

#1 Colorado State  
C NE SW Sec. 36-T12N-R54W4  
Logan County, Colorado



02357577

FORMATION TOPS

NIOBRARA	4672	
FORT HAYS	4986	
CARLILE	5050	
GREENHORN	5255	
BROWN LIME	5410	
"D" SANDSTONE	5507	
"J" SANDSTONE	5616	
SKULL CREEK	5707	
ELEVATION	4696 KB	
	4686 Ground	
RESULTS	P & A	
TOTAL DEPTH	5713 Log	
	5710 Driller	
SURVEYS	Electric Log	200-5713
	Contact Log	200-5710
COMMENCED	10-30-59	
COMPLETED	11-7-59	
HOLE SIZE	12 1/4"	0- 200
	7 7/8"	200-5710
SURFACE CASING	119 feet of 8 5/8" x 24# surface casing	
	set with 115 sacks regular cement.	
SLUSH PUMP	6" x 16"	
ANNULAR VELOCITY	200 feet per minute at 1100 psi pump	
	pressure	

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CORE ANALYSIS  
CORE NO. 1  
"D" SANDSTONE

DEPTH	PERMEABILITY		POROSITY	SATURATIONS	
	Horizontal	Vertical		Oil	Water
5510-11	256md	220md	17.9%	10.6%	44.2%
5511-12	202md	197md	21.4%	2.3%	69.2%
5538-39	82md	57md	17.4%	5.2%	51.2%

CORE NO. 2  
"J" SANDSTONE

5645-46	278md	229md	19.6%	9.7%	81.7%
5646-47	70md	1.9md	15.6%	0	77.0%
5647-48	269md	104md	17.7%	7.8%	70.7%
5648-49	97md	94md	18.1%	10.5%	75.0%
5649-50	15md	1.3md	15.9%	4.4%	76.2%
5650-51	153md	125md	13.3%	12.8%	42.8%

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CORE NO. 2  
5621--5651

Cut 30 feet--Recovered 30 feet

CORING TIMES:

23", 20", 10", 6", 10", 13", 23", 8", 25",  
20", 17", 10", 12", 13", 17", 10", 20", 16",  
17", 17", 17", 17", 15", 14", 8", 4", 4",  
4", 5", 12".

CORE DESCRIPTION:

5621-23	(2')	Sandstone and shale reworked, silty, gray tight, no show.
5623-27	(4')	Sandstone and shale laminations, sandstone silty, gray, tight, no show.
5627- <del>31</del> 28	(1')	Shale black.
5628-29	(1')	Sandstone and shale reworked, silty, gray, tight, no show.
5629-32 1/2	(3½')	Sandstone very fine grain to fine grain, light gray, quartzose, slight porosity and permeability vertical fractures, no show, no fluorescence.
5632½-37	(4½')	Shale black with numerous silt inclusions.
5637-40½	(3½')	Shale black, silty in part.
5640½-45	(4½')	Shale black
5645-51	(6')	Sandstone very fine grain to fine grain, light gray, dense clay matrix, very slight porosity and permeability, irregular stain and fluorescence.

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CORE NO. 1  
5510--5544

Cut 34 feet - Recovered 34 feet

CORING TIMES:

24", 27", 19", 20", 25", 20", 32", 27", 10",  
14", 7", 8", 9", 7", 13", 8", 5", 5",  
10", 10", 9", 6", 5", 8", 5", 4", 5",  
5", 4", 6", 10", 20", 17", 11".

CORE DESCRIPTION:

5510-12	(2')	Sandstone very fine grain to fine grain, light gray, quartzose, fair porosity and permeability, vertical fractures, irregular stain and fluorescence.
5512-18	(6')	Sandstone very fine grain to fine grain, light gray, quartzose, fair porosity and permeability, vertical fractures in part, no show, no fluorescence.
5518-20	(2')	Shale black with few silt inclusions.
5520-31	(11')	Sandstone and shale reworked, silty, gray, tight, no show.
5531-38	(7')	Sandstone very fine grain to fine grain, light gray, numerous and irregular shale inclusions, very slight irregular porosity and permeability, no show.
5538-39	(1')	Sandstone very fine grain to fine grain, light gray, few shale inclusions, very slight porosity and permeability, irregular stain and fluorescence.
5539-40	(1')	Sandstone very fine grain to fine grain, light gray very slight porosity and permeability, no show.
5540-44	(4')	Shale black, few silt inclusions.

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DRILL STEM TEST  
No. 1 5646-5651

TOOL OPEN: 1 hour

SHUT IN: 20 minutes

Immediate good blow, dying slightly after 40 minutes  
and blow sustained for duration of test.

RECOVERED: 210 feet fluid  
30 feet of oil  
180 feet oil cut muddy water

INITIAL FLOW PRESSURE: 60#

FINAL FLOW PRESSURE: 105#

SHUT IN PRESSURE: 1065#

HYDROSTATIC PRESSURE: 3190#

BOTTOM HOLE TEMPERATURE: 194° F