

125-05032



DATA SHEET AND DISCUSSION

LOCATION: NW SW (3300 feet South of North line and 660 feet East of West Line), Section 4, Township 3 South, Range 46 West, Yuma County, Colorado.

COMMENCED: February 22, 1962

COMPLETED: April 5, 1962

CONTRACTOR: Sterling Drilling Company, Sterling, Kansas

CASING: Set 6 joints, 193.53 feet of 8 5/8 inch, 24 pound, 8 round thread new casing at 206 feet with 220 sacks of cement, 2% Calcium Chloride, 2% Gel.

MEASUREMENTS: All measurements are taken from the Kelly bushing approximately 9 feet above the ground elevation.

ELEVATION: 4100 ground (Powers) - 4109 Kelly Bushing

<u>Formation</u>	<u>Sample Tops</u>	<u>Log Tops</u>	<u>Depths</u>
Niobrara		2208	✓ 1901
Timpas	2665	2665	✓ 1444
Carlile	2728	2726	✓ 1383
Greenhorn	2875	2904	✓ 1205
Mowry		3047	✓ 1062
"D" Sand	3142	3144	✓ 965
"J" Sand	3208	3208	✓ 901
Skull Creek		3412	✓ 697
Lakota	3497	3494	✓ 615
Morrison	3648	3646	✓ 463
Blaine		3982	✓ 127
Stone Corral	4230	4050	✓ 59
Wolfcamp	4384	4392	- 183
Virgil	4899	4944	- 835
Missouri	5105	5132	- 1023
Des Moines	5426	5473	- 1364
Atoka	5731	5811	- 1702
Total Depth	5923	4927	- 1818

DISCUSSION: The "D" Sand, 3144 (✓965), was drilled. Samples were circulated at 3155, a few clusters had a dull fluorescence and no cut and 2 clusters had good staining fluorescence and cut. This represented a small percentage of the sand in the sample and it was considered too weak a show to be worth testing.

The "J" Sand, 3208 (✓901) was drilled. Samples were circulated at 3235 and checked for shows with none being found. A few clusters of weak fluorescence were noted in the 3215 and 3220 samples, but not a good enough show to be worth testing.

The Lakota, 3494 (✓615), was drilled. Samples were circulated at 3550 with only one cluster of sand recovered having fluorescence and cut.

The Wolfcamp series of Permian Age 4292 (-185), consisted of dark gray to red shale, white to pink anhydrite, white to buff limestones, with streaks oolitic and buff to light brown dolomite. There were no shows noted in the samples through this series and very little porosity.

The Virgil series and top of the Pennsylvanian was at 4944 (-835), with white to buff limestone with some tight oolitic streaks. There was very little porosity noted and the only shows were dead oil stains.

The Missouri series, 5132 (-1023), including the Kansas City limestone was white to light brown limestone with streaks oolitic and some brown dolomite near the base. Some minor porous streaks were noted in the samples with probably the best porosity due to fracture zones. There were numerous dead oil shows but no live oil was noted.

The Des Moines series, 5473 (-1364), was the same as the Missouri with more dolomite and very little porosity. The only shows were dead oil stain.

The Atoka, 5811 (-1702), was a gray to light brown hard dense dolomite, some white to gray limestone and dark gray hard silicious shales. There was very little porosity noted in the samples with no shows. The well was plugged in this formation.

A gas testing unit was used from 4800 to total depth and there were no shows recorded by this unit which verifies the sample log of only dead oil shows.

A Gamma Ray Acoustilog was run from total depth to 5550 when the cable key seated in at least two places and the sonde had to be fished out of the hole. This shorted out the cable and made further logging too dangerous to attempt.

The well was plugged April 5, 1962 by filling it with heavy mud from the total depth to the bottom of the surface pipe (5927 to 205). A 10 sack cement plug was set in the bottom 30 feet of the surface pipe 205 to 175, then the casing was filled with heavy mud to within 20 feet of the top. A 7 sack cement plug was set in the top 20 feet of the surface pipe (32 - 12).

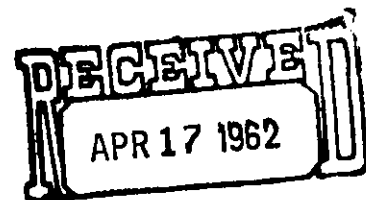
All measurements are taken from the kelly bushing which was approximately 9 feet above the ground.

