Bob Graff Moab, Utah BLM on 10/29/84.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct  
SIGNED Mal Rynas TITLE Petroleum Engineer DATE 11/2/84

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

WELL NAME: North Credo Federal #1  
 AREA: San Arroyo  
 LOCATION: Section 5, T16S-R26E  
 COUNTY: Grand  
 STATE: Utah  
 FOOTAGE: 650' FSL & 700' FWL

PTD: 6160' TVD, 6550' MD  
 ELEVATIONS: 6989' KB, 6977' GL  
 CONTRACTOR: Veco #9  
 AFE NUMBER: 851046  
 LSE NUMBER: 75007  
 TXO WI: 100%

\*\*\*\*\*

CREDO PETROLEUM COMPANY  
 1860 Lincoln Street, Ste. 1000  
 Denver, Colorado 80295  
 Attn: LCP  
 Phone: (303) 830-8500

Daily Call

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10/28/84 88' (88'), drlg. Mesaverde. Air dust 80#. Spudded 12-1/4" hole @ 2 AM 10/28/84. Drld to 88' w/ air dust. DW: 48,807. CW: 48,807. DD 1.

10/29/84 320' (232'), NU BOP's. Mesaverde. Drld 12-1/4" hole w/ air dust to 120'. Hole got wet. Mist up hole. Drld to 320'. TD surf hole @ 2:15 PM 10/28/84. Blow hole 30 mins. TOOH. Run 7 jts 9-5/8", 36#, K-55, ST&C csg (0-306'). Pumped 35 bbls of gelled wtr. RU BJ Hughes. Cmt'd w/ 125 sxs of 50/50 poz, 2% gel, 2% CaCl<sub>2</sub> w/ 1/4#/sx celloseal. Tail w/ 60 sxs of Cl "G", 2% CaCl<sub>2</sub>. Dspl w/ 21 BW. Shoe set @ 306', float set @ 264'. PD @ 7 PM. BP @ 1500#. Float didn't hold. No returns. 1" surf csg w/ 50 sxs Cl "G" w/ 2% CaCl<sub>2</sub>. Cmt to surf. No fallback. RD BJ. WOC. NU BOP's. DW: 25,243. CW: 74,050. DD 2.

10/30/84 503' (183'), PU navi-drill. Mesaverde. Air mist. NU BOP's. Test BOP's. Found leaking ring gasket. ND BOP's. Replace gasket. NU BOP's. PT to 1000#, OK. TIH w/ bit, monel collar, 6-1/4" collars. Drill out cmt & shoe. Drld to 503' w/ air mist. Blow hole. TOOH. Tight spot @ 330'. Wipe through tight spot w/ collars. Wiped free. Fin TOOH. PU navi-drill. DW: 10,783. CW: 84,833. DD 3.

10/31/84 783' (280'), drlg ahead w/ air dust @ 150#. Mesaverde. Fin PU Navi-drill. TIH. Survey & orient tool. Wash & ream 12' fill. Drill 25' new hole to 528'. Motor failed. TOOH. PU new Navi-drill. TIH. Orient tool. Drill ahead to 711'. TOOH. LD motor. PU angle building assembly. TIH. Drill ahead. DW: 13,693. CW: 98,526. DD 4.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
600'	4°	N19E	599.89	+4.17	2.87		3.39	
631'	5°	N19E	630.80	+6.56	5.17		4.18	
713'	7-1/2°	N 9E	712.30	15.14	13.82		6.34	
774'	8-1/2°	N 8E	772.71	23.05	22.21		7.59	

11/01/84 1622' (839'), drlg ahead w/ air mist @ 160#. Mesaverde. Drld w/ angle building assembly to 936'. Hole got wet. Mist up. Drld to 1306'. Blow hole clean. TOOH. LD IBS. PU 3 pt reamer. TIH w/ new bit. No tight hole on trip. Wash & ream 10' to btm. Drill ahead to 1622'. DW: 11,001. CW: 109,716. DD 5.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
834'	9-1/4°	N7E	831.99	31.61	31.39		8.80	
897'	10°	N6E	894.10	41.28	41.85		9.99	
957'	11°	N5E	953.10	51.25	52.74		11.04	
1020'	12°	N4E	1014.83	62.60	65.26		12.03	
1080'	13°	N4E	1075.36	74.68	78.65		12.96	
1170'	14°	N1E	1160.93	92.93	99.17		13.86	
1235'	15°	N1W	1223.86	107.06	115.44		13.86	
1298'	15-1/2°	N1W	1284.64	121.29	132.01		13.57	
1389'	17°	N4W	1372.00	142.81	157.45		12.46	
1451'	18°	N2W	1431.13	158.47	176.06		11.48	

WELL NAME: North Credo Federal #1  
 AREA: San Arroyo  
 LOCATION: Section 5, T16S-R26E  
 COUNTY: Grand  
 STATE: Utah  
 FOOTAGE: 650' FSL & 700' FWL

PTD: 6160' TVD, 6550' MD  
 ELEVATIONS: 6989' KB, 6977' GL  
 CONTRACTOR: Veco #9  
 AFE NUMBER: 851046  
 LSE NUMBER: 75007  
 TXO WI: 100%

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11/01/84 cont.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
1514'	19-1/4°	N3W	1490.83	175.48	196.16		10.61	
1606'	21-1/4°	N4W	1577.14	202.09	227.94		8.66	

11/02/84 1947' (325'), drlg. Mesaverde. Drlg ahead w/ air mist @ 300#. 8.5, 40, 15, 10. Drld w/ angle building assembly to 1801'. Blow hole 10 min. Short trip 5 stnds. Blow hole 30 mins. TOOH. LD tools. PU motor #3. TIH w/ new bit, 6-1/4" motor, 2° bent sub, float, monel, (11) 6-1/4" DC's, jars, (3) 6-1/4" DC's. No tight hole. No fill. Drld to 1851'. Motor would not start after 2 hrs. TOOH. LD motor. PU motor #2. TIH. Drld ahead to 1947'. DW: 15,288. CW: 125,004. DD 6.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
1698'	23-1/4°	N5W	1662.28	230.86	262.67		5.93	
1761'	24-1/2°	N5W	1719.89	251.80	288.07		3.71	
1790'	25°	N5W	1746.23	261.77	300.17		2.65	
1821'	25-1/4°	N3W	1774.29	272.70	313.30		1.73	
1851'	25-1/2°	N1W	1801.40	283.63	326.14		1.28	
1882'	25-1/2°	N2E	1829.38	295.26	339.49		1.40	
1912'	25°	N6E	1856.51	306.78	352.25		2.29	

11/03/84 2239' (292'), drlg. Mesaverde. Air mist @ 180#. Drld ahead to 2000'. TOOH. LD motor. PU 60' belly assembly. TIH. Wash & ream 240' to btm. Drld ahead to 2239'. DW: 16,112. CW: 141,150. DD 7.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
1943'	24-1/2°	N11E	1884.66	318.87	365.09		4.21	
1974'	24°	N14E	1912.93	331.02	377.52		6.96	
2000'	23-1/2°	N17E	1936.72	341.17	387.60		9.76	
2040'	23°	N23E	1973.48	356.72	402.44		15.16	
2100'	23-1/2°	N24E	2028.60	380.26	424.16		24.60	
2191'	24-3/4°	N22E	2111.65	417.19	458.39		39.14	

11/04/84 2820' (581'), running 7" csg. Mancos. Drld from 2239-2820'. Circ & blow hole. Short trip 5 stnds. Had 5' fill. TOOH. LD 6-1/4" collars. RU & run 7" csg. Ran 15 jts 7", 23#, K-55, ST&C (2138-2810'), 72 jts 7", 20#, K-55, ST&C (78-2060'), 2 jts 7", 23#, K-55, ST&C (0-78'). Shoe @ 2810', float @ 2780'. Had 1 minute, 15' flare @ 2810'. Castlegate ST @ 2350' MD, Mancos ST @ 2550' MD. DW: 38,339. CW: 179,509. DD 8.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
2284'	25-1/2°	N21E	2195.85	456.26	495.13		53.61	
2377'	26-1/4°	N20E	2279.53	496.31	533.14		67.82	
2470'	27°	N19E	2362.67	537.31	572.43		81.73	
2561'	27-1/2°	N17E	2443.57	578.10	612.05		94.61	
2657'	27°	N16E	2528.91	620.87	654.20		107.09	
2810'	27°	N13E	2665.23	687.86	721.44		124.48	

