

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

1. OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER	7. UNIT AGREEMENT NAME
2. NAME OF OPERATOR Tenneco Oil Company	8. FARM OR LEASE NAME Daum LS
3. ADDRESS OF OPERATOR P. O. Box 3249, Englewood, CO 80155	9. WELL NO. 5M
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.) At surface 790' FSL, 1450' FEL	10. FIELD AND POOL, OR WILDCAT Blanco MV/ Basin DK
14. PERMIT NO.	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 32, T28N R9W
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 6884' GL	12. COUNTY OR PARISH San Juan
	13. STATE NM

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DEC 16 1985

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF ☐  
FRACTURE TREAT ☐  
SHOOT OR ACIDIZE ☐  
REPAIR WELL ☐  
(Other)

PULL OR ALTER CASING ☐  
MULTIPLE COMPLETE ☐  
ABANDON\* ☐  
CHANGE PLANS ☒

SUBSEQUENT REPORT OF:

WATER SHUT-OFF ☐  
FRACTURE TREATMENT ☐  
SHOOTING OR ACIDIZING ☐  
(Other)

REPAIRING WELL ☐  
ALTERING CASING ☐  
ABANDONMENT\* ☐

(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 change the casing design according to the attached detailed procedure.

RECEIVED  
DEC 20 1985  
OIL CON. DIV.  
DIST. 3

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

SIGNED

*John McKinney*

TITLE Senior Regulatory Analyst

DATE 12/13/85

(This space for Federal or State office use)

APPROVED BY  
CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

DEC 13 1985

*John McKinney*  
John McKinney  
Senior Regulatory Analyst

\*See Instructions on Reverse Side

#2551M

TENNECO OIL COMPANY  
WESTERN ROCKY MOUNTAIN DIVISION  
6162 SOUTH WILLOW DRIVE  
ENGLEWOOD, COLORADO 80155

DATE: December 11, 1985

LEASE: Daum LS

WELL NO: 5M

LOCATION: 790' FSL, 1450' FEL  
Section 32, T28N, R9W  
San Juan County, New Mexico

FIELD: Basin Dakota/Blanco MV

ELEVATION 6884 (GL)

TOTAL DEPTH: 7520'

PROJECTED HORIZON: Mesaverde/Dakota Dual

SUBMITTED BY:

*Mark Kangas*

DATE:

*Dec 12, 1985*

APPROVED BY:

*Charles R. Jenkins*

DATE:

*12/12/85*

CC: Administration  
CRJ Well File  
Field File

ESTIMATED FORMATION TOPS

Ojo	1890'	Fresh Water Aquifer
Kirtland	2110'	
Fruitland	2690'	Coal, Gas
Pictured Cliffs	3060'	Gas
Lewis	3140'	
Chacra	3880'	Gas (800 psi)
Cliff House	4540'	Gas (700 psi)
Menefee	4630'	Gas, Water (700 psi)
Point Lookout	5200'	Gas (700 psi)
Mancos	5430'	
Gallup	6400'	Potential Oil Flow
Greenhorn	7170'	
Graneros	7230'	
Dakota	7270'	Gas
TD	7520'	

### DRILLING, CASING AND CEMENT PROGRAM

1. MIRURT. Notify BLM of spud.
2. Drill a 17-1/2" hole to  $\pm 280$  ft. with a gel-water mud.
3. Rig up and run 13 3/8", 48#, H-40, ST&C casing to bottom. Equip casing with a Texas Pattern guide shoe.
4. Cement with Class B + 2%  $\text{CaCl}_2$  + 1/4#/sx Celloflakes in sufficient quantity (350-400 sx) to circulate cement to surface. Wait on cement a minimum of 12 hours prior to drilling out.
5. Install a 13 5/8"-3M# x 13 3/8" screw on starting flange (will require a 13 3/8" landing joint). Install a 13 5/8"-3M# BOP equipped with blind rams, pipe rams and a Grant or Shaffer rotating head (optional).
6. Pressure test casing, blinds, manifold and lines to 1000 psi for 30 minutes. GIH with drill pipe and test pipe rams in the same manner. Record all tests on the IADC report sheet.
7. Drill out with a 12 1/4" bit and clear water with Rapid Mud. Drill to 3400' or 250' into the Lewis Shale. Mup up prior to reaching intermediate casing point or if hole becomes excessively tight. Circulate at ICP a sufficient time to clean hole to run casing. GE Department will NOT run logs in the 12 1/4" hole.
8. Install casing rams. Rig up and run 9 5/8", 40#, N-80, Special Drift casing. Equip casing with guide shoe on bottom and a float collar one joint up. Bakerlock from the shoe to the top of the float collar and run casing to bottom. Centralize casing with one centralizer in the middle of the shoe joint and then on every other collar for a total of 6 centralizers.
9. Precede cement with 20 bbls chemical wash. Cement with theoretical volume plus  $\pm 80\%$  excess to bring cement to surface. Cement with 65/35/6 + 2%  $\text{CaCl}_2$  + 1/4 #/s Celloflakes. Tail with 100 sacks Class B + same additives. Wait on cement a total of 18 hours before drilling out beneath the 9 5/8" casing. If cement is not circulated to surface, a 1" top job will be necessary.
10. While WOC, raise BOP stack, cut off 9 5/8" casing. Release 13-5/8"-3M# BOP stack. Orangae peel 13 3/8" casing to 9 5/8" casing below ground level. Weld on 11"-3M# x 9 5/8" casinghead at ground level. NUBOPE.

