

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG \_\_\_\_\_ ELECTRIC LOGS \_\_\_\_\_ FILE  WATER SANDS \_\_\_\_\_ LOCATION INSPECTED \_\_\_\_\_ SUB REPORT abd \_\_\_\_\_

DATE FILED **9-16-80**

LAND FEE & PATENTED \_\_\_\_\_

STATE LEASE NO \_\_\_\_\_

PUBLIC LEASE NO **U-36863**

INDIAN \_\_\_\_\_

DRILLING APPROVED **9-18-80**

SPOUDED IN \_\_\_\_\_

COMPLETED \_\_\_\_\_

PUT TO PRODUCING \_\_\_\_\_

INITIAL PRODUCTION \_\_\_\_\_

GRAVITY API \_\_\_\_\_

GOR \_\_\_\_\_

PRODUCING ZONES \_\_\_\_\_

TOTAL DEPTH \_\_\_\_\_

WELL ELEVATION \_\_\_\_\_

DATE ABANDONED **LOCATION ABANDONED WELL NEVER DRILLED 2-19-81**

FIELD **Wildcat 3/86 Bryson Canyon**

UNIT \_\_\_\_\_

COUNTY: **Grand**

WELL NO **Conklin 4-1**

API No. **43-019-30700**

LOCATION **610'**

FT. FROM (N)  LINE.

**712'**

FT. FROM (E)  LINE **NE NE**

**1/4 - 1/4 SEC. 4**

| TWP | RGE | SEC. | OPERATOR        | TWP | RGE | SEC. | OPERATOR |
|-----|-----|------|-----------------|-----|-----|------|----------|
| 17S | 24E | 4    | TENNECO OIL CO. |     |     |      |          |

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

(Other instructions on reverse side)

Budget Bureau No. 42-R1425

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK  
 DRILL       DEEPEN       PLUG BACK

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

2. NAME OF OPERATOR  
 TENNECO OIL COMPANY

3. ADDRESS OF OPERATOR  
 720 SO. COLORADO BOULEVARD

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface: 610'      712'  
 609.6' FNL      711.7' FEL  
 At proposed prod. zone

4. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See Exhibit IV

10. DISTANCE FROM PROPOSED\* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any)  
 8. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

16. NO. OF ACRES IN LEASE  
 631.68

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 320

19. PROPOSED DEPTH  
 5600

20. ROTARY OR CABLE TOOLS  
 Rotary

1. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 6923.3 GR

22. APPROX. DATE WORK WILL START\*  
 June 1980

5. LEASE DENIGATION AND SERIAL NO.  
 U-36863

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
 CONKLIN

9. WELL NO.  
 4-1

10. FIELD AND POOL, OR WILDCAT  
 Morrison

11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA  
 Sec. 4, T.17S, R.24E

12. COUNTY OR PARISH      13. STATE  
 Grand      Utah

3. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT         |
|--------------|----------------|-----------------|---------------|----------------------------|
| 8 3/4"       | 7" new         | 23#             | + 1700'       | circulate to surface       |
| 6 1/4"       | 4 1/2" new     | 10.5#           | + 5600'       | cover all productive zones |

Set 1-3 joints 9 5/8" casing as conductor  
 See attached  
 Archaeology survey scheduled for May 12, 1980  
 Spaced under cause No. 165-4

State of Utah, Department of Natural Resources  
 Division of Oil, Gas, and Mining  
 1558 West North Temple  
 Salt Lake City, Utah 84116

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.

SIGNED *M. J. Roman* TITLE Staff Production Analyst DATE 5/8/80

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

APPROVED BY *HENRICKS* TITLE FOR DATE JUL

CONDITIONS OF APPROVAL, IF ANY:

State Oil & Gas

\*See Instructions On Reverse Side

U. S. GEOLOGICAL SURVEY - CONSERVATION DIVISION

FROM : DISTRICT GEOLOGIST, ME, SALT LAKE CITY, UTAH

TO : DISTRICT ENGINEER, O&G, SALT LAKE CITY, UTAH

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-36863

OPERATOR: Tenneco Oil Company

WELL NO. 4-1

LOCATION: NW 1/4 NW 1/4 NE 1/4 sec. 4, T. 17S., R. 24E., SLM

Grand County, Utah

1. Stratigraphy: Surface is Tuscher Fm., operator indicates mesaverde.

|            |         |             |      |
|------------|---------|-------------|------|
| Tuscher    | Surface | Dakota Silt | 5700 |
| Mesaverde  | 1260'   | Dakota      | 5220 |
| Marcos     | 1510    | Morrison    | 5460 |
| Castlegate | 4840    | Salt Wash   | -    |
| Frontier   |         | Entrada     | -    |

2. Fresh Water: TD 5600

Fresh water may be encountered in sandstones of the mesaverde and Castlegate (to ~1500').

3. Leasable Minerals:

Prospectively valuable land for coal.

Coal is in the Dakota and is thin, lenticular, & subeconomic.

Gas in Dakota & Morrison

4. Additional Logs Needed: Suite is adequate

5. Potential Geologic Hazards: None anticipated.

6. References and Remarks:

Signature: Gregory W Wood

Date: 5-30-80

Oil and Gas Drilling

EA No. 430-80

United States Department of the Interior  
Geological Survey  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104

USUAL ENVIRONMENTAL ASSESSMENT

Date July 18, 1980

Operator Tenneco Oil Company Well No. 4-1  
Location 610' FNL 712' FEL Section 4 Township 17S Range 24E  
County Grand State Utah Field/Unit Conklin  
Lease No. U-36863 Permit No. \_\_\_\_\_

Prepared by: John Connor  
Petroleum Engineer

Reviewed by: Glenn Doyle **NOTED DOYLE**  
Environmental Scientist  
Grand Junction, Colorado

Joint Field Inspection Date: June 25, 1980

Field Inspection Participants, Titles, and Organizations:

|                                 |  |
|---------------------------------|--|
| <u>Lee Freeman, John Owens</u>  | <u>Tenneco Oil Company</u>             |
| <u>Bill Buniger</u>             | <u>Dirt Contractor</u>                 |
| <u>Dallas Galley</u>            | <u>Galley Construction</u>             |
| <u>John Connor, Glenn Doyle</u> | <u>U. S. Geological Survey</u>         |
| <u>Elmer Duncan</u>             | <u>Bureau of Land Management, Moab</u> |

*Drill pad 165' x 310'  
Reserve pit 25' x 150'  
New access 20' x 1.8 mile  
Improve existing access 19 miles  
Conditions of approval p. 6 (1-2)*

Related Environmental Documents:

- BLM-Colorado, Baxter-Douglas Unit Resource Analysis.
- BLM-Utah, 1979, Final initial wilderness inventory, USDI, August, 50 pp.
- BLM-Moab, Book Mountain Unit Resource Analysis.
- BLM-Colorado, Oil and Gas Umbrella Leasing EAR.

## DESCRIPTION OF PROPOSED ACTION

Proposed Action:

1. Location State: Utah  
County: Grand  
610 ' F N L, 712 ' F E L, NE ¼ NE ¼  
Section 4, T17S, R24E,

2. Surface Ownership Location: Public  
Access Road: Public

Status of Reclamation Agreements: Not Applicable

3. Dates APD Filed: May 12, 1980  
APD Technically Complete: June 3, 1980  
APD Administratively Complete:

4. Project Time Frame Starting Date: Upon receipt of approved APD.  
Duration of drilling activities: 25 days.

A period of 30 to 60 days is normally necessary to complete a well for production if hydrocarbons are discovered. If a dry hole is drilled, recontouring and reseedling would normally occur within one year; revegetation or restoration may take several years. If the well is a producer, an indefinite period of time would occur between completion and rehabilitation.

5. Related actions of other federal or state agencies and Indian tribes:

None known

6. Nearby pending actions which may affect or be affected by the proposed action:

None known

7. Status of variance requests:

None known

The following elements of the proposed action would/could result in environmental impacts:

1. A drill pad 165' wide x 310' long and a reserve pit 25' x 150' would be constructed. Approximately 1.8 miles of new access road, averaging 20' in width, would be constructed and approximately 19 miles of existing road would be improved to 20' wide from a maintained road. 5.54 acres of disturbed surface would be associated with the project.
2. Drilling to a total depth of 5600'.
3. Waste disposal

4. Traffic
5. Water requirements
6. Completion
7. Production
8. Transportation of hydrocarbons

Details of the proposed action are described in the Application for Permit to Drill.

The access road may have to be altered slightly to conform to the terrain and to take advantage of existing gentle slopes and flat areas. As the road is now proposed, it will require extensive cuts and fills and possible blasting of Mesaverde Sandstone outcrops. This extensive road work will hamper and, in some stretches, prevent rehabilitation upon abandonment. No more suitable access routes were discovered or proposed.

#### Environmental Considerations of the Proposed Action:

Regional Setting/Topography - The regional setting is high south-facing cliffs and canyons of the Book Cliffs Region of Colorado. The location sits on a gently rolling, SW-sloping ridge south of the summit of the cliffs.

#### PARAMETER

A. Geology - The surface formation is Mesaverde, Cretaceous in age. The Mesaverde Formation is underlain with the Mancos, Castlegate, Frontier, Dakota Silt, Dakota, Morrison, Salt Wash, and Entrada Formations at total depth.

