

NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR NO. 77

Summary of the Youngblood and Youngblood Wachter #1  
Oliver County, North Dakota  
Permit No. 111, Well No. 95

By Carole Smith  
June, 1954

The Youngblood and Youngblood Wachter #1 - located in Oliver County, North Dakota, SE 1/4 SW 1/4, Section 3, T. 141 N., R. 81 W. (660 feet from south line and 1980 feet from west line). Elevation: 1924 D.F.

The Youngblood and Youngblood Eugene Wachter #1 was spudded July 13, 1952 and abandoned as a dry hole at a total depth of 7850 on September 8, 1952 after plugging. Fifteen sack plugs were set at 7380, 6900, 6140, 4790, 3560, and 3320; thirty sack plugs were set at 725' (the bottom of the surface pipe) and at 15' (the top of the surface pipe). 10 3/4" casing was set at 750' with 700 sacks of cement.

DRILLSTEM TESTS

DST 5230 - 5258

Open 2 hours, received 1400' SW; FP 725#; SIP 2050#.

DST 5396 - 5418

Open 2 hours, received 3650' sulfur/water; FP 170#; SIP 1850#.

DST 6407 - 6430

Open 45 minutes, received 700' SW; FP 190#; SIP 2600#.

No cores.

FORMATION TOPS

Cretaceous System	
Niobrara	2135
Greenhorn	2665
Muddy	3100
Dakota	3330
Jurassic System	
Morrison	3516
Sundance	3625
Piper Lime	4015
Triassic System	
Spearfish	4243
Mississippian System	
Amsden	4285 ?
Big Snowy	4485
Charles	4828
Mission Canyon	5220
Lodgepole	5530
Englewood	6138

Devonian System		
Lyleton		6157
Nisku		6217
Duperow		6288
Souris River		6515
Dawson Bay		6620
Prairie Evaporites		6817
Winnipegosis		6878
Ashern		6920
Silurian System		
Interlake		7020
Ordovician System		
Upper Stony Mountain		7198
Lower Stony Mountain		7303
Red River		7398
Total Depth		7850

Formation tops were determined from electric log and samples; not all lithologic formation tops called. Colors were determined from the rock color chart.

<u>From</u>	<u>To</u>	<u>Formation</u>
800	830	Silty shale--light olive grey, rather firm, partly fine sandy.
830	840	Sandstone--light grey, medium grained, glauconitic, very limey; small amounts of shale as above.
840	910	Sand--fine, subangular quartz; some sandstone as above; some shale (870-880); some silt beginning at 880.
910	940	Sandstone--as above; much fine sand; increasing amounts of shale; missing samples: 920-930,
940	950	Silty shale--medium grey to light grey, partly greenish and glauconitic; traces of limestone.
950	960	Sand--fine to medium glauconitic, subangular quartz; much silty shale; traces of pyrite and limestone.
960	1050	Silty shale--medium grey, lumpy, increasingly sandy, becoming limey at 1010. Rather poor samples.
1050	1180	Silty shale--medium grey, slightly greenish, lumpy, rather bentonitic, partly fine sandy; some dark grey, flaky shale at 1170.
1180	1200	Silty shale--medium dark grey, lumpy, slightly limey.
1200	1240	Shale--medium grey to medium dark grey, lumpy, rather limey, slightly silty and sandy.
1240	1290	Shale--medium grey to medium dark grey, lumpy, slightly silty and sandy; scattered traces of iridescent shell fragments and Inoceramus prisms.
1290	1380	Shale--medium grey to medium dark grey, slightly brownish in part, lumpy, silty; some firm, medium grey shale (1320-1350).
1380	1430	Shale--medium grey, firm.
1430	1620	Shale--medium light grey to medium grey, firm; scattered rare traces of pyrite, brown anhydrite (?) and Inoceramus prisms.
<u>From</u>	<u>To</u>	<u>Formation</u>

