DRILLING & COMPLETION HISTORY
Consolidated Oil & Gas, Inc.
Lowe No. 4-26
Rio Arriba County, New Mexico
March 16, 1964

LOCATION:	1850' FSL, 790' FEL, Section 26 T26N-R4W, NMPM
ELEVATIONS:	6954' GL 6960' KB
SPUD:	January 31, 1964
DRILLING COMPLETED: WELL COMPLETED:	February 5, 1964 March 5, 1964
TOTAL DEPTH:	3715' Drilled 3667' PBTD
CASING - Surface:	8 5/8" 32# set at 171' KB with 100 sx. regular with 2% $CaCl_2$.
Production:	5 1/2" 15.5# set at 3709' KB with 135 sx. 50/50 Pozmix, 4% gel and 40 sx. regular Class A with 2% $CaCl_2$.
TUBING:	1" regular set at 3445' KB
LOGS:	Jet Tech Services Radioactivity
CORES & DRILLSTEM TESTS:	None
FORMATION TOPS: (Log)	Pictured Cliffs 3542' (+3418)
PRODUCING PERFORATIONS:	3556' - 3576' 3592' - 3606'
TREATMENT:	Sand Water frac with 75,000# sand and 53,130 gal. water
INITIAL POTENTIAL:	Flow volume thru 3/4" choke: 11,914 MCFD Calculated Absolute Open Flow Potential: 45,035 MCFD

WELL: LOWE NO. 4-26

1850' FSL, 790' FEL, Sec.26-T26N-R4W

FIELD: Tapicito Pictured Cliffs

COUNTY: Rio Arriba STATE New Mexico

ELEVATIONS: 6954' GL

6960' KB

2/1/64

Spudded in 8:00 a.m. 1/31/64. Drilled 175' of sand and shale 12 1/4" surface hole. Ran six joint 8 5/8" casing set at 171' KB. Cemented with 100 sx. regular with 2% $CaCl_2$. Good returns on job. Present operation, drilling 7 7/8" hole at 1130'. Dev. 1/2° at 175', 3/4° at 860'.

2/2/64

Depth 2455'. Drilled 1365' of sand and shale. Mud 9.0. water loss 12. Dev. 1/2° at 2200'.

2/3/64

Depth 3125'. Present operation, drilling with Bit 3. Drilled 660' of sand and shale. Mud 9.0. Vis. 42. Water loss 10. Dev. 3/4° at 2800'.

2/4/64

Depth 3516'. Drilled 371' of sand and shale. Drilling. Dev. 3/4° at 3350'. Mud 9.2. Vis. 48. Water loss 6.

2/5/64

Depth 3715'. Present operation, laying down drillpipe. Mud. 9.3. Vis. 50. Water loss 7.2.

2/6/64

Finished laying down drillpipe. Ran 116 joints 5 1/2" 15.5# casing (3730.80'), set at 3709' KB. Treated 125 bbls. mud with 0.1 gal./bbl. Bacteriacide and 0.06 gal./bbl. Hydrazine. Cemented with 135 sx. 50/50 Pozmix 4% gel and 40 sx. regular Class A with 2% CaCl. Bumped plug with 750# at 4:10 p.m. Complete circulation throughout job, plug held OK.

WELL: LOWE NO. 4-26

2/25/64

Ran Gamma Ray Neutron logs.

2/27/64

Rigged up Jet Tech, perforated two per foot from 3556'-3576', 3592'-3606'. Waiting on completion rig.

3/1/64

Hooked up Dowell. Pumped in at 1500#. Well went on vacuum. Waiting on completion rig.

3/2/64

Waiting on completion rig.

3/3/64

Hooked up Western Company. Perforated 3556'-3576', 3592'-3606'. Treated with 75,000# sand, average treating pressure 1160#, average injection rate 72.7 BPM. Dropped 60 balls in three stages. Job complete at 1:28 p.m. 3/2/64. Well on vacuum, waiting on completion unit.

Six pumps	1000#	Initial injection rate	65 BPM
Initial treating pres.	1000#	Max. injection rate	75 BPM
Max. treating pressure	1350#	Min. injection rate	60 BPM
Min. treating pressure	950#	Final injection rate	75 BPM
Final treating pressure	1300#	Avg. injection rate	72.7 BPM
Avg. treating pressure	1160#	Sand	75,000#
Instant shut in pressure	200#	Additives	450# J-2
Two min. shut in pres.	Vacuum	Balls	60
Hydraulic HP	2071	Total fluid	53,130 gal.
Job complete 1:28 p.m.		Treating fluid	45,780 gal.
		Avg. sand slurry	1.7 lb/gal.

3/4/64

Rigged up and ran 21 joints IJ tubing and 1 joint of 1" regular. Well kicked off, unloaded and cleaned up over night. Gauged 30,000 MCFD through 4" blouie line. Killed well, preparing to finish running 1" tubing.

WELL: LOWE NO. 4-26

3/5/64

Ran 21 joints IJ and joints 1" regul (3437.86') set at 3444.86' KB. Had to kill well thr times to get t g to bottom. Well kicked off to clean up, shut r test.

OPEN FLOW TEST DATA

DATE March 12, 1964

Operator: Consolidated Oil & Gas, Inc.		Lease: Lowe No. 4-26	
Location: 1850'FSL, 790'FEL, Sec. 26, T26N, R4W		County: Rio Arriba	State: New Mexico
Formation: Pictured Cliffs		Pool: Tapacito	
Casing: Diameter: 5-1/2"	Set At: Feet: 3709	Tubing: Diameter: 1"	Set At: Feet: 3445
Pay Zone: From: 3556	To: 3606	Total Depth: 3715	
Stimulation Method: Sand Water Frac		Flow Through Casing: X	Flow Through Tubing:

Choke Size, Inches: 0.75	Choke Constant: C: 14.1605				
Shut-in Pressure, Casing, PSIG: 881	+ 12 = PSIA: 893	Days Shut-In: 7	Shut-in Pressure, Tubing PSIG: 881	+ 12 = PSIA: 893	
Flowing Pressure: P PSIG: 782	+ 12 = PSIA: 794		Working Pressure: Pw PSIG: 782	+ 12 = PSIA: 794	
Temperature: T °F: 42	n = 0.85		Fpv (From Tables): 1.144	Gravity: 0.70 (est.)	

CHOKE VOLUME = $Q = C \times P_t \times F_t \times F_g \times F_{pv}$

$Q = 14.1605 \times 794 \times 1.0178 \times .9258 \times 1.125 =$ 11,914 MCF/D

OPEN FLOW = $Aof = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$

$Aof = \left(\frac{893^2}{893^2 - 794^2} \right)^n = 4.757^{.85} = 3.77$

Aof = 45,035 MCF/D

TESTED BY Johnny Walker

WITNESSED BY Clyde Phillips

W. H. Williams, Chief Engineer