

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

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.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER	7. UNIT AGREEMENT NAME
2. NAME OF OPERATOR Tenneco Oil Company E & P WRMD	8. FARM OR LEASE NAME Ludwick LS
3. ADDRESS OF OPERATOR P. O. Box 3249, Englewood, CO 80155	9. WELL NO. 5
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 1500' FNL, 1600' FWL	10. FIELD AND POOL, OR WILDCAT Aztec Pictured Cliffs
14. PERMIT NO.	11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA Sec. 31, T30N, R10W
15. ELEVATIONS (Show whether OF, AT, OR TO SOURCE AREA) 6144' GL	12. COUNTY OR PARISH San Juan
	13. STATE NM

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BUREAU OF LAND MANAGEMENT
FARMINGTON RESOURCE AREA

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF	<input type="checkbox"/>	PULL OR ALTER CASING	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	MULTIPLE COMPLETE	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input type="checkbox"/>	ABANDON*	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	CHANGE PLANS	<input type="checkbox"/>
(Other)	<input type="checkbox"/>		<input type="checkbox"/>

SUBSEQUENT REPORT OF:

WATER SHUT-OFF	<input type="checkbox"/>	REPAIRING WELL	<input type="checkbox"/>
FRACTURE TREATMENT	<input type="checkbox"/>	ALTERING CASING	<input checked="" type="checkbox"/>
SHOOTING OR ACIDIZING	<input type="checkbox"/>	ABANDONMENT*	<input type="checkbox"/>
(Other)	<input type="checkbox"/>		<input type="checkbox"/>

(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.)*

Tenneco requests permission to run a production liner on the referenced well according to the attached detailed procedure.

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SEP 26 1985
OIL CON. DIV.
DIST. 3

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

SIGNED Scott McRumney TITLE Sr. Regulatory Analyst DATE May 15, 1985

(This space for Federal or State office use)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

APPROVED

SEP 24 1985

AREA MANAGER
FARMINGTON RESOURCE AREA

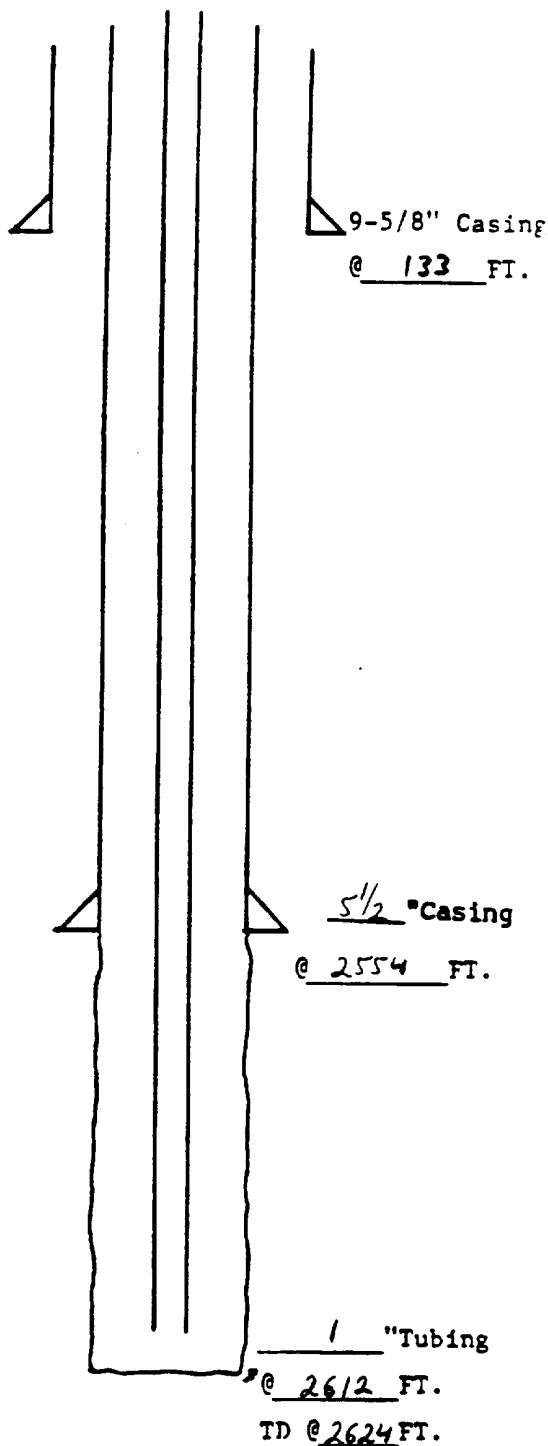
*See Instructions on Reverse Side

NMOCC

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.

