TXO

**TXO PRODUCTION CORP.**
1800 LINCOLN CENTER BUILDING
DENVER, COLORADO 80264

TELEPHONE (303) 861-4246

June 14, 1989

State of Utah
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center
Suite 350
Salt Lake City, Utah 84180-1203



Attention: Ronald J. Firth

Re: **CONFIDENTIAL**
Evacuation Creek Unit #1
NW/4 Section 25-T11S-R25E
Uintah County, Utah

Gentlemen:

Enclosed for your review and approval are three copies of Federal Form 3160-3, with attachments, as application for permit to drill the referenced well. The federal APD form and its attachments, including a survey plat, drilling plan and surface use plan, provide the information required by R615-8-3.

The Evacuation Creek Unit #1 well is the initial unit test well for the proposed Evacuation Creek Unit. This Unit is currently in the process of federal review and approval. However, TXO anticipates spudding the well by June 30 in order to preserve one lease (160 acres) within the unit boundary.

TXO is in the process of obtaining approval from the Utah Division of Water Rights for use of water for drilling this well. If the initial water source is in Colorado, your office will be notified.

If you have any questions or need additional information, please contact me at this office.

Very truly yours,

TXO PRODUCTION CORP.

Charles K. Curlee
Environmental Manager

CKC/gbp

Form 3160-3
(November 1983)
(formerly 9-331C)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

# UNITED STATES
# DEPARTMENT OF THE INTERIOR
## BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

CONFIDENTIAL

RECEIVED
JUN 16 1989
DIVISION OF
OIL, GAS & MINING

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

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

5. LEASE DESIGNATION AND SERIAL NO.: U-58215

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

7. UNIT AGREEMENT NAME: Evacuation Creek

8. FARM OR LEASE NAME: - - -

9. WELL NO.: Unit #1

2. NAME OF OPERATOR: TXO Production Corp. Attn: C.K. Curlee

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

10. FIELD AND POOL, OR WILDCAT: Wildcat - - -

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface: 1306' FNL, 1755' FWL (NE/NW)
At proposed prod. zone: Same

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 25-T11S-R25E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approximately 20 miles SSE of Bonanza, Utah

12. COUNTY OR PARISH: Uintah | 13. STATE: Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 885' from lease line, 5460' from east unit boundary

16. NO. OF ACRES IN LEASE: 640

17. NO. OF ACRES ASSIGNED TO THIS WELL:

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

19. PROPOSED DEPTH: 8600' Morrison

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 5865' G.R.

22. APPROX. DATE WORK WILL START*: June 26, 1989

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|---|---|---|---|---|
| 12 1/4" | 8 5/8" | 24.0# | 400' | +250 sxs |
| 7 7/8" | 4 1/2" | 11.6# | 8600' | +250 sxs |

All casing will be new K-55.

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 Gary E. Wurdeman TITLE Dist. Drilling & Prod. Mgr. DATE June 7, 1989

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

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.

# DRILLING PLAN

**DATE:** June 8, 1989

**WELL NAME:** Evacuation Creek Unit #1

**SURFACE LOCATION:** 1306' FNL, 1755' FWL, (NE/NW) Section 25-T11S-R25E, SLB&M, Uintah County, Utah

**FEDERAL OIL & GAS LEASE NO.:** U-58215

Be advised that TXO Production Corp. is considered to be the operator on the above described lands and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands or portions thereof, bond coverage for this well is provided by Bond No. 5570134, Principal TXO Production Corp.

## I. DRILLING PROGRAM

1. **SURFACE FORMATION:** Green River

2. **ESTIMATED FORMATION TOPS:**

| | | | |
|---|---|---|---|
| Wasatch | 870' | Dakota Silt | 7879' |
| Mesa Verde | 1740' | Dakota Sandstone | 7951' |
| Castlegate | 3993' | Buckhorn | 8103' |
| Mancos | 4222' | Morrison | 8172' |

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

   Expected Gas Zones: Dakota Sandstone and Buckhorn

   Water may be encountered in the Wasatch, Mesa Verde and Castlegate Formations.

4. **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 3000 psi (greater than the anticipated bottomhole pressure of 2000 psi), will be installed. An annular preventer (Hydril) will also be used above the rams. See Exhibit 1.

   B. A choke control, fill and kill lines with minimum working pressure of 3000 psi will be installed. Choke and kill lines will be 2" minimum in size.

   C. The equipment in A and B will be pressure-tested to 3000 psi for a minimum of 15 minutes before drilling surface pipe cement. The blowout preventer will be tested for proper operation daily and during trips.

5. **CASING PROGRAM AS PER FORM 3160-3.**

6. **MUD PROGRAM:**

| | |
|---|---|
| 0'-4000' | Native mud: 8.8-9.0 ppg; 28-32 viscosity API |
| 4000'-TD | LSND/polymer mud: 8.6-9.0 ppg; 40-45 viscosity API; WL less than 10 cc's. |

7. **CORING, LOGGING, TESTING PROGRAM:**

A. No coring anticipated.

B. Logging will consist of: DIL-GR-SP-FDC-CNL-GR-caliper; 60' core in Dakota; stratigraphic dipmeter over Dakota; sonic & possible VSP.

8. **ABNORMAL CONDITIONS:**

A. No abnormal pressures or temperatures are expected.

B. No hazardous gases such as $H_2S$ are expected.

9. **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.

10. **ANTICIPATED STARTING DATES:**

| | |
|---|---|
| Start location construction | June 26, 1989 |
| Spud date | June 29, 1989 |
| Complete drilling | July 20, 1989 |
| Completed, ready for pipeline | August 1, 1989 |

11. **COMPLETION PROGRAM:**

A smaller completion rig will replace the drilling rig for this portion of the operations if the well shows capability of commercial production. After casing is set by the drilling rig, the completion rig will be moved in and productive zones will be perforated, tested and treated as necessary. Gas will be flared during testing. Produced liquid hydrocarbons will be directed to test tanks on location. Produced water will be contained in the drilling reserve pit. The extent of treatment of a zone (acidizing and/or fracing) can only be determined after the zone has been tested. An exact completion program will be furnished after drilling and logging, if requested.

## II. SURFACE USE PROGRAM

This Surface Use Program contains all stipulations received during the on-site inspection of the access road and drill site, held June 1, 1989.

### 1. EXISTING ROADS

A. From Bonanza, Utah proceed 5 miles south on the paved road and turn left onto a dirt road (BLM sign "Bookcliff Main Access"). Proceed south on this dirt road, taking a left fork in 3.9 miles near BLM Wagonhound Allotment ("Greeks Corral"). Continue south 7.1 miles to the mouth of Park Canyon. Turn left (east) and proceed 3.2 miles up Park Canyon to the beginning of the .2 mile well site access road.

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 will require minimal maintenance. During wet periods, maintenance may be necessary to facilitate passage by heavy well servicing equipment. Dry periods will require some road watering to control dust and improve stability.

### 2. PLANNED ACCESS ROAD

Approximately 1000'(.2 miles) of new road will be constructed in a 30' right-of-way width to provide access to the well pad. The road will be flat-bladed to a 16' running surface and will have a grade of $\pm$ 2%. No culverts, gates, turnouts or cattleguards will be necessary. One low-water crossing will be constructed over a minor side drainage. See Exhibit 4.

All travel will be confined to existing access road rights-of-way. Access roads and surface disturbing activities will conform to standards outlined in the USGS Publication (1978) Surface Operating Standards for Oil & Gas Development.

### 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-None
D. Disposal Wells-None
E. Producing Wells-None
F. Drilling Wells-None
G. Shut-in 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: Combination production unit, meter run, and dehydrator, a condensate tank, and two small production pits. The anticipated location of these facilities is shown on Exhibit 6.

   The pits will be located in cut to contain all water production and 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. Two pits are required for efficient operations at this prospective gas well.

   One pit will will contain high pressure blowdown discharges and the second pit will be located adjacent to the production unit. The blowdown pit will be remote from the production equipment because of the hazards of the occasional high pressure discharge. Limited fluid discharge from the production equipment to the blowdown pit is not feasible due to line freezes in winter. Thus, the second pit is required adjacent to the production equipment.

5. Protective devices and measures to protect livestock and wildlife: The water production pit and blowdown pit will be fenced with woven wire in a welded frame to protect livestock and wildlife. Production lines on the location between the wellhead, production equipment, pits, and gas pipeline will be wrapped and buried.

6. A tank battery, consisting of one 210 bbl tank, will be constructed in the northwest corner of the pad. An earthen dike will be constructed around the condensate tank. Capacity inside the dike will contain a minimum 315 lbs. (1 1/2 times the capacity of the tank). Dike integrity will be maintained.

7. All permanent structures on-site will be painted a flat, non-reflective earthtone (Desert Brown) within 6 months of installation, excluding OSHA compliance facilities.

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:

1. For start-up operations, water will be obtained from the White River (SW/NE Section 2-T10S-R24E), or from Rangely, Colorado, or from a private pond up Missouri Creek in Colorado.

2. For continued drilling operations, water will be obtained from Evacuation Creek (SE/NW Section 28-T11S-R25E).

Temporary water use permits from the State of Utah will be obtained for the sources used.

B. Method of transporting water: The water will be hauled in trucks by a certified water hauler. The exact route will depend on the source chosen; however, all travel will be on existing roads.

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 material to construct a level location. Topsoil will be stockpiled on the east end of the pad for later use during rehabilitation of the disturbed areas. Excess excavated material from the pit will be stockpiled adjacent to the east and west ends of the pit for use during rehabilitation. Please refer to Exhibit 7.

B. Identify if from Federal or Indian Land: The affected land is federal and under the jurisdiction of the Bureau of Land Management.

C. No additional materials, such as sand or gravel, are to be obtained and a minerals material application is not required. If such fill materials are needed, proper permits will be obtained from BLM if the material source is on federal public land.

## 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.

C. Produced fracing fluids will be directed to the reserve pit for evaporation.

D. Sewage: A portable chemical toilet will be on location during drilling 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 reserve pit will be fenced on three sides during drilling, and on the fourth side prior to the rig moving off location to protect animals. The flare pit will be fenced as part of the reserve pit. Fencing will be as prescribed in the 1978 Surface Operating Standards. If any oil is in the reserve pit, it will be removed or overhead flagging will be installed. A diversion ditch and/or compacted earthen berm will be constructed above the reserve pit (north side) to divert drainage to the east and south around the pad.

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 an approved landfill. Burning will not be allowed. All pits will be filled after drying and the area restored as under Item 10 of this plan.

H. Produced waste water will be confined to an unlined pit or a storage tank for a period not to exceed 90 days after first production. During the 90-day period, an application for approval of a permanent disposal method (unlined production pits) will be submitted to BLM for approval.

**8. ANCILLARY FACILITIES**

Identify all proposed camps and airstrips on a map as to their location, area required and construction methods: Camp facilities and use of airstrips are not required.

**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; rig orientation, parking areas, access road: Refer to Exhibit 7.

C. Statement regarding pit lining: The reserve pit will be unlined. However, if the subsurface structure should prove too porous or highly fractured, a 4-inch layer of bentonite or a commercial plastic liner will be placed in the pit to prevent excessive seepage and possible groundwater contamination. A BLM representative will be contacted prior to use of the pit if unlined so that the unlined pit can be inspected by BLM.

## 10. PLANS FOR RESTORATION OF SURFACE

A. Backfilling, leveling, contouring, and waste disposal: Immediately upon completion of the well, the site will be cleared of all debris and materials not needed for production and the mouse and rat holes filled. Prior to backfilling, the reserve pit will be allowed to dry by evaporation and any cans, barrels, pipe or other debris will be removed. 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. The reserve pit will be reclaimed within 120 days from the date of well completion.

B. All disturbed areas, including either areas of the pad not needed for production facilities or the entire location and access road if a dry hole, will be graded to an appearance consistent with the natural contours. Stockpiled topsoil will then be distributed evenly over these disturbed areas. The disturbed areas will be scarified by plowing or ripping to a depth of 12" and left rough in preparation for reseeding.

C. Disturbed areas will be reseeded with an appropriate seed mix to be determined by BLM at the time restoration activities begin. Seed will be planted using a disc-type drill set 10" apart. Seed will be planted between one-half and three quarter inches deep. A drag or roller may be used to insure uniform coverage and compaction. Drilling will be done on contour. On slopes too steep for drilling, a "Cyclone" brand seeder or similar broadcast seeder will be used, using twice the recommended amount of seed per acre. Seed will then be covered to the prescribed depth by whatever means is practical.

D. Seeding will be done from October 1 until ground freeze. If unsuccessful, additional seeding may be required. At such time as the well is P&A'd, a surface reclamation plan will be submitted to BLM via SRA to obtain additional seeding requirements and seed mixes.

E. Timetable for commencement and completion of rehabilitation operations: Rehabilitation will commence when drilling operations are completed, approximately July 10, 1989 and will be finished within approximately one year. It is anticipated that seeding of the recontoured pad would be performed in the Fall of 1989 following pit backfill and recontouring operations.

## 11. SURFACE OWNERSHIP

The access road and the well pad are located on public lands managed by the BLM. The Evacuation Creek Unit #1 is being drilled on Federal Lease No. U-58215. However, the Evacuation Creek Unit involved num erous Federal leases and generally covers the following acreage:

T11S-R25E
Sections 13, 14, 23, 24, 25, 26, S/2 of 27
E/2 of 33, 34, 35, and 36.

T12S-R25E
Sections 1,2,3, E/2 of 4, E/2 of 9, 10, 11, 12, W/2 of 13, 14 and 15.

The east side of the unit abuts the Utah-Colorado State line and includes several oversized correction sections, including Section 25 where the #1 well is to be drilled. Some of the mineral acreage included in this unit is state or privately owned.

12. **OTHER INFORMATION**

A. Topography, soil characteristics, geologic features, flora, fauna: The drill site is located on a sagebrush covered terrace on the north side of the ephemeral drainage channel in Park Canyon. Steep, dry, eroded ridges rise over 500' above the site just to the north. The surrounding rugged terrain is characterized by similar, steep-sloped ridges with narrow, dry drainages dropping steeply onto broad valley floors. Soils are generally thin except on the broader valley floors and rock is exposed in numerous areas. The soils in the area consist of silty clay loams. Vegetation is mainly comprised of big sagebrush, juniper, and native grasses. Animals inhabiting the area include deer, small common mammals, and birds.

B. Other surface-use activities include: Oil and gas production and livestock grazing.

C. Proximity of water, occupied dwellings: No live streams exist in the immediate area. An ephemeral wash runs east-west through the canyon just south of the proposed location. Evacuation Creek, a generally low-flow permanent stream, flows south to north about 3 miles to the west. The nearest permanent residence is some 8 miles east up Park Canyon.

D. Archeological, historical, or cultural sites: An archeological survey has been or will be conducted for the new access road and well pad and the results forwarded to the Vernal BLM Office. If any archeological, historical or cultural sites are discovered during operations, all operations affecting such sites will be suspended and the discovery reported promptly to BLM.

E. Noxious weeds along the access road and on the wellsite will be controlled. If herbicides or pesticides are used, prior approval will be obtained from BLM for the specific chemical proposed via a Pesticide Use Proposal.

F. BLM will be contacted between 24 and 48 hours prior to beginning construction activities at the site. BLM contacts are Byron Tolman and Jim Piani at (801) 789-1362.

G. The drilling rig and/or other drilling equipment will not be stacked or stored on federal lands after the conclusion of drilling operations without BLM authorization. Any BLM authorization for such rig storage would only be a temporary measure until arrangements are made for storage at off-site commercial facilities.

## 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.

Gary E. Wurdeman
District Drilling & Production Manager
TXO Production Corp.
1660 Lincoln Street
1800 Lincoln Center Building
Denver, Colorado 80264
(303) 861-4246 - Business
(303) 741-2517 - Residence

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

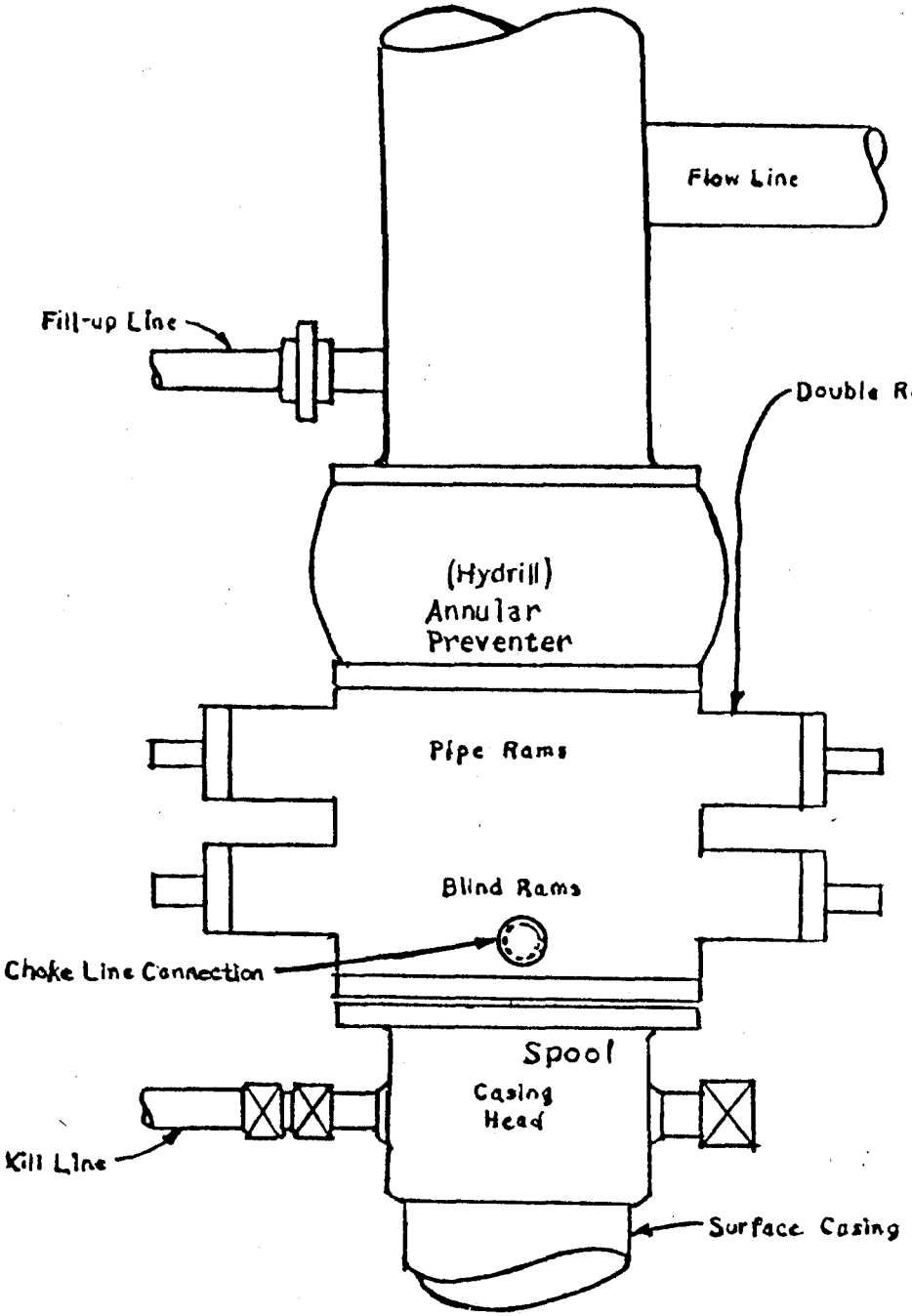
Charles K. Curlee
Environmental Manger
TXO Production Corp.
1660 Lincoln Street
1800 Lincoln Center Bldg.
Denver, Colorado 80264
(303) 861-4246 - Business
(303) 355-3297 - Residence

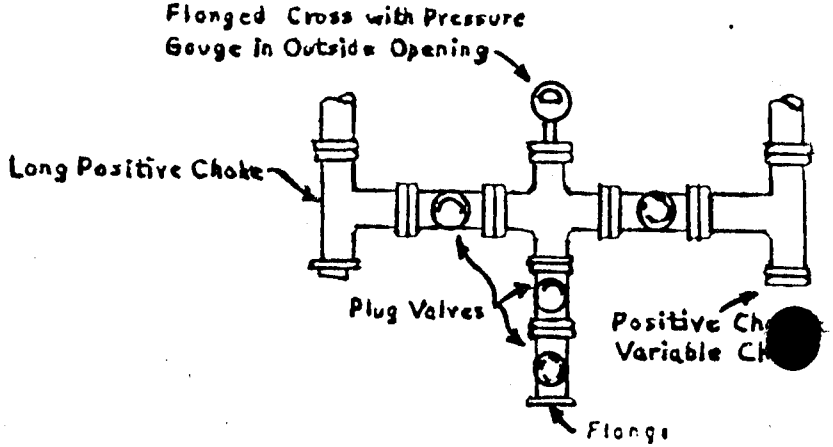
B. All operations will be conducted in full compliance with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved plan of operations, and any applicable NTL's. TXO Production Corp. is fully responsible for the actions of its subcontractors. Copies of the approved permit, including all conditions, will be furnished to TXO's field representative and to the dirt contractor (Surface Use Plan portion only) to insure compliance.

C. 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 oeprations 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 USC 1001 for the filing of a false statement.

**DATE:**

**NAME AND TITLE:** Gary E. Wurdeman
Gary E. Wurdeman
District Drilling & Production Manager




PLAN VIEW - CHOKE MANIFOL

| SIZE | SERIES OR TEST PR. | MAKE & MODEL |
|---|---|---|
| 10" | 900 | Hydril GK |
| 10" | 900 | Hydraulic Double Gate |

B.O.P. Closing Unit: Yes

B.O.P. Accumulator: Yes

EXHIBIT 1

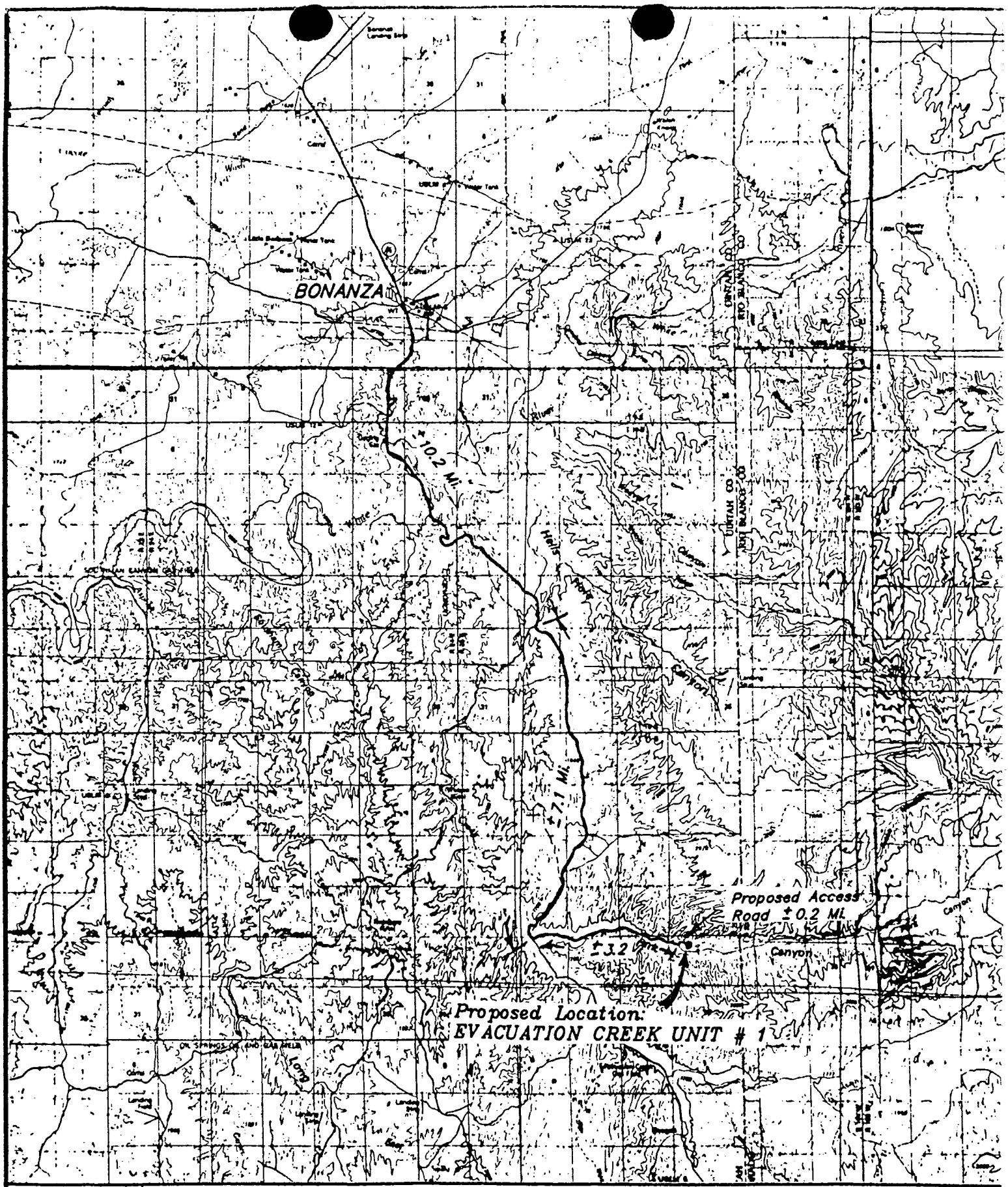



EXHIBIT 2

Access to Well Location

N

**TXO PRODUCTION CORP.**

EVACUATION CREEK UNIT # 1
SECTION 25, T11S, R25E, S.L.B.&M.

