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GLEN PERKINS OIL, INC. - NEBRASKA DRILLERS INC.

GEOLOGIC REPORT

#1 Beard
C SE NW Sec. 27-12N-56W
Weld County, Colorado

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MISCELLANEOUS DATA

Elevation:	4941 Gr., 4951 K. B.
Contractor:	Nebraska Drillers Inc., Denver, Colorado
Spud Date:	April 7, 1959
Casing:	Set 220' 8 5/8" @ 232' w/125 sx.
Completed:	D&A April 16, 1959

FORMATION TOPS
(Electric Log)

Niobrara	5352	
Ft. Hays	5680	
Carlile	5745	
Greenhorn	5924	
Dakota "D" sand	6210	(-1259)
Dakota "J" sand	6350	(-1399)
TotalDepth (Driller's)	6415	
Total Depth (Schlumberger)	6420	

SAMPLE DESCRIPTIONS

See attached logs for sample descriptions and drilling time.

CORING TIME

All measurements corrected to fit Schlumberger logs.

Core #1 - Interval 6215-45

6215-25	22, 19, 23, 23, 18, 13, 10, 9, 12, 10
6225-35	10, 12, 10, 10, 16, 32, 43, 30, 13, 19
6235-45	26, 19, 6, 9, 6, 10, 8, 7, 9, 8

CORES & DRILL STEM TESTS

All intervals corrected to fit Schlumberger logs.

Core #1 6215-45 - Cut 30' Recovered 30'

4½'	siltstone, reworked and thinly interlaminated with sand and shale.
2½'	sandstone, grey white, very fine grained, reworked with silt and shale, appears clay filled, tight, no show.
1'	sandstone, grey, very fine grained, quartzitic, vertical fractures, no show.
4'	sandstone, grey, very fine grained, many thin carbonaceous shale partings and inclusions, vertical fractures in part, tight, no show.
3'	sandstone, grey white, very fine grained, silty, scattered black silt and shale laminations.
5'	sandstone, fine to medium grained, slightly friable, vertical fractures, shaly in part, brown oil stain, fair to good taste and odor, bright yellow-green fluorescence.
3½'	sandstone, silty, shaly, tight.
5½'	reworked and interlaminated sand, silt and shale.
1'	sandstone, grey, very fine grained, hard, quartzitic, tight with scattered thin silt and shale laminations.

Drill Stem Test #1 6228-45

Tool open 1 hr. and 30 min. - Shut in 30 min.
Weak blow throughout test.
Recovered: 1170' gas cut mud
180' oil and gas cut mud
90' slightly oil cut muddy water
90' water, slight brackish odor and taste

Initial Flow Pressure	787#	Final Flow Pressure	835#
Shut in Pressure	1318#	Hydrostatic Pressure	3220#

Note: This test was miss-run. Tool opened while spudding to bottom.

Drill Stem Test #2 6228-35

Tool open 2 hrs. - Shut in 30 min.
Gas to surface in 26 min.
Recovered: 125' oil
375' salt water

Initial Flow Pressure	12#	Final Flow Pressure	167#
Shut in pressure	1304#	Hydrostatic Pressure	3196#

Note: Bottom packer held. Bled off to 1870#.

CORE ANALYSIS

(Corrected to fit Schlumberger measurements)

Interval	Horizontal Permeability	Verticle Permeability	Porosity	Oil Saturation	Water Saturation
6229.5	2.3	1.0	15.5	0.0	56.1
6230.5	109	44	17.9	10.1	27.4
6231.5	42	37	19.0	11.1	30.5
6232.5	70	50	17.9	11.7	32.4
6233.5	154	134	17.5	10.3	28.0
6234.5	116	86	16.2	8.6	29.6
6235.5	2.8	2.7	18.8	0.0	39.9

BIT RECORD

Set 1	7 7/8"	C.P.	ES-1C	235-2829	2594
2	7 7/8"	Reed	YT-3	2829-4458	1629
3	7 7/8"	H.T.C.	OSC-3	4458-5600	1142
4	7 7/8"	H.T.C.	OSC-3	5600-6212	612
5	7 3/4"	D&S	Dia.	6212-6242	30
6	7 7/8"	H.T.C.	OSC-3	6242-6270	28
7	7 7/8"	Rerun H.T.C.	OSC-1G	6270-6339	69
8	7 7/8"	H.T.C.	OWV	6339-6377	38
9	7 7/8"	H.T.C.	OWC	6377-6415	38

REMARKS

The top of the "D" sand in the subject test came in some 28' higher than the #1 Government dry hole drilled in the SW NE Section 28. This high structural position was due to a radical thickening within the "D" section.

The top 4' of the "D" sand was drilled and samples from this interval circulated up. They contained some fine grained sand with brown stain and yellow-green fluorescence. These samples were probably from the thin stringer between 6211-13' on the electric log.

The upper portion of the "D" sand was cored and a 5' zone approximately 20' below the top had good brown oil saturation. Core analysis found this sand to have an average permeability of 98 mds. and porosity of around 18%. Oil and water saturations were good, and from the analysis a probable oil productive zone was predicted. This sand was vertically fractured and the salt water recovery on Drill Stem Test #2 could have been from these fractures.

The remainder of the "D" section drilled consisted of white sand with no shows.

The upper portion of the "J" sand was shaled out in the subject test. The Microlog indicated 2' of porous sand between 6358-60'. This sand was described in the samples as fine grained and containing a light tan oil sheen with good solid yellow-green fluorescence.

After considering all of the available data it was decided that the "D" sand shows were sub-commercial and it was recommended that the test be abandoned.

Respectfully submitted,

Lee A. Lair

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