MV & PC OPEN HOLE

SIDETRACK WORKOVER PROCEDURES-A



4109-1

LEASE LUDWICK LS WELL NO. 5
9 5/8 "OD, 25.4 LB, CSG.W/ 100 SX
 TOC @ SURFACE
5 1/2 "OD, 15.5 LB, CSG.W/ 150 SX
 TOC @ 1700'

OPEN HOLE WORKOVER - PICTURED CLIFFS

PURPOSE: To recompleate the Pictured Cliffs in a cased and cemented hole.

PROCEDURE:

1. Prepare location by blading and installing anchors, if necessary. Install blowdown lines and blow well.
2. MIRUSU. Kill tubing with 2% KCl water.
3. NDWH. Change wellhead to accommodate 3-1/2" csg. NUBOPE. NU blowdown lines to csg spool.
4. Kill annulus with 2% KCl water.
5. POOH laying down 1" 1.68# tubing. Visually inspect tubing on trip out. Note: Have fishing tools on location.
6. PU 4-3/4" bit and 2-3/8" 4.7# J-55 8rd tubing as a workstring and TIH. Tag and record fill. Clean out to PBDT with water (have N₂ truck standing by if water will not circulate). Drill new hole to 2659' KB (approximately 35' deeper). Circulate or blow hole clean. POOH.

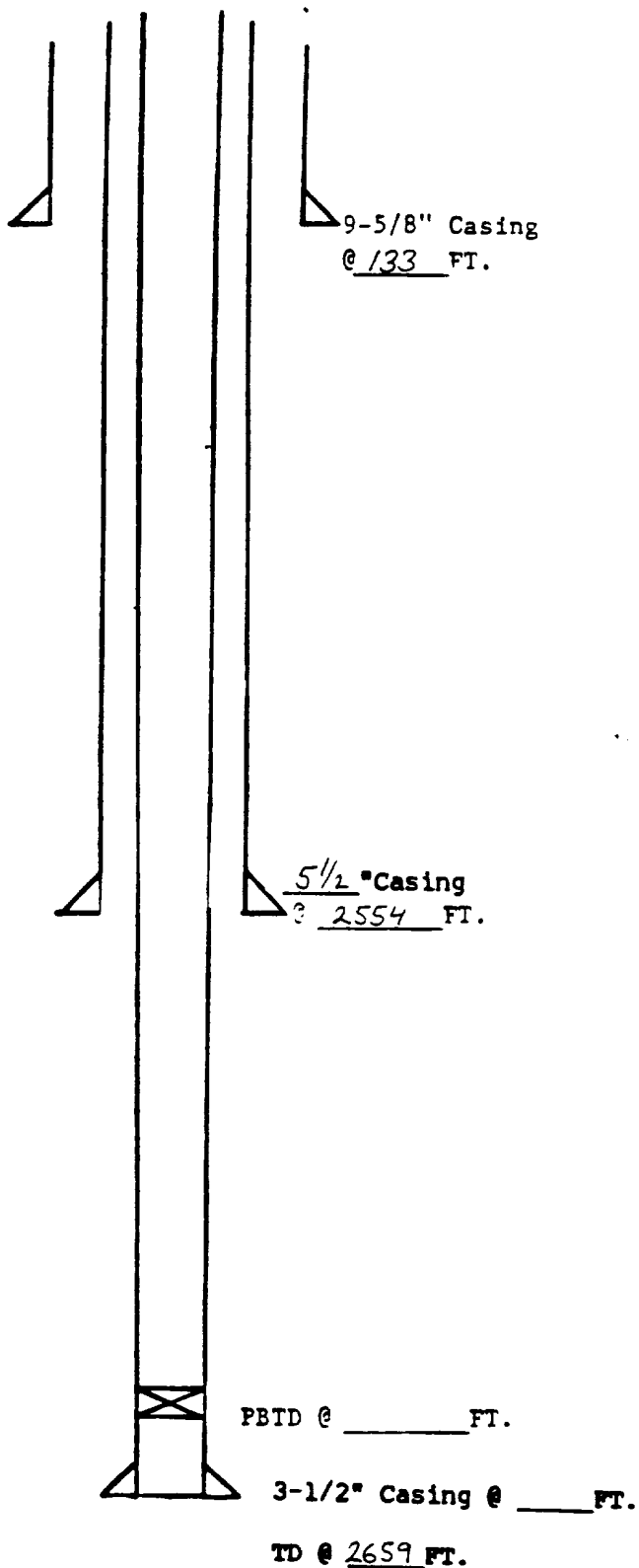
 Note: PU 6 2-7/8" drill collars if necessary to drill new hole.
7. RU and run 3-1/2" 9.2# J-55 NUE casing as a full string as follows:
 - A) Guide shoe and insert float collar on bottom.
 - B) One centralizer with stop ring in the middle of the shoe joint and one centralizer on the joint above. Place one centralizer on the first collar below the wellhead (approx 3 centralizers total).
 - C) Visually inspect body and end areas and drift to 2.992".
 - D) Thread lock the float shoe & first collar above. Use API csg dope on all remaining connections.

