

## G E O L O G I C   R E P O R T

Palomino Petroleum  
#1 Margheim "C"

NW NE SE; 17-19-21<sup>W</sup>  
Ness County, Kansas

### MISCELLANEOUS DATA

Elevation: 2220 Gr.; 2223 R.D.F.; 2225 R.K.B.

This well was drilled with rotary tools, Strata Drilling Co., Inc. of Great Bend, Kansas, the contractor.

Spudded October 14, 1976. Set 307 feet of used 8 5/8" seamless 28# surface casing and cemented with 190 sacks cement (circulated). Production casing was not set. Rotary completed October 21, 1976. Dry and abandoned. Pool - Margheim.

### GEOLOGIC TOPS AND ZONES

Top Cimarron Anhydrite (driller)	1432 ( +793)	E-log	1435 ( +790)
Top Heebner Shale	3693 (-1468)	E-log	3695 (-1470)
Top Lansing-Kansas City	3737 (-1512)	E-log	3739 (-1514)

Samples through the Lansing-Kansas City were of little value since the hole was not mudded up. However, there were no indications of possibilities from the electric log.

Top Ft. Scott	4232 (-2007)	E-log	4235 (-2010)
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Although no definitive drilling break was encountered, there were numerous pieces of partly fossiliferous lime with fair porosity and fair show of light free oil in the fresh samples. Interval was included in D.S.T. #1 which recovered water with a show of oil, and was probably the source of the oil show in that test.

Top Cherokee Shale	4249 (-2024)	E-log	4252 (-2027)
Top Cherokee Sand	4251 (-2026)	E-log	4254 (-2029)

4251 - 4254 (Rotary measurements) Few clusters of finely to medium grained hard pyritic sandstone and numerous loose sand grains from ? There was no show of oil found, but D.S.T. #1 was taken at this point.

Drill-stem test #1: A test was taken from 4218 - 4254; tool open 1 hour (30-30-30-45), fair blow throughout test; recovered 290 feet of fluid (20 feet of oily, watery mud, and 270 feet of muddy water). Flow pressures 101# to 182#. Shut in pressures 806# to 826#.

Top Cherokee Limestone	4282 (-2057)	E-log	4285 (-2060)
Top Cherty Conglomerate	4311 (-2086)	E-log	4305 (-2080)

No sand and no shows of oil were found in this "lower Cherokee" interval, however, because of the somewhat elusive nature of the Cherokee sand, the open hole electric log was run to properly evaluate this interval. Although the chert zone was logged above the sample top, it was the consensus of opinion that a straddle test was not justified.



Top Mississippian Warsaw                      4324 (-2099)                      E-log 4325 (-2100)

This dense light grey dolomite had some partly fossiliferous pieces with poor porosity but the first show of oil was found about 15 feet in at approximately 4340. More than 20 feet additional Warsaw dolomite was cut to 4362 (Osage top) and carried small shows of medium to dark free oil. Interval was included in D.S.T. #2 (packer at 4338) which recovered mud with a small show of oil.

Top Mississippian Osage                      4362 (-2137)                      E-log Not logged

4362 - 4365 White fresh and partly weathered chert with finely granular soft dolomite carrying a small show of light free oil in the fresh samples. Interval was included in D.S.T. #2 which recovered mud with a small show of oil.

Drill-stem test #2: A test was taken from 4338 - 4365; tool open 1 hour, weak blow for 42 minutes (flushed twice); recovered 60 feet of very slightly oil cut mud. Flow pressures 81# to 81# (actually zero). 30 minute shut in pressure 1005#.

Rotary Total Depth                      4365 (-2140)                      E-log TD 4362  
(did not go to  
bottom - TD should  
have been 4368)

#### REMARKS

All above figures are rotary busing measurements at an elevation of 2225', five feet above the ground level.

Samples were examined from above the Heebner and drilling watched from above the Ft. Scott to the total depth.

Straight hole tests: None over 2°.