Information Source: Application to Drill and Field observation.

1. Other Local Mineral Resources to be Protected: Potential for coal to be encountered in Dakota Formation. It is anticipated that the beds are thin and lenticular and therefore subcommercial.

Information Source: ME, District Geologist.

2. Hazards:

a. Land Stability: The location and access are built on Mesaverde Sandstone. This soil is considered a moderate engineering material and is stable, provided the slopes are moderate, moisture content is low, and compaction of disturbed areas is adequate.

Information Source: John Connor, Petroleum Engineer, USGS.

b. Subsidence: Subsidence can occur with the withdrawal of oil, gas, and/or water.

Information Source: Field observation.

c. Seismicity: Seismic risk: low. Statistically, greatest damage would be moderate, corresponding to intensity VII of Modified Mercalli Intensity Scale, 1931.

Information Source: NOAA, 1973, Earthquake History of the United States, Environmental Data Service, Edited by Coffman and von Hake; Algermissen, S. T., and Perkins, David M., 1977, Earthquake hazards map of the United States, Reprint from Earthquake Information Bulletin, 9(1) Jan-Feb., 4 pp.; von Hake, Carl A., Earthquake History of Utah, NOAA; Perkins, David M., 1974, Seismic risk maps, Reprint of Earthquake information bulletin, 6(6) Nov-Dec.

d. High Pressure Zones/Blowout Prevention: No high pressure zones expected. Blowout prevention systems detailed in APD.

Information Source: Application to Drill and ME, District Geologist.

## B. Soils

1. Soil Character: No detailed soil surveys done in area. Changes in soil fertility, horizons, slope stability, etc., cannot be predicted. Soils are considered nitrogen-poor, alkaline soils that support the salt-desert community.

Information Source: Field observation, John Connor.

2. Erosion/Sedimentation: Erosion/sedimentation would increase as would runoff potential. Extent of increases unpredictable without site-specific studies being done.

Information Source: Field observation.

C. Air Quality - Well site lies in Class II attainment area. No Class I attainment areas are near, or adjacent to, proposed location.

Information Source: Field observation and Bureau of Land Management.

D. Noise Levels - Ambient noise levels will be temporarily increased over the duration of drilling activity. Wildlife will avoid immediate area. After well completion, if well is dry hole, noise levels will return to nearly the predrill ambient levels. If the well produces marketable quantities of oil or gas, noise levels will rise periodically above predrill ambient levels.

Information Source: Field observation.

## E. Water Resources

### 1. Hydrologic Character

a. Surface Waters: The site slopes gently to the SE. No significant drainages will be diverted or blocked by the pad. Because of

the gentle, relatively flat slope, no diversion terraces will be necessary.

Information Source: Field observation.

b. Groundwaters: Fresh water may be encountered in the sandstone members of the Mesaverde and Castlegate Formations. Completion of well as a water well may be requested (see attached stipulations).

Information Source: Bureau of Land Management, attached Stipulations.

## 2. Water Quality

a. Surface Waters: Release of produced and/or circulating fluids from the reserve pit could cause a significant adverse affect on surface water quality, depending on fluid's chemical composition.

Information Source: Field observation.

b. Groundwaters: Operator proposes 1700' of surface casing. Commingling of drilling fluids with potentially usable water could render groundwater unusable. Pits would be unlined.

Information Source: Application to Drill and Field observation.

## F. Flora and Fauna

### 1. Endangered and Threatened Species Determination

Based on the preliminary field comments received from the Moab Area Bureau of Land Management on June 25, 1980, we determine that there would be no effect on endangered and threatened species and/or their critical habitat.

2. Flora: The vegetation of the area consists of sparse stands of juniper, sage, saltbrush, and various native grasses. Construction would remove about 5.5 acres of vegetation increasing potential for non-point erosion and decreasing soil fertility.

Information Source: Field observation.

3. Fauna: Wildlife includes mule deer, coyotes, foxes, rabbits, and various small rodents. Vegetation removal reduces wildlife habitats and food sources. Deer are not known to winter in the area. No known migratory bird nesting areas, strutting or breeding grounds, or fish-spawning areas would be impacted by proposed action.

Information Source: Field observation.

## G. Land Uses

1. General: Oil and gas operations, recreation, and grazing are major land uses. Amount and quality of land available to livestock, wildlife, and recreationists would be reduced during well life.

Information Source: Field observation.

2. Affected Floodplains and/or Wetlands: None are affected.

Information Source: Field observation.

H. Aesthetics: Operation would not blend with natural surroundings. Most likely unappealing to recreationists. Impact duration: life of well.

Information Source: Field observation.

I. Socioeconomics: The effect of one well on local and regional population and economy would be considered minor. If major discovery, then consider: Population increase, community services taxed, resources depleted, cumulative impacts multiply, pipelines and transportation routes expand.

Information Source: John Connor, Petroleum Engineer, USGS.

J. Cultural Resources Determination: Based on the preliminary field comments received from the Moab Area Bureau of Land Management on June 25, 1980, we determine that there would be no effect on cultural resources subject to archaeological clearance from the Moab Area Bureau of Land Management.

Information Source: Attached Stipulations.

K. Adequacy of Restoration Plans: Rehabilitation plan judged as adequate. Problems hampering restoration: a) Area subject to short growing season; b) limited precipitation during growing season; and c) generally, very little topsoil which has limited organic matter and is low in fertility.

Information Source: David Oberwager, Env. Spec. (Reclamation), USGS-AOSO.

Alternatives to the Proposed Action:

1. Disapproving the proposed action or no action - If the proposed action is denied, no action would occur, the existing environment would remain in its present state, the lessee/operator would not realize any return on investments and the public would be denied a potential energy source.

2. Approving the project with the recommended stipulations - Under federal oil and gas leasing provisions, the Geological Survey has a responsibility to approve mineral development if the environmental consequences are not too severe or irreversible. Permanent damage to the surface and subsurface would be prevented as much as possible under USGS and Surface Management Agency supervision. Environmental impacts would be significantly mitigated.

Adverse Environmental Effects:

1. If approved as proposed:

a. About 5.5 acres of vegetation would be removed, increasing and accelerating erosion potential.

b. Pollution of groundwater systems would occur with the introduction of drilling fluids into the aquifer(s). The potential for interaquifer leakage and lost circulation is ever-present, depending on the casing program.

- c. Minor air pollution would be induced on a temporary basis due to exhaust emissions from rig engines and support traffic.
- d. The potential for fires, leaks, spills of gas and oil or water exists.
- e. During construction and drilling phases of the operation, noise and dust levels would increase.
- f. Distractions from aesthetics during the lifetime of the project would exist.
- g. Erosion from the site would eventually be carried as sediment in the Colorado River watershed. The potential for pollution to the Colorado River would exist through leaks and spills.
- h. If hydrocarbons would be discovered and produced, further development of the area could be expected to occur, which would result in the extraction of an irreplaceable resource, and further negative environmental impacts. These impacts include the cumulative loss of wildlife habitat due to the areas necessary for roads, pipelines, drillsites, and transmission lines. These actions may disrupt wildlife social behavior and force habitat relocation over an extended period of time. In addition, the cumulative effects of non-point erosion become substantial in a developing field, primarily those located near perennial streams where siltation and sedimentation are critical to aquatic life cycles.
- i. Other: Because of the terrain involved in constructing the new portion of the access road, if this road was abandoned, it would be impossible to fully reclaim and revegetate.

## 2. Conditional approval

- a. All adverse impacts described in section one above would occur, except
  - 1) No more suitable route of access to the pad was found at the onsite. If road is realigned to reduce extensive blasting of the sandstone outcroppings, major impacts will be mitigated.

### Recommended Approval Conditions:

Drilling should be allowed, provided the following mitigative measures are incorporated into the proposed APD and adhered to by the operator:

- 1. See attached BLM Stipulations.
- 2. Approve road as proposed but realign it, where possible, to avoid major environmental impacts without affecting roadway safety and practicality.

Controversial Issues and Conservation Division Response: None are involved at this time.

We have considered the proposed action in the preceding pages of this EA and find, based on the analysis of environmental considerations provided therein, no evidence to indicate that it will significantly (40 CFR 1508.27) impact the quality of the human environment.

Determination

I determine that the proposed action (as modified by the recommended approval conditions) does not constitute a major Federal action significantly affecting the quality of the human environment in the sense of NEPA, Section 102(2)(C).



FOR

E. W. GYNN  
DISTRICT ENGINEERJUL 30 1980

Date

District Engineer  
U. S. Geological Survey  
Conservation Division  
Oil & Gas Operations  
Salt Lake City District

*Glenn*

FROM: DISTRICT GEOLOGIST, SALT LAKE CITY, UTAH

TO: DISTRICT ENGINEER, O&G, SALT LAKE CITY, UTAH

SUBJECT: APD MINERAL EVALUATION REPORT

LEASE NO. U-36863

OPERATOR: Tenneco Oil Company

WELL NO. 4-1

LOCATION: NW 1/4 NW 1/4 NE 1/4 sec. 4, T. 17S., R. 24E., SLM  
Grand County, Utah

1. Stratigraphy: Surface is Tuscher Fm., operator indicates mesaverde.

|            |         |             |      |
|------------|---------|-------------|------|
| Tuscher    | Surface | Dakota Silt | 5700 |
| Mesaverde  | 1260'   | Dakota      | 5220 |
| Marcos     | 1510    | Morrison    | 5460 |
| Castlegate | 4840    | Salt Wash   | -    |
| Frontier   |         | Entrada     | -    |

TD 5800

2. Fresh Water:

Fresh water may be encountered in sandstones of the mesaverde and Castlegate (to ~1500').