1620	1710	Shale--medium grey, firm; scattered traces of pyrite and Inoceramus prisms.
1710	1780	Shale--medium light grey to medium grey, firm; scattered traces of Inoceramus prisms and iridescent shell fragments.
1780	1820	Shale as above; much light grey bentonitic shale and small amounts of bentonite.
1820	1900	Bentonitic shale--medium grey, somewhat brownish, lumpy, silty; traces of bentonite and Inoceramus prisms.
1900	1950	Shale--medium grey, partly lumpy, becoming partly silty and bentonitic; some dense; brown anhydrite(?) beginning at 1910.
1950	1960	Shale--dark grey, flaky; much bentonitic shale as above; small amounts of dense brown anhydrite.
1960	1970	Shale--dark grey to grey black, firm to lumpy; small amounts of bentonite and anhydrite (?).
1970	1980	Shale--medium grey, silty, bentonitic; small amounts of dense brown anhydrite (?) and bentonite.
1980	2020	Shale--medium grey, firm to lumpy, somewhat silty and bentonitic, limey at 2010-2020.
2020	2040	Bentonitic shale--medium brownish shale, lumpy, silty, decreasingly bentonitic.
2040	2150	Limey shale--medium grey, partly brownish, lumpy, silty; traces of anhydrite and bentonite.
2150	2160	Shale--medium grey to medium dark grey, lumpy, partly limey.
2160	2210	Limey shale--medium grey, lumpy, partly silty; scattered traces of iridescent shell fragments and limestone.
2210	2260	Shale--medium grey to medium dark grey, firm to lumpy, rather limey, somewhat bentonitic beginning at 2230; traces of dense limestone.
2260	2270	Limey shale--medium grey to medium dark grey, lumpy, silty, partly bentonitic.
2270	2310	Shale--medium grey to medium dark greys lumpy, slightly silty, rather limey.
2310	2450	Limey shale--medium grey to medium dark grey, becoming darker at 2370, lumpy, slightly silty; scattered traces of shell fragments and Inoceramus prisms; some firm, dark grey shale at 2440.
2450	2470	Shale--medium grey, partly brownish, lumpy, slightly silty and limey.
2470	2490	Shale--medium grey, lumpy, silty, rather limey (decreasingly limey).
2490	2500	Shale--medium grey to medium dark grey, soft.
2500	2510	Limey shale--medium grey, lumpy, rather silty.
2510	2570	Shale--medium grey to medium dark grey, lumpy, somewhat limey, slightly silty.
2570	2630	Shale--medium grey, slightly green, partly firm, partly, silty and lumpy.
2630	2670	Shale--medium grey to medium dark grey, flaky, partly lumpy, becoming slightly limey at 2650; traces of Inoceramus prisms beginning at 2650.
2670	2690	Limey shale--medium dark grey, rather soft and flaky; small amounts of Inoceramus prisms.
<u>From</u>	<u>To</u>	<u>Formation</u>

2690	2710	Shale--dark grey to grey black, flaky, partly limey; some Inoceramus fragments.
2710	2720	Limey shale as above; small amounts of Inoceramus prisms.
2720	2730	Limey shale--medium dark grey with white specks, partly flaky; some Inoceramus prisms and Inoceramus limestone.
2730	2770	Shale--grey black, flaky; much limey shale as above; much Inoceramus limestone and prisms.
2770	2840	Shale--dark grey to grey black, flaky, partly limey; some Inoceramus limestone and prisms, increasing somewhat in quantity.
2840	2930	Shale--grey black, flaky; small amounts of Inoceramus limestone and prisms, increasing greatly in quantity at 2880.
2930	3220	Shale--dark grey to grey black with white specks, flaky, scattered traces of Inoceramus limestone and prisms; traces of white, fine sandstone at 3130; some lumpy, silty grey shale begins at 3140.
3220	3300	Shale--dark grey to grey black, flaky; scattered traces of pyrite and Inoceramus limestone.
3300	3380	Shale--medium dark grey, soft, flaky; some medium light grey shale beginning at 3340; some fine, white sandstone beginning at 3440; some very coarse, pale orange to light brown, pitted quartz sand beginning at 3350; missing samples: 3310-3320.
3380	3430	Shale--grey black, soft, flaky; small amounts of pitted sand as above; small amounts of very pale yellow grey limestone (3380-3400); traces of coarse, partly glauconitic sandstone beginning at 3400; missing samples: 3410-3420.
3430	3460	Shale--medium grey to dark grey, partly lumpy and silty; traces of sand and pyrite; small, increasing amounts of pyritic sandstone beginning at 3440.
3460	3500	Shale--dark grey, firm to flak; small amounts of limey sandstone; missing samples: 3470-3490.
3500	3510	Shale--dark grey, flaky.
3510	3540	Shale--dark grey, flaky, partly silty and light olive grey beginning at 3520; small amounts of pink shale at 3520; much medium to fine, very limey, partly glauconitic sandstone (3510-3520).
3540	3600	Shale--grey black, flaky, some medium grey, lumpy, somewhat silty and limey shale; small amounts of pink and very light brown shale; traces of shaly siltstone beginning at 3570.
3600	3640	Shale--black, flaky; much medium grey, lumpy, partly silty and limey shale; traces of pyrite, limestone, and greenish grey shale.
3640	3660	Shale--dark grey to grey black, soft and flaky, partly greenish, lumpy, and limey; some medium, partly limey white sandstone; some waxey, greenish grey shale at 3650 and less sandstone.
3660	3680	Shale--dark grey, some is lumpy and silty; small amounts of medium grained, limey sandstone; small amounts of greenish shale.
<u>From</u>	<u>To</u>	<u>Formation</u>