Submitted by,



GEORGE D. VOLK
Petroleum Geologist

SAMPLE LOG



OIL & GAS
CONSERVATION COMMISSION

2000-10	Shale dark gray
20	Ditto
30	Ditto
40	Ditto
50	Ditto
60	Ditto
70	Ditto
80	Ditto
90	Ditto
2100	Ditto
2100-10	Ditto
20	Ditto
30	Ditto
40	Ditto
50	Ditto
60	Ditto
70	Ditto
80	Ditto
90	Ditto;
2200	Ditto
2200-10	Ditto
20	Ditto
30	Ditto
40	Ditto
50	Ditto
60	Ditto
70	Ditto
80	Ditto
90	Ditto; trace shale dark gray mottled buff calcareous
2300	Ditto; little ditto
2300-10	Shale gray to dark gray mottled white to brown calcareous and shale dark gray
20	Ditto and ditto
30	Ditto and ditto
40	Ditto and ditto
50	Ditto; little ditto
60	Same
70	Same
80	Same
90	Same
2400	Same
2400-10	Same
20	Same
30	Same
40	Same
50	Same
60	Same
70	Same
80	Same
90	Same
2500	Same
2500-10	Same
20	Same
30	Same
40	Same

Sample Log (Continued)

2450 Shale gray to dark gray mottled white to brown calcareous; little shale dark gray

2450-60 Same

70 Same

80 Same

90 Same

2600 Same

2600-10 Same

20 Same

30 Same

40 Same

50 Same

60 Same

2663 Times

70 Same

80 Limestone white to buff dense and shale dark gray; little calcareous shale as above

90 Ditto; little ditto; little ditto

2700 Ditto; little ditto; little ditto

2700-10 Ditto; little ditto; trace ditto

2728 Carille

20 Ditto; little ditto

30 Ditto; little ditto

40 Ditto; little ditto

50 Ditto; little ditto

60 Ditto and ditto

70 Ditto and ditto

80 Shale dark gray to black; little limestone white to buff dense

90 Shale dark gray to black; little limestone white to buff dense; trace siltstone gray

2800 Ditto; little ditto; trace ditto

2800-10 Ditto; little ditto; trace ditto

20 Ditto; little ditto; trace ditto

30 Ditto; little ditto; trace ditto

40 Ditto; little ditto; trace ditto

50 Ditto; little ditto; trace ditto

60 Ditto; trace ditto; trace ditto

70 Ditto; little siltstone gray; little limestone gray to buff

2875 Greenhorn

80 Ditto; little ditto; little ditto

90 Ditto; little ditto; little ditto

2900 Ditto; trace ditto; trace ditto

2900-10 Ditto; trace siltstone gray; trace limestone gray to buff

20 Ditto; trace ditto; trace ditto

30 Ditto; trace ditto; trace ditto

40 Ditto; little ditto; little ditto

50 Ditto; little ditto; little ditto

60 Ditto; little ditto; little ditto

70 Ditto; little ditto; little ditto

80 Ditto; little ditto; little ditto

90 Ditto; little ditto; little ditto

3215-20	Shale dark gray to black; little sand gray fine hard silty tight, 1 cluster weak fluorescence; trace siltstone gray
25	Ditto; little ditto, no show; trace ditto
30	Ditto; little ditto; no show
35	Ditto; trace ditto; little siltstone gray
3235 Circ. 15	
Min.	Ditto; trace ditto, no show
3235 Circ. 30	
Min.	Ditto; trace ditto, no show
3235-40	Ditto; little ditto some porous, no show
45	Ditto; trace ditto, partly reworked, no show; trace siltstone gray; trace chert brown
50	Ditto; trace ditto, partly reworked, no show; trace ditto; trace ditto
55	Ditto; trace ditto, partly reworked, no show; trace ditto
60	Ditto; trace ditto, partly reworked no show; trace ditto
65	Ditto; trace sand gray fine porous, no show; trace brown cherty sand 1 cluster min. fluorescence
70	Ditto; trace ditto some unconsolidated
75	Ditto; little ditto, some unconsolidated
80	Ditto; little ditto, some unconsolidated
85	Ditto; little ditto, partly silty, no show
90	Ditto; little ditto, partly silty, no show
95	Ditto; little sand gray fine porous no show
3300	Ditto; little ditto some unconsolidated
3300-05	Ditto; little ditto some unconsolidated
10	Ditto and ditto some unconsolidated
15	Ditto and ditto, some unconsolidated
20	Ditto and ditto, some unconsolidated
25	Ditto and ditto some unconsolidated
30	Ditto; little ditto, some unconsolidated and brown siderite balls
35	Ditto; little ditto, some unconsolidated and ditto
40	Ditto; little ditto, some unconsolidated; little ditto; trace chert brown partly sandy
45	Ditto and sand gray fine silty tight, no show trace chert brown
50	Ditto; little ditto; little chert brown partly sandy
55	Ditto; little ditto; little ditto
60	Ditto; little ditto; little ditto; little siltstone gray
65	Ditto; trace ditto; trace ditto; little ditto
70	Ditto; trace ditto; trace ditto; little ditto
75	Ditto; trace ditto; trace ditto; little ditto
80	Ditto; trace ditto; trace ditto; little ditto
85	Ditto; trace ditto; trace ditto; trace ditto
90	Ditto; trace ditto; trace ditto; trace ditto
95	Ditto; trace ditto; trace ditto; trace ditto
3400	Ditto; trace ditto; trace ditto; trace ditto
3400-10	Ditto; trace ditto; trace ditto; trace ditto
15	Ditto; trace chert brown; trace sand gray fine hard tight silty, no show
20	Ditto; trace ditto; trace ditto
25	Ditto; trace ditto; trace ditto
30	Ditto; partly fical; trace ditto; trace ditto; trace sand dark gray hard tight salt and pepper
35	Ditto, partly fical; trace ditto; trace ditto; trace ditto
40	Ditto, partly fical; trace ditto; trace ditto; trace ditto
45	Ditto, partly fical and sand dark gray hard tight; little siltstone dark gray hard

