

# 5-335-2W

W. R. A. I. K. E. N.  
T. R. I. B. U. T. E.  
K. O. O. H. B. L. O. G.  
S. A. S. N. A. K. S. A. T. I. H. Q. I. W.

July 15, 1955

OWLL

South Texas Development Company  
715 Bank of Commerce Building  
Houston, Texas

Re: South Texas Development Company  
#1 Mary Heasty  
SE SE NE, 5-335-2W  
Sumner County, Kansas

Gentlemen:

1. Samples were examined on the subject test from 2850' to 4394' TD. I was present on the location and supervised drilling operations through the following intervals: 3150-3580, 3800-4100 and 4250-4394. All tops and depths were measured from the Kelly bushing at an elevation of 1223 feet. Derrick floor and ground elevations were 1220 feet and 1218 feet respectively.

2. Following are formation tops as determined by sample analysis and Schlumberger Laterolog survey:

<u>Formation</u>	<u>Samples</u>	<u>Log</u>	<u>Datum</u>
Stalnaker Sand	2938	2938	-1715
Base Stalnaker	3012	3018	-1789
Kansas City	3252	3252	-2029
Base Kansas City	3551	3549	-2326
Mississippi	3937	3936	-2713
Kinderhook	4312	4312	-3089
Chattanooga-Woodford	4351	4349	-3126
Simpson Sand	4380	4380	-3157
RTD	4394	4394	-3171

3. Zones of interest showing porosity and/or shows of oil and gas as found in sample examination are as follows:

## Stalnaker Sand

2938-3012: Upper portion, fine grained subangular micaceous sandstone with fair porosity, no show; lower portion, medium to coarse grained subrounded micaceous friable sandstone with good porosity, no show.

## Kansas City

3268-3275: Buff finely crystalline limestone with scattered pinpoint porosity, no show.

3295-3301: Buff fine to medium crystalline fossiliferous limestone with scattered vugular porosity, no show.

3310-3315: Buff finely crystalline limestone with scattered pinpoint porosity, no show.



South Texas Development Company #1 Mary Heasty - Continued.

3359-3365: Tan finely crystalline oolitic and oolitic limestone with poor to fair porosity. No show.

Mississippi

Although the Schlumberger log shows considerable porosity development throughout the Mississippian section, samples showed visual porosity in only one place, from 4075-84. Brown fine to medium crystalline very cherty limestone had a fair amount of vugular porosity.

Simpson Sand

4380-4383: Brown and white fine to medium grained subangular sandstone with poor to fair porosity. Very little fluorescence.

4383-4386: Mostly white, fine to medium grained subangular sandstone with fair porosity, pale lemon fluorescence. Very faint odor.

4386-4394: Clear, medium grained, poorly sorted, subrounded, friable sandstone with good porosity. Pale lemon fluorescence.

4. Drill stem testing and coring record:

Core #1: 3225-61.5, full recovery.

27.5' dark gray shale.

1.0' brown finely crystalline fossiliferous limestone.

1.5' smooth gray shale.

2.5' buff finely crystalline limestone, tight.

4.0' white dense slightly chalky limestone.

Core #2: 3925-43, full recovery.

2.0' soft gray-green shale.

6.5' dark gray shale with limestone nodules.

3.5' soft dark gray fissile shale.

6.0' gray and white fresh vitreous chert in light gray siliceous shaly matrix.

DST #1: 4374-86. Tool open one hour, with weak blow that died after 5 minutes.

Recovered 12 feet rotary mud.

FP: 0. BHP: 0/20 minutes. Hydrostatic 2180#.

DST #2: 4377-94. Tool open 57 minutes with strong blow decreasing slightly at end of test.

Recovered 2722 feet salt water.

FP: 160/1360#. BHP: 1565#/20 minutes. Hydrostatic: 1565#.



South Texas Development Company #1 Mary Heasty - Continued.

5. In relation to other tests which have been drilled in its vicinity, #1 Heasty is located in a normal structural position for this area of south and west regional dip. It is lower than dry holes to the east and north and higher than those to the west and south on all horizons. Critical thickening and thinning of beds in this region usually occurs in the Mississippi Lime. This section in the subject well was 376 feet from top to base, normal to slightly thicker than that in surrounding dry holes. The following comparison table shows the structural relationships of key beds in the area. All data are sub-sea.

<u>So. Texas #1 Heasty</u> <u>SE SE NE 5-33-2W</u>	<u>J.S. &amp; F. #1 Heasty</u> <u>NE NE NE 3032-2W</u>	<u>Wakefield #1 Blue</u> <u>NE NE SW 1-33-2W</u>	<u>Harwood #1 Ward</u> <u>NE SE SE 21-33-2W</u>
Kans. City -2029	-1982	-1966	-2115
Mississippi -2713	-2665	-2636	-2793
Kinderhook -3089	-2994	-2984	-3147
Simpson -3157	-3062	-3053	-3237

6. In the absence of any shows whatsoever and considering its low structural position, a Schlumberger Laterolog Survey was run and it was my recommendation that #1 Heasty be plugged and abandoned at a total depth of 4394 feet.

Respectfully submitted,

Aitken & Link

By

*GER*  
George E. Link