3680	3690	Shale--medium grey, lumpy, silty, slightly greenish and limey; traces of sandstone, limestone, black shale, and waxey green shale.
3690	3710	Shale--medium grey to dark grey, partly silty and lumpy and limey; traces of sandstone, light brown shale, and sandstone; much light brown, lumpy, silty, limey shale at 3700.
3710	3730	Shale--medium grey to dark grey, flaky to firm, small amounts of greenish and brownish shales; some light brown siltstone; some very fine, limey, pinkish sandstone; some dense, pink and orangish anhydrite at 3720.
3730	3740	Shale--medium grey to dark grey, small amounts are waxey green; much white to light brown, medium grained, limey sandstone; traces of pyrite.
3740	3750	Missing samples.
3750	3760	Shale--grey black and black, much is greenish and brownish; some sandstone as above; some pinkish anhydrite.
3760	3770	Shale--pale green, soft, flaky, waxey; small amounts of shale and anhydrite as above.
3770	3780	Shale--grey to black, small amounts of shale and anhydrite as above. Poor sample.
3780	3810	Shale--pale green, partly silty and limey; some fine sandstone at 3790-3800; traces of anhydrite.
3810	3830	Limey shale--pale green to green grey, soft, flaky, limey; small amounts of light brown siltstone and shale.
3830	3860	Limey shale--greenish grey, soft and flaky; traces of grey shale and sand.
3860	3910	Limey shale--greenish grey, flaky, partly lumpy; traces of anhydrite.
3910	3970	Shale--pale green and greenish grey, becoming increasingly grey, flaky to lumpy, partly limey; traces of shell fragments, anhydrite and sandstone.
3970	4020	Shale as above; small amounts of reddish brown, partly silty shale increasing in quantity; much very pale orange fine sugary to micro-sugary limestone beginning at 4010.
4020	4030	Limestone--very pale orange to yellow brown, micro-sugary to dense; small amounts of shale as above.
4030	4040	Limey shale--grey and greenish, partly lumpy; much pale, sublithographic limestone; traces of anhydrite.
4040	4070	Limestone--white to very light grey, micro-sugary; fossils; small amounts of shale as above.
4070	4090	Limestone as above; much pale red, shaly limestone.
4090	4110	Limestone--white to very light grey, dense; some grey and greenish grey shale.
4110	4120	Shale--pale green to grey green, flaky and soft, partly limey; much limestone as above.
4120	4140	Limestone--almost white, sublithographic; much grey and green and reddish shale.
4140	4150	Limestone--white to very pale orange, micro-sugary; small amounts of shale and anhydrite.
4150	4160	Shale--medium grey to dark grey, reddish brown, greenish grey; some pale yellow grey, fine sugary limestone; small amounts of anhydrite.
<u>From</u>	<u>To</u>	<u>Formation</u>

