

SOUTH LEONARD
WATER SUPPLY WELL

1. Existing Roads

- A. Proposed Well Site Location:
The proposed water supply well will be located in the NW/SE Section 14, Township 26 South, Range 37 East, Lea County. It will be located on the same location as proposed Water Flood Plant. (Exhibit I)
- B. Planned Access Route:
The planned access route is from Jal, New Mexico Southeasterly for a distance of approximately 4.5 miles to the junction of a gravel road. It then goes east southeast approximately 2.0 miles at which point it proceeds east for 0.5 miles and turns south for one-fifth of a mile. (See Exhibit II)
- C. Access Road Labelled:

Color Code: Red - Improved Surface
 Blue - New Access Road
- D. Not applicable - the proposed well is a water supply well.
- E. The proposed well is a water supply well, see exhibit III for existing roads within a one mile radius.
- F. Existing Road Maintenance of Improvement Plan:
The existing gravel, caliche and sandy roads will require minimal maintenance. No new access road will be required.

2. Planned Access Roads

No new road will be built as existing road is present.

- A. Width:
The average width of road is twelve feet.
- B. Maximum Grades:
The maximum grades are about one percent, because the area is nearly level, with some rolling sand hills.
- C. Turnouts:
There are no turnouts as sight distance is sufficient.
- D. Drainage Design:
The road has been center crowned to allow drainage. Water bars have been constructed to prevent erosion. The road is flat primarily.

2. Planned Access Roads (cont'd)

- E. Culverts Use Major Cuts and Fills:
The terrain is relatively flat and drainages are not too numerous. Culverts will probably not be needed because we can slope dry drainage crossings to maintain normal drainage.
- F. Surfacing Material:
Six inches of caliche have been wetted, bladed and compacted to make the road surface.
- G. Gates, Cattleguards, Fence Cuts:
No gates, cattleguards or fences will be needed.
- H. New Roads Centerlined Flagged:
No new roads needed.

3. Location of Existing Wells

The proposed well is a water supply well. Exhibit IV shows existing wells within a one mile radius.

- A. Water Wells: (This application)
- B. Abandoned Wells: None.
- C. Temporarily Abandoned Wells: None.
- D. Disposal Wells: None.
- E. Drilling Wells: See Exhibit IV.
- F. Producing Wells: See Exhibit IV.
- G. Shut-In Wells: None.
- H. Injection Wells: (Proposed under Waterflood Plan)
- I. Monitoring or Observation Wells: None.

4. Location of Existing and/or Proposed Facilities

- A. Existing facilities within one mile owned or controlled by Lessee/Operator:
NOTE: The flowlines shown on Exhibit V are owned by Tenneco and carry oil, water and gas from the wells to the batteries. Tenneco owns no other lines unless specified below.
 - (1) Tank batteries - See Exhibit V
 - (2) Production Facilities - See Exhibit V
 - (3) Oil Gathering Lines - See Exhibit V
 - (4) Gas Gathering Lines - See Exhibit V
 - (5) Injection Lines -
 - (6) Disposal Lines - None.
- B. New facilities in the event of Production (Waterflood Plant)
 - (1) Proposed lines - Exhibit V
 - (2) Dimensions of facilities - Exhibit VI

4. Location of Existing and/or Proposed Facilities (cont'd)

B. New Facilities in the event of Production: (cont'd)

- (3) Construction Materials/Methods:
Construction materials will be native to the site.
The location will be leveled and surfaced with caliche and compacted.
- (4) Protection of Wildlife/Livestock:
N/A.
- (5) Proposed power line right of way is shown on Exhibit VII.
This will follow existing, cleared routes.

C. Rehabilitation of Disturbed Areas:

Following the completion of construction, those areas required for continued production will be graded to provide drainage and minimize erosion. Those areas unnecessary for use will be graded to blend with surrounding topography, per BLM recommendations.