3. Leasable Minerals:

Prospectively valuable land for coal.  
 Coal is in the Dakota and is thin, lenticular, & subeconomic.  
 Gas in Dakota & Morrison

4. Additional Logs Needed: Suite is adequate

5. Potential Geologic Hazards: None anticipated.

6. References and Remarks:

Signature: Gregory W Wood

Date: 5-30-80

12 JUN REC'D

Tennessee Oil Co.  
- 4-175-24E

*Allen*

Memorandum

To: District Oil and Gas Engineer, Mr. Edward Guynn  
From: Mining, Supervisor, Mr. Jackson W. Moffitt  
Subject: Application for Permit to Drill (form 9-331c) Federal oil and gas lease No. 4-36863 Well No. 4-1

1. The location appears potentially valuable for:

- strip mining\*
- underground mining\*\* *cost*
- has no known potential.

2. The proposed area is

- under a Federal lease for \_\_\_\_\_ under the jurisdiction of this office.
- not under a Federal lease under the jurisdiction of this office.
- Please request the operator to furnish resistivity, density, Gamma-Ray, or other appropriate electric logs covering all formations containing potentially valuable minerals subject to the Mineral Leasing Act of 1920.

\*If location has strip mining potential:

Surface casing should be set to at least 50 feet below the lowest strip minable zone at \_\_\_\_\_ and cemented to surface. Upon abandonment, a 300-foot cement plug should be set immediately below the base of the minable zone.

\*\*If location has underground mining potential:

The minable zones should be isolated with cement from a point 100 feet below the formation to 100 feet above the formation. Water-bearing horizons should be cemented in like manner. Except for salines or water-bearing horizons with potential for mixing aquifers, a depth of 4,000 feet has been deemed the lowest limit for cementing.

Signed *Allen J. Vance*

JUN 16 REC'D



# United States Department of the Interior

IN REPLY REFER TO

3100  
(U-603)

BUREAU OF LAND MANAGEMENT  
Moab District  
Grand Resource Area  
P. O. Box M  
Moab, Utah 84532

July 14, 1980

## Memorandum

To: Oil & Gas Office, USGS Conservation Division,  
P.O. Box 3768, Grand Jct., CO 81501

From: Area Manager, Grand

Subject: Tenneco Oil Company  
Conklin 4-1, Lease U-36863  
NE/NE Section 4, T. 17 S., R. 24 E.  
Grand County, Utah

On July 25, 1980, a representative from this office met with Glen Doyle, USGS, and Lee Freeman agent of Tenneco Oil Company for an inspection of the above referenced location. Subject to the attached conditions, I am approving the surface management portion of the Application for Permit to Drill.

The archaeological requirement has been fulfilled on this location. No threatened or endangered flora or fauna are indicated in the area.

Please forward the enclosed information to Tenneco Oil Company.

*Angela L. Dawson*  
ACTING

Enclosures (2)  
1-Reclamation Procedures  
2-Seed Mixture



*Save Energy and You Serve America!*

**JUL 21** REC'D

## STANDARD STIPULATIONS FOR OIL & GAS EXPLORATION

Contact this office at least 24 hours prior to beginning construction of access road and pad.

Stockpile the surface six inches of topsoil in a wind-row on the north-east quadrant of the location.

The upper banks (uphill side) of all cuts will be rounded during construction of the access road and pad.

Notify the BLM District Archaeologist if cultural material from sub-surface deposits is exposed during the operation.

The trash cage will be on the location and fenced with fine mesh wire during drilling operations.

The "blooey" line will be centered and directed into the pit.

If production is obtained, the access road will be upgraded to BLM specifications for long-term roads as outlined in the surface use standards section of the "Oil and Gas" pamphlet (joint BLM, USGS, and USFS publication).

If production is obtained, all production facilities will be painted "desert tan" or a similar color approved by the Grand Resource Area Manager.

Rehabilitation of the site and access road will be accomplished in accordance with the enclosed restoration procedures.

Production facilities and pipeline route are approved on this location under lease rights.

As agreed on at the pre-drill field exam:

The new access road crosses one main drainage channel and 3-4 smaller drainage channels in the SE $\frac{1}{4}$  of Section 33, T. 16 S., R. 24 E., SLB&M. Low water crossings will be used at each channel crossing, and culverts will be installed if low water crossings won't work.

Trees (pinyon-juniper) removed from the new access route will be windrowed along the upslope side.

Topsoil will be saved along the new access road, except where the road crosses drainage channels. This soil will be windrowed along the upslope side, between the windrowed trees and the road.

Road will be backsloped at a 3:1 ratio, except at the channel crossings.

If the well is a nonproducer, the pad will be restored to resemble the surrounding area. Topsoil replaced, ripped or contoured and seeded (according to the yellow oil and gas handbook). The access road will be closed, reshaped, topsoil replaced, ripped and seeded.

SEED MIXTURE  
(Mountain Brush Type)

| <u>Grasses</u>       |                                 | <u>Lbs./Acre</u> |
|----------------------|---------------------------------|------------------|
| Oryzopsis hymenoides | Indian ricegrass                | 2                |
| Elymus salinus       | Wild rye                        | 2                |
| Carex geyeri         | Carex (dry bud)                 | 1                |
| Stipa comata         | Needle & thread (mountain type) | 1                |
| <br><u>Shrubs</u>    |                                 |                  |
| Cowania mexicana     | Cliff rose                      | 2                |
| Purshia tridentata   | Bitterbrush                     | 2                |
| Cercocarpus montanus | Mahogany (mountain)             | 1                |
| Ephedra vicidiflorus | Mormon tea                      | 1                |
|                      |                                 | <hr/>            |
|                      |                                 | 12               |

## RECLAMATION PROCEDURES IN GRAND RESOLVE AREA

1. Disk or rip pads and access roads.
  - a. Overlap passes in order to insure complete treatment.
2. Contour pads and access roads.
  - a. Lay berms into centers.
  - b. Use cut material for fill areas.
  - c. Lay stockpiled surface soil over top of pads and spread evenly.
  - d. On highly erosive soils, it may be more beneficial to grade slopes to reduce steepness.
  - e. Do not smooth pads out, leave a roughened surface. On steeper slopes and slopes with clayey soils scarify or serrate the ground in order to increase water infiltration and reduce erosion.
3. Water bar roads where required by this office.

|      |       |   |                   |
|------|-------|---|-------------------|
| * 2% | Grade | - | 200 ft. intervals |
| 2-4% | Grade | - | 100 ft. intervals |
| 4-5% | Grade | - | 75 ft. intervals  |
| 5%   | Grade | - | 50 ft. intervals  |

\* Actual spacing may vary according to soil stability. Lighter textured soils will require more frequent water bars. When natural drainage ways are present, water bars are to be constructed to make maximum use of them. Plan operations so that natural drainage ways do not become blocked.
4. Seed roads and pads in the fall (Oct. through mid-Dec.).

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

(Other instructions on reverse side)  
Budget Bureau No. 41-11425

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

a. TYPE OF WORK  
 DRILL       DEEPEN       PLUG BACK

b. TYPE OF WELL  
 OIL WELL       GAS WELL       OTHER

c. NAME OF OPERATOR  
 TENNECO OIL COMPANY

d. ADDRESS OF OPERATOR  
 720 SO. COLORADO BOULEVARD

e. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
 At surface 610  
 609.6 FNL 712 711.7 FEL      **NE NE**

f. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
 See Exhibit IV

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

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

i. ELEVATIONS (Show whether DF, RT, GR, etc.)  
 6923.3 GR

5. LEASE DENIGATION AND SERIAL NO.  
 U-36863

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
 CONKLIN

9. WELL NO.  
 4-1

10. FIELD AND POOL, OR WILDCAT  
**Morrison wildcat**

11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA  
 Sec. 4, T.17S, R.24E

12. COUNTY OR PARISH  
 Grand

13. STATE  
 Utah

16. NO. OF ACRES IN LEASE  
 631.68

17. NO. OF ACRES ASSIGNED TO THIS WELL  
 320 *lay down*

19. PROPOSED DEPTH  
 5600 *Morrison*

20. ROTARY OR CABLE TOOLS  
 Rotary

22. APPROX. DATE WORK WILL START\*  
 June 1980

PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT         |
|--------------|----------------|-----------------|---------------|----------------------------|
| 8 3/4"       | 7" new         | 23#             | + 1700'       | circulate to surface       |
| 6 1/4"       | 4 1/2" new     | 10.5#           | + 5600'       | cover all productive zones |

Set 1-3 joints 9 5/8" casing as conductor  
 See attached  
 Archaeology survey scheduled for May 12, 1980  
 Spaced under cause No. 165-4

**APPROVED BY THE DIVISION OF OIL, GAS, AND MINING**  
 DATE: 9-18-80  
 BY: W.S. Winder



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 venter program, if any.

