

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NM - 10431

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Conoco 29-4

9. WELL NO.

5

10. FIELD AND POOL, OR WILDCAT

E. San Juan - Gallup Dak.

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec. 12, T29N, R4W

12. COUNTY OR PARISH

Rio Arriba

13. STATE
New Mexico

1. OIL WELL ☐ GAS WELL ☒ OTHER

2. NAME OF OPERATOR

Continental Oil Company

3. ADDRESS OF OPERATOR

152 North Durbin St., Casper, Wyo. 82601

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

1710' FNL, 800' FEL

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

7112' GR, 7124' KB

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)

Well Progress 3-15-74

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.)*

See attached Drilling Report.



USGS (5) NMOCC (2) File

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

SIGNED

J. A. Mullen

TITLE Administrative Supervisor

DATE 3/18/74

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

Location: 1710' FNL, 800' FEL, Sec. 12, T29N, R4W, Rio Arriba Co., New Mexico.
AFE 12-61-2518. API Well No.: to follow. Contractor: Arapahoe. Mud supplier:
S.W. Mud. Elevations: GL 7112', KB 7124', RBM 12'. Drilling Foreman: John
Feaster.

10-27-73: Rigging up to cement surface pipe. Depth 520' - sand and shale.
~~Spud at 12:30 a.m. 10-27-73~~ Dev.: 3/4 deg. at 520'. Gel-Chem - Wt. 9.0#.
Bit #1 - Smith DT - 0' to 520'.

10-28: Drilling sand and shale at 966'. Made 446'. 8 3/4" hole. Ran 13 jts.
~~10-28-73, 10-29-73, 10-30-73, 10-31-73~~ casing landed at 516'. Centralizers at 10', 30', 60' and
120'. Shoe and first collar "Baker-Locked." ~~Cemented with 100-cc Class "A",~~
1/4# "Gel-Flake"/sack, and 2% CaCl₂. Circ. to surface. In place at 7 a.m. 10-27-73.
Dowell cemented. Gel-Chem - Wt. 9.0#.

10-29: Drilling sand and shale at 2070'. Made 1104'. 8 3/4" hole. Bit #2 -
Smith SDGH - 520' to 1531'. Dev.: 1 deg. at 1070', 1531', and 1931'. 23 6 1/8"
drill collars; WOB 50,000#; 80 RPM; 5 1/2" x 15" pump; 60 SPM; 283 GPM; PP 1200#;
ann. veo. 133; jet vel. 275; BHA: bit and 23 drill collars. Gel-Chem - Wt. 8.6#;
Vis. 29; WL 78 cc; FC 4/32; pH 8.0; gel strength ini./10 min. 0 / 2; 5.5% solids;
1/2 of 1% sand; salinity 800 ppm; PV 5; Yp 2. Cum. mud costs: \$1233. Arapahoe
2 1/2/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: John Feaster

Drilling sand and shale at 2885'. Made 815'. 8 3/4" hole. Bit #3 - Smith SDGH -
1531' to 2250' - 719' in 16 3/4 hrs. Dev.: 3/4 deg. at 2250' and 2750'. 23
6 1/8" drill collars; WOB 50,000#; 80 RPM; 5 1/2" x 15" pump; 60 SPM; 283 GPM; PP
1200#; ann. vel. 133; jet vel. 275; BHA: bit and 23 drill collars. Gel-Chem -
Wt. 8.5#; Vis. 30; WL 42 cc; FC 2/32; pH 9.0; gel strength ini./10 min. 0 / 3;
3.5% solids; 1/2 of 1% sand; PV 5; Yp 2. Cum. mud costs: \$2269. Arapahoe 3 1/2/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

Tripping in sand and shale at 3294'. Made 409'. 8 3/4" hole. Some tight
hole on trip at 2947'. Conditioned mud. No trouble on this trip. Dev.:
1 deg. at 2947'. Bit #4 - Sec. S-44 - 2250' to 2947'. 25 6 1/8" drill collars;
WOB 50,000#; 80 RPM; 5 1/2" x 15" pump; 60 SPM; 283 GPM; PP 1200#; ann. vel. 133;
jet vel. 290; BHA: bit and 25 6 1/8" drill collars. Gel-Chem - Wt. 8.9#; Vis.
30; WL 8.8 cc; FC 2/32; pH 9.0; gel strength ini./10 min. 0 / 5; 3% solids;
1% sand; salinity 500 ppm; PV 5; Yp 3. Cum. mud costs: \$2337. Arapahoe 4 1/2/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

Tripping in sand and shale at 3603'. Made 309'. 8 3/4" hole. Bit #6 - Sec.
S-44 - 3294' to 3603'. 25 6 1/8" drill collars; WOB 50,000#; 80 RPM; 5 1/2" x
15" pump; 60 SPM; 283 GPM; PP 1200#; ann. vel. 133; jet vel. 290; BHA: bit and
25 6 1/8" drill collars. Dev.: 1 deg. at 3294' and 3603'. Gel-Chem - Wt.
9.3#; Vis. 31; WL 8.5 cc; FC 2/32; pH 9.0; gel strength ini./10 min. 0 / 3;
3.5% solids; 1% sand; salinity 500 ppm; PV 5; Yp 3. Cum. mud costs: \$3458.
Arapahoe 5 1/2/0.

11-2-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

Drilling in Fruitland at 3945'. Made 342'. 8 3/4" hole. Bit #7 - Reed F-52 - 3603' to 3945'. 25 6 1/8" drill collars; WOB 35,000#; 64 RPM; 5 1/2" x 15" pump; 56 SPM; 275 GPM; PP 1000#; ann. vel. 118; jet vel. 336; BHA: bit and 6 1/8" drill collars. Gel-Chem - Wt. 9.0#; Vis. 31; WL 8.2 cc; FC 1/32; pH 8.5; 3.6% solids; 1/3 of 1% sand; salinity 400 ppm; PV 6; Yp 3. Cum. mud costs: \$3881. Arapahoe 6 1/2/2/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' Drilling Foreman: Feaster

11-3: Drilling sand and shale at 4303'. Made 358'. 8 3/4" hole. Dev.: 1 deg. at 4003'. Gel-Chem - Wt. 9.0#.