2980-3000	Shale dark gray to black; trace siltstone gray; trace limestone gray to buff
3000-10	Ditto; little ditto; little ditto
20	Ditto; little ditto; little ditto
30	Ditto; little ditto; little ditto
40	Ditto; little ditto; little ditto
50	Ditto; little ditto; little ditto
55	Ditto; trace ditto; trace ditto
60	Ditto; trace ditto; trace ditto
65	Ditto; trace ditto
3066	<u>Brown Limestone</u>
70	Ditto; trace ditto
75	Ditto; little ditto; little ditto
80	Ditto; little ditto; little ditto
85	Ditto; little ditto; little ditto
90	Ditto; little ditto; trace ditto
95	Ditto; trace ditto; trace ditto
3100	Ditto; trace ditto; trace ditto
3100-05	Ditto; trace ditto; trace ditto
10	Ditto; trace ditto
15	Ditto; trace ditto
20	Ditto; trace ditto
25	Ditto; trace ditto
30	Ditto; trace ditto
35	Ditto
40	Ditto
3142 (7968)	<u>"I" Sand</u>
45	Ditto
3145-50	Ditto; Trace sand dark gray fine silty tight; dull fluorescence; trace siltstone gray
3150-55	Ditto; little ditto probably reworked; trace ditto
3155 Circ. 15 Min.	Ditto; little ditto; probably reworked 2 clusters fair fluorescence good cut; trace siltstone gray
3155 Circ. 30 Min.	Ditto; little ditto, probably reworked 4 clusters fair fluorescence trace siltstone gray
3155 Circ. 45 Min.	Ditto; trace ditto, probably reworked; trace siltstone gray
3155-60	Ditto; trace ditto, probably reworked; 1 cluster fair fluorescence; trace siltstone gray
65	Ditto; trace ditto; trace siltstone gray
70	Ditto; trace ditto; trace ditto
75	Ditto; little sand gray fine silty tight; trace very weak fluorescence; trace siltstone gray
80	Ditto; little ditto, no show; trace chert brown; trace siltstone gray
85	Ditto; little ditto, no show; trace ditto; trace ditto
90	Ditto; little ditto; trace of weak fluorescence; trace ditto
95	Ditto; trace ditto; trace ditto
3200	Ditto; little ditto; little ditto
3200-05	Ditto; trace ditto; little ditto
3208	<u>"J" Sand</u>
10	Ditto; trace ditto; little ditto
15	Ditto; little ditto; 1 cluster weak fluorescence; little ditto

3760-70	Shale dark gray; trace limestone white to buff finely crystalline
80	Ditto and ditto
90	Ditto and ditto
3800	Ditto and ditto
3800-10	Ditto and ditto and white anhydrite
20	Ditto; little ditto and ditto
30	Ditto; trace ditto and ditto; trace sand gray fine hard tight, no show
40	Ditto; trace ditto and ditto; little pink; trace ditto
50	Ditto; trace ditto; little ditto; little pink; trace ditto
60	Shale dark gray to reddish; trace anhydrite
70	Ditto; trace ditto; trace brown sandy
80	Ditto; trace ditto
90	Ditto and sand red fine very silty tight, no show; little anhydrite white to pink
3900	Ditto and ditto some unconsolidated; little ditto
3900-10	Shale dark gray to red; sand red fine silty tight, no show; trace anhydrite white to pink
20	Ditto and ditto some unconsolidated medium to coarse sand grain; trace ditto
30	Ditto and ditto some unconsolidated medium to coarse sand grain; trace ditto
40	Ditto; little ditto; some ditto; trace ditto
50	Ditto; little ditto; some ditto; trace ditto
60	Ditto; trace ditto
70	Ditto; trace ditto
80	Ditto
90	Ditto; trace anhydrite white to pink
4000	Ditto; trace ditto
4000-10	Ditto; little ditto
20	Ditto; little ditto
30	Ditto; little ditto
40	Ditto; little ditto; trace dolo pink
50	Ditto; little ditto; trace ditto
60	Ditto; little ditto; trace ditto
70	Ditto; more red; little ditto; trace ditto
80	Ditto, more red; trace ditto
90	Ditto, more red; trace ditto
4100	Ditto; trace ditto
4100-10	Ditto; trace ditto
20	Ditto; trace ditto
30	Ditto; little ditto
40	Ditto, more red; little ditto
50	Ditto; trace ditto
60	Ditto and sand medium red silty tight, no show
70	Ditto and ditto; trace anhydrite white to pink
80	Ditto and ditto; trace ditto
90	Ditto and ditto; trace ditto
4200	Ditto and ditto; trace ditto
4200-10	Shale dark gray to red; little sand red medium silty tight, no show trace anhydrite white to pink
20	Ditto; trace ditto; trace ditto
30	Ditto; trace ditto; trace ditto
40	Ditto; trace ditto
50	Ditto; little anhydrite white to red