This well ran structurally "in the ballpark" but the Warsaw section was abnormally thick causing the Osage pay section to be too low for commercial production.

R. W. Watchous  
Petroleum Geologist



TIME LOG

Palomino Petroleum et al  
#1 Margheim "C"

NW NE NE Sec. 17-19S-21W  
Ness County, Kansas  
Elevation: 2225 K.B.

<u>FROM</u>	<u>TO</u>	<u>MINUTES</u>	<u>REMARKS</u>
3300-3310		2-2-2-2-2	2-2-2-2-3
3320		2-2-3-2-3	2-3-2-3-2
<del>3330</del>		<del>3-2-2-2-2</del>	<del>2-2-2-2-3</del>
3340		2-2-2-3-2	2-2-2-1-2
3350		2-2-3-2-3	2-2-2-2-2
3350-3360		1-1-1-2-1	1-1-1-2-1
3370		1-2-1-2-2	3-1-1-1-2
3380		1-2-2-2-2	2-1-2-2-2
3390		2-2-2-2-2	3-2-2-3-2
3400		3-2-3-2-2	2-3-2-3-2
3400-3410		3-2-2-2-2	3-2-2-3-2
3420		2-2-3-2-2	2-2-2- $\frac{1}{2}$ - $\frac{1}{2}$
3430		1/3-1/3-1/3- $\frac{1}{2}$ - $\frac{1}{2}$	1-1-1-3-2
3440		2-2-2-3-2	2-2-3-2-2
3450		2-2-2-2-3	3-2-2-3-3
3450-3460		3-2-2-3-2	2-2-2-2-1
3470		1-1- $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	2 $\frac{1}{2}$ -2-1-1-2
3480		2-1-2-1-3	2-1-1-2-1
3490		$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ -1	1-2-1-2-2
3500		1-1-1-1-1	3-2-1-1-1
3500-3510		1-1-1- $\frac{1}{2}$ - $\frac{1}{2}$	1-2-2-2-2
3520		2-2-3-1-1	2-2-3-2-3
3530		2-2-3-2-2	2-2-2-3-2
3540		3-2-3-2-2	2-3-2-3-2
3550		2-1-1-1-2	2-3-2-2-2
3550-3560		3-3-2-2-2	3-2-2-1-1
3570		2-2-2-1-1	1-2-3-3-3
3580		3-3-3-3-3	3-3-3-3-3
3590		2-3-3-2-3	2-4-3-3-3
3600		2-2-2-1-1	1-1- $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$
3600-3610		$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$	$\frac{1}{2}$ - $\frac{1}{2}$ -1-1-1
3620		2-2-2-1-1	1-1-1- $\frac{1}{2}$ - $\frac{1}{2}$
3630		1-1-1-1-1	1-1-3-2-3
3640		1-1-1-2-2	$\frac{1}{2}$ - $\frac{1}{2}$ -2-1-1
3650		1- $\frac{1}{2}$ - $\frac{1}{2}$ -1-1	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ -1 $\frac{1}{2}$ -1
3650-3660		$\frac{1}{2}$ - $\frac{1}{2}$ -1-1-1	1-2-1-1-2
3670		1-1-1-1-2	1-1-2-1-3
3680		2-3-2-2-2	1-1-1-1-2
3690		2-1-1-1-2	1-3-3-4-4
3700		3-4-3-2-3	2-1-3-4-4
3700-3710		2-3-2-2-3	3-2-2-3-2
3720		2-1-2-3-2	1-1-1-1-3
3730		1-2-3-3-3	1-2-2-2-2
3740		2-2-1-2-2	1-1-3-1-1
3750		1-2-2-2-2	2-2-2-2-3
3750-3760		3-1-2-2-3	3-2-3-2-3
3770		2-2-2-1-1	$\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ - $\frac{1}{2}$ -1
3780		1-1-1-1-2	3-2-3-2-3
3790		2-3-3-1-2	2-2-3-2-3
3800		1-1-1-1-1	1-1-1-1-1
3800-3810		2-2-2-1-2	1-3-1-2-2
3820		3-2-2-3-3	2-2-2-2-3
3830		2-1-1-1-1	1-1-1-2-2
3840		2-2-3-2-2	2-2-3-3-2
3850		3-3-3-3-2	1- $\frac{1}{2}$ - $\frac{1}{2}$ -1-1