11-4: Drilling junk. Depth 4423' - sand and shale. Made 120'. 8 3/4" hole. Bit #7 - Reed F-52 - 3603' to 4220'. Dev.: 1 deg. at 4420'. Gel-Chem - Wt. 8.8#.

11-5: Drilling sand and shale at 4660'. Made 337'. 8 3/4" hole. Bit #8 - Smith V2H - 4220-4226'. 25 6 1/8" drill collars; WOB 52,000#; 80 RPM; 5 1/2" x 15" pump; 53 SPM; 260 GPM; PP 1000#; ann. vel. 113; jet vel. 278. Gel-Chem - Wt. 8.8#; Vis. 30. Cum. mud costs: \$5885. Arapahoe 9 1/2/2/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

11-6-73
Mixing lost circulation material. Depth 5102' - sand and shale. Made 342'. 8 3/4" hole. Lost partial returns while drilling at 4917' with 9.0#/gal. mud. Mixed 3% LCM in mud. Continued drilling at reduced rate. Total loss 150 bbls. Full returns. Lost partial returns at 5100'. Continued drilling while mixing lost circ. material. Lost 80 bbls. in 15 min. Shut down to mix lost circ. pill. Pumped down and continued drilling. Dev.: 1 deg. at 4873'. Bit #9 - Smith DTH - 4426' to 4873'. 25 6 1/8" drill collars; WOB 52,000#; 80 RPM; 5 1/2" x 15" pump; 58 SPM; 285 GPM; PP 1000#; ann. vel. 124; jet vel. 292. Gel-Chem - Wt. 8.9#; Vis. 36; WL 6.4 cc; FC 2/32; pH 9.0; 2.9% solids; 1/3 of 1% sand; 3% LCM; salinity 500 ppm; PV 7; Yp 3. Cum. mud costs: \$6648. Arapahoe 10 1/2/2/0.



11-7-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

Drilling sand and shale at 5290'. Made 188'. 8 3/4" hole. Dev.: 3/4 deg. at 5180'. Pumped lost circulation pill in slowly and continued drilling with partial returns. Regained full circulation. Lost partial returns at 5165'. Continued drilling with reduced pump pressure. Regained full circulation. Lost 100 bbls. in 24 hrs. Bit #10 - Smith SDGH - 4873' to 5180'. 25 6 1/8" drill collars; WOB 52,000#; 80 RPM; 5 1/2" x 15" pump; 58 SPM; 285 GPM; PP 1000#; ann. vel. 124; jet vel. 292. Gel-Chem - Wt. 9.0#; Vis. 40; WL 6.4 cc; FC 2/32; pH 9.5; 3.1% solids; 1/2 of 1% sand; 4% LCM; salinity 500 ppm; PV 13; Yp 6. Cum. mud costs: \$8,043. Arapahoe 11 1/2/2/0.

11-8-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

Drilling sand and shale at 5437'. Made 147'. 8 3/4" hole. 40 to 80 units background gas. Bit #11 - HTC ODV - 5180' to 5360'. 25 6 1/8" drill collars; WOB 35,000#; 46 RPM; 5 1/2" x 15" pump; 52 SPM; 255 GPM; PP 1000#; ann. vel. 111; jet vel. 312. Dev.: 3/4 deg. at 5360'. Gel-Chem - Wt. 9.0#; Vis. 35. Cum. mud costs: \$8539. Arapahoe 12 1/2/2/0.

11-9-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

Drilling sand and shale at 5640'. Made 203'. 8 3/4" hole. 60 to 80 units background gas. 25 6 1/8" drill collars; WOB 40,000#; 64 RPM; 5 1/2" x 15" pump; 52 SPM; 255 GPM; PP 1000#; ann. vel. 111; jet vel. 312. Gel-Chem and CMC - Wt. 9.0#; Vis. 34; WL 6.8 cc; FC 1/32; pH 9.0; 3.1% solids; 1/3 of 1% sand; salinity 500 ppm; PV 6; Yp 3. Cum. mud costs: \$9131. Arapahoe 13 1/2/2/0.

11-10-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

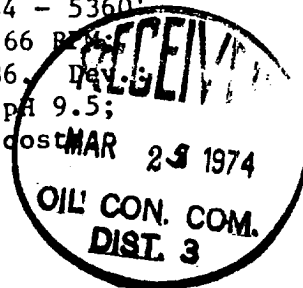
11-10: Drilling sand and shale at 5798'. Made 158'. 8 3/4" hole. Dev.: 1 deg. at 5761'. 15-30 units background gas. Gel-Chem and CMC - Wt. 9.1#.

11-11: Drilling in Mesaverde at 5955'. Made 157'. 8 3/4" hole. Gel-Chem and CMC - Wt. 9.0#.

11-12: Drilling shale with coal streaks at 6116'. Made 161'. 8 3/4" hole. 20-40 units background gas. Gas units as follows: 5960' - 120 units; 5993' - 240 units; 6030' - 100 units; 6043' - 80 units; 6050' - 40 units; 6057' - 70 units; 6087' - 70 units; 6103' - 100 units. Bit #12 in hole. 25 6 1/8" drill collars; WOB 40,000#; 64 RPM; 5 1/2" x 15" pump; 52 SPM; 255 GPM; PP 1000#; ann. vel. 111; jet vel. 312; BHA: bit and drill collars. Gel-Chem - Wt. 9.1#; Vis. 36. Cum. mud costs: \$12,257. Arapahoe 16 1/2/2/0.

11-13-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

Drilling sand and shale at 6334". Made 218'. 8 3/4" hole. 10 units background gas. 110 units at 6280' and 120 units at 6294'. Bit #12 - Smith E934 - 5360' to 6334' - 974' in 126 1/2 hrs. 25 6 1/8" drill collars; WOB 50,000#; 66 RPM; 5 1/2" x 15" pump; 56 SPM; 275 GPM; PP 1200#; ann. vel. 118; jet vel. 336. Dev.: 1 1/4 deg. at 6167'. Gel-Chem - Wt. 9.1#; Vis. 33; WL 6.6 cc; FC 1/32; pH 9.5; 3.5% solids; 1/3 of 1% sand; salinity 500 ppm; PV 6; Yp 3. Cum. mud cost \$12,878. 17 1/2/2/0.