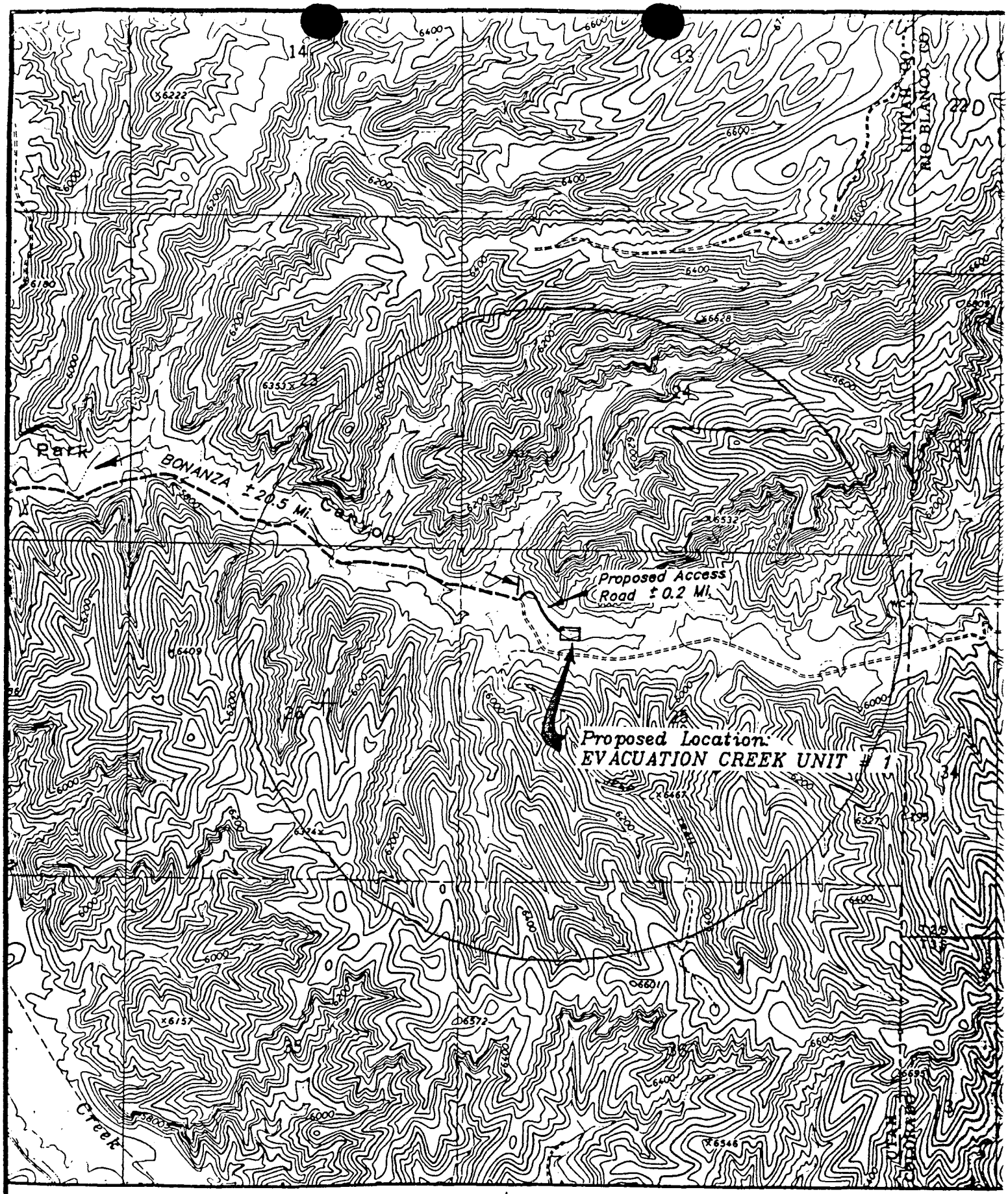



EXHIBIT 3

Roads within a One Mile Radius

SCALE: 1" = 2000'

N

TXO PRODUCTION CORP.

EVACUATION CREEK UNIT #1
SECTION 25, T11S, R25E, S.L.B.&M.

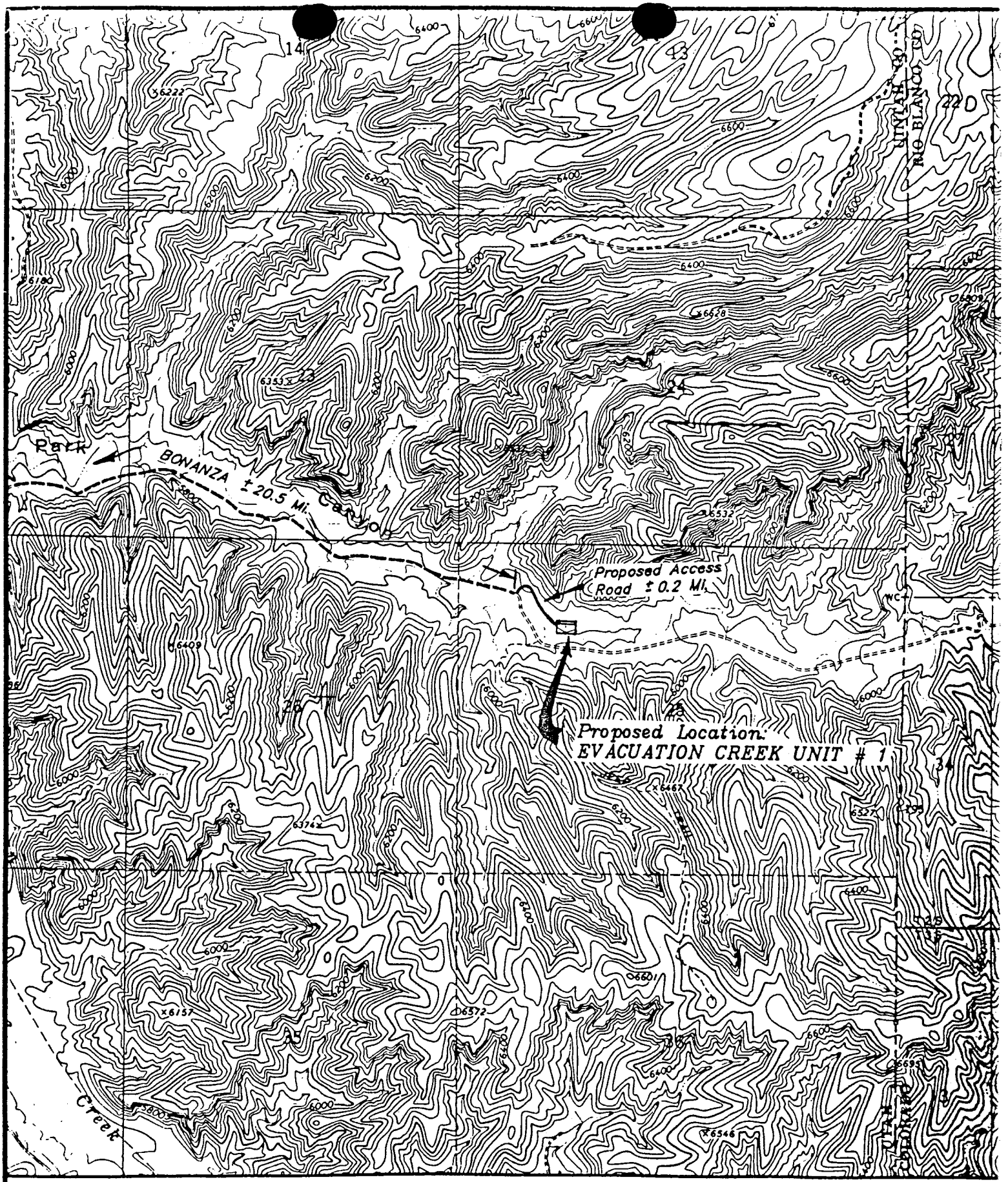



EXHIBIT 4

Access to Well Location

SCALE: 1" = 2000'

N

**TXO PRODUCTION CORP.**

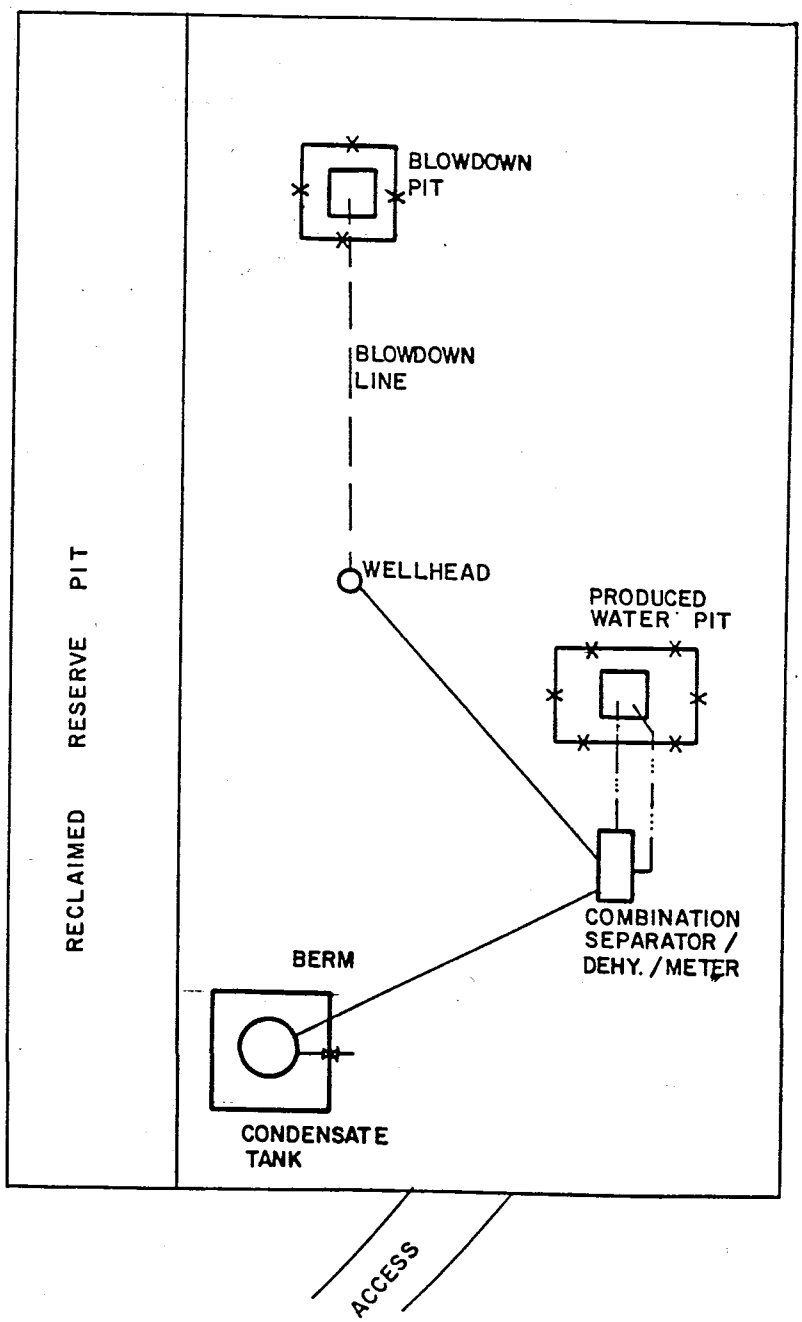
EVACUATION CREEK UNIT #1
SECTION 25, T11S, R25E, S.L.B.&M.

EXHIBIT 6

Evacuation Creek Unit #1

PRODUCTION FACILITIES

TXO Production Corp.




1) Pits will be 10'x10'x6' 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.

# CONFIDENTIAL

OPERATOR Txo Production Corp. (N1580) DATE 6-19-89

WELL NAME Evacuation Creek Unit #1

SEC 25 T 11S R 25E COUNTY Uintah

43-047-31896
API NUMBER

Federal
TYPE OF LEASE

CHECK OFF:

- [x] PLAT
- [x] BOND
- [ ] NEAREST WELL
- [x] LEASE
- [x] FIELD
- [x] POTASH OR OIL SHALE

PROCESSING COMMENTS:
Unit approved 7-10-90 per Lisa Thompson
Need Water Permit
Proposed Unit

APPROVAL LETTER:

SPACING: [x] R615-2-3 Evacuation Creek UNIT [ ] R615-3-2

[ ] N/A CAUSE NO. & DATE [ ] R615-3-3

STIPULATIONS:

* 7-2189 Returned APD per Charlie Curlee's request.
Lek

0218T

[redacted]

3160
UT08438

July 17, 1989

RECEIVED
JUL 19 1989
DIVISION OF
OIL, GAS & MINING

TXO Production Corporation
Attn: Charles K. Curlee
1800 Lincoln Center Bldg.
Denver, CO 80264

Re: Application For Permit to Drill
Well # 1
Section 25, T11S, R25E
Lease # U-58215

The referenced application is being returned to operator per your request of July 17, 1989. If you intend to drill at this location at a future date, a new Application for Permit to Drill must be submitted.

If you have any questions regarding this matter, please call Ed Forsman or Margie Herrmann of this office.

Sincerely,

Howard B. Cleavinger II
ADM for Minerals

bcc: Well file
Div. O G & M
RA
AIRS

MHerrmann:plp
mherrmann

| OIL AND GAS | |
|---|---|
| DRN | 2- [illegible] |
| 3-JRB | 4- GLH |
| DTC | 5. SLS |
| 1-LCR | 6-LCR |
| | |
| | |
| MICROFILM | |
| FILE | |

RECEIVED
JUL 10 1989
WATER RIGHTS
SALT LAKE

# FILING FOR WATER IN THE STATE OF UTAH

Rec. by VP
Fee Rec. 30.00
Receipt # 216550
Microfilmed
Roll #

## APPLICATION TO APPROPRIATE WATER

For the purpose of acquiring the right to use a portion of the unappropriated water of the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of Title 73, Chapter 3 of the Utah Code Annotated 1953, as amended.

RECEIVED
JUL 19 1989
DIVISION OF
OIL, GAS & MINING

WATER RIGHT NUMBER: 45 - 5370 APPLICATION NO. T64070

1. PRIORITY OF RIGHT: July 7, 1989 FILING DATE: July 7, 1989

2. OWNER INFORMATION
Name: TXO Production Corp.
Address: 1800 Lincoln Center Bldg., Denver, CO 80264
The land is not owned by the applicant(s), see explanatory.

3. QUANTITY OF WATER: ~~0.015 cubic feet per second~~ as per Bob L. 7/17/89 (CFS) or 20.0 acre feet (Ac. Ft.)

4. SOURCE: Evacuation Creek DRAINAGE: Ashley Valley
POINT(S) OF DIVERSION: COUNTY: Uintah
(1) S. 1650 feet, W. 2500 feet, from the NE Corner of Section 28, Township 11 S, Range 25 E, SLB&M
Source: White River
Description of Diverting Works: Portable pump-waterhaul trucks
(2) N. 1200 feet, W. 5 feet, from the SE Corner of Section 2, Township 12 S, Range 25 E, SLB&M
COMMON DESCRIPTION: 15 miles so. of Bonanza

5. NATURE AND PERIOD OF USE
Oil Exploration From July 1 to June 30.

6. PURPOSE AND EXTENT OF USE
Oil Exploratio: Oil well drilling and completion.
Evacuation Creek Unit #1 and other wells in the unit.

7. PLACE OF USE
The water is used in all or parts of each of the following legal subdivisions.

| | | | North East Quarter | | | | North West Quarter | | | | South West Quarter | | | | South East Quarter | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOWN | RANGE | SEC | NE¼ | NW¼ | SW¼ | SE¼ | NE¼ | NW¼ | SW¼ | SE¼ | NE¼ | NW¼ | SW¼ | SE¼ | NE¼ | NW¼ | SW¼ | SE¼ |
| 11 S | 25 E | 13 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 11 S | 25 E | 14 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 11 S | 25 E | 23 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 11 S | 25 E | 24 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 11 S | 25 E | 25 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 11 S | 25 E | 26 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 11 S | 25 E | 27 | | | | | | | | | X | X | X | X | X | X | X | X |
| 11 S | 25 E | 33 | X | X | X | X | | | | | | | | | X | X | X | X |
| 11 S | 25 E | 34 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 11 S | 25 E | 35 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

Continued on next page.

Appropriate

Continued from previous page.

| | | | North East Quarter | | | | North West Quarter | | | | South West Quarter | | | | South East Quarter | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOWN | RANGE | SEC | NE¼ | NW¼ | SW¼ | SE¼ | NE¼ | NW¼ | SW¼ | SE¼ | NE¼ | NW¼ | SW¼ | SE¼ | NE¼ | NW¼ | SW¼ | SE¼ |
| 11 S | 25 E | 36 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 12 S | 25 E | 1 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 12 S | 25 E | 2 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 12 S | 25 E | 3 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 12 S | 25 E | 4 | X | X | X | X | | | | | | | | | X | X | X | X |
| 12 S | 25 E | 9 | X | X | X | X | | | | | | | | | X | X | X | X |
| 12 S | 25 E | 10 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 12 S | 25 E | 11 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 12 S | 25 E | 12 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 12 S | 25 E | 13 | | | | | X | X | X | X | X | X | X | X | | | | |
| 12 S | 25 E | 14 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| 12 S | 25 E | 15 | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |

All locations in Salt Lake Base and Meridian

## EXPLANATORY

The land at the first point of diversion is privately owned. TXO will obtain any necessary permission to enter this land.

**********

The land at the second (alternate) point of diversion is Utah State land. TXO holds the mineral lease for this State section and has rights-of-way to ingress and egress on the road across Evacuation Creek and Missouri Creek in this area.

**********

Initial water for start-up drilling operations will be supplemental with water from the town of Rangely or from a private stock pond just inside Colorado up Missouri Creek. These sources do not comprise a separate "water right" but will supplement the water required to drill wells in this unit.

**********

A total of three wells may be drilled inside the Unit boundary during the July 01, 1989 through June 30, 1990 period.

**********

The applicant hereby acknowledges he/they are a citizen(s) of the United States or intends to become such a citizen.

**********

The quantity of water sought to be appropriated is limited to that which can be beneficially used for the purpose herein described.

**********

The undersigned hereby acknowledges that even though he/they may have been assisted in the preparation of the above-numbered application through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained therein, at the time of filing, rests with the applicant(s).

_____

Signature of Applicant

## STATE ENGINEER'S ENDORSEMENT

WATER RIGHT NUMBER: 45 - 5370 APPLICATION NO. T64070

1. July 7, 1989 Application received by VP.

2. July 17, 1989 Application designated for APPROVAL by RWL and KLJ.

3. Comments:

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Conditions:
This application is hereby APPROVED, dated July 18, 1989, subject to prior rights and this application will expire on July 18, 1990.

Robert L. Morgan, P.E.
State Engineer

TXO

**TXO PRODUCTION CORP.**
1800 LINCOLN CENTER BUILDING
DENVER, COLORADO 80264

TELEPHONE (303) 861-4246

May 24, 1990

U.S. Bureau of Land Management
Vernal District Office
170 South 500 East
Vernal, Utah 84078

Re: Evacuation Creek Unit #1
NW/4 Section 25-T11S-R25E
Uintah County, Utah
Federal Lease No. U-58215

Gentlemen:

Enclosed for your review and approval are three copies of Federal Form 3160-3, with attachments, as application for permit to drill the referenced well. This is an updated application for this well; an application was filed in June, 1989 (NOS filed May 23, 1989) and was subsequently withdrawn July 17, 1989.

The Evacuation Creek Unit #1 well site was staked May 30, 1989 and a formal on-site inspection, pursuant to the NOS option for APD processing, was held June 1, 1989. A cultural resource inventory was conducted June 7, 1989 of both the well pad and adjacent areas and the access road. TXO Production Corp. plans to use the well pad and access road as proposed in the original June 1989 application. The enclosed application is resubmitted with changes only to dates (application, starting dates, etc.) and to other administrative details; no substantive changes have been made to either the Drilling or Surface Use Programs.

This well, of course, is the initial test well for the proposed Evacuation Creek Unit. The Unit is currently in the process of federal review and approval.

If you have any questions or need additional information, please contact me at this office.

Very truly yours,

TXO PRODUCTION CORP.

Charles K. Curlee
Environmental Manager

CKC/gbp

cc: Utah Division of Oil, Gas & Mining

A SUBSIDIARY OF TEXAS OIL & GAS CORP.

Form 3160-3
(November 1983)
(formerly 9-331C)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

# UNITED STATES
# DEPARTMENT OF THE INTERIOR
## BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: U-58215

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

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

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

7. UNIT AGREEMENT NAME: Evacuation Creek

8. FARM OR LEASE NAME: - - -

2. NAME OF OPERATOR: TXO Production Corp. Attn: C.K. Curlee

9. WELL NO.: Unit #1

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

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1306' FNL, 1755' FWL (NE/NW)
At proposed prod. zone: Same

RECEIVED
MAY 29 1990
DIVISION OF OIL, GAS & MINING

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: See Sec. 25-T11S-R25E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approx. 20 miles SSE of Bonanza, Utah

12. COUNTY OR PARISH: Uintah — 13. STATE: Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 885' from lease line; 5460' from east unit boundary

16. NO. OF ACRES IN LEASE: 640

17. NO. OF ACRES ASSIGNED TO THIS WELL:

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

19. PROPOSED DEPTH: 8600' Morrison

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 5865' G.R.

22. APPROX. DATE WORK WILL START*: June 20, 1990

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|---|---|---|---|---|
| 12 1/4" | 8 5/8" | 24.0# | 400' | + 250 sacks |
| 7 7/8" | 4 1/2" | 11.6# | 8600' | + 250 sacks |

All casing will be new K-55.

CONFIDENTIAL

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 Gary E. Wurdeman TITLE District Drilling & Prod. Mgr DATE May 15, 1990

(This space for Federal or State office use)

PERMIT NO. 43-047-31896 APPROVAL DATE

APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING
DATE: 7-3-90
BY:
WELL SPACING: R615-2-3

APPROVED BY TITLE DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

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

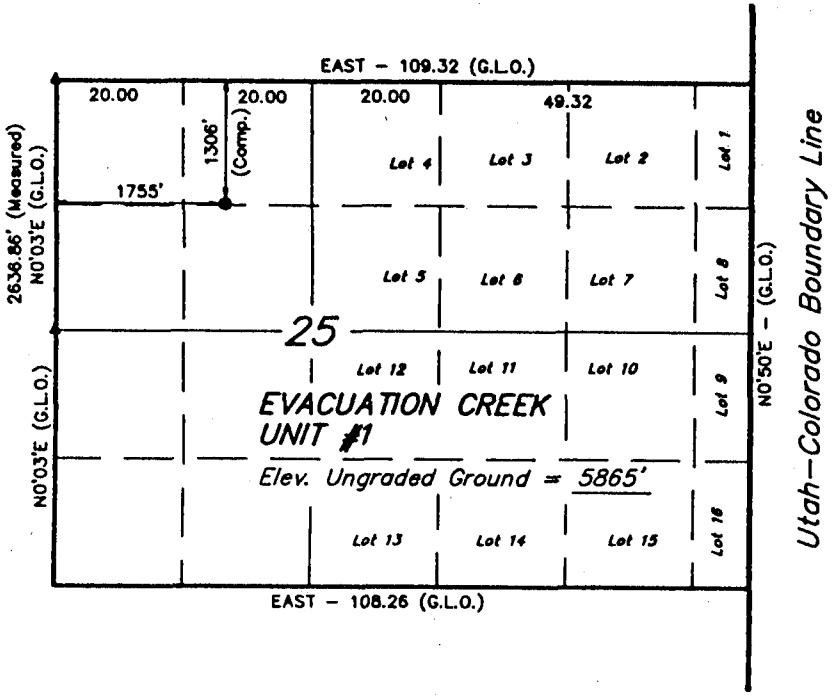
# TXO PRODUCTION CORP.