SIGNED [Signature] TITLE Staff Production Analyst DATE 5/8/80

(This space for Federal or State office use)

PERMIT NO. 43-019-30700 APPROVAL DATE 9/18/80

APPROVED BY [Signature] FOR E. W. GUYNN TITLE ENGINEER DATE JUL 31 1980

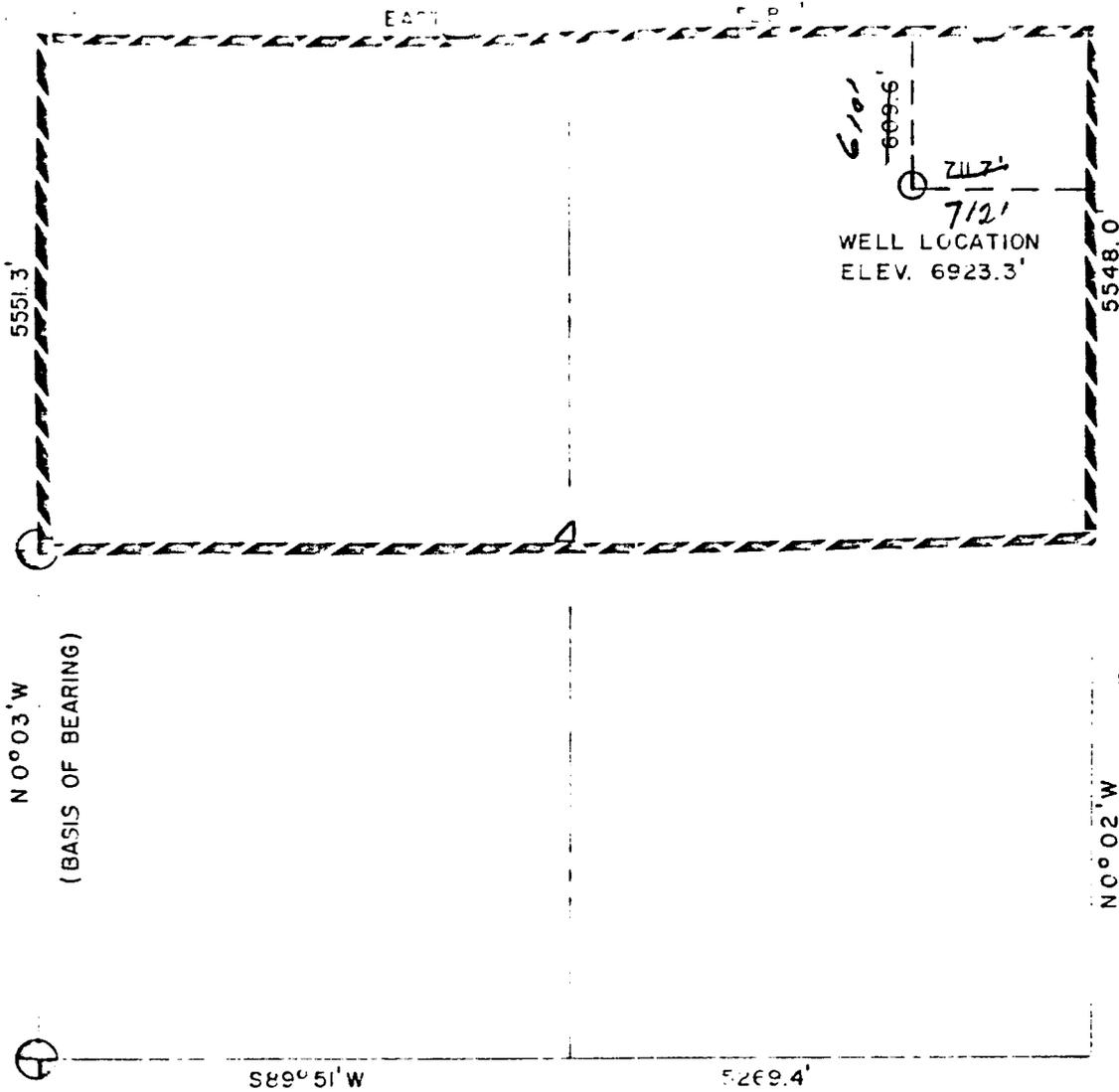
CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL ATTACHED

NOTICE OF APPROVAL  
 Operator

See Instructions On Reverse Side

GAS IS ...  
 DATED 1980



WELL LOCATION

609.6 FT.S.N.L. - 711.7 FT.W.E.L  
 SECTION 4 , T.17S. , R.24E , S.L. B & M  
 GRAND COUNTY, UTAH.

SURVEYOR'S CERTIFICATE

I, Edward A. Armstrong, a registered land surveyor in the State of Utah, do hereby certify that this survey was made under my direct supervision and that this plat represents said survey.

*Edward A. Armstrong*  
 EDWARD A. ARMSTRONG P.E. & L.S. 4464

|            |  |                      |
|------------|--|----------------------|
|            | <b>ARMSTRONG ENGINEERS</b><br>ENG. MEASURING - SURVEYING<br>CONCRETE & SOILS TESTING |                      |
|            | 1" = 1000'   | TENNECO OIL CO.      |
|            | 4 / 11 / 80  | CONKLIN USA 4-1      |
|            | J.M.T.   |                      |
|            | J.H.L.   |                      |
| 4 / 8 / 80 | SHEET 1 of 5   | JOB NUMBER<br>802741 |

1. The geological name of the surface formation:
- 2 & 3. Estimated Formation Tops:  
  
(See Attached Drilling Procedure)
4. Proposed Casing Program:  
  
(See Attached Drilling Procedure)
5. Blowout Preventors:  
Hydraulic double ram. One set of rams will be provided each size drill pipe in the hole. One set of blind rams at all times. Fill line will be 2", kill line will be 2", choke relief line will be 2". BOP's, drills and tests will be recorded in the driller's log. BOP will be tested every 24 hours and recorded in IADC Log.
6. Mud Program: (Sufficient quantity of mud and weight material will be available on location).  
  
(See Attached Drilling Procedure.)
7. Auxiliary Equipment:
  - a. Kelly cock will be in use at all times.
  - b. Stabbing valve to fit drill pipe will be present on floor at all times.
  - c. Mud monitoring will be visual. No abnormal pressures are anticipated.
  - d. Floats at bits.
  - e. Drill string safety valve(s) to fit all pipe in drill string will be maintained on the rig floor while drilling operations are in progress.
8. Coring, Logging, and Testing Program:  
  
(See Attached Drilling Procedure)
9. No abnormal pressures, temperatures or potential hazards such as H<sub>2</sub>S are expected to be encountered.
10. The drilling of this well will start approximately ( JUNE, 1980 ) and continue for 10 to 12 days.

Your office will be notified of spudding in sufficient time to witness cementing operations. Immediate notice will be given on blowouts, fires, spills, and accidents involving life threatening injuries or loss of life. Prior approval will be obtained before appreciably changing drilling program or commencing plugging operations, plug back work, casing repair work or corrective cementing operations.

DRILLING PROCEDURE

DATE: February 11, 1980

LEASE: Conklin USA

WELL NO.: 4-

LOCATION: 609.6 711.7  
FWL, FEL  
Sec. 4, T 17S, R 24E  
Grand County, Utah

FIELD: Bryson Canyon

ELEVATION: 6350' Est. G.L.

TOTAL DEPTH: 5600'

PROJECTED HORIZON: Morrison

SUBMITTED BY:

John W. Owen

DATE:

2/11/80

APPROVED BY:

B. B. B.

DATE:

2/12/80

JWO/ms

CC: Administrative (D.T. - 1)  
DSB Well File  
Field File

ESTIMATED FORMATION TOPS

|             |         |                  |
|-------------|---------|------------------|
| Mesa Verde  | Surface |                  |
| Mancos      | 1260'   |                  |
| Castlegate  | 1510'   | (Water &/or Gas) |
| Frontier    | 4840'   |                  |
| Dakota Silt | 5100'   |                  |
| Dakota      | 5220'   | (Gas)            |
| Morrison    | 5460'   | (Gas &/or Water) |
| Salt Wash   | N/A     |                  |
| Entrada     | N/A     |                  |
| T.D.        | 5600'   |                  |

1. No abnormal pressure, temperature, or H<sub>2</sub>S is anticipated in this well.
2. Reserve pit shall be fenced on three sides during drilling operations.

DRILLING, CASING, AND CEMENT PROGRAM

1. MIRURT.
2. Set 1-3 joints of 9 5/8" casing as needed to be used as conductor pipe.
3. Install casing head and nipple up rotating head and bloopie line.
4. Drill 8 3/4" hole to  $\pm 1700'$ , or through the Castlegate Formation.
5. Run 7", 23#, K-55, ST&C surface casing to T.D. Cement with sufficient volume to circulate cement to the surface.
6. WOC. Nipple up BOP's, rotating head, choke manifold, etc. Pressure test BOP's, manifold, etc., to 1000 psi for 15 minutes.
7. TIH and displace water in casing with air. Drill out shoe and dry up hole.
8. Drill 6 1/4" hole to T.D.
9. Log well as per G. E. Department recommendations.
10. If well is productive, run 4 1/2", 10.5#, K-55, ST&C casing to T.D. Cement with sufficient volume to cover all possible productive zones.
11. If the well is non-productive, P & A as per Regulatory Agency Specifications.

