

# DRILLING & COMPLETION HISTORY

## CONSOLIDATED OIL & GAS, INC.

WALZ NO. 1-31

San Juan County, New Mexico

April 12, 1962

Location:	1680' F/SL & 960' F/WL Section 31-T29N-R10W, NMPM
Elevations:	5711' GL 5723' KB - all measurements from KB
Spud:	March 13, 1962
Drilling Completed:	March 16, 1962
Well Completed:	March 26, 1962
Total Depth:	2020' Drilled 1993' Plug Back
Casing:	
Surface:	7 5/8" 26.40# J-55 cemented at 105' with 30 sx. regular 2% CaCl <sub>2</sub>
Production:	4 1/2" 16.6# drill pipe and 11 & 9# J-55 casing set at 2026' with 150 sx. regular 4% gel.
Tubing:	1" CW landed at 1837'
Logs:	Lane Wells Gamma Ray Neutron
Cores & Drillstem Tests:	None
Formation Tops: Log	Pictured Cliffs           1878'   (+3845)
Producing Perforations:	1886' - 1976'
Treatment:	Sand water frac with 101,220 gal. water and 100,000 lbs. sand.
Initial Potential:	Flow volume thru 3/4" choke: 2460 MCFD Calculated Absolute Open Flow Potential: 2630 MCFD

WELL: WALZ NO. 1-31  
1680' F/SL, 960' F/WL, Sec. 31-T29N-R10W  
FIELD: Fulcher Kutz (P.C.), Farmington Undesignated  
COUNTY: San Juan STATE: New Mexico  
ELEVATIONS: 5711' GL  
5723' KB

3/13/62

Rigging up rotary.

3/14/62

Drilled 110' 9 7/8" surface hole, ran 3 joints (93') of 7 5/8" surface casing set at 105' KB. Cemented with 30 sx. regular 2% CaCl<sub>2</sub> cement, plug down 7:30 p.m. Good returns on cement. Nipped up, pressured up to 500# for 15 minutes, pressure held. Drilling at 250' 6 3/4" hole with clear water. Drilling with Bit 1.

3/15/62

Depth 1430'. Drilled 1180' of sand and shale with clear water. Drilling with Bit 4. Dev. 3/4° at 535', 1° at 950' and 1° at 1340'.

3/16/62

Drilled 590' of sand and shale, rotary TD 2020'. Laying down drill pipe. Ran 45 joints 4 1/2" 16.6# drill pipe on bottom for total of 1224.17', ran 27 joints 4 1/2" 8 round 9 & 11# casing for total of 816.52' (out of warehouse stock). Total pipe ran, 72 joints for 2040.69' set at 2026.29' KB. Cemented with 150 sx. or regular 4% gel. Plug down at 3:10 a.m. 3/16, bumped plug with 1200#, ball pumped through float. Shut well in. Float collar at 2005', one centralizer on shoe joint, second centralizer at 1800'. Good circulation throughout cement job.

3/17/62

Will complete when Collins pipe is set.

3/18/62

Waiting on completion rig.

3/19/62

Ran wire line to 1993', pressured up with pump to 2200#, pressure held. Above services performed by Halliburton at no charge.

WELL:

WALZ NO. 1-31

3/21/62

Ran Gamma Ray Neutron log.

3/22/62

Will complete tomorrow.

3/23/62

Will perforate and frac today.

3/24/62

Perforated Lane Wells two per foot super dyna jets (6 a.m.). 1886' to 1976' - (90') Rigged up Dowell (3) allisons.

Breakdown pressure 1 pump	2700#
Maximum treating pressure	2500#
Minimum treating pressure	1600#
Over treating pressure	2000#
Instant shut-in pressure	700#
Ten minute shut-in pressure	600#
Breakdown and fill	14 bbls.
Treating fluid w/J-100	101,220 gals.
Over flush	12 bbls.
Disp.	28 bbls.
Pounds of sand	100,000 lbs. 20-40
Number of balls	30
2 1/2 lbs. J-100 gel per 1,000 gal. water	
Injection rate	37.7 BPM

Rigged up completion rig. String in to 1906'. Started sand 3 p.m. 3/23/62. Sand pumped sand out of hole (85') 12 hours. Started swabbing at 4 a.m. 3/24/62. Cannot get swab below 1000'. Swabbing from this depth. Pulling 500' of water per pull. Well beginning to show some 3/24/62 7:30 a.m.

3/25/62

Cannot get swab below 1000' from surface. Swabbed well from this depth. 7:30 a.m. to 4 p.m. 3/24/62. Well started heading. Well started unloading and heading at 6 p.m. Shut rig down at 7 p.m. 3/24/62. To let well clean up. Start rig back up at 7 a.m. Well making lots of water and sand. Check sand 75' in hole present cleaning out sand.

3/26/62

Finished cleaning out 75' of sand, well making sand and water. Started in hole with 1" tubing, dropped 9 joints of 1" tubing in hole. Ran over-shot on wire line, fished 8 1/2 joints of 1" tubing out of hole. Ran 87 joints of 1" standard line pipe landed at 1837' KB. Cleaned out to TD 1993'. Gauged well at 7 a.m. 3/26/62, making 3495 MCFD, well still making some water and sand. Shut well in at 8 a.m.

WELL:

WALZ NO. 1-31

3/27/62

Shut-in.

3/28/62

Shut-in.

3/29/62

Shut-in.

3/30/62

Shut-in for 7-day test.

3/31/62

Shut-in for 7-day test.

4/1/62

Shut-in for 7 day test.

4/2/62

Shut-in for 7 day test.

4/3/62

Will test today.

# OPEN FLOW TEST DATA

DATE April 3, 1962

Operator Consolidated Oil & Gas, Inc.		Lease Walz No. 1-31	
Location R10W 1680' F/SL, 960' F/WL, Sec. 31-T29N		County San Juan	State New Mexico
Formation Pictured Cliffs		Pool Fulcher Kutz	
Casing: Diameter 4 1/2"	Set At: Feet 2026'	Tubing: Diameter 1"	Set At: Feet 1837'
Pay Zone: From 1886'	To 1976'	Total Depth: 1993'	
Stimulation Method Sand Water Frac		Flow Through Casing	Flow Through Tubing X

Choke Size, Inches 0.750		Choke Constant: C 14.1605			
Shut-In Pressure, Casing, PSIG 557	+ 12 = PSIA 569	Days Shut-In 7	Shut-In Pressure, Tubing PSIG 557	+ 12 = PSIA 569	
Flowing Pressure: P PSIG 168	+ 12 = PSIA 180		Working Pressure: Pw PSIG 168	+ 12 = PSIA 180	
Temperature: T °F 40	n = .75		Fpv (From Tables) 1.025	Gravity .70	

$$\text{CHOKE VOLUME} = Q = C \times P_r \times F_r \times F_g \times F_{pv}$$

$$Q = 14.1605 \times 180 \times 1.0198 \times .9258 \times 1.025 = \underline{2460} \text{ MCF/D}$$

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

$$Aof = \left( \frac{324,000}{295,700} \right)^n =$$

$$Aof = \underline{2630} \text{ MCF/D}$$

TESTED BY Clyde Phillips

WITNESSED BY \_\_\_\_\_

