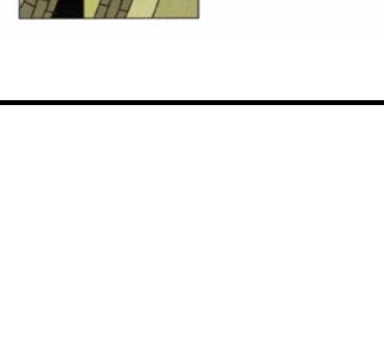


# Noble Petroleum, Inc.

## GEOLOGICAL REPORT DRILLING TIME & SAMPLE LOG

APR #: 15-1115-21-487  
REPORT PREPARED BY: FRANK S. MIZE/GEOLOGIST



COMPANY	Noble Petroleum, Inc.	ELEVATION	K.B. 1418
LEASE	Jost #1	D.F.	
FIELD	York	G.L.	1409
LOCATION	530 FSL & 2030 FEL	DEPTH MEASURED FROM KB	
SEC.	20 TWP. 18S RGE. 2E	Log	Drilling <input checked="" type="checkbox"/>
COUNTY	Marion STATE Kansas	Surface	8.58 @ 227' w/1385x
CONTRACTOR	C & G Drilling, Rig #2	Production	5.127 @ 3196' w/1385x
SPUD	9-23-14 COMP 9-29-14	Electric Logs	
SAMPLES SAVED FROM	2500' TO RTD	CNL/CDU/DU/BR/CS/MEI	
REPORT PREPARED BY	FRANK S. MIZE/GEOLOGIST	FORMATION	
SAMPLE		E LOG	
		DATUM	

FORMATION	DEPTH (FEET)	DESCRIPTION	DRILLING TIME (MINUTES/FOOT)
Pawnee	2455 - 2454	-1066	
Mississippian	2593 - 2595	-1177	
Gilmore City	2702 - 2704	-1286	
Kinderhook	2759 - 2760	-1335	
Hunton	MSG - MS5	-1588	
Viola	3014 - 3016	-1688	
Simpson SS	3103 - 3104	-1704	
Arbuckle	3170 - 3172	-1754	
RTD/LTD	3200	-1783	