4160	4170	Limestone--white and almost white, micro-sugary to fine sugary; some shale as above; traces of anhydrite.
4170	4180	Shale--reddish brown, silty and limey, some is green and grey, some limestone as above; small amounts of anhydrite; traces of fine sand.
4180	4190	Shale--greenish, reddish brown, and splintery grey, partly limey, some white anhydrite.
4190	4200	Shale--reddish brown, some grey and green shale, partly limey and silty; some white anhydrite.
4200	4220	Shale--moderate reddish brown; much grey and dark grey shale; much greenish grey shale beginning at 4210.
4220	4240	Shale--medium dark grey to dark grey, some limey greenish grey, and small amounts of reddish brown; traces of anhydrite.
4240	4260	Shale--medium grey to dark grey, slightly green; traces of anhydrite, reddish shale, and reddish sandstone.
4260	4270	Shale--dark grey to grey black, flaky; some medium grey, silty, bentonitic shale; small amounts of reddish brown shale.
4270	4320	Shale--dark grey, flaky; some greenish grey, lumpy to flaky, limey shale; traces of reddish shale and sandstone.
4320	4390	Shale--medium dark grey to dark grey; some reddish brown and greenish grey, partly limey, flaky shale; traces of pinkish sandstone (becoming grey) and white anhydrite.
4390	4400	Shale--dark grey, flaky; traces of reddish brown, medium grey, brownish grey and greenish grey shale; traces of fine sand and grey siltstone.
4400	4460	Shale--medium grey to dark grey, partly greenish, flaky; traces of anhydrite, reddish shale, and grey sandstone.
4460	4500	Shale as above; traces of dense white limestone, anhydrite, and fine grey sandstone; some shaly, light grey siltstone beginning at 4480.
4500	4550	Shale--medium grey to dark grey, rather firm; traces of reddish shale and sandstone and siltstone, white anhydrite, and dense white limestone.
4550	4570	Shale--medium grey to dark grey, slightly green, rather firm; small amounts of pale, very fine sugary, partly dolomitic limestone; traces of reddish shale and siltstone.
4570	4580	Shale--medium grey to grey black; traces of red and green shales, fine sand, and limestone.
4580	4610	Shale--medium dark grey to dark grey, small amounts of greenish, reddish, and brownish shales; some almost white chalky to dense limestone decreasing at 4600.
4610	4635	Shale--medium grey to dark grey, reddish brown, small amounts of greenish, yellowish, pinkish and brownish shales, becoming fine sandy at 4630; small amounts of very pale yellow grey, dense limestone increasing in quantity.
4635	4660	Shale as above; much almost white, micro-sugary and/or chalky, partly sublithographic, fossiliferous limestone becoming somewhat oolitic at 4645 and sandy at 4650.
4660	4670	Shale--as above; some limestone (as above) decreasing greatly in quantity.
<u>From</u>	<u>To</u>	<u>Formation</u>