5. Location and Type of Water Supply

- A. Location and type of water supply:
Water will be hauled from Jal, New Mexico
- B. Water Transportation System:
Water trucks will be used.
- C. Water Wells - (This application)

6. Source of Construction Materials

- A. Materials:
Construction materials will consist of soil native to the site. Any topsoil, if present, will be stripped and stockpiled as needed. Caliche will be used as needed.
- B. Land Ownership:
The planned site and access road is on federal land administered by the Bureau of Land Management.
- C. Materials Foreign to the Site:
Caliche, for road surfacing and if needed on location will be acquired from caliche pits located in Sections 14, 15 and 23 T26S, R37E, which are owned by the BLM.
- D. Access Roads:
No additional roads will be required.

7. Methods for Handling Waste Disposal

- A. **Cuttings:**
Cuttings will be contained in the reserve pit.
- B. **Drilling Fluids:**
Drilling fluids will be retained in the reserve pit.
- C. **Produced Fluids:**
Produced fluids, including produced water will be collected in the reserve pit. Upon completion of drilling, this pit will be covered.
- D. **Sewage:**
Sanitary facilities for sewage disposal will consist of at least one pit toilet, during the drilling operation. The pit will be backfilled immediately following completion of the drilling operation.
- E. **Garbage:**
There probably will not be much putrescible garbage to dispose of. However, it will be disposed of along with the refuse in a constructed burn pit, which will be fenced. The small amount of refuse will be burned and the pit will be covered with a minimum 36 inch cover upon completion.
- F. **Clean-Up of Well Site:**
Upon the release of the drilling rig, the surface of the drilling pad will be prepared for the Waterflood Plant location. The reserve pit will be fenced to prevent entry of livestock until the pit is backfilled. Reasonable clean-up will be performed to prepare this site for the Waterflood Plant.

8. Ancillary Facilities

None required.

9. Well Site Layout

- A. No major cuts and fills will be necessary.
- B. Location of pits, etc. See Exhibit VI.
- C. Rig orientation etc. See Exhibit VI.
- D. **Lining of pits:**
Pits will be lined with plastic and covered with a fine mesh netting, if necessary, for the protection of wildlife if fluids are found to be toxic.

10. Plans for Restoration of Surface

A. Reserve pit clean up:

The pit will be fenced prior to rig release and shall be maintained until clean-up. 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 prepared as needed.

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 the Plant site will be graded to blend with the surrounding topography, and seeded, per BLM recommendations. 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 depletion and abandonment of the site, restoration procedures will be those under Item C. below

C. Restoration Plan - No Production Developed:

N/A. Water well only.

D. Rehabilitation Time Table:

Upon completion of operations the initial clean-up of the plant site will be performed. Final restoration of the site will be performed as soon as possible according to procedural guidelines published by the USGS and BLM. Seeding of the disturbed areas which are no longer required will be performed during the appropriate season, following final restoration.

11. Other Information

A. Surface Description:

The water well site is located in low rolling sand hills, sandy soil and sparse vegetation, consisting of grasses and semi-arid plant life such as yucca, prickly pear cactus, shinnery oak, devils claw and mesquite.

B. Surface Use Activities:

The surface is federally owned and managed by the BLM. The surface use is some grazing for livestock. However, the predominant surface use is mineral exploration and production.

11. Other Information (cont'd)

C. Proximity of Water, Dwellings, Historical Sites:

1. Water:
There are no reservoirs or streams in the immediate area.
2. Occupied Dwellings:
There are no occupied dwelling or buildings in the area.
3. Sites:
An archeological reconnaissance has been performed for this location, and clearance has been granted.

12. Operator's Field Representative

Donald S. Barnes
Division Drilling Engineer
Tenneco Oil Company
720 South Colorado Boulevard
Penthouse
Denver, Colorado 80222
(303) 758-7130 Ext. 212

13. 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 subcontractors will conform to this plan.

Date: 9-15-78

D. D. Myers
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Division Production Manager