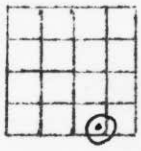
County Atchison



sec. 11 T. 65 R. 40

Owner Rankin, W.F.

Elev. 913.63 MGS# 1862

Farm Rankin Ranch No. 2 TD 2340 Shows no Spls. ✓

Status Dry Date Completed Dec. 1915 Fm@TD Devonian

Remarks;

00014

~~00029~~

~~00038~~

og of W. F. Rankin No. 2 Fee. Location: SE. 1/4 SW. 1/4 SE. 1/4 sec. 11, T. 65 N., R. 40 W., Atchison County, Mo. Elevation: 913.6 feet. Completed December, 1915. Well No. 3 on map, Pl. I.—Driller's log to 496 feet, from 496 to 1,640 from sample descriptions by W. C. Hogoboom, from 1,640 to 2,340 from sample description by Miss Mary Hundhausen and H. S. McQueen.

	Thickness, feet	*Depth, feet*
eistocene series:		
Alluvium:		
Soil	28	28
Drift:		
Sand and water (fresh)	15	43
Mud or clay, blue	30	73
Sand and water (fresh)	40	113
Shale, very soft	40	153
Sand and water (fresh)	10	163
nnsylvanian system:		
Shawnee and Douglas groups:		
Shale	7	170
Limestone	15	185
Shale, white	23	208
Limestone	4	212

Log of W. F. Rankin No. 2 Fee—Continued.

	Thickness, feet	*Depth, feet*
Shale, blue	38	250
Limestone	23	273
Shale, blue	4	277
Limestone	9	286
Shale, white	40	326
Limestone } Oread	4	330
Shale, white } Oread	5	335
Limestone } Oread	4	339
Shale	11	350
Shale, very red, soft	20	370
Shale	70	440
Lime shells, shale, thin layers and limestone	11	451
Shale	7	458
Shale or red rock, soft	9	467
Shale	9	476
Pedee, Lansing and Kansas City, groups:		
Lime	10	486
Shale	10	496
Limestone, gray, bluish	29	525
Shale, dark gray, calcareous	20	545
Shale, reddish, slightly calcareous	15	560
Shale, gray, calcareous	5	565
Limestone, light gray	10	575
Shale, dark gray calcareous	10	585
Gray shale, calcareous	30	615
Shale, dark gray, calcareous	5	620
Shale, light gray, very calcareous with some limestone	10	630
Shale, dark gray to black, slightly calcareous	7	637
Light gray limestone, fine-grained	25	662
Shale, dark gray to black, slaty in places	10	672
Shale, soft, gray, calcareous	20	692
Limestone, gray	25	717
Shale, soft, gray, calcareous	10	727
Light gray limestone (Winterset)	38	765
Shale, light blue, somewhat calcareous	5	770
Limestone, light gray with Hustedia mormoni (fossil) (Bethany Falls)	10	780
Shale, slaty, dark gray to black	5	785
Limestone, light gray	15	800
Pleasanton, Henrietta and Cherokee groups:		
Shale, light to dark gray	10	810
Limestone, light gray	25	835
Shale, soft bluish-gray with fragments of crinoid stems, calcareous	8	843
Limestone, light gray with some shale	12	855
Shale, light bluish-gray, calcareous	20	875
Limestone, light gray	10	885
Shale, light bluish-gray, soft, calcareous	35	920
No sample (limestone)	17	937
Shale, gray, soft, calcareous	20	957
Shale, soft, light gray	73	1030
Sandstone, gray, calcareous	21	1051
Sandstone, hard, gray, calcareous, fine cuttings	7	1058
Shale, black, somewhat calcareous	7	1065
Sandstone, dark gray, with some carbonaceous material, limestone and mica	5	1070
Sandstone, gray, calcareous with pyrite and some dark gray shale	25	1095
Shale, light gray, soft	40	1135
Shale, soft black	10	1145
Shale, light gray, soft	30	1175
Shale, light gray and reddish	10	1185
Shale, soft, light gray	15	1200
Soft, light gray and reddish shale, somewhat calcareous	5	1205

Log of W. F. Rankin No. 2 Fee—Continued.

