

M. E. WILKINSON

Petroleum Geologist

1005 UNION NATIONAL BUILDING

WICHITA 2, KANSAS

GEOLOGICAL REPORT

JAMES W. HERSHBERGER #2 EAGAN

NB-SE-SW 36-24-14W

STAFFORD COUNTY, KANSAS

BY

M. E. WILKINSON

James Wl Hershberger
2039 First National Bldg.
Wichita, Kansas

Re: Hershberger #2 Eagan.
NE-SE-SW 36-24-14W
Stafford County Kan

Dear Sir:

The following is a sample analysis report on the above captioned well. The well was under geological supervision from 3650 feet to total depth. Samples were examined from 3500 feet to total depth.

Elevations: 1955 Rotary Bushing
Contractor: White & Ellis Drilling, Inc.

<u>Formation</u>	<u>Rotary Bushing</u>	<u>Sub-Sea Datum</u>
Heebner	3503	-1548
Toronto	3523	-1568
Lansing	3671	-1716
Mississippian	4002	-2047
"A" Zone	4002	-2047
"B" Zone	4037	-2082
"C" Zone	4064	-2109
Total Depth	4105	-2150

**Oil Gas and or Water Zones
(Rotary Bushing Measurements)**

Lansing 3671

3760-3769 buff fine crystalline oolitic and oolicastic lime. Good porosity, no show. Zone contains water

3807-3811 buff oolicastic limestone. Very good porosity. Very light spotted stain. Zone not commercial. Productive in #1 Eagan

3840-3844 buff oolicastic lime. No show. Zone contains water

3850-3860 buff fine crystalline oolicastic lime. Very good porosity, No show, zone contains water.

3920-3927 buff fine crystalline limestone. Fine pin-point porosity, Slight odor, fair show of free oil in samples. Zone calculates water on electric log

Mississippian 4002

4002-4022 grey tan and yellow shart chert. trace of slight weathering with scattered stain.

4037--4050 grey to white slightly weathered chert. Trace of tripolitic chert. Scattered porosity with show of free oil.

Drill Stem Test #1 4020-4056 open 1 hour
Recovered: 30' mud
I.S.I.P. 37# in 20 minutes
B.H.P. 147# in 30 minutes
P.P. 10#-10#

4064-4071 grey well weathered chert with tripolitic chert. Some very good porosity in well weathered chert with solution hole porosity. Fair to good show of free oil

Drill Stem Test #2 4020-4080 open 1 hour
Recovered: Gas to surface in 10 minutes
300' heavy oil and gas cut mud
300' frothy gassy oil
I.S.I.P. 870# in 20 minutes
B.H.P. 710 in 20 Minutes
P.P. 160#-255#

4071-4079 grey sharp chert with shale streaks. Slight show of free oil. Probably did not contribute to above test.

Remarks:

The #2 Egan was structurally thirteen feet lower than the #1 on the Lansing and fourteen feet lower on the Mississippian. No Lansing zones of commercial importance exist in this well. The "B" zone of the Mississippian which produces in #1, was fairly well developed in the #2 but did not give up any oil on the drill stem test, however this zone calculates out good on the electric log and I believe that with the use of fracture treatment that it will produce.

A lower zone ("C") zone developed in the #2 which was not present in the #1. This zone gave up free oil on a drill stem test and appears to be our best zone.

Conclusion:

I recommend that production string be set at 4105 and that the "C" zone be opened from approximately 4067 to 4068 and treated. This should result in commercial production from this zone. The "B" zone should be perforated and treated at a later date.