11-14-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

Drilling sand and shale at 6495'. Made 161'. 8 3/4" hole. Bit #12 Smith E934 from 5360' to 6359'. Bit #13 Sec. M4NG from 6359 to 6495'. 25 6 1/8" drill collars; WOB 52,000#; 75 RPM. 5 1/2" x 15" pump; SPM 60; 283 GPM; PP 1200#; ann. vel. 133; jet vel. 290; Gel Chem - Wt. 9.3#; vis. 36; W.L. 6.6; F.C. 2/32. Cum. mud cost \$13,033. Arapahoe 18 1/2/2/0.

11-15-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

Drilling shale and sand at 6560'. Made 65'. 8 3/4" hole. Lost full returns at 6495'. Hole stood full but could not circulate. Mixed volume and L.C. pill. Regained partial returns. Drilled ahead with reduced penetration rate. Now have full returns. Dev.: 1 1/2 deg. at 6558'. Bit #13 - Sec. M4NG - 6359' to 6562'. 25 6 1/8" drill collars; WOB 52,000#; 70 RPM; 5 1/2" x 15" pump; 60 SPM; 283 GPM; PP 1200#; ann. vel. 133; jet vel. 290. Gel-Chem - Wt. 9.2#; Vis. 48; WL 6.2 cc; FC 2/32. Cum. mud costs: \$13,863. Arapahoe 19 1/2/2/0.

11-16-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

Tripping in shale at 6767'. Made 207'. 8 3/4" hole. Full returns. No problems. 25 6 1/8" drill collars; WOB 52,000#; 80 RPM; 5 1/2" x 15" pump; 32 SPM; 157 GPM; PP 1200#; ann. vel. 68; jet vel. 330. Gel-Chem - Wt. 9.2#; Vis. 45; WL 6.2 cc; FC 2/32; pH 9.0; gel strength ini./10 min. 0 / 2; 3.3% solids; 1/3 of 1% sand; 18% LCM; salinity 500 ppm; PV 12; Yp 5. Cum. mud costs: \$15,972. Arapahoe 20 1/2/2/0.

11-19-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

11-17: Tripping out to log. Depth 7000' - sand and shale. Made 233'. 8 3/4" hole. Bit #15 - Smith DGTH - 6767' to 7000'. Dev.: 1 deg. at 6767'. Gel-Chem - Wt. 9.3#.

11-18: Building mud volume. Depth 7061' - sand and shale. Made 61'. 8 3/4" hole. Ran Dresser-Atlas IES from 6984' to 500', BHC-Sonic-Gamma from 6500' to 5700', 4000' to 3300', Gamma Ray Caliper Comp. Neutron Density 6500' to 5700', 4000' to 3300'. Two misruns on Density Log (tool malfunctioned). Lost 75 bbls. while drilling at 7061' - partial returns. Gel-Chem - Wt. 9.7#.

11-19: Laying down drill pipe. Depth 7196' - sand and shale. Made 196'. 8 3/4" hole. Drilled to 7196'. Ran Dresser-Atlas IES 6980' to 7984'. One misrun. Bit #16 - Sec. S-44 - 7000' to 7196'. Gel-Chem - Wt. 9.8#.

11-20: Nippling up. Depth 7196'. Ran 149 jts. ~~equipped with guide shoe, diff. float collar on top of bottom jt.~~ Centralizers located 10' and 89' above shoe, 12 centralizers spaced every 90' thereafter, 1 centralizer above stage collar, 4 centralizers - one every 2 jts. above stage collar. Stage collar located at 3943'. Cement basket at 3984'. "Ruff-Cote" 6329' to 5817' and 3943-3855'. Total 7198'. ~~11-19-73~~. Broke circulation. Began losing partial returns. Slowed pump. Continued circulating and regained full returns. Pumped 5 BW, 840 sax 50-50 Pozmix, 2% gel, 6 1/2# "Gilsonite"/sack, 1 1/2% "CFR-2", and 13.3#/gal. slurry. Mixed at 6 1/2 B/M. Pumped plug with 142 BW and 132 bbls. mud at 6 1/2 B/M. Final press. 1200 psi. Bumped plug with 2000 psi. Opened stage collar and circ. for 1 1/2 hrs. Mixed 130 sax 50-50 Pozmix (as in Stage 1). Pumped closing plug with 150 bbls. water at 6 1/2 B/M. Full returns throughout both stages. Job complete at 8:30 p.m. 11-19-73. Log tops: Fruitland 3484'; Pictured Cliffs 3774'; Mesaverde 5908'; Point Lookout 6154'; Mancos 6307'.

11-21-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

Drilling shoe and cement at 7196'. Made 17'. 6 1/8" hole. Picked up drill collars and drill pipe. Mixed mud volume Drilled stage collar. Tested BOP and casing to 1200 psi. Held okay. 21 4 1/2" drill collars; WOB 50,000#; 50 RPM; 5 1/2" x 15" pump; 30 SPM; PP 1200#; BHA: bit, junk basket and 21 drill collars. Gel-Chem - Wt. 10.2#; Vis. 60; WL 6.8 cc; FC 2/32; pH 9.0. Cum. mud costs: \$21,190. Arapahoe 21 1/2/6/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

11-22: Washing to bottom. Depth 7277' - sand and shale. Made 81'. 6 1/8" hole. Bit #17 - Smith DTJ - 7196' to 7277'. Gel-Chem - Wt. 10.2#.

11-23: Drilling sand and shale at 7507'. Made 230'. 6 1/8" hole. Bit #18 in hole. 21 4 1/2" drill collars; WOB 24,000#; 70 RPM; 4 1/2" x 15" pump; 54 SPM; 190 GPM; PP 1200#; ann. vel. 165; jet vel. 162; BHA: bit, 4 3/8" junk basket and drill collars. Gel-Chem - Wt. 10.2#; Vis. 50; WL 6.8 cc; FC 2/32; pH 9.0. Cum. mud costs: \$23,183. Arapahoe 21 1/2/8/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drilling Foreman: Feaster

11-24: Drilling sand and shale at 7616'. Made 109'. 6 1/8" bit. Bit #18 - Sec. S40 - 7277' to 7511'. Gel-Chem - Wt. 10.2#.