Well location, EVACUATION CREEK UNIT #1, located as shown in the NE 1/4 NW 1/4 of Section 25, T11S, R25E, S.L.B.&M. Uintah County, Utah.

## BASIS OF ELEVATION

BENCH MARK Y151 NEAR PARK CANYON ROAD IN THE NW 1/4 NW 1/4 OF SECTION 35, T2S, R104W, 6th. P.M. TAKEN FROM THE DRAGON QUADRANGLE, UTAH – COLORADO, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP). PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6005 FEET.

*T11S, R25E, S.L.B.&M.*




▲ = SECTION CORNERS LOCATED. *(STONE)*

N

## 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.

Robert L. Kay

REGISTERED LAND SURVEYOR
REGISTRATION NO. 5709
STATE OF UTAH


UINTAH ENGINEERING & LAND SURVEYING
*P. O. BOX 1758 – 85 SOUTH – 200 EAST*
VERNAL, UTAH – 84078


| | |
|---|---|
| SCALE 1" = 2000' | DATE 5-31-89 |
| PARTY R.L.K. K.K. J.R.S. | REFERENCES G.L.O. PLAT |
| WEATHER | FILE TXO PRODUCTION CORP. |

DRILLING PLAN

DATE: May 15, 1990

WELL NAME: Evacuation Creek Unit #1

SURFACE LOCATION: 1306' FNL, 1755' FWL, (NE/NW) Section 25-T11S-R25E, SLB&M, Uintah County, Utah

FEDERAL OIL & GAS LEASE NO.: U-58215

Be advised that TXO Production Corp. is considered to be the operator on the above described lands and is responsible under the terms and conditions of the lease for the operations conducted on the leased lands or portions thereof, bond coverage for this well is provided by Bond No. 5570134, Principal TXO Production Corp.

## I. DRILLING PROGRAM

1. SURFACE FORMATION: Green River

2. ESTIMATED FORMATION TOPS:

| | | | |
|---|---|---|---|
| Wasatch | 870' | Dakota Silt | 7879' |
| Mesa Verde | 1740' | Dakota Sandstone | 7951' |
| Castlegate | 3993' | Buckhorn | 8103' |
| Mancos | 4222' | Morrison | 8172' |

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

Expected Gas Zones: Dakota Sandstone and Buckhorn

Water may be encountered in the Wasatch, Mesa Verde and Castlegate Formations.

4. 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 3000 psi (greater than the anticipated bottomhole pressure of 2000 psi), will be installed. An annular preventer (Hydril) will also be used above the rams. See Exhibit 1.

B. A choke control, fill and kill lines with minimum working pressure of 3000 psi will be installed. Choke and kill lines will be 2" minimum in size.

C. The equipment in A and B will be pressure-tested to 3000 psi for a minimum of 15 minutes before drilling surface pipe cement. The blowout preventer will be tested for proper operation daily and during trips.

5. CASING PROGRAM AS PER FORM 3160-3.

6. MUD PROGRAM:

| | |
|---|---|
| 0'-4000' | Native mud: 8.8-9.0 ppg; 28-32 viscosity API |
| 4000'-TD | LSND/polymer mud: 8.6-9.0 ppg; 40-45 viscosity API; WL less than 10 cc's. |

7. CORING, LOGGING, TESTING PROGRAM:

A. No coring anticipated.

B. Logging will consist of: DIL-GR-SP-FDC-CNL-GR-caliper; 60' core in Dakota; stratigraphic dipmeter over Dakota; sonic & possible VSP.

8. ABNORMAL CONDITIONS:

A. No abnormal pressures or temperatures are expected.

B. No hazardous gases such as $H_2S$ are expected.

9. 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.

10. ANTICIPATED STARTING DATES:

Start location construction
Spud date
Complete drilling
Completed, ready for pipeline

11. COMPLETION PROGRAM:

A smaller completion rig will replace the drilling rig for this portion of the operations if the well shows capability of commercial production. After casing is set by the drilling rig, the completion rig will be moved in and productive zones will be perforated, tested and treated as necessary. Gas will be flared during testing. Produced liquid hydrocarbons will be directed to test tanks on location. Produced water will be contained in the drilling reserve pit. The extent of treatment of a zone (acidizing and/or fracing) can only be determined after the zone has been tested. An exact completion program will be furnished after drilling and logging, if requested.

## II. SURFACE USE PROGRAM

This Surface Use Program contains all stipulations received during the on-site inspection of the access road and drill site, held June 1, 1989.

### 1. EXISTING ROADS

A. From Bonanza, Utah proceed 5 miles south on the paved road and turn left onto a dirt road (BLM sign "Bookcliff Main Access"). Proceed south on this dirt road, taking a left fork in 3.9 miles near BLM Wagonhound Allotment ("Greeks Corral"). Continue south 7.1 miles to the mouth of Park Canyon. Turn left (east) and proceed 3.2 miles up Park Canyon to the beginning of the .2 mile well site access road.

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 will require minimal maintenance. During wet periods, maintenance may be necessary to facilitate passage by heavy well servicing equipment. Dry periods will require some road watering to control dust and improve stability.

### 2. PLANNED ACCESS ROAD

Approximately 1000'(.2 miles) of new road will be constructed in a 30' right-of-way width to provide access to the well pad. The road will be flat-bladed to a 16' running surface and will have a grade of $\pm$ 2%. No culverts, gates, turnouts or cattleguards will be necessary. One low-water crossing will be constructed over a minor side drainage. See Exhibit 4.

All travel will be confined to existing access road rights-of-way. Access roads and surface disturbing activities will conform to standards outlined in the BLM/FS Pub. (1989) Surface Operating Standards for Oil & Gas Development.

### 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-None
D. Disposal Wells-None
E. Producing Wells-None
F. Drilling Wells-None
G. Shut-in 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: Combination production unit, meter run, and dehydrator, a condensate tank, and two small production pits. The anticipated location of these facilities is shown on Exhibit 6.

The pits will be located in cut to contain all water production and 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. Two pits are required for efficient operations at this prospective gas well.

One pit will will contain high pressure blowdown discharges and the second pit will be located adjacent to the production unit. The blowdown pit will be remote from the production equipment because of the hazards of the occasional high pressure discharge. Limited fluid discharge from the production equipment to the blowdown pit is not feasible due to line freezes in winter. Thus, the second pit is required adjacent to the production equipment.

5. Protective devices and measures to protect livestock and wildlife: The water production pit and blowdown pit will be fenced with woven wire in a welded frame to protect livestock and wildlife. Production lines on the location between the wellhead, production equipment, pits, and gas pipeline will be wrapped and buried.

6. A tank battery, consisting of one 210 bbl tank, will be constructed in the northwest corner of the pad. An earthen dike will be constructed around the condensate tank. Capacity inside the dike will contain a minimum 315 lbs. (1 1/2 times the capacity of the tank). Dike integrity will be maintained.

7. All permanent structures on-site will be painted a flat, non-reflective earthtone (Desert Brown) within 6 months of installation, excluding OSHA compliance facilities.

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:

1. For start-up operations, water will be obtained from the White River (SW/NE Section 2-T10S-R24E), or from Rangely, Colorado, or from a private pond up Missouri Creek in Colorado.

2. For continued drilling operations, water will be obtained from Evacuation Creek (SE/NW Section 28-T11S-R25E).

Temporary water use permits from the State of Utah will be obtained for the sources used.

B. Method of transporting water: The water will be hauled in trucks by a certified water hauler. The exact route will depend on the source chosen; however, all travel will be on existing roads.

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 material to construct a level location. Topsoil will be stockpiled on the east end of the pad for later use during rehabilitation of the disturbed areas. Excess excavated material from the pit will be stockpiled adjacent to the east and west ends of the pit for use during rehabilitation. Please refer to Exhibit 7.

B. Identify if from Federal or Indian Land: The affected land is federal and under the jurisdiction of the Bureau of Land Management.

C. No additional materials, such as sand or gravel, are to be obtained and a minerals material application is not required. If such fill materials are needed, proper permits will be obtained from BLM if the material source is on federal public land.

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.

C. Produced fracing fluids will be directed to the reserve pit for evaporation.

D. Sewage: A portable chemical toilet will be on location during drilling 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 reserve pit will be fenced on three sides during drilling, and on the fourth side prior to the rig moving off location to protect animals. The flare pit will be fenced as part of the reserve pit. Fencing will be as prescribed in the 1978 Surface Operating Standards. If any oil is in the reserve pit, it will be removed or overhead flagging will be installed. A diversion ditch and/or compacted earthen berm will be constructed above the reserve pit (north side) to divert drainage to the east and south around the pad.

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 an approved landfill. Burning will not be allowed. All pits will be filled after drying and the area restored as under Item 10 of this plan.

H. Produced waste water will be confined to an unlined pit or a storage tank for a period not to exceed 90 days after first production. During the 90-day period, an application for approval of a permanent disposal method (unlined production pits) will be submitted to BLM for approval.

## 8. ANCILLARY FACILITIES

Identify all proposed camps and airstrips on a map as to their location, area required and construction methods: Camp facilities and use of airstrips are not required.

## 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; rig orientation, parking areas, access road: Refer to Exhibit 7.

C. Statement regarding pit lining: The reserve pit will be unlined. However, if the subsurface structure should prove too porous or highly fractured, a 4-inch layer of bentonite or a commercial plastic liner will be placed in the pit to prevent excessive seepage and possible groundwater contamination. A BLM representative will be contacted prior to use of the pit if unlined so that the unlined pit can be inspected by BLM.

10. PLANS FOR RESTORATION OF SURFACE

A. Backfilling, leveling, contouring, and waste disposal: Immediately upon completion of the well, the site will be cleared of all debris and materials not needed for production and the mouse and rat holes filled. Prior to backfilling, the reserve pit will be allowed to dry by evaporation and any cans, barrels, pipe or other debris will be removed. 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. The reserve pit will be reclaimed within 120 days from the date of well completion.

B. All disturbed areas, including either areas of the pad not needed for production facilities or the entire location and access road if a dry hole, will be graded to an appearance consistent with the natural contours. Stockpiled topsoil will then be distributed evenly over these disturbed areas. The disturbed areas will be scarified by plowing or ripping to a depth of 12" and left rough in preparation for reseeding.

C. Disturbed areas will be reseeded with an appropriate seed mix to be determined by BLM at the time restoration activities begin. Seed will be planted using a disc-type drill set 10" apart. Seed will be planted between one-half and three quarter inches deep. A drag or roller may be used to insure uniform coverage and compaction. Drilling will be done on contour. On slopes too steep for drilling, a "Cyclone" brand seeder or similar broadcast seeder will be used, using twice the recommended amount of seed per acre. Seed will then be covered to the prescribed depth by whatever means is practical.

D. Seeding will be done from October 1 until ground freeze. If unsuccessful, additional seeding may be required. At such time as the well is P&A'd, a surface reclamation plan will be submitted to BLM via SRA to obtain additional seeding requirements and seed mixes.

E. Timetable for commencement and completion of rehabilitation operations: Rehabilitation will commence when drilling operations are completed, approximately July 10, 1989 and will be finished within approximately one year. It is anticipated that seeding of the recontoured pad would be performed in the Fall of 1989 following pit backfill and recontouring operations.

11. SURFACE OWNERSHIP

The access road and the well pad are located on public lands managed by the BLM. The Evacuation Creek Unit #1 is being drilled on Federal Lease No. U-58215. However, the Evacuation Creek Unit involved num erous Federal leases and generally covers the following acreage:

T11S-R25E
Sections 13, 14, 23, 24, 25, 26, S/2 of 27, 34, 35 & 36

T12S-R25E
Sections 1,2,3,10,11,12, NW/4 of 13, N/2 of 14 and N/2 of 15

The east side of the unit abuts the Utah-Colorado State line and includes several oversized correction sections, including Section 25 where the #1 well is to be drilled. Some of the mineral acreage included in this unit is state or privately owned.

## 12. OTHER INFORMATION

A. Topography, soil characteristics, geologic features, flora, fauna: The drill site is located on a sagebrush covered terrace on the north side of the ephemeral drainage channel in Park Canyon. Steep, dry, eroded ridges rise over 500' above the site just to the north. The surrounding rugged terrain is characterized by similar, steep-sloped ridges with narrow, dry drainages dropping steeply onto broad valley floors. Soils are generally thin except on the broader valley floors and rock is exposed in numerous areas. The soils in the area consist of silty clay loams. Vegetation is mainly comprised of big sagebrush, juniper, and native grasses. Animals inhabiting the area include deer, small common mammals, and birds.

B. Other surface-use activities include: Oil and gas production and livestock grazing.

C. Proximity of water, occupied dwellings: No live streams exist in the immediate area. An ephemeral wash runs east-west through the canyon just south of the proposed location. Evacuation Creek, a generally low-flow permanent stream, flows south to north about 3 miles to the west. The nearest permanent residence is some 8 miles east up Park Canyon.

D. Archeological, historical, or cultural sites: An archeological survey has been or will be conducted for the new access road and well pad and the results forwarded to the Vernal BLM Office. If any archeological, historical or cultural sites are discovered during operations, all operations affecting such sites will be suspended and the discovery reported promptly to BLM.

E. Noxious weeds along the access road and on the wellsite will be controlled. If herbicides or pesticides are used, prior approval will be obtained from BLM for the specific chemical proposed via a Pesticide Use Proposal.

F. BLM will be contacted between 24 and 48 hours prior to beginning construction activities at the site. BLM contacts are Byron Tolman and Jim Piani at (801) 789-1362.

G. The drilling rig and/or other drilling equipment will not be stacked or stored on federal lands after the conclusion of drilling operations without BLM authorization. Any BLM authorization for such rig storage would only be a temporary measure until arrangements are made for storage at off-site commercial facilities.

## 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.

Gary E. Wurdeman
District Drilling & Production Manager
TXO Production Corp.
1660 Lincoln Street
1800 Lincoln Center Building
Denver, Colorado 80264
(303) 861-4246 - Business
(303) 741-2517 - Residence

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

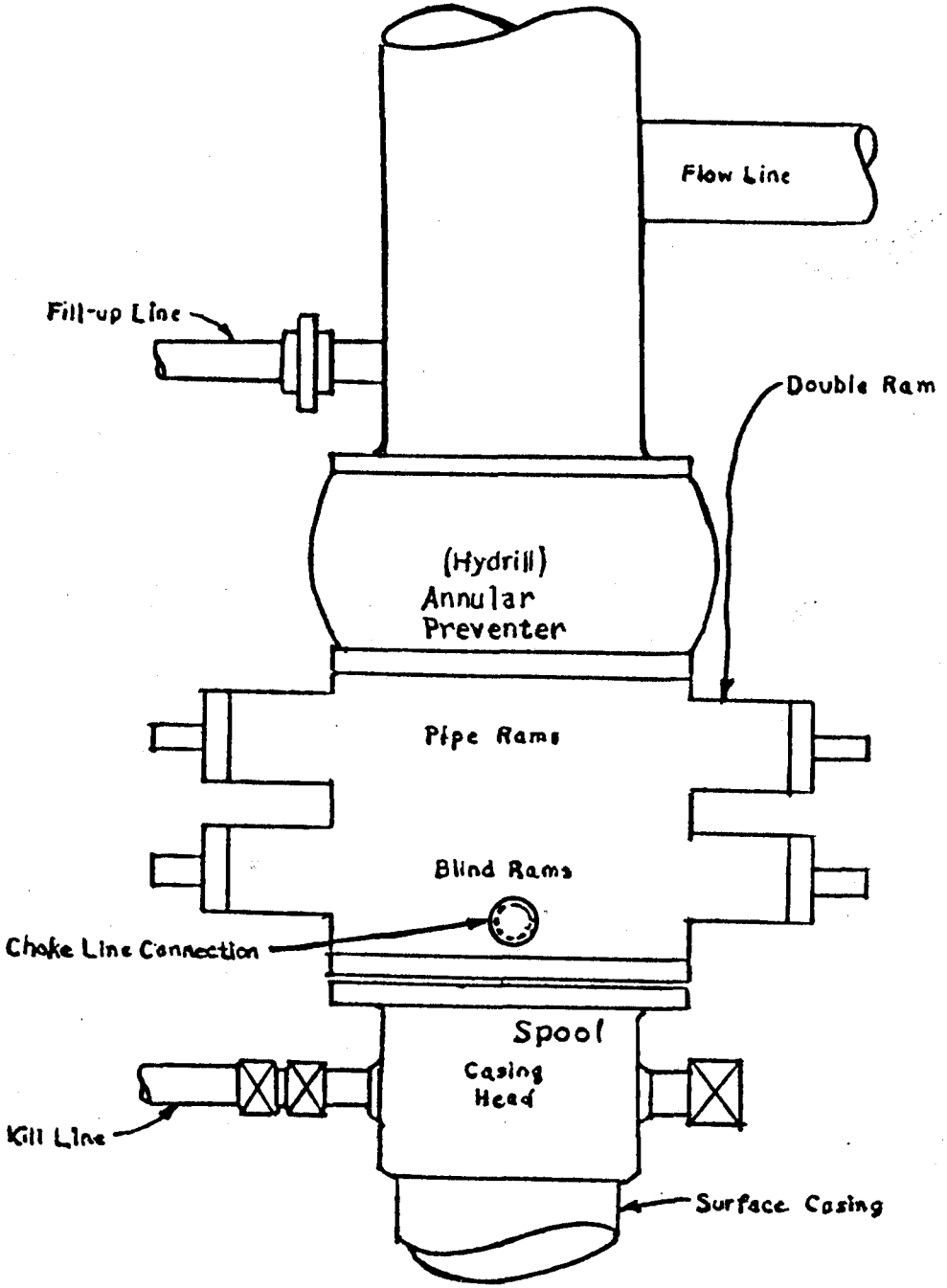
Charles K. Curlee
Environmental Manger
TXO Production Corp.
1660 Lincoln Street
1800 Lincoln Center Bldg.
Denver, Colorado 80264
(303) 861-4246 - Business
(303) 355-3297 - Residence

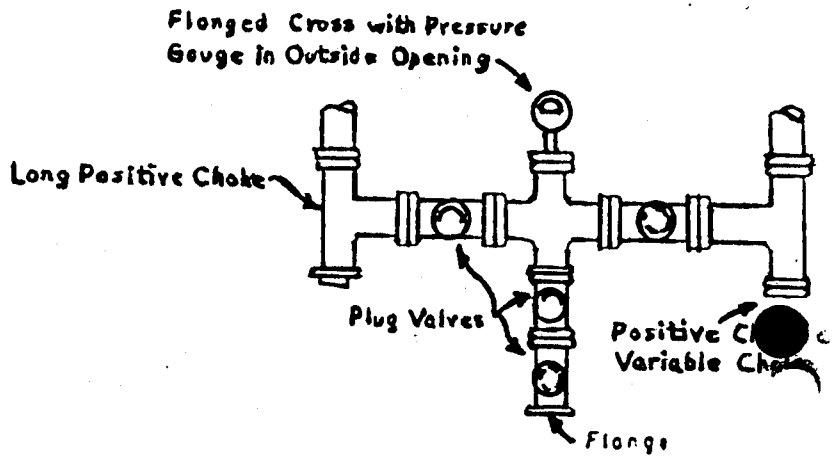
B. All operations will be conducted in full compliance with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved plan of operations, and any applicable NTL's. TXO Production Corp. is fully responsible for the actions of its subcontractors. Copies of the approved permit, including all conditions, will be furnished to TXO's field representative and to the dirt contractor (Surface Use Plan portion only) to insure compliance.

C. 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 oeprations 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 USC 1001 for the filing of a false statement.

**DATE:** May 15, 1990

**NAME AND TITLE:** Gary E. Wurdeman
District Drilling & Production Manager




PLAN VIEW - CHOKE MANIFOLI

| | SIZE | SERIES OR TEST PR. | MAKE & MODEL |
|---|---|---|---|
| | 10" | 900 | Hydril GK |
| | 10" | 900 | Hydraulic Double Gate |
| B.O.P. Closing Unit: | | Yes | |
| B.O.P. Accumulator: | | Yes | |

EXHIBIT 1

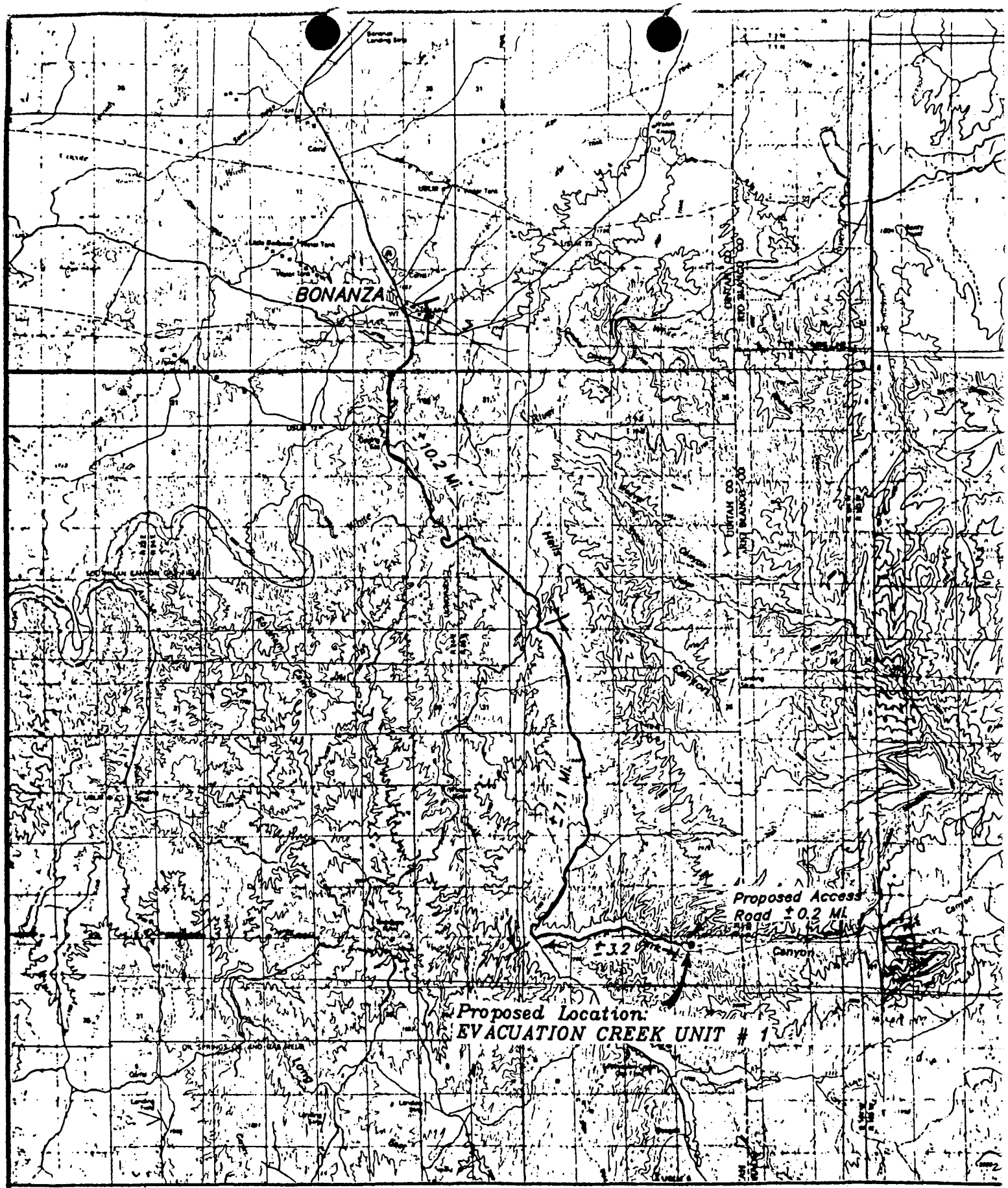



EXHIBIT 2

Access to Well Location

N

**TXO PRODUCTION CORP.**

EVACUATION CREEK UNIT # 1
SECTION 25, T11S, R25E, S.L.B.&M.