3445-50	Shale dark gray to black, partly fical; and sand dark gray hard tight; little siltstone dark gray hard
55	Ditto, partly fical; little ditto; little ditto
60	Ditto, partly fical; little ditto
65	Ditto, partly fical; little ditto
70	Ditto; little sand fine dark gray hard, no show
75	Ditto; little ditto
80	Ditto; little ditto
85	Ditto; trace ditto
90	Ditto; trace ditto
95	Ditto; trace ditto
3497	<u>Lakota</u>
3500	Ditto; trace ditto
3500-05	Ditto; trace ditto
10	Ditto and sand fine dark gray hard tight and siltstone dark gray hard little ditto
15	Ditto and ditto;
20	Ditto and ditto
25	Ditto and ditto
30	Ditto; little ditto
35	Ditto; trace ditto
40	Ditto; trace ditto
3540	<u>Lakota Sand</u>
45	Ditto; trace ditto
50	Ditto; trace ditto
3550 Circ. 30 Min.	Ditto; trace ditto; 1 cluster fluorescence and cut; little sand gray fine soft, no show
3550 Circ. 45 Min.	Trace ditto; no show; trace ditto
3550-55	Ditto
60	Ditto; trace sand gray fine firm, no show; little pyrite
65	Ditto; trace ditto; little pyrite
70	Ditto; trace ditto; little pyrite
75	Ditto; trace ditto; little pyrite
80	Ditto; trace ditto; trace ditto
85	Ditto; trace ditto; trace ditto
90	Ditto; trace ditto; trace ditto
95	Ditto; trace ditto
3600	Ditto; trace ditto
3600-10	Shale dark gray; trace sand gray fine tight sand
20	Ditto; trace ditto
30	Ditto; trace ditto
40	Ditto; trace ditto
3648	<u>Morrison</u>
50	Ditto; trace ditto
60	Ditto; trace ditto
70	Ditto; trace ditto
80	Ditto; little shale red to purple waxy
90	Ditto; little ditto
3700	Shale varicolored waxy (green)
3700-10	Ditto
20	Ditto
30	Ditto; trace limestone white to buff finely crystalline
40	Ditto; little ditto
50	Ditto and ditto
60	Ditto and ditto

4250-60	Shale dark gray to red; little anhydrite white to red
70	Ditto; little ditto
80	Ditto; little ditto
90	Ditto; little ditto
4300	Ditto; little ditto
4300-10	Ditto; little ditto
20	Ditto; trace ditto
30	Ditto; trace ditto
40	Ditto; trace ditto
50	Ditto; trace ditto
60	Ditto; little ditto
70	Ditto; little ditto; trace sand fine red silty tight, no show
80	Ditto; little ditto; little ditto
90	Ditto; trace ditto; little ditto
4400	Ditto; trace ditto; trace ditto; trace dolo buff dense
4400-10	Ditto; trace ditto; trace ditto; trace ditto
20	Ditto; trace ditto; trace ditto; trace ditto
30	Ditto; trace ditto
40	Ditto; trace ditto
50	Ditto; trace ditto; trace dolo buff dense
60	Ditto; little anhydrite white to buff
70	Ditto and ditto
80	Ditto and ditto
90	Ditto and ditto
4500	Ditto and ditto
4500-10	Ditto; little ditto
20	Ditto; little ditto; little limestone white to buff fine partly dolitic
30	Ditto; little ditto; little ditto
40	Ditto; little ditto; little ditto
50	Ditto; little ditto; little ditto
60	Ditto; little ditto; little ditto
70	Ditto; little ditto; little ditto; trace dolo light brown fine
80	Ditto; little ditto; little ditto; trace ditto
90	Ditto; little ditto; little ditto; trace ditto
4600	No Sample
4600-10	Ditto; little ditto; trace ditto; trace ditto
20	Ditto; little ditto; little ditto; trace ditto
30	Ditto; trace ditto; trace ditto; trace ditto
40	Ditto; trace ditto; trace ditto; trace ditto
50	Ditto; trace ditto; trace ditto; trace sand plak medium hard tight, no show
60	Ditto; trace ditto; trace ditto
70	Ditto; little ditto; trace ditto
80	Ditto; trace ditto; little ditto
90	Ditto; trace ditto; little ditto
4700	Ditto; trace ditto; little ditto
4700-10	Ditto; trace ditto; little ditto
20	Ditto; trace ditto; little ditto
30	Ditto; trace ditto; little ditto
40	Ditto; trace ditto and ditto
50	Ditto; trace ditto and ditto
60	Ditto; trace ditto and ditto