4670	4680	Shale--medium dark grey, reddish brown, greyed red, light olive, and yellow becoming mostly grey; traces of anhydrite and limestone.
4680	4700	Shale--medium dark grey to grey black shale, firm to flaky, traces of variegated shale as above; traces of micro-sugary, pale limestone; missing samples: 4695-4700.
4700	4720	Shale--variegated as above, becoming mostly medium grey to dark grey; traces of dense limestone and anhydrite.
4720	4740	Shale--medium dark grey, some reddish and yellowish, traces of anhydrite and shaly limestone.
4740	4750	Shale--medium grey to dark grey, becoming green tinged, firm to flaky; small amounts of yellow and reddish shales; traces of fine sandstone and anhydrite.
4750	4760	Shale--reddish, purple, yellow, green greys; traces of white anhydrite, pale limestone, and fine sand.
4760	4780	Shale--medium grey to dark grey, flaky, partly limey; some variegated shale as above; traces of fine sand, white anhydrite and reddish siltstone.
4780	4790	Shale--medium grey to dark grey, flaky; much variegated shale as above; traces of light grey, fine sandstone.
4790	4815	Shale--dark grey to grey black, flaky and splintery; some variegated shale as above; traces of white anhydrite and grey siltstone; traces of dense white limestone beginning at 4805.
4815	4830	Shale--medium grey to dark grey; some reddish, silty shale, some fine sugary, light grey, dolomitic limestone.
4830	4840	Shale--medium grey to grey black; some reddish brown, limey shale; much light grey, fine sugary limestone decreasing rapidly in quantity; traces of anhydrite and fine sandstone.
4840	4850	Shale--grey, variegated (red, pink, purple, yellow, brown, etc.--partly limey); traces of medium sand, limey grey siltstone, and fine grey limestone.
4850	4855	Shale as above; some dense, grey limestone; traces of anhydrite and fine sand.
4855	4860	Limestone--very light brown, micro-sugary to sublithographic partly chalky; some shale; traces of sand and anhydrite.
4860	4870	Limestone--very light grey and very light brown, sublithographic; much medium dark grey shale; traces of anhydrite.
4870	4880	Limestone--very pale orange, sublithographic, with some included yellow brown anhydrite; traces of pale yellow brown oolitic limestone; some grey shale.
4880	4890	Limestone--very pale yellow brown and very pale orange, micro-sugary to sublithographic; small amounts of pale yellow brown oolitic limestone; small amounts of grey and reddish shales increasing in quantity; traces of yellow brown anhydrite.
4890	4895	Shale--grey, yellowish, reddish; much pale, fine sugary to chalky limestone; small amounts of pale yellow brown anhydrite.
4895	4905	Shale--medium grey to dark grey, reddish brown, green, yellow, brownish; some limestone as above decreasing in quantity; traces of white anhydrite.
<u>From</u>	<u>To</u>	<u>Formation</u>

4905	4925	Shale as above; some almost white, fine sugary limestone, becoming dense; traces of anhydrite.
4925	4930	Shale--medium grey to dark grey, some reddish brown, traces of yellowish and pinkish; some pale to white, partly dolomitic fine sugary to chalky limestone; traces of white anhydrite.
4930	4955	Limestone--very pale yellow brown to yellow brown, micro-sugary and/or sublithographic, becoming partly crystalline; some shale (4930-4935) as above; traces of anhydrite.
4955	4965	Limestone--very pale yellow brown and very light grey, micro-sugary and/or chalky, partly crystalline; some grey shale; traces of reddish shale and white anhydrite.
4965	4980	Shale--medium grey to dark grey, reddish, light olive, yellowish; greenish; much limestone as above; traces of anhydrite.
4980	4985	Shale--medium grey to dark grey, partly brownish; some red, green, and olive shale; some dense, pale limestone, traces of anhydrite and light brown siltstone.
4985	4995	Shale--variegated, partly silty, becoming mostly grey and reddish; some pearly white anhydrite decreasing somewhat in quantity; small amounts of limestone as above.
4995	5000	Limestone--very pale yellow brown, micro-sugary to fine sugary; much grey and silty red shale; small amounts of anhydrite; light brown and reddish siltstone and fine sandstone.
5000	5005	Shale--medium dark grey, some silty reddish brown, traces of yellow and light olive; some limestone as above and white anhydrite.
5005	5010	Limestone--very pale yellow brown, fine sugary to sublithographic; much variegated shale; small amounts of anhydrite.
5010	5015	Shale--dark grey, some greenish grey and reddish brown; traces of limestone and light bluish grey dense dolomite, and white anhydrite.
5015	5035	Shale--dark grey, much variegated; traces of blue grey dolomite and white anhydrite increasing in quantity.
5035	5040	Shale--medium dark grey to grey black, small amounts of reddish brown and yellowish; much dense, blue grey to light grey anhydrite.
5040	5045	Dolomite--light grey to white, dense; much grey shale as above; small amounts of red and greenish shales; much pale, fine sugary, partly crystalline limestone.
5045	5065	Limestone--pale yellow brown, micro-sugary and/or chalky partly crystalline; some grey shale; small amounts of light blue grey, dense dolomite (5050-5055); traces of anhydrite.
5065	5070	Limestone--yellow brown, sublithographic and/or crystalline; much dark grey shale; traces of red shale and white anhydrite.
5070	5090	Shale--dark grey to grey black, small amounts are reddish and yellowish; some pale, fine sugary to chalky limestone (increasing: 5080-5085); traces of dense, blue grey anhydrite.
<u>From</u>	<u>To</u>	<u>Formation</u>