11-25: Drilling sand and shale at 7695'. Made 79'. 6 1/8" hole. While drig. at 7637' with 10.2# mud, well began kicking over bell nipple. Closed pipe rams. Increased mud wt. to 10.6#. Killed well. Gel-Chem - Wt. 10.6#.

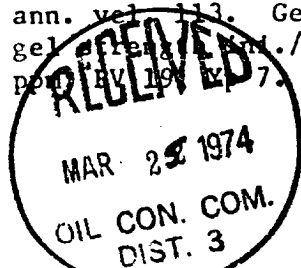
11-26: Drilling sand and shale at 7827'. Made 132'. 6 1/8" hole. Bit #19 - Christ. MD 31 - in hole. 21 4 1/2" drill collars; WOB 18,000#; 110 RPM; 4 1/2" x 15" pump; 40 SPM; 135 GPM; PP 1400#; ann. vel. 113. Dev.: 1 1/4 deg. at 7706'. Gel-Chem - Wt. 10.5#; Vis. 55; WL 5.6 cc. Cum. mud costs: \$27,374. Arapahoe 21 1/2/11/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

11-27-73
Drilling sand and shale at 7966'. Made 139'. 6 1/8" hole. Bit #19 - Christ. MD-31 - 7511-7966'. 21 4 1/2" drill collars; WOB 18,000#; 110 RPM; 4 1/2" x 15" pump; 40 SPM; 135 GPM; PP 1400#; ann. vel. 113. Gel-Chem - Wt. 10.4#; Vis. 57; WL 6.8 cc; FC 2/32; pH 9.5; gel strength ini./10 min. 1 / 7; 8.5% solids; 1/3 of 1% sand; salinity 600 ppm; PV 14; Yp 6. Cum. mud costs: \$28,699. Arapahoe 21 1/2/12/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

11-28-73
Drilling sand and shale at 8114'. Made 148'. 6 1/8" bit. Bit #19 - Christ. MD331 - 7511' to 8114'. 21 4 1/2" drill collars; WOB 18,000#; 110 RPM; 4 1/2" x 15" pump; 40 SPM; 135 GPM; PP 1400#; ann. vel. 113. Gel-Chem - Wt. 10.4#; Vis. 56; WL 6.6 cc; FC 2/32; pH 9.5; gel strength ini./10 min. 1 / 6; 8.7% solids; 1/3 of 1% sand; salinity 200 ppm; PV 19; Yp 7. Cum. mud costs: \$29,808. Arapahoe 21 1/2/13/0.



11-29-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

Drilling sand and shale at 8278'. Made 164'. 6 1/8" hole. Bit #19 - Christ. MD-331 - 7511' to 8278'. 21 4 1/2" drill collars; WOB 18,000#; 110 RPM; 4 1/2" x 15" pump; 40 SPM; 135 GPM; PP 1400#; ann. vel. 113. Gel-Chem - Wt. 10.5#; Vis. 50; WL 6.8 cc; FC 2/32; pH 9.5; gel strength ini./10 min. 1 / 6; 8.7% solids; 1/3 of 1% sand; salinity 600; PV 14; Yp 6. Cum. mud costs: \$30,995. Arapahoe 21 1/2/14/0.

11-30-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

Waiting on fishing tools. Depth 8365' - sand and shale. Made 87'. 6 1/8" hole. Drilled into fractures at 8355' and 8365'. Bit torqued up badly. Twisted off at 8365'. Left diamond bit and bottom hole assembly in hole. Top of fish at 7986'. Bit #19 - Christ. MD-33 - 7511-8365'. 21 4 1/2" drill collars; WOB 18,000#; 110 RPM; 5 1/4 x 15" pump; 40 SPM; 135 GPM; PP 1400#; ann. vel. 113; BHA: bit, near bit, 30' drill collars, string stab., 30' drill collars, string stab., 19 drill collars, and cross-over. Gel-Chem - Wt. 10.4#; Vis. 45; WL 6.8 cc. Cum. mud costs: \$32,149. Arapahoe 21 1/2/15/0.

12-4-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

12-1: Drilling sand and shale at 8368'. Made 3'. 6 1/8" hole. Waited on fishing tools. Made up overshot with 4 1/2" grapples, bumper sub, and jars and started in hole. Well began flowing small stream. Pulled out of hole and installed float. Ran in hole to 7956'. Circ. out gas cut mud and cond. mud 1 1/2 hrs. 1000 units gas. Fished 1/2 hr. Caught fish. Jarred 40,000# to release fish. Circ. and increased mud wt. from 10.4 to 10.6#/gal. Pulled out of hole with fish. Ran back in and began drilling. Bit #19 - Christ. MD-33 - 7541' to 8365'. Gel-Chem - Wt. 10.6#.

12-2: Drilling sand and shale at 8401'. Made 33'. 6 1/8" hole. Sub between drill pipe and kelly leaking. Replaced. Small flow began from annulus while waiting for sub 8 hrs. Circ. and raised mud wt. from 10.4 to 10.6#/gal. Gel-Chem - Wt. 10.6#.

12-3: Tripping up to casing to pack swivel. Depth 8423' - sand and shale. Made 22'. 6 1/8" hole. On trip out at 8415' to change bits, stuck pipe 12' off bottom. Circ. but would not rotate. Worked pipe 3 hrs. Came free with 80,000# pull (over pipe weight). (Appears fracture zone allowed piece of formation to fall in on top of bit.) Pulled out of hole. Bit #20 - Christ. MD-37 - 8365-8415'. Gel-Chem - Wt. 10.8#.

12-4: Drilling sand and shale at 8468'. Made 45'. 6 1/8" hole. 19 4 1/2" drill collars; WOB 16,000-20,000#; 40 RPM; 4 1/2" x 15" pump; 34 SPM; 118 GPM; PP 1400#; ann. vel. 100; jet vel. Gel-Chem - Wt. 1918#; Vis. 54; WL 5.6 cc; FC 2/32. Cum. mud costs: \$36,460. Arapahoe 21 1/2/19/0.

