

DAILY DRILLING REPORT

Humble Oil & Refining Company  
Federal-Leonard Oil Co. No. 1.

|                      |                |  |
|----------------------|----------------|--|
| 9-23-44              | 11825 to 11846 | At 11820' hole off 2-1/4 deg. Cored from 11825-11840', recovery 4-1/2' lime, some oil, no gas. Now going in hole with core barrel.   |
| 9-25-44              | 11840 to 11858 | Cored from 11840' to 11858' recovered 2-1/2' no oil show but fair odor of gas. Pulled 61 stands and found top of water blanket. Pulled 3 stands with fluid and well unloaded. Pulled 33 dry stands and found top of fluid again. Pulled 27 stands with water blanket saturated with oil. Pulled 5 stands with heavy mud saturated with oil and gas out. Ran Halliburton drill stem tester with 2 packers and 4140' of water blanket. Bottom packer set at 11810'. Packer held for 20 minutes.  |
| 9-26-44              | 11858 to 11870 | Now pulling drill pipe preparing to take Halliburton drill stem test.  |
| 9-27-44              | 11870 to 11876 | Ran Halliburton drill stem tested with 45 stands of water blanket. Tested formation from 11800-11870', tool open one hour. Recovered 68 stands of water blanket and gas out mud showing high gravity oil. Well unloaded at intervals all the way coming out of hole.   |
| 9-28-44              | 11876 to 11891 | Cored from 11876-11887' recovered 1'. Cored from 11870-11891'. Now coming out of hole with core.   |
| 9-29-44              | 11891 to 11891 | Recovered 2' of core taken from 11870-11891'. Ran Halliburton drill stem tester with 45 stands of water blanket. Tool open 39 minutes. Blanket hit surface in 34 minutes and unloaded in 2 minutes. Well flowed 3 minutes through 5/8" bottom hole choke at an estimated rate of 10,000 MCF gas per day and 480 barrels 47.4 gravity oil. Well flowed 1 hour after fluid closed. Recovered 788' of oil from drill stem. Hydro static mud pressure 6325#. Flowing bottom hole pressure 3620#. Shut-in bottom hole pressure 5000#. GOR 20,000 - 1. |
| 9-30-44              | 11891 to 11892 | Made 1' rotating time 3-1/2 hours. Now going in hole with new bit.   |
| 10-1-44 &<br>10-2-44 | 11892 to 11913 | Going in hole with core barrel. Cored from 11901-11913 recovered 1'. Ran Halliburton caliper. Now going in hole with testing tool.   |
| 10-3-44              | 11913 to 11913 | Ran Halliburton drill stem tester with 1/2" bottom hole choke and 45 stands of water blanket. Water blanket hit surface in 27 minutes. For the 1/2 hour test well produced at rate of 1848 bbls., 50 gravity oil per day with 3878 MCF gas. GOR 1660. Recovered 273' of oil and 7917' mud in drill pipe. Packer failed in 30 minutes.  |
| 10-4-44              | 11913 to 11938 | Drilling.  |
| 10-5-44              | 11938 to 11948 | Pulling drill pipe to take drill stem test.  |
| 10-6-44              | 11948 to 11948 | Ran Halliburton drill stem tester and tested formation from 11918-11948'. Packer held 3 minutes and seat gave away. Recovered 13 stands of gas out mud showing oil. Now circulating and conditioning hole.   |

Sheet #2

|                        |                |  |
|------------------------|----------------|--|
| 10-7-44                | 11948 to 11948 | Ready to go in hole to make drill stem test.   |
| 10-8-44 &<br>10-9-44   | 11948 to 11953 | Ran Halliburton drill stem tester with 3/8" bottom hole choke and 45 stands water blanket to test from 11890' to 11948'. Tool was open 1 hr. 40 minutes. Water blanket hit surface in 41 minutes. Tested well 40 minutes at rate of 51.6 bbls. FLO per hr. and 1656 MCF gas per day. GOR 1235. Recovered 910' oil in drill pipe. Now coring. |
| 10-10-44               | 11953 to 11968 | Now preparing to run drill stem test.  |
| 10-11-44               | 11968 to 11968 | Ran drill stem test to 6" packer with 3/8" choke and 45 stands water blanket. Tool open 2 hrs. Recovered 460' sulphur water.   |
| 10-12-44               | 11968 to 11968 | Circulating and conditioning hole.   |
| 10-13-44               | 11968 to 11969 | Now circulating and conditioning mud.  |
| 10-14-44               | 11969 to 11969 | Circulating and conditioning mud 24 hours.   |
| 10-15-44 &<br>10-16-44 | 11969 to 11969 | Ran and set 5-1/2" casing at 11963.63', 297 joints with 810 sacks cement. WOC.   |
| 10-17-44               | 11969 to 11969 | WOC.   |
| 10-18-44               | 11969 to 11969 | Ran Halliburton temp. survey and found top of cement in casing at 9371' or 2557' of cement above float collar.   |
| 10-19-44               | 11969 to 11969 | Tested 5-1/2" casing with 1800# mud-laden fluid for 15 minutes.  |
| 10-20-44               | 11969 to 11969 | Finished nipping up. Installed BOP. Tested wellhead connection with 5000# cold water pressure.   |
| 10-21-44               | 11969 to 11969 | Picking up flush joint drill pipe.   |
| 10-22-44 &<br>10-23-44 | 11969 to 11969 | Drilled cement from 9371' to 11507'.   |
| 10-24-44               | 11969 to 11969 | Conditioning mud and preparing to gun perforate.   |
| 10-25-44               | 11969 to 11969 | Gun perforated from 11890 to 11928'. Now preparing to run tubing.  |
| 10-26-44               | 11969 to 11969 | Ran 392 joints of 2" upset tubing. Footage will be shown later. Installed Xmas tree. Now replacing mud with water.   |
| 10-27-44               | 11969 to 11969 | 2" tubing set as follows: Perforated nipple 3.81, 392 joints of 2" USE at 11905'. Total 11909.17', rotary to bradenhead 11.33. Tubing set at 11920.50'. Spaced off bottom 6.50. Total depth 11929'. Well failed to flow when mud was replaced with water. Now re-placed water with oil.  |
| 10-28-44               | 11969 to 11969 | Replaced water with oil, well failed to flow. Circulated oil for 12 hrs. and well failed to flow. Swabbed 6 hrs., lowered fluid 2000'. Well gave no indication of flowing. Ceased swabbing for 2 hrs., fluid did not rise in hole.   |