	Thickness, feet	Depth, feet
No sample	50	1255
Shale, gray to black	40	1295
Sandstone, dark gray, cuttings very fine	30	1325
Shale, soft, black	10	1335
Shale, soft, light bluish-gray	20	1355
Gray limestone, shale with pyrite	10	1365
Sandstone, gray, with shale and some limestone	10	1375
Sandstone, light gray, fine cuttings	45	1420
Sandstone, light yellowish-gray with fresh water, slightly calcareous, sample sent in for analysis	30	1450
Limestone, gray, with sandstone and black shale	20	1470
Shale, black, with gray limestone	5	1475
Shale, soft, black, with small amount of gray limestone	12	1487
Shale, light gray to black	15	1502
Calcareous sandstone, light gray, with gray shale, sandstone fine-grained	14	1516
Sandstone, light gray, fine-grained, calcareous, fine cuttings, "salt water"	22	1538
Sandstone, light gray, fine-grained, slightly calcareous, with much black shale	4	1542
Shale, dark blue, fissile	13	1555
Sandstone, fine-grained, gray with fissile shale from above	15	1570
Arenaceous shale, with black fissile shale	5	1575
Limestone, gray, crystalline and black fissile shale, all stained reddish with iron	5	1580
Sandstone, gray; and black, fissile shale	10	1590
Shale, black, fissile and sandstone	5	1595
Shale, light gray, some dark, a little sand	10	1605
Shale, very dark blue	10	1615
Shale, gray, blue to black, fissile	25	1640
Mississippian system:		
Meramec group:		
St. Louis formation?		
Limestone, 1 sample, tan, lithographic, slightly sandy. Insoluble residue: 10%; quartz aggregates, quartz crystals, quartzose chert; some faintly pink	15	1655
Warsaw formation:		
Limestone, light gray and tan, crystalline, with dolomitic lime, tan, some gray shale. Insoluble residue: 10% to 40%, chert, white, blue, gray, mottled, fossiliferous, some drusy chert, spores, green shale	70	1725
Osage group:		
Keokuk-Burlington formation:		
Limestone, white, coarsely crystalline, crinoidal, cherty, with dolomite, fine-grained, crystalline, light gray to white. Insoluble residue: 10% to 40%, chert, white to light gray sub-translucent, fossiliferous	115	1840
Kinderhook group:		
Gilmore City formation:		
Limestone, oolitic, light gray to white. Residue: 10%, light brown crinoids, quartzode, fine-grained silica. (Brown sugary crinoids)	10	1850
Limestone, dense, gray, cherty. Insoluble residue: 10% to 25%, chert, gray and white, dense to porous. Brown silicious crinoids in upper part	45	1895
Limestone, white, oolitic; oolites round, medium large. Insoluble residue: less than 10%, quartzose chert and fine-grained sand	25	1920
Kinderhook shale:		
Shale, greenish gray, some sand and pyrite	10	1930
Hematite, red, oolitic	5	1935
Hematite, red, oolitic, with red shale	20	1955
Shale, greenish-gray with some oolitic hematite (caved)	5	1960

Log of W. F. Rankin No. 2 Fee—Continued.

	Thickness, feet	*Depth, feet*
Limestone, gray, finely crystalline, slightly and finely sandy, with some green shale	5	1965
Chert, very calcareous, with large number of plant spores, and sponge spicules; gray chert is common	55	2020
Limestone, brown, very earthy with abundant Micro fauna consisting of Bryazoa, Ostracods, and crinoid segments; some brown chert and shale	4	2024
Shale, gray	4	2028
Similar in detail to 2020-2024	4	2032
Chert, very calcareous, gray, spores and spines being abundant, fine-grained sand is common	12	2044
Shale, gray with milky white quartz	16	2060
Shale, gray, calcareous, spore bearing	20	2080
Shale, gray, calcareous, spore bearing, with some spore and sponge spicule bearing chert	90	2170
Devonian system:		
Dolomite, dark brown, finely crystalline; some quartzose chert, apple-green shale and sand	170	2340 Total depth

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H. A. BUEHLER, *Director and State Geologist*

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