11/05/84 2843' (23'), drlg. Mancos. Air mist @ 200#. Fin running 7" csg. RU BJ & cmt. Pumped 80 BM, 10 bbls mud sweep. Cmtd w/ 75 sxs 50/50 poz w/ 2% CaCl<sub>2</sub>, friction reducer, 1/4#/sx celloflake. Tail w/ 75 sxs Cl

WELL NAME: North Credo Federal #1  
 AREA: San Arroyo  
 LOCATION: Section 5, T16S-R26E  
 COUNTY: Grand  
 STATE: Utah  
 FOOTAGE: 650' FSL & 700' FWL

PTD: 6160' TVD, 6550' MD  
 ELEVATIONS: 6989' KB, 6977' GL  
 CONTRACTOR: Veco #9  
 AFE NUMBER: 851046  
 LSE NUMBER: 75007  
 TXO WI: 100%

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11/05/84 "G" w/ 2% CaCl<sub>2</sub>, 1/4#/sx celloflake. Dspl w/ 110 BW. PD @ 8:30 PM. cont. PB @ 150#. Float held. No returns. ND BOP's. Cut off. Set slips w/ 47,000#. NU BOP's. Test to 1000#, 10 min, OK. PU (21) 4-3/4" DC's. Change out kelly. Repair rotary table. Drill cnt & shoe. Drld to 2843'. DW: 16,390. CW: 195,899. DD 9.

11/06/84 3056' (213'), orient tool. Mancos. Drld from 2843-2943'. Cond hole for motor. TOOH. Repair wtr pump. PU 4-3/4" motor. TIH w/ 1-1/2" bent sub. Drld to 3056'. Bit shelled out. TOOH. PU motor #2. TIH w/ new bit. Orient tool. DW: 13,444. CW: 209,343. DD 10.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
2882'	24-1/4°	N13E	2730.15	717.68	751.80		131.48	
2943'	24°	N12E	2785.82	741.49	776.14		136.88	
2964'	24°	N13E	2805.01	749.64	784.48		138.72	
2995'	23-3/4°	N17E	2833.36	761.77	796.60		141.97	
3026'	23-3/4°	N19E	2861.71	774.01	808.49		145.84	

11/07/84 3295' (239'), drlg. Mancos. Air mist @ 350#. Drld from 3056-3150'. TOOH for bit #11. Test motor. TIH. Drld from 3150-3222'. TOOH for bit #12. PU motor #1. Test motor. TIH. Drld from 3222-3295'. DW: 13,506. CW: 222,849. DD 11.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
3055'	23-3/4°	N22E	2888.27	785.51	819.41		149.92	
3086'	23-1/2°	N26E	2916.67	797.87	830.76		154.97	
3111'	23-1/2°	N29E	2939.60	807.83	839.60		159.57	
3149'	23-1/4°	N30E	2974.48	822.90	857.72		167.00	
3180'	23°	N34E	3002.99	835.07	863.04		173.45	
3211'	23°	N36E	3031.53	847.13	872.96		180.39	
3242'	23°	N40E	3060.06	859.12	882.51		187.85	
3273'	23-1/2°	N42E	3088.54	871.12	891.74		195.88	

11/08/84 3518' (223'), TIH wash & ream. Mancos. Drld from 3295-3303'. Bit dulled. TOOH. PU 60' belly assembly. TIH. Drld to 3518'. Wellbore walking left. Mist up hole. TOOH. Hole tight & sloughing. TIH w/ bit & 3 pt reamer. Wash & ream hole. DW: 13,298. CW: 236,147. DD 12.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
3355'	24°	N42E	3163.60	903.40	916.28		217.98	
3417'	23°	N42E	3220.46	927.56	934.65		234.52	
3480'	21°	N39E	3278.87	950.75	952.59		249.84	
3510'	20°	N35E	3306.97	961.17	960.98		256.17	

11/09/84 3645' (127'), TIH w/ bit & motor. Mancos. Fin wash & ream to btm. TOOH. PU Navi-drill & 2° bent sub. TIH. Orient tool. Drld from 3518-3645'. Bit dulled. TOOH for bit #15. TIH w/ bit #15. DW: 14,588. CW: 250,735. DD 13.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
3557'	20-1/2°	N35E	3351.06	977.36	974.30		265.50	
3588'	20-1/2°	N38E	3380.10	988.14	983.02		271.96	
3619'	20-1/4°	N44E	3389.16	998.73	991.16		279.04	

WELL NAME: North Credo Federal #1  
 AREA: San Arroyo  
 LOCATION: Section 5, T16S-R26E  
 COUNTY: Grand  
 STATE: Utah  
 FOOTAGE: 650' FSL & 700' FWL

PTD: 6160' TVD, 6550' MD  
 ELEVATIONS: 6989' KB, 6977' GL  
 CONTRACTOR: Veco #9  
 AFE NUMBER: 851046  
 LSE NUMBER: 75007  
 TXO WI: 100%

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11/10/84 3858' (213'), TIH w/ motor. Mancos. Fin TIH w/ bit #15. Drld from 3645-3721'. TOOH. PU 90' belly assembly. TIH. Drld from 3721-3858'. Startd losing angle after follow through of motor run. TOOH. LD tools. PU 2° bent sub & motor. TIH. DW: 14,088. CW: 264,823. DD 14.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
3721'	24°	N55E	3503.84	1034.21	1015.38		308.14	
3782'	24-1/2°	N57E	3559.35	1056.69	1029.39		328.90	
3842'	23-3/4°	N55E	3614.21	1078.69	1043.11		342.23	

11/11/84 4003' (145'), TOOH. Mancos. Fin TIH w/ 2° bent sub & motor. Motor would not turn. Press up to 1000#. TOOH 3 stnds. Attempt to start motor. Could not. TOOH. Bit plugged. PU new motor & bit. TIH. Drld from 3858-4003'. Bit quit. Angle would not build. DW: 11,288. CW: 276,111. DD 15.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
3897'	23-3/4°	N52E	3644.55	1098.98	1056.28		367.04	
3928'	23-3/4°	N51E	3692.93	1110.58	1064.85		376.81	
3959'	23-3/4°	N52E	3721.30	1122.18	1071.82		386.58	
3990'	24°	N50E	3749.65	1133.87	1079.72		396.33	

11/12/84 4219' (216'), TIH w/ motor & bit. Mancos. Fin TOOH. PU new motor & 2-1/2° bent sub. TIH. Orient tool. Drld from 4003-4219'. Bit quit. Building some angle. TOOH. PU new bit. TIH. DW: 13,388. CW: 289,499. DD 16.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
4021'	24°	N49E	3777.97	1145.74	1087.90		405.92	
5050'	24-3/4°	N47E	3804.38	1157.11	1095.91		414.81	
4081'	25-3/4°	N46E	3832.42	1169.78	1105.01		424.40	
4112'	26°	N47E	3860.31	1182.73	1114.42		434.21	
4143'	26-3/4°	N48E	3888.08	1195.85	1123.52		444.26	
4174'	27-3/4°	N47E	3915.64	1209.37	1133.21		454.83	