CASING PROGRAM

CONDUCTOR: 30' to 125' as needed. 9 5/8", 36#, K-55, ST&C.  
SURFACE:  $\pm 1700'$ , 7", 23#, K-55, ST&C.  
PRODUCTION: 5600', 4 1/2", 10.5#, K-55, ST&C.

MUD PROGRAM

1. Anticipate drilling entire hole with air.
2. In the event liquids are encountered, mist drilling will be attempted.
3. Should mist drilling be unsuccessful, the hole will have to be mudded up.
4. Also, if gas is encountered in sufficient volume to compromise the safety of the operations, mudding up will be required.
5. If mudding up is necessary, the following guidelines should be followed:
  - (1) Weight  $\pm$  9.0 ppg.
  - (2) Vis. as needed to clean hole.
  - (3) W.L. 10 cc or less.

EVALUATION

Cores and DST's: No cores or DST's are anticipated.

Deviation Surveys:

|                |   |  |
|----------------|---|--|
| 0-1700' 1 1/2° | } | Surveys to be run every 500' or on trips, whichever comes first. Surveys will be reported on the IADC Drilling Report Sheet. |
| 1700'-T.D. 6°  |   |  |

Maximum allowable deviations:

- (1) 1° per 100' interval.
- (2) 1 1/2° at 1700'.
- (3) 6° at T.D.

Samples: None.

|              |          |             |              |               |
|--------------|----------|-------------|--------------|---------------|
| <u>Logs:</u> | SNP/GR ) | Air Drilled | FDC/CNL      | } Mud Drilled |
|              | FDC/GR ) |             | DIL/LL8 w/sp |               |
|              | DIL )    |             |              |               |

BLOWOUT EQUIPMENT

1. Double ram hydraulic with pipe and blind rams operated by an accumulator.
2. Rotating head on air/mist holes.
3. Preventers must be checked for operation every 24 hours. This check MUST BE RECORDED on the IADC Drilling Report Sheet

REPORTS

Drilling reports for the past 24 hours will include depth, footage, time distribution, activity breakdown, mud properties, bit record, bottom hole assembly, daily and cumulative mud costs, plus any other pertinent information, will be called into Tenneco Oil Company, Denver, Colorado, between 7:30 a.m. and 8:00 a.m.

1. 303-758-7130 (Office) Don Barnes  
303-758-7287 (Office) Don Barnes' private line, Monday-Friday (before 7:45 a.m.)  
303-936-0704 (Home) Don Barnes, weekends and holidays.
2. George Ramsey (Home) 303-771-5154.
3. John Owen (Home) 303-795-0221.

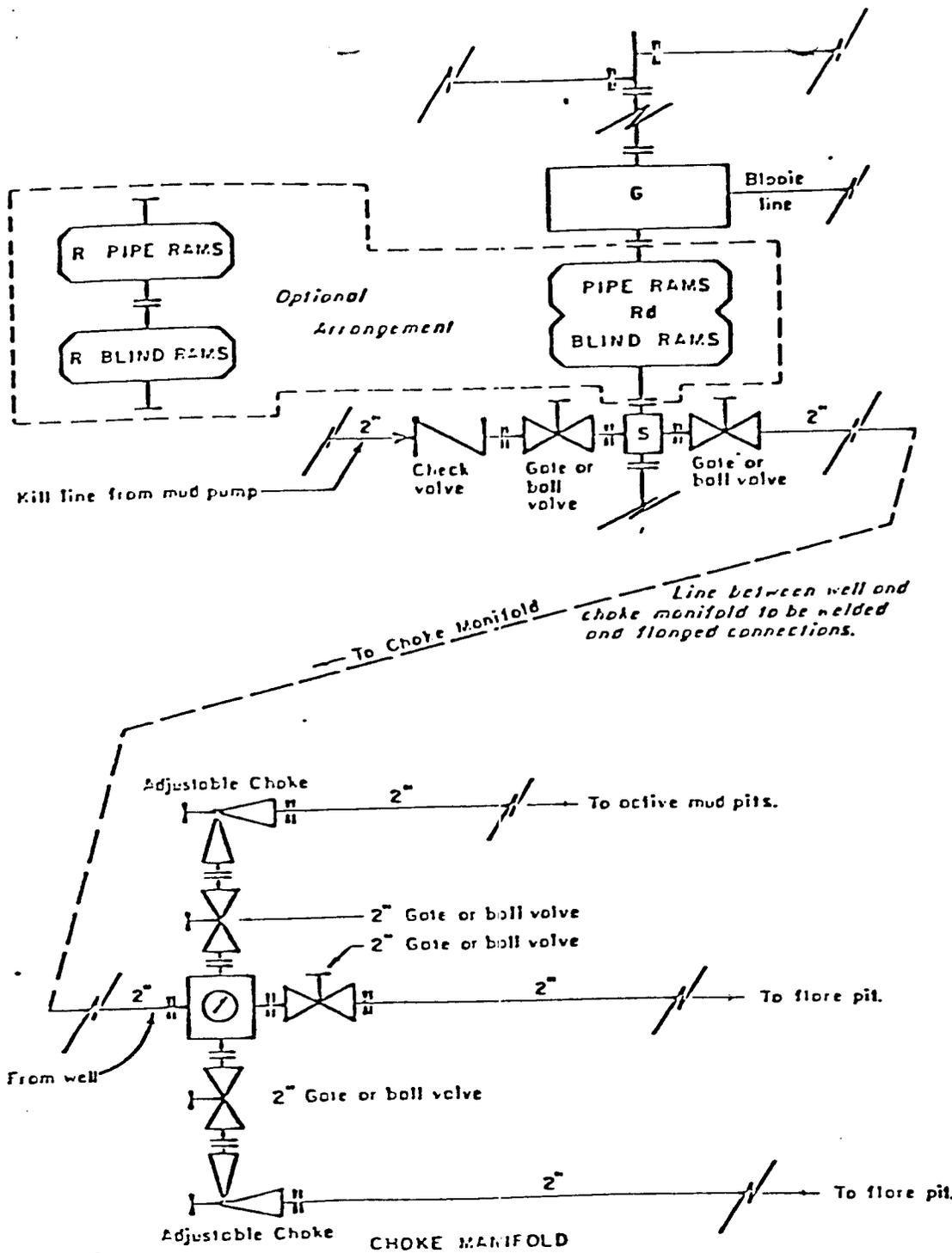
The yellow sheet of the IADC Report is to be filled out completely. The original copy of the drilling time recorder, and copies of any invoices from this well, signed and received for Tenneco Oil Company, will be mailed daily to:

TENNECO OIL COMPANY  
ROCKY MOUNTAIN DIVISION  
PENTHOUSE, 720 SOUTH COLORADO BOULEVARD  
DENVER, COLORADO 80222

ATTENTION: Drilling Department

IN CASE OF EMERGENCY, NOTIFY THE FOLLOWING:

1. Mr. Don Barnes, Division Drilling Engineer.
2. Mr. George E. Ramsey, Jr., Drilling Engineers Supervisor
3. Mr. John W. Owen, Project Drilling Engineer.
4. Mr. Mike Lacey, Division Production Manager (Home 303-979-0509).



- All equipment to be 3,000 psi working pressure except as noted.
- Rd Double ram type preventer with two sets of rams.
  - R Single ram type preventer with one set of rams.
  - S Drilling spool with side outlet connections for choke and kill lines.
  - G Rotating head 150 psi working pressure minimum

### ARRANGEMENT C

TENNECO OIL COMPANY  
 ROCKY MOUNTAIN DIVISION  
 REQUIRED MINIMUM  
 BLOWOUT PREVENTER AND  
 CHOKE MANIFOLD

I. EXISTING ROADS

(a) Proposed Well Site Location: As surveyed by a registered land surveyor is located 609.6 FNL, 711.7 FEL, Sec. 4, T.175, R.24E, Grand County, Utah *SEE EXHIBIT I*

(b) Planned Access Route: See Exhibits IV & V

(c) Access Road Labelled:

Color Code: Red - Improved surfaced roads  
Blue - New access road to be constructed.

*3 confusing w/ what is on map*

(d) Not applicable, the proposed well is a development well.

(e) The existing roads are show in Exhibit IV, V

(f) Existing Road Maintenance or Improvement:

The existing road will not require improvement. However, this road, along with the new access road, may require occasional grading to return the road surface to a cross section necessary for proper drainage.

II. PLANNED ACCESS ROUTE

(a) Route Location - (See Exhibits IV and V).

The planned new access route was selected to provide the shortest distance to the well site with acceptable grades from the main connector road. Temporary access will be built initially, if the facility is productive, the temporary road will be improved as follows:

(1) Width:

The average dirt width will be twenty feet. The average traveled surface width will be twenty feet. Road construction will be in accordance with typical roadways requested by the U. S. Bureau of Land Management.

(2) Maximum Grades:

The maximum grade will be 15% percent, however, this may vary as topographical conditions vary.

*- not site-specific*

7-27  
(3) Turnouts: Turnouts are not required

(4) Drainage Design:  
Prior to construction of the new access road, the brush and topsoil will be windrowed to each side of the alignment outside construction limits. The subgrade surface will be a minimum elevation of one foot above ditch grade. The road surface will be center crowned and the inslopes will have a maximum slope of 3:1 and fill slopes will be a maximum of 2:1.