5090	5100	Shale--medium grey to grey black, traces are reddish and yellowish; some dense, blue grey dolomite decreasing in quantity; traces of limestone and anhydrite.
5100	5105	Shale--medium dark grey to dark grey; much reddish, greenish and yellowish, partly limey shale; small amounts of limestone, anhydrite and dolomite as above.
5105	5110	Shale--dark grey, some silty reddish brown, traces of yellow and green, partly limey; some pale, dense dolomite; small amounts of white anhydrite.
5110	5120	Shale--variegated, partly limey; small amounts of dense, blue grey dolomite increasing in quantity; small amounts of white anhydrite and limestone.
5120	5125	Shale--variegated, partly limey; some dense, blue grey dolomite; some pale, micro-sugary limestone; some white anhydrite.
5125	5140	Limestone--pale yellow brown micro-sugary and/or chalky, partly crystalline; much shale as above becoming mostly dark grey at 3130; small amounts of dolomite and anhydrite as above.
5140	5155	Shale--medium dark grey to dark grey, some red and dusky yellow; some dense blue grey dolomite; traces of anhydrite and limestone as above.
5155	5200	Shale as above; small amounts of dense, blue grey dolomite; traces of limestone and anhydrite; missing samples: 5180-5185.
5200	5215	Shale--dark grey to grey black, traces of greenish grey and reddish brown; some dense, blue grey dolomite increasing greatly in quantity; traces of anhydrite and limestone.
5215	5220	Shale as above; some dense, blue grey dolomite; some very light brown, very fine sugary to micro-sugary, partly chalky limestone; small amounts of light brown sandstone.
5220	5235	Shale--dark grey to black, traces of light brown shale; much dense, blue grey dolomite ending at 5225; traces of anhydrite.
5235	5250	Shale as above; some very pale orange and very pale yellow grey, sublithographic to chalky limestone and some dense dolomite as above.
5250	5255	Limestone--very pale yellow grey, micro-sugary and/or chalky; much dark grey shale; traces of anhydrite and dolomite.
5255	5280	Shale--dark grey, small amounts are reddish and greenish; traces of limestone, dolomite, and anhydrite as above; some yellow brown, micro-sugary to fine sugary limestone beginning at 5270.
5280	5305	Limestone--very pale yellow brown to yellow brown, micro-sugary and/or chalky, partly crystalline; some medium dark gray shale; traces of dense dolomite and reddish shale and anhydrite.
5305	5320	Limestone--pale yellow brown to yellow brown, fine sugary and/or chalky; small amounts of dark grey shale.
5320	5330	Limestone--very pale yellow brown to very pale brown, fine sugary and/or chalky, partly shaly; traces of anhydrite and shale.
<u>From</u>	<u>To</u>	<u>Formation</u>

