

J. L. Taylor
Hallens #1
SE SE NW Sec. 33-9N-53W
Logan County, Colorado



02496662

Comm. 5-8-53
Comp. 5-18-53
T. D. 5012
Elev. 4103 K. B.

SAMPLE LOG

0000 - 3850	No Samples
3850 - 3870	Medium gray to dark gray shale
3870 - 3965	Medium gray to dark gray shale with streaks of white bentonite
3965 - 3970	Dark gray, speckled, calcareous shale
3970 - 3990	Gray to light gray, speckled, calcareous shale
3990 - 4090	Gray to dark gray, speckled, calcareous shale
4090 - 4110	Dark gray shale
4110 - 4135	Dark gray shale; trace of gray bentonite; Inoceramus Frisms
4135 - 4210	Light gray, gray, dark gray, speckled, calcareous shale; Inoceramus Frisms
4210 - 4300	Gray, dark gray, speckled, calcareous shale; trace bentonite
4300 - 4355	White, chalky, fossiliferous limestone
4355 - 4365	Gray to dark gray shale
4365 - 4390	Light gray, very fine, silty sandstone, tight with streaks gray to dark gray shale and white bentonite
4390 - 4440	Interbedded, gray to light gray, very fine, silty, argillaceous sandstone and gray to dark gray shale with streaks of white bentonite
4440 - 4470	Gray to dark gray shale in part silty with thin streaks light gray to gray, very fine, silty sandstone; trace of gray bentonite
4470 - 4490	Gray to dark gray shale with streaks dark gray, speckled, calcareous shale and light gray, very fine, silty sandstone; tight
4490 - 4550	Gray to dark gray shale with streaks of dark gray, speckled, calcareous shale; Inoceramus Frisms
4550 - 4560	Tan to cream, medium crystalline, fossiliferous limestone
4560 - 4565	Gray to cream, fine to medium crystalline, fossiliferous limestone
4565 - 4635	Gray to dark gray, fossiliferous shale with streaks of gray to white bentonite
4635 - 4645	Light brown to cream, medium crystalline, fossiliferous limestone
4645 - 4715	Gray to dark gray shale in part silty with streaks of white bentonite
4715 - 4721	Tan, cream, brown, medium to coarse crystalline, fossiliferous limestone
4721 - 4795	Gray to dark gray shale; some silty with streaks of white bentonite
4795 - 4800	Light gray, fine, subangular, slightly silty sandstone, tight to poor porosity; some with black shale partings; some white bentonite
4800 - 4801	Tan, fine, subangular, siliceous sandstone; poor porosity, stained, fair odor, good flouresences

- 4801 - 4805 Thinly interbedded dark gray shale and light gray, very fine sandstone; no show, tight
- 4805 - 4807 Dark gray shale with streaks of black carbonaceous shale
- 4807 - 4808 Light gray siltstone
- 4808 - 4812 Light gray, very fine sandstone with black shale partings; tight to some poor porosity; no show
- 4812 - 4814 Sandstone as above with laminations of dark gray shale; no show
- 4814 - 4816 Thinly interbedded dark gray shale and light gray very fine, sandstone; no show
- 4816 - 4820 Dark gray shale with streaks of light gray siltstone
- 4820 - 4880 Gray to dark gray shale with streaks of white bentonite; trace light gray siltstone to very fine sandstone; trace siderite
- 4880 - 4893 Gray to dark gray shale with streaks of light gray siltstone to very fine sandstone
- 4893 - 4897 Dark gray shale
- 4897 - 4901 Light gray to gray siltstone with laminations of dark gray shale
- 4901 - 4902 Light gray to gray, fine, silty sandstone with black shale partings; poor porosity; no show
- 4902 - 4903 Light gray, silty sandstone with laminations of dark gray shale; some porosity; no show
- 4903 - 4905 Light gray, silty sandstone with laminations of dark gray shale
- 4905 - 4906 Dark gray shale
- 4906 - 4908 Light gray sandstone to siltstone; tight with laminations dark gray shale
- 4908 - 4909 Light gray, clean, porous sandstone; no show
- 4909 - 4914 Light gray, clean sandstone with some laminations dark gray shale; tight to poor porosity; no show
- 4914 - 4918 Light gray silty sandstone; tight; with laminations dark gray shale
- 4918 - 4920 Interbedded sandstone as above and dark gray shale
- 4920 - 4925 Dark gray shale with streaks of above sandstone
- 4925 - 4930 Interbedded, dark gray shale and light gray siltstone to very fine, sandstone; tight
- 4930 - 4935 Interbedded, dark gray shale and light gray to white, very fine, subangular sandstone; tight to poor porosity
- 4935 - 4942 Interbedded, dark gray shale and light gray siltstone to very fine sandstone; trace bentonite
- 4942 - 4950 Dark gray shale, trace light gray, fine, subangular sandstone; poor to fair porosity; trace bentonite
- 4950 - 4970 Dark gray shale with streaks of light gray siltstone to very fine sandstone; tight; trace bentonite
- 4970 - 4975 Dark gray shale; trace bentonite
- 4975 - 4985 Dark gray shale with streaks of light gray, fine to medium, subrounded, siliceous sandstone; tight; trace bentonite

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4985 - 4990	Shale and sandstone as above; trace light gray, coarse, subrounded, siliceous sandstone
4890 - 5010	Dark gray shale with streaks of gray to light gray, very fine to fine, siliceous sandstone; tight; some bentonite
5010 - 5018	Dark gray shale; some bentonite
5018	TOTAL DEPTH

Walter H. Ortel
Geologist

DRILL STEM TESTS

DST#1 4796 - 4820 (4791 to 4815 corrected)
 Open 45 minutes, shut in 15 minutes
 Good blow
 Recovered 205 feet of oil and water cut mud
 Initial Flow Pressure 0
 Final Flow Pressure 0
 Shut in Pressure 1084 psi
 Hydrostatic Pressure 2590 psi

FORMATION TOPS

	<u>SAMPLE</u>	<u>SCHLUMBERGER</u>
Niobrara	3965	3940
Fort Hays	4300	4284
Codell	4355	4330
Greenhorn	4550	4540
"D" sand	4800	4790
"J" sand	4898	4893
Skull Creek	5010	5003
Total Depth	5018	5012

Walter H. Oates