

Location: 1980' S., 734 E&W., Sec. 19, 32 N., R 5 W., Rio Arriba, New Mexico
Elevation: 6284 GL

7/6/62: Spudded well @ 12:15 PM 7/5/62. Present depth: 316'

Casing Detail: Ran 10 jts 8 5/8", 24#, J-55 casing with Texas Pattern shoe on bottom joint and 2 centralizers. Landed Depth: 314'.

Cement Detail: 200 sacks with 2% CaCl 2 @ 15.2#/gallon. Displaced cement with 18BW. Circulated approximately 40 sx cement. WOC @ 4:20 AM 7/6/62.

7/7/62: Pressure tested casing with 800 psi for 30 minutes. Found no leaks Drilled out from under surface at 12:10 AM 7/7/62. Now drilling ahead with water at 834'.

7/20/62: Depth 5965'. Sand and shale. Mud: 9.3#, 53 seconds. Ran I-ES, GR and Caliper Logs.

7/25/62: @ 7120' sand and shale. Mud: 9#, 60 seconds. Well blew out while drilling at 7120', at 7:30 PM 7/24/62.

Mixing mud and pumping into hole. Well is now under control. Now mixing drilling mud.

9:15 AM: Presently trying to kill well.

7/26/62: @ 7120' Mud: 10#, 48 seconds. Now mixing mud and pumping into hole to kill well.

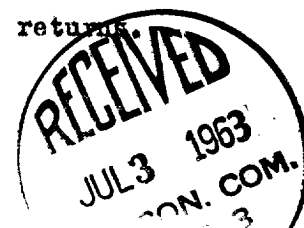
Well began to kick at depth of 7090'. Rig shut down and RU rotating head. Hit drilling break @ 7103', drilled to 7120'. Well blew in unloading 9.7# mud from hole. Attempts to kill the well have not been successful. A lost circulation zone developed up the hole, and is complicating the problem. The following amount of mud has been pumped into the well:

360 barrels	9.7#
360 barrels	9.9#
520 barrels	10.0#

Had mud loaded with 10# to 12# /barrel LCM. Most of this mud (approximately 1000 barrels) appears to have been lost into the lost circulation zone.

7/27/62: Mixed 720 barrels 10.2# mud. Pumped into well. Partially killed well and gained circulation with 500 barrels. Started raising mud weight. At 10.8#, well died.

Now preparing to drill ahead. Losing partial returns.



WELL DATA & COMPLETION DETAIL

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- 7/28/62: Depth 7192'. Started out of hole to change bit, filling hole every 5 stands. Well blew in with 51 stands out. (28 stands still in hole). Now RU blooey line to try to come rest of the way out of the hole. Pipe rams and stripper rubber not holding. Unable to kill well.
- 7/29/62: RU blooey line and came out of hole with DP. Changed pipe rams and stripper rubber. Went back in hole with DP with well flaring out blooey line. Started hitting bridges @ 500'. RU to drill with gas. Now drilling bridges @ 1000'.
- 7/30/62: Still trying to clean out bridges, but not making any headway. Bit is still at same depth as yesterday morning. The Kelly can be drilled down easily, but as soon as it is picked up, the bridge forms again and has to be drilled again.
- 7/31/62: Trying to clean out with gas. Unable to get past bridges.
- 8/1/62: Had no success cleaning out with gas. Tried to go in hole with 6 3/4" bit, but had no success with that either. Tried to dry hole using silica gel, but that tended to stick the pipe. Now mixing mud preparing to kill well from surface.
- 8/3/62: Well still blowing gas. Finished mixing mud 800 barrels 14#/gal. with 8#/barrel LCM. Ran 7 7/8" bit, 7 DC and 2 joints DP. (All pipe in surface casing). Pumped in @ 6 BPM @ 400 psi. Pumping pressure rose to 800 psi at 6 BPM. Pumped 650 barrels mud in 1 hour, 40 minutes. Well had gas at surface after finished pumping. Surface pressure 400 psi. Blew off heads of gas periodically. Pressure never increased above 400 and could not be pulled down below 350. Mixed 850 bbls mud 13.0#/gal, 75 sec., 10#/bbl. LCM using rig pump and HOWCO.
- 8/4/62: Well had 400 psi @ surface. Started pumping in @ 6 BPM @ 700 psi @ 6:00 PM. Pumped 320 bbls and shut down pump. Pressure equalized @ 300 psi. Flowed well thru choke nipple for 2 hours. Well made dry gas and no mud. Wellhead pressure stayed @ 300 psi. Opened blooey line. Wellhead pressure fell to zero immediately, and mud hit immediately. Indications were that mud had been at the surface during the previous 2 hours of flow, but had not been able to flow thru choke nipple. Closed well in, and pumped remaining mud on location under approximately the same conditions as previously. Total mud in hole: 750 bbls., cumulative 1400 barrels.

