

Submit to Appropriate
District Office

State of New Mexico

Energy, Minerals and Natural Resources Department

State Lease-6 copies

OIL CONSERVATION DIVISION

Fee Lease-5 copies

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

Form C-105
Revised 1-1-89

WELL COMPLETION OR RECOMPLETION AND LOG *

1a. Type of Well: oil well ___ gas well ___ dry ___ other: SUD

b. Type of Completion: new well X work over ___ deepen ___

plug back ___ diff. resvr. ___ other ___

2. Name of Operator: Blackwood & Nichols Co, A Limited Partnership

3. Address of Operator: P.O. Box 1237, Durango, CO 81302

4. Well Location: Unit Letter: M : 990 Feet From The South Line and 1600 Feet From The West Line
Section: 36 Township: 31N Range: 8W NMPM San Juan County

10. Date Spudded: 6-7-90 11. Date TD Reached: 11-22-90 12. Date Compl. (ready to produce): 12-4-90 13. Elev. (DF, RKB, RT, GR, Etc)* 6430' GR 14. Elev. Csgdhd. 6430'

15. Total Depth: 9130' 16. Plug Back TD: 9083' 17. If Mult. Comp.: How Many Zones? 18. Intervals Drilled By: Rotary Tools TD TD Cable Tools

19. Producing Interval(s), of this completion - Top, Bottom, Name: No producing zones; Salt water disposal well. 20. Was Directional Survey Made? YES

21. Type Electric and Other Logs Run: Full Wave Sonic, Micro Log, GR, CCL, CBL, Induction, Neutron Density, SP, Gamma Ray 8152-8970 22. Was Well Cored? NO

23. CASING RECORD (Report all strings set in well)

Casing Size	Weight, LB/FT	Depth Set	Hole Size	Cementing Record	RECEIVED
20.00"	133# J-55	338'	26.00"	575 See Attached	DEC 13 1990
13.375"	68#/61# K-55	3772'	17.50"	3017 See Attached	OIL CON. DIV.
9.625"	40#, N-80	3570' to 5987'	12.25"	1322 See Attached	DIST. 3
7.000"	26# CF-95	9125'	8.75"	1780 See Attached	

24. LINER RECORD

Size	Top	Bottom	Sacks Cement	Screen	Size	Depth Set	Packer Set
9.625"	3570'	5987'	600	N/A	3.50"	8073'	8073'

26. Perforation Record (Interval, size and number):

See Attached

27. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

Depth Interval	Amount and Kind of Material Used
<u>See Attached</u>	<u>See Attached</u>

28. PRODUCTION

Date First Production: Never Production Method (Flowing, gas lift, pumping-size and type of pump): Injection Well. Well Status (shut-in): Injection

Date of Test:	Hours Tested:	Choke Size:	Prod'n For	Oil-Bbl	Gas-MCF	Water-Bbl	Gas-Oil Ratio
N/A	N/A	N/A	Test Period:	N/A	N/A	N/A	N/A
Flow. Tubing Press:	Casing Pressure:	Calculated	Oil-Bbl	Gas-MCF	Water-Bbl	Oil Gravity-API	
N/A	N/A	24 HR Rate:	N/A	N/A	N/A	N/A	

29. Disposition of Gas (Sold, used for fuel, vented, etc):

Test Witnessed By:

30. List of Attachments: Cementing, Perforation, Stimulation Records

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.

Signed: R.W. Williams

ROY W. WILLIAMS

Title: ADMINISTRATIVE MANAGER Date: 12/11/90

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southwestern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon . . .	T. Ojo Alamo	T. Penn "B"
T. Salt	T. Strawn . . .	T. Kirtland-Fruitland	T. Penn "C"
B. Salt	T. Atoka . . .	T. Pictured Cliffs	T. Penn "D"
T. Yates	T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian . .	T. Menefee	T. Madison
T. Queen	T. Silurian . .	T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya . .	T. Mancos	T. McCracken
T. San Andres	T. Simpson . .	T. Gallup	T. Ignacio Otzite . .
T. Glorieta	T. McKee . . .	Base Greenhorn	T. Granite
T. Paddock	T. Ellenburger	T. Dakota	T.
T. Blinabry	T. Gr. Wash . .	T. Morrison	T.
T. Tubb	T. Delaware Sand	T. Todilto	T.
T. Drinkard	T. Bone Springs	T. Entrada	T.
T. Abo	T.	T. Wingate	T.
T. Wolfcamp	T.	T. Chinle	T.
T. Penn	T.	T. Permian	T.
T. Cisco (Bough C) .	T.	T. Penn A	T.