12-5-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

Drilling sand and shale at 8492'. Made 24'. 6 1/8" hole. Bit #21 - Smith F-5 - 8415' to 8468'. 19 4 1/2" drill collars; WOB 16,000-20,000#; 40-60 RPM; 4 1/2" x 15" pump; 34 SPM; 118 GPM; PP 1400#; ann. vel. 100; jet vel. 115. Gel-Chem - Wt. 10.6#; vis. 53; WL 5.4 cc; FC 2/32; 1/3 of 1% sand. Cum. mud costs: \$37,346. Arapahoe 21 1/2/20/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

12-6
Drilling sand and shale at 8525'. Made 33'. 6 1/8" hole. Bit #22 - Smith F-5 - 8468' to 8525'. 19 4 1/2" drill collars; WOB 18,000#; 40 RPM; 5 1/2" x 15" pump; 34 SPM; 118 GPM; PP 1400#; ann. vel. 100; jet vel. 115. Gel-Chem - Wt. 10.6#; Vis. 53; WL 5.4 cc; FC 2/32. Cum. mud costs: \$38,436. Arapahoe 21 1/2/21/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

12-7-73
Reaming at 8442'. TD 8542' - sand and shale. Drilled 17' and reamed 170'. 6 1/8" hole. Bit #22 - Smith F-5 - cut 74' in 46 1/2 hrs. Center cored out. All button worn off. All 3 cones very loose. Half out of guage. Ran back in with Bit #23 - Christ. diamond. Hit tight spot at 8422'. Reamed to 8442' in 3 1/2 hrs. Reaming at 3'/hr. Bit #22 - 8468' to 8542'. 19 4 1/2" drill collars; WOB 18,000#; 40 RPM; 5 1/2" x 15" pump; 34 SPM; 118 GPM; PP 1400#; ann. vel. 100; jet vel. 115; BHA: dia. bit and 19 drill collars. Gel-Chem - Wt. 10.7#; Vis. 75; WL 5.2 cc; FC 2/32; pH 9.0; gel strength ini./10 min. 1 / 17; 8.9% solids; 1/3 of 1% sand; salinity 500 ppm; PV 18; Yp 8. Cum. mud costs: \$39,438. Arapahoe 21 1/2/22/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

12-8: Circ. to log. Depth 8575' - sand. Drilled 33', reamed 80'. 6 1/8" hole. Gel-Chem - Wt. 10.8#.

12-9: Logging with Comp. Neutron Log. Depth 8572'. 6 1/8" hole. Completed circulating hole for logs. Pulled out of hole. Ran in hole to log with Dresser-Atlas IEL-SP. Stopped at 8552'. Logged from 8547' to 8300'. Made cond. trip. Strapped in hole. TD 8562'. Strapped out 8572'. Corrected to 8572' (3' correction).

12-10-73
(Found small bridges at 8512' to 8550'. Reamed from 8550' to 8565'. Bit would not drill past 8565' - 7' off TD.) Pulled out of hole. Ran Comp. FDL-Gamma-Caliper to 8562'. Logged 8561' to 8350'. Ran IEL-SP. Stopped at 8260'. Spudded to 8362'. Logged 8557' to 7197'. Ran BHC-Sonic-Gamma to 8562'. Logged 8552' to 7197'. Running in with Comp. Neutron. Tentative tops: Dakota 8376'; Morrison 8510'. Gel-Chem - Wt. 10.9#.

12-10: Picking up 4 1/2" liner. Depth 8572'. 6 1/8" hole. Ran in hole to 1000' with Comp. Neutron-FDC-Gamma-Caliper. Could not calibrate. Pulled out of hole. Ran in with same. Logged 8560' to 7197'. Results not reliable. Waited on new sonde 2 1/2 hrs. Ran in hole. Logged 8560' to 7197'. Made cond. trip. Laid down drill collars. Picked up 4 1/2" liner. Now going in hole with same. Tops: Gallup 7240'; Sanaster 8051'; Greenhorn 8154'; Graneros 8208'; Dakota 8378'. Gel-Chem - Wt. 10.8#; Vis. 60. Cum. mud costs: \$41,523. Arapahoe 21 1/2/25/0.



12-11-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

MORT. TD 8572'. Picked up 4 jts. ~~4 1/2" casing, set at 8570'.~~
Baker guide shoe, diff. fill collar, Burns liner hanger, 1532' "Ruff-Cote" -
8570-8538', 8474-8352', 7701-7578', and 7518-7299'. Hit bridge at 8552'.
Washed to bottom. Circ. 1 hr. Installed B-J cementing equipment. ~~11-22-73~~
"A", shoe 8570', float collar 8598'. Cemented with 287 sacks Class
"A", 18% salt, 1% "CFR-2" cement - 15.5 to 16.0#/gal. Pumped plug with 55
bbls. water at 3 B/M. Bumped plug at 2700 psi at 1:10 p.m. 12-10-73. Set
rubber liner. Packed off with 15,000#. Got out of liner. Set 20' above
liner top. Reversed out with mud, but did not reverse out any cement. Had
full returns throughout cement job. Rig released 8 p.m. 12-10-73. Arapahoe
21 1/2/26/0.

12-12-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

TD 8572'. 4 1/2" casing set at 8570'. Rig released 8 p.m. 12-10-73.

12-12: Conditioning mud. While rigging down, well started to gas. Shut in
rams and filled annulus with 20 bbls. mud. Started rigging back up. Arapahoe
21 1/2/27/0.

12-13-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

Circ. at 8520'. TD 8572'. Ran in hole with 3 3/4" bit and 6 drill collars.
Broke circ. every 1000' and circ. out gas cut mud. ~~Top line 8570'.~~ Circ.
for 2 hrs. No cement on top of liner. Ran inside liner and tagged cement on
float collar at 8522'. Picked up off bottom and began circ. liner. 4 1/2" x 15"
pump; 30 SPM; 126 GPM; PP 1000#; ann. vel. 110. Gel-Chem - Wt. 10.7#; Vis. 48;
WL 10.2 cc; pH 10.0; gel strength ini./10 min. 0 / 3; 8.5% solids; trace of sand;
PV 10; Yp 5. Cum. mud costs: \$43,073. Arapahoe 21 1/2/27/0.



