

19-7-24W

Wyman M. Warren  
Petroleum Geologist

810 CENTRAL BUILDING  
WICHITA, KANSAS

April 2, 1956

Re: Geological Report -  
Herman George Kaiser--K & E Drilling,  
Inc. #1 Hyde  
SE/C of Section 19-7S-24W  
Graham County, Kansas

Mr. Herman George Kaiser  
Palace Building  
Tulsa, Oklahoma

Dear Sir:

The following is a geological report of your #1 Hyde, located in the SE/C of Section 19-7S-24W, Graham County, Kansas. All depths are measured from the Kelly Bushing which was 2498 feet above sea level. The samples were evaluated and the drilling supervised from 3500 feet to total depth.

Formation tops drilled on the #1 Hyde:

<u>Formation</u>	<u>Sample Tops</u>	<u>Electric Log Tops</u>
Topeka Limestone	3520 (-1022)	3522 (-1024)
Heebner Shale	3733 (-1235)	3732 (-1234)
Toronto Limestone	3752 (-1254)	3755 (-1257)
Lansing-Kansas City Limestone	3773 (-1275)	3773 (-1275)
Base Kansas City	3982 (-1484)	3980 (-1482)
Rotary Total Depth	4000	4001

The following shows of porosity were noted in the Topeka Limestone formation:

- 3550-3560      Gray fine crystalline oolitic and slightly cherty limestone; fair oocastic porosity. No shows.
- 3650-3658      Gray to white, medium crystalline, slightly dolomitic and fossiliferous limestone; good pin point porosity. No shows.
- 3675-3679      Gray fine to coarse crystalline limestone; fair pin point porosity. No shows.
- 3690-3695      Gray medium crystalline limestone, slightly cherty; fair pin point porosity in part. No shows.

The Toronto Limestone was encountered at 3752 (-1254) and was a gray, fine, crystalline, slightly fossiliferous limestone. It was slightly cherty and had good pin point porosity. No shows were noted.

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The Lansing-Kansas City Limestone had the following zones of porosity:

- ZONE #1    3773-3775                    5-foot zone                    Thickness 2 feet  
 Gray fine crystalline limestone with very faint fracture porosity. No shows.
  - ZONE #2    3780-3787                    10-foot zone                    Thickness 7 feet  
 White fine crystalline limestone. Good vugular porosity. No shows.
  - ZONE #3    3802-3806                    30-foot zone                    Thickness 4 feet  
 Gray fine crystalline limestone, dolomitic in part, abundance of white opaque chert; scattered pin point porosity. No stain.
  - ZONE #4    3843-3855                    70' zone                    Thickness 8 feet  
 Gray fine to coarse crystalline limestone; trace of vugular and coarse crystalline porosity. Slight oil stain. Slight show free oil. ✓
- A non-commercial oil reservoir as shown by the following drill stem test:
- DST #1                    3842-3855  
 Tool open one and one-half hours.  
 Good steady blow throughout test.  
 Recovered 420 feet muddy salt water.  
 BHP 1300#.
  - ZONE #5    3894-3898                    120' zone                    Thickness 4 feet  
 Gray fine crystalline limestone; scattered fossiliferous and pin point porosity. Scattered oil stains. Some dark asphaltic oil stains. ✓
  - ZONE #6    3905-3907                    130' zone                    Thickness 2 feet  
 Gray fine crystalline limestone. Very scattered porosity but stain light.
  - ZONE #7    3915-3917                    140' zone                    Thickness 2 feet  
 Gray fine crystalline fossiliferous limestone; pin point porosity. Very light oil stain. Slight show free oil. ✓
  - ZONE #8    3930-3935                    160' zone                    Thickness 5 feet  
 Gray dense fine crystalline fossiliferous limestone. Good fossiliferous and trace vugular porosity. Fair show free oil, light scattered oil stains, very slight odor. ✓

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Zones #5, #6, #7, and #8 a non-commercial oil reservoir as shown by the following drill stem test:

DST #2                      3895-3940  
Tool open 45 minutes.  
Slight blow for seven minutes.  
Recovered 15 feet mud.  
BHP 1140#.

ZONE #9      3947-3950              180' zone                      Thickness 3 feet  
Gray dense fine crystalline limestone; very slight scattered pin point porosity.

The structural relationship of the #1 Hyde on top of the Lansing-Kansas City Limestone is as follows:

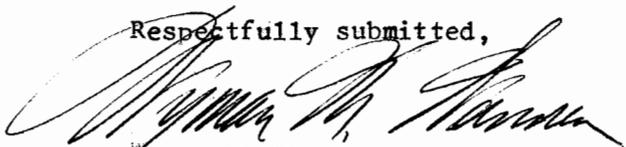
It is nine feet (9') lower than the Empire #1 Goddard, a dry hole in the NW/4 SW/4 NW/4 of Section 21-7S-24W, approximately one and one-half miles to the northeast.

It is twenty-six feet (26') lower than the Harbar #1 Wells, a dry hole in the CEL NE/4 SW/4 of Section 18-7S-24W, approximately one and one-half miles to the northwest.

It is nineteen feet (19') lower than the Herndon #1 Keith, a dry hole in the NW/4 NW/4 SE/4 of Section 24-7S-25W, approximately one and one-half miles to the west.

It is twenty-six feet (26') higher than the Hall--Jones #1 Fox, a dry hole in the SW/4 SW/4 SE/4 of Section 30-7S-24W, approximately one mile to the south.

All possible commercial oil shows were tested with negative results. Structurally the test did not indicate an anomaly in this area. The electric log did not reflect any zones of possible production. It is therefore recommended that this test be plugged and abandoned at a total depth of 4000 feet.

Respectfully submitted,  
  
Wyman M. Warren

WMW/jw