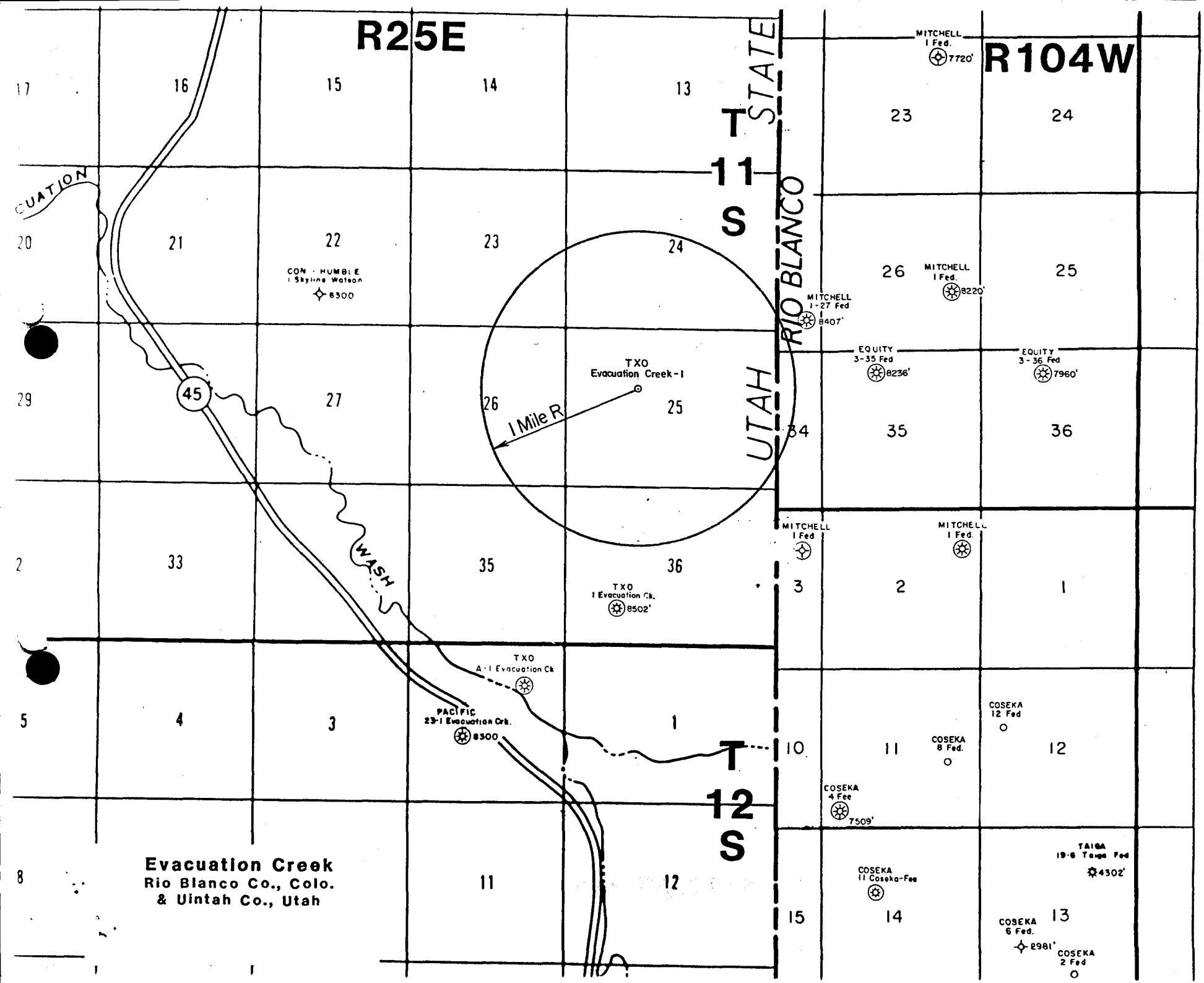



EXHIBIT 5

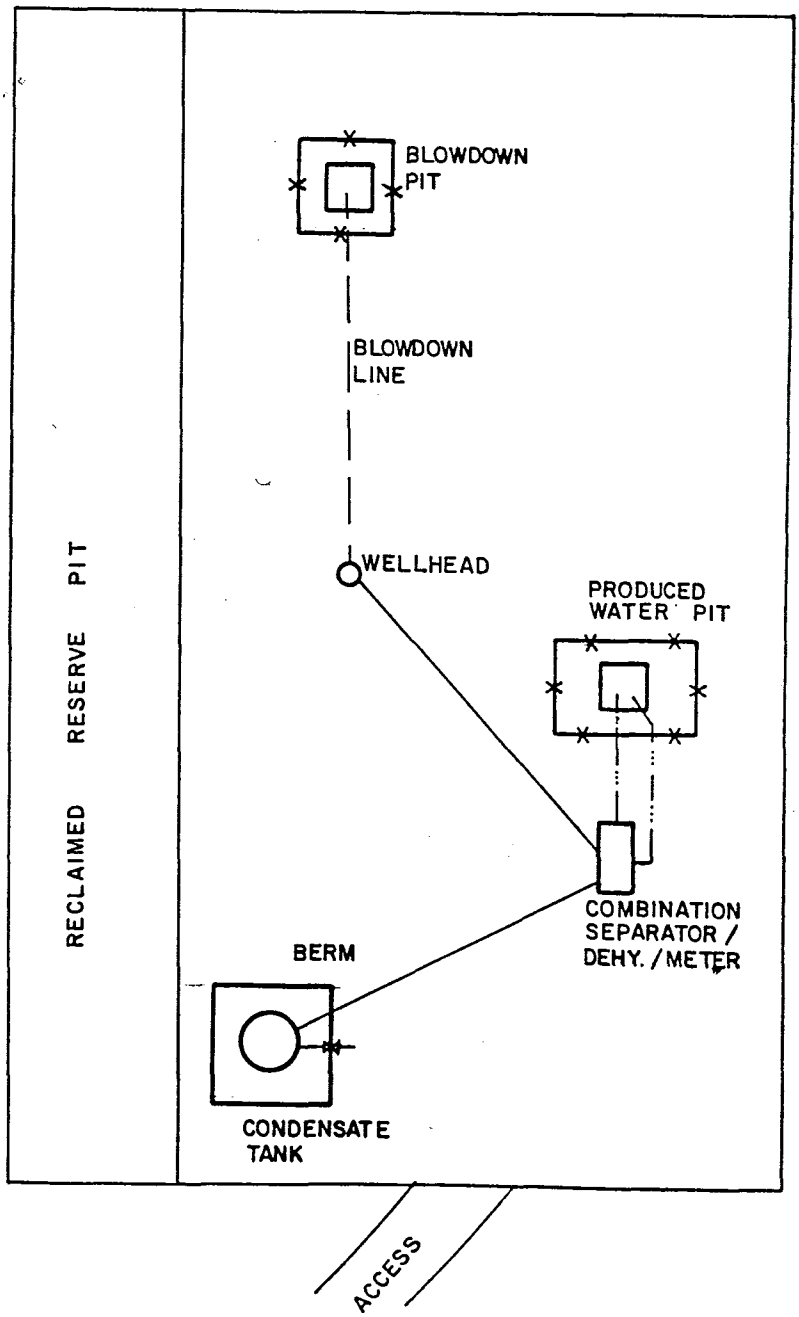
Existing Wells Within a 1 Mile Radius

EXHIBIT 6

Evacuation Creek Unit #1

PRODUCTION FACILITIES

TXO Production Corp.




1) Pits will be 10'x10'x6' 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.

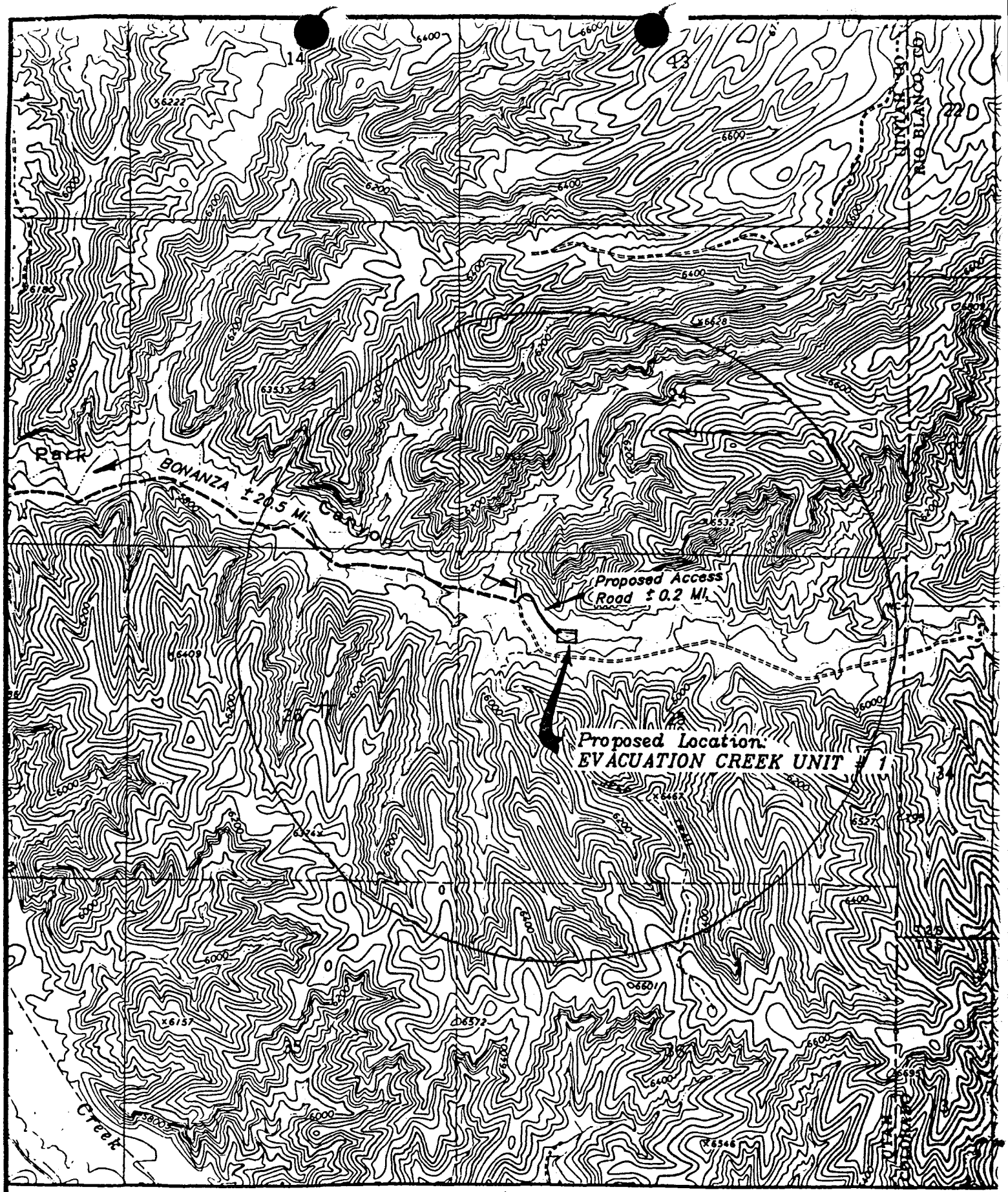



EXHIBIT 3

Roads within a One Mile Radius

SCALE: 1" = 2000'

N

**TXO PRODUCTION CORP.**

**EVACUATION CREEK UNIT #1**
**SECTION 25, T11S, R25E, S.L.B.&M.**

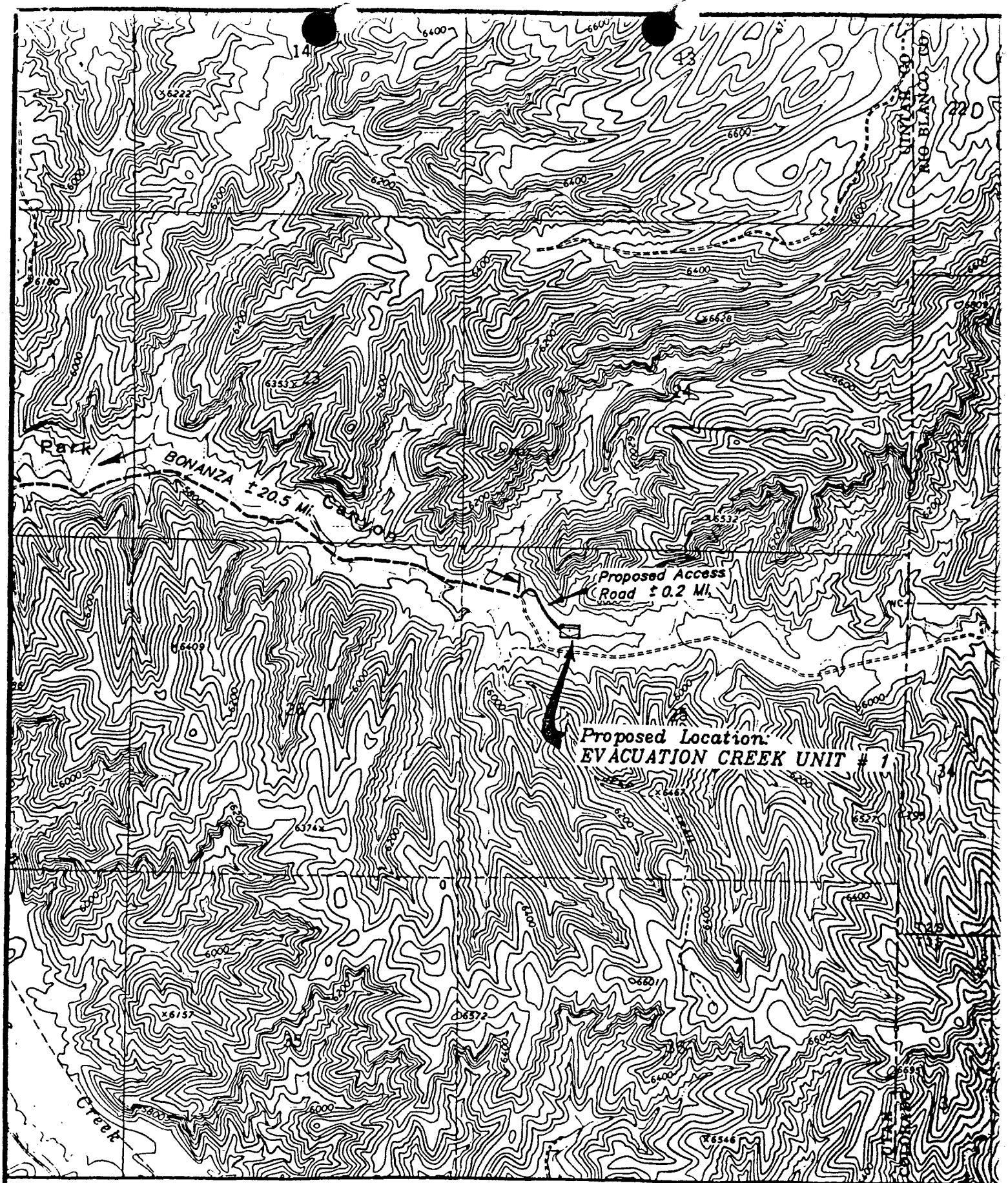



EXHIBIT 4

Access to Well Location

SCALE: 1" = 2000'

N

**TXO PRODUCTION CORP.**

EVACUATION CREEK UNIT #1
SECTION 25, T11S, R25E, S.L.B.&M.

# CONFIDENTIAL

OPERATOR IXO Production Corp DATE 5-09-90

WELL NAME Evacuation Creek Unit #1

SEC NENW 05 T 11S R 25E COUNTY Uintah

43-047-31896
API NUMBER

Federal (U-58015)
TYPE OF LEASE

CHECK OFF:

- [ ] PLAT
- [x] BOND
- [ ] NEAREST WELL
- [x] LEASE
- [x] FIELD
- [x] POTASH OR OIL SHALE

PROCESSING COMMENTS:

ROEC ~~process~~

Unit approved per telcon dtd. 7-10-90

Unit not approved as of 6-5-90

Water Permit 45-5370 (T64070)

APPROVAL LETTER:

SPACING: [x] R615-2-3 Evacuation Creek UNIT [ ] R615-3-2

[ ] N/A CAUSE NO. & DATE [ ] R615-3-3

STIPULATIONS:

0218T

CONFIDENTIAL PERIOD EXPIRED ON 10-11-91

Form 3160-3
(November 1983)
(formerly 9-331C)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

# UNITED STATES
# DEPARTMENT OF THE INTERIOR
## BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: U-58215

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

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

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

7. UNIT AGREEMENT NAME: Evacuation Creek

8. FARM OR LEASE NAME: - - -

2. NAME OF OPERATOR: TXO Production Corp. Attn: C.K. Curlee

9. WELL NO.: Unit #1

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

10. FIELD AND POOL, OR WILDCAT: Wildcat

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JUN 27 1990
DIVISION OF OIL, GAS & MINING

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1306' FNL, 1755' FWL (NE/NW)
At proposed prod. zone: Same

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 25-T11S-R25E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approx. 20 miles SSE of Bonanza, Utah

12. COUNTY OR PARISH: Uintah — 13. STATE: Utah

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 885' from lease line; 5460' from east unit boundary

16. NO. OF ACRES IN LEASE: 640

17. NO. OF ACRES ASSIGNED TO THIS WELL:

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

19. PROPOSED DEPTH: 8600' Morrison

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 5865' G.R.

22. APPROX. DATE WORK WILL START*: June 20, 1990

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|---|---|---|---|---|
| 12 1/4" | 8 5/8" | 24.0# | 400' | + 250 sacks |
| 7 7/8" | 4 1/2" | 11.6# | 8600' | + 250 sacks |

All casing will be new K-55.

| OIL AND GAS | |
|---|---|
| DFN | 4- RJF |
| 2-JRB ✓ | GLH |
| DTS | SLS |
| 1-TAS | |
| 2-TAS | |
| 5-TAS | |
| 6- MICROFILM | |
| 7 FILE | |

RECEIVED
MAY 1990

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 Gary E. Wurdeman — TITLE District Drilling & Prod. Mgr — DATE May 15, 1990

(This space for Federal or State office use)

PERMIT NO. — APPROVAL DATE

APPROVED BY Gerald E. Kenczka — TITLE Acting ASSISTANT DISTRICT MANAGER MINERALS — DATE 6/25/90

CONDITIONS OF APPROVAL, IF ANY:

NOTICE OF APPROVAL

CONDITIONS OF APPROVAL ATTACHED TO OPERATOR'S COPY

UT080-0m32

*See Instructions On Reverse Side

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

Div OGM

# CONDITIONS OF APPROVAL FOR NOTICE TO DRILL

Company TXO Production Corp. Well No. Evacuation Creek #1

Location NE/NW Sec. 25 T11S R25E Lease No. U-58215

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

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 Orders, 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 insure compliance.

Be aware fire restrictions may be in effect when location is being constructed and/or when well is being drilled. Contact the appropriate Surface Management Agency for information.

Note: If this well is to be considered the first obligatory well of the Evacuation Creek Unit, the target formation cannot be penetrated prior to Unit approval. Otherwise, this well will be considered a lease well and another obligatory well will need to be drilled.

A. DRILLING PROGRAM

1. Estimated Depth at Which Oil, Gas, Water, or Other Mineral Bearing Zones are Expected to be Encountered

   Report ALL water shows and water-bearing sands to Tim Ingwell of this office. Copies of State of Utah form OGC-8-X are acceptable. If notice- able water flows are detected, submit samples to this office along with any water analyses conducted.

   All usable water and prospectively valuable minerals (as described by BLM at onsite) encountered during drilling, will be recorded by depth and adequately protected. All oil and gas shows will be tested to determine commercial potential.

2. Pressure Control Equipment

   The BOP and related equipment shall meet the minimum requirements of Onshore Oil and Gas Order No. 2 for equipment and testing requirements, procedures, etc. and individual components shall be operable as designed.

   The Vernal District Office shall be notified, with sufficient lead time, in order to have a BLM representative on location during pressure testing.

3. Casing Program and Auxiliary Equipment

   Surface casing shall have centralizers on the bottom three joints, with a minimum of one centralizer per joint.

Usable water may be encountered from +75-340 ft. and +760-775 ft. in the Green River formation, from +1515-1655 ft. in the Wasatch formation, from +1990-2525 ft., +2725-3020 ft., and +3990-4030 ft. in the Mesaverde formation, and from +4083-4113 ft. in the Castlegate formation. The Mahogany and L1 oil shale have been identified from +340-450 ft. and +510-570 ft. respectively. Therefore, the resources will be isolated and/or protected via the cementing program for the surface and production casing. As a minimum, the cement top for the produciton casing will be at least 200 ft. above the anticipated producing interval. If encountered, the oil shale will be isolated and/or protected via the cementing program for the surface and/or production casing.

The District Office shall be notified, with sufficient lead time, in order to have a BLM representative on location while running all casing strings and cementing.

4. Mud Program and Circulating Medium

No chromate additives will be used in the mud system on Federal and Indian lands without prior BLM approval to ensure adequate protection of fresh water aquifers.

5. Coring, Logging and Testing Program

Daily drilling and completion progress reports shall be submitted to this office on a weekly basis.

All Drill Stem tests (DST) shall be accomplished during daylight hours, unless specific approval to start during other hours is obtained from the Authorized Officer. However, DSTs may be allowed to continue at night if the test was initiated during daylight hours and the rate of flow is stabilized and if adequate lighting is available (i.e., lighting which is adequate for visibility and vaporproof for safe operations). Packers can be released, but tripping should not begin before daylight unless prior approval is obtained from the Authorized Officer.

A cement bond log (CBL) shall be utilized to determine the top of cement (TOC) for the intermediate and production casing.

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 not later than 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 Authorized Officer (AO).

As a minimum, a BHC Sonic log will be run from TD to the top of the oil shale.

6. Notifications of Operations

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 AO. If operations are to be suspended, prior approval of the AO will be obtained and notification given before resumption of operations.

The spud date will be reported orally to the AO within 48 hours after spudding. If the spudding occurs on a weekend or holiday, the report will be submitted on the following regular work day. The oral report will be followed up with a Sundry Notice.

Operator shall report production data to MMS pursuant to 30 CFR 216.5 using form MMS/3160.

Immediate Report: Spills, blowouts, fires, leaks, accidents, or any other unusual occurrences shall be promptly reported in accordance with the requirements of NTL-3A or its revision.

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 AO, and all conditions of this approved plan are applicable during all operations conducted with the replacement rig.

Should the well be successfully completed for production, the AO 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) days following the date on which the well is placed on production.

Pursuant to NTL-2B, with the approval of a District Engineer, produced water may be temporarily disposed of into unlined pits for a period of up to 90 days. During the period so authorized, an application for approval of the permanent disposal method, along with the required water analysis and other information, must be submitted to the District Engineer.

Gas produced from this well may not be vented or flared beyond an initial authorized test period of 30 days or 50 MMCF following its completion, whichever occurs first, without the prior written approval of the Authorized Officer. Should gas be vented or flared without approval beyond the authorized test period, the operator may be directed to shut-in the well until the gas can be captured or appro- val to continue venting or flaring as uneconomic is granted and the operator shall be required to compensate the lessor for that portion of the gas vented or flared without approval which is determined to have been avoidably lost.

A schematic facilities diagram as required by 43 CFR 3162.7-2, 3162. 7-3, and 3162.7-4 shall be submitted to the appropriate District Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified

in Onshore Oil and Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 43 CFR 3162.7-4.

No well abandonment operations will be commenced without the prior approval of the AO. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval will be obtained from the AO. A "Subsequent Report of Abandonment" Form 3160-5, will be filed with the AO within 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 AO or his representative, or the appropriate Surface Managing Agency.

Pursuant to Onshore Oil and Gas Orders, lessees and operators have the responsibility to see that their exploration, development, production, and construction operations are conducted in a manner which conforms with applicable Federal laws and regulations and with State and local laws and regulations to the extent that such State and local laws are applicable to operations on Federal or Indian lands.

7. Other Information

All loading lines will be placed inside the berm surrounding the tank battery.

All site security guidelines identified in Onshore Oil and Gas Order No. 3 regulations will be adhered to.

All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the AO.

Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried or anchored down from the wellhead to the meter and 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.

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 months on new meter installations and at least quarterly thereafter. The AO 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 Vernal District Office. All meter measurement facilities will conform with the Onshore Oil and Gas Order No. 4 for liquid hydrocarbons and Onshore Oil and Gas Order No. 5 for natural gas measurement.

The use of materials under BLM jurisdiction will conform to 43 CFR 3610.2-3.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the AO. 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.

"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 3162.3-2.

Section 102(b)(3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1(c), requires that "not later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed."

The date on which production is commenced or resumed will be construed for oil wells as the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever first occurs; and, for gas wells as the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank, and for which a run ticket is required to be generated or, the date on which gas is first measured through permanent metering facilities, whichever first occurs.

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to $10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c)(3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3162.4-1(b)(5)(ii).

APD approval is valid for a period of one (1) year from the signature date. An extension period may be granted, if requested, prior to the expiration of the original approval period.

In the event after-hour approvals are necessary, please contact one of the following individuals:

Gerald E. Kenczka (801) 781-1190
Petroleum Engineer

Ed Forsman (801) 789-7077
Petroleum Engineer

FAX Phone Number is: 789-3634

Revised October 1, 1985

Date NOS Received 5/24/89

CONDITIONS OF APPROVAL
FOR THE SURFACE USE PROGRAM OF THE
APPLICATION FOR PERMIT TO DRILL

Company/Operator TXO

Well Name & Number Evacuation Creek #1

Lease Number U-58215

Location NE 1/4 NW 1/4 Sec. 25 T. 11 S. R. 25 E.