5330	5340	Limestone--pale yellow brown, very fine sugary to micro-sugary and/or chalky, partly crystalline, partly shaly, fossiliferous; traces of shale and anhydrite.
5340	5365	Limestone--yellow brown, micro-sugary and/or chalky, partly crystalline, slightly fossiliferous; traces of shale.
5365	5370	Limestone--very pale yellow brown, micro-sugary and/or chalky partly crystalline; traces of dense dolomite, grey shale, and white anhydrite.
5370	5375	Limestone--medium yellow brown, fine sugary to micro-sugary and/or chalky, partly crystalline; much dense, blue grey dolomite; some grey shale
5375	5390	Dolomite--white to blue grey, dense; some grey shale increasing in quantity; small amounts of limestone as above; missing samples: 5385-5390.
5390	5405	Shale--medium grey to dark grey, small amounts of light brown, decreasing in quantity; some dense, white anhydrite beginning at 5395; missing samples: 5400-5405.
5405	5410	Limestone--pale yellow brown, fine sugary to micro-sugary, partly pseudo-oolitic; small amounts of dolomite and shale.
5410	5415	Limestone--yellow brown, fine sugary and chalky, partly crystalline, partly fine oolitic; some dark grey shale.
5418		Limestone--yellow brown, fine sugary and chalky circulation 1 1/2 hours.
5420	5430	Shale--dark grey; some pale yellow brown, fine sugary to micro-sugary and/or chalky, partly pseudo-oolitic.
5430	5450	Oolitic limestone--pale yellow brown, partly chalky and crystalline, partly fine sugary beginning at 5440, some dark grey shale.
5450	5465	Limestone--yellow brown, micro-sugary to chalky, partly crystalline and oolitic; small amounts of dark grey shale; traces of anhydrite dolomite.
5465	5485	Oolitic limestone--yellow brown, chalky, partly micro-sugary and crystalline.
5485	5500	Limestone--yellow brown, fine sugary and/or chalky, partly crystalline, increasingly oolitic.
5500	5520	Limestone--yellow brown, fine sugary to micro-sugary and/or chalky, partly crystalline.
5520	5540	Limestone--pale yellow brown to very pale orange, fine sugary and/or chalky, slightly oolitic; some hard, crystalline, light olive grey limestone beginning at 5525; missing samples: 5530-5535.
5540	5545	Limestone--light grey, crystalline, partly chalky; some fine sugary, yellow grey limestone; small amounts of grey shale.
5545	5550	Limestone--light grey to medium light grey, shaly, dense; much grey shale.
5550	5560	Shale--dark grey; much dense grey limestone as above.
5560	5570	Limestone--medium grey to light grey, dense to chalky, shaly; much medium dark grey to dark grey shale.
5570	5580	Limestone--grey, micro-sugary, partly crystalline and chalky; some grey shale.
5580	5585	Limestone--very pale orange, micro-sugary slightly oolitic in parts; small amounts of grey shale.
<u>From</u>	<u>To</u>	<u>Formation</u>

5585	5595	Limestone--yellow brown to light grey, micro-sugary and/or chalky, partly fossiliferous; small amounts of grey shale.
5595	5615	Limestone--pale yellow grey, very fine sugary and/or chalky, increasingly crystalline and fossiliferous; some grey shale.
5615	5625	Limestone--light grey, micro-sugary and/or chalky, quite crystalline; much dark grey shale.
5625	5655	Limestone--light grey, micro-sugary and/or chalky, partly crystalline; much dark grey shale.
5655	5660	Limestone--very light olive grey to light grey, crystalline, fine sugary; chalky; much dark brownish grey shale.
5660	5675	Shale--dark grey to grey black, traces of reddish and yellowish; much limestone as above.
5675	5685	Limestone--very light grey to light grey, chalky, partly very fine sugary and crystalline; much shale as above; missing samples: 5680-5685.
5685	5695	Shale--dark grey, pyritic; traces of reddish, purple, and yellowish shales; some grey, chalky and crystalline, limestone as above.
5695	5705	Limestone--light grey to medium light grey, micro-sugary and/or chalky, increasingly crystalline; some grey shale.
5705	5710	Shale--dark grey, flaky; traces of reddish, brownish, and greenish shales; small amounts of limestone as above.
5710	5755	Limestone--medium grey to light grey, fine sugary to micro-sugary and/or chalky, partly crystalline; small amounts of medium dark grey to dark grey shale increasing somewhat in quantity.
5755	5775	Limestone--light grey, fine sugary to micro-sugary and/or chalky, partly crystalline; small amounts of shale, traces of brachiopod fragments.
5775	5790	Limestone--light grey to yellow grey, dense to micro-sugary, partly crystalline, increasingly chalky; some grey shale; traces of brown, olive, and reddish shales; traces of brachiopod fragments.
5790	5795	Limestone--medium grey to light grey, micro-sugary to dense, partly chalky and crystalline; some grey shale, traces of reddish and greenish shale.
5795	5800	Limestone--as above, becoming slightly brownish, much light grey, chalky limestone; some shale as above.
5800	5810	Shale--dark grey, small amounts of reddish and greenish; some dense and chalky limestone as above, increasing in quantity.
5810	5825	Limestone--medium light grey, micro-sugary, shaly, partly pale orange and crystalline; small amounts of grey shale.
5825	5845	Limestone--medium grey to light grey, micro-sugary to dense, partly chalky and crystalline; some grey shale; scattered traces of brachiopod fragments.
5845	5850	Limestone--very pale orange to medium light grey, micro-sugary to dense, partly chalky and crystalline, slightly shaly, traces of brachiopods and grey shale.
5850	5875	Limestone--medium light grey to light grey, micro-sugary to dense, partly chalky, slightly shaly; traces brachiopods and grey shale.
<u>From</u>	<u>To</u>	<u>Formation</u>