11/13/84 4519' (300'), TOOH. Mancos. TIH. Orient tool. Drld from 4219-4376'. TOOH. LD tools. PU angle building assembly (bit, float, 3 pt, 4-1/8" DC, 4-3/4" DC's, DP). TIH. Drld from 4376-4519'. Stuck survey tool. Pulled out of rope socket. TOOH w/ DP. DW: 9888. CW: 299,387. DD 17.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
4204'	28-3/4°	N46E	3942.07	1222.97	1142.98		465.13	
4235'	30°	N47E	3969.08	1237.54	1153.45		476.16	
4266'	30-3/4°	N47E	3995.82	1252.51	1164.14		487.62	
4297'	32°	N47E	4022.29	1267.93	1175.15		499.43	
4328'	33°	N47E	4048.44	1284.00	1186.70		511.59	
4366'	34°	N48E	4080.13	1303.98	1200.98		527.05	
4396'	34-1/2°	N50E	4104.92	1319.93	1211.95		539.79	
4426'	34-1/2°	N50E	4129.65	1335.87	1222.87		552.81	
4457'	36°	N51E	4154.96	1352.61	1234.24		566.62	

WELL NAME: North Credo Federal #1  
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PTD: 6160' TVD, 6550' MD  
 ELEVATIONS: 6989' KB, 6977' GL  
 CONTRACTOR: Veco #9  
 AFE NUMBER: 851046  
 LSE NUMBER: 75007  
 TXO WI: 100%

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11/14/84 5030' (511'), drlg ahead w/ air dust @ 180#. Mancos. Fin TOOH. PU semi-stiff assembly. TIH. Wash & ream 670' to btm. Dry up hole. Drld from 4519-5030'. Drlg ahead. DW: 8721. CW: 308,108. DD 18.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
4488'	37°	N52E	4179.88	1369.74	1245.73		581.05	
4555'	39°	N51E	4232.68	1408.07	1271.40		613.33	
4616'	39°	N50E	4280.09	1443.98	1295.82		642.95	
4710'	38°	N49E	4353.65	1499.07	1333.82		687.45	
4803'	37-1/2°	N48E	4427.18	1553.01	1371.55		730.09	
4929'	35-1/2°	N45E	4528.46	1624.79	1423.13		784.44	
5021'	34°	N44E	4604.05	1675.51	1460.53		821.20	

11/15/84 5651' (621'), TIH w/ bit. Mancos. Drld from 5030-5115'. Very high drag on connections. Mist up hole. Drld from 5115-5651'. TOOH. LD stabilization. DW: 13,208. CW: 321,316. DD 19.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
5115'	33-1/4°	N41E	4682.33	1726.40	1499.00		856.35	
5204'	32-3/4°	N41E	4756.96	1773.84	1535.49		888.16	
5329'	33°	N39E	4861.95	1840.69	1587.56		931.76	
5486'	32-3/4°	N35E	4993.81	1925.23	1655.61		983.04	
5641'	32-1/2°	N36E	5124.35	2008.39	1723.64		1031.57	

11/16/84 6251' (600'), surveying. Mancos. Air mist 280-300#. Fin TIH w/ slick assembly. Drld to 6000'. Worked on airhead. Resumed drlg. DW: 9388. CW: 330,704. DD 20.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
5720'	31°	N33E	5191.53	2049.81	1757.89		1055.11	
5813'	27°	N29E	5272.85	2094.87	1796.53		1078.32	
5937'	24°	N24E	5384.76	2148.14	1844.28		1102.13	
6059'	24-1/2°	N12E	5495.99	2197.10	1891.85		1117.54	
6211'	24-1/2°	N2E	5634.31	2255.13	1954.33		1125.26	

11/17/84 6745' (494'), drlg. Morrison. Air mist 300#. Had intermittent 10' connection flares beginning @ 6615'. No continuous flares while drlg. Had 210,000# drag on connections. Smpl tops: Dakota Silt @ 6380', Dakota @ 6460', 2nd Dakota @ 6495', 3rd Dakota @ 6565', 4th Dakota @ 6590', Buckhorn @ 6615', Morrison @ 6665'. DW: 10,568. CW: 341,272. DD 21.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
6336'	27-1/2°	N2E	5746.65	2303.59	2009.09		1127.17	
6426'	27-1/2°	NOE	5826.48	2340.00	2050.64		1127.90	
6517'	26°	NOE	5907.73	2375.54	2091.60		1127.90	
6708'	26°	NOE	6159.40	2449.80	2175.33		1127.90	

11/18/84 6755' (10'), RU loggers. Morrison. 8.6, 70, 8.8, 9.5. TD 6-1/4" hole @ 7 AM 11/17/84. Blew hole & surveyed. Worked 5 stnds OOH, pulling 100,000# over string wt. Mudded up hole. Circ for 20 min. TIH, tag bridge @ 6620'. Wash & ream to btm. Circ for 1 hr. Begin TOOH. First 9 jts pulled tight, rest of string came out slick. RU Gearhart. DW: 11,953. CW: 353,225. DD 22.

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PTD: 6160' TVD, 6550' MD  
 ELEVATIONS: 6989' KB, 6977' GL  
 CONTRACTOR: Veco #9  
 AFE NUMBER: 851046  
 LSE NUMBER: 75007  
 TXO WI: 100%

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11/18/84 cont.

MD	DEV	COURSE DIRECTION	TVD	VERTICAL SECTION	HORIZONTAL COORDINATES			
					N	S	E	W
6755'	26°	NOE	6201.64	2468.32	2195.93		1127.90	

11/19/84 6755' (0'), ND BOP's. Morrison. 8.6, 55, 8.8, 9.5. Run DIL-SNL-FDC-GR. RD Gearhart. TIH w/ 4-3/4" DC's. LD collars. TIH w/ DP open-ended to 6500'. RU Western. Set plug #1 from 6500-6300' w/ 36 sxs, set plug #2 from 4500-4300' w/ 36 sxs. TOOH. ND BOP's. DW: 19,796. CW: 372,896. DD 23.

11/20/84 7655' (0'), RDRT. Morrison. ND BOP's. Weld on 7". Pull slips. RU Dialog. Run free pt. Free @ 1300'. Cut off @ 1320'. Recover 45 jts 7", 20#, csg. TIH w/ DP. Set plug #3 from 1325-1275' w/ 25 sxs. Set plug #4 from 270-320' w/ 25 sxs. Set plug #5 @ surf w/ 25 sxs. Install dry hole marker. RR @ 10 PM 11/19/84. Well is P & A. FINAL REPORT!!! DW: 23,009. CW: 395,905. DD 24.

# TXO

## TXO PRODUCTION CORP.

1800 LINCOLN CENTER BUILDING  
DENVER, COLORADO 80264

TELEPHONE (303) 861-4246

December 13, 1984

STATE OF UTAH  
Natural Resources & Energy  
Oil, Gas, & Mining  
4241 State Office Building  
Salt Lake City, Utah 84114

RECEIVED  
DEC 17 1984  
DIVISION OF  
OIL, GAS & MINING

RE: NORTH CREDO FEDERAL #1  
Section 13, T15-1/2S-R26E  
Grand County, Utah

Gentlemen:

Please find enclosed three (3) copies of Form 9-330, "Well Completion or Recompletion Report and Log" and Form 9-331, "Sundry Notices and Reports on Wells" (one for intent and one for subsequent report), for the above referenced well. Also find enclosed a copy of the well history and directional surveys.

If there are any further requirements concerning this well, please contact me at this office.

Sincerely,

TXO PRODUCTION CORP.

*Mark E. Repasky*  
Mark E. Repasky  
Petroleum Engineer  
(by dee)

MER/dee  
encl.