Sheet #3

10-29-44 & 10-30-44      11969 to 11969      Fluid rose 750' over night. Swabbed well 9 hrs. fluid dropped to 3700'. Shut in. 10-30-44. Resumed swabbing at 3700'. Swabbed wash water and circulated oil with some gas for 9 hrs. Fluid standing at 6000' after swabbing. Now preparing to acidize.

10-31-44      11969 to 11969      While circulating oil in hole well started flowing. Flowed for 20 minutes until well shut in. Built up 1000# pressure but failed to flow when opened. Now preparing to treat with acid.

11-1-44      11969 to 11969      Circulated hole with oil. Spotted 1000 gallons Dowell mud acid above perforations in 5-1/2" casing. Pumped oil in casing and washed acid past perforations. Pressured up well to 1100#. Broke to 900#. Washed 10 bbls. oil through perforated section. Could not pressure above 1000#. Unloaded hole. Now flowing at rate of 25 bbls. oil per hr. on 3/4" choke. Gas volume 1300 MCF.

11-2-44      Flowing on 2 -33/64" choke. 17 bbls. oil per hr. Casing pressure 900#, tubing pressure 500#. 2% BSW.

11-3-44      Killed well and now circulating. Mud weight 9.2#.

11-4-44      Pulled tubing and removed Xmas tree. Now gun perforating casing. Should be through by 9 AM 11-4-44.

11-6-44      Gun perforated casing from 11890-11928' with 2 shots per ft. Ran 2" tubing spaced at 11920'. Replaced mud with oil but well will not flow.

11-7-44      Loaded hole with oil. Treated with 2000 gals. Max. pressure 2000#, minimum pressure 1700#. Pumped 800 gals. into formation after break at rate of 1.4 bbls. per minute. Well unloaded and is cleaning into pits. After 6 hrs. flow well tested at rate of 32 bbls. per hr. on 3/4" choke. 2.4% BS and acid water. Gas volume 1872 MCF per day, GOR 2437. Tubing pressure 250#, casing pressure 0#.

11-8-44      Flowed 15 bbls. per hr. for last 12 hrs. Tubing pressure 400#, casing pressure 1100# on 3/4" choke. BSW 2.6%.

11-9-44      Flowed well 24 hrs. Flowing at rate of 15 bbls. fluid per hr. Shakesout varied from 20% water to PLO. Last shakesout 7/10 of 1% water flowing.

11-10-44      Well flowing at rate of 14 bbls. per hr. 11% water. Tubing pressure 200#, casing pressure 850#.

11-11-44      Tearing down rig.

11-11-44 & 11-12-44      Well shut in. Shut in casing pressure 3100#, tubing pressure 2200#. Moving out contract rig.

11-13-44      Same as 11-11 and 12

11-14-44      "      "

Sheet #4

11-15-44

Tearing down derrick.

11-16-44

Tearing down rig. Well shut in.

11-17-44

Flowed 12 hrs. on  $5/32$ " choke. Made 200 bbls. oil and 10 bbls. water. Flowing tubing pressure 11#, casing pressure 2800#, shut in tubing pressure 2800# and casing pressure 3100#.

11-18-44

Flowed well 24 hrs., made 296.87 bbls. FLO on  $5/32$ " choke. Tubing pressure 1090#, casing pressure 2050#.

11-19-44 and 11-20-44

Flowed well 24 hrs. on  $3/32$ " choke. Made 189.24 bbls. fluid. Shakeout FLO. Tubing pressure 1300#, casing pressure 2300#.