4760-70	Shale dark gray to red; trace anhydrite white to buff; and limestone white to buff fine partly oolitic
80	Ditto; trace ditto and ditto
90	Ditto; trace ditto; little ditto
4800	Ditto; trace ditto; little ditto
4800-10	Ditto; little limestone white to buff fine to dense; trace anhydrite white
20	Ditto; little ditto; trace ditto
30	Ditto; little ditto; trace ditto
40	Ditto; little ditto; trace ditto
50	Ditto; little ditto; trace ditto
60	Ditto; trace ditto; trace ditto
70	Ditto; trace ditto; trace ditto
80	Ditto; little ditto; trace ditto
90	Ditto
4899	<u>Virgil</u>
4900	Ditto
4900-10	Ditto
20	Ditto; trace limestone white to buff dense
30	No Sample
40	Ditto; little limestone white to light brown dense, partly oolitic
50	Ditto; little ditto
60	Ditto; little ditto; trace dead oil
70	Ditto; trace ditto
80	Ditto; trace ditto
90	Ditto; trace ditto
5000	Ditto; trace ditto; trace silstone fine calcareous
5000-10	Ditto; little ditto; trace ditto
20	Ditto and ditto
30	Ditto and ditto
40	Ditto and ditto; trace dead oil staining
50	Ditto and ditto; trace ditto
60	Ditto and ditto; trace ditto
70	Ditto and ditto
80	Ditto; little ditto
90	Ditto; little ditto
5100	Ditto; and ditto
5100-05	Cavings
5105	<u>Missouri</u>
10	Cavings
15	Shale dark gray to red; little limestone white to brown dense, partly oolitic
20	Ditto and ditto
30	Ditto and ditto
35	Ditto and ditto
40	Ditto and ditto
45	Ditto and ditto
50	Ditto and ditto
55	Limestone white to light brown partly oolitic; little black asphaltic oil stain good cut, dead oil and ditto
60	Ditto; trace ditto and ditto
65	Ditto; trace ditto and ditto
70	Ditto; trace ditto; little ditto
75	Ditto; trace ditto; little ditto
80	Ditto; little ditto

Drilling Time Record (Continued)

<u>From - To:</u>	<u>Minutes per 5-foot intervals</u>
4550-4600	46-43-42-40-16-36-50-45-40-36
4600-50	48-64-44-37* 32-28-23-33-32-30
4650-4700	34-40-24-29-16-30-38-27-11-28
4700-50	13-26-20-26-9-22-28-32-27-42
4750-4800	17-57-62-44-33-46-31* 20-20-22
4800-50	14-21-35-34-37-40-16-38-35-38
4850-4900	23-28-29-42*** 45-44-49-38* 10-10
4900-50	18-26-21-18-20-20-20-20-24-24
4950-5000	27-25-36-33-21-20-26-30-29-27
5000-50	23-22-25-23-25-39-33-30-34-12
5050-5100	11-31-29-23-30-20-26-52-54* 20
5100-50	18-21-22-27-23-24-14-28-28-25
5150-5200	35-42-39-33-32-25-8-24-24-35
5200-50	41-24-42-36-34-76-43-32-5-5
5250-5300	36-30-32-28-49-39-25-21-29-33
5300-50	35-34-34-44-45-34-25-23-33-37
5350-5400	42-41-21-41-26-33-35-22* 23-35
5400-50	43-38-29-29-35-34-35-45-47-32
5450-5500	36-46-28-30-25-24-33-40-41-48
5500-50	53-52-34* 29-35-22-25-31-29-28
5550-5600	28-4*** 19-33-27-21-26-35-27-29
5600-50	34-59-53-47-46-41-56-61-50-56
5650-5700	50-60-49-36* 22-25-22-20-22-21
5700-50	35-45-40-29-40-31-39-42-40-33
5750-5800	39-41-55-49-49-38-72* 24-21-26
5800-50	26-36-35-51-49-50-36-37-40-45
5850-5900	53-57-61-51* 47-41-50-54-49-53
5900-23	40-45-83-67-35* (last time 3*)

(* - Trip)
 (** - Circulated Samples)
 (***) - New hole drilling time)