Surface Ownership BLM

B. THIRTEEN POINT SURFACE USE PROGRAM:



Multipoint Requirements to Accompany APD

1. Additional Surface Stipulations for BLM

The BLM Offices shall be notified upon site completion prior to moving on the drilling rig.

An earthen berm or dike will be constructed north of the location to divert runoff water into the main wash. Water will be channeled to the east of the location.

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Dianne R. Nielson, Ph.D.
Division Director

# State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340

July 3, 1990

TXO Production Corporation
1800 Lincoln Center Bldg.
Denver, Colorado 80264

Gentlemen:

Re: Evacuation Creek #1 - NE NW Sec. 25, T. 11S, R. 25E - Uintah County, Utah
1306' FNL, 1755' FWL

Approval to drill the referenced well is hereby granted in accordance with Section 40-6-18, Utah Code Annotated, as amended 1983; and predicated on Rule R615-2-3, Oil and Gas Conservation General Rules, subject to the following stipulation:

1. Prior to commencement of drilling, receipt by the Division of evidence providing assurance of an adequate and approved supply of water as required by Chapter 3, Title 73, Utah Code Annotated.

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

1. Spudding notification within 24 hours after drilling operations commence.
2. Submittal of an Entity Action Form within five working days following spudding and whenever a change in operations or interests necessitates an entity status change.
3. Submittal of the Report of Water Encountered During Drilling, Form 7.
4. Prompt notification if it is necessary to plug and abandon the well. Notify John R. Baza, Petroleum Engineer, (Office) (801) 538-5340, (Home) 298-7695, or Jim Thompson, Lead Inspector, (Home) 298-9318.
5. Compliance with the requirements of Rule R615-3-20, Gas Flaring or Venting, Oil and Gas Conservation General Rules.

6. Prior to commencement of the proposed drilling operations, plans for facilities for disposal of sanitary wastes at the drill site shall be submitted to the local health department. These drilling operations and any subsequent well operations must be conducted in accordance with applicable state and local health department regulations. A list of local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 538-6121.

7. 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 43-047-31896.

Sincerely,

R. J. Firth
Associate Director, Oil & Gas

tas
Enclosures
cc: Bureau of Land Management
J. L. Thompson
WE14/1-14

# FILING FOR WATER IN THE STATE OF UTAH

Rec. by _____
Fee Rec. _____
Receipt # _____
Microfilmed _____
Roll # _____

## APPLICATION TO APPROPRIATE WATER

For the purpose of acquiring the right to use a portion of the unappropriated water of the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of Title 73, Chapter 3 of the Utah Code Annotated 1953, as amended.

WATER RIGHT NUMBER: 49 - 1479 TEMPORARY APPLICATION NUMBER: T64835

**********

1. OWNERSHIP INFORMATION: LAND OWNED? No

   A. NAME: TXO Production Corp.
   ADDRESS: 1800 Lincoln Center Bldg., Denver, CO 80264

   B. PRIORITY DATE: July 17, 1990 FILING DATE: July 17, 1990

2. SOURCE INFORMATION:

   A. QUANTITY OF WATER: 20.0 acre-feet

   B. DIRECT SOURCE: Evacuation Creek COUNTY: Uintah

   C. POINTS OF DIVERSION -- SURFACE:
   (1) S 2250 feet W 1900 feet from NE corner, Section 2, T 10S, R 24E, SLBM
   (2) S 1150 feet W 1550 feet from NE corner, Section 7, T 11S, R 25E, SLBM
   (3) S 1650 feet W 2500 feet from NE corner, Section 28, T 11S, R 25E, SLBM
   DIVERT WORKS: Portable pump-waterhaul trucks
   SOURCE: White River
   (4) N 1200 feet W 5 feet from SE corner, Section 2, T 12S, R 25E, SLBM

3. WATER USE INFORMATION:

   OIL EXPLORATION: from Jul 20 to Jul 19. Exploration drilling of gas wells. Evacuation Creek Unit #1 and other wells in the unit.

*----------*

4. PLACE OF USE: (which includes all or part of the following legal subdivisions:)

| BASE | TOWN | RANG | SEC | NORTH-EAST¼ NE | NW | SW | SE | | NORTH-WEST¼ NE | NW | SW | SE | | SOUTH-WEST¼ NE | NW | SW | SE | | SOUTH-EAST¼ NE | NW | SW | SE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SL | 11S | 25E | 13 | X | X | X | X | ■■■ | X | X | X | X | ■■■ | X | X | X | X | ■■■ | X | X | X | X |
| | | | 14 | X | X | X | X | ■■■ | X | X | X | X | ■■■ | X | X | X | X | ■■■ | X | X | X | X |
| | | | 23 | X | X | X | X | ■■■ | X | X | X | X | ■■■ | X | X | X | X | ■■■ | X | X | X | X |
| | | | 24 | X | X | X | X | ■■■ | X | X | X | X | ■■■ | X | X | X | X | ■■■ | X | X | X | X |
| | | | 25 | X | X | X | X | ■■■ | X | X | X | X | ■■■ | X | X | X | X | ■■■ | X | X | X | X |
| | | | 26 | X | X | X | X | ■■■ | X | X | X | X | ■■■ | X | X | X | X | ■■■ | X | X | X | X |
| | | | 27 | | | | | ■■■ | | | | | ■■■ | X | X | X | X | ■■■ | X | X | X | X |
| | | | 33 | X | X | X | X | ■■■ | | | | | ■■■ | | | | | ■■■ | X | X | X | X |
| | | | 34 | X | X | X | X | ■■■ | X | X | X | X | ■■■ | X | X | X | X | ■■■ | X | X | X | X |

Continued on next page.

| BASE | TOWN | RANG | SEC | NORTH-EAST ¼ NE | NW | SW | SE | | NORTH-WEST ¼ NE | NW | SW | SE | | SOUTH-WEST ¼ NE | NW | SW | SE | | SOUTH-EAST ¼ NE | NW | SW | SE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 35 | X | X | X | X | | X | X | X | X | | X | X | X | X | | X | X | X | X |
| | | | 36 | X | X | X | X | | X | X | X | X | | X | X | X | X | | X | X | X | X |
| SL | 12S | 25E | 1 | X | X | X | X | | X | X | X | X | | X | X | X | X | | X | X | X | X |
| | | | 2 | X | X | X | X | | X | X | X | X | | X | X | X | X | | X | X | X | X |
| | | | 3 | X | X | X | X | | X | X | X | X | | X | X | X | X | | X | X | X | X |
| | | | 4 | X | X | X | X | | | | | | | | | | | | X | X | X | X |
| | | | 9 | X | X | X | X | | | | | | | | | | | | X | X | X | X |
| | | | 10 | X | X | X | X | | X | X | X | X | | X | X | X | X | | X | X | X | X |
| | | | 11 | X | X | X | X | | X | X | X | X | | X | X | X | X | | X | X | X | X |
| | | | 12 | X | X | X | X | | X | X | X | X | | X | X | X | X | | X | X | X | X |
| | | | 13 | | | | | | X | X | X | X | | X | X | X | X | | | | | |
| | | | 14 | X | X | X | X | | X | X | X | X | | X | X | X | X | | X | X | X | X |
| | | | 15 | X | X | X | X | | X | X | X | X | | X | X | X | X | | X | X | X | X |

5. **EXPLANATORY:**

The land at the first point of diversion is privately owned. TXO will obtain any necessary permission to enter this land.
**********
The land at the second (alternate) point of diversion is Utah State land. TXO holds the mineral lease for this State section and has rights-of-way to ingress and egress on the road across Evacuation Creek and Missouri Creek in this area.
**********
The third point of diversion is a short distance from the first point and the fourth point of diversion is from the White River which has been included as a source because of low flows in Evacuation Creek.

6. **SIGNATURE OF APPLICANT(S):**

The applicant(s) hereby acknowledge(s) that he/she/they are citizen(s) of the United States of America or intend(s) to become such a citizen(s). The quantity of water sought to be appropriated is limited to that which can be beneficially used for the purposes herein described. The undersigned hereby acknowledges that even though he/she/they may have been assisted in the preparation of the above-numbered application through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of information contained herein, at the time of filing, rests with the applicant(s).

See file for Signature
Signature of Applicant(s)

## STATE ENGINEER'S ENDORSEMENT

WATER RIGHT NUMBER: 49 - 1479 APPLICATION NO. T64835

1. July 17, 1990 Application received by BMW.

2. July 17, 1990 Application designated for APPROVAL by RWL and KLJ.

3. Comments:

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Conditions:
This application is hereby APPROVED, dated July 27, 1990, subject to prior rights and this application will expire on July 27, 1991.

Robert L. Morgan, P.E.
State Engineer

EWF - Evac Creek Unit #1

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RIGHTS

Norman H. Bangerter
Governor
Dee C. Hansen
Executive Director
Robert L. Morgan
State Engineer

1636 West North Temple, Suite 220
Salt Lake City, Utah 84116-3156
801-538-7240

July 27, 1990

TXO Production Corp.
1800 Lincoln Center Bldg.
Denver, CO 80264

Dear Applicant:

RE: TEMPORARY APPLICATION
NUMBER 49-1479 (T64835)

Enclosed is a copy of approved Temporary Application Number 49-1479 (T64835). This is your authority to construct your works and to divert the water for the uses described.

While this approved application does give you our permission to divert and use water, it does not grant easements through public or private lands in order to gain access to the source nor to convey the water to the place of use, nor does this approval eliminate the need for such other permits as may be required by this Division or any other agency in implementing your diversion.

This application will expire July 27, 1991, and it is expected that no diversion or use of the water will be done after that date unless another proposal has been made and approved.

Your contact with this office, should you need it, is with the Area Engineer, Robert Leake. The telephone number is (801)781-0770.

Sincerely,

Robert L. Morgan

Robert L. Morgan, P.E.
State Engineer

RLM:jb

Encl.: Copy of Approved Temporary Application

TXO

**TXO PRODUCTION CORP.**
1800 LINCOLN CENTER BUILDING
DENVER, COLORADO 80264

TELEPHONE (303) 861-4246

July 31, 1990



State of Utah
Division of Oil, Gas & Mining
355 West North Temple
3 Triad Center
Suite 350
Salt Lake City, Utah 84180-1203

Attn: Ms. Tammy Searing

Re: Evacuation Creek Unit #1
Section 25-T11S-R25E
Uintah County, Utah
Federal Lease No. U-58215

Gentlemen:

Enclosed for your files is a copy of the Utah Division of Water Rights' approval for TXO's temporary water appropriations for the referenced well.

If you have any questions or need additional information, please contact me at this office.

Very truly yours,

TXO PRODUCTION CORP.

Charles K. Curlee
Environmental Manager

CKC/gbp

Enclosure

# CONFIDENTIAL

WATER PERMIT OK

DIVISION OF OIL, GAS AND MINING

API NO. 43-047-31896

## SPUDDING INFORMATION

NAME OF COMPANY: TXO PRODUCTION COMPANY

WELL NAME: EVACUATION CREEK UNIT #1

SECTION NENW 25 TOWNSHIP 11S RANGE 25E COUNTY UINTAH

DRILLING CONTRACTOR OLSON

RIG # 7

SPUDDED: DATE 8-8-90

TIME 4:00 a.m.

HOW ROTARY

DRILLING WILL COMMENCE _____

REPORTED BY CORY WEST

TELEPHONE # 303-861-4246

| OIL AND GAS | |
|---|---|
| DFN | RJF |
| JRB | GLH |
| DTS | SLS |
| TAS | |
| TLT | |
| | |
| MICROFILM | |
| 3 - FILE | |

DATE 8/9/90 SIGNED TAS TAKEN BY: VLC

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM - FORM 6

OPERATOR TXO Production Corp.

ADDRESS 1660 Lincoln St., Suite 1800
Denver, CO 80264

OPERATOR ACCT. NO. N1580

| ACTION CODE | CURRENT ENTITY NO. | NEW ENTITY NO. | API NUMBER | WELL NAME | WELL LOCATION QQ | SC | TP | RG | COUNTY | SPUD DATE | EFFECTIVE DATE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| A | 99999 | 11108 | 43-047-31896 | Evacuation Creek Unit #1 | NW | 25 | 11S | 25E | Uintah | 8-8-90 | 8-20-90 |

WELL 1 COMMENTS: TXO Production Corp. spudded the Evacuation Creek Unit #1, located 1306' FNL & 1755' FWL in section 25-T11S-R25E of Uintah Co., Utah, @ 4:00 A.M. 8-8-90 with Olsen Drilling Company Rig #7. 15" culvert was set ahead on 7-27-90 @ 60' in a 17" hole. 12¼" hole was drilled to 905' with no water flows or loss circulation. 8-5/8", 24#, J-55, ST&C casing was set @ 899' and cemented with 350 sxs 50-50 poz followed by 200 sxs class "G". Experienced good returns while cementing. Cement did circulate. The State & BLM were notified of the spud by phone on the morning of the 8th.

RECEIVED
AUG 23 1990
DIVISION OF OIL, GAS & MINING

WELL 2 COMMENTS: Federal-Lease Proposed Zone-MRSN
Field-Wildcat (Unit obligation well - new entity 11108 added 8-29-90 fer
Unit-Evacuation Creek

OIL AND GAS

| | |
|---|---|
| DRN | RJF |
| JRB | GLH |
| DTS | SLS |
| LKCR | |
| | |
| 2- MICROFILM ✓ | |
| 3- FILE | |

WELL 3 COMMENTS:

WELL 4 COMMENTS:

WELL 5 COMMENTS:

ACTION CODES (See instructions on back of form)
- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

NOTE: Use COMMENT section to explain why each Action Code was selected.

(3/89)

Signature

Area Drlg/Prod. Engr 8-20-90
Title Date

Phone No. ( 303 ) 861-4246

Form 3160-5
November 1983)
Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

# 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 "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED
AUG 23 1990
DIVISION OF OIL, GAS & MINING

5. LEASE DESIGNATION AND SERIAL NO.: U-58215

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

OIL WELL: X GAS WELL: ___ OTHER

7. UNIT AGREEMENT NAME: - - -

2. NAME OF OPERATOR: TXO Production Corp.

8. FARM OR LEASE NAME: Evacuation Creek Unit

3. ADDRESS OF OPERATOR: 1660 Lincoln St., Suite 1800, Denver, CO 80264

9. WELL NO.: 1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface: 1306' FNL & 1755' FWL

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: 25-T11S-R25E

14. PERMIT NO.: API No. 43-047-31896

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 5865' G.L., 5879' K.B.

12. COUNTY OR PARISH: Uintah

13. STATE: Utah

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

| NOTICE OF INTENTION TO: | | | | SUBSEQUENT REPORT OF: | | | |
|---|---|---|---|---|---|---|---|
| TEST WATER SHUT-OFF | ___ | PULL OR ALTER CASING | ___ | WATER SHUT-OFF | ___ | REPAIRING WELL | ___ |
| FRACTURE TREAT | ___ | MULTIPLE COMPLETE | ___ | FRACTURE TREATMENT | ___ | ALTERING CASING | ___ |
| SHOOT OR ACIDIZE | ___ | ABANDON* | ___ | SHOOTING OR ACIDIZING | ___ | ABANDONMENT* | ___ |
| REPAIR WELL | ___ | CHANGE PLANS | ___ | (Other) Spud & setting surface csg. | | | X |
| (Other) | | | | (NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.) | | | |

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.)*

TXO Production Corp. spudded the Evacuation Creek Unit #1, located 1306' FNL & 1755' FWL in Section 25-T11S-R25E of Uintah Co., Utah, @ 4:00 A.M. 8-8-90 with Olsen Drilling Company Rig #7. 15" culvert was set ahead on 7-27-90 @ 60' in a 17" hole. 12¼" hole was drilled to 905' with no water flows or loss circulation. 8-5/8", 24#, J-55, ST&C casing was set @ 899' and cemented with 350 sxs 50-50 poz followed by 200 sxs class "G". Experienced good returns while cementing, cement did circulate. The State and BLM were notified of the spud by phone on the morning of the 8th.

| OIL AND GAS | |
|---|---|
| DFN | RJF |
| JPB | GLH |
| DTS | SLS |
| L-TAS | |
| 2-LCR 8/24 | |
| | |
| MICROFILM | |
| 3- FILE | |

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

SIGNED Clifford Coy West TITLE Area Drlg/Production Engr DATE 8-16-90

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

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

TABLE OF CONTENTS

# RESUME

| | |
|---|---|
| OPERATOR: | Texas Oil & Gas Production Corp. |
| OTHER INTERESTED PARTIES: | Mitchell Energy |
| WELL NAME & NUMBER: | Evacuation Creek Unit No. 1 |
| LOCATION: | 1306' FNL & 1755' FWL, NE NW Section 25, Township 11 South, Range 25 East |
| AREA: | Evacuation Creek |
| COUNTY: | Uintah |
| STATE: | Utah |
| ELEVATION: | 5865' GL, 5879' KB |
| ENGINEER: | Randy Walck |
| GEOLOGIST: | Charles S. Chapman |
| SPUD DATE: | 8-7-90 |
| COMPLETION DATE: | 9-8-90 |
| HOLE SIZE: | 12 1/4" to 905', 7 7/8" to TD |
| CASING: | 8 5/8" to 899' |
| CEMENTING COMPANY: | Western Cementing Co. |
| CONTRACTOR: | Olsen Drilling Co. |
| EQUIPMENT: | Olsen-Winrock No. 7 |
| TOOLPUSHER: | Jerry Johnson |
| DRILLERS: | Jerry Gaylor, Paul Bromley, Dale E. Hunt & Ken Herkimen |
| DRAWWORKS: | National T-32 |
| DERRICK: | Lee C. Moore 136 |
| PUMP: | #1-Emsco D-500, #2-Emsco DA-500, 5 1/2" by 16", .012 band/stroke |

RESUME cont'd.

| | |
|---|---|
| DRILL COLLARS: | 6" |
| DRILL PIPE: | 4" full hole, 14#/ft., Grade "E" |
| DRILLING MUD COMPANY: | M-I Drilling Fluids Co. |
| MUD TYPE: | Water to 3890', Poly plus G from 3890' to TD |
| MUD ENGINEER: | Kenny Bascom, Ken Penn, Emit Clark |
| MUD LOGGING COMPANY: | Columbine Logging, Inc. |
| TYPE UNIT: | Hotwire & Chromatograph |
| CORES: | Company: Diamond Bant<br>Formation: Dakota-Buckhorn<br>Interval: 8414' to 8535.8' |
| DRILL STEM TEST: | Company: Halliburton<br>Formation: Dakota Sandstone<br>Interval: 8260' to 8414' |
| ELECTRIC LOG COMPANY: | Halliburton Logging Services |
| TYPE LOGS: | Dual Induction Lateralog, surface to TD, Compensated Density Dual Spaced Neutron Log & Borehole Compensated Sonic, base of surface casing, 894' to TD |
| ENGINEER: | B. Laney |
| TOTAL DEPTH: | 8543' Driller, 8522' Logger |
| DRILLING TIME: | 30 days |
| BOTTOM FORMATION: | Morrison |
| WELL STATUS: | Plugged & Abandoned |

## SUMMARY AND CONCLUSIONS

The TXO Production Corp. Evacuation Creek Unit No. 1, located at NE NW Section 25, Township 11 South, Range 25 East, Uintah County, Utah, was spudded August 8, 1990 and completed September 6, 1990. The primary objective was gas production in the Dakota sandstone, with secondary objectives being the Castlegate sandstone, the Mancos "B" sands and possible stray sands in the upper 300' of the Morrison.

The Evacuation Creek Unit No. 1 was spudded in the lower Green River and drilled to 1200', essentially the top of the Wasatch, at which time 8 5/8" surface casing was set at 899'. After the casing was set, the hole was drilled with water. No significant gas shows were encountered in the Wasatch. On approaching the top of the Mesa Verde at 202', background gases increased from 2-4 units to 4-8 units and steadily increased thereafter. Sands and coals in the top of the Mesa Verde yielded small gas kicks of 10-40 units and contributed to raising the background gases to 20-40 units after 2350'. Downtime gases while running surveys and connection gases increased significantly at the top of the Mesa Verde, to 460-640 units and 50-80 units respectively.

A water flow was noted at 2757' flowing 3 gal/min. Coals and sands drilled after 2850' yielded gas kicks of 95 to 220 units and the background gases increased to 40-100 units, with connection and downtime gases ranging from 100-320 units and 500-630 units respectively.

The Upper Sego sandstone was topped at 3805' with no significant gas increases. After tripping out for a new bit at 3890' and tripping in to hit several bridges starting at 1371', mud was mixed to try and stabilize the interbedded sands and shales of the Wasatch and Mesa Verde and also to control the water flow.

The Anchor Tongue shale, the lower Sego sandstone and the Buck Tongue shale were topped at 3966', 3994' and 4080' respectively, with no significant gas shows. background gas were essentially killed by mixing mud at 3890 and downtime gas ranged from 110-170 units. Upon topping the Castlegate sandstone at 4260' no significant gas shows were encountered, even though a 20-30' thick sand interval was drilled.

SUMMARY AND CONCLUSIONS cont'd.

The Mancos shale was topped at 4490' with background gases still only ranging from 8-10 units and no significant gas shows encountered. The penetration rate was slowing at this point do to the contractor's desires to meet a contract obligation of 5 degrees maximum hole deviation upon reaching total depth. Upon topping the Mancos "B" sandy interval at 4996' background connection and downtime gases were essential non-existent. No significant gas shows were encountered until nearing the base of the Mancos "B" at 5600'. From 5600'-5720' a very fine grained, sandy interval was drilled which produced a 17 unit gas kick at the top and two slightly lower gas kicks near the base. The sands, very fine grained and essentially tight, however, did exhibit 5-10% pale green-yellow fluorescence with some questionable light brown oil stain. The cut, though, was essentially non-existent, exhibiting only a very poor ring cut.

Drilling back into the Mancos shale at 5736' nothing significant was encountered. However, the hole deviations were ranging from 4-5 degrees, causing some concern for the drilling contractor who continued to survey frequently and hold back the weight on the bit and adjust rotary rpm's to keep the hole deviation under control, which slowed the penetration rate. At 6730' background gas gradually increased from 8-10 units to 18-26 units with notable amounts of ethane, propane and butane present. Ethane, propane and butane gases in the mud gas continued until reaching total depth.

The Niobrara limestone was topped at 7010' and a gas kick to 26 units was noted just below the top at 7035' and another gas increase near the base, at 7343', and from 7230'-7280' ranged from 20-37 units possibly a fracture interval. Drilling back into the Mancos shale at 7343' the background gases were again very low, ranging from 4-8 units, but ethane, propane and butane were still being carried in the mud gases. The Frontier sandstone was topped at 8006' and a gas kick of 28 units was encountered at 8060'. Background gases increased slightly to 10-16 units up to the point of drilling the interval 8150' to 8180', where gas shows of 24-30 units were encountered. Upon topping the Dakota silt at 8184', background gases fell below 10 units.

When the Dakota sandstone was penetrated at 8254', a gas show was seen in a sand at 8265' of 36 units. Another significant gas kick to 108 units was encountered at 8275' and continued while drilling an apparently unconsolidated, fine-medium grained sandstone with poor-fair visible porosity to 8300'. Also a consolidated-friable very fine-medium grain sandstone with apparent poor-fair visible porosity was drilled from 8375'-8400' and produced gas of 46 units.

SUMMARY AND CONCLUSIONS cont'd.

We tripped out at 8408' (corrected to 8404') to begin coring the lower Dakota sandstone(Buckhorn). We cored from 8414'-8435.8' where the core barrel became jammed. After examining the core, we concluded that and 6-8' of the sands could possibly provide enough porosity for a reservoir even though the pores were essentially clay filled. Gases while coring were ranged from 25 to 32 units, approximately 18-22 units above background. Drilling resumed and the Morrison was topped at 8446'. No thick gas sands were encountered in the Morrison before the well reached a total depth of 8543', even though background gases remained high from 8435' to 8490', ranging from 60-80 units and dying down at 8490' to 10 units.

When Halliburton tried to run electric logs, the logging tools hit bridges at 1200' and 1305'. An extra trip to bottom with the drill string was needed before the hole could be logged. Electric logs were run to a total depth of 8522', 21' less than the drillers depth, suggesting fill in the hole.

After running electric logs, two sandstone intervals in the Dakota looked promising enough to run a drill stem test to determine whether or not they were productive. Both sandstone intervals from 8270' to 8304' and 8380' to 8400' showed promise on the mudlog, but looked marginal on the electric logs. A straddle drill stem test was run over the interval of 8260'-8414'. Since no real pressure build ups were recorded and no gas was recovered, it was decided to plug and abandon the Evacuation Creek Unit NO. 1.

