

BROUGHER OIL, INC.

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BUNKER "A" #4 SWDW
SW NE NE, Sec 19-25s-13w
Stafford County, Kansas
SWDW DOCKET NO: D-23,369

COMPLETION REPORT:

Commenced: 5/14/84

Completed: 6/20/84

SWDW approval from KCC: 9/21/84 DOCKET NO: D-23,369

SWDW Terminated and returned to production: 1/8/85

RTD: 4550'

Surface Casing: 8 5/8" set at 421' with 275 sacks cement

Production Casing: 5 1/2" set at 4384' with 175 sacks cement.

DRILLING INFORMATION:

- 5/14/84 Moved in Mohawk Drilling Rig #8. Preparing to drill surface.
- 5/15/84 Drilled to 421', set 421' of 8 5/8" surface casing, used, cemented with 275 sacks of 60/40 Pozmix, 3% CC, 2% Gel. Plug down at 2:30am. Waiting on cement.
- 5/16/84 Drilling ahead at 1875'
- 5/17/84 Drilling ahead at 2700'
- 5/18/84 Drilling ahead at 3291'
- 5/19/84 Drilling ahead at 3450'
- 5/20/84 Drilling ahead at 3700'
- 5/21/84 Drilled to 3797'. Ran DST#1 (3774-3828) LKC 'E'-'G', 30'2"45"75", REC: 30' MSW, 1080' SW, SIP: 814/1236, FP: 88-380/409-603, BHT: 108F, HP: 2011/1982.
- 5/22/84 Drilled to 4123'. Ran DST#2 (4056-4123) CONGLOMERATE-MISSISSIPPI, 45"45"45"45", REC: 150' SO&GCM, 60' SO&GCM, SIP: 273/214, FP: 68-107/117-117, HP: 2222/2203, BHT: 111F, REC: 120' GIP.
Drilling ahead at 4133'.
- 5/23/84 Drilled to 4215'. Ran DST#3 (4201-4215) VIOLA, 45"45"45"45", REC: 3' O&GCM, 120' SO&GCM, 60' SO&GCM, SIP: 929/785, FP: 68-78/78-98, HP: 2328/2280, BHT: 112F
Drilling ahead at 4280'.
- 5/24/84 DST#4 at 4280, misrun, could not get tool to bottom. Came out of hole with test tool. Back in hole with bit to condition the hole for 1 1/2 hours. DST#5 (4253-4280) SIMPSON SAND, 30"60"30"60", REC: 30' SO&GCM, SIP: 205/98, FP: 29-39/39-39, HP: 2299/2270, BHT: 113F.
Drilling ahead at 4284.

- 5/25/84 Drilled to 4450' and logged well. It was decided to drill another 100' into the Arbuckle.
- 5/26/84 Drilled to 4550. Circulated hole clean. Layed down drill pipe. Ran 5½" casing set at 4384'. Cemented with 175 sacks of 50/50 Pozmix, DV tool set at 843. Cemented with 200 sacks of Halad Lite. Released Mohawk Drilling, Inc.

After viewing the log we feel certain that we can make a commercial oilwell in the Simpson Sand as we have 16' or more of clean sand and DST#5 was identical to the Bunker "A" #2 Simpson test. The log also indicates a good possibility of oil producing from the Viola and also the Conglomerate section. We will attempt to dual complete this well as an oilwell and also a disposal to take care of water from the Bunker, Garner, and Brehm-Burke Leases. We will attempt to complete the well in 10 days to 2 weeks.

COMPLETION INFORMATION:

- 6/4/84 Moved in Mohawk Rig #5. Helped unload tubing, collars and mud pump. Ran in bit, 2 collars and 23 joints of tubing. Started drilling on DV collar at 797'.
- 6/5/84 Drilled all day on the collar, not making any hole. Pulled out bit to check it over.
- 6/6/84 Ran in bit, 2 collars and 23 joints of tubing. Started drilling on collar again. Drilled through collar and circulated for 20 minutes.
- 6/7/84 Ran in tubing and bit down to 4345', to plug. Drilled through plug and made 10' on cement, circulated for 20 minutes.
- 6/8/84 Finished drilling through cement and started on the shoe. Drilled through the shoe and washed down 150' of open hole. Circulated for 2 hours. Halliburton treated the Arbuckle disposal with 1500 gls of 28% acid at a rate of 9 bbls per minute, 800# of pressure. Flushed with 25 bbls of water. Pulled out 30 joints of tubing.
- 6/9/84 Finished pulling tubing out of the well. Electra Inc. logged the well. Set retrievable AD plug at 4370'. Perforated SIMPSON SAND from 4264-4274'. Swabbed well down to 4280'.
- 6/11/84 Checked fluid level, zone was dry. Treated zone with 500 gls of 15% FE. Swabbed back all but acid. Tested for 2 hours. Zone made ¾ bbl per hour with a trace of oil.
- 6/12/84 Checked fluid level, 200' of fluid at 10% oil. Swabbed zone all day, 25' of fluid per hour at 10% oil. Helped get frac tanks ready for 1000 bbl frac job.
- 6/13/84 Checked fluid level, 200' of fluid at 10% oil. Fraced the well. Used 20,000# of 20/40 sand, and 21,500# of 10/20 sand.
- 6/14/84 Started swabbing back 1000 bbl frac load. Swabbed into the reserve pit. Swabbed back approximately 300 bbls of fluid, 100% frac water.
- 6/15/84 Checked fluid level, 1300' of fluid with a trace of oil. Swabbed all day. back about 250 bbls of fluid, not enough oil to get a percentage.

- 6/16/84 Checked fluid level, 1300' of fluid and 150' of oil on top. Swabbed the well down and tested. Zone made 28 bbls of fluid per hour at 8% oil. Rigged up 4" sand pump. Cleaned out 30' of sand from the top of the plug.
- 6/18/84 Checked for fill up over the weekend, no fill up of frac sand. Started running disposal side of dual completion. Ran in 100 joints of 2 1/6" plastic lined pipe.
- 6/19/84 Finished running in disposal side of dual completion. Stung into retrievable plug, pulled 10,000 over the weight of the tubing. Short on parts to run in production side. Ran in on disposal side: 1-4', 1-8'x2 1/6" plastic lined tubing subs, 132x 2 1/6" plastic lined tubing. 1'x5 1/2" dual anchor, 1 jt 2 3/8" 8Rnd EUE plastic coated tubing, 5.20 x 3" J-Slot seal.
- 6/20/84 Ran tubing and rods in on production side of dual completion. Rigged down and moved off of location. Ran into production side: 16'x1 1/8" Polish rod with liner, 170x5/8" rods, 2x1" and 1x1 1/8" bottom polish rods, 3x1 25/32, 40 comp ring traveling valve, 1'x1 1/2", 2 cups standing valve, 1-6'x 1-8', 1-10'x 2 1/16" tubing subs, 133x 2 1/16" tubing, 12'x14'x1 25/32" barrel, J-Slot dual anchor. Moved off location.
- 7/11/84 Treated Disposal side with 500 gls of FE acid.
- 9/26/84 Moved in DH Cook & Co. Hung well off. Fished standing valve, pulled 170 5/8" rods 2-1 1/2'x16' polish rods, 2-1'x16' polish rods, a 1 1/2" rag ring and cup plunger and a 1 1/2" two cup standing valve. Dropped in new std valve. Ran in new 1 1/2" plunger. Ran polish rods on top of plunger. Ran rods and hung well on. Started well to pumping. Well would not pump. Hung off and pulled rods, polish rod and valves. Strung up tubing blocks. Hung power tongs, ready to pull tubing.
- 9/27/84 Pulled tubing for leak. Pulled 6'8'10' subs. Found leak in the 116th jt split. 32.95. Ran tubing back replacing jt out with new jt 32.97. Set tubing down to latch Otis stinger into dual anchor. Stinger would not latch. Started out with tubing.
- 9/28/84 Pulled rest of tubing and 2 1/16x1 1/2x12' barrel and Otis stinger. Fould stinger broke. Replaced with new stinger. Ran back with barrel. Ran tubing and tubing subs. Set down and latched Otis stinger into dual anchor. Pulled tension in tubing. Set down on support. Unstrung tubing blocks. Strung over line and dropped in standing valve. Ran 1 1/2" plunger and polish rod, Ran rods and polish rod. Spaced and hung well on to pump.
- 10/9/84 Moved in DH Cook & Co. Hung well off and pulled out rods and 1 1/8' polish rod and 1" polish rod a 1/2" cup and ring plunger and 2 cout std valve. Replaced valves with a new valve. ran in plunger and std valve. Ran rods and hung well on to pump. Put well to pumping but well would not pump. Hung well off and pulled rods and valves out. Strung up tubing blocks and hung power tongs. Pulled tubing for leak. Pulled out 2 1/16'x6x8x10' sub. Pulled 33 jts 2 1/16x1 1/2x12' x 16' barrel and Otis stinger. Found leak in 102ns jt split. Otis stinger broke. Shut down so tubing could be rack tested.
- 10/11/84 Reed testers tested tubing and found 8 jts bac. Ran new Otis stinger and ran in new 2 1/16x1 1/2x12x14' barrel. Ran tubing replacing 8 jts out with 8 new jts. Respaced and set tubing down on support. Latched Otis anchor into Oitis dual anchor. Pulled tension in tubing. Dropped in std valve, Ran plunger.

- 10/12/84 Ran rods, 1 1/8"x16' polish rod. Spaced and hung well on to pump. Well pumping.
- 12/10/84 Moved in Mohawk Rig #5. Pulled out rods and 60 jts of 2 1/16" tubing to look for a tubing leak. Pulled from well: 16'x1 1/8" polish rod with 8' liner, 170 x 5/8" rods, 1-2x1" bottom polish rod, 1x1 1/8" bottom polish rod on traveling valve, 3'x1 25/32, 40 comp ring traveling valve, 1'x1 1/2, 2rings standing valve, 1-6, 1-8, & 1-10' x 2 1/16" tubing subs, 60 x 2 1/16" tubing.
- 12/11/84 Finished pulling out production side of dual completion. Did not find leak. Pulled out the disposal side. Found tubing parted on the last joint, 2 3/8" collar looking up. Pulled from the well on production side: 73 x 2 1/16" tubing (total of 133 jts), 12'x14'x1 25/32" barrel; Disposal Side: 1-4', 1-8, 2 1/16" plastic lined tubing subs, 132 x 2 1/16" plastic lined tubing, 1'x 5 1/2" production anchor.
- 12/12/84 Unloaded 2 1/16" tubing from tubing sills. Helped unload 2 7/8" off of truck. Taillied and ran in 2 7/8" tubing with bumper subs and over-shot to catch 2 3/8" collar. Started pulling 60 jts of tubing out.
- 12/13/84 Finished pulling out 2 7/8" tubing. Fish was not there. Started back in with same fishing tool to try again. Got 70 jts of tubing in when the weather conditions became too bad to continue. Shut down for the rest of the day.
- 12/14/84 Finished running in over-shot to catch 2 3/8" collar. Got a hold of the fish and pulled 20,000# over the weight of the tubing. Turned the tubing 1 round to the right. The tubing came loose. Should have the fish. Brought the overshot out, the fish was not there. Electra Inc. set a cast iron permanent plug at 4330'. Arbuckle Disposal side in now plugged off and SWDW is Terminated.
- 12/17/84 Ran in tubing and spaced it 3' off bottom. Broke down 5/8" double rods on the rod rack. Removed protectors and put on rod boxes. Put new 3/4" rods on the rod racks. Ran into well 1-6, 1-8 x 2 7/8" 8 Rnd EUE tubing subs, 132 x 2 7/8" 8 Rnd EUE tubing, 1'x2 1/2" 8 Rnd seating nipple, 15'x 2 7/8" 8 Rnd EUE mud anchor.
- 12/18/84 Ran in pump and rods. Cleaned up around the location and moved off location. Ran into well 22'x 1 1/2" polish rod with 8' liner. 1-4, 1-6, 1-8' x 3/4" 1-2x3/4 rod subs on pump, 170 x 3/4" rods, 2 1/2x2x14' BHD pump, 1'x 1 1/2" strainer.
- 12/29/84 Moved in Mohawk Drilling Rig #3. Pulled rods and pump. Put in new pump and ran rods back in. Started pumping and rigged down. Moved off location.
- 1/23/85 Moved in DH Cook & Co. Hung well off and pulled out rods and a 2 1/2x2x14' bottom holddown pump. Replaced pump pulled with a 2 1/2x2x14' BHD pump. Ran pump, rods, and subs, polish rod. Hung well on to pump. Started well to pumping. Well pumping when left.
- 2/23/85 Moved in Mohawk Drilling Rig #4. Rigged up and tried to unseat the pump. Scoped down and tried again. Headache on rig broke. Rigged down and moved off of location.
- 2/26/85 Moved in DH Cook & Co. Latched onto polish rod and could not unseat pump. with pump trying to unseat. Could not unseat. Strung up tubing blks and hung tongs. Stripped out 74 jts 3/4" rods and 35 jots 2 1/2" upset tubing.

- 2/27/85 Stripped out rest of rods and tubing. Had 170 3/4" rods. 138 jts of 2 1/2" upset tubing. Seating nipple and 2 1/2 x 15' mud anchor. Pump was full of iron sulphate. Could not get pump out of tubing. Ran back 2 1/2 x 15' mud anchor. Ran seating nipple and ran back 100 jts of tubing. Shut down for day.
- 2/28/85 Ran in rest of tubing, replacing jt with in it with a new jt. Ran in subs set tubing down on tubing support. Unstrung tubing blocks. Strung over rod line and ran in a 2 1/2 x 2 x 12' BHD pump. Ran back rods replacing 3 3/4" rods with 3 new 3/4" rods. Ran rods and subs, a 1 1/2 x 22' polish rod. Respaced and hung well on to pump. Started well pumping.
- 4/16/85 Moved in Pratt Well Service, Inc. Unbeamed the well and tried to unseat the pump. Could not get it loose. Put on back off tools and set down and broke down 9 3/4" rods. Pulled 18 jts of tubing and shut down.
- 4/17/85 Backed off rods and pulled 10 rods and 8 jts of tubing. Backed off rods and pulled 83 rods and 74 jts of tubing. Backed off rods and pulled 5 rods, 3/4 x 2' sub and 2 jts of tubing, seating nipple. Pulled a total of 170-3/4" rods, 3/4" x 8'6"4'2'2' subs, 2 1/2 x 2 x 12' BHD TB pump, 138 jts of 2 7/8" tubing, 2 7/8" x 8'4' subs, 12' mud anchor. Ran back 12' mud anchor, seating nipple, 138 jts of 2 7/8" tubing. Packed the well off and shut well in. Shut down.
- 4/18/85 Loaded the pump and ran 2 1/2 x 2 x 12' BHD TB pump, 3.4 x 2' sub, 170-3/4" rods, 3/4 x 8'6"4'2'2' subs and polish rod. Longstroked the well and it pumped up OK. Hung on and rigged down. Moved off location.
- 4/19/85 Moved in Pratt Well Service, Inc. Unbeamed well and longstroked. Hung on and started pumping. Shut down for the day.
- 4/20/85 Pulled polish rod, subs, rods, and pump. Changed and loaded the pump. Ran back tube pump, strainer, rods, subs and polish rod. Pulled rods. Pulled tubing looking for leak. Pulled 138 jts of tubing. subs, seating nipple, mud anchor. Shut well in and shut down.
- 4/22/85 Waited on pipe testers. Testers found 3 thread, 2 collars and one split, 6 bad jts. Changed out 15' mud anchor. Ran mud anchor, seating nipple, 132 jts of tubing. Tallied 6 new jts of 2 7/8" tubing and ran. Ran 2 7/8" x 8' sub. Set slip, packed head off and rigged up for rods. Shut well in and shut down.
- 4/23/85 Ran 1' strainer nipple. Loaded and ran 2 1/2 x 2 x 12' 3 tubing pump. Ran 3/4 x 2' sub, 170 rods, subs and polish rod. Seated the pump and spaced out, taping bottom. Hung well on. Removed check valve and loaded the tubing with the lead line. Put check back together. Pumped up OK. Rigged down and moved off location.
- 6/5/85 Rigged up to pull rods. Longstroked the well. Had no pump action. Unseated the pump, closed the well in and shut down for the day.
- 6/6/85 Pulled subs, rods. Well was parted on the 165th rod. Ran fishing tool, could not get over fish. Pulled the rods out. Pulled sub, 134 jts of tubing to fish. Pulled 5 rods and sub on BHD pump and then pulled 4 jts of tubing, SN and mud anchor. Total of 170 rods and 138 jts of tubing. Closed the well in and shut down for the day.

