

To: Mr. David Sheppard
Huron Drilling Co.
1120 Mile High Center
Denver, Colorado



1-7N-54W
RECEIVED
JUN 22 1960
OIL & GAS
CONSERVATION COMMISSION

Dear Sir:

The following is a case history of the Huron Drilling Co.'s #1 Van Gundy wildcat well located in the 0 NW NE Sec 1 - T7N - R51W, Logan Co., Colorado.

The well was spudded at 3 AM August 19, 1959. Surface hole was drilled, casing set and plug drilled. Drilling proceeded as follows:

- 8/19 Drilled to 2280'
- 8/20 Drilled 2280-3829'
- 8/21 Drilled 3829-1914'
- 8/22 Cored 1911-140 and ran DST #1
- 8/23 Pulled Test, Reamed core hole and drilled to TD 5070',
Ran electric logs.
- 8/24 Took DST #2. Plugged and abandoned

Four bits were used to drill this hole:

Bit #1	7 7/8" Reed IT3	115' - 3066
#2	7 7/8" Verel V3D	3066 - 1310
#3	7 7/8" Verel V3D	1310 - 1914
#4	7 7/8" Verel VA2-F	1914 - 5070 (TD)

BEST IMAGE
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One core was out from 1911-1914', recovered 25'. Description of Core #1 is as follows:

- 6" sandstone, gray, medium fine-grained, subangular qtz, fair porosity & permeability, clean, fair oil stain in top, spotty stain-bottom, fair fluorescence and cut (6614)
- 1' shaly siltstone, gray
- 1' silty sand, gray, hard and tight
- 5' shale, black, fissile, "poker-chip"
- 3' siltstone, shaly, reworked, tight, No show
- 4' shale, black, carbonaceous
- 3' sandstone, white, fine-grained to very FG, fairly tight, siliceous cement, slight bleeding, no fluorescence, looks wet
- 5' sandstone, gray to white, fine-grained to VFG, subangular qtz, numerous vertical fract, slight bleeding along fract, spotty stain, wet
- 4' shale, dark gray, silty, hard to fissile

Coring Time: 11-14-13-23-23-18-9-8-9-8-16-14-14-13-17-16-20-16-
10-7-11-12-10-15-16

Core Analysis:

Sample	N-Log	Permeability		Porosity	Residual Saturation	
		Hor.	Vert.		Oil	Water
1914	1917	126	110	16.6	4.2	99.0
1931	1934	118	157	21.0	2.4	66.7
1932	1935	121	85	21.8	2.8	78.0
1936	1938-39	61	40	21.0	1.0	84.0

Drill Stem Tests:

"D" ss - #1 1909 $\frac{1}{2}$ - 1922' (1912 $\frac{1}{2}$ - 25 2-Leg) Straddle packers
 Tool open 1 hour, shut in 20 mins.
 Fair blow throughout
 Recovered 341' muddy water
 FP 0-150
 SIP 1135
 IHP 2625
 FHP 2600

"J2" ss - #2 5025 $\frac{1}{2}$ - 5036 Straddle packers
 Open 1 hour, shut in 20 mins.
 Weak blow for 20 mins, very weak remainder of test.
 Recovered 65' slightly muddy water
 FP 27-10
 SIP 1103
 IHP 2709
 FHP 2609

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Packers held on both tests, and testers' charts indicate the tests were valid. No hydrocarbons were recovered on these tests except for a slight seum of oil which was undoubtedly from crude added to the mud during drilling operations which was visible in the mud at all times from Niebrara to total depth.

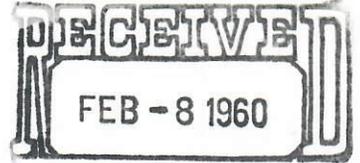
CONCLUSIONS

Careful examination of samples, cores and logs of this well indicates that the Muddy sands (D&J) are non-productive. The absence of any worthwhile shows of hydrocarbon plus the recovery of only water on tests of two zones which produce or had shows in nearby wells is probably due to the lower structural position of this well in relation to nearby producers. Sands in both the D & J sections are fine to very fine grained and silty with numerous shale breaks, causing the sands to be generally thin and tight. Fair porosity and permeability was noted in samples and cores of the upper "D" sand from 1912-18 and the lower "D" from 1930-39. Spotty staining was also present in each of these sections; however the sands were definitely wet. The upper bench was tested and water was recovered. The lower bench was cored and analysis indicates high water saturations and very low percentage of hydrocarbons. Electric log characteristics also indicate these sands to be wet.

No shows were found in samples of the "J" sands that were drilled. The well bottomed in the lower massive bench of the "J" which is almost always water bearing in this area. Samples of this "massive" bench were medium coarse-grained rounded to subangular loose quartz grains indicating that this section is very porous. The absence of any staining and the low resistivity on the electric log tends to confirm that this sand is water-bearing.

Production in nearby wells occurs in the upper "J" sands. Samples of this part of the section were generally very fine-grained tight to almost silty micaceous sandstones. Low resistivities and numerous shale breaks shown by the electric logs indicate that these sands are fairly tight. The second bench of the "J" sand (which produces updip in the recent McBride discovery located in sec 31-T6N-R53W one mile northeast of this location) was tested. Low flow pressures and recovery of only 65ft. of water from this zone confirmed that the sand is tight here.

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SUMMARY - HURON DRILLING CO. # 1 VAN GUNDY

Location: C NW NE Sec 1 - T7N - R51W Logan Co., Colorado

Elevation: 4213' Ground, 4219' Kelly Bushing

Contractor: Huron Drilling Co.

Spudded: August 19, 1959

Completed: August 24, 1959

Production: Plugged & Abandoned

Total Depth: 5070'

Casing: 109' of 8 5/8" surface casing set at 115' w/125 sx
2% calcium chloride cement

Cores: #1 1914-1940 (1917-1943 E-Log) "D" sand

Tests: #1 1909 1/2 - 1922 (1912 1/2 - 1925 E-Log)
#2 5025 1/2 - 5036

Logs: Schlumberger ES 117 - 5070'
Schlumberger Microlog 4790 - 5065'

*Not accepted
as completion report
need*

Although no productive possibilities in Muddy sands were encountered in this well, it appears that a small area has been defined which holds promise. The structural position of this well seems to place it on the end of a SW plunging nose. Favorable possibilities exist for finding hydrocarbon accumulations updip from this well to the NE. Both benches of the "D" which had spotty shows but were wet here appear to be thinning NE. The upper "D" tested gas in the McBride discovery and the lower "D" becomes tight updip. The upper two benches of the "J" section, although fairly tight here, are somewhat thicker than in wells NE where shows and production have been found.

It is concluded that no possible pays were passed up in this well and that an adequate and satisfactory test was drilled.

Formation tops are shown below:

<u>Formation</u>	<u>Sample Top</u>	<u>E-Log Top</u>	<u>Datum</u>
Niobrara	1080	1068	
Carlile	1135	1134	
Greenhorn Ls	1630	1631	
Bentonite	4810	4801	
"D" sand	1908	1906	-487
"J" sand	5006	5013	-794
TD		5070	

Attached hereto are geolograph charts and a sample log of the well. Samples are on file with American Stratigraphic Co., Denver.

Very truly yours,

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Edward G. Murphy
Consulting Geologist