The TXO Evacuation Creek Unit No. 1 hole was successfully drilled. I was proud to be a part of the operation. Special thanks go to TXO Production's personnel, Bill Hendrix and Randy Walck and to Mitchell Energy's representative, Fred Gustafson, for coordinating the project and to Jerry Johnson of Olsen Drilling Company for getting it done. If I have left any questions unanswered, feel free to contact me.

Charles S. Chapman

## FORMATION TOPS FROM SAMPLES & ELECTRIC LOGS

| Formation | Sample Depth fr. K.B. | Electric Log Depth fr. K.B. | Sub Sea (+ or -) |
|---|---|---|---|
| Green River | Surface | | |
| Wasatch | none | 1202' | +4677' |
| Mesa Verde | 1840' | 2020' | +3859' |
| Upper Sego | 3802' | 3805' | +2074' |
| Anchor Tongue | 3925' | 3966' | +1913' |
| Lower Sego | 3990' | 3994' | +1885' |
| Buck Tongue | 4035' | 4080' | +1799' |
| Castlegate | 4280' | 4260' | +1619' |
| Mancos | 4510' | 4490' | +1389' |
| Mancos "B" | 5005' | 4996' | + 883' |
| Base Mancos "B" | 5760' | 5736' | + 143' |
| Niobrara | 7020' | 7010' | -1131' |
| Base Niobrara | 7400' | 7343' | -1464' |
| Frontier | 8000' | 8006' | -2127' |
| Dakota Silt | 8195' | 8184' | -2305' |
| Dakota Sandstone | 8245' | 8254' | -2375' |
| Buckhorn | 8400' | 8412' | -2533' |
| Morrison | 8440' | 8444' | -2565' |
| Total Depth | 8443' | 8422' | -2543' |

## VISUAL CORE INSPECTION

Formation: Lower Dakota Sandstone, Buckhorn Interval
Interval Cored: 8414' to 8435.8'
Recovered: 16' from 8414' to 8430'

| | |
|---|---|
| 8414' -8414.8' | Sh blk, v sil, n calc, cht bed (?), sdy, w/abndt cht pels & qtz grs, m-vcg, wh, smky, rd-ang, dns, v hd, bio-turbated, worm burrows present w/mar carb matl |
| 8414.8'-8416.0' | Sh dk gy-blk, sil, carb, n calc, dns, blky, mas, frm-hd w/sdy ip, rd-ang, f-vcg, bec fis, pyr ip |
| 8416.0'-8417.6' | Sh dk gy-blk, decr sil, n calc, carb, fis-splty ip, frm-hd, brit, sdy ip, occ vcg, cht pebls |
| 8417.6'-8417.8' | Bent dul wh-bf, mica ip, dul yel flor, 2" thick bed |
| 8417.8'-8418.3' | Sh dk gy-blk, sl sil, n calc, carb, sdy ip, fis, dns, frm-hd, brit |
| 8418.3'-8419.9' | SS wh, lt brn, clr grs, vf-fg, sm mg, sil cmt, cons, tt, n vis por, carb ip, w/carb motl, also occ ang Sh pebs (clast) |
| 8419.9'-8420.8' | Sh dk gy, v sdy, sl sil, n calc, carb w/carb fis, frm-hd, brit ip |
| 8420.8'-8422.4' | SS wh-clr, vf-fg, ang-w rdd, p-m srt, sil cmt, sme cly cmt, cons, tt, n vis por w/mnr dk grs, carb ip, w/carb matl, w/mnr ang Sh pebs (clast) |
| 8422.4'-8423.2' | Sh dk gy, carb, n calc, sil ip, sdy, w/v carb lams-v thn bed grdg to coal (?) w/sme ang Sh peb (clast), pyr w/occ pyr cubes & nodules |
| 8423.2'-8424.4' | SS wh-lt brn, clr, fg, mnr mg, sb ang-w rdd, cly cmt, lsely cons-fri, p-fr vis por, w/occ v crs g pebs, carb ip |
| 8424.4'-8427.8' | SS wh, lt brn f-mg, sm cg & pebs, ang-w rdd, p-m srt, cly cmt, lsely cons-fri, w/carb matl, sme grdg to coal (?), cong ip w/sm ang Sh pebs (Clnsts), p-fr vis por |
| 8427.8'-8429.4' | SS gen aa, bec v cong, abndt ang-rd, Sh pebs (Clasts), w/carb matl |
| 8429.4'-8430.0' | Sh dk gy, n calc, carb, fis, frm-hd, brit ip, w/occ pyr nodules |

## DRILL STEM TESTS

DST #1

Date: September 8, 1990
Interval: 8260' to 8414'
Formation: Dakota Buckhorn

Test Times: 30, 60, 32 & 120 minutes

Surface: 1st flow - Weak blow, no gas
2nd flor - Weak blow, died in 32 min.

Tool: 1st open - 298-395 psi
1st shut in - 447 psi
2nd open - 372-372 psi
2nd shut in - 484 psi

Recovery:
Drill Pipe: 500' Mud, no gas
Sample chamber: Mud, no gas

Note: The above information obtained from Bill Hendrix. No results were given on location.

## DAILY DRILLING CHRONOLOGY

| 1990 Date | 6:00am Depth | Footage 24 Hours | Rig Activity |
|---|---|---|---|
| 8-08 | 130' | 56' | Rig up, spud @ 4am, drl Green River formation fr. surf., drlg w/spud mud |
| 8-09 | 590' | 460' | Drlg Green River, surv, unplug jets on bit |
| 8-10 | 1200' | 610' | Drl, rig serv, drop surv, TOH, laydown 4-8" drill collars, TIH, wash & ream 70' to btm |
| 8-11 | 1200' | 0' | TIH clean 12 3/4" hole, wash & ream fr. 602'-905', TOH, stuck @ 414'-1 hr., run 20 jts 8 5/8" #24 K-55 csg, set @ 899', cmt csg, WOC |
| 8-12 | 1447' | 247' | Drl w/rr b#2, Sandvik, 7 7/8" cfs-10 in @ 1200', press test, BOP, nipple up, drl 8' cmt baffle, 44' cmt & shoe @ 899', wash & ream 370' to btm @1200', Drlg. Wasatch |
| 8-13 | 2542' | 1095' | Drl, surv, rig serv, in Mesa Verde |
| 8-14 | 3107' | 565' | Drl, surv, rig serv, water flow @ 2757', 3 gal/min |
| 8-15 | 3657' | 550' | Drlg, surv, rig serv |
| 8-16 | 3890' | 233' | Drlg, surv, TOH for B#3, TIH, wash & ream fr. 1371'-1786', drum clutch burned up, repair, mud up @ 3890', Drlg in upper Sego |
| 8-17 | 3890' | 0' | Repair drum clutch |
| 8-18 | 3971' | 81' | Drlg, finish repair drum clutch, tripped in slow intermittent bridges, wash & ream 3239'-3640', work tt hole @ 3640', wash & ream 3640'-3890', drlg Anchor Tongue |
| 8-19 | 4301' | 330' | Drl, circ & surv, repair chain in compound, drlg Castlegate |
| 8-20 | 4655' | 354' | Drlg, circ & surv, rig serv, drlg Mancos |

| 1990 Date | 6:00am Depth | Footage 24 Hours | Rig Activity |
|---|---|---|---|
| 8-21 | 4915' | 260' | Drl, circ & surv, rig serv, ck BOP |
| 8-22 | 5076' | 161' | Drl, circ & surv, TOH for B#4 @ 5004', TIH, wash & ream fr. 4910'-5004', Drlg in Mancos "B" |
| 8-23 | 5292' | 216' | Drl, ck surf equip, trip, hole in pipe |
| 8-24 | 5565' | 273' | Drl, repair chain in drawworks, circ & surv |
| 8-25 | 5880' | 315' | Drl, circ, surv, work stuck pipe @ 5750', tt conn @ 5791' |
| 8-26 | 6162' | 282' | Drl, circ, surv, rig serv, ck BOP |
| 8-27 | 6460' | 298' | Drl, circ, surv, serv rig, repair rotary chain |
| 8-28 | 6720' | 260' | Drl, circ, surv, rig serv, ck BOP tighten rotary chain |
| 8-29 | 6960' | 240' | Drl, circ & surv, rig serv, ck BOP repack swivel |
| 8-30 | 7120' | 160' | Drl, trip for B#5, cut drl line, TIH intermittent bridges, wash & ream fr. 6746'-6986', ck surf equip, trip for hole in pipe, Drlg in Niobrara |
| 8-31 | 7415' | 295' | Drl, circ & surv, rig serv, ck BOP |
| 9-01 | 7736' | 321' | Drl, rig serv, ck BOP |
| 9-02 | 8030' | 294' | Drl, circ & surv, rig serv, ck BOP Drlg Frontier |
| 9-03 | 8365' | 335' | Drl, rig serv, Drlg Dakota SS |
| 9-04 | 8414' | 49' | Drl fr. 8390'-8414', circ smpls @ 8390', TOH to core lower Dakota SS magna flux BHA 3 cracked boxes, pu core barrel, TIH, wash & ream fr. 8038'-8414', core @ 8414' |
| 9-05 | 8435' | 21' | Core, TOH w/core barrel, lay down core & barrel, cored 21',rec. 16' TIH w/B#6 |

| 1990 Date | 6:00am Depth | Footage 24 Hours | Rig Activity |
|---|---|---|---|
| 9-06 | 8543' | 108' | TIH w/bit, wash & ream fr. 8345'-8435', drl to 8543', WOO, cond for E-logs, TOH, TIH w/logging tools, Tools hit bridge @ 1200', TIH w/ drl strng to 1600', cond hole, TOH TIH w/logging tools, hit bridge @ 1305' TOH |
| 9-07 | 8543' | 0' | TIH w/drl strng, wash & ream fr. 8489'-8543', circ on btm 3 hrs, TOH, TIH to btm w/E-log tools to 8522', run logs, TOH, laydown logging tools |
| 9-08 | 8543' | 0' | TIH w/drl strng, cond hole to DST Dakota SS |

## BIT RECORD

| No. | Make | Type | Size | In | Out | Footage | Hours |
|---|---|---|---|---|---|---|---|
| B1 | Smith | S-84-F | 12 1/4" | 74' | 905' | 831' | 34 1/2 |
| B2 | Sandvik | CFS-10 | 7 7/8" | 905' | 1200' | 295' | 7 1/2 |
| B2rr | Sandvik | CFS-10 | 7 7/8" | 905' | 3890' | 2985' | 84 1/2 |
| B3 | Sandvik | CFS-20 | 7 7/8" | 3890' | 5004' | 1114' | 80 1/2 |
| B4 | Reed | HP51A | 7 7/8" | 5004' | 6986' | 1982' | 157 |
| B5 | Reed | HP51A | 7 7/8" | 6986' | 8414' | 1428' | 105 |
| Core Bit #1 | DBS | CMD456 | 7 7/8" | 8414' | 8435.10' | 21.10" | 13 1/2 |
| B6 | Sandvik | CFS-30 | 7 7/8" | 8435' | 8543' | 108' | 21 1/2 |

## DRILLING FUNCTIONS

| Depth | W.O.B. | R.P.M. | P.P. | Deviation |
|---|---|---|---|---|
| 135' | 35/40000 | 60/70 | 850 | 3/4 deg |
| 286' | 35/40000 | 60/70 | 850 | 1 deg |
| 479' | 35/40000 | 60/70 | 850 | 3/4 deg |
| 871' | 35/40000 | 60/70 | 850 | 1 1/2 deg |
| 1200' | 35/40000 | 60/70 | 850 | 1 3/4 deg |
| 1353' | 20/30000 | 60/65 | 1000 | 1 1/2 deg |
| 1569' | 20/30000 | 60/65 | 1000 | 3/4 deg |
| 1968' | 20/30000 | 60/65 | 1000 | 2 deg |
| 2183' | 20/30000 | 60/65 | 1000 | 1 3/4 deg |
| 2367' | 20/30000 | 60/65 | 1000 | 2 1/4 deg |
| 2583' | 18/20000 | 60/65 | 1000 | 1 3/4 deg |
| 2677' | 15/20000 | 60/70 | 1000 | 1 1/4 deg |
| 2759' | 15/20000 | 60/70 | 1000 | 1 3/4 deg |
| 2824' | 15/20000 | 60/70 | 1000 | 2 deg |
| 2992' | 28/30000 | 60/70 | 1000 | 2 deg |
| 3176' | 15/30000 | 60/70 | 1150 | 2 deg |
| 3239' | 20/25000 | 65/70 | 1000 | 2 deg |
| 3352' | 20/25000 | 65/70 | 1000 | 2 3/4 deg |
| 3444' | 10/15000 | 65/70 | 1000 | 2 1/4 deg |
| 3579' | 20/25000 | 65 | 1100 | 2 deg |
| 3798' | 25/30000 | 65 | 1100 | 3 1/4 deg |
| 3886' | 25/30000 | 65 | 1100 | 2 deg |
| 3982' | 35000 | 70 | 1100 | 2 deg |
| 4094' | 28/35000 | 70 | 1100 | 2 deg |
| 4199' | 28/35000 | 70 | 1100 | 2 1/2 deg |
| 4291' | 28/35000 | 70 | 1100 | 2 3/4 deg |
| 4388' | 28/35000 | 70/80 | 1100 | 2 1/4 deg |
| 4542' | 28/35000 | 70/80 | 1100 | 2 1/4 deg |
| 4696' | 35/40000 | 80 | 1500 | 3 3/4 deg |
| 4760' | 35/40000 | 80 | 1500 | 3 3/4 deg |
| 4854' | 20/25000 | 80/90 | 1500 | 3 3/4 deg |
| 4984' | 20/25000 | 80/90 | 1500 | 3 3/4 deg |
| 5061' | 20/25000 | 80/90 | 1500 | 3 3/4 deg |
| 5095' | 20/25000 | 80/90 | 1500 | 4 deg |
| 5154' | 20/25000 | 80/90 | 1300 | 4 1/4 deg |
| 5260' | 18000 | 80/90 | 1300 | 4 deg |
| 5341' | 18000 | 80/90 | 1300 | 4 deg |
| 5439' | 18000 | 80/90 | 1300 | 3 3/4 deg |

| Depth | W.O.B. | R.P.M. | P.P. | Deviation |
|---|---|---|---|---|
| 5540' | 20/25000 | 80/90 | 1300 | 3 3/4 deg |
| 5623' | 20/25000 | 80/90 | 1300 | 3 3/4 deg |
| 5718' | 25/30000 | 80/90 | 1300 | 3 1/2 deg |
| 5884' | 40000 | 80/90 | 1300 | 4 deg |
| 5996' | 35/40000 | 80/90 | 700 | 4 deg |
| 6131' | 40000 | 80 | 900 | 4 deg |
| 6318' | 40000 | 80 | 900 | 4 deg |
| 6552' | 40000 | 80 | 650/900 | 4 1/2 deg |
| 6769' | 30000 | 80/90 | 700 | 5 deg |
| 6957 | 40000 | 80/90 | 700 | 4 3/4 deg |
| 7109' | 40000 | 80/90 | 1100 | 4 3/4 deg |
| 7313' | 40/45000 | 70/80 | 1200 | 4 deg |
| 7598' | 40/45000 | 70/80 | 1200 | 4 deg |
| 7816' | 40/45000 | 70/80 | 1200 | 4 deg |
| 8400' | 40/45000 | 70/80 | 1200 | 3 3/4 deg |

## MUD RECORD

| 1990 Date | Depth | Wt. | F. Vis | pH | Filtr | CK | Chlo | Solid %/Wtr | Cum. Cost |
|---|---|---|---|---|---|---|---|---|---|
| 8-07 | 0' | 8.3 | 26 | 7.0 | | | 200 | | 0 |
| 8-08 | 163' | 8.5 | 35 | 10.0 | n/c | 2/32 | 300 | 1.3 | 255.00 |
| 8-09 | 735' | 9.3 | 29 | 9.0 | n/c | | 300 | 7.3 | 2185.00 |
| 8-10 | 905' | 9.1 | 38 | 9.0 | n/c | 2/32 | 300 | 5.8 | 2465.00 |
| 8-11 | 905' | 9.1 | 35 | 9.0 | n/c | 2/32 | 300 | 5.8 | 2465.00 |
| 8-12 | 1445' | 8.4 | 26 | 9.0 | | | 200 | .5 | 2465.00 |
| 8-13 | 2545' | 8.4 | 26 | 9.0 | | | 200 | .5 | 2768.00 |
| 8-14 | 3110' | 8.3+ | 26 | 10.5 | | | 300 | .5 | 3365.00 |
| 8-15 | 3670' | 8.4 | 27 | 10.5 | | | 300 | .5 | 3710.00 |
| 8-16 | 3890' | 8.4 | 27 | 10.0 | | | 300 | .5 | 4824.00 |
| 8-17 | 3890' | 8.5 | 31 | 10.0 | 20.0 | 2/32 | 300 | 1.3 | 5139.00 |
| 8-18 | 3970' | 8.8 | 39 | 9.5 | 10.4 | 2/32 | 300 | 3.5 | 5577.00 |
| 8-19 | 4310' | 9.0 | 36 | 9.5 | 11.5 | 2/32 | 300 | 5.0 | 6577.00 |
| 8-20 | 4685' | 9.0 | 36 | 9.0 | 12.0 | 2/32 | 300 | 5.0 | 7102.00 |
| 8-21 | 4920' | 9.2 | 35 | 9.0 | 12.0 | 2/32 | 300 | 6.5 | 7494.00 |
| 8-22 | 5120' | 9.1+ | 33 | 9.0 | 11.5 | 2/32 | 300 | 5.8 | 7956.00 |
| 8-23 | 5300' | 9.2+ | 40 | 9.5 | 10.6 | 2/32 | 300 | 6.5 | 9013.00 |
| 8-24 | 5563' | 9.4 | 36 | 9.5 | 10.0 | 2/32 | 250 | 7.6 | 10092.00 |
| 8-25 | 5879' | 9.1 | 33 | 9.0 | 11.6 | 2/32 | 200 | 5.5 | 11700.00 |
| 8-26 | 6101' | 9.0 | 34 | 9.5 | 10.4 | 2/32 | 300 | 4.9 | 12784.00 |
| 8-27 | 6459' | 9.3 | 35 | 9.5 | 10.0 | 2/32 | 350 | 6.8 | 13889.00 |
| 8-28 | 6721' | 9.3 | 34 | 9.0 | 10.2 | 2/32 | 300 | 6.9 | 14895.00 |
| 8-29 | 6960' | 9.4 | 34 | 9.0 | 10.0 | 2/32 | 300 | 7.6 | 16039.00 |
| 8-30 | 7120' | 9.4 | 38 | 9.0 | 10.1 | 2/32 | 350 | 7.6 | 17258.00 |
| 8-31 | 7471' | 9.4 | 37 | 9.2 | 10.8 | 2/32 | 400 | 7.6 | 18032.00 |
| 9-01 | 7733' | 9.4 | 36 | 9.1 | 10.4 | 2/32 | 400 | 7.6 | 19322.00 |
| 9-02 | 8024' | 9.2 | 36 | 9.2 | 10.0 | 2/32 | 400 | 6.4 | 20493.00 |
| 9-03 | 8361' | 9.0 | 37 | 9.1 | 9.6 | 2/32 | 400 | 4.8 | 22660.00 |
| 9-04 | 8414' | 9.0 | 36 | 8.9 | 9.6 | 2/32 | 400 | 4.8 | 24448.00 |
| 9-05 | 8435' | 9.0 | 33 | 9.0 | 8.4 | 2/32 | 400 | 4.8 | 25984.00 |
| 9-06 | 8543' | 9.0 | 38 | 9.1 | 8.4 | 2/32 | 400 | 4.8 | 27805.00 |
| 9-07 | 8543' | 9.2 | 38 | 9.0 | 8.0 | 2/32 | 400 | 6.2 | 28618.00 |
| 9-08 | 8543' | 9.0 | 40 | 9.6 | 7.2 | 2/32 | 400 | 4.8 | 31069.00 |

LITHOLOGY
(Not Lagged)

| | |
|---|---|
| 1230' - 1320' | Sh v col, brn, red brn, gn, purp, tn, n calc, rthy, sb fis-sb blky, frm, pyr ip, w/mnr SS wh lt gy, s&p ip, vf-fg, sb ang, calc cmt, p-m srt, cons |
| 1320' - 1500' | Sh v col, gen aa, w/10% SS wh, lt gy, s&p, vf-fg, sb ang, calc cmt, p-m srt, cons |
| 1500' - 1860' | 70-80% Sh v col, red brn, gy, gy gn, purp, yel brn n-calc, rthy, sb blky, frm, 20-30% SS wh, lt gy,s&p, vf-fg, sb ang-sb rd, p-m srt, calc cmt ip cons-lsely cons, mnr Ls wh, bf, crpxl, arg, chky, sb blky, frm, tr Coal blk, vit, brit |
| 1860' - 1890' | 100% SS clr-wh, s&p ip, vf-mg, sb rd-sb ang, p srt, uncons, tr coal, blk, brit, vit |
| 1890' - 1920' | 20% SS, 80% Sh gen aa |
| 1920' - 1950' | 30% SS wh, s&p, vf-fg, sb ang-sb rd, p-m srt, calc cmt, lsely cons, 70% Sh v col, gy, gy gn, mnr red brn, purp, n calc, rthy, suc ip, wxy ip sb fis-sb blky, frm, tr Coal blk, vit brit |
| 1950' - 1980' | 40% SS wh, s&p ip, vf-fg, sb rd-sb ang, p-m srt calc-cly cmt, fri-cons, 50% Sh v col, dul, rthy, n-calc, frm, 10% Coal, blk-dk gy, brit, vit-dul, blky-sb blky, shly ip |
| 1980' - 2010' | 70% SS clr-wh, s&p, vf-mg, sb ang-sb rd, cly-calc cmt, uncons-lsely cons, 30% Sh aa, v col |
| 2010' - 2040' | 60% SS gen aa, 20% Sh aa, 20% Coal blk, vit, brit, blky |
| 2040' - 2070' | 90% SS, 10% Sh gen aa |
| 2070' - 2190' | 40-70% SS wh clr, s&p ip, vf-fg, occ mg,, sb ang-sb rd, p-m srt, calc cmt, pred uncons, w/ mnr carb matl, 30-60% Sh v col, gy, gy gn, red brn, purp, lt gn, motl, n-calc, dul-rthy, carb ip, slty ip, sb fis-sb blky, frm |
| 2190' - 2310' | 30-60% SS gen aa, w/abndt blk grs, coal(?) @ top, 40-70% Sh v col, motl ip, tr Coal blk, brit, vit @ btm |

| | |
|---|---|
| 2310' - 2400' | 20-80% SS wh, clr, vf-mg, ang-sb rd, p-m srt, uncons, w/blk grs, 20-80% Sh v col, red brn, brn, lt gn, gy gn, n-calc, dul-rthy, sb fis-sb blky frm, pyr ip |
| 2400' - 2550' | 10-20% SS wh, clr, s&p ip, vf-fg, sb ang-sb rd, m srt, calc-cly cmt, lsely cons, 90% Sh v col, red brn, lt gn, gy, gy gn, n-sl calc, dul, rthy, Ls tr, wh, tn, crpxl, arg, chky ip, sb blky, frm, fos ip, ostra |
| 2550' - 2580' | 100% Sh v col, red brn, brn, gy gn, lt gn, motl, slty ip, n-sl calc, pyr ip, dul, rthy wxy ip, sb fis-sb blky, frm |
| 2580' - 2730' | 10% SS gen aa, 90% Sh aa, v col, lt gn-gn, tr Coal, blk, vit, brit |
| 2730' - 2910' | 10-60% SS wh, clr, s&p ip, fg, ang-sb rd, w srt, cly-calc cmt, uncons, 40-90% Sh v col, lt gn-gn, gy, brn, red brn, yel brn, purp, motl ip, dul, rthy, n-sl calc, sb fis-sb blky, sft-frm, carb ip, tr Coal blk, vit, brit, cvgs(?) @ btm |
| 2910' - 2940' | 100% Sh v col, gy-dk gy, mnr red brn-brn, gy, gn, n-sl calc, dul, rthy, sb fis-sb blky, sft-frm |
| 2940' - 3030' | 10-20% SS gen aa, 80% Sh v col, tr Coal cvgs(?) |
| 3030' - 3060' | 70% SS wh, clr, vf-fg, ang-sb rd, m srt, calc-cly cmt, uncons, 30% Sh v col, red brn, lt gy-gy, gy gn, lt gn, purp, n calc, dul, rthy, wxy ip, sb fis-sb blky, sft-frm, tr Coal blk, dul-vit, brit-frm, grdg to v carb Sh |
| 3060' - 3090' | 40% SS, 40% Sh aa, 20% Coal blk, dul-vit, brit-frm, sme grdg to v carb Sh |
| 3090' - 3180' | 20-30% SS, 70-80% Sh aa, tr Coal, blk, vit, brit, cvgs(?) |
| 3180' - 3210' | 20% SS aa, 60% Sh v col, red brn, aa, 20% Coal blk, vit, brit, blky |
| 3210' - 3300' | 10% SS aa, 90% Sh aa w/lt gy, lt gn, tr Coal, Tr Ls wh, crm, crpxl, arg, chky ip, sb blky, frm, fos ip |
| 3300' - 3360' | 10-20% SS wh, clr, vf-fg, ang-sb rd, m srt, sme calc-cly cmt, uncons, 70-80% Sh v col, lt gy, lt gn, red brn, gy gn, purp, bf, motl ip, n-sl calc, slty ip, dul, rthy, wxy ip, sb fis-sb |