A SUBSIDIARY OF TEXAS  
OIL & GAS CORP.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE\*

(See other instructions on reverse side)

Form approved.  
Budget Bureau No. 42-R355

13

RECEIVED  
DEC 17 1984

5. LEASE DESIGNATION AND SERIAL NO.

50435

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PLUG BACK  DIFF. RESVR.  Other \_\_\_\_\_

2. NAME OF OPERATOR: TXO PRODUCTION CORP. DIVISION OF OIL, GAS & MINING

3. ADDRESS OF OPERATOR: 1800 Lincoln Cntr. Bldg., Denver, Colorado 80264

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 420' FEL, 1305' FNL, Sec. 5, T16S-R26E SW SW  
At top prod. interval reported below 795' FSL, 710' FWL, Sec. 33, T15 1/2 S-R26E  
At total depth 893' FSL, 708' FWL, Sec. 33, T15 1/2 S-R26E

14. PERMIT NO. 43-019-31171 DATE ISSUED 19-17-84

15. DATE SPUNDED 10/28/84 18. DATE T.D. REACHED 11/17/84 17. DATE COMPL. (Ready to prod.) N/A 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)\* 6989' KB 19. ELEV. CASINGHEAD 6977'

20. TOTAL DEPTH, MD & TVD 6755MD, 6122TVD 21. PLUG, BACK T.D., MD & TVD N/A 22. IF MULTIPLE COMPL., HOW MANY\* 23. INTERVALS DRILLED BY → ROTARY TOOLS X CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* N/A 25. WAS DIRECTIONAL SURVEY MADE Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN DLD-CNL-DC-GR-Caliper Sample 27. WAS WELL CORED No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36#	306'	12-1/4"	125 sxs 50/50 poz 60 sxs	G" none
7"	20#, 23#	2810'	8-3/4"	75 sxs 50/50 poz. 75 sxs	G" 1320'

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number) N/A

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED

33.\* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
		PLA

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TEST WITNESSED BY

35. LIST OF ATTACHMENTS: Directional surveys.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Mal E. Prasy TITLE Petroleum Engineer DATE 12/13/84

\*(See Instructions and Spaces for Additional Data on Reverse Side)

# INSTRUCTIONS

**General:** This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 32, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formations and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 18:** Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments. **Items 22 and 24:** If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

**Item 29: "Sacks Cement":** Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

**Item 33:** Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

37. SUMMARY OF POROUS ZONES: SHOW ALL IMPORTANT ZONES OR POROSITY AND CONTENTS THEREOF; CORED INTERVALS; AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES		38. GEOLOGIC MARKERS																			
FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.																		
Dakota Buckhorn	6530' 6650'	6650' 6708'	water water																		
			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">NAME</th> <th style="width: 30%;">MEAS. DEPTH</th> <th style="width: 40%;">TRUE VERT. DEPTH</th> </tr> </thead> <tbody> <tr> <td>1st Dakota</td> <td style="text-align: center;">6530'</td> <td style="text-align: center;">5918'</td> </tr> <tr> <td>2nd Dakota</td> <td style="text-align: center;">6546'</td> <td style="text-align: center;">5933'</td> </tr> <tr> <td>4th Dakota</td> <td style="text-align: center;">6628'</td> <td style="text-align: center;">6007'</td> </tr> <tr> <td>Buckhorn</td> <td style="text-align: center;">6650'</td> <td style="text-align: center;">6026'</td> </tr> <tr> <td>Morrison</td> <td style="text-align: center;">6708'</td> <td style="text-align: center;">6079'</td> </tr> </tbody> </table>	NAME	MEAS. DEPTH	TRUE VERT. DEPTH	1st Dakota	6530'	5918'	2nd Dakota	6546'	5933'	4th Dakota	6628'	6007'	Buckhorn	6650'	6026'	Morrison	6708'	6079'
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**UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY**

**SUNDRY NOTICES AND REPORTS ON WELLS**

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9-331-C for such proposals.)

1. oil well  gas well  other  D & A

2. NAME OF OPERATOR  
TXO PRODUCTION CORP.

3. ADDRESS OF OPERATOR  
1800 Lincoln Cntr. Bldg., Denver, Co. 80264

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 420' FEL-1305' FNL, Sec. 5, 16S-26E  
AT TOP PROD. INTERVAL: 795' FSL-710' FWL, 33-15 1/2 S-26E  
AT TOTAL DEPTH: 893' FSL-708' FWL, 33-15 1/2 S-26E

16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

REQUEST FOR APPROVAL TO:	SUBSEQUENT REPORT OF:
TEST WATER SHUT-OFF <input type="checkbox"/>	<input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	<input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	<input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	<input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	<input type="checkbox"/>
MULTIPLE COMPLETE <input type="checkbox"/>	<input type="checkbox"/>
CHANGE ZONES <input type="checkbox"/>	<input type="checkbox"/>
ABANDON* <input type="checkbox"/>	<input checked="" type="checkbox"/>
(other) <input type="checkbox"/>	

5. LEASE  
U-50435

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
N. Credo Federal

9. WELL NO.  
#1

10. FIELD OR WILDCAT NAME  
San Arroyo

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA  
Sec. 13, T15-N/25-R26E (BHL)

12. COUNTY OR PARISH  
Grand

13. STATE  
Utah

14. API NO.

15. ELEVATIONS (SHOW DF, KDB, AND WD)  
6989' KB

(NOTE: Report results of multiple completion or zone change on Form 9-330.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)\*

Operator has plugged & abandoned the above well as per verbal orders from Bob Graff, Moab BLM. Plugs were set as follows:  
 Plug #1 from 6500-6300' w/ 36 sxs.  
 Plug #2 from 4500-4300' w/ 36 sxs.  
 7" intermediate csg cut off @ 1320', rec 1320'.  
 Plug #3 from 1325-1275' w/ 25 sxs.  
 Plug #4 from 320-270' w/ 25 sxs.  
 Plug #5 from surf w/ 25 sxs w/ dry hole marker.

Subsurface Safety Valve: Manu. and Type \_\_\_\_\_ Set @ \_\_\_\_\_ Ft.

18. I hereby certify that the foregoing is true and correct

SIGNED Mart E. Roney TITLE Petroleum Engineer DATE 12/13/84

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

**ACCEPTED  
APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING**

DATE: 12/19/84  
BY: [Signature]

\*See Instructions on Reverse Side



DIVISION OF XCO

**RECEIVED**

DEC 26 1984

DIVISION OF  
OIL, GAS & MINING

1860 Lincoln Street, Suite 780, Denver, Colorado 80203 (303) 863-0014

TXO PRODUCTION CORPORATION  
NORTH CREDO #1  
SECTION 5-T16S-R26E (SURFACE)  
SECTION 33-T15 $\frac{1}{2}$ S-R26E (BOTTOM)  
GRAND COUNTY, UTAH

GEOLOGIST: Richard G. Steele  
GX Consultants

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Lithology . . . . .	12

RESUME

OPERATOR: TXO Production Corporation  
WELL NAME & NUMBER: North Credo #1  
SURFACE LOCATION: Section 5 - T16S - R26E 420' FEL, 1305' FNL  
BOTTOM HOLE LOCATION: Section 33 - T15½S - R26E 650' FSL, 700' FWL  
COUNTY & STATE: Grand County, Utah  
SPUD DATE: October 28, 1984  
COMPLETION DATE (TD): November 17, 1984  
ELEVATIONS: 6,977' GL 6,989' KB  
TOTAL DEPTH: 6,753' LOGS 6,755' DRLR  
CONTRACTOR: VECO  
RIG: #9  
TYPE RIG: Triple Fixed Mast  
GEOLOGIST: Richard G. Steele, GX Consultants  
ENGINEER: Glen Hodge  
TOOL PUSHER: Harold Dutton  
TYPE DRILLING MUD: Air/Air-Mist  
AIR COMPANY: Rocky Mountain Air  
DEVIATION ENGINEER: Mike Pellessier  
HOLE SIZES: 12-1/4" to 300'  
8-3/4" to 2,820'  
6-1/4" to TD  
CASING: 9-5/8" at 300'  
7" at 2,800'  
4-1/2"  
MUD LOGGING BY: Analex  
TYPE UNIT: Unmanned Unit  
CORE INTERVALS: None  
DST DEPTHS: None  
ELECTRIC LOGS BY: Gearhart  
TYPE LOGS RUN: Dual Induction Laterolog (TD-Intermediate Casing)  
CDL/CNS Log (TD-2000' Uphole)  
LOGGING ENGINEER: Chip Head  
BOTTOM FORMATION: Morrison  
WELL STATUS: Plugged and Abandoned

## SUMMARY AND CONCLUSIONS

The TXO North Credo Federal #1 was spudded on October 28, 1984 and was air drilled to a total measured depth of 6,755' on November 17, 1984.