DRILLING TIME RECORD

<u>From - To:</u>	<u>Minutes per 5-foot intervals</u>
2100-50	2-3-3-3-3-2-2-3-3-2
2150-2200	2-2-3-3-2-2-2-2-2-2
2200-50	4-4-3-5-4-4-5-3-5-3
2250-2300	3-3-4-4-3-3-3-4-4-4
2300-50	6-4-4-4-4-4-4-4-4-4
2350-2400	3-4-3-4-2-2-3-2-2-2
2400-50	3-3-3-3-3-3-3-3-3-3
2450-2500	3-3-3-3-3-3-3-3-3-3
2500-50	3-3-3-3-3-3-3-3-3-3
2550-2600	3-3-3-3-3-3-3-3-3-3
2600-50	3-3-3-3-3-3-3-3-3-3
2650-2700	3-3-3-6-6-6-8-11-8-7
2700-50	7-4-4-5-5-5-4-4-4-4
2750-2800	4-6-6-7-7-6-6-7-6-5
2800-50	6-5-6-6-6-6-6-5-5-6
2850-2900	4-5-5-5-6-7-7-7-7-7
2900-50	9-10-7-5-5-6-6-6-6-6
2950-3000	4-4-4-4-4-4-4-4-4-6
3000-50	6-4-4-4-4-4-5-5-5-4
3050-3100	4-4-4-5-4-5-4-3-3-4
3100-50	4-4-5-5-5-6-6-6-9-9
3150-3200	10-9-8-8-8-8-7-7-8-8
3200-50	6-7-7-7-7-8-7-8-5-4
3250-3300	6-6-7-5-5-7-10-12-9-9
3300-50	7-17-21-16-17-17-19-23-21-18
3350-3400	15-15-17-18-26-7-7-7-7-5
3400-50	8-9-6-7-7-6-10-8-5-8
3450-3500	10-10-9-7-9-8-8-7-10-14
3500-50	14-14-14-17-23-18-15-13-7-7**
3550-3600	18-13-16-16-19-21-20-25-27-18
3600-50	10-17-8-14-5-3-3-3-3-14
3650-3700	26-28-9-9-9-8-9-9-10-10
3700-3750	9-14-15-10-8-15-14-13-16-15
3750-3800	13-12-11-13-13-13-16-16-15-20
3800-50	25-26-34-31-21-17-18-17-13-17
3850-3900	18-17-20-13-14-13-13-12-11-13
3900-50	12-12-13-17-17-12-15-12-13-14
3950-4000	14-13-14-14-14-16-16-27-13-6
4000-50	15-24-22-23-18-7-5-7-5-5
4050-4100	5-8-5-7-6-6-5-13-6-6
4100-50	5-9-10-23-25-27-27-22-10-7
4150-4200	6-5-5-5-4-6-6-8-8-12
4200-50	13-11-14-14-12-10-11-10-14-12
4250-4300	22-19-19-20-22-19-18-10-6-9
4300-50	12-13-13-10-8-15-19-24-20-17
4350-4400	13-16-21-22-21-27-22-30-43-43
4400-50	41-36-40-35-44-81-32-26-19-31
4450-4500	30-37-53-57-55-45-21-25-31-9
4500-50	13-16-17-14-11-14-9-24-80-48

Sample Log (Continued)

12

5880-85	Shale dark gray to black partly siliceous; little dolc and limestone as before
90	Ditto; little ditto
95	Ditto; little ditto
5900	Ditto; little ditto
5900-05	Ditto and ditto
10	Ditto and ditto
15	Ditto and ditto
20	Ditto and ditto
23	Ditto and ditto
5923	Circ.
30 Min.	Ditto and ditto
5923	Circ.
60 Min.	Ditto and ditto

BIT RECORD

<u>No</u>	<u>Make</u>	<u>Size</u>	<u>Type</u>	<u>From - To</u>	<u>Footage Drilled</u>	<u>Hours Run</u>	<u>Condition</u>	<u>Remarks</u>
1	Hughes	7 7/8	OSC-3A	210 - 2910	2700	26	Locked	
2	"	"	OSC-3A	2910 - 3375	465	13	WO	
3	"	"	OSC-1G	3375 - 3660	285	12	WO	
4	"	"	OSC	3660 - 3821	161	10	Dull	
5	"	"	OSC	3821 - 4139	318	15	Dull	
6	"	"	OSC	4139 - 4428	289	19	WO	
7	"	"	OSC	4428 - 4619	191	22	WO	
8	"	"	OWV	4619 - 4784	164	17	WO	
9	"	"	OWV	4784 - 4870	86	9	In Hole	Stuck Drill Pipe
10	"	6 3/4	OSC-1G	3075 - 3167	92		Dull	Whip stock Bit
11	"	7 7/8	OSC-1G	3167 - 3214	47	18	WO	
12	"	"	OSC-1G	3214 - 3284	70	11	WO	
13	"	"	OSC	3284 - 3430	146	17	WO	
14	"	"	OSC	3430 - 3665	233	18	WO	
15	"	"	OSC	3665 - 3900	237	14	WO	
16	"	"	OSC	3900 - 4250	350	19	WO	
17	"	"	OSC	4250 - 4435	185	13	WO	
18	"	"	OSC	4435 - 4550	115	16	WO	
19	"	"	OWV	4550 - 4714	164	19	Dull	
20	"	"	OWV	4714 - 4890	174	21	Dull	
21	"	"	OWV	4890 - 5094	204	18	Loose Cones	
22	"	"	OWV	5094 - 5337	243	25	Loose Cones	
23	"	"	OWV	5337 - 5512	175	20	Dull	
24	"	"	OWV	5512 - 5666	154	20	WO	
25	"	"	OWV	5666 - 5785	119	16	WO	
26	"	"	OWV	5785 - 5866	81	12	WO	
27	"	"	OW	5866 - 5923	57	9	WO	