12-14
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

Waiting on cross-over sub. Depth 8572'. Circ. at bottom 2 hrs. with 10.8#/gal. mud. Pulled out of hole. Rigged up Schlumberger. Ran CBL-VDL Log from 8525' to 5700'. Waited on orders 7½ hrs. Perf. 7240-42' with 2 JSPF with 3 3/8" Hyperjets. Started to make up Baker "Retrievamatic." Improper 2 7/8" cross-over sub. Ran in hole open ended. Hole full and quiet. Cum. mud costs: \$43,824. 3" new snow and snowing. Arapahoe 21½/28/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

12-25: Waiting on cement squeeze. Depth 8572'. Went in hole with 7" Baker "Retrievamatic" and set at 6920'. Hooked up Dowell and tested packer to 1000 psi. Held okay. Established injection rate of 2½ B/M at 2500 psi. Released packer and pumped 15 BW, 25 bbls. slurry, and 5 BW. Set packer. Over-displaced tool by ½ bbl. and shut down for 15 min. Pumped ½ bbl. Shut down for ½ hr. and pumped ½ bbl. Shut down for 1 hr. Tried to pump ½ bbl. Press. at 3500 psi. Shut down. Released tool and reversed out. Final squeeze press. 3500 psi. Will WOC 24 hrs.

12-16: Conditioning mud. TD 8572' - driller and 8562' - logger. Picked up 6 1/8" bit and 6 drill collars. Tagged cement top in 7" casing at 6917'. Drilled 117' of cement and tagged top of liner. Pulled up 1 jt. Closed pipe rams and press. up to 1500 psi. Top of liner holding okay. Pulled out of hole with 6 1/8" bit. Went in hole with 3 7/8" bit. Drilled 35' into liner. Ready to test top of liner again. Checked mud. Highly gas cut with high viscosity. Started mixing bicarb thinner and de-foamer. Gel-Chem - Wt. 10.7#.

12-17: Observing well. TD 8572'. Drilled 35' into liner. Press. tested with pipe rams. Press. to 1000 psi. Held okay. Drilled out cement stringers to 40' above perfs. 40' cement above perfs was hard. Picked up 15 stands. Ran in hole. Tagged bottom at 8522'. Picked up to 7196'. Closed pipe rams. Press. to 500 psi. Held okay for 5 min. Press. up to 1000 psi for 5 min. Okay. Tried to press. up to 1500 psi. Would not hold. Leaked off slowly. Tried to press. up to 1500 psi. Would not hold. Circ. out hole to get rid of air and gas. Press. to 1500 psi. Would not hold. Tried to pump into perfs at 1800 psi. Would not take fluid. Checked for surface leaks. Found none. Called out B-J to try to break down perfs. Spotted 4 bbls. 28% HCl across perfs. Press. up to 2400 psi. Perfs would not take fluid. Shut down. Press. bled off to 175 psi in 14 min. Held 2225 psi for 6 min. Displaced 1 bbl. 28% HCl out of drill pipe. Press. up to 2400 psi. Perfs would not take fluid. Shut down. Press. bled off to 175 psi in 20 min. Held 2225 psi for 7 min. Press. back up to 2400 psi. Perfs would not take fluid. Released B-J. Circ. out water, acid and acid gas with kelly (float in bit sub). Ran to bottom. Circ. bottoms up. Mud cut with acid gas: 10.4#/gal. - out and 10.7#/gal. - in. Observed well 2 hrs. No flow, no gas breaking out. Started circ. at 6:30 a.m. Checking mud wt. every 5 min. 4½" x 15" pump. Cum. mud costs: \$44,194. Arapahoe 21½/30/0.



Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

12-18-73
TD 8572'. Observed well for ½ hr. Circ. and checked mud wt. and vis. every 5 min. Mud gas cut to a min. of 9.6#/gal. Shut pump down. Well flowed 1" stream of gas cut mud. Began mixing de-foamer-barite to bring mud wt. back to 10.8#/gal. Pulled out of hole. Schlumberger perforated 7238-7240' with 2 JSPF. Ran Baker cement retainer on line. Set at 7120'. Ran in hole with stinger on 2 7/8" drill pipe. Stung into retainer. Broke down perfs with 4 bbls. mud at 2 B/M and 2200 psi. B-J squeezed total of 2 bbls. mud, 8 BW, and 43 sacks neat Class "A" cement into perfs. Left 7 sacks cement in casing. Staged final ½ bbl. cement at 15 min. intervals in 30 min. Final squeeze press. 3500 psi. Released pressure at 1:30 a.m. 12-18-73. Picked up out of retainer. Reversed out water and traces of cement. Circ. and cond. mud. Prep. to trip out. 4½" x 15" pump. Gel-Chem - Wt. 10.8#; Vis. 70. Cum. mud costs: \$45,094. Arapahoe 21½/31/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

12-19-73
TD 8572'. Ran in hole with drill pipe. WOC 18 hrs. Cond. mud. Tagged retainer at 7120'. Drilled same. Began drilling cement. Gel-Chem - Wt. 10.7#; Vis. 50. Cum. mud costs: \$45,244. Arapahoe 21½/32/0.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - Drlg. Foreman: Feaster

12-20-73
MORT. TD 8572', PBTD 8522'. Drilled cement from 8136' to 8240', mostly stringers. Ran in to 8522'. Circ. gas cut mud 3 hrs. Closed rams. Tested liner and casing to 1500 psi for 30 min. Held okay. Laid down drill pipe and drill collars. Nipped down. Rig released at 5 a.m. 12-20-73. Cum. mud costs: \$45,544. Arapahoe 21½/33/0.

12-21-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' -

TD 8572', PBTD 8522'. Waiting on completion unit.

12-27-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. Waiting on completion unit.

12-28-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. Waiting on completion unit.

12-31-73
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. 12-30: Big "A" rigged up BOP and stripper head. SDON.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

12-31: Ran 184 jts. 2 3/8" tubing to 5608'. Displaced casing with 206 bbls. fresh water.

1-1: Shut down for New Year's.

1-2: Shut down for storm.



1-3-74 Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

1-3: Shut down for storm. TD 8572', PBTD 8522'.

1-4-74 Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. 1-3: Ran 91 jts. 2 3/8" tubing to 8522'. Finished circ. casing with 140 bbls. fresh water. SDON.

1-7-74 Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. 1-4: Pulled 275 jts. 2 3/8" tubing. SDON.

1-5: Down. Waiting on GO-International.

1-6: Rigged up GO-International and perforated 8422-44' and 8386-8404' with 2 JSPF. Ran 270 jts. 2 3/8" tubing and landed at 8374'. SDON.