| | |
|---|---|
| | blky, frm, 10% Coal blk, vit, brit |
| 3360' - 3390' | 30% SS wh clr, vfg, ang-sb rd, w srt, pred uncons, sme fri w/calc-cly cmt, 60% Sh v col, bf, purp, red brn, lt gn, n-sl calc, dul, rthy, wxy ip, slty ip, sb fis-sb blky, sft-frm, 10% Coal, blk, vit, brit |
| 3390' - 3420' | 60% SS wh clr, vf-fg, ang-sb rd, m srt, sm calc -cly cmt, uncons, 30% Sh lt gy, lt gn, v col aa, 10% Coal blk, vit, present as gran grs in SS |
| 3420' - 3450' | 90% SS clr, wh, vf-fg, ang-sb rd, m srt, uncons p-fr vis por, 10% Coal blk, vit, brit, present as gran grs in SS |
| 3450' - 3480' | 100% SS aa, tr Coal aa |
| 3480' - 3570' | 60-70% SS aa, 30-40% Sh v col, pred gy, gy gn, red brn aa, tr dk gy fos ip, tr Coal |
| 3570' - 3600' | 10% SS aa, 90% Sh v col, pred gy-dk gy, gy-gn, red brn, brn, yel brn, purp, n calc, carb ip, tr pyr, tr fos, slty ip, sb fis-sb blky, sft-frm |
| 3600' - 3660' | 40% SS clr, wh, vf-fg, sb ang-sb rd, m srt, sme calc-cly cmt, uncons, 60% Sh v col aa, tr Coal blk, vit, brit, cavings(?) |
| 3660' - 3720' | 60% SS aa, 40% Sh v col, pred lt gn, lt gy-gy w/occ carb matl aa, tr Coal aa |
| 3720' - 3870' | 20-30% SS aa, 70-80% Sh v col, lt gy, lt gn, red brn, yel brn, purp, motl ip, mnr dk gy brn n calc, rthy ip, slty ip, carb ip, pyr ip, sb fis-sb blky, sft-frm, tr Coal, blk, vit, brit, cavings(?) |
| 3870' - 3900' | 100% Sh v col, lt-m gy, dk gy, carb, n-sl calc, slty ip, sb fis-sb blky, sft-frm |
| 3900' - 3990' | 40% SS wh, clr, s&p ip, vf-fg, sb ang-sb rd, m srt, n-calc cmt, mnr cly cmt, cons, grdg to Sltst, pyr ip, 60% Sh v col, red brn, gy, dk gy, gn, purp, n-sl calc, slty ip, rthy, sb fis-sb blky, sft-frm, tr Ls wh, bf, crpxl, ang ip, chky ip, sb blky, sft-frm |
| 3990' - 4020' | 100% Sh v col, w/gy-dk gy, dk brn, carb |
| 4020' - 4080' | 70% SS wh, lt gy, s&p ip, vf-fg, sb ang-sb rd, m srt, n-sl calc cmt, cons w/mnr gn mnrl grs, 30% Sh v col aa |

| | |
|---|---|
| 4080' - 4140' | 10-50% SS wh, lt gy, lt brn s&p, vf-fg, sb ang-sb rd, p-m srt, n-sl calc cmt, cons, carb ip, grdg to Sltst, 50-90% Sh v col, n calc |
| 4140' - 4200' | Tr-30% SSaa, 70-100% Sh v col, pred lt gy-gy, dk gy, n calc, carb, slty, mica ip, sb fis-sb blky, sft-frm |
| 4200' - 4320' | 10% SS wh, lt gy-gy, s&p ip, vf-fg, sb ang-sb rd, n-sl calc cmt, sme cly cmt, p-m srt, cons, grdg to Sltst ip, 90% Sh v col, pred gy-dk gy, dk brn, n-sl calc, carb ip, slty ip, sb fis-fis sb blky, frm |
| 4320' - 4380' | 50% SS aa grdg to Sltst, 50% Sh aa |
| 4380' - 4470' | 10-30% SS wh, lt gy, s&p ip, vfg, sb rd-sb ang, cly-sl calc cmt, m srt, cons-fri, slty ip, 70-90% Sh gy-dk gy, v slty, sdy ip, n calc, carb ip, sb fis, sft-frm |
| 4470' - 4620' | 90-100% Sh gy-dk gy, dk gy brn, slty & sdy ip, n calc, carb, sb fis, frm, Tr-10% SS wh, lt gy-gy, vfg, sb ang-sb rd, w srt, n-sl calc cmt, cons, shly & carb ip, grdg to Sltst |
| 4620' - 4800' | 100% Sh gy-dk gy, dk gy brn, n-sl calc, slty & sdy ip, carb w/carb matl, sb fis-sb blky, frm, w/occ slty to sdy lams |
| 4800' - 4920' | 10-30% SS aa, 70-90% Sh aa, pyr ip |
| 4920' - 5040' | 20-30% SS wh, lt gy, s&p ip, vfg, sb ang-sb rd w srt, n-calc cmt, cons, carb ip, grdg to Sltst 70-80% Sh gy-dk gy, n-sl calc, sme calc, v slty sdy ip, carb w/carb matl, sb fis-sb blky, frm w/occ calc xls filling fracs |
| 5040' - 5100' | 40% SS aa, 60% Sh aa w/abndt Bent lt gy-blu gy mica ip w/bri yel flor |
| 5100' - 5370' | 10-30% SS wh, lt gy, s&p ip, vfg, mnr fg, sb ang-sb rd, n-calc cmt, m srt, cons, carb ip, sme grdg to Sltst, 70-90% Sh gy-dk gy aa, tr Ls wh, crm, crpxl, arg, chky, sb blky, frm-hd, fos ip |
| 5370' - 5520' | 60% SS wh, lt gy, s&p ip, vfg, mnr fg, sb ang-sb rd, w srt, n-sl calc cmt, cons, 40-80% Sh gy dk gy, dk gy brn, n-sl calc, carb w/carb matl, slty ip mica ip, sb fis-sb blky, frm, tr Ls lt gy, crpxl, arg, chky, sb blky, frm |

| | |
|---|---|
| 5520' - 5670' | 40-90% SS wh, lt gy, s&p ip, vfg, sme fg, sb rd sb ang, w srt, calc cmt, cons w/mnr gn mnrl grs, 10-60% Sh gy-dk gy, dk gy brn, carb, slty, n-calc, mica ip, sb fis-sb blky, frm |
| 5670' - 5700' | 90% SS wh, lt gy, s&p ip, vfg, mnr f-mg, sb ang-sb rd, m srt, calc cmt, cons-lsely cons w/mnr lt brn stn(?), 25% pale blu-gn flor, n-v p rng cut, n-p vis por, 10% Sh aa |
| 5700' - 5730' | 80% SS aa w/10% pale blu-gn flor, n-vp rng cut n-p vis por, 20% Sh aa |
| 5730' - 5760' | 50% SS aa, tr pale blu-gn flor, n-vp rng cut, n vis por, 50% Sh aa |
| 5760' - 5790' | 20% SS aa, n flor or cut, 80% Sh aa |
| 5790' - 5850' | 100% Sh gy-dk gy, carb, n-calc, carb, mica ip, slty-sdy ip, sb fis-fis, sb blky, frm |
| 5850' - 6150' | 10% SS wh, lt gy, s&p ip, vfg, sb ang-sb rd, w srt, calc cmt, cons, sme grdg to Sltst, 90% Sh gy-dk gy, n-calc, carb, slty, mica ip, sb fis-fis, sb blky, frm, tr Ls lt brn, wh, crpxl, ang chky ip, sb blky, frm-hd, Bent mod-abndt, blu gy, mica, fis, sft w/pale gn-yel mnrl flor @ btm |
| 6150' - 6210' | 10% SS wh, lt gy-gy, vfg, sb rd-sb ang, w srt, calc cmt, cons, tt, grdg to Sltst, 80% Sh gy-dk gy, n calc, carb, slty mica ip, sb fis-fis sb blky, frm, 10% Bent blu gy, mica ip, w/pale gn-yel mnrl flor, decr @ btm, tr Ls lt brn, wh, crpxl, arg, chky ip, sb blky-blky, frm, fos ip |
| 6210' - 6270' | 100% Sh aa |
| 6270' - 6450' | 10-30% SS wh, lt gy, s&p ip vfg, sb rd-sb ang, w srt, calc cmt, cons-fri w/carb lams, 70-90% Sh aa, slty, tr Bent aa, decr @ btm |
| 6450' - 6600' | 10-20% SS wh, lt gy, s&p ip, vfg, sb rd-sb ang, w srt, calc-cly cmt, cons-fri w/carb lams, 80-90% Sh gy-dk gy, dk gy brn, n-calc, carb, slty, mica ip, sb fis-sb blky, sft-frm, w/occ tr free calc xls, wh, fxln, Tr Ls wh, lt gy-bf, crxpl, arg, chky, sb blky-blky, frm-hd, fos ip, tr Bent blu gy, lt gy, mica ip w/dul yel mnrl flor |
| 6600' - 6810' | Tr SS wh, lt gy, vfg aa, 100% Sh gy-dk gy, dk gy brn, calc, carb, slty & mica ip, fis-sb blky, sft-frm, tr Bent |

| | |
|---|---|
| 6810' - 6960' | Tr-10% SS wh, lt gy, s&p ip, vfg, sb ang-sb rd, w srt, calc cmt, cons-fri, v thn bdd w/carb lams, 90-100% Sh gy-dk gy, dk gy brn, n-calc aa, Tr Ls lt gy, bf, lt brn, crpxl, arg, chky ip, blky, frm-hd, fos ip, abndt Coal blk, vit, brit, cavings(?) @ top |
| 6960' - 7170' | 100% Sh gy-dk gy, dk gy brn, calc, incr calc, carb, mica & slty ip, sb fis-sb blky, frm, w/ tr inoc fos |
| 7170' - 7320' | 10-30% SS wh, lt gy-gy, s&p ip, vfg, sb rd-sb ang, w srt, calc cmt, cons-fri, carb & shly lams, v thn bdd, drty, 70-90% Sh aa calc-v calc |
| 7320' - 7350' | 100% Sh aa, v slty-sdy |
| 7350' - 7530' | 10-20% SS aa, 80-90% Sh aa, abndt Bent lt gy-blu gy, mica ip, w/dul yel-brn mnrl flor @ top |
| 7530' - 7740' | 100% Sh gy-dk gy, dk gy brn, calc-v calc, slty, sdy ip, carb w/carb spks & strks, mica ip, sb fis-fis, sb blky, frm, tr inoc fos, tr Bent lt gy, blu gy, mica ip, w/dul yel-brn mnrl flor |
| 7740' - 7890' | 100% Sh aa, w/pyr flks & cubes, sl calc-calc, slty-sdy, occ tr fxln, free, wh calc, mnr inoc fos, tr Bent aa, |
| 7890' - 8010' | 100% Sh gy-dk gy, dk gy brn, calc-v calc, carb, mica ip, slty, sdy ip, sb fis-fis, sb blky, frm w/slty & sdy lams, tr SS aa w/mnr gn mnrl grs, tr Bent aa |
| 8010' - 8050' | 10% SS wh, lt gy-gy, s&p ip, vfg, sb rd-sb ang, w srt, calc cmt, cons, sme grdg to Sltst, w/sme gn mnrl grs, 90% Sh gy-dk gy, sl calc-calc, carb, slty & sdy, mica, sb fis-fis, sb blky, sft-frm, pyr ip, tr-abndt Bent, lt gy-gy, blu gn, mica ip, w/dul yel-brn, mnrl flor |
| 8050' - 8170' | Tr SS wh-lt gy, s&p ip, vfg, sb ang-sb rd, w srt, calc-cly cmt, lsely cons-cons, sme grdg to Sltst, 100% Sh gy-dk gy, sl calc-calc, slty & sdy ip, carb, mica, sb fis-fis, sb blky, sft-frm, pyr ip, Bent mnr wh-lt gy, mica ip w/dul yel-brn mnrl flor |
| 8170' - 8180' | 10% SS wh, lt gy-gy, vfg sb rd-sb ang, w srt, calc-cly cmt, cons-lsely cons, sme grdg to Sltst, 90% Sh aa |

| | |
|---|---|
| 8180' - 8210' | 20-30% SS wh, lt gy, tn, vfg, sb ang-sb rd, calc-cly cmt, cons, tt, grsy luster, sme grdg to Sltst, 70-80% Sh aa, tr Bent |
| 8210' - 8220' | 100% Sh aa, abndt Bent, wh lt gy, mica ip, w/ dul-bri yel flor |
| 8220' - 8250' | 30-40% SS-Sltst aa, lt brn-brn, tt, 60-70% Sh |
| 8250' - 8260' | 30% SS-Sltst, lt gy-gy, mnr wh, vfg, sb ang-sb rd, w srt, calc-cly cmt, cons-fri, tt, 70% Sh gy-dk gy, n calc-calc, carb, slty, mica, sb fis -fis, sb blky, sft-frm |
| 8260' - 8300' | 20-50% SS lt gy-gy, dk gy-wh, lt brn, vfg, sb ang-sb rd, s srt, calc-cly cmt, sme sil cmt, cons, sme fri, tt, n vis por, 50-80% Sh gy-dk gy, dk gy brn, calc, slty, carb, mica ip, sb fis-fis, sb blky, frm |
| 8300' - 8310' | 60% SS wh-clr, lt gy, v lt brn stn, vf-fg, sm mg, sb rd-sb ang, calc-cly cmt, uncons-cons, fri-tt, n-p vis por, 40% Sh gy-dk gy, n-sl calc, carb w/carb spks & strks, slty & mica ip, sb fis-fis, frm |
| 8310' - 8390' | 20-40% SS aa, 60-80% Sh aa, tr Bent wh, lt gy, blu gy, mica ip, w/dul-bri yel mnrl flor @ top |
| 8390' circ. 1 hr. | 10% SS wh, clr, lt gy, vf-fg, sb ang-sb rd, w srt, calc-cly cmt, cons, 90% Sh gy-dk gy, n-calc, carb, slty & mica ip, sb fis-fis, sb blky frm |
| 8390' circ. 2 hrs | 30% SS wh, clr, lt gy, vf-fg, sb ang-sb rd, cly -calc cmt, cons, tt, 70% Sh aa |
| 8390' - 8400' | 90% SS wh, clr, f-mg, sb rd-sb ang, m-w srt, cly cmt, uncons-lsely cons, cln, p-fr vis por, 10% Sh aa |
| 8400' - 8408' | 70% SS wh, clr, lt brn o stn (?), f-mg, sb ang-sb rd, m srt, sme cly cmt, uncons-lsely cons, p-fr vis por, 30% Sh gy-dk gy aa |
| 8408' circ. 1 hr. | 90% SS wh-clr, f-mg, sb ang-sb rd, cly cmt, cln, uncons, p-fr vis por, 10% Sh gy-dk gy aa |
| 8408' circ. 2 hrs | 70% SS wh, clr aa, 30% Sh gy-dk gy aa |

Trip to core @ 8408' - Depth correction to 8414'

| | |
|---|---|
| 8414' - 8435' | 10-50% SS wh, clr, lt gy, f-mg, sb ang-sb rd, sme cly cmt, m srt, uncons-lsely cons, p-fr vis por, 50-90% Sh gy-dk gy, aa, tr Bent lt gy-gy w/yel mnrl flor |
| 8435' - 8450' | 10% SS, 90% Sh aa w/incr gn clyst & brn Sh, n-calc, rthy, wxy, sb fis-fis, frm |
| 8450' - 8470' | 100% Sh pred lt gy-lt gn, sme brn-lt brn, mnr dk gy, n-calc, wxy ip, dul, rthy, sb fis-fis, sft-frm, SS mnr, clr, wh, f-cg, ang-w rdd, p srt, cong, uncons, w/sme chrt grs, smky, rd, abndt Bent aa |
| 8470' - 8500' | 100% Sh aa w/mnr intbd SS wh, clr, f-cg, cong, uncons, tr Ls wh, lt gy, crpxl, ang, chky, sb blky, frm-hd |
| 8500' - 8543' | 100% Sh lt gy, lt gn, red brn, brn, dk gy, n-calc, slty & sdy ip, wxy-rthy ip, dul ip, fis-sb fis, sb blky, frm w/mnr intbd SS wh, clr, f-cg, cong, ang-w rdd, cly cmt, uncons |

43-047-31896

| LEASE NAME | WELL NO. | TEST NO. | TESTED INTERVAL | LEASE OWNER/COMPANY NAME |
|---|---|---|---|---|
| EVACUATION CREEK | 1 | 1 | 8264.4 - 8540.0 | TXO PRODUCTION CORPORATION |

| LEGAL LOCATION SEC. - TWP. - RNG. | FIELD AREA | COUNTY | STATE |
|---|---|---|---|
| 25-11S-25E | HELLS HOLE | UINTAH | UTAH SM |

# TXO PRODUCTION CORPORATION

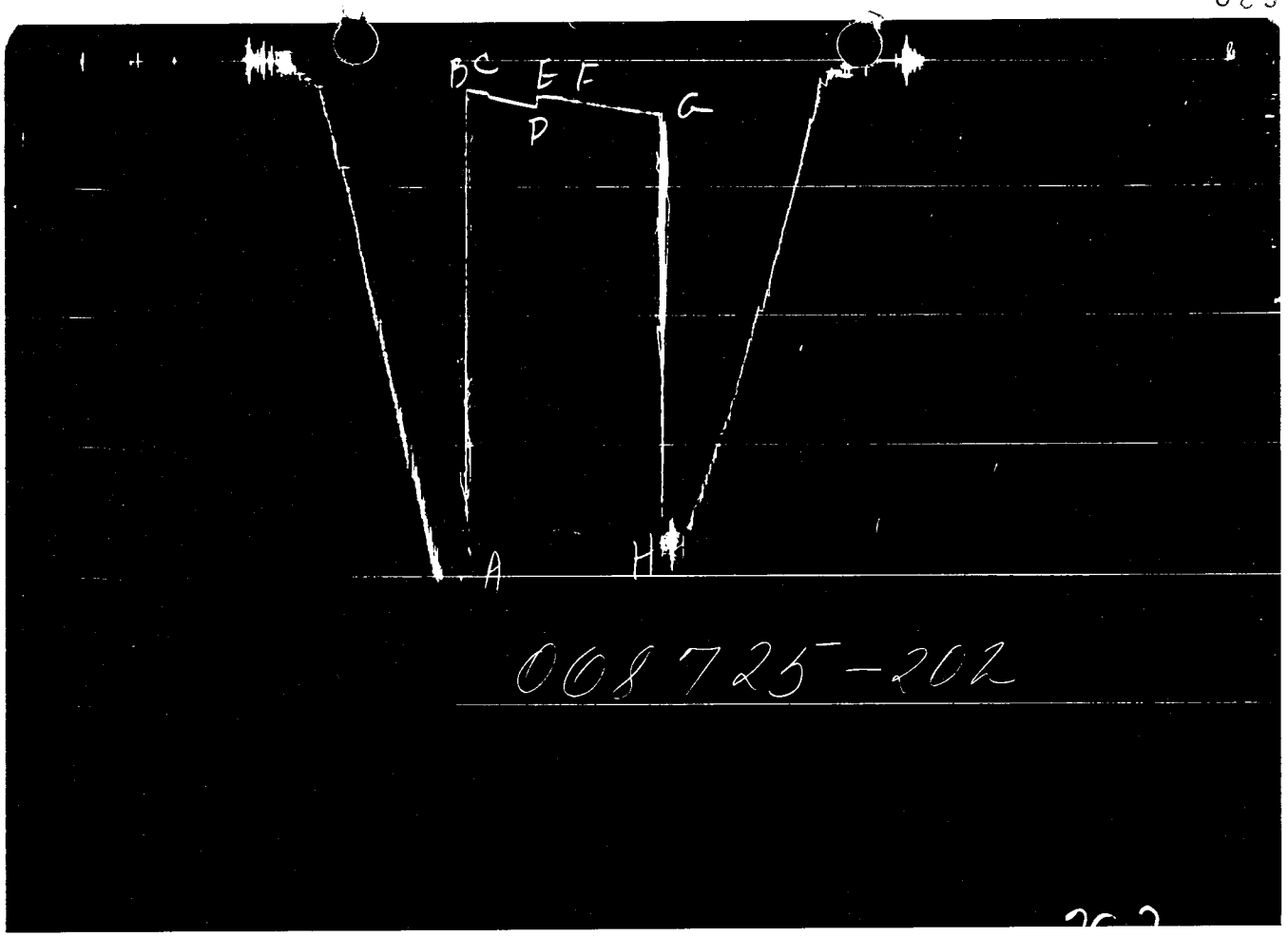
## LEASE : EVACUATION CREEK

## WELL NO.: 1

## TEST NO.: 1

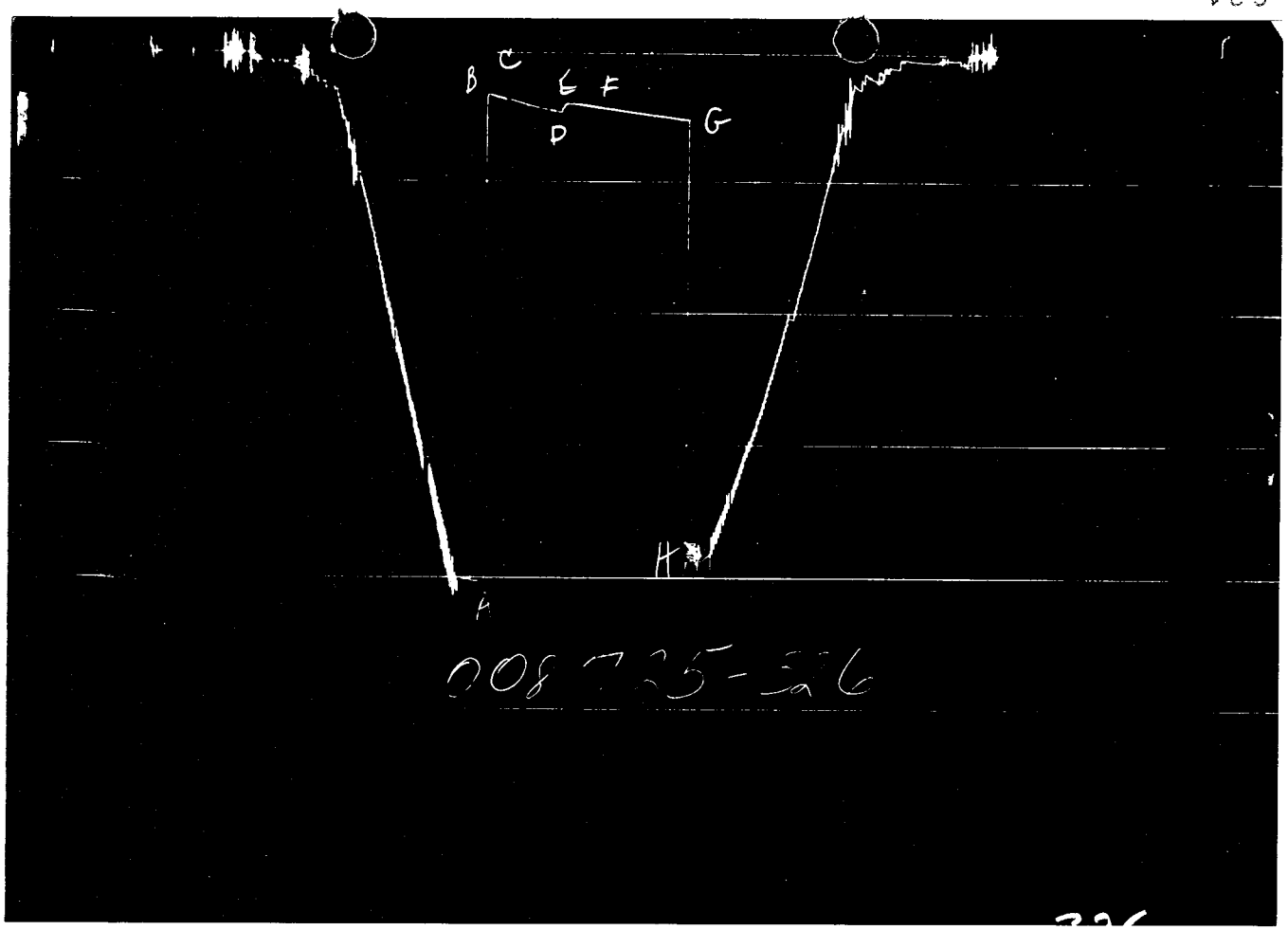
TICKET NO. 00872500
20-SEP-90
GILLETTE.

