

DRILLING AND COMPLETION HISTORY

CONSOLIDATED OIL & GAS, INC.

HOYT NO. 3-5

Rio Arriba County, New Mexico
April 6, 1964

LOCATION:	1850' FNL, 1130' FWL, Section 20 5 T26N-R4W, NMPM	
ELEVATIONS:	7299' GL 7311' KB (all measurements from KB)	
SPUD:	February 8, 1964	
DRILLING COMPLETED:	February 24, 1964	
WELL COMPLETED:	March 26, 1964	
TOTAL DEPTH:	6365' Drilled (Logger's TD 6381') 6337' Plug Back	
CASING:	Surface	12 3/4" set at 315', cemented with 315 sx. regular 2% CaCl ₂ .
	Intermediate	7" set at 4315' with 215 sx. 50/50 Pozmix with 4% gel followed with 65sx. regular with 2% CaCl ₂ .
	Production	4 1/2" set at 6373' with 220 sx. 50/50 Pozmix with 4% gel
TUBING:	1 1/2" EUE landed in Model D at 6050' 1" regular set at 4071' KB.	
LOGS:	Welex Radioactivity Log	
CORES & DRILLSTEM TESTS:	None	
PRODUCING PERFORATIONS:	MV	PC
	6132' - 6136'	4072' - 4082'
	6144' - 6150'	4088' - 4098'
	6234' - 6254'	4110' - 4120'
	6259' - 6263'	4126' - 4134'
	6276' - 6286'	
	6300' - 6306'	
FORMATION TOPS: (Log)	Pictured Cliffs	4060' (+3251)
	Mesaverde:	
	Cliffhouse	5734' (+1577)
	Point Lookout	6202' (+1109)
TREATMENT:	PC	Sand water frac with 52,390 gal. water and 75,000 lb. sand
	MV	Sand water frac with 67,382 gal. water and 100,000 lb. sand
INITIAL POTENTIAL:	PC	Flow volume thru 3/4" choke: 4476 MCFD Calculated Absolute Open Flow: 5541 MCFD
	MV	Flow volume thru 3/4" choke: 2558 MCFD

WELL: HOYT NO. 3-5
 1850' FNL, 1130' FWL, Sec. 5-T26N-R4W, NMPM

FIELD: Blanco Mesaverde, Tapicito Pictured Cliffs

COUNTY: Rio Arriba STATE: New Mexico

ELEVATIONS: 7299' GL
 7311' KB

2/8/64

Preparing to drill rat hole and mouse hole.

2/9/64

Depth 186'. Drilled 186' of sand and shale. Mud vis. 50. Present operation, working on pump motor.

2/10/64

Depth 319'. Present operation, reaming 15" hole out to 17". 12 3/4" surface would not go. 10 hours working on rig.

2/11/64

Reamed surface hole to 17", ran 9 joints of 12 3/4" csg., set at 315' KB. Cemented with 315 sx. regular 2% CaCl. Cement circulated. Plug down at 7:30 p.m. 2/10/64. Present operation, nipping up to drill out.

2/12/64

Depth 1470'. Drilled 1151' of sand and shale. Present operation, tripping for Bit 2. Drilling 11" hole with water. Dev. 3/4° at 500', 3/4° at 1000'.

2/13/64

Depth 2027'. Drilled 557' of sand and shale. Present operation, tripping for Bit 3. Mud 9. Vis. 35. Water loss 9. Dev. 1° at 1530'. Reduced hole from 11" to 9 7/8" at 2027'.

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2/22/64

Depth 5515'. Drilled 555' of sand and shale. Present operation, drilling with Bit 10. Dev. 1 3/4° at 4950', 1 1/2° at 5400'.

2/23/64

Depth 6060'. Drilled 545' of sand and shale. Present operation, drilling with Bit 11. Dev. 1 1/2° at 5959'.

2/24/64

TD 6365'. Drilled 305' of sand and shale. Rigged up Welex, ran Gamma Ray Neutron log. Logger's TD 6381'. Present operation, running 4 1/2" casing.

2/25/64

Ran 69 joints 4 1/2", 11.60# casing, total 2155.36' set at 6373.28' KB. Float collar at 6337.28', top of liner 4217.92'. Cemented with 220 sx. 50/50 Pozmix with 4% gel. Plug down at 10:30 a.m. Bumped plug with 1000#, held OK.

3/18/64

Rigging up completion rig.

3/20/64

Picked up completion string, hit cement at 2814' KB. Preparing to drill out cement.

3/21/64

Drilled cement stringers from 2814' to 3050'. Soft cement from 3050' to 3712'. Fell through to 3800'. Stringers from 3800' to 4000'. Went to top of liner at 4217', pressure to 1800# with rig pump, held OK. Put on 3 7/8" bit, cleaned out to 6337' (float collar). Pressured to 3000#, bled off. Pumped in at 2 BPM at 2000#. Ran and set Baker full bure packer at 4138'. Present operation, squeezing top of liner.