(5) Culverts Use, Major Cuts and Fills: Culverts will be placed as needed and suggested by the BLM.

Max: cut - 10'

Max: fill - 5'

(6) Surfacing Material:  
The proposed permanent access road will be constructed with native material.

(7) Gates, Cattleguards, Fence Cuts:

Not needed

(8) New portion of road will be center flagged

### III. LOCATION OF EXISTING WELLS

The proposed well is a development well. Exhibit V shows existing wells within a one mile radius.

- A. Water Wells: NA
- B. Abandoned Wells: NA
- C. Temporarily Abandoned Wells: NA
- D. Disposal Wells NA
- E. Drilling Wells NA
- F. Producing Wells: NA
- G. Shut-In Wells: NA
- H. Injection Wells: NA
- I. Monitoring or Observation Wells: None.

LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

- A. Existing facilities within one mile owned or controlled  
by Lessee/Operator: NONE

- (1) Tank batteries -
- (2) Production facilities -
- (3) Oil Gathering Lines -
- (4) Gas Gathering Lines -
- (5) Injection Lines -
- (6) Disposal Lines -

- B. New Facilities in the Event of Production:

1. New facilities: well head, condensate tank, production unit, meter house
2. Dimension of the facilities are shown in Exhibit IV & V.
3. Construction will be to strip the topsoil, level drilling pad. Dehydrator pits will be constructed with soil materials native to the site. Construction methods will be employed to assume that no drainage flows are impounded to prevent the loss of any hydrocarbon from the site. This is to be done in a manner to facilitate rapid recovery and clean up.
4. Protective measures to protect wildlife and livestock: Dehydrator pits shall be overhead flagged should any hydrocarbon material be present on the surface. The dehydrator pits shall be fenced to prevent entry of livestock or wildlife.

- C. Plan for rehabilitation of disturbed areas no longer needed for operations after construction completed:

Upon completion of well, areas required for continued use will be graded to provide drainage and minimize erosion. Those areas not required for continued usage will be graded to provide drainage and minimize erosion. Those areas unnecessary for use will be graded to blend with the surrounding topography. Topsoil will be replaced on those areas and seeded according to BLM specifications.

V. LOCATION AND TYPE OF WATER SUPPLY

- (a) The water source is BILL BUNIGER
- (b) Water Transportation system: Water to be hauled in trucks from an undetermined pick up point.
- (c) Water Wells: None

VI. SOURCE OF CONSTRUCTION MATERIALS

(a) Materials:

Construction materials will consist of soil encountered with the boundaries of the proposed site. Topsoil will be stripped to a depth of six inches and stockpiled in an area that does not interfere with operations.

(b) Land Ownership:

The planned site and access roads lie on Federal land administered by the United States Department of Interior, U.S. Bureau of Land Management.

(c) Materials Foreign to Site: NA

(d) Access road shown under item II

VII. METHODS OF HANDLING WASTE MATERIALS

(a) Cuttings:

Will be contained within the limits of the reserve pit.

(b) Drilling Fluids:

Will be retained in the reserve pit.

(c) Produced Fluids:

No substantial amount of water is expected. The amount of hydrocarbon that may be produced while treating will be retained in the reserve pit. Previous to clean up operations the hydrocarbon materials will be skimmed or removed as the situation would dictate.

(d) Sewage::

Sanitary facilities will consist of at least one pit toilet. Waste will be contained in a pit and backfilled immediately following the drilling operations.

(e) Garbage:

A burn pit will be constructed and fenced with small mesh wire. The small amount of refuse will be buried upon completion, with a minimum three foot cover.

(f) Clean up of well site:

After drilling, the surface of the drill pad will be cleaned and graded to accommodate a completion rig. The "mouse hole and rat hole" will be backfilled to prevent injury and hazard for livestock. Reserve pit will be fenced until dry and it can be backfilled and restored to natural terrain.

VIII. ANCILLARY FACILITIES

None required.

IX. WELL SITE LAYOUT

1. See Exhibits II, III
2. Location of pits: III
3. Rig Orientation: III
  
4. Pits will be unlined, unless otherwise required.

X. PLANS FOR RESTORATION OF SURFACE

A. Reserve Pit Cleanup:

The pit will be fenced prior to rig release and shall be maintained until clean up. Previous to backfill operation, any hydrocarbon material on the pit surface will be removed. The fluids and solids contained in the pit shall be backfilled with soil excavated from the site and with soil adjacent to the reserve pit. The restored surface of the reserve pit will be contoured to prevent impoundment of any drainage flows. The gradient of the surface will be maintained to prevent sudden acceleration of drainage flows which could cause continued erosion of the surface. Following backfill completion, topsoil removed from the disturbed areas will be replaced in a uniform layer. The reserve pit will be seeded per Bureau of Land Management recommendation during the appropriate season following final restoration of the site.

B. Restoration Plans - Production Developed:

The reserve pit will be backfilled and restored as described under Item A. In addition, those disturbed areas not required for production will be graded to blend with the surrounding topography. Topsoil will be placed on these areas and seeded. The portion of the drill pad required for production and turning areas will be graded to minimize erosion and provide access to production facilities under inclement conditions. Following final improvement and surfacing of that portion of new access road, the topsoil windrowed to each side of the alignment will be placed on the cut slopes. Following depletion and abandonment of the site, restoration procedures will be those that follow under Item C.

C. Restoration Plans - No Production Developed:

Of course the reserve pit will be restored as described above. With no production developed, the entire surface disturbed by construction of the drilling pad will be restored to its natural terrain and reseeded per Bureau of Land Management requirements.

X. PLANS FOR RESTORATION OF SURFACE

A. Reserve Pit Cleanup:

The pit will be fenced prior to rig release and shall be maintained until clean up. Previous to backfill operation, any hydrocarbon material on the pit surface will be removed. The fluids and solids contained in the pit shall be backfilled with soil excavated from the site and with soil adjacent to the reserve pit. The restored surface of the reserve pit will be contoured to prevent impoundment of any drainage flows. The gradient of the surface will be maintained to prevent sudden acceleration of drainage flows which could cause continued erosion of the surface. Following backfill completion, topsoil removed from the disturbed areas will be replaced in a uniform layer. The reserve pit will be seeded per Bureau of Land Management recommendation during the appropriate season following final restoration of site.

B. Restoration Plans - Production Developed:

The reserve pit will be backfilled and restored as described under Item A. In addition, those disturbed areas not required for production will be graded to blend with the surrounding topography. Topsoil will be placed on these areas and seeded. The portion of the drill pad required for production and turning areas will be graded to minimize erosion and provide access to production facilities under inclement conditions. Following final improvement and surfacing of that portion of new access road, the topsoil windrowed to each side of the alignment will be placed on the cut slopes. Following depletion and abandonment of the site, restoration procedures will be those that follow under Item C.

C. Restoration Plans - No Production Developed:

Of course the reserve pit will be restored as described above. With no production developed, the entire surface disturbed by construction of the drilling pad will be restored to its natural terrain and reseeded per Bureau of Land Management requirements.

XI. OTHER INFORMATION

- A. Surface Description: The topography is broken high sandstone mesas, sandy soil, supporting pinon, juniper brush and native grasses.
- B. Other Surface - Use Activities: The surface is federally owned and managed by the BLM/USGS. The predominant surface use is mineral exploration and production.
- C. Proximity of Water, Dwelling, Historical Sites:
1. Water: No reservoirs or live streams in the area.
  2. Occupied Dwellings: Not existing.

3. Historical Sites: An Archaeological Reconnaissance has been performed for this location and clearance has been granted.

XII. OPERATOR'S REPRESENTATIVE:

Field personnel who can be contacted concerning compliance of this Surface Use Plan are as follows:

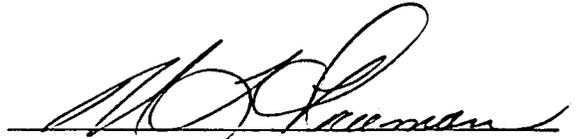
Donald Barnes  
720 So. Colorado Boulevard  
Denver, Colorado 80222  
Office: (303) 758-7130  
Extension 212

