

11 NO

34-20-3W

Geological Report
Source Petroleum
Krehbiel "G" #1
NE NE NE, 34-20S-3W
McPherson County, Kansas

Source Petroleum
Wichita, Kansas

KANSAS GEOLOGICAL SURVEY
WICHITA BRANCH

OCT. 2 1987

RECEIVED
STATE CORPORATION COMMISSION

SEP 30 1987

CONSERVATION DIVISION
Wichita, Kansas



34-20-3W

Source Petroleum
Suite 910 Century Plaza Bldg.
Wichita, Kansas 67202

RE: Krehbiel "G" #1
NE NE NE, 34-20S-3W
McPherson County, Kansas

Gentlemen:

Submitted herewith is the geological report concerning the above captioned test. Data pertinent to the operation are tabulated below:

Spud: September 10, 1987	Rotary Complete: September 19, 1987
Contractor: Allen Drilling	Tool Pusher: Mr. Greg Allison
Surface Pipe: 8 5/8" @ 261'	Production Pipe: None
Drill Time: 1': 1800'-TD	Samples: 10': 2000'-TD
DST: (3) Trilobite	Log: Great Guns: Dual Ind, Comp
Mud: Mud Co.	Den/Neut, Proteus
Gas Detector: Analytical Of Kansas	Cores: None
Elevation: Central Kansas Survey	

Geological formation tops as picked from samples and corrected to the open hole survey follow. All measurements are from the rotary bushing elevation.

Elevations: 1484' RB 1482' DF 1479' GL

	<u>LOG</u>	<u>SAMPLE</u>
Heebner	2157 (-673)	2155 (-671)
Toronto	2176 (-692)	2173 (-689)
Lansing	2416 (-932)	2414 (-930)
BKC	2823 (-1339)	2819 (-1335)
Cherokee	2986 (-1502)	2985 (-1501)
Mississippi	3096 (-1612)	3103 (-1619)
Osage	3143 (-1659)	3139 (-1655)
Kinderhook	3306 (-1822)	3308 (-1824)
Viola	3550 (-2066)	3552 (-2068)
Simpson Dolomite	3589 (-2105)	3584 (-2100)
Simpson SS	3594 (-2110)	3590 (-2106)
Arbuckle	3660 (-2176)	3652 (-2168)

Steven P. Murphy
Geologist/Partner

Phillip E. Hargis
Geologist/Partner

John D. Howard, Jr.
Geologist/Partner

Geological supervision commenced at 2000' and continued until total depth was reached. Wet and dry samples were examined under normal and fluorescent light and were cut with an organic solvent when shows were indicated. Zones of interest were evaluated as follows:

Lansing-Kansas City-2416-2823 - There were no shows of oil or gas detected in this section that warranted further investigation.

Mississippian-Salem 3096-3115 - Limestone, cream to tan to light grey to light green to orange. These limestones were medium to coarse crystalline, and mottled, with fair intercrystalline porosity. The zone was cherty and dolomitic also. There were no shows of oil or gas in this zone.

Mississippian-Warsaw 3124-3141 - Dolomite, tan, medium crystalline, sucrosic, with poor to fair intercrystalline porosity. There was saturated stain on 20-30% of the sample surface with dull yellow fluorescence, a 4 UGK with no recycle, a fair show of free oil, and a slow streaming cut in the wet samples to a good flush cut in the dry samples. This zone was further evaluated by DST #1.

DST #1 - 3125-3131

op 45 si 60 op 30 si 60

Weak surface blow building to 7". 2" blow building to 11".

Recovered 200' GIP and 5' very slightly oil cut mud (5% oil - 95% mud)

IHP - 1613

FHP - 1515

IFP - 22-22

FFP - 33-22

ISIP - 444

FSIP - 411

Mississippi-Osage - 3143-3188 - Chert, bone white, fresh, sharp and tripolitic. There was saturated stain on 50% of the sample surface with dull yellow fluorescence, a 50 UGK and a recycle of 22 units, a fair to good odor, a fair show of free oil and a fair streaming to good flush cut. This zone was further evaluated by DST #2.

DST #2 3138-3150

op 30 si 30 op 30 si 30

Strong blow of 4" building to bottom of the bucket in 4 minutes. Strong blow of 4" building to bottom of the bucket in 11 minutes. Recovered 600' GIP, 15' slightly oil cut watery mud (5% oil, 25% H₂O, 70% mud).

Chlorides - 34,000 ppm (system-1500 ppm)

IHP - 1580

FHP - 1526

IFP - 33-44

FFP - 55-55

ISIP - 500

FSIP - 444

Basal Mississippian 3108-3190 - Dolomite, tan to light brown, fine crystalline, sucrosic with poor intercrystalline porosity and pinpoint porosity. There was an even stain on 100% of the sample surface, a very slight odor, a slight show of free oil, no gas kick, and a slow streaming cut in the wet sample to a good flush cut in the dry sample. This zone was further evaluated by DST #3.

DST #3 - 3180-3187

op 30 si 30 op 30 si 30

Slid tool 2' - 3 1/4" blow decreasing to very weak surface blow. No blow - flush tool - no blow after surge.

