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FLAINS EXPLORATION COMPANY

Denver 2, Colorado

October, 1960 Completion Report - Eaton #1

Location: C - NE - SE, Sec. 28 - T20S - R6W, Rice County, Kansas

Elevation: 1608' K. B. R. T. D. 3386' (-1778')
1605' D. F. C.T.T.D. 3418' (-1810')
F.B.T.D. 3398' (-1790')

Casing: 160' of 8 5/8" cemented with 140 sacks cement
3385' of 5 1/2" cemented with 50 sacks cement

Commenced: 10/07/60 (w/r) Completed: 10/13/60 (w/r)
10/13/60 (w/c.t.) 10/27/60 (w/c.t.)

Contractor: Sterling Drilling Company

Top of Mississippi Chat: 3365' (-1757')

Zero point Kelly Bushing 6.30' above top of Braden Head

CABLE TOOL COMPLETION

Oct. 13, 1960 Cable tools set in by Sterling trucks after moving out rotary tools.

Oct. 17, 1960 Rig up tools, swabbed out hole and drilled on rubber plugs.

Oct. 18, 1960 Drilling on rubber plugs, had some trouble hanging tools. Drilled float and cement. Plugs showed to be at float and cement seemed to be O.K. Pipe showed to be on bottom as expected. Drilled shoe and approximately 2' of new hole. Samples showed good hard white chert with some pieces showing fair porosity and good saturation, some pieces showed that they had been bedded in red shale and water was red. Only had slight rainbow of oil white bailing hole. T.D. 3398' (-1780')

Drilled 3', samples about same, maybe less red shale and probably less porosity. Not much increase in oil show while bailing hole. Cleaned hole up and shut down at 5:00 p.m.

Oct. 19, 1960 Men on rig at 8:20 a.m. Very slight blow on casing. Bailed hole dry got 15 gal. T.F. of which 4½ gal. was good clean live oil. Average fillup 1 gal. per hour and showed 30% oil.

Drilled 3½', samples showed few pieces with fair porosity but less oil staining. Fluid still muddy and red. Drilled 3', some few pieces showed very good saturation but seemed to be very poor porosity. Tested 30 min. no noticeable increase in oil or water. Drilled 3', less saturation but some porosity showing. Tested 30 min. no noticeable increase in oil or water. Drilled 3½', some green to blue shale showed up, rusted to brown and varied colored chat. Very little porosity or oil staining. Drilled 3', good white to clear chat. Some porosity showing in white chat with very small beads of oil showing when pressure applied. Tested 1 hour, no noticeable increase in fluid. T.D. now 3407' (-1799') 21' below pipe. Shut down for night.

cc to Sterling & Kan. 11.8.60

Oct. 20, 1960 — Very slight blow on casing. Bailed hole dry, got 40 gal. T.F. about 6 gal. good clean live oil. Drilled 3', little porosity and very little saturation but do see some pieces that have oil. Drilled 4', same as above, has some blue to green shale probably increase in pink to red chert, plenty of good hard white chert. Tested 1 hour got 5 gal. fluid, good scum of oil. Drilled 4', hard white chat, very little porosity, oil showing in few pieces. Shut down for night at 5:00 p.m.

Oct. 21, 1960 — Better blow on casing but would not register on gauge. First show of gas to surface. 183' of fluid in hole, 15 hour fillup, average of 12+ gal. per hour by fillup. Bailed out approximately 170 gal. T.F. of which about 11 gal. was oil or 7%. Put about 1700' of water in hole and dumped 3 sacks of cement with bailer. Finished filling hole with water. Shut tools down at Noon. T. D. now 3418' (-1810') 32+' below pipe, 53' into chat.

Oct. 22, 1960 — Bailer showed 19½' fillup with cement. P.B.D. 3398', approximately 12' below pipe.

Oct. 23, 1960 — Pumping water from creek to pond at well to water frac.

