

Petroleum Incorporated et al:

Geosartean No. 1

C W $\frac{1}{2}$ NW $\frac{1}{4}$ S $\frac{1}{2}$ Sec. 29, T.9 S., R.19 W., Rooks County, Kansas

Elevation: 2141' (Derrick Floor) Total Depth with rotary 3657' (Derrick floor)

Comm. Drig. Sept 25, 1948 Comp. Drig. Oct. 5, 1948

Casing: 8-5/8" 222' Cemented with 100 sacks

Contractor: Ferrell Drilling Co. - Rig No. 3

Drilling Superintendent: J. M. Cendor

Drillers: A.M. Charles Carlepy
 Day J. T. Bowen
 P.M. C. J. Courange

Note: Depths to formation tops and other zones mentioned in the following log have been corrected to the derrick floor/which makes them two feet higher than driller's measurements which were made from the top of the rotary drive-bushing which was two feet above the derrick floor.

Derrick floor was two and one-half feet above ground level.

<u>Depth</u>	<u>Description of formations</u>
2995-3010	Light gray fine crystalline partly oolitic limestone
3010-15	Gray - dark and red shale
3015-20	Black shale
3020-55	Dark with some red shale and light gray thin limestone stringers
3055-65	Light gray and gray fine textured and fine crystalline limestone
3065-84	Dark and gray with little red shale and thin limestone stringers
3084-90	Dark and gray shale with little gray fine grained quartz sandstone
3090-3112	Dark gray and gray shale with little sandy shale and red shale with little interbedded gray partly mottled limestone

3112 (-971) Top of Topeka limestone

3112-20	Light to dark gray fine crystalline limestone
3120-28	Light gray and gray partly mottled fine crystalline fine textured limestone
3138-47	Gray leached fine oolitic and granular limestone with spotted brown oil stains and some saturation; porosity fair
3147-68	Light gray and gray fine crystalline and little fine textured limestone with little dark shale

- 3155-70 Very dark with some red shale
3170-89 Light gray and gray fine crystalline, and fine textured limestone with little dark and gray shale
3189-3201 Dark shale with some gray limestone
3201-15 Light gray fine crystalline and fine textured limestone
3215-80 Dark with little red shale
3220-30 White fine crystalline limestone
3230-32 Very dark and gray shale
3232-65 White and light gray fine crystalline fine textured limestone
3265-71 Dark and gray shale
3271-93 White fine crystalline and fine textured slightly cherty limestone
3293-94 Gray partly porous oolitic limestone with trace of oil stain
3294-3305 Light gray fine crystalline; non-porous oolitic limestone with trace of chert
3305-18 White and light gray fine crystalline limestone

3318 (-1177) Top of Heebner shale

- 3318-21 Black carbonaceous finely laminated shale
3321-30 Light gray fine crystalline and fine textured limestone
3330-37 Gray dark and red shale
3337-42 White and light gray fine crystalline, slightly porous oolitic limestone with spotted stains of dark brown oil
3342-50 White and light gray fine crystalline fine textured limestone
3350-50 Red, pale-green, and gray shale with some pyrite and little siltstone

3360 (-1219) Top of Lansing - Kansas City limestone

- 3360-67 White fine crystalline partly oolitic, slightly cherty, slightly porous limestone with slight spotted oil stains
3367-72 White fine textured partly oolitic, slightly porous, very cherty limestone with very slight spotted oil stains (rock estimated half chert)
3373-80 White and light gray fine crystalline, fine textured limestone
3380-90 White very fine crystalline cherty limestone
3390-95 Dark and gray with some red shale
3395-3403 White and light gray partly cherty fine crystalline limestone
3403-04 White fine crystalline slightly porous limestone with slight spotted oil stains
3404-10 Light gray fine crystalline limestone with little black shale
3410-40 White and light gray fine crystalline, slightly cherty limestone with considerable dark gray and some red shale

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- 3440-46 Buff and grey leached partly porous finely oolitic limestone, dolomitic limestone and fine granular dolomite, with spotted stains of dark to black "dead" oil
- 3446-54 Light grey fine to medium crystalline limestone, and little fine crystalline dolomite; slightly cherty
- 3454-59 White fine crystalline non-porous oolitic limestone with little fine crystalline dolomite; partly cherty
- 3459-60 White and light grey fine crystalline, partly cherty limestone
- 3460-97 Very dark pyritic shale and grey fine crystalline limestone
- 3497-98 White and light grey slightly cherty, slightly porous limestone with trace of oil stain
- 3498-3511 White and light grey fine crystalline, slightly cherty limestone
- 3511-16 White and light grey fine crystalline slightly porous limestone with slight spotted oil stains
- 3516-24 White fine crystalline limestone
- 3524-27 White fine crystalline and very finely granular slightly porous limestone with slight spotted oil stain
- 3527-40 Light grey and white fine crystalline limestone
- 3540-45 Dark and grey shale with little pyrite
- 3545-48 Light grey and white fine crystalline limestone
- 3548-49 White fine crystalline slightly porous limestone with slight spotted oil stains
- 3549-60 White and light grey fine crystalline limestone with little dark shale

3560 (-1419) Top Marmaton (Base Kansas City) formation

- 3560-65 Dark, gray, red and some green shale
- 3565-75 White and light grey fine crystalline limestone with some oolites in lower part
- 3575-89 Red with little green and grey - dark shale with some light grey fine crystalline limestone
- 3589-97 Very red, pale-green, and greenish grey shale
- 3597-3602 White fine crystalline limestone with little white, grey and pink chert
- 3602-05 Red shale

3605 (-1464) Top of Cherty Conglomerate

- 3605-12 Red with some greenish grey shale and much white, grey, pink and little yellow fresh chert, and some light grey tripolitic chert

3612 (-1471) Top of Erosional Arbuckle dolomite

- 3612-15 Grey, fine to medium crystalline partly porous dolomite with black tarry oil residue; - porosity and permeability low - fresh wet samples had no oil odor
- 3615-25 Light grey little grey and pink fine to medium crystalline dolomite with little black residue - (with much red shale and some vari-colored and tripolitic chert)
- 3625-47 Red and greenish grey shale with some fresh vari-

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colored and weathered tripolitic chert, and embedded sand grains accompanied by little light grey and pink fine crystalline dolomite - (Possibly as thin stringers or small isolated bodies in the shale)

3647-53

Grey fine to medium crystalline, slightly porous dolomite

3653-57

Light grey fine, medium, and coarse crystalline dolomite with some fair to good porosity; some of the coarse crystalline porous dolomite had white decomposition material between the crystals, which suggested water; No oil observed and fresh wet samples had no oil odor

3657 (-1516) Total depth

Drilling completed 2.M. Tuesday, October 5, 1948, and Schlumberger survey completed A.M. Wednesday, October 6, 1948.

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