- 8/5/62: Decided it would not be possible to kill well from the surface. Enlarged reserve pit and set standby pump at pit to pump mud into steel pits. Now trying to go to TD with DP by pumping mud thru bit and permitting well to blow mud back into reserve pit. Present depth is 580'. Cleanout is proceeding slowly.
- 8/6/62: Depth 950'. Bit not going any deeper. Bridges at this point can be drilled out, but they fall back in above and are trying to stick the bit.
- 8/7/62: Unable to clean out bridge. Mixed 500 sacks cement with 7% Calseal and 1/2 Floseal/sx. Pumped into well from surface. Pumping pressures varying from 300-600#. Job complete @ 11:30 PM 8/6/62.
- 8/8/62: Left well shut in 14 hours. Closed in surface pressure: 360 psi. Opened well to atmosphere. Well flowed gas, mud and cement in heads. Cement had not set up. Probably reason is that gas is flowing up from a deep zone, through the cement, and out into a shallow zone, keeping the cement gas cut and agitated so that it cannot set up.
- Mixed up another 500 sx cement with 10% Calseal and pumped into well under same conditions described before. Shut well in after job @ 12:30 AM 8/8/62.
- 8/9/62: After 10 hours SI time, observed that gas and mud was breaking through the surface approximately 500 feet from the wellhead. After 12 hours observed another break-through of gas in rat hole. Now WO HOWCO to run large batch of cement.
- 8/10/62: Mixed 1500 sacks cement with 6% gel and 35# course gilsonite/sack cement. Slurry weight: 10.7#/gal. Followed this with 216 sacks cement with 20% Calseal. Pumped into well at pressures ranging from 700#-200# pressure. Pressure at end of job was 300#. Job complete @ 6:00 PM 8/9/62. Now WOC will WOC 48 hours prior to opening well for test.
- 8/12/62: Opened well at end of 48 hours. Wellhead pressure: 370 psi. Cement had not shut off gas entirely, but volume was diminished. Went in hole with bit. Started drilling through cement bridges at 340'. Drilled to 550. Well blew in as strong as it had in the past. Could not make any more headway with bit.
- 8/13/62: Decided to try to work casing in hole. Ran saw-toothed Texas pattern shoe, on bottom joint with two float collars. Worked Casing to 550', but could not go beyond that point.
- 8/14/62: Gas volume seemed to be diminishing. Mixed 800 bbls mud with LCM and pumped into well. Could not kill well or gain circulation.
- 8/15/62: Observed that leaks out of ground reported on 8/9/62 had stopped. SI pressure on wellhead rose to 800 psi. Evidence is that zones at surface have been sealed off. Mixed 500 sx

50/50 Pozmix with 25# Gilsomite /sx and 4% Calseal and pumped into well. Pressure varied from 1300# - 700#. Job complete at 6:00 PM. Left well shut in.

8/16/62: After 12 hour SI period, opened well and found it was dead. Went in hole with bit and drilled out cement plug in interval 375'-405'. Well then came in and flowed with same characteristics as before.

Mixed 500 barrels mud with LCM and pumped into well. Pressure rose to 1100 psi in well, but the well was not killed, nor was normal circulation attained. Shut well in & SI pressure on well was 1100 psi.

8/17/62: Mixed 500 sacks 50-50 Pozmix with 4% CaCl₂ and 10% 20-40 frac sand. Pumped into well at maximum of 1500 psi. Displaced cement with 32 BW. Job complete at 6:30 PM 8/16/62.

After 12 hour SI period, found that well was dead. Went into hole and tagged top of cement plug at 340'.

Cement job done in 3 167 sx stages with 30 bbls water between each stage.

8/18/62: Gained permission from Government agencies to abandon well. Moved off location leaving a 2" valve looking up on wellhead.

Will move 300' due south and drill new well. Well designation will be 1X-19. Will drop from daily reports until new location is built and well is spudded.

8/23/62: Gas Analysis From 1-19 Well:

CO ₂	.70
H ₂ S	Nil
N ₂	.67
Meth.	98.23
Eth	.14
Prop	Trace
GPM	Zero

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