The primary objective of the North Credo was the Buckhorn Sands of the Dakota formation. These sands were drilled from 6,770' (MD) to 6,707' (MD). A good drilling break was seen and the lithology consisted of sandstone - white, clear and frosted grains, fine to medium grains, moderately to well sorted, subround, poorly cemented, with fair to good porosity. No fluorescence was observed. After drilling the sand, a 20' connection flare was seen. However, it died in 3 minutes and no flare was seen while drilling the formation. Log porosities showed a Density  $\phi$  of 13 to 17%.

Due to the poor show in the Buckhorn and the lack of shows in the other Dakota sands, the North Credo was plugged and abandoned on November 18, 1984.

FORMATION TOPS

<u>Formation</u>	<u>TXO</u> N. Credo #1 Measured Depth KB: 6989'	<u>TXO</u> Credo #1 KB: 7209' Depth Datum
Dakota Silt	6,444	5,926 +1,283
1st Sand	6,530	6,000 +1,209
2nd Sand	6,547	6,018 +1,191
3rd Sand	--	6,070 +1,139
4th Sand	6,627	6,102 +1,107
Buckhorn	6,670	6,168 +1,041
Morrison	6,706	6,217 + 992

WELL HISTORY

1984	12:01AM	
<u>DATE</u>	<u>DEPTH</u>	<u>ACTIVITY</u>
10/28	0	Spud well, drill surface hole, set surface casing, nipple up.
10/29	150	Nipple up, drilling cement.
10/30	150	Drilling cement, drilling formation, trip for motor run, drilling w/NAVI drill, trip to change NAVI drill, drilling, trip to change NAVI drill.
10/31	711	Trip in w/NAVI drill, drilling, trip to change drill, drilling.
11/1	1,390	Drilling, trip to change drill, trip in w/NAVI drill, drilling, trip out.
11/2	1,854	Trip in, drilling, trip out, lay down NAVI drill, drilling w/normal BHA.
11/3	2,056	Drilling, condition hole for intermediate casing.
11/4	2,820	Trip out for casing, run casing, nipple up, WOC.
11/5	2,820	Drilling cement, drilling formation, trip for NAVI drill, drilling w/NAVI drill, trip out.
11/6	3,056	Trip out, change BHA, trip in, drilling w/NAVI drill, trip for bit, drilling.
11/7	3,222	Drilling w/NAVI drill, trip to change BHA, normal drilling, trip out, pick up NAVI drill.
11/8	3,517	Trip in w/NAVI drill, motor jammed, trip out, trip in to ream hole, reaming.
11/9	3,627	Reaming, drilling, trip for NAVI drill, drilling w/NAVI drill, trip out, trip in w/normal bit, drilling.
11/10	3,797	Drilling w/normal bit, drilling, trip for NAVI drill, drilling w/NAVI drill.
11/11	3,897	Drilling, trip out, trip in w/NAVI drill, drilling.
11/12	4,219	Drilling, trip for motor, drilling w/NAVI drill, trip out, lay down NAVI drill, trip in, drilling w/conventional drill.
11/13	4,396	Drilling, trip out to recover stuck survey tool, trip in, drilling.
11/14	4,750	Drilling, trip to change BHA.

WELL HISTORY (Cont.)

1984	12:01AM	
DATE	DEPTH	ACTIVITY
11/15	5,651	Trip in, drilling w/conventional bit.
11/16	6,090	Drilling.
11/17	6,650	Drilling, TD 6755' (measured driller depth) @ 0700 November 17, 1984, condition hole for e-logs, mud up, ream to bottom, circulate, trip out.
11/18	6,638	Trip out, run e-logs.

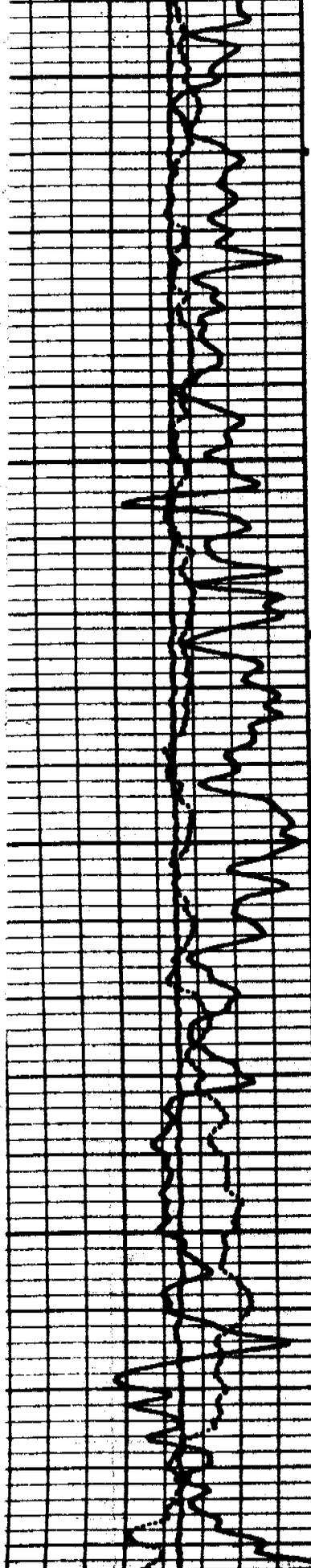
BIT RECORD

BIT NO.	MAKE	TYPE	SIZE	DEPTH IN	DEPTH OUT	FOOTAGE	HOURS
1		FP125	12-1/4	0	320	320	9
2	W/M	03J	8-3/4	320	503	183	3-1/4
3	W/M	FP31CJ	8-3/4	503	711	208	5-1/2
4	W/M	03J	8-3/4	711	1,306	595	9-3/4
5	W/M	J4	8-3/4	1,306	1,801	495	7-1/2
6	W/M	S21G	8-3/4	1,801	2,026	225	8-3/4
7	W/M	03J	8-3/4	2,026	2,820	794	19-1/4
8	HTC	J33	6-1/4	2,820	2,951	131	4
9	SEC	M4LJ	6-1/4	2,951	3,056	105	3-1/4
10	SEC	M4L	6-1/4	3,056	3,150	94	4-1/4
11	SEC	M4L	6-1/4	3,150	3,222	72	2-3/4
12	SEC	M4L	6-1/4	3,222	3,303	81	2-1/4
13	SEC	F-2	6-1/4	3,303	3,518	215	3
14	SEC	M4L	6-1/4	3,518	3,645	127	5-3/4
15	SEC	M4L	6-1/4	3,645	3,721	76	3-1/4
16	SEC	M4L	6-1/4	3,721	3,858	137	3-3/4
17	SEC	M4L	6-1/4	3,858	4,003	145	3-1/2
18	SEC	M4L	6-1/4	4,003	4,219	216	5-1/2
19	SEC	M4L	6-1/4	4,219	4,376	157	5-1/4
20	SEC	M4L	6-1/4	4,376	4,519	143	4-3/4
21	STC	F-2	6-1/4	4,519	5,651	1,132	19
22	STC	F-5	6-1/4	5,651	6,755	1,104	22

DRILLING FUNCTIONS

(Include air pressure if air drilled hole)

DATE 1984	DEPTH	WOB	RPM	AIR PRESS.
11/1	1,710	30,000	46	180
11/2	1,946	3-4,000		320
11/3	2,300	25,000	45	280
11/4	2,820	18-20,000	45	280
11/5	2,905	25,000	45	210
11/6	3,100	1-2,000		210
11/7	3,202	1-2,000		210
11/8	3,517	25-28,000	45	210
11/9	3,645	1-2,000		210
11/10	3,858	25-28,000	45	210
11/11	4,004	1-2,000		210
11/12	4,219	1-2,000		210
11/13	4,519	10-12,000	45	300-400
11/14	5,122	10-12,000	45	200-300
11/15	5,700	15-18,000	45	300
11/16	6,335	15-18,000	45	300
11/17	6,755	10-15,000	45	300