1-8-74 Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. 1-7: Swabbed to 3900'. Rec. 140 bbls. KCl water. No fluid rise. SDON.

1-9-74 Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

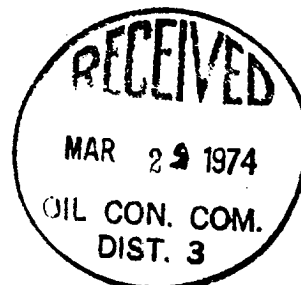
TD 8572', PBTD 8522'. 1-8: Ran in hole with swab. Hit fluid at 3400'. Swabbed 99 bbls. KCl water. Cum. load swabbed back 239 bbls. At end of day, fluid level 5500'. SDON.

1-10-74 Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. No report.

1-11-74 Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. No report.



1-14-74
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. 1-9: TP 25 psi, CP 260 psi. Fluid level 4500'. Swabbed to 7800'. Rec. 51 BF. Total fluid rec. 290 bbls. Well started flowing. Blew to atmosphere for 1½ hrs. Press. dropped from 350 to 85 psi. Fine mist recovered.

1-10: TP 100 psi, CP 350 psi. Made one swab run. Hit fluid at 3700'. Swabbed off head and well blew down. Pulled tubing. Ran Baker "Retrievamatic" packer to top of liner. SDON.

1-11: Finished running packer and set at 7729'. Rigged up Western and tested lines to 4000#. Treated formation with 8 bbls. 15% HCl and inhibitor followed with 150 bbls. condensate. Displaced with 35 bbls. KCl water. Dropped 125 balls at 4 balls/min. Slight ball action. Max. press. 3800 psi, min. 3400 psi, ins. SIP 1850 psi. Final SIP 1450 psi after 15 min. Swabbed back 35 BW and 35 bbls. condensate. Fluid level 6600'. SDON.

1-12: CP 500 psi, TP 275 psi. Opened well to pit. Blew down in 10 min. Fluid level 2400'. Swabbed 40 bbls. condensate and left fluid level at 7729'. SDON.

1-13: Waiting for well fluid to come in.

1-15-74
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. 1-14: TP 675 psi, CP 1125 psi. Fluid level 2600'. Opened well to pit and blew down. Made ½ BF in heads. Swabbed back 32 BF. Total fluid recovered to date 145 bbls. Fluid left to recover 48 bbls. SDON.

1-16-74
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. 1-15: TP 275 psi, CP 1375 psi. FL 5100'. Swabbed back 12 BF. Rigged down Big "A" and moved to Conoco 29-4 #3. Now running pressure buildup test on #5.

1-17-74
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. Running press. buildup test.

1-18-74
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. Running press. buildup test.

1-21-74
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. Running press. buildup test.

1-22-74
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. Running press. buildup test.



1-23-74 Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. Running press. buildup test.

1-24-74 Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. Running press. buildup test.

1-25-74 Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. 1-24: Moved Big "A" unit from #3. TP 650 psi, CP 2200 psi. Fluid level 1800'. Swabbed from 1800' to 7700', top of seating nipple. Waited 30 min. for fluid to come in. Swabbed to seating nipple and caught sample. SDON.

1-28-74 Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. 1-25: TP 150 psi, CP 350 psi. Pulled 251 jts. 2 3/8" tubing and Baker "Retrievamatic" packer out of hole. Ran in hole with GO-International 4 1/2" "Elite" bridge plug. Gun misfired. Bad detonator. Pulled bridge plug out of hole. Changed detonator. Ran in hole with 4 1/2" bridge plug set at 8370'. Pulled out of hole and loaded casing with 230 bbls. 1% KCl water. SDON.

1-26: Ran in hole with GO-International 3 3/8" DML gun. Tagged plug at 8370'. Pulled up and perforated interval 7618-7658' with 2 JSPF (took 2 runs). Ran 245 jts. 2 3/8" tubing to 7598'. Landed blast jt. Rigged down BOP and installed Christmas tree. Swabbed from 400' to 2400'. Well started heading fluid. Blew to pit for 1/2 hr. Turned well to tank thru 1" choke for 1 hr. Rec. 57 bbls. KCl water. At end of day CP 100 psi, TP 50 psi. SDON.

1-27: TP 1200 psi, CP 725 psi. Opened well to tank. Blew down in 15 min. Heading fluid. Left flowing into tank for 1/2 hr. and died. Swabbed from 100' to 7569', top of seating nipple. Fluid heavily gas cut. Swabbed back 200 bbls. KCl water. SDON.

1-29-74 Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. No report.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

1-30-74 TD 8572', PBTD 8522'. No report.



Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. 1-29: Hauled condensate and water. Prep. to frac.

1-30: Rigged Big "A" unit back over hole. Lowered tubing to 7628'. Circ. hole with 155 bbls. condensate and spotted 300 gal. 15% HCl across perfs. Pulled 22 jts. 2 3/8" tubing to 6948' and landed blast sub. Rigged down Big "A" unit and moved off. Gelled condensate. Hooked up Western and proceeded with frac. Pumped 9 bbls. condensate and dropped 95 7/8" balls. Inj. rate 1 B/M at 2900 psi. Flowed well back to release balls. Frac'd down annulus with pad of 119 bbls. of "MO-60" gel. Press. 2300 psi. Pumped 89 bbls. gel with 1#/gal. 20-40 sand at 15 B/M and 3250 psi; pumped 179 bbls. gel with 1 1/2#/gal. 20-40 sand at 13 B/M and 3300 psi; pumped 125 bbls. gel with 2#/gal. 20-40 sand. Initial inj. rate 13 B/M, final 2 B/M at 3400 psi. Flushed with 180 bbls. KCl water and 4000# 20-40 sand. Initial rate 11 B/M, final 0, at 3800 psi. Well sanded out. Max. press. 3800 psi, avg. press. 3500 psi. Avg. rate 7 B/M. Fluid to recover 948 bbls. ISIP 3800 psi; 15 min. SIP 3800 psi.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

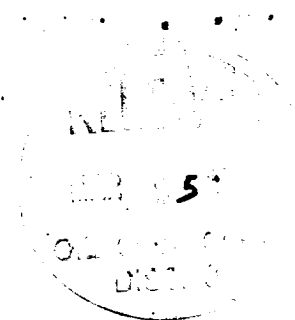
TD 8572', PBTD 8522'. Shut in. Waiting for gel to break.

