

Recap of Drilling and Completion

on

Lario Oil & Gas Company

Superior-Federal Gas Co. Well # 1

McMillan Morrow (Ext) Field

Eddy County, New Mexico

Located: 1650' FNL & 1650' FWL, Section 20,

T-20-S, R-27-E, Unit F

Elevation: 3250 Ground Level

Total Depth Drilled - 10,700'

Plugged and Abandoned

- 10-30-72 Spudded 17½" hole at 1:00 A.M., Zero 15.50' RDB to Ground Level.
- 10-31-72 Total Depth - 17½" hole - 419' - Anhydrite and Shale  
Ran 12 jts. 13-3/8" OD 8rd thd. 48# H-40 EW R 2&3 ST&C Casing. Total overall 405.13', total less threads 402.21. Set at 419'. Cemented with 190 sacks Incor 50-50 Pozmix with 10% gel plus 200 sacks regular Class C all with ½# Flocele per sack and 2% Calcium Chloride throughout. Plug Down at 6:30 A.M. Cement did not circulated but observed cement stringers and cement colored water in cellar. United States Department of the Interior, Geological Survey at Artesia, New Mexico (Mr. Leon Beekman) concurred that cement was very close to top of hole and that pea gravel would suffice to finish filling annulus from top of cement behind the 13-3/8" casing to ground level. Waiting on cement.
- 11-1-72 Waited on cement 18 hours. Tested casing to 1000# for one hour. Held OK
- 11-7-72 Total Depth of 11" hole - 2750' - Zero 15.50 RDB to ground level. Ran 9 joints 8-5/8" OD 8rd thread 28# J-55 Smls R-3 ST&C Casing. Total overall 366.76: 58 joints of 8-5/8" OD 8rd thread 24# J-55 Smls R-3 ST&C, total overall 2354.03 and topped out with one joint of 8-5/8" OD 8rd thd. 28# J-55 Smls R-3 ST&C Casing. Total overall 29.96 (cut). Grand total overall 2750.75, total less threads 2732.44. Set at 2750'. Cemented with 705 sacks Howco Lite with ½# Flocele and 5# Gilsomite per sack, 10% gel, plus 200 sacks regular Class C with 2% Calcium Chloride. Cement circulated. (Circulated out 100 sacks). Waiting on cement.
- 11-8-72 Tested casing for one hour with 1500#, held OK
- 11-22-72 Total Depth- 8015. Drill Stem Test #1- 7989-8015-Wolfcamp. 15 min. preflow. Open with strong blow. Gas to surface in 6 mins. on ½" choke at 120#. Flowed at rate of 198 MCFPD. Shut in 1 hour. Reopened 1 hr 40 mins. on 16/64" choke. Flowed at rate of 286 MCFPD. Increased up to 316 MCFPD, flowing oil by heads in 1 hr 31 mins. Flowed to pits for 9 mins. Shut in 2½ hours. Continued to unload for 30 mins. after shut in. Recovered 100' free oil, 854' G&GCO, 180' heavy G&OCM, 100 GCM. Recovered in sampler at 550# 5.3 cu. ft. gas plus 550 cc of 47 gravity oil at 60 degrees. Hydrostatic pressure in 3658#, 15 min. initial flow pressure 243#-351#, 1 hr. ISIP 3566#, 1 hr 40 mins. FFP 351#-887#, 2½ hrs. FSIP 3225#, Hydrostatic pressure out 3658#, temperature 128 degrees.
- 11-24-72 Total Depth- 8165- Drill Stem Test #2-8084-8165' (8084-8095' is 11' drilling break with good porosity and shows, no shows in remaining of zone tested, tight). 15 min. preflow. Open with strong blow. Gas to surface in 10 mins. at 169 MCFPD. Shut in 1 hr. Reopen 1 hr 10 mins. on 16/64" choke. Flowed gas in 15 mins. at 154 MCFPD, 30 mins. at 198 MCFPD, 45 mins. at 198 MCFPD, 1 hr 10 mins. at 183 MCFPD. Shut in 2 hrs. Oil to surface 5 mins. after shut in unloaded. Recovered 100' free oil, 1072' G&GCO plus 288' O&GCM. Recovered in sampler at 300# 3.3 cu. ft. gas, 600 cc oil, 44 gravity at 60 degrees. GOR 844 cu. ft./bbl. Temp. 128 degrees. Hydrostatic in and out 3726#, 15 min. IFP 215#-377#, 1 hr ISIP 3254#, 1 hr. 10 mins. FFP 377# - 807#, 2 hrs FSIP 2939#, (Top Cisco Reef 8286)
- 12-8-72 Total Depth- 10360. Drill Stem Test # 3- 10280-10360- Packer failure no test.

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