MUD RECORD

Date	Depth	Mt.	Vis	St. Vis	Gel. Initial	Strength Final	pH	Water Loss in cc	Wall cake	Chloride ppm	Calcium ppm	Sand %	Oil %
2/24/62	1900												
2/25/62	3012	10	45	17	0	0	10	5.2	2	495	800	2	
2/26/62	3460	9.7	46	14	0	9	9	5.2	2	800	Mill		
2/27/62	3821	9.8	68	23	5	13	8.5	8.4	2	800	200		
2/28/62	4389	9.6	48	15	4	11	6	12	2	46,000	Heavy		
2/28/62	4245	9.6	42	14	4	11	7	50	4	50,000	Heavy		
3/1/62	4446	9.7	46	13	3	14	6	14	2	50,000	Heavy		
3/2/62	4619	9.9	45	14	3	13	6	15.8	2	50,000	Heavy		
3/3/62	4819	19	40	15	3	12	6	16	2	50,000	Heavy		
3/4/62	4870	10	45				6	15.2	2	50,000	Heavy		
3/6/62	4870	10	50	22	3	16	6	20.8	2	65,000	Heavy		3
3/7/62	4870	10	50	22	4	20	6	24	2	66,000	Heavy		
3/9/62	4870	9.8	180	66	10	22	6	8	2	60,000	Heavy		10
3/11/62	4870	9.6	78	31	6	14	6	9.8	2	60,000	Heavy		10
3/12/62	4870	9.6	85	35	6	15	6	10	2	40,000	Heavy		10
3/13/62	4870	9.4	90	37	6	14	6	9.8	2	35,800	Heavy		10
3/14/62	4870	9.4	87	35	6	14	6	10	2	65,000	Heavy		10
3/18/62	3168	9.1	50	19	3	11	6	12.8	2	20,000	Heavy	2	10
3/19/62	3211	9.1	65	23	4	13	6	8.4	2	22,000	Heavy	1.5	10
3/20/62	3280	9.5	74	33	3	14	6	7	2	22,000	Heavy		
3/21/62	3431	9.8	85	31	4	14	6	8	2	22,000	Heavy	1.5	
3/22/62	3577	9.8	70	27	3	13	6	8.2	2	17,000	Heavy	1.5	
3/23/62	3900	9.6	72	33	4	14	6	9.8	2	10,000	Heavy	1.5	
3/24/62	4250	9.9	87	35	4	14	6	10.2	2	34,000	Heavy	1.5	
3/25/62	4437	9.9	73	31	4	13	6	10	2	39,000	Heavy		
3/26/62	4627	10.4	100	56	6	18	6	6	2	40,200	2,800		
3/27/62	4745	9.5	97	31	4	14	6	6.2	2	40,000	Heavy	1.5	
3/28/62	4908	9.8	86	31	4	13	6	9.6	2	47,000	Heavy	1.5	
3/29/62	5113	9.9	73	31	3	12	6	10	2	43,000	Heavy	1.5	6
3/30/62	5337	10.1	83	31	3	14	6	9.6	2	41,000	Heavy	1.5	3
3/31/62	5500	10	90	33	4	16	6	6	2	40,000	Heavy	1.5	3
4/1/62	5612	9.6	72	31	3	12	6	9.4	2	36,000	Heavy	1.5	5
4/2/62	5739	9.7	92	33	4	15	6	9.2	2	43,000	Heavy	1.5	5
4/3/62	5866	9.7	87	31	4	13	6	9.6	2	42,000	Heavy	1.5	4

The tester was - Magcohan

Sample Log (Continued)