Conoco 29-4 #5 - Conoco 1.-0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. Shut in. Waiting for gel to break.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. Shut in. Waiting for gel to break.



Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. 2-1: TP 1950 psi, CP 1325 psi. Opened well to tank. Flowed back condensate, water and sand. Rec. 85 BW, 210 bbls. condensate, and approx. 1000# sand. At end of day, TP 100 psi, CP 400 psi. Left well flowing into tank overnight.

2-2: TP 50 psi, CP 200 psi. Circ. casing with 220 bbls. 1% KCl water. Picked up 17 jts. 2 3/8" tubing and lowered to 7654'. Did not tag any sand. Pulled out of hole standing in derrick. Rigged up GO-International and perforated interval 7404-7444' with 2 JSPP. Ran in hole with 13 jts. 2 3/8" tubing. Elevator spring broke. Down 1/2 hr. repairing elevator spring. Opened well to finish running tubing. Well came in flowing on 35 psi. Closec BOP's and chained tubing down. Left well flowing into tank thru 1/2" choke. At 7:30 p.m. CP 65 psi; at 9 p.m. CP 175 psi; at 10 p.m. CP 175 psi; at 12 midnight CP 325 psi; at 3 a.m. CP 350 psi; at 5 a.m. CP 575 psi, and at 7 a.m. CP 425 psi.

2-3: Laid two 2" lines from casing to pit. Opened well and blew down to 50 psi in 2 hrs. Set water plug in bottom jt. Stripped tubing out of hole and laid down. Rigged up GO-International and Western and mixed 400 bbls. 1% KCl water. Pumped 6 bbls. KCl water down annulus. Pump froze and broke. Rigged down GO-International and Western and left well blowing to pit thru two 2" casing lines. SDON.

2-4: Loaded casing with 250 bbls. 1% KCl water. Rigged up GO-International and attempted to perforate interval 7322-7350'. Gun mis-fired. Pulled gun out of hole and reloaded bottom section. Ran gun back in hole and perforated interval 7322-7350' with 2 JSPP. Ran 245 jts. 2 3/8" tubing with blast jt. and landed at 6948' with Baker "F" nipple and pump-out plug on bottom. Rigged down BOP's and nipped up tree. SDON.

2-5: CP 700 psi. Loaded tubing with 28 bbls. 1% KCl water and pump-out plug. Circ. casing with 2500# sand, 130 bbls. condensate, 8 bbls. 15% HCl water, and 90 bbls. gel pad. Shut down for 1 1/2 hrs. to let sand fall out. Pumped 50 bbls. gel and 1#/gal. 20-40 sand at 15 B/M and 4300 psi; pumped 75 bbls. gel and 1 1/2#/gal. 20-40 sand at 19.5 B/M and 4000 psi; pumped 100 bbls. gel and 2#/gal. 20-40 sand at 19.5 B/M and 3600 psi; pumped 100 bbls. gel and 1#/gal. 20-40 sand at 10 B/M and 3600 psi (10 B/M was due to pump suction freezing). Flushed to perfs with 139 bbls. 1% KCl water at 19.5 B/M and 3100 psi. ISIP 2550 psi; 15 min. SIP 2300 psi. Max. press. 4350 psi; avg. press. 3100 psi. Avg. rate 14.4 B/M. Fluid to recover 615 bbls. SDON

2-6: Shut well in for 24 hrs. to allow gel to break.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500'

TD 8572', PBTD 8522'. Shut well in to allow gel to break.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - CONFIDENTIAL

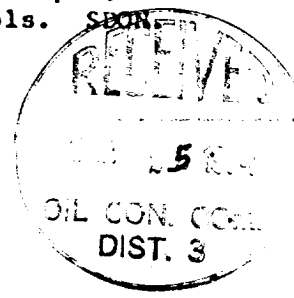
TD 8572', PBTD 8522'. 2-7: Opened well to pit at 9 a.m. CP 630 psi, TP 100 psi.

2-8: Put well thru test unit at 3 p.m. CP 530 psi, TP 60 psi. Flowed 1.1 MMCFGPD.

2-9: Flowed thru test unit - 667 MCF/D after 32 hrs. TP 420 psi, TP 160 psi.

2-10: Flowed thru test unit - 648 MCF/D after 56 hrs. CP 290 psi, TP 160 psi.

Total fluid rec. 220 bbls. Ran sinker bars on wireline. Tagged fillup at 7922' KB. Ran pressure bomb to 7490' KB.



4-13-74
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - CONFIDENTIAL

TD 8572', PBTD 8522'. 2-11: Flowed thru test unit at 574 MCF/D after 80 hrs. CP 270 psi, TP 145 psi. Total fluid recovered 223 bbls.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - CONFIDENTIAL

2-13-74
TD 8572', PBTD 8522'. 2-12: Flowed 697 MCF/D thru test unit after 97 hrs. CP 240 psig, TP 135 psig. Total fluid recovered 223 bbls. Shut well in for pressure buildup.

2-14-74
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - CONFIDENTIAL

TD 8572', PBTD 8522'. 2-13: Well shut in for pressure buildup.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - CONFIDENTIAL

TD 8572', PBTD 8522'. 2-14: Well shut in for pressure buildup.

2-18-74
Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - CONFIDENTIAL

TD 8572', PBTD 8522'. Well shut in for pressure buildup.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - CONFIDENTIAL

TD 8572', PBTD 8522'. 2-13 and 2-14: Shut in.

2-15: Lost press. bomb in hole with 7640' wireline.

2-16 and 2-17: Shut in.

2-18: Rigged up wireline unit. Retrieved press. bomb and 7640' line. Set FWP blank plug in tubing. Shut well in.

2-19: Rigged up Big "A" Well Service. Loaded annulus with 70 bbls. 1% KCl water. Installed BOP's. Lowered tubing to 7645' KB. Removed BOP's. Installed wellhead. Opened annulus to pit. Recovered kill fluid. SDON. Rigged down and moved off.

Conoco 29-4 #5 - Conoco 1.0000000 - Dakota - 8500' - CONFIDENTIAL

2-21-74
TD 8572', PBTD 8522'. 2-20: Rigged up wireline unit. Removed FWP blanking plug. Shut well in. Drop from report until well is tested.