DST REPORT PRODUCED BY HRS
A DIVISION OF HALLIBURTON COMPANY



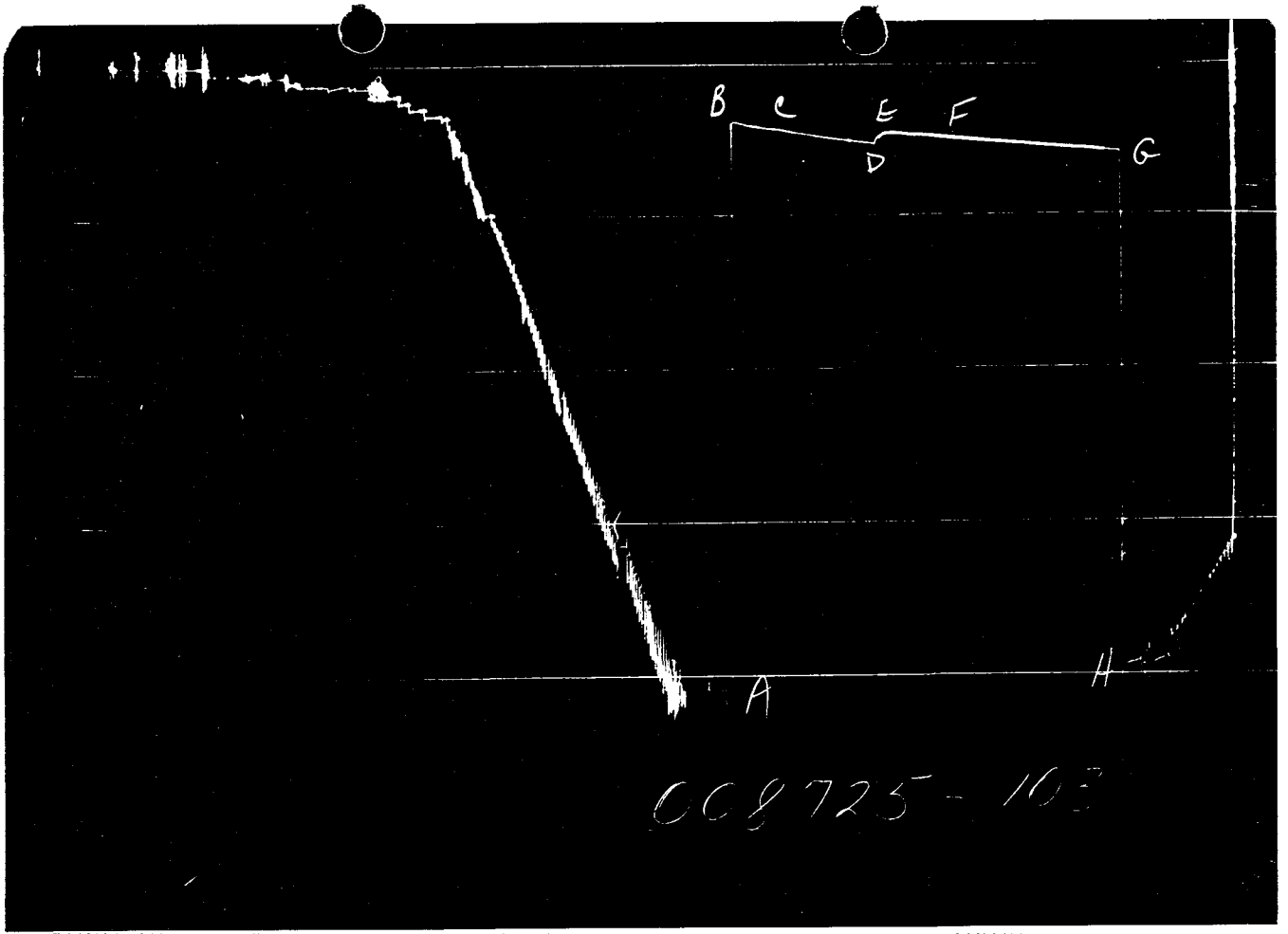

GAUGE NO: 202 DEPTH: 8243.6 BLANKED OFF: NO HOUR OF CLOCK: 24

| ID | DESCRIPTION | PRESSURE | | TIME | | TYPE |
|---|---|---|---|---|---|---|
| | | REPORTED | CALCULATED | REPORTED | CALCULATED | |
| A | INITIAL HYDROSTATIC | 3910 | 3941.3 | | | |
| B | INITIAL FIRST FLOW | 228 | 229.4 | 30.0 | 30.0 | F |
| C | FINAL FIRST FLOW | 266 | 254.4 | | | |
| C | INITIAL FIRST CLOSED-IN | 266 | 254.4 | 60.0 | 60.0 | C |
| D | FINAL FIRST CLOSED-IN | 380 | 369.0 | | | |
| E | INITIAL SECOND FLOW | 266 | 283.8 | 31.0 | 31.0 | F |
| F | FINAL SECOND FLOW | 266 | 294.6 | | | |
| F | INITIAL SECOND CLOSED-IN | 266 | 294.6 | 123.0 | 123.0 | C |
| G | FINAL SECOND CLOSED-IN | 418 | 423.2 | | | |
| H | FINAL HYDROSTATIC | 3797 | 3787.5 | | | |




GAUGE NO: 326 DEPTH: 8414.9 BLANKED OFF: YES HOUR OF CLOCK: 24

| ID | DESCRIPTION | PRESSURE | | TIME | | TYPE |
|---|---|---|---|---|---|---|
| | | REPORTED | CALCULATED | REPORTED | CALCULATED | |
| A | INITIAL HYDROSTATIC | 3983 | 4023.5 | | | |
| B | INITIAL FIRST FLOW | 298 | 312.9 | 30.0 | 30.0 | F |
| C | FINAL FIRST FLOW | 335 | 359.3 | | | |
| C | INITIAL FIRST CLOSED-IN | 335 | 359.3 | 60.0 | 60.0 | C |
| D | FINAL FIRST CLOSED-IN | 447 | 451.4 | | | |
| E | INITIAL SECOND FLOW | 372 | 428.0 | 31.0 | 31.0 | F |
| F | FINAL SECOND FLOW | 372 | 397.0 | | | |
| F | INITIAL SECOND CLOSED-IN | 372 | 397.0 | 123.0 | 123.0 | C |
| G | FINAL SECOND CLOSED-IN | 484 | 508.8 | | | |
| H | FINAL HYDROSTATIC | 3836 | 3856.1 | | | |




GAUGE NO: 103 DEPTH: 8537.0 BLANKED OFF: YES HOUR OF CLOCK: 12

| ID | DESCRIPTION | PRESSURE | | TIME | | TYPE |
|---|---|---|---|---|---|---|
| | | REPORTED | CALCULATED | REPORTED | CALCULATED | |
| A | INITIAL HYDROSTATIC | 4077 | 4092.9 | | | |
| B | INITIAL FIRST FLOW | 353 | 383.5 | 30.0 | 30.0 | F |
| C | FINAL FIRST FLOW | 386 | 426.5 | | | |
| C | INITIAL FIRST CLOSED-IN | 386 | 426.5 | 60.0 | 60.0 | C |
| D | FINAL FIRST CLOSED-IN | 514 | 520.9 | | | |
| E | INITIAL SECOND FLOW | 418 | 493.9 | 31.0 | 31.0 | F |
| F | FINAL SECOND FLOW | 418 | 464.3 | | | |
| F | INITIAL SECOND CLOSED-IN | 418 | 464.3 | 123.0 | 123.0 | C |
| G | FINAL SECOND CLOSED-IN | 545 | 576.6 | | | |
| H | FINAL HYDROSTATIC | 3887 | 3913.1 | | | |

# EQUIPMENT & HOLE DATA

FORMATION TESTED: DAKOTA
NET PAY (ft): 25.0
GROSS TESTED FOOTAGE: 275.6
ALL DEPTHS MEASURED FROM: KELLY BUSHING
CASING PERFS. (ft):
HOLE OR CASING SIZE (in): 7.875
ELEVATION (ft):
TOTAL DEPTH (ft): 8540.0
PACKER DEPTH(S) (ft): 8259, 8264, 8419
FINAL SURFACE CHOKE (in):
BOTTOM HOLE CHOKE (in): 0.750
MUD WEIGHT (lb/gal): 9.10
MUD VISCOSITY (sec):
ESTIMATED HOLE TEMP. (°F):
ACTUAL HOLE TEMP. (°F): 170 @ 8536.0 ft

TICKET NUMBER: 00872500

DATE: 9-9-90 TEST NO: 1

TYPE DST: ON BTM. STRADDLE

FIELD CAMP:
GILLETTE.

TESTER: PABLE HEADWORTH
CRAIG BARNEY

WITNESS: RANDY

DRILLING CONTRACTOR:
OLSON DRILLING RIG #7

# FLUID PROPERTIES FOR RECOVERED MUD & WATER

| SOURCE | RESISTIVITY | | CHLORIDES |
|---|---|---|---|
| SOURCE WATER | 3.000 @ | 76 °F | 1700 ppm |
| MUD PIT | 2.400 @ | 90 °F | 1700 ppm |
| TOP RECOVERY | 6.000 @ | 98 °F | 700 ppm |
| MIDDLE RECOVERY | 9.000 @ | 90 °F | 325 ppm |
| BOTTOM RECOVERY | 10.000 @ | 90 °F | 375 ppm |
| SAMPLER | 5.000 @ | 70 °F | 1100 ppm |

# SAMPLER DATA

Psig AT SURFACE: 25.0
cu.ft. OF GAS:
cc OF OIL:
cc OF WATER:
cc OF MUD: 2240.0
TOTAL LIQUID cc: 2240.0

# HYDROCARBON PROPERTIES

OIL GRAVITY (°API): _____ @ ___ °F
GAS/OIL RATIO (cu.ft. per bbl):
GAS GRAVITY:

# CUSHION DATA

| TYPE | AMOUNT | WEIGHT |
|---|---|---|
| | | |
| | | |

# RECOVERED:

500 FT (3 BBLS.) OF MUD

MEASURED FROM TESTER VALVE

# REMARKS:

TESTER REPORTS THAT THE HIGH INITIAL FLOW PRESSURE IS BELIEVED TO BE DUE TO MUD FALLBACK WITHIN THE PIPE WHILE TRIPPING IN THE HOLE, AND NOT A DRILL PIPE LEAK. DRILL PIPE WAS REPORTEDLY CHECKED FOR LEAKS AND NONE WERE FOUND.

CHART FROM BOTTOM GAUGE, NO. 103, SHOWS THE TEST RESPONSE, INDICATING PRESSURE COMMUNICATION TO BELOW THE TESTED INTERVAL, INDICATING THE BOTTOM PACKER DID NOT HOLD DURING THE TEST. THEREFORE, THE GROSS TESTED INTERVAL EXTENDS FROM THE TOP PACKER TO TOTAL DEPTH (8264.4 TO 8540').

TYPE & SIZE MEASURING DEVICE: _____ TICKET NO: 00872500

| TIME | CHOKE SIZE | SURFACE PRESSURE PSI | GAS RATE MCF | LIQUID RATE BPD | REMARKS |
|---|---|---|---|---|---|
| 9-9-90 | | | | | |
| 0100 | | | | | ON LOCATION |
| 0500 | | | | | PICKED UP TOOLS |
| 0715 | | | | | STARTED IN HOLE |
| 1052 | | | | | SET WEIGHT ON TOOLS |
| 1056 | BH | | | | TOOL OPENED WITH 3" BLOW |
| 1057 | | | | | BLOW TO BOTTOM OF BUCKET |
| 1101 | | 7.5 OZ. | | | |
| 1106 | | 7.0 OZ. | | | |
| 1111 | | 6.5 OZ. | | | |
| 1116 | | 6.0 OZ. | | | |
| 1125 | | 5.0 OZ. | | | |
| 1126 | BH | 5.0 OZ. | | | CLOSED TOOL |
| 1141 | | 2.0 OZ. | | | |
| 1225 | | | | | 1/4" BLOW |
| 1226 | BH | | | | OPENED TOOL WITH WEAK SURFACE |
| | | | | | BLOW, 1" |
| 1227 | | | | | INCREASED TO 1 1/2" BLOW |
| 1241 | | | | | DECREASED TO 1" BLOW |
| 1256 | | | | | DEAD |
| 1257 | | | | | CLOSED TOOL |
| 1500 | | | | | OPENED BYPASS |
| | | | | | STARTED OUT OF HOLE |
| 1715 | | | | | HIT FLUID 84 STANDS OUT |
| 1800 | | | | | TOOLS OUT OF HOLE |
| | | | | | DID FIELD CALCULATION |
| 2200 | | | | | JOB COMPLETED |
| | | | | | |
| | | | | | |
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| | | | | | |
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| | | | | | |

TICKET NO. 00872500

| | | O.D. | I.D. | LENGTH | DEPTH |
|---|---|---|---|---|---|
| 1 | DRILL PIPE | 4.000 | 2.375 | 7834.4 | |
| 3 | DRILL COLLARS | 6.000 | 2.250 | 271.6 | |
| 50 | IMPACT REVERSING SUB | 6.125 | 2.375 | 1.1 | 8106.0 |
| 3 | DRILL COLLARS | 6.000 | 2.250 | 122.0 | |
| 5 | CROSSOVER | 5.938 | 2.813 | 0.8 | |
| 5 | CROSSOVER | 5.688 | 2.250 | 0.9 | |
| 13 | DUAL CIP SAMPLER | 5.000 | 0.870 | 6.8 | |
| 60 | HYDROSPRING TESTER | 5.000 | 0.750 | 5.0 | 8241.6 |
| 80 | AP RUNNING CASE | 5.000 | 2.250 | 4.0 | 8243.6 |
| 15 | JAR | 5.000 | 1.750 | 5.0 | |
| 16 | VR SAFETY JOINT | 5.000 | 1.000 | 2.8 | |
| 70 | OPEN HOLE PACKER | 7.000 | 1.530 | 5.8 | 8258.6 |
| 70 | OPEN HOLE PACKER | 7.000 | 1.530 | 5.8 | 8264.4 |
| 5 | CROSSOVER | 5.813 | 2.500 | 0.7 | |
| 3 | DRILL COLLARS | 6.000 | 2.250 | 120.4 | |
| 5 | CROSSOVER | 6.000 | 2.438 | 0.8 | |
| 20 | FLUSH JOINT ANCHOR | 4.938 | 2.500 | 25.0 | |
| 81 | BLANKED-OFF RUNNING CASE | 5.000 | | 3.8 | 8414.8 |
| 5 | CROSSOVER | 4.625 | 2.438 | 1.1 | |
| 70 | OPEN HOLE PACKER | 6.750 | 1.530 | 5.8 | 8419.4 |
| 5 | CROSSOVER | 4.625 | 2.438 | 0.7 | |
| 5 | CROSSOVER | 6.375 | 2.375 | 0.9 | |
| 3 | DRILL COLLARS | 6.000 | 2.250 | 85.0 | |
| 5 | CROSSOVER | 6.250 | 2.375 | 0.9 | |
| 20 | FLUSH JOINT ANCHOR | 4.938 | 2.500 | 25.0 | |
| 81 | BLANKED-OFF RUNNING CASE | 4.938 | | 4.0 | 8537.0 |
| | TOTAL DEPTH | | | | 8540.0 |

# EQUIPMENT DATA

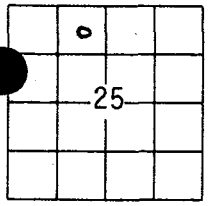
UT080-0M32

Form 3160-14
(October 1986)
(formerly 9-593)

# UNITED STATES
# DEPARTMENT OF THE INTERIOR
# BUREAU OF LAND MANAGEMENT

## INDIVIDUAL WELL RECORD

Sec. 25
T. 11S
R. 25E
SLB & Mer.
Ref. No.




**FEDERAL**

Date June 25, 1990

State Utah

Lease No. U-58215

County Uintah

Lessee Mitchell Energy Corp 50%, TXO Prod. Corp 50%

Field wildcat

Operator TXO Production Corp.

Unit/CA Evacuation Creek

Well Name & No. Unit #1

District Vernal

A.P.I. Well No. 43-047-31896

Subdivision NE/NW

Location 1306' FNL & 1755' FWL

Date Drilling Approved June 25, 1990

Well Elevation 5865' GR Feet

Date Drilling Commenced 8-8-90

Total Depth 8543 Feet

Date Drilling Ceased 9-11-90

Initial Production

Date Completed For Production

Gravity A.P.I.

Date FAN Abandonment Approved (Final) Jan 27, 1994

Initial Reservoir Pressure

| GEOLOGIC FORMATIONS | | PRODUCTIVE HORIZONS | | |
|---|---|---|---|---|
| SURFACE | LOWEST TESTED | NAME | DEPTHS | CONTENTS |
| | | | | |

SURFACE MANAGEMENT AGENCY BLM

MINERAL OWNERSHIP Public

LEASE EXPIRATION 10/28/90

**WELL STATUS**

| YEAR | JAN. | FEB. | MARCH | APRIL | MAY | JUNE | JULY | AUG. | SEPT. | OCT. | NOV. | DEC. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1990 | | | | | | | | Spud | | | | |
| 1990 | | | | | | | | | ABD | | | |
| 1994 | P+A | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

First Production Memorandum Lease Extension Memorandum Confirmation

Remarks

U-922

Form 3160-5
November 1983)
Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

CONFIDENTIAL

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.
U-58215

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

7. UNIT AGREEMENT NAME
- - -

8. FARM OR LEASE NAME
Evacuation Creek Unit

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
25-T11S-R25E

12. COUNTY OR PARISH
Uintah

13. STATE
Utah

# 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 "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED
SEP 17 1990
DIVISION OF OIL, GAS & MINING

OIL WELL ☐ GAS WELL ☒ OTHER Dry Hole

2. NAME OF OPERATOR
TXO Production Corp.

3. ADDRESS OF OPERATOR
1660 Lincoln St., Suite 1800, Denver, CO 80264

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface
1306' FNL & 1755' FWL

14. PERMIT NO.
43-047-31896

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
5865' G.L., 5879' K.B.

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

| NOTICE OF INTENTION TO: | | | | SUBSEQUENT REPORT OF: | | | |
|---|---|---|---|---|---|---|---|
| TEST WATER SHUT-OFF | ☐ | PULL OR ALTER CASING | ☐ | WATER SHUT-OFF | ☐ | REPAIRING WELL | ☐ |
| FRACTURE TREAT | ☐ | MULTIPLE COMPLETE | ☐ | FRACTURE TREATMENT | ☐ | ALTERING CASING | ☐ |
| SHOOT OR ACIDIZE | ☐ | ABANDON* | ☐ | SHOOTING OR ACIDIZING | ☐ | D&A ABANDONMENT* | ☒ |
| REPAIR WELL | ☐ | CHANGE PLANS | ☐ | (Other) | | | |
| (Other) | | | | (NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.) | | | |

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.)*

TXO Production Corp. plugged and abandoned the Evacuation Creek Unit #1 on 9-1/-90 as follows:

8110' - 8450' - 148 sxs (tagged)
4200' - 4450' - 113 sxs
1750' - 2000' - 174 sxs
850' - 950' - 38 sxs
90' - back to surface 25 sxs

Used Class "G" cmt (3% CaCl on bottom plug)
Plugging was complete @ 6:00 P.M. 9-1-90, Job by WEstern Company. BLM representative witnessed operations.

OIL AND GAS
DFN RJF
JRB GLH
DTS SLS
1-DTS
MICROFILM
2- FILE

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

SIGNED Jerry W. Calkins TITLE Area Drlg & Prod Engr DATE 9-12-90

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

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

Form 9-330
(Rev. 5-63)

# UNITED STATES
# DEPARTMENT OF THE INTERIOR
## GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE* (See other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R355.5.

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

5. LEASE DESIGNATION AND SERIAL NO.: U-58215

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

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ Other D&A 9-10-90

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

DECEIVED
SEP 17 1990

7. UNIT AGREEMENT NAME: - - -

8. FARM OR LEASE NAME: Evacuation Creek Unit

2. NAME OF OPERATOR: TXO Production Corp.

9. WELL NO.: 1

3. ADDRESS OF OPERATOR: 1660 Lincoln St., Suite 1800, Denver, CO 80264

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface 1206' FNL & 1755' FWL
See sundry (9-12-90)
At top prod. interval reported below
At total depth Same as above

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA: 25-T11S-R25E

| 14. PERMIT NO. | DATE ISSUED | 12. COUNTY OR PARISH | 13. STATE |
|---|---|---|---|
| 43-047-31896 | 7-3-90 | Uintah | Utah |

| 15. DATE SPUDDED | 16. DATE T.D. REACHED | 17. DATE COMPL. (*Ready to prod.*) | 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* | 19. ELEV. CASINGHEAD |
|---|---|---|---|---|
| 08-08-90 | 9-6-90 | - - 9-11-90 (below) | 5865' G.L., 5879' K.B. | - - |

| 20. TOTAL DEPTH, MD & TVD | 21. PLUG, BACK T.D., MD & TVD | 22. IF MULTIPLE COMPL., HOW MANY* | 23. INTERVALS DRILLED BY | ROTARY TOOLS | CABLE TOOLS |
|---|---|---|---|---|---|
| 8543' | - - - | - - - | → | X | |

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)*

25. WAS DIRECTIONAL SURVEY MADE: No

26. TYPE ELECTRIC AND OTHER LOGS RUN: DIL-SP-GR, FDC-CNL-GR, BHC Sonic-GR

27. WAS WELL CORED: Yes

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

| CASING SIZE | WEIGHT, LB./FT. | DEPTH SET (MD) | HOLE SIZE | CEMENTING RECORD | AMOUNT PULLED |
|---|---|---|---|---|---|
| 15" | - - | 60' | 17" | 4 yds redimix | 0 |
| 8-5/8" | 24.0 | 899' | 12¼" | 350 sxs 50-50 poz + 200 sxs Class "G" all w/2% CaCl | 0 |

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*)

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*) |
|---|---|---|
| | | |

| 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.*)
Well D & A 9-11-90 (see sundry dated 9-12-90 : P&A'd 9-11-90) JLS

TEST WITNESSED BY

35. LIST OF ATTACHMENTS
BLM should have copies of all logs and DST information.

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

SIGNED Jerry W. Calkins TITLE Area Drlg & Prod. Engr. DATE 9-12-90

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

ENTITY ACTION FORM

# 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 33, 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.), formation 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 OF 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

| FORMATION | TOP | BOTTOM | DESCRIPTION, CONTENTS, ETC. |
|---|---|---|---|
| Dakota/Buckhorn | 8260' | 8414' | DST 30-60-32-120<br>1st FLO-Weak BLO, No gas<br>2nd FLO-Weak BLO, died 32"<br>1st OP 298-395<br>1st SI 447<br>2nd OP 372-372<br>2nd SI 484<br>Recovered 500' Mud, No gas |
| Buckhorn | 8414' | 8435' | Core - tight S S and Shale |

38. GEOLOGIC MARKERS

| NAME | TOP MEAS. DEPTH | TOP TRUE VERT. DEPTH |
|---|---|---|
| Dakota | 8255' | |
| Upper Buckhorn | 8250' | |
| Morrison | 8425' | |

OIL AND GAS
DFN ✓ RJF
JPB GLH
DTS SLS
2-DME
MICROFILM
3- FILE

★ U.S. GOVERNMENT PRINTING OFFICE: 1974-780-680/VIII-238

Division of Oil, Gas and Mining

# PHONE CONVERSATION DOCUMENTATION FORM

Route original/copy to:

[X] **Well File** Evacuation Creek Unit #1
(Location) Sec 25 Twp 11S Rng 25E
(API No.) 43-047-31896

[ ] **Suspense**
(Return Date) _____
(To - Initials) _____

[ ] **Other** _____

1. Date of Phone Call: 9-21-90 Time: 10:25 AM

2. DOGM Employee (name) Debra Madsen-Eatchel (Initiated Call [ ])
Talked to:
Name Jerry Collins (Initiated Call [ ]) - Phone No. (303) 861-4246
of (Company/Organization) TXO Production Corp.

3. Topic of Conversation: Rec.d Sundry PA'd Well 9-11-90
-Need to send WCR - Jerry says already sent so waiting for *WCR*

4. Highlights of Conversation:
Changings Loc. - moving Down to Cody Wyoming New Number (303) 587-4961
*Marathon Oil Company*

Rec'd WCR 9-24-90