8. Cement the 3-1/2" csg as follows:

- A) Have cement tested w/field water for pump time & 24 hr compressive strength prior to cementing.
- B) Use top wiper plug only.
- C) Precede cement w/5 bbls mud flush.

COMPLETION DIAGRAM - B

PICTURED CLIFFS



4109-2

LEASE LUDWICK LS WELL NO. 5
2-1/2" OD, _____ LB, _____ CSG.W/ _____ SX
 TOC @ _____

OPEN HOLE WORKOVER - PICTURED CLIFFS

PROCEDURE:

- D) Cement with 12.5% gel + 12.5#/SK gilsonite followed by (12.5 ppg) followed by 80 sx Class B w/4% gel + 12.5 #/SK gilsonite + 2% CaCl₂ (13.3 ppg, 1.80 ft³/SK, 8.30 GAL/SK).
 Follow top plug with 1 bbl acetic acid. If plug does not bump, do not overdisplace. Release pressure if float holds.
9. Set slips with full casing weight. NDBOP & cut off 3-1/2" csg. NU tbg spool. PT WH to 2500 psi.
10. PU 1.68# 10rd tubing and tally in hole. CO to insert float collar @ _____ FT. Fill hole and PT casing to 2500 psi. Reverse hole clean and displace with 2% KCl water.

COMPLETION:

11. Spot a sufficient quantity of 7-1/2% DI HCl to cover the perforated interval +200'. POOH.
12. RUWL. Run GR-CCl from PBTD to 150' above the highest pay. Perforate the Pictured Cliffs under lubricator as directed by the Geological Department from the top interval down. Use Schlumberger 2-1/8" Enerjet semi-expendable tubing guns loaded 2 JSPF @ 0° phasing w/13.5 gm charges.
13. Acidize dn csg w/20 gal per perf of 15% wgt HCl 600# NaCl/1000 gal & 1.5 l.l S.G. RCN ball sealers per perforation. Displace @ max rate with MSP less than 2500 psi. RIH past perforations w/junk basket. Blow hole dry with nitrogen and POOH.
14. Frac Pictured Cliffs with 70 quality foam & 20/40 sand as per attached schedule. Call Denver to confirm. Flush to 2 bbls shy of top perf. SWI for 2 hrs. FTCU thru 1/4" tapped bull plug.
15. T1H with new 1-1/4" 2.40# J-55 10rd production string as follows:
 1 jt 1-1/4" tbg
 1 SN with exp plug
 Bal of 1-1/4" tbg
16. Tag fill & record amount. CO to PBTD w/N₂. PU & set btm of tbg within 20' of lowest perforation. Land tbg & NUWH.
17. Kick well around with N₂ and FTCU.
18. RDMOSU. SWI for AOF.

Peter M. Mueller
 Production Department