Oct. 24, 1960 — Approximately 5000 bbls. of water on hand at well. Halliburton on job about 7:00 a.m. with 2 - HT - 400 pump trucks and 1 - M - 70 blender. 300 sacks of 20-40 and 30 sacks of 10-20 frac sand. 1000 lbs. of W-6-4. Loaded hole and broke formation at approximately 2400 lbs. psi at surface with hole loaded with fresh water. 1700 Bbls. pumped pressure had gradually dropped to about 2050 lbs. Gelled 120 bbls. trying to get a break. Probably from friction loss pressure dropped to 1900 lbs. with an increase of about 4 bbls. per min. injection rate to about 45 bbls. per min. Started 20-40 sand at ½ lb. per gal. using a little W-6-4 through sand treatment to help friction. The 30,000 lbs. of 20-40 went ½ lb. per gal. at about 38 bbls. per min. at about 2000 lbs. pressure. Started 10-20 sand, soon after it hit bottom pressure started increasing, some must have gone into formation but pressure got to 2300 lbs. and sand was stopped with about 24 sacks in pipe. About 1500 bbls. of water had been pumped with sand. Then about 1700 bbls. was pumped at about 33 bbls. per min. at 2100 lbs. Making a total of about 5020 bbls. of water pumped during treatment. 32,400 lbs. of sand, 950 lbs. of W-6-4 at an average of 37 bbls. per min. Minimum treating pressure - 1900 lbs., maximum treating pressure - 2300 lbs., dropped to 1000 lbs. when pumps were stopped. Lost 300 lbs. in 25 min., in another hour had lost another 100 lbs. Job went o.k. but well looks a little tight.

Oct. 25, 1960 — Flowed back approximately 200 bbls. Still flowing some but started swabbing. Swabbed down about 400' then ran sand-pump. Hole ran over while running pump, got about 2 gal. of sand and chat. Pickup showed to be about 2' off plug back T.D. Swabbed about 80 bbls. into pit, had show of free oil and slight show of gas. Swabbing 1 hour had hole swabbed down 1000'. Ran Sand-pump after eating lunch, got about 2 gal. sand and chat, pickup close to bottom. Hole filled to about 200' of top. Started swabbing. Ran sand-pump at 3:00 p.m., got about 1 gal with pickup close to bottom. Estimated about 220 bbls. swabbed in afternoon, getting down to about 1400'. Good scum of good live oil showing on fluid and gas showing while pulling swab. Shut down for night leaving about 2000' of fluid in hole.

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CABLE TOOL COMPLETION

Eaton #1

Oct. 26, 1960 — 60 lbs. pressure on casing. Fluid 160' down from top. Sand-pump picked up at bottom got about ½ gal. sand and chat. Swabbed down about 1400', put approximately 100 bbls. in pit. Good show of oil and gas. Put into test tank at 10:30 a.m., gauge at 11:15 a.m. 1'½" - 44.50 bbls., hole swabbed back down to 1600' from top. At 12:15 p.m. 2'3" in test tank, 1st hour made 1'2½" - 51.62 bbls. Had lowered fluid about 200' or about 1800' from top. About 320 bbls. swabbed out this day, had fluid swabbed down to about 1400' off bottom. Tested 1 hour from this point got 28.48 bbls. With about 1000 bbls. of fluid back after frac job oil from about 350 bbls. showed about 3%. Last 2 hours of swabbing test shows about 28 bbls. per hr. 1400' off bottom. Shut down at 5:30 p.m.

Oct. 27, 1960 — 25# pressure on casing. 2466' of fluid in hole. Sand-pump showed to be picking up on bottom, got few pieces of chat and less than ½ gal. of sand. Swabbed hole down to 1400' off bottom got 40 bbls. Swabbed 1 hour test got 48.72 bbls., fluid showing good scum of oil and some gas. Sand-pumped hole got about 1 gal. sand and chat.

Tearing down Cable Tools to test by pumping.

E. E. Duncan, October 27, 1960