

Attachment 9-331, Gulf Oil Corporation, Halbing Federal "E" No. 1, located in Unit H, Section 31, 18-S, 32-E, ¹¹⁶⁻²⁻¹⁰¹⁻⁰⁵ Lea County, New Mexico.

Treated perforations 11,284-304', 11,318-330', 11,336-338', 11,358-362' and 11,368-372' with 4000 gallons. Broke down at 5200#. Treated at 5400# with 3.5 bpm. ISIP 3800#, after 10 minutes 3650#. Flushed with 50 barrels of water. Moved BP to 11,570', set packer at 11,219'. Swabbed and tested. Uneconomical to produce this zone. Pulled tubing and packer. Left BP at 11,570'. Set CI BP at 11,256' and capped with 1-1/2 sack of cement. Perforated 5-1/2" casing with 2 creek jets and 2 regular jets per foot as follows: 10,530-528', 10,513-511', 10,504-502', 10,416-414', 10,384-382', 10,335-333', 10,321-319', 10,310-308', 10,288-286' and 10,275-273'. Ran tubing, BP and packer. Set BP at 10,551' and spotted acid over perforations. Set packer at 10,479'. Treated perforations 10,502 - 504', 10,511-513' and 10,528-530' with 1000 gallons of 15% MC acid. Broke down at 4900#. Treated 4500#, IR 1.75 bpm, ISIP 4300#. Moved BP to 10,449' packer to 10,355'. Treated perforations 10,382-384' and 10,414-416'. Broke down at 4000#, communicated with 300 gallons in formation. Moved packer to 10,222' and treated all perforations from 10,273' to 10,416' with 2700 gallons of 15% MC acid at 3.5 bpm, 4200#. ISIP 3300#, after 5 minutes 3200#. Set BP at 10,551' packer at 10,222'. Circulated acid from behind packer. Swabbed and tested. This zone uneconomical to produce. Moved packer to 10,484', left BP at 10,551'. Swabbed. No show of oil. Treated perforations 10,502-504', 10,511-513' and 10,528-530' with 24 barrels of crude oil followed with 120 barrels of CRA. Flushed with 42 barrels of water. Maximum pressure 5900#, min 5200#, IR 2.6 bpm. Loaded casing with water before starting job, formation had taken 41 barrels of water. ISIP 5150#. Communicated after 6 minutes. Moved packer to 10,222'. Swabbed dry. Acidized with 15000 gallons of 15% NE acid. 7500 gallons at 5400#, 6 bpm & 7500 gallons at 6200# to 6400#. IR 7.3 bpm. Flushed with 41 barrels of water. ISIP 3400#, after 10 minutes 3300#. Swabbed and tested. Uneconomical to produce.

Verbal permission obtained from Mr. Brown to our Messrs L. A. Turner and J. D. Mussett, July 29, 1965 to plug and abandon as follows:

Pull tubing, packer and BP. Run tubing open ended. Displace water in 5-1/2" casing with mud. Set 25 sack cement plug from 11,147 to 11,247', 25 sack cement plug from 10,150 to 10,250'. Pull tubing. Cut 5-1/2" casing at 9300' and pull casing. Set 25 sack cement plug across 5-1/2" stub at 9300', 30 sack cement plug from 6800 to 6900', 30 sack cement plug from 4900 to 5000', 30 sack cement plug across 8-5/8" casing shoe from 3150 to 3250'. Cut 8-5/8" casing at 2300' and pull casing. 60 sack cement plug from 1100 to 1200', 65 sack cement plug across 13-3/8" shoe from 650 to 750' and 50', 40 sack cement plug from surface to 50'. Clean location and install dry hole marker.