

Martin K. Dubois

Consulting Geologist

415 State Bank Building • Winfield, Kansas 67156 • 316-221-0428

22-8-21E

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GEOLOGIC REPORT

Jennings Drilling Company
#1 Snow
NE NW SW 22-8S-21E
Leavenworth County, Kansas

Daily Progress:

1-18 Drill surface hole
1-19 WOC, 8 5/8" @ 167', plug down @ 2:00 a.m.
1-20 870, drilling
1-21 1578, Bit trip, rig released @ 11:00 p.m., TD @ 1620

Service Companies:

Drilling Contractor: Little Joe Drilling, Rig #1
Mud Company: Fud Mud; Chemical mud
Cement: Dowell
E-Logs: Great Guns; CDL, IEL

Formation Tops:

<u>Formation Tops:</u>		Structural Relationship #1 Snow to:	
	Jennings	Ram	Strata Tech
	#1 Snow	#2 Kroll	#1 DeMoranville
	NE NW SW	SE SW SW	NW SW SW
<u>Formation</u>	<u>22-8S-21E</u>	<u>21-8S-21E</u>	<u>15-8S-21E</u>
B. Kansas City	720 (+377)	+9	NA
Altamont	864 (+233)	+11	NA
Cherokee	958 (+139)	+13	NA
Ardmore	1058 (+39)	+11	NA
Bartlesville SS	1360 (-263)	-	+1
X-Marker	1399 (-302)	+11	+14
M. St. Louis	1479 (-382)	-3	+26
DeMoranville Pay	1506 (-409)	+3	+8
M. Spergen	1520 (-423)	+3	+14
TD	1620 (-523)		

Shows:

Smp1 1477-1478 Burgess Sandstone
E-Log 1478-1479 Sandstone, medium grained, quartzose, trace of chert, good intergranular porosity, good show of free oil.

Smp1 1478-1484 Mississippi St. Louis
 E-Log 1479-1482 Limestone, white, medium-grained oolites, well sorted, fair intergranular porosity, dark stain around pores, slight show free oil, slight fluorescence, fair cut (oolitic grainstone).

Smp1 1484-1518 Mississippi St. Louis
 E-Log 1482-1506 Limestone, mostly cream, fine crystalline, dense, dark stain and slight show free oil along fractures (mudstone); trace of fossiliferous and oolitic limestone with poor moldic and vuggy porosity, dark stain, show of free oil, fair fluorescence and cut (wackestone-grainstone).

Smp1 1518-1524 Mississippi St. Louis (DeMoranville Pay)
 E-Log 1506-1514 Limestone, white, medium-grained, oolite and rounded fossil grains, sandy in part, poor intergranular porosity, fair show free oil, fair fluorescence and cut (grainstone).

Smp1 1535-1550 Mississippi Spergen
 E-Log 1520-1540 Dolomite, tan, very fine crystalline, sucrosic, poor intercrystalline porosity, trace of dead oil, no free oil.

Summary and Recommendations:

The Jennings #1 Snow was consistently high to Strata Tech's apparent discovery well about 3/4 mile to the north, however the #1 Snow lacked porosity in the apparent pay interval. The Mississippi St. Louis, the apparent pay zone in the #1 DeMoranville, had only 4% porosity in the #1 Snow, although it did have a show of oil. It was therefore recommended that the well be plugged and abandoned.

No sand of significance was encountered in the McLouth and Burgess intervals. There may have been six inches or a foot of Burgess sandstone with a show of oil directly on top of the Mississippi. The X-Marker to Mississippi interval was only 80 feet in this well and the lack of sand supports the idea that the sands will be found in areas having thicker X-Marker to Mississippi intervals. Thicker areas are anticipated to the north and east of the #1 Snow along the flank of the Northeast-Southwest structure which the Jennings well had confirmed.

Originally it was thought that the #1 DeMoranville pay was Mississippi Spergen dolomite. I am now certain it is from limestone above the Spergen dolomite, most likely of St. Louis age. This new pay zone is tight in all other wells with electric logs in 8S-21E, including the Jennings #1 Snow. This new pay may be an isolated stratigraphic trap or it may extend eastward where there has been no drilling to date.

Respectfully submitted,

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