06300

06400

644  
Dakota  
SILT



06400

6444

Dakota  
Silt

06500

6530

1st  
Sand

6547

2nd  
Sand

06500

6530

1st Sand

6547

2nd Sand

06600

6627

4th Sand

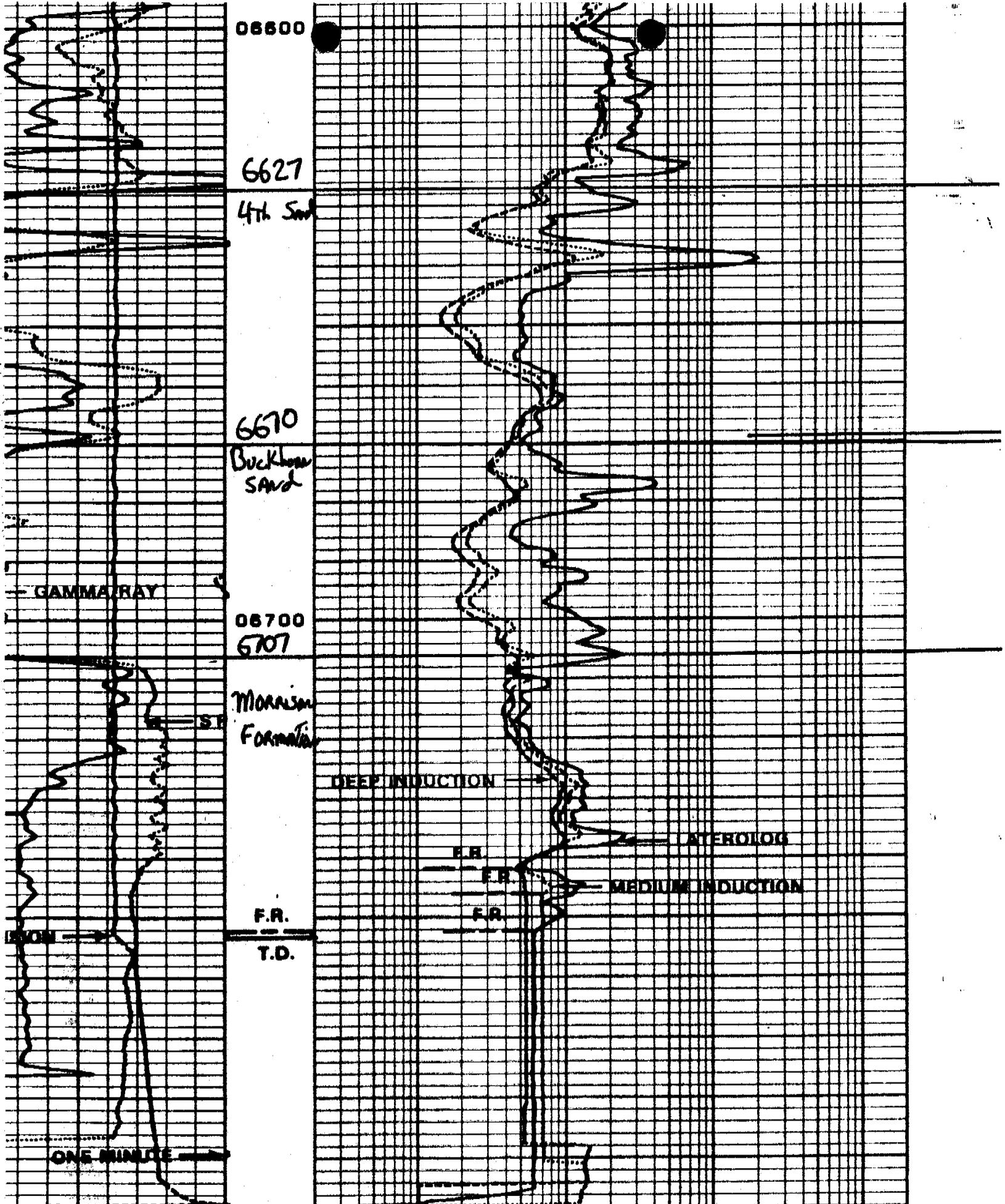
6670

Beckham Sand

GAMMA RAY

06700

6707



06600

6627

4th Sand

6670

Buckhorn SAND

06700

5107

MORAIN FORMATION

F.R.

T.D.

GAMMA RAY

DEEP INDUCTION

LATEROLOG

MEDIUM INDUCTION

F.R.

F.R.

F.R.

ONE MINUTE

-1151+ 120.0

GR API 200

0.2 R(IILD) Ω-M 2000

0.2 R(IILM) Ω-M 2000

LITHOLOGY

- 1,300-1,330 SHALE - ltgy, gy, occ dkgy, frm, blk, sl calc.  
Tr SANDSTONE.
- 1,330-1,360 SHALE - gy, dkgn, dkgy, frm, blk.  
Tr SANDSTONE.
- 1,360-1,390 SHALE - a/a.
- 1,390-1,420 SHALE - dkgy, dkbrn, frm-hd, blk.  
Tr SANDSTONE.
- 1,420-1,450 SHALE - a/a.
- 1,450-1,480 SHALE - gy, dkgy, frm-blk, sl calc.  
Tr SANDSTONE.
- 1,480-1,510 SHALE - a/a.  
SILTSTONE - ltgy, gybrn, frm, blk, sl calc.
- 1,510-1,540 SILTSTONE - a/a.  
SANDSTONE - wh, clr, vfgr, w srt, sbrd, calc cmt, n flor.
- 1,540-1,570 SANDSTONE, SILTSTONE - a/a.
- 1,570-1,600 SHALE - gy, dkgy, frm-hd, blk, sl calc.  
Tr SANDSTONE.
- 1,600-1,630 SHALE - dkgy, blk, occ carb incl, frm-hd, blk, sl calc.  
Tr COAL.
- 1,630-1,660 SHALE - a/a.  
SILTSTONE - ltgy, wh, frm, blk, sl calc.
- 1,660-1,690 SHALE, SILTSTONE - a/a.
- 1,690-1,720 SILTSTONE - ltgy, wh, frm, blk, sl calc, occ sdy.
- 1,720-1,750 SANDSTONE - wh, clr, fgr, m-w srt, ang-sbang, sl calc, p cmt, n flor.
- 1,750-1,780 SANDSTONE - a/a.  
SILTSTONE - wh, frm, blk, sl calc.
- 1,780-1,810 SANDSTONE, SILTSTONE - a/a.
- 1,810-1,840 SANDSTONE - wh, clr, vf-fgr, m srt, sbang, p cmt, n flor.
- 1,840-1,870 SANDSTONE - a/a.
- 1,870-1,900 SILTSTONE - ltgy, wh, frm, blk, sl calc.  
Tr SANDSTONE.

LITHOLOGY (Cont.)