OIL OR GAS SANDS OR ZONES

No. 1, fromto.....
 No. 2, fromto.....
 No. 3, fromto.....
 No. 4, fromto.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, fromto..... feet
 No. 2, fromto..... feet
 No. 3, fromto..... feet

LITHOLOGY RECORD(Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology	From	To	Thickness in Feet	Lithology
2289'	2394'	105	Ojo Alamo; Sandstone, Siltstone, Shale			<u>TOPS</u>	
						Surface'	San Jose
						2289'	Ojo Alamo
						2394'	Kirtland
3038'	3349'	311	Fruitland; Coal, Shale, Sandstone, Siltstone			3038'	Fruitland
						3349'	Pictured Cliffs
						3570'	Lewis
						5221'	Cliff House
						5269'	Menefee
3349'	3570'	221	Pictured Cliffs; Sandstone			5547'	Point Lookout
						5910'	Mancos
						7766'	Dakota
						7973'	Burro Canyon
5221'	5910'	689	Mesa Verde; Sandstone, Shale, Coal			8017'	Morrison
						8529'	Bluff
						8814'	Todilto
						8868'	Entrada
7766'	7973'	207	Dakota; Sandstone, Siltstone			NO DRILL STEM TEST.	
8017'	8529'	512	Morrison; Sandstone				
8529'	8814'	285	Bluff; Sandstone				
8868'	9084'	216	Entrada; Sandstone				

Northeast Blanco Unit
Pump Mesa SUD #1
Well Completion Log Detail

Cementing Record

Size	Weight	Grade	Set @ Depth
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20.0"	133#	J-55	338'
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Cemented with 500 sx (575 cf) Class B. Circulated 20 bbls to surface.

13.375" 61# & 68#	K-55	3772'	
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Cemented lead with 1788 sx (3487 cf), of Class G 65/35 POZ MIX and tail with 200 sx (230 cf), of Class G.
Plug down at 10:18 a.m., 6-24-90. Circulate 70 Bbls to the surface.

Perforate 6 holes 2757-2759', squeeze with 100 sx (115 cf), Class G, 2% CaCL₂ & .5% FLA. Perforate 6 holes 2280-2282', squeeze with 90 sx (104 cf), Class G, 2% CaCL₂ & .5% FLA. Perforate 6 holes 1720-1722', squeeze with 125 sx (144 cf), Class G, 2% CaCL₂ & .5% FLA. Perforate 6 holes 1060-1062', squeeze with 125 sx (144 cf), 2% CaCL₂ & .5% FLA circulate mud, cut cement up 13-3/8" x 20" annulus.

9.625"	40#	N-80	Liner 3570-5987'
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Cemented lead with 600 sx (1092 cf), of 65/35 POZ MIX and tail with 200 sx (230 cf), of Class G. Cemented in air drilled hole, circulated cement above liner top.

7.0"	26#	CF-95, L-80, N-80	9044'
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STAGE I: Cemented with 610 sx (720 cf) of Class G.
STAGE II: Cemented with 500 sx (910 cf) of G 65/35 POZ MIX and tail with 130 sx (150 cf) Class G. Good returns throughout job.
Plug down at 3:00 p.m., 9-14-90. Bond log cement top 3454'

Perforation Record:

Entrada: 8970', 8966', 8962', 8956', 8952', 8949', 8940', 8935', 8930', 11-23-90 8898', 8894', 8890', 8885', 8882', 8878', 8874.

Bluff: 8690', 8684', 8680', 8676', 8670', 8666', 8663', 8648', 8643', 11-26-90 8638', 8626', 8622', 8616', 8612', 8602', 8585', 8548.

Morrison: 8514', 8509', 8474', 8457', 8452', 8444', 8434', 8422', 8416', 11-27-90 8411', 8379', 8371', 8358', 8317', 8312', 8267', 8195', 8191', 8187', 8160', 8155', 8152'

Shale Fractures: 8783', 8780', 8740'.

Well Completion Log Detail

Stimulation:

- Entrada: Acidize Entrada with 1500 gal. 7-1/2% HCl, drop 32 7/8" 11-25-90 RCN balls, max pressure 4100 psi. Average pressure 2500 @ 7 BPM. Saw good ball action, did not achieve ball off. ISIP 800 psi, 5 min. 600 psi. Rig down Smith Energy.
- Entrada: Treatment summary: pumped 119,275 gal. 40# cross-link gel water and 155,000# 20/40 sand. Max treating pressure 2650 psi, average pressure 1600 psi @ 33 BPM. ISIP 1420 psi, 15 min. - 1320 psi, 10 min. - 1250 psi, 30 min. - 1100 psi.
- Bluff: Load hole with water, pump 1500 gal. 7-1/2% HCl acid and balls. 11-26-90 Some ball action, achieved complete ball off. Release packer. Pick up 6 jts tubing to knock balls off perfs. POOH.
- Bluff: Treatment summary: frac Bluff formation with 101,250 gal. 40# cross-link gel water and 134,000# 20/40 sand; average treating pressure 2500 psi @ 34 BPM. ISIP - 2250 psi; 5 min. - 2200 psi; 10 min. - 2150 psi.
- Morrison: Acidize Morrison with 1500 gal. 7-1/2% HCl, dropped 44 7/8" RCN 11-29-90 ball sealers, had good ball action. Did not ball off completely. Release packer, knock balls off. POOH.
- Morrison: Treatment summary: Frac Morrison with 138,950 gal. cross-link gel water and 10,560# 40/70 sand and 195,000# 20/40 sand. Well started sanding off during flush. Shut down with 12 Bbls of flush remaining. ISIP -3200 psi; 5 min. - 2650; 10 min. - 2500; 15 min. - 2450 psi. Maximum treating pressure 3500 psi before screen out. Average treating pressure 2800 psi @ 33 BPM. Shut well in. Rig down Smith.