5180-85	Limestone white to light brown partly oolitic; trace dead oil; little shale dark gray to red	
90	Ditto; little shale dark gray to red	
95	Ditto; little ditto	
5200	Ditto; trace dead oil; trace shale dark gray to red	
5200-10	Ditto; trace sand fine silty porous min fluorescence no cut; trace siltstone; little shale dark gray to red	
15	Ditto; little shale dark gray to red	
20	Cavings	
25	Ditto; trace dead oil string and shale dark gray to red	
30	Ditto; trace ditto; and ditto	
35	Ditto; trace ditto; trace sand white fine soft porous min fluorescence and ditto	
40	Ditto; trace siltstone gray and shale dark gray to red	
45	Ditto; and ditto	
50	Ditto; little dead oil stain and ditto	
55	Ditto; trace ditto; some oolitic porosity and ditto	
60	Ditto; trace ditto; trace ditto and ditto	
65	Ditto; trace ditto fracture porosity; little ditto	
70	Ditto; trace ditto fracture porosity; some oolitic slight porous; little ditto	
75	Ditto; trace ditto, fracture porosity, some oolitic; little ditto	
80	Limestone white to light brown dense; some oolitic slight porous; trace dead oil and shale dark gray to red	
85	Ditto; trace ditto;	and ditto
90	Ditto; trace dead oil string	little ditto
95	Ditto; trace ditto	little ditto
5300	Ditto	and ditto
5300-05	Ditto some fracture porosity	and ditto
10	Ditto some fracture porosity; trace oolitic tight	little ditto
15	Ditto some fracture porosity; trace dead oil stain	little ditto
20	Ditto; trace ditto;	little ditto
25	Ditto some ditto	and ditto
30	Ditto; trace ditto	and ditto
35	Ditto	and ditto
40	Cavings	
45	Cavings	
50	Cavings	
55	Ditto	and ditto
60	Ditto	and ditto
65	Ditto; trace dead oil stain	and ditto
70	Ditto	and ditto
75	Ditto; trace dead oil	little ditto
80	Ditto; trace ditto	little ditto
85	Ditto; trace ditto; trace brown dolc	little ditto
90	Ditto; trace ditto; trace ditto	little ditto
5300 Circ.		
20 Min.	Ditto; trace ditto	little ditto
5300 Circ.		
10 Min.	Ditto	little ditto
5300 Circ.		
60 Min.	Ditto; trace ditto	little ditto
5300	Ditto; trace ditto; trace brown dolc	little ditto
5300-05	Ditto; trace ditto; trace ditto	little ditto
10	Ditto; trace ditto; trace ditto;	little ditto

5410-15	Limestone white to light brown dense; trace dead oil; trace brown dolomite; little shale dark gray to red
20	Ditto; trace ditto; trace ditto; and ditto
25	Ditto; trace ditto; trace ditto; little ditto
5426	<u>BeMoines</u>
30	Ditto; trace ditto; trace ditto; little ditto
35	Ditto; trace ditto; trace ditto; little ditto
40	Ditto; trace ditto; trace ditto; little ditto
45	Ditto; trace ditto; trace ditto; little ditto
50	Ditto; trace ditto; trace ditto; little ditto; trace green
55	Ditto; trace ditto; trace ditto; little ditto; trace green
60	Ditto; trace ditto; trace ditto; little ditto
65	Ditto; trace ditto; trace ditto and ditto
70	Ditto; trace ditto and ditto
75	Ditto; trace ditto and ditto
80	Ditto; trace ditto and ditto
85	Ditto; trace ditto and ditto
90	Ditto; trace ditto and ditto; trace green
95	Ditto; trace ditto and ditto; trace green
5500	Ditto; trace ditto and ditto
5500-05	Ditto; trace ditto and ditto
10	Ditto; trace ditto and ditto
15	Ditto; trace ditto; little ditto
20	Ditto; trace ditto and ditto
25	Ditto; trace ditto and ditto
30	Ditto; trace ditto and ditto
35	Ditto; trace ditto and ditto
40	Ditto; trace ditto and ditto
45	Ditto; trace ditto and ditto
50	Ditto; trace ditto and ditto
60	Ditto; trace ditto; little ditto
5560	Circ.
20 Min	Ditto; trace ditto and ditto
5560	Circ.
40 Min.	Ditto; trace ditto and ditto
5560	Circ.
60 Min	Ditto; trace ditto and ditto
5560-65	Ditto; trace ditto and ditto
70	Ditto; trace ditto; little ditto
75	Ditto; trace ditto; little ditto
80	Ditto; trace ditto; little ditto
85	Ditto; trace ditto; little ditto
90	Ditto; trace dead oil stain; trace ditto; little ditto
95-	Ditto; trace ditto; and ditto
5600	Limestone white to light brown dense, partly dolomitic, some oolitic; trace dead oil stain and shale black to red
5600-05	Ditto, some oolitic; trace ditto and ditto
10	Ditto, some oolitic; trace ditto and ditto
15	Ditto, some oolitic; trace ditto and ditto
20	Ditto, some oolitic; trace ditto and ditto
25	Ditto, some oolitic; and ditto
30	Ditto; some oolitic; and ditto
35	Ditto, some oolitic; and ditto
40	Ditto, some oolitic; and ditto
45	Ditto; little ditto
50	Ditto; little ditto