- 1,900-1,930 SANDSTONE - ltgy, gywh, fgr, m srt, sbang, p cmt, occ slty.
- 1,930-1,960 SANDSTONE, SILTSTONE - a/a.
- 1,960-1,990 SHALE - ylg, lt yl, sft frm, blk, sl calc.  
Tr SANDSTONE.
- 1,990-2,020 SHALE - a/a.
- 2,020-2,030 SILTSTONE - dkgy, blk, frm, blk, sl calc.  
Tr SHALE.
- 2,030-2,060 SILTSTONE - a/a.
- 2,060-2,090 SILTSTONE - a/a.
- 2,090-2,120 SILTSTONE - gybrn, dkbrn, dkgy, frm-hd, blk, sl calc.  
Tr SANDSTONE.
- 2,120-2,150 SANDSTONE - dkgy, gy, vfgr, m srt, sbrd, sl calc, w cmt, n flor.
- 2,150-2,180 SANDSTONE, SILTSTONE - a/a.
- 2,180-2,210 SILTSTONE - dkgy, blk, frm-hd, blk, sl calc, occ sdy.  
Tr SANDSTONE.
- 2,210-2,240 SILTSTONE - a/a.  
Tr SANDSTONE.
- 2,240-2,270 SILTSTONE - a/a.
- 2,270-2,300 SILTSTONE - ltgy, gy, frm, blk, sl calc.
- 2,300-2,330 SILTSTONE - a/a.
- 2,330-2,360 SILTSTONE - gy, dkgy, frm, blk, sl-m calc.  
Occ SHALE.
- 2,360-2,390 SHALE - dkgy, blk, frm, blk, sl calc, occ slty.
- 2,390-2,420 SHALE - a/a.
- 2,420-2,450 SHALE - dkgy-blk, gygn, occ yl, frm-hd, blk, sl calc, occ slty.
- 2,450-2,480 SHALE - a/a.
- 2,480-2,510 SHALE - a/a.
- 2,510-2,540 SILTSTONE - dkgy, blk, frm, blk, sl calc, occ sdy.
- 2,530-2,570 SILTSTONE - gy, dkgy, blk, frm-hd, blk, sl calc, occ sdy.

LITHOLOGY (Cont.)

2,570-2,600 SHALE - dkgy, blk, frm, blk, sl calc, occ slty.  
2,600-2,630 SHALE - a/a w/bentonite.  
2,630-2,660 SHALE - dkgy, blk, frm-hd, blk, sl calc, bent.  
2,660-2,690 SHALE - blk, dkgy, frm-hd, blk, sl calc, bent.  
2,690-2,720 SHALE - a/a.  
2,720-2,750 SHALE - a/a, abnt bent.  
2,750-2,780 SHALE - blk, dkgy, frm-hd, blk, sl calc, abnt bent.  
2,780-2,810 SHALE - a/a.  
2,810-2,840 SHALE - a/a.  
2,840-2,870 SHALE - blk, dkgy, frm, blk, sl calc, tr bent.  
2,870-2,900 SHALE - a/a.  
2,900-2,930 SHALE - a/a.  
2,930-2,960 SHALE - blk, dkgy, frm, blk, sl calc, occ slty.  
2,960-2,990 SHALE - a/a.  
2,990-3,020 SHALE - a/a.  
3,020-3,050 SHALE - a/a.  
3,050-3,080 SHALE - dkgy, blk, frm, blk, sl calc, slty.  
3,080-3,110 SHALE - a/a.  
3,110-3,140 SHALE - a/a.  
3,140-3,170 SHALE - gy, dkgy, frm, blk, sl calc, occ slty.  
3,170-3,200 SHALE - a/a.  
3,200-3,230 SHALE - a/a.  
3,230-3,260 SHALE - a/a.  
3,260-3,290 SHALE - gy, dkgy, frm-hd, blk, sl calc, slty.  
3,290-3,320 SHALE - a/a.  
3,320-3,350 SHALE - a/a.  
3,350-3,380 SHALE - a/a.

LITHOLOGY (Cont.)

3,380-3,410 SHALE - gy, dkgy, frm-hd, blk, sl calc, slty.  
3,410-3,440 SHALE - a/a.  
3,440-3,470 SHALE - a/a.  
3,470-3,500 SHALE - a/a.  
3,500-3,530 SHALE - gy, dkgy, frm-hd, blk, sl calc, slty.  
3,530-3,560 SHALE - a/a.  
3,560-3,590 SHALE - a/a.  
3,590-3,620 SHALE - gy, ltgy, dkgy, frm-hd, slty, sl calc.  
3,620-3,650 SHALE - a/a.  
3,650-3,680 SHALE - a/a.  
3,680-3,710 SHALE - dkgy, blk, frm, blk, sl calc, occ slty.  
3,710-3,740 SHALE - a/a.  
3,740-3,770 SHALE - a/a.  
3,770-3,800 SHALE - dkgy, gy, blk, frm, blk, sl calc.  
3,800-3,830 SHALE - a/a.  
3,830-3,860 SHALE - a/a.  
3,860-3,890 SHALE - a/a.  
3,890-3,920 SHALE - blk, dkgy, gy, frm, blk, sl calc, occ slty.  
3,920-3,950 SHALE - a/a.  
3,950-3,980 SHALE - a/a.  
3,980-4,010 SHALE - blk, dkgy, frm, blk, sl calc.  
4,010-4,040 SHALE - a/a.  
4,040-4,070 SHALE - a/a.  
4,070-4,100 SHALE - a/a.  
4,100-4,130 SHALE - blk, dkgy, frm, blk, sl calc.  
4,130-4,160 SHALE - a/a.  
4,160-4,190 SHALE - a/a.

LITHOLOGY (Cont.)

4,190-4,220 SHALE - a/a.  
4,220-4,250 SHALE - blk, dkgy, frm, blk, sl calc.  
4,250-4,280 SHALE - blk, dkgy, frm, blk, sl calc.  
4,280-4,310 SHALE - a/a.  
4,310-4,340 SHALE - a/a.  
4,340-4,370 SHALE - a/a.  
4,370-4,400 SHALE - a/a.  
4,400-4,430 SHALE - blk, dkgy, frm, blk, sl-m calc.  
4,430-4,460 SHALE - a/a.  
4,460-4,490 SHALE - a/a.  
4,490-4,520 SHALE - a/a.  
4,520-4,550 SHALE - blk, dkgy, frm, blk, sl-m calc.  
4,550-4,580 SHALE - a/a.  
4,580-4,610 SHALE - a/a.  
4,610-4,640 SHALE - a/a.  
4,640-4,670 SHALE - a/a.  
4,670-4,700 SHALE - blk, dkgy, frm, blk, sl-m calc.  
4,700-4,730 SHALE - a/a.  
4,730-4,760 SHALE - a/a.  
4,760-4,790 SHALE - a/a.  
4,790-4,820 SHALE - a/a.  
4,820-4,850 SHALE - a/a.  
4,850-4,880 SHALE - a/a.  
4,880-4,910 SHALE - blk, dkgy, frm, blk, sl-m calc.  
4,910-4,940 SHALE - a/a.  
4,940-4,970 SHALE - a/a.  
4,970-5,000 SHALE - a/a.

LITHOLOGY (Cont.)

5,000-5,030 SHALE - blk, dkgy, frm, blk, sl-m calc.  
5,030-5,060 SHALE - a/a.  
5,060-5,090 SHALE - a/a.  
5,090-5,120 SHALE - blk, dkgy, frm, blk, sl-m calc.  
5,120-5,150 SHALE - a/a.  
5,150-5,180 SHALE - a/a.  
5,180-5,210 SHALE - a/a.  
5,210-5,240 SHALE - a/a.  
5,240-5,270 SHALE - a/a.  
5,270-5,300 SHALE - blk, dkgy, frm, blk, sl-m calc.  
5,300-5,330 SHALE - a/a.  
5,330-5,360 SHALE - a/a.  
5,360-5,390 SHALE - a/a.  
5,390-5,420 SHALE - a/a.  
5,420-5,450 SHALE - blk, dkgy, frm, blk, sl-m calc.  
5,450-5,480 SHALE - a/a.  
5,480-5,510 SHALE - a/a.  
5,510-5,540 SHALE - a/a.  
5,540-5,570 SHALE - a/a.  
5,570-5,600 SHALE - blk, dkgy, frm, blk, sl-m calc.  
5,600-5,630 SHALE - a/a.  
5,630-5,660 SHALE - a/a.  
5,660-5,690 SHALE - a/a.  
5,690-5,720 SHALE - a/a.  
5,720-5,750 SHALE - a/a.  
5,750-5,780 SHALE - gy, dkgy, blk, frm, blk, sl-m calc.  
5,780-5,810 SHALE - a/a.

LITHOLOGY (Cont.)

