U N I V E R S I T Y O F T E X A S
BUREAU OF ECONOMIC GEOLOGY
AUSTIN, TEXAS

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Mimeograph Circular No. 8
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The mimeograph circulars issued from the Bureau of Economic Geology contain the record of cores and cuttings from wells received and described in the Bureau. In some instances drillers logs and other data are given although it is usually impracticable to include logs of all wells, the logs given being selected as representative of the county or area to which the circular relates. The elevations given are for the most part those reported with the drillers log. In some instances the elevation given, as indicated, is that obtained from the location of the well on the topographic map In all cases the elevation is to be regarded as approximate only.

E. H. Sellards.

THE TEXAS ELKHORN SYNDICATE'S RICHARDSON NO. 1 IN STERLING COUNTY

Located on Section 127, Block 6, 2½ miles from the east and 4½ miles from the south county line. Elevation 2172 feet.

Drillers Log

Log kept by H. H. Jones from 3735 feet to bottom. Above 3735 feet log kept by the drillers.

	Depth in feet From	To	Thickness
Soil	0	12	12
Gravel	12	80	68
Lime	80	85	5
Red rock	85	120	35
Red rock	120	330	210
Hard lime	330	336	6
Red rock	336	485	149
Lime	485	490	5
Red rock	490	500	10
White lime	500	540	40
Red rock	540	550	10
Blue slate	550	760	210
Red rock	760	790	30
Shell lime	790	795	5
Red rock	795	985	190
Shell lime	985	990	5
Red rock	990	1170	180
Lime	1170	1185	15
Slate and lime blue in shells	1185	1425	240
Hard grey lime	1425	1450	25
Blue shale	1450	1550	100
Sand, hole full of water	1550	1580	30
Blue shale	1550	1633	53
Lime	1633	1682	49
Sand, salt water	1682	1696	14
Pure lime	1696	1730	34

	Depth in feet From	To	Thickness
Sand water	1730	1780	50
Sandy lime	1780	1822	42
Sand salt	1822	1896	74
Sandy lime	1896	2381	485
Sand water	2381	2387	6
Sandy lime	2387	2447	60
Sand water	2447	2459	12
Sandy lime	2459	2760	301
Sand, sulphur water	2760	2778	18
Gray shale and lime	2778	2816	38
Gritty lime	2816	2852	36
Lime and shells	2852	2935	83
Hard grey lime	2935	3092	157
Dark shale	3092	3150	58
Hard close dark grey lime	3150	3185	35
Dark calcareous shales	3185	3540	355
Sand (?)	3540	3558	18
Gritty lime	3558	3638	80
Blue shale	3638	3657	19
Shale and lime	3657	3750	93
Black lime	3750	3798	48
Shale, slate and lime	3798	3830	32
Grey lime, turning black	3830	3865	35
Soft grey lime	3865	3868	3
5 gal 40 degree oil			
Light grey lime	3868	3918	50
Brown to black lime	3918	3924	6
Grey lime	3924	3940	16
Dark lime	3940	3966	26
Grey lime	3966	3980	14
Light grey fine grained lime	3980	4000	20
Dark lime	4000	4005	5
Light yellow lime	4005	4023	18
Black slate	4023	4030	7
Slatey lime	4030	4043	13
Dark mottled lime	4043	4112	69
White fossiliferous lime	4112	4153	41
Salt water with sulphur oder beginning about 4140 feet.			

Description of samples by J. A. Udden and V. V. Waite, submitted by H. H. Jones, San Angelo, 1919.

Depth in feet

Dark gray, impure limestone. In thin section this limestone is seen to be of granular and shaly texture and contains sponge spicules. A few small quartz grains are also noted. Upon digestion in acid the spicules are seen to be siliceous. In closed tube strong fumes of bitumen with a deposit in tube and fumes of ammonia were noted upon heating. 3450

Black bituminous limestone. In thin section the rock is seen to consist of many small calcareous sponge spicules in a bituminous and partly granular matrix. The generd appearance of the rock resembles that of the Bend calcareous shales in central Texas. 3735

	Depth in feet
Black bituminous limestone.*****	3746
Dark gray to black bituminous limestone.*****	3750
Black highly bituminous limestone containing sponge spicules.*****	3755
Black bituminous shaly limestone, containing few sponge spicules (shaly).*****	3765
Black bituminous limestone containing some organic fragments. In thin section there were seen a few small sponge spicules, a Nodosaria, an Ammodiscus, and other foraminifera. Fumes of ammonia and bituminous fumes sufficient to sustain a flame were given off upon heating in closed tube.	3770
Black bituminous limestone with some black shale.*****	3775
Dark bituminous limestone of fine texture.*****	3805
Black bituminous and shaly limestone of fine texture.*****	3815
Black bituminous limestone of fine texture.*****	3830
Dark gray to black bituminous limestone.*****	3839
An organic fragmental dirty yellow limestone. The organic fragments lie relatively far apart in a mostly crystalline capious matrix and are incipiently encrusted. Among the organic fragments noted were a tubular shell (Syringopora?), a fusulina, and many crinoid stems.*****	3865
Gray and dark limestone, in texture like that at 3865 feet, above. A Bryozoan and a sponge spicule noted.*****	3875
Black bituminous, and gray organic fragmental limestone. In thin section the gray material shows, in one fragment, a granular texture partially replaced by re-crystallization, while in others the re-crystallization is almost complete. Among the organic forms were noted a Fusulina, a crinoid stem, a Nodosaria, and ostracod (?), and sponge spicules.*****	3880
Gray limestone. One thin section is an organic breccia with angular organic fragments in a dark (bituminous?) matrix. Two other fragments consist of an organic oolitic rock, the organic fragments being encrusted and rounded. These lie in a clear crystalline matrix. Among the encrusted fragments were seen: Bryozoa, Trochammina, fragment of crinoid stems. Note: I have seen nothing like this (at 3885) in the Bend. J. A. Udden.	3885

Depth in feet

Gray organic fragmental limestone. Texture in part granular, in part coarsely crystalline, similar to preceding sample. Among the numerous organic fragments noted in thin section were a Fusulina, a Trochammina (?), and large sponge spicules.***** 3892

Gray to dark gray organic limestone and some black indurated non-calcareous shale.***** 3898

Dark organic limestone and black bituminous limestone.***** 3908

Dark gray and black organic and bituminous limestone of variable texture.***** 3924

Gray to dark gray organic fragmental limestone with some cuttings of black sponge spicule rock and some indurated shale. In thin section the limestone is seen to consist of many indeterminate organic fragments, some of which are encrusted in a spherical or ovel crust, well defined. Matrix varying from granular to coarsely crystalline. Two sections of fusulina, a sponge spicule, and a crinoid joint and a Rhombopora were distinguishable. Of the black material, some is similar to the spicule rock of the Bend, and some is non-calcareous and does not show organic traces. Pyrite present. Upon heating in closed tube, bituminous fumes sufficient to sustain a flame and fumes of ammonia were noted. 3930

Black and dark and light gray organic fragmental limestone.***** 3940

Black shaly limestone with some fragments of gray limestone.***** 3948

Black and gray organic fragmental limestone with a few fragments of black shale.***** 3957

Black bituminous and gray organic fragmental limestone.***** 3966

Light, almost white, and dark gray limestone, with some black slightly calcareous shale.***** 3978

White to light gray oolitic limestone with a few fragments of black shale probably from above.***** 3988

Dirty white organic fragmental oolitic limestone with some black shale.***** 3995

Black shaly limestone and white to dark gray limestone.***** 4005

	Depth in feet
Gray limestone.*****	4015
Black calcareous sponge spicule rock with some fragments of gray limestone prebably from above.*****	4027
Light brown limestone with some black shale and dark chert.*****	4043
Black sponge spicule rock and organic fragmental limestone.*****	4053
Black and light gray limestone.*****	4063
Gray limestone and black, slowly effervescing shaly limestone.*****	4076
Light brownish gray to dark gray limestone, with some black non-calcareous shale.*****	4087
Gray and black limestone with much brownish chert.*****	4112
Very light gray organic fragmental limestone with a few fragments of black shale.*****	4118
Light gray fusulina limestone, with some dark gray limestone and slightly calcareous shale, black.*****	4120
Light gray organic fragmental limestone. In one thin section the limestone is seen to consist of numerous organic fragments in a clear matrix of crystalline material. In other sections, the matrix is darker and is granular in appearance. Many fragments of crinoid stems, several fragments of fusulina and an ostracod were noted. Upon heating in closed tube, very slight bituminous fumes were given off.	4125
Gray limestone.*****	4133
Organic and oolitic limestone. In one thin section distinct oolitic grains in a matrix in part granular and in part crystalline are seen. Fragments of crinoid stems are seen in three pieces. In a section of a fragment of brownish chert and several calcite crystals are seen, together with outlines similar to those seen in the limestone. Fragments of a fusulina, a bryozoan and an undetermined spine were noted. Upon heating in closed tube, slight fumes of bitumen were noted.	4150
Light gray to white organic fragmental limestone, too finely ground up for making a thin section. Fusulina and bryozoa noted.	4153