Recovered 10' mud.

IHP - 1656

FHP - 1569

IFP - Tool Plugged

FFP - Tool Plugged

ISIP - 676

FSIP - 687

Simpson - 3594-3622 - Sandstone, dolomitic clear to dirty brown, fine-grained, well cemented with fair intergranular porosity with sandstone, clear, quartzitic, fine to coarse grained, well rounded, well sorted, friable with fair to good intergranular porosity. There was no show of oil or gas in this zone.

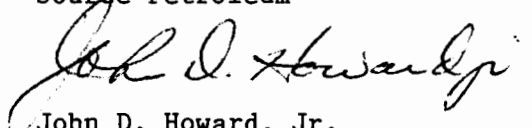
The structural position of the subject well to surrounding wells is tabulated below:

	Source Petroleum Krehbiel "G" #1 NE NE NE 34-20S-3W	J.A. Melland #1 Krehbiel NE NW NW 35-20S-3W	Jay Boy Oil #1 Elsie Stucky NW SE NW 11-21S-3W
Heebner	-673	-----	-700
Lansing	-932	-975	-972
BKC	-1339	-1335	-1375
Mississippi	-1612	-1628	-1650
Kinderhook	-1822	-----	-1867
Viola	-2066	-----	-2124
Simpson Dolomite	-2105	-----	-2158
Arbuckle	-2176	-----	-2224

After a thorough evaluation of the electric logs it was decided to abandon this well.

Respectfully submitted,

Source Petroleum



John D. Howard, Jr.
Geologist/Partner

JDH/tlg

GEOLOGIST WELLSITE DAILY REPORT

Drilling Progress Report

Date	Activity	Sample Tops
9-13-87	Drilling @ 2162 @ 1:10 p.m.	Heebner 2154(-670)
9-14-87	Drilling @ 2684 @ 9:40 a.m.	Toronto 2173(-689)
		Lansing 2414(-930)
		Drum 2607(-1123)
		Dennis 2631(-1147)
9-15-87	Drilling @ 3090 @ 8:50 a.m.	Swope 2691(-1207)
		Hertha 2749(-1265)
		BKC 2819(-1335)
		Ft. Scott 2908(-1424)
		Cherokee 2985(-1501)
9-16-87	Drilling @ 3150 @ 8:45 a.m.	Mississippian 3103(-1619)
		Warsaw 3125(-1641)
		Osage 3139(-1655)
9-17-87	Drilling @ 3293 @ 9:00 a.m.	Gilmore City 3252(-1768)

*See Attached Sheet

Mud Check

Date	Report #	Depth	Time	Vis.	Weight	Wtr. Loss	Chlorides
9-12-87	1	1140	10:50a.m.	27	9.4	N/C	2,500
9-13-87	2	2162	1:10p.m.	35	9.3	18.4	1,500
9-14-87	3	2684	9:40a.m.	39	9.4+	11.6	1,200
9-15-87	4	3090	8:50a.m.	36	9.2+	8.8	1,000
9-16-87	5	3150	8:45a.m.	44	9.1	8.0	500
9-17-87	6	3293	9:00a.m.	38	9.2	8.8	700
9-18-87	7	3536	9:00a.m.	37	9.1	9.6	1,000
9-19-87	8	3700	8:30a.m.	58	9.2	8.0	1,000

Circulation For Samples

Depth Taken	Time Intervals
2435	20-40
2492	20-40
2503	20-40
2565	20-40
2756	20-40
3120	20-40-60
3131	20-40-60

Wireline Surveys

Depth Taken	Activity
263'	Set Surface Casing 1/2 degree
766'	GEO's instructions 1/2 degree
1294'	GEO's instructions 1/2 degree
1793'	GEO's instructions 0

*See Attached Sheet

DST Mud Check (Rig Measurement)

Depth	For DST No.	Vis.	Weight
3131	1	45	9.4
3150	2	44	9.4
3187	3	44	9.2

34-20-3W

Drilling Progress Report Continued

<u>Date</u>	<u>AM Activity</u>	<u>Sample Tops</u>
9-18-87	Drilling @ 3536 @ 9:00 a.m.	Kinderhook 3308(-1824) Maquoketa Dolomite 3532(-2048)
9-19-87	Drilling @ 3700 @ 8:30 a.m.	Viola 3552(-2068) Simpson 3584(-2100) Arbuckle 3652(-2168)

Wireline Surveys Continued

<u>Depth Taken</u>	<u>Activity</u>	
2508'	GEO's instructions	1 degree
3131'	GEO's instructions	2 1/2 degree
3150'	GEO's instructions	2 1/4 degree
3187'	GEO's instructions	2 1/2 degree
3313'	GEO's instructions	2 1/4 degree
3344'	GEO's instructions	2 1/2 degree
3406'	GEO's instructions	1 1/2 degree
3450'	GEO's instructions	1 3/4 degree
3561'	GEO's instructions	1 3/4 degree
3700'	GEO's instructions	1 degree