James W. Hershberger #2 Eagan
NE-SE-SW 36-24-14W
Stafford County, Kansas

Depth

From-	To	Drilling Time/Minutes per foot	Remarks
3500 -	3510	8-11-9-6-3-3-4-4-3-3-	
	3520	11-12-13-11-9-5-5-6-6-6	
	3530	6-5-4-5-6-10-9-8-7-7	
	3540	8-6-5-5-5-5-6-4-4-4	
	3550	57-8-8-8-6-4-3-4-3	
	3560	3-6-4-5-3-4-5-4-5-5	
	3570	4-5-4-3-4-4-5-4-4-5	
	3580	4-4-5-3-4-4-5-4-4-4	
	3590	4-4-4-4-4-3-3-3-4-3	
	3600	3-4-3-3-4-3-4-3-3-4	
3600 -	3610	4-3-4-4-3-3-3-4-3-3	
	3620	4-3-4-3-4-3-3-4-3-3	
	3630	4-5-4-4-3-4-3-3-3-3	
	3640	3-3-3-4-3-3-3-3-3-3	
	3650	3-3-3-3-4-6-7-6-4-3	
	3660	4-4-3-3-4-5-4-4-4-5	
	3670	4-5-4-4-5-4-3-4-4-4	
	3680	3-6-4-3-2-3-6-7-5-6	Vis 40 Wt. 10
	3690	8-6-6-5-10-9-6-4-3-3	
	3700	3-4-8-6-6-5-6-5-5-4	
3700 -	3710	5-4-4-4-7-5-4-6-6-11	Vis 39 Wt. 10
	3720	6-3-4-6-7-6-6-6-5-6-	
	3730	6-6-9-8-7-6-9-14-11-11	Vis 39 Wt 10
	3740	8-8-8-6-8-11-11-10-13-5	Vis 40 Wt 10
	3750	7-6-8-8-5-4-4-5-6-9	
	3760	6-9-12-11-12-10-11-12-11-10	Vis 38 Wt 10
	3770	4-1-1-1-1-3-3-1-4-6	
	3780	77-6-6-8-7-7-5-6-5	
	3790	5-4-4-6-7-7-5-5-5-6	
	3800	11-10-13-13-15-12-12-14-14-15	
3800-	3810	15-5-5-6-9-10-10-2-2-2	
	3820	1-1-8-10-15-13-12-13-11-14	
	3830	11-13-8-5-14-13-14-7-9-10	
	3840	8-9-9-9-5-4-4-4-3-1	
	3850	1-1-1-2-6-2-2-2-2-3	
	3860	4-1-1-1-21-1-1-2-2	Vis 35 Wt 9.7
	3870	1-2-3-6-6-6-7-6-7-6	
	3880	8-6-7-7-6-7-6-4-4-4	Vis 35 Wt 9.6
	3890	4-3-3-3-5-6-5-7-7-8	
	3900	8-6-6-7-6-7-6-5-7-7	Vis 38 Wt 9.9

3900 - 3910 9-7-6-7-8-8-8-6-5-7
3920 10-7-3-3-8-6-3-4-6-6
3930 3-5-4-4-3-3-4-8-9-8
3940 9-12-5-8-7-4-5-7-7-5
3950 5-6-7-6-5-10-8-8-7-8
3960 7-10-9-10-7-6-6-6-6-5
3970 5-6-6-6-5-6-6-6-5-11
3980 8-11-10-10-9-6-7-8-9-9
3990 8-6-7-6-9-11-9-12-11-12=
4000 11-10-9-9-9-8-8-7-7-7

Vis 37 Wt 9.0

Vis 38 Wt 1.1

Vis 41 Wt 1.0

4000 - 4010 7-10-11-11-10-11-9-7-5-6
4020 7-8-7-7-8-10-10-9-10-12
4030 13-12-12-9-9-9-8-9-9-7
4040 9-9-8-8-8-10-6-7-6-4
4050 4-5-4-5-5-3-3-6-4-4
4060 7-8-8-9-10-17-9-10-6-7
4070 9-9-7-6-5-6-5-5-4-5
4080 5-7-4-5-7-4-6-5-8-11
4090 6-7-9-8-9-7-7-8-8-7
4100 8-9-10-7-7-5-6-8-7-8

Vis 41 Wt 9.0

D.S.T. #1

Vis 41 Wt 9.0

Vis 43 Wt 1.0

D.S.T. #2

Vis 46 Wt 9.8

4100 - 4105 10-10-10-8-9

Total Depth