- 5,810-5,840 SHALE - gy, dkgy, blk, frm, blk, sl-m calc.
- 5,840-5,870 SHALE - a/a.
- 5,870-5,900 SHALE - a/a.
- 5,900-5,930 SHALE - a/a.
- 5,930-5,960 SHALE - gy, dkgy, blk, frm, blk, sl-m calc.
- 5,960-5,990 SHALE - a/a.
- 5,990-6,020 SHALE - a/a.
- 6,020-6,050 SHALE - a/a.
- 6,050-6,080 SHALE - a/a.
- 6,080-6,110 SHALE - gy, dkgy, blk, frm, blk, sl-m calc.
- 6,110-6,140 SHALE - a/a.
- 6,140-6,170 SHALE - a/a.
- 6,170-6,200 SHALE - a/a.
- 6,200-6,230 SHALE - gy, dkgy, blk, frm, blk, sl-m calc.
- 6,230-6,260 SHALE - a/a.
- 6,260-6,290 SHALE - a/a.
- 6,290-6,320 SHALE - a/a, tr pyr.
- 6,320-6,350 SHALE - a/a, tr pyr.
- 6,350-6,380 SHALE - gy, dkgy, occ blk, frm, blk, m-v calc, tr pyr.
- 6,380-6,400 SHALE - a/a.  
SILTSTONE - gy, dkgy, trnsl-smky, frm-hd, blk, sl-m calc.
- 6,400-6,420 SHALE, SILTSTONE - a/a.
- 6,420-6,440 SILTSTONE - gy, dkgy, trnsl-smky, frm-hd, blk, sl-m calc, occ sdy.
- 6,440-6,460 SILTSTONE - a/a.
- 6,460-6,480 SHALE, SILTSTONE - a/a.
- 6,480-6,500 SILTSTONE - gy, dkgy, smky, frm-hd, blk, n calc, occ sdy.
- 6,500-6,520 SILTSTONE - a/a.

LITHOLOGY (Cont.)

- 6,520-6,540 SHALE - gy, dkgy, blk, frm, blk, sl-m calc.  
SILTSTONE - a/a.
- 6,540-6,560 SILTSTONE, SHALE - a/a.
- 6,560-6,580 SILTSTONE - a/a.  
SANDSTONE - wh, clr, vfgr, m srt, w cmt, sil cmt, p  $\emptyset$ , NSFOC.
- 6,580-6,600 SANDSTONE - wh-clr, vfgr, m srt, m-p cmt, n cmt, f  $\emptyset$ , NSFOC.
- 6,600-6,620 SANDSTONE - a/a.  
SHALE - blk, dkgy, frm, blk, sl calc.
- 6,620-6,640 SANDSTONE - wh, fros gr, vf-fgr, sbrd, n cmt, NSFOC.
- 6,640-6,660 SANDSTONE - a/a.
- 6,660-6,680 SHALE - blk, dkgy, frm-hd, sl-m calc.
- 6,680-6,700 SANDSTONE - wh, clr, ang-sbrd, vf-fgr, p cmt, n cmt, NSFOC.
- 6,700-6,720 SANDSTONE - a/a.
- 6,720-6,740 SANDSTONE - wh, clr, f-m gr, sbrd-rd, n cmt, NSFOC.  
SHALE - ltgy, ltgn, frm, plty, sl-m calc.
- 6,740-6,755 SANDSTONE - a/a.  
SHALE - ltgn, lt brn, gy, frm-hd, blk, sl-m calc.

# TEXAS OIL & GAS PRODUCTION CO.

WELL #  
NORTH CREDO FEDERAL N

LOCATION  
GRAND COUNTY., UTAH

DATE  
OCT. 29, 1984

JOB TYPE  
DIRECTIONAL CONTROL/

JOB #  
D-2201

SURVEYOR  
MIKE PELLESIER??

DEPTHS  
SURF-

DECL.  
14 DEGREES EAST

ELEV:  
0

FILE #  
RM-F8

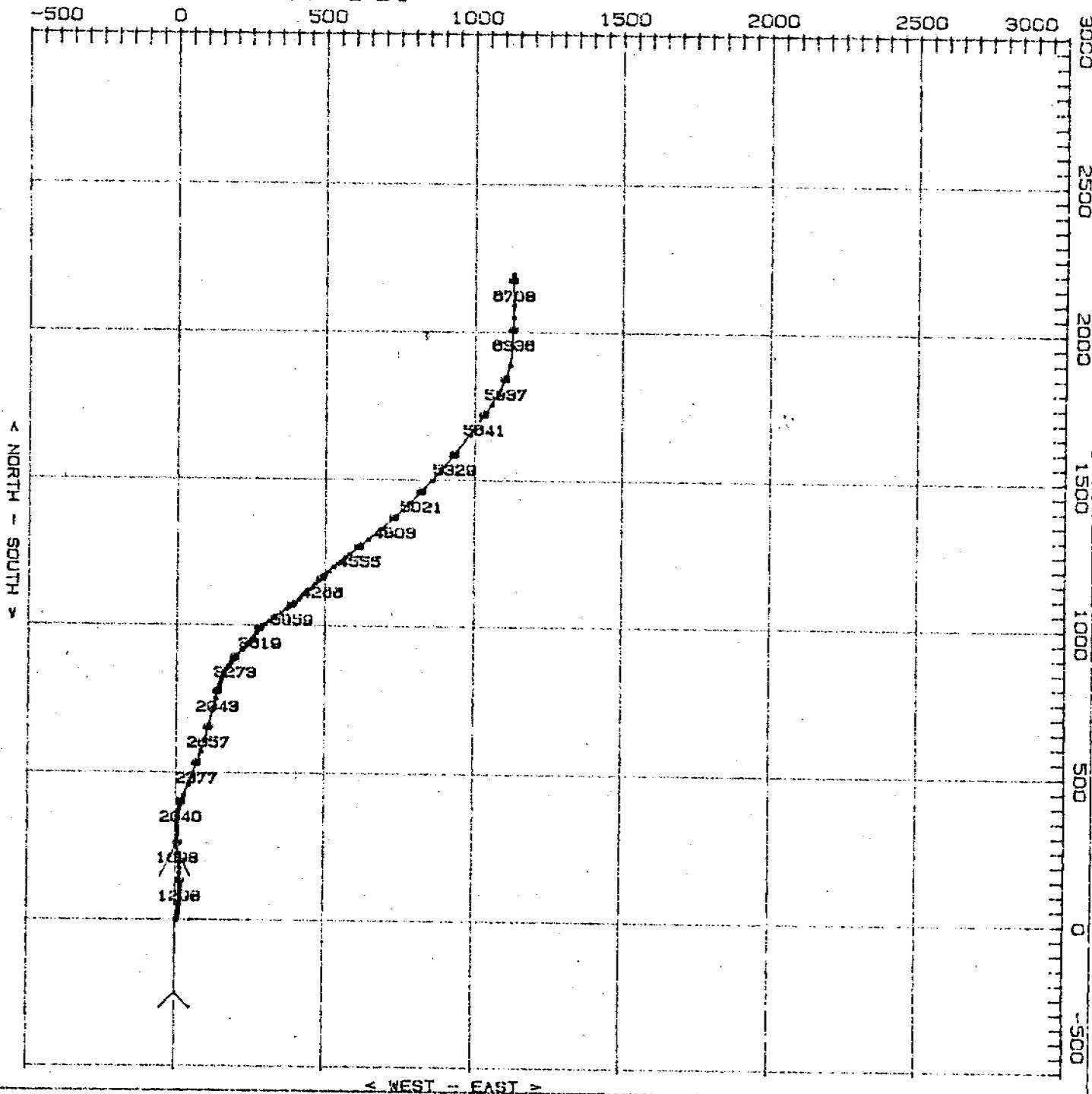
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FINAL STATION DATA:

MD. 8755  
TVD. 8121.64  
N/S 2198  
E/W 1127.9

CLOSURE DIRECTION  
N 27.188 E  
CLOSURE DISTANCE  
2488.7

1 IN. = 500 FT.



< WEST - EAST >