3/22/64

Squeezed liner top with 75 sx. regular 2% CaCl₂. Three stages with maximum squeeze pressure 2250#. Job completed at 8 a.m. WOC 12 hours.

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2/14/64

Depth 2777'. Drilled 750' of sand and shale. Mud 9. Vis. 38. Water loss 12. Dev. 1 1/4° at 2050' and 1 1/4° at 2550'. Present operation, making trip for Bit 4.

2/15/64

Depth 3105'. Drilled 333' of sand and shale. Drilling with Bit 5. Mud 9.2. Vis. 39. Water loss 14. Dev. 1° at 3000'.

2/16/64

Depth 3529'. Drilled 427' of sand and shale. Drilling with Bit 6. Mud 9. Vis. 50. Water loss 15. Dev. 1° at 3515.

2/17/64

Depth 3882'. Drilled 353' of sand and shale. Tripping for Bit 7. Mud 9.2. Vis. 43. Water loss 10.8.

2/18/64

Depth 4200'. Drilled 318' of sand and shale. Present operation, tripping for Bit 8. Mud 9.2. Vis. 45. Water loss 10.8. Mud cake 2/32, PH 8 1% sand. Dev. 1 1/4° at 4100'.

2/19/64

Depth 4315'. Came out of hole, rigged up and ran 136 joints of 7", 23# casing for total of 4331.94', set at 4314.94' KB. Float collar at 4282', pretreated 200 bbls. mud with 0.06 gal. Hydrazine per barrel. Cemented with 215 sx. 50/50 Poz w/4% gel, tailed in with 65 sx. regular with 2% CaCl₂. Plug down 4 a.m. Note: float collar did not hold. Good circulation throughout job.

2/20/64

Waiting on cement. Nipped up, pressured up to 1000#, held OK. Blowing down with gas at 4282'. 6' of cement on float collar.

2/21/64

Depth 4960'. Drilled 650' of sand and shale. Drilling with Bit 9. Dev. 1 3/4° at 4400'.

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3/22/64 Cont'd.

Drilled cement from 4188' to 4218'. Cleaned out to 6337'. Pressured up to 3000#. Pressure bled off to 1800#. Present operation, going in hole with packer to squeeze liner top.

3/23/64

Hooked up Halliburton 4-HT 400's. Perforated two per foot 6132'-6136', 6144'-6150', 6234'-6254', 6259'-6263', 6276'-6286', 6300'-6306'. Treated with 100,000 lb. 20-40 sand, 67,382 gal. water.

Broke	2300 psi	Initial injection rate	50 BPM
7 pumps	1600 psi	Max. injection rate	65 BPM
Initial treat. pres.	2250 psi	Min. injection rate	50 BPM
Max. treat. pres.	2550 psi	Final injection rate	61 BPM
Min. treat. pres.	1800 psi	Avg. injection rate	58 BPM
Final treat. pres.	2400 psi	Sand	100,000# 20-40
Avg. treat. pres.	2250 psi	Total fluid	67,382 gallons
Instant shut in	0 psi	Treated fluid	51,240 gallons
Hydraulic HP	3199	Additives	240 lbs. FR-4
Job complete at 1:38 a.m.		Balls	50 RB 75's
5 min. shut in	Vacuum	Avg. sand cont.	1.95 lb/gal.

Set bridge plug at 4300' KB. Perforated two per foot 4072'-4082', 4088'-4098', 4110'-4120', 4126'-4134'. Hooked up Halliburton 4 - HT 400's.

Broke	2050 psi	Initial injection rate	73 BPM
8 pumps	900 psi	Max. injection rate	84 BPM
Initial treat. pres.	950 psi	Min. injection rate	65 BPM
Max. treat. pres.	1400 psi	Final injection rate	65 BPM
Min. treat. pres.	900 psi	Avg. injection rate	77.4 BPM
Final treat. pres.	1100 psi	Sand	75,000# 20-40
Avg. treat. pres.	1056 psi	Total fluid	52,390 gallons
Instant shut in	300 psi	Treat. fluid	42,910 gallons
10 min. shut in	150 psi	Additives	None
Hydraulic HP	2003 psi	Balls	60 RB 75's
Job complete 5:50 a.m.		Avg. sand cont.	1.75 lb/gal.

Blew down to 1800'. Well kicked off. Cleaned up PC and gauged at 3970 MCFD. Drilled plug at 4300'. Blowing at 6300' KB. Well still making 1 1/2" stream of water.

3/24/64

Blew down and cleaned up PC. Gauged 3970 MCFD. Drilled plug at 3400', well still making 1 1/2" stream of water. Blowing at 6300'.