M. L. Freeman  
720 So. Colorado Boulevard  
Denver, Colorado 80222  
Office: (303) 758-7130  
Extension 278

XIII. CERTIFICATION

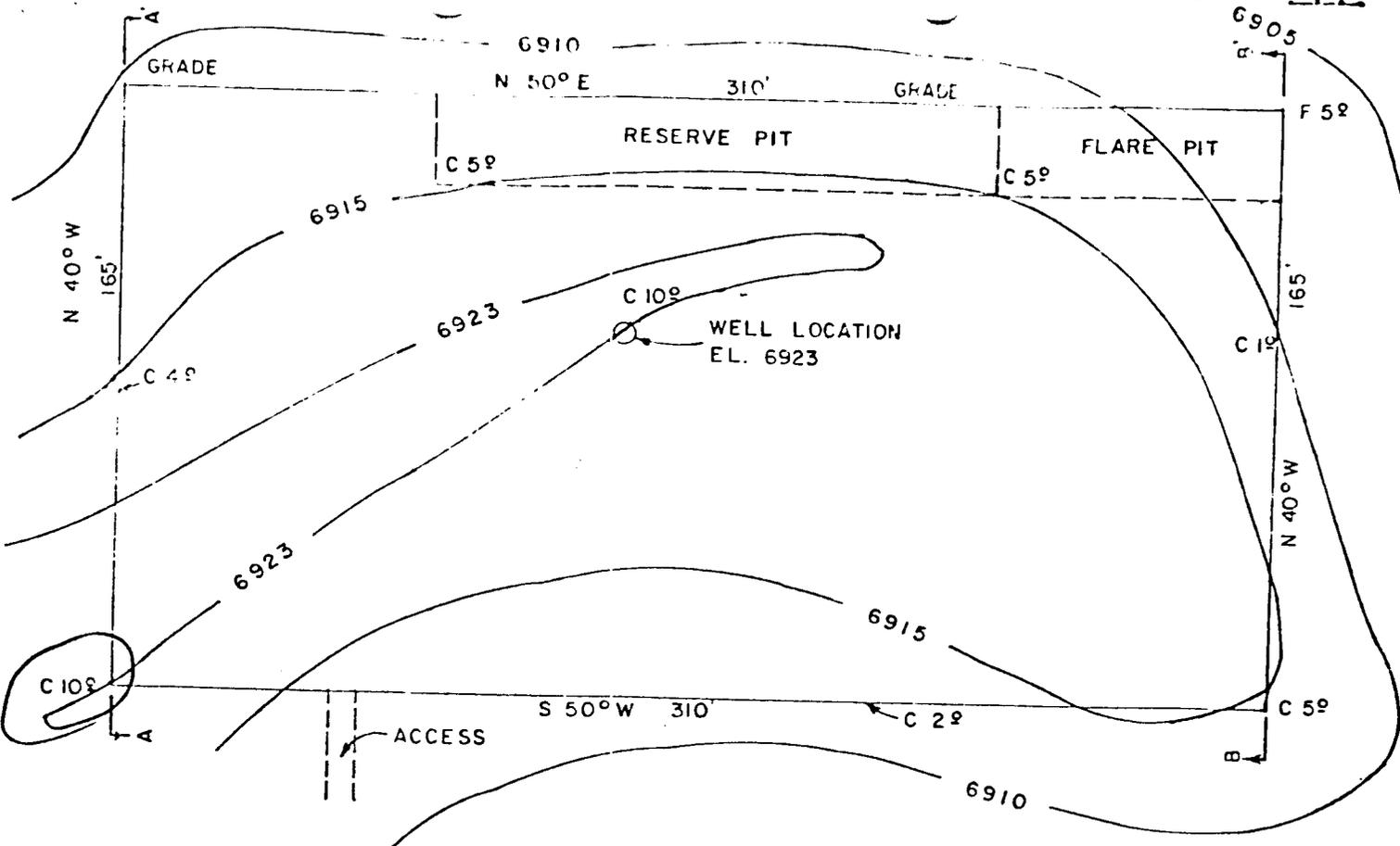
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions as they actually exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the proposed work performed by Tenneco Oil Company and its contractors and sub-contractors will conform to this plan.

DATE: 5/9/80



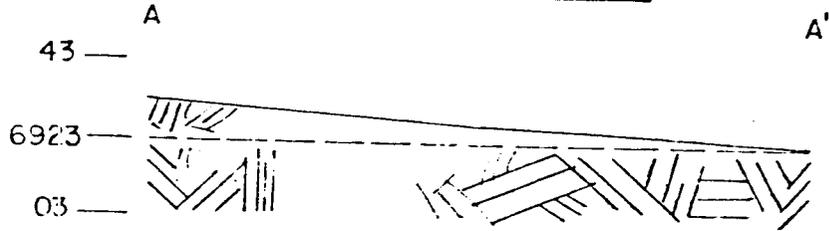
M. L. Freeman  
Staff Production Analyst

II

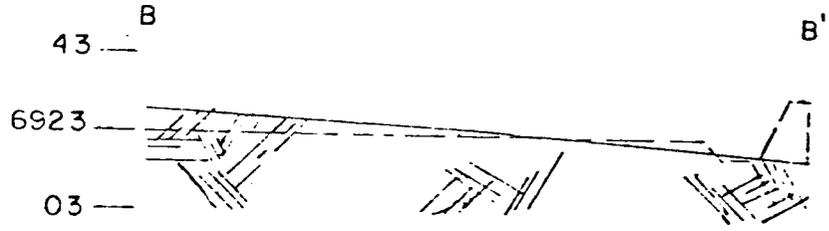


R.P. NORTH - 5° 200'  
 R.P. WEST - 2° 200'

CROSS SECTION A-A'



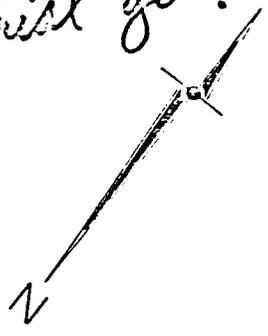
CROSS SECTION B-B'



APPROXIMATE EARTHWORK VOLUMES

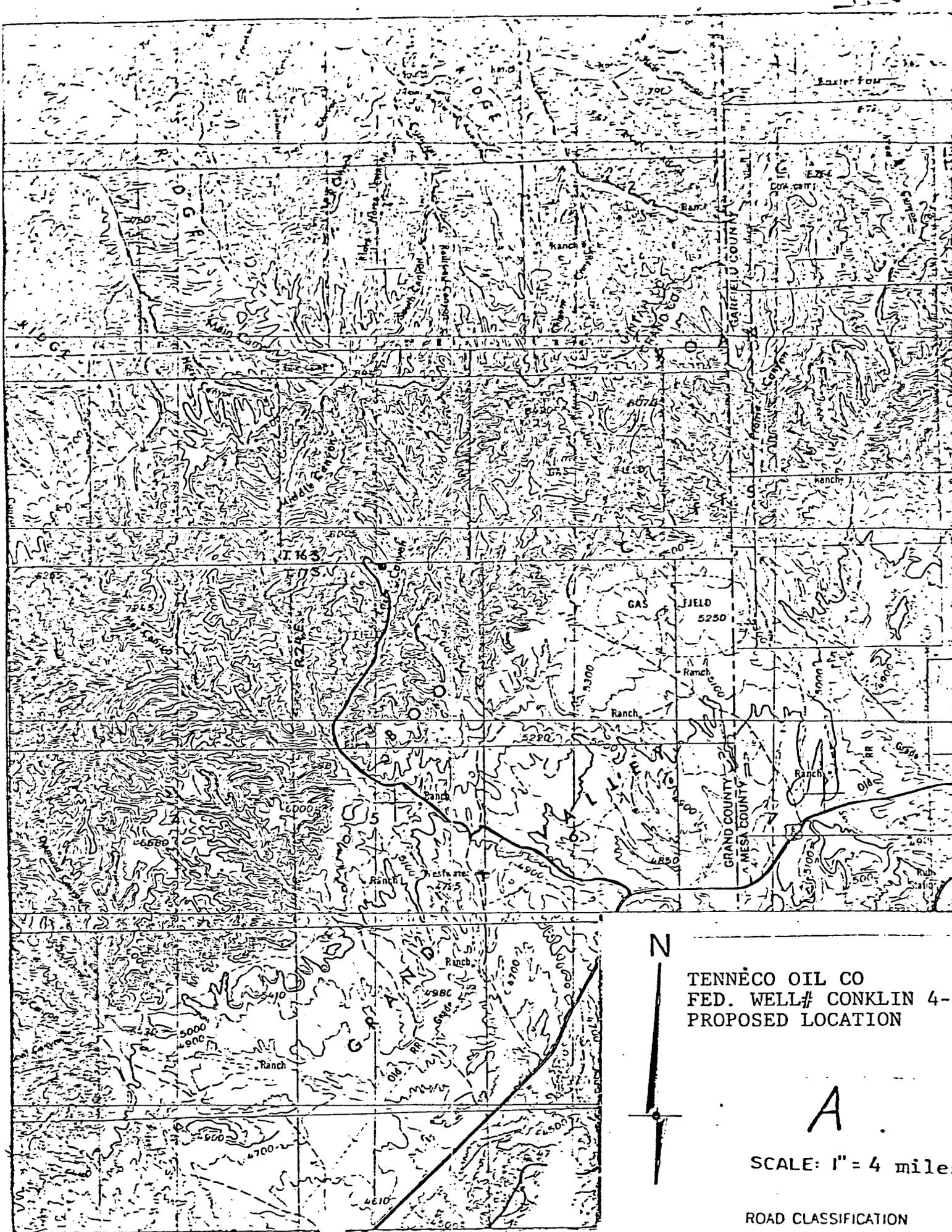
CUT : 8085 cu. yds.  
 FILL : 490 cu. yds.