# TIME LOG

#1 Margheim "C"

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<u>FROM</u>	<u>TO</u>	<u>MINUTES</u>	<u>REMARKS</u>
3850-3860		1-1-1-1-1	3-3-2-3-2
3870		2-1-1-1-1	1-1-1-2-2
3880		3-3-2-1-2	1-1-1-2-2
3890		3-2-3-2-2	2-1-3-3-3
3900		3-3-3-3-2	3-2-3-2-2
3900-3910		3-2-2-2-2	2-3-2-2-1
3920		2-3-2-2-3	3-3-2-3-3
3930		3-2-3-3-3	3-3-2-3-2
3940		2-3-2-3-2	3-3-3-2-3
3950		4-1-1-1-2	3-4-4-4-4
3950-3960		4-4-4-3-4	3-3-3-3-3
3970		3-2-3-1-1	1-1-1-1-2
3980		1-1-1-3-3	5-4-3-3-5
3990		4-4-5-4-5	5-4-3-3-4
4000		3-4-4-2-4	2-4-3-3-3
4000-4010		4-4-3-3-3	3-3-3-3-3
4020		3-2-4-3-3	3-3-4-3-4
4030		2-3-3-3-2	1-3-2-3-3
4040		2-2-3-2-3	3-3-2-3-4
4050		4-4-4-4-3	3-3-3-3-4
4050-4060		3-3-4-4-5	4-4-3-4-3
4070		4-3-3-4-3	1-3-3-3-2
4080		4-3-3-3-2	3-2-2-2-2
4090		3-3-3-4-3	3-4-4-3-4
4100		4-4-3-3-2	3-3-3-3-3
4100-4110		3-4-5-3-3	4-2-3-3-5
4120		5-5-5-5-5	4-4-5-4-5
4130		5-5-3-3-4	2-2-2-3-3
4140		5-5-6-4-5	5-5-5-5-5
4150		4-5-5-3-4	5-5-5-5-5
4150-4160		4-4-4-3-4	4-4-4-5-5
4170		5-3-4-5-4	4-4-5-5-4
4180		5-6-5-5-5	5-5-5-4-5
4190		5-5-4-5-5	5-5-5-5-5
4200		2-5-4-4-5	4-4-4-5-5
4200-4210		5-5-5-5-5	5-5-5-5-5
4220		5-5-6-5-4	5-5-5-5-5
4230		4-4-3-5-4	3-3-3-2-3
4240		4-3-5-6-5	4-4-5-6-6
4250		6-6-6-5-6	6-6-6-8-3
4250-4260		4-2-4-5-8	8-10-5-7-4
			CFS & DST #1 @ 4254'
			New Bit @ 4254'
4270		5-7-5-5-4	5-4-3-4-5
4280		3-3-4-6-6	5-8-5-5-4
4290		5-4-7-6-6	5-5-7-6-6
4300		7-6-7-5-5	6-4-5-4-5
4300-4310		6-4-5-7-5	6-6-6-6-7
4320		6-5-6-5-5	5-3-4-5-4
4330		5-6-5-5-6	6-5-7-7-6
4340		5-7-5-4-4	5-5-6-4-5
4350		3-4-3-5-3	5-5-4-4-4
4350-4360		4-3-5-5-4	3-4-5-3-3
4365		3-3-2-1-2	
			CFS @ 4323'
			CFS @ 4340'
			CFS @ 4348'
			CFS @ 4360'
			CFS & DST #2 @ 4365'

Rotary Total Depth - 4365'