FORMATION	DEPTH (FEET)	DESCRIPTION	DRILLING TIME (MINUTES/FOOT)
Pawnee	2455 - 1037	Shale: gray to green, contaminated w/diesel Limestone: beige, coarsely crystalline, little visible porosity, no show Shale: red to gray to dark gray Limestone: beige to gray, medium to coarsely crystalline, poor intercrystalline porosity, no show Shale: red to gray to dark gray Limestone: beige, coarsely crystalline, dense, little visible porosity Shale: red to reddish brown to dark gray	
Cherokee	2532 - 1114	Limestone: off white to light beige to light gray, medium to coarsely crystalline, little visible porosity, no show Shale: red to reddish brown to dark gray Limestone: off white to light beige to light gray, medium to coarsely crystalline, little visible porosity, no show Shale: red to reddish brown to dark gray Limestone: off white to light beige to light gray, medium to coarsely crystalline, little visible porosity, no show Shale: red to reddish brown to dark gray Limestone: off white to light beige to light gray, medium to coarsely crystalline, little visible porosity, no show Shale: red to green to gray Limestone: off white to gray, medium crystalline, little visible porosity, no show Limestone: gray to beige, fine to medium crystalline, poor intercrystalline porosity, no show Shale: gray to green, pyritic Limestone: gray, medium crystalline, little visible porosity, no show	
Mississippian	2593 - 1175	Limestone: gray, fine to medium crystalline, poor intercrystalline porosity, trace amber chert Shale: red to green to gray Shale: red to green to gray Shale: gray to dark gray Chert: white, weathered, tripolitic, slight stain, faint fluorescence, faint odor Chert: white to off white, 65% weathered, tripolitic, 35% fresh, sharp, fair tripolitic porosity, spotted light stain, faint odor, no fluorescence or gas bubbles Chert: white to off white, 50% weathered, 50% fresh, trace weathered porosity, no show Chert: off white, fresh, sharp, trace weathered, little visible porosity, no show Chert: off white, fresh, sharp, fair weathered porosity, faint to fair odor, 25% yellow fluorescence Chert: off white, fresh, sharp, some fair weathered porosity, no odor, 10% yellow fluorescence, much pyrite, fair amount beige, fine crystalline dolomite w/ fair to good intercrystalline porosity	
Gilmore City	2702 - 1284	Dolomite: light beige, fine to medium crystalline, fair intercrystalline porosity, high amount gray milky chert, no odor, 5% yellow fluorescence Dolomite: beige to gray, fine to medium crystalline, good intercrystalline porosity, much milky gray chert Dolomite: beige to gray, fine to medium crystalline, good intercrystalline porosity, much milky gray chert, fair amount gray to dark gray shale Dolomite: off white to beige, fine to medium crystalline, poor intercrystalline porosity, no show, much gray fossiliferous chert, fair amount gray & trace black shale	
Kinderhook	2759 - 1341	Limestone: dirty gray to beige, medium crystalline, dense, little visible porosity, no show Limestone: dirty gray to beige, medium crystalline, dense, little visible porosity, no show Limestone: dirty gray to beige, medium crystalline, dense, little visible porosity, no show Limestone: off white to beige, medium crystalline, dense, little visible porosity, no show Limestone: gray to beige, medium crystalline, dense, little visible porosity, no show Limestone: gray, medium to coarsely crystalline, dense, no visible porosity, no show	
Viola	3014 - 1596	Shale: gray to dark gray to brown Shale: gray to dark gray Shale: gray to dark gray Shale: gray to dark gray Shale: gray, trace dark gray and brownish red Shale: light gray, trace dark gray and brownish red Shale: light gray Shale: light gray Shale: light gray Shale: light gray Shale: light gray to gray Shale: light gray to gray, trace red Shale: light gray to gray, trace red Shale: light gray to gray Shale: light gray to gray Shale: dark gray to gray Shale: dark gray to gray Shale: dark gray to gray Shale: gray to brownish gray Shale: gray to brownish gray Shale: gray to dark brown Shale: dark brown	
Simpson Sand	3106 - 1688	Dolomite: mottled brown w/oil stain, fine to medium crystalline, poor to fair intercrystalline & trace vuggy porosity, excellent show free oil, very strong odor, saturated stain, much pale gold fluorescence, highly pyritic, trace med crystalline limestone Dolomite: brown, med w/oil stain, fine to medium crystalline, poor intercrystalline porosity, spotty show heavy black oil, saturated stain, 20% w/no show, nearly 50% gray chert w/no show Limestone: beige, dolomitic, medium to coarsely crystalline, very dense, no visible porosity, no show, much gray chert Limestone: beige, dolomitic, medium to coarsely crystalline, very dense, no visible porosity, no show, much gray chert Limestone: off white to beige, coarsely crystalline, no visible porosity, no show Limestone: off white to beige, coarsely crystalline, no visible porosity, no show Limestone: beige, fine to medium crystalline, dense, no porosity, no show, trace pyrite Limestone: light brown to beige, mudstone, dense, no porosity, no show	
Arbuckle	3170 - 1752	Shale: green, waxy Sandstone: clear to frosted, fine to medium crystalline, good show heavy black oil, good odor, saturated stain 3023' 30" sp Same as 15" with 5% off white medium crystalline dolomite w/ no show/wet, much gray chert 3125' Sandstone: frosted, medium rounded grains, well sorted, fair cement, good to very good intergranular porosity, no show, no fluorescence 3130' Same as 3125' sample w/spotted residual staining	

Noble Petroleum, Inc. Jost #1 530 FSL & 2030 FEL 20-18S-2E, Marion Co., KS	1418 KB
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Comments: