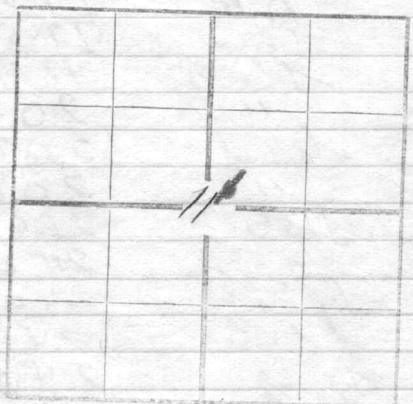


Com. 7-27-22
 30-55 Comp. 20.07-22

11 32 5E
 Miller
 Noble Oil Company

Elev. _____ T. D. _____
 Log No. _____



South $\frac{1}{2}$ of N.E. $\frac{1}{4}$

Cellar - 5
 Lime - 20
 Shale 30
 Lime 40
 Shale 55
 Lime 75
 Shale 85
 Lime 130
 Shale 170
 Lime 185
 RR 195
 Lime 200
 Shale 204
 Lime 226
 RR 230
 Lime 255
 Shale 265
 Lime 280
 RR 290
 Lime 300
 " 315
 Shale 320
 Lime 350
 " 360
 Shale 364
 Lime 372
 Shale 375
 Lime 410
 RR 430
 Shale 440
 RR 455
 Shale 460
 Lime 465
 Shale 490
 Lime 495
 Shale 510
 Lime 530
 " 545
 " 550
 Shale 580
 Lime 585
 Shale 610
 Lime 615
 Shale 623
 " 628
 Gas sand 635
 Shale 650
 " 670
 Lime 680
 Shale 705
 Lime 715
 Shale 745
 " 752

H.F.W. at 65

Comp.
 15 $\frac{1}{2}$ - 90'
 12 $\frac{1}{2}$ - 623
 10 $\frac{1}{2}$ - 1190
 8 $\frac{1}{2}$ - 1680
 6 $\frac{1}{2}$ - 2401

Lime 762
 Shale 840
 Lime 845
 Shale 855
 Lime 889
 Shale 907
 Lime 913
 Shale 923
 Lime 929
 Shale 935
 Lime 950
 Shale 970
 Lime 985
 Shale 995
 Lime 1030
 Shale 1050
 Lime 1060
 Shale 1090
 Lime 1125
 Shale 1145
 " 1160
 Lime 1178
 Shale 1255
 Lime 1265
 Sand 1269 water
 Lime 1311
 Shale 1325
 Lime 1365
 Shale 1375
 Lime 1450
 " 1465
 Shale 1470
 Lime 1485
 Sand 1510
 Shale 1545
 Lime 1555
 Shale 1625
 Lime 1630

2BW at 945

HFW

over

Shale	1680
Lime	1685-
Shale	1690
R.R.	1730
Lime	1750
Shale	1875-
"	2060 HFW
Sand	2070 water
"	2085-
Shale	2100
"	2400
Lime	2402
Shale	2445-
Lime	2455 2BK
Shale	2463
oil sand	2506
Shale	2516
Lime	2665-
Shale	2766
Lime	2781
Shale	2840
Lime	2855-
Shale	2910
Shale	2930
Shale	3020 T. 10

11-32-5E

GEOLOGICAL DEPARTMENT

LOG OF WELL

Southwestern Gas Co.

Independence, Kansas

FORM 105

Gift of

W. L. Stryker Estate

State Geological Survey of Kansas

1970

Company Noble Oil & Refg. Co. Farm Miller or ~~W. S. Miller~~ Well No. 1

State Kansas County Cowley S. 11 T. 32 R. 5

Commenced Drilling 7-27-22 Completed 10-7-22 Elev. _____

Shot _____ Qts. from _____ to _____ I. P. _____ R. P. _____

Casing: 90' 15 1/2" Casing: 623' 12 1/2" Casing: 1190' 10"

Casing: 1680' 8 1/4" Casing: 2401' 6-5/8" Casing: _____

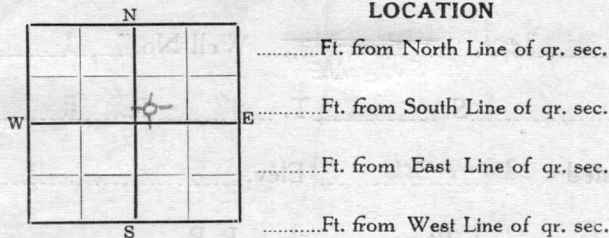
Tubing _____ Caged at _____ Packer at _____

lime	20	shale	670
shale	30	lime	680
lime	40	shale	705
shale	55	lime	715
lime	75	shale	752
shale	85	lime	762
lime	130	shale	840
shale	170	lime	845
lime	185	shale	885
red shale	195	lime	889
lime	200	shale	907
shale	204	lime	913
lime	226	shale	923
red shale	230	lime	929
lime	255 water	shale	935
shale	265	lime	950 water @ 945
lime	280	shale	970
red shale	290	lime	985
lime	315	shale	995
shale	320	lime	1030
lime	360	shale	1050
shale	364	lime	1060
lime	372	shale	1090
shale	375	lime	1125
lime	410	shale	1160
red shale	430	lime	1178
shale	440	shale	1255
red shale	455	lime	1265
shale	460	sand	1269 water
lime	465	lime	1311
shale	490	shale	1325
lime	495	lime	1365
shale	510	shale	375
lime	530	lime	1465
sandy lime	545 water	shale	1470
lime	550	lime	1485
shale	580	sand	1510 HFV
lime	585	SHALE	1545
shale	610	lime	1555
lime	615	shale	1680
shale	628	lime	1685
sand	635 gas	shale	1690
		red shale	1730

002499

(over)

LOCATION



11-32-5E

TEST

Through	Pitot Tube Test of 192			192
	Used	Mercury	Water	
In. Tubing	Reading			Open Gauge Test Shows
In Casing	Vol. Cu. Ft.			Lbs.

lime 1750
 shale 2060
 sand 2085 H.F.W.
 shale 2400
 lime 2402
 shale 2445
 lime 2453 water
 shale 2463
 sand 2506
 shale 2516
 lime 2665
 shale 2766
 lime 2781
 shale 2840
 lime 2855
 shale 2910
 lime 2930
 black shale 3020
 gray shale 3170
 lime 3176
 sandy lime 3212
 lime 3271