- 6/7/85 Ran mud anchor, SN, 138 jts and 6' sub. Packed off for production, ran 2 1/2" x 3/4" x 18 BHD pump, subs, 170 rods and put 2 new rods on top. Ran subs and hung the well on. Well pumped OK. Rigged down and moved off location.
- 8/9/85 Moved in Pratt Well Service, Inc. Removed horses head and discovered the rods weren't parted. Pulled polish rod, stuffing box, rods subs, and TB pump with a 12' strainer nipple. Rigged up to pull tubing looking for a leak. removed flow tee and flow lines. Bled pressure off the casing and unpacked head. Pulled tubing sub, tubing, seating nipple and a 15' mud anchor. Found split in 135th jt, placed head adapter, swedge and valve on head and shut the well in. Shut down for the day.
- 8/12/85 Removed the swedge, valve and head adapter from the production head. Tallied bad tubing so company man could order new jts. Ran mud anchor, seating nipple and 138 jts to tag bottom. Pulled 1 jt of tubing and ran 2 7/8" x 8' tubing sub to space tubing 17' off bottom. Packed head off, installed flow tee and flow lines rigged up to run rods. Loaded and ran pump and rods back in well. Polish rod and stuffing box. Respaced rods leaving out rod subs. Hung pump on and started pumping unit to check pump action. Rigged down, cleaned location and put fence up. Moved off location.
- 9/30/85 Moved in Mohawk Rig #5. Pulled rods out to pump. Pump checked out OK. Pulled & painted tubing. Found split 132 jts down. Ran in different jt. ran in rebuilt pump & rods. Hung well back on and rigged down. Moved off location.
- 11/4/85 Moved in Mohawk Rig #3. Pulled rods & tubing. Found tubing leak on 129th 2 7/8" jt. Got a new jt and ran the tubing back in. Continental Emsco rebuilt the pump. Ran everything back in and started pumping. Rigged down & moved off of location.
- 12/19/85 Moved in Mohawk Rig #4. Pulled rods to part. Parted on 4th 3/4" rod, body break. replaced the rod and seated the pump. Ran everything back in and long stroked the well. Hung the well back on & rigged down. Cleaned up location and moved off.
- 12/27/85 Moved in Mohawk Rig #4. Pulled rods to pump. Pulled 135 jts of tubing to the hole. Pulled seating nipple. Hydrotested tubing back in. Blew 4 jts. Set anchor 12 points over weight of tubing. Ran everything in & long stroked the well. Rigged down.
- 1/3/86 Moved in Mohawk Rig #5. Stood the pole up and pulled out the polish rod. Added 1-4' x 3/4" pony rod to the rods. Respaced the polish rod and hung the well on the pumping unit. Rigged down and moved off location.
- 5/27/86 Moved in Mohawk Drilling Rig #5. Pulled rods to part. Parted on 2nd 3/4" rod, body break. Put on a new rod and ran everything back in. Hung well back on the pumping unit and rigged down. Moved off of location.
- 9/9/86 Moved in Mohawk Rig #4. Pulled rods and pump. Dumped aluminum paint and pulled tubing, found hole on 129th jt. Finished pulling tubing and hydro-tested the well. Blew 1 jt and found 1 bad jt. Replaced tubing and ran everything back in. Rigged down.

- 10/8/86 Moved in Mohawk Rig #5. Pulled rods and tubing. Found tubing leak 134 jts from top. Had the pump repaired at LTV. Ran everything back in. Rigged down and moved off.
- 1/23/87 Moved in Mohawk Rig #5. Pulled the pump out. Pulled and painted tubing and found leak on 135th joint. Ran in tubing and tubing anchor. Ran in replacement pump and put 12 more rod guides on bottom. Cleaned up location and rigged down. Moved off.
- 3/9/87 Moved in Mohawk Rig #5 and pulled rods to part. Parted on 156th 3/4" rod, box break. Pulled the rest of the rods. Replaced the pump and ran everything back in. Rigged down and moved off location.
- 3/12/87 Moved in Mohawk Rig #5 and pulled rods and tubing to the leak. Found the leak on the 125th jt. Replaced the bad jt and ran everything back in. Rigged down and moved off location.
- 7/7/87 Moved in Mohawk Rig #4 and pulled rods and pump. Unseated the tubing anchor catcher. Pulled and painted tubing, found hole on 134th jt. Checked the rest of the tubing. Replaced the pump and ran everything back in. Rigged down and moved off location.