*where will excess material go?*



|  |   |                                    |                      |
|--|---|------------------------------------|----------------------|
|  | ARMSTRONG ENGINEERS and ASSOCIATES, INC.<br>ENGINEERING • SURVEYING • SOILS AND CONCRETE TESTING<br>861 ROOD AVENUE - GRAND JUNCTION, COLORADO 81501 - (303) 245-3867 |                                    |                      |
|  | 1" = 50'<br>DATE 4/17/80<br>DRAWN BY SZH<br>CHECKED BY JHL<br>DATE 4/8-9/80   | TENNECO OIL CO.<br>CONKLIN USA 4-1 |                      |
|  | SHEET 2 of 5  |                                    | JOB NUMBER<br>802741 |
|  | 4/8-9/80  |                                    |                      |





TENNOCO OIL CO  
 FED. WELL# CONKLIN 4-1  
 PROPOSED LOCATION



A

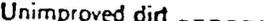
SCALE: 1" = 4 miles

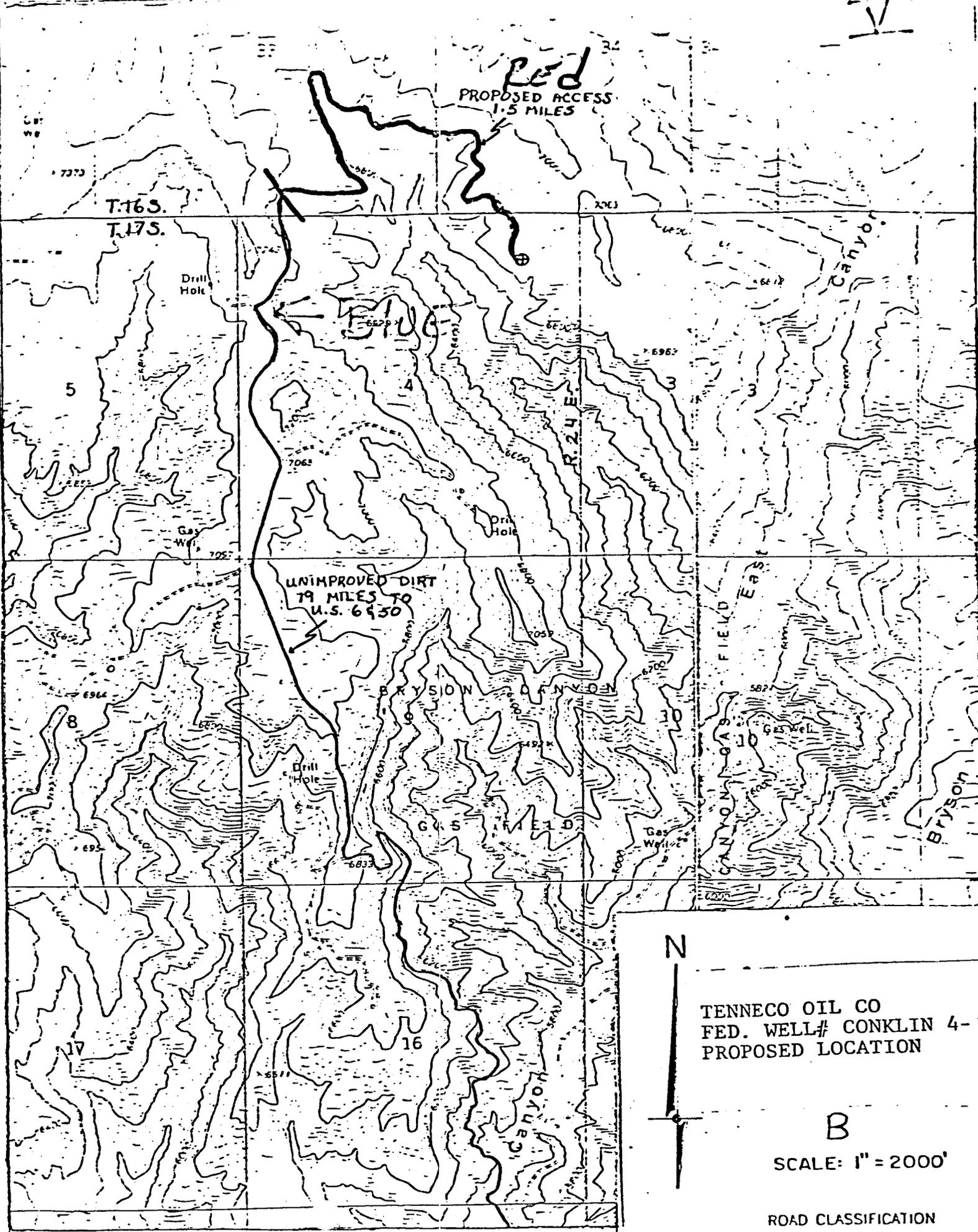
ROAD CLASSIFICATION

Light-duty



Unimproved dirt





TENNECO OIL CO  
 FED. WELL# CONKLIN 4-1  
 PROPOSED LOCATION

B

SCALE: 1" = 2000'

ROAD CLASSIFICATION

Light-duty.

Unimproved dirt



United States Department of the Interior

IN REPLY REF. TO

3100  
(U-603)

BUREAU OF LAND MANAGEMENT

Moab District  
Grand Resource Area  
P. O. Box M  
Moab, Utah 84532

RECEIVED

MAR 06 1980

March 3, 1980 TENNECO OIL CO.  
DENVER

Mr. M.L. Freeman  
Staff Production Analyst  
Tenneco Oil  
Penthouse  
720 South Colorado Blvd.  
Denver, Colorado 80222

Reference: Staking Request  
Conklin USA 4-2, Lease U-36863  
NWNE, Section 4  
T. 17 S., R. 24 E., SLB&M  
Grand County, Utah

Dear Mr. Freeman :

This office has no objections to staking the above referenced location. An archaeological clearance must be obtained after staking the site. It would appear from your proposed access, that a road right-of-way to this location will be required.

Sincerely yours,

*C. Delano Backus*

C. Delano Backus  
Area Manager

Enclosure:  
Archaeological List

cc:  
Ed Guynn



*Save Energy and You Serve America!*

# DESIGNATION OF OPERATOR

The undersigned is, on the records of the Bureau of Land Management, holder of lease

DISTRICT LAND OFFICE: Salt Lake City, Utah  
SERIAL NO.: U-36863

and hereby designates

NAME: Tenneco Oil Company  
ADDRESS: Penthouse, 720 South Colorado Blvd.  
Denver, Colorado 80222

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable):

T17S, R24E, SLM  
Section 4: NE $\frac{1}{4}$ , N $\frac{1}{2}$ NW $\frac{1}{4}$   
(containing 232.68 acres, more or less)  
Grand County, Utah

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.

Energy Increments, Inc.

BY: Edward F. Kulas - U.P.  
(Signature of lessee)

P. O. Box 15015

Las Vegas, Nevada 89114

June 10, 1980  
(Date)

(Address)

\*\* FILE NOTATIONS \*\*

DATE: September 16, 1980

OPERATOR: Tenneco Oil Company

WELL NO: Cooklin #4-1

Location: Sec. 4 T. 17S R. 24E County: Grand

File Prepared:

Entered on N.I.D:

Card Indexed:

Completion Sheet:

API Number 43-019-30700

CHECKED BY:

Petroleum Engineer: M.S. Minder 9-18-80  
Designate well approved for spaced unit in north 1/2 of section.

Director: \_\_\_\_\_

Administrative Aide: OK on gas well spacing per order

APPROVAL LETTER:

Bond Required:

Survey Plat Required:

Order No. 165-4 6/26/79

O.K. Rule C-3

Rule C-3(c), Topographic Exception - company owns or controls acreage within a 660' radius of proposed site

#3  
lay down

Lease Designation

Plotted on Map

Approval Letter Written

Hot Line

P.I.

September 18, 1980

Tenneco Oil Company  
720 South Colorado Boulevard  
Denver, Colorado 80222

Re: Well No. Conklin #4-1  
Sec. 4, T. 17S, R. 24E.,  
Grand County, Utah

Insofar as this office is concerned, approval to drill the above referred to gas well is hereby granted in accordance with the Order issued in Cause No. 165-4 dated June 26, 1979. This well is designated as a laydown.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

MICHAEL T. MINDER - Petroleum Engineer  
Office: 535-5771  
Home: 876-3001

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-019030700.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Michael T. Minder  
Petroleum Engineer

/btm  
cc: USGS

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. oil well  gas well  other

2. NAME OF OPERATOR  
Tenneco Oil Company

3. ADDRESS OF OPERATOR  
Box 3249 Englewood, Co 80155

4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17 below.)  
AT SURFACE: 610' FNL 712' FEL NE/NE  
AT TOP PROD. INTERVAL:  
AT TOTAL DEPTH:

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

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

|   |
|---|
| 5. LEASE<br>U-36863   |
| 6. IF INDIAN, ALLOTTEE OR TRIBE NAME<br>-                           |
| 7. UNIT AGREEMENT NAME  |
| 8. FARM OR LEASE NAME<br>Conklin                                    |
| 9. WELL NO.<br>4-1  |
| 10. FIELD OR WILDCAT NAME<br>Wildcat                                |
| 11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA<br>Sec 4 T17S R24E |
| 12. COUNTY OR PARISH<br>Grand                                       |
| 13. STATE<br>Utah   |
| 14. API NO.   |
| 15. ELEVATIONS (SHOW DF, KDB, AND WD)<br>6923.3' gr                 |

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

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

Tenneco has decided not to drill the above referenced well. We respectfully ask the U.S.G.S. to rescind its' approval dated July 31, 1980. Tenneco intends to drill another well, the Conklin 4-5, in this section and an Application for Permit to Drill will be forthcoming.

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

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

SIGNED Carley Station TITLE Asst. Div. Adm. Mgr. DATE February 19, 1981

(This space for Federal or State office use)

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