11. Pressure test casing, blinds, manifold and lines to 1500 psi for 30 minutes. GIH with drill pipe and test pipe rams in same manner. Record all tests on the IADC report sheet.
12. Unload casing, drill out and dry up. Drill an 8 3/4" hole with gas to 5630' or  $\pm 200'$  into the Mancos Shale. Short trip and blow hole clean for logs. Log 8 3/4" open hole as directed by the G.E. Department.
13. Install casing rams. Run 7", 26#, K-55 liner equipped with a float shoe on bottom, a float collar and latch down collar (piggybacked) on the top of the first joint. Hang liner with a 150' overlap into the 9 5/8" casing. Bakerlock to top of latchdown collar.
14. Precede cement with 20 bbls of Zonelock. Cement 7" liner with 65/35/6 + .6% fluid loss additive. Tail in with 150 sx Class B + 2%  $\text{CaCl}_2$ . Use sufficient quantity ( $\pm 75\%$  excess) to circulate cement to the liner top.
15. Set packoff and circulate excess cement to surface. LDDPDC.
16. Wait on cement a total of 18 hours before drilling out beneath the 7" liner. Pressure test casing, liner hanger and all BOPE to 1500 psi for 30 minutes. GIH with 3 1/2" drill pipe and test pipe rams in the same manner. Record all tests on the IADC report sheet.
17. Unload casing, drill out and dry up. Drill a 6 1/8" hole with gas to T.D. - surveying as required. Lay down square drill collar before cutting the Dakota. Should the hole become oil wet in the Gallup, switch over to foam mist to drill to T.D. Short trip. Blow hole clean.
18. Log open hole as directed by GE Department.
19. If productive, run 4 1/2", 11.6# and 10.5# K-55 casing as a liner. Equip the casing with a float shoe on bottom, a float collar and latch down collar (piggyback) on the top of the first joint. No threadlock or centralizers are to be used on this arrangement. Hang liner with a 150' lap in the intermediate casing and at least 3' off bottom.
20. Precede cement slurry with 20 barrels of chemical flush. Cement with a lead slurry of 65/35 Poz + 6% gel + .6% fluid loss additive. Tail in with 100 sx Class B + .6% fluid loss additive. Use sufficient quantity ( $\pm 75\%$  excess) to circulate cement to the liner top.
21. Circulate out the excess cement, LDDP and MORT.
22. If non-productive, P & A as required by BLM.
23. Install tree and fence remainder of reserve pit.

### CASING PROGRAM

<u>INTERVAL</u>	<u>LENGTH</u>	<u>SIZE</u>	<u>WEIGHT</u>	<u>GRADE</u>	<u>OPTIMUM MAKE-UP TORQUE</u>
0-280	280	13-3/8	48. #	H-40	STC 3220
0-3400	3400	9-5/8	40. #	N-80	LTC 7370
3250-5630	2380	7	26. #	K-55	STC 3640
5480-7000	1520	4-1/2	10.5#	K-55	STC 1460
7000-7520	520	4-1/2	11.6#	K-55	STC 1700 LTC 1800

### MUD PROGRAM

0-280'	Spud mud.
280'-3400'	Low solid, fresh water mud. (Water and Rapid Mud.) Mud up prior to running casing.
3400'-5630'	Air or gas. If mist up or mud up is required, 3% KCl and shale inhibitors must be added to the system.
5630'-T.D.	Air or gas. If mist up or mud up is required, 3% KCl and shale inhibitors must be added to the system.

### EVALUATION

#### Cores and DST's:

NONE.

#### Deviation Surveys

1. Survey surface hole at 100' intervals. Maximum allowable deviation at 500' is 1-1/2°
2. From surface to the Mancos formation, deviation surveys must be taken every 500'. In the Mancos/Gallup zones, surveys to be each 250'. Record all surveys in IADC Report book. Maximum allowable change in deviation is 1° per 100'. Maximum deviation allowable is 8°.

#### Samples:

As requested by Wellsite Geological Engineer

#### Logs:

8-3/4" hole: GR-DIL: ICP to 9-5/8" casing shoe  
GR-CDL-CAL: Same as above  
  
6-1/8" hole: GR-DIL: TD to 7" liner shoe  
GR-CDL-CAL: Same as above

### BLOWOUT EQUIPMENT

13-5/8"-3000# WP BOP, 11"-3000# WP BOP with rotating head to comply with TOC requirements as shown in BOPE arrangement, Figure C. Preventors must be checked for operation every 24 hours with each check 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, types of logs and depths ran, daily and cumulative mud cost, deviation surveys, and other pertinent information to be called into Division Office by 7:30 AM Monday thru Friday.

TENNECO OIL COMPANY  
P.O. Box 3249  
ENGLEWOOD, COLORADO 80155  
PHONE: 303-740-4800

## OFFICE DIRECTORY

Charles R. Jenkins	740-2575
Ted McAdam	740-2576
Tom Dunning	740-4813
Mark Kangas	740-4810

In case of emergency or after hours call the following in the preferred order.

(1) Mark Kangas	740-4810	Office
Project Drilling Engineer	973-8846	Home
(2) Ted McAdam	740-2576	Office
Drilling Engineering Supervisor	978-0724	Home
(3) Charles R. Jenkins	740-2575	Office
Division Drilling Engineer	987-2290	Home
(4) Harry Hufft	771-5257	Home
Division Production Manager		