5875	5890	Limestone--light grey to very pale orange, dense to chalky, partly crystalline; some grey green and reddish shale becoming partly dusky yellow at 5885.
5890	5905	Shale--medium grey to dark grey, traces of yellow, red, and green; small amounts of dense to chalky, grey limestone increasing greatly in quantity.
5905	5910	Limestone--greys, micro-sugary to dense, partly chalky and crystalline; brachiopod fragments; small amounts of grey shale.
5910	5920	Shale--medium dark grey to dark grey, traces of yellow, red, and greenish; some dense to chalky, grey limestone; traces of anhydrite and olive grey chert.
5920	5935	Shale--grey and brownish grey; much dense to chalky, grey limestone; some olive grey chert.
5935	5945	Limestone--light olive grey, dense, brittle, partly chalky, partly dolomitic; small amounts of grey shale.
5945	5950	Shale--medium grey to dark grey, partly brownish; traces of red, yellow, and greenish shale; small amounts of dense, grey limestone.
5950	5975	Limestone--medium light grey to light grey, micro-sugary to chalky; brachiopod fragments; some shale as above; scattered traces of chert.
5975	5990	Limestone--light grey to black to light olive grey, micro-sugary to dense, partly chalky, fossiliferous; much dark grey shale.
5990	6005	Limestone--medium light grey, partly brownish, micro-sugary to dense, partly chalky; some olive grey chert, decreasing steadily in quantity; traces of grey shale.
6005	6020	Limestone--medium light grey to light grey, slightly orange and yellow in part, dense to chalky; traces of shale and chert.
6020	6025	Limestone--light olive grey, dense, brittle, partly chalky; small amounts of grey shale; traces of chert.
6025	6035	Shale--dark brownish grey, splintery; some dense grey limestone decreasing in quantity.
6035	6040	Shale--medium grey to dark grey, some brown, red, green, and olive; much micro-sugary to chalky, grey limestone.
6040	6055	Limestone--grey, dense to micro-sugary, partly chalky; some brownish grey and dark brownish grey shale, decreasing somewhat in quantity.
6055	6060	Shale--medium dark grey to dark grey; some dense, grey limestone; traces of anhydrite and reddish shale.
6060	6065	Limestone--light grey to light brown, dense, partly chalky; some grey shale; small amounts of reddish and greenish shales.
6065	6100	Limestone--medium grey to light grey, very dense; traces of olive grey chert beginning at 6065 and much chert beginning at 6080; much grey shale (6090-6100).
6100	6115	Limestone--grey, micro-sugary, and/or chalky, becoming sub-lithographic; brachiopod fragments; small amounts of grey shale; small amounts of light grey chert ( <u>much</u> chert beginning at 6110).
<u>From</u>	<u>To</u>	<u>Formation</u>

6115	6120	Limestone--medium light grey, sublithographic; traces of chert and grey shale.
6120	6130	Shale--grey, silty greenish grey, becoming mostly brownish grey; traces of pink and white anhydrite, dense limestone and chert.
6130	6140	Limestone--medium light grey, dense to chalky, becoming sublithographic; some grey to light olive grey shale; traces of chert and pyrite.
6140	6145	Limestone--very pale yellow grey to light grey, micro-sugary to dense, partly chalky; some grey and reddish shale.
6145	6160	Shale--medium grey to dark grey; much micro-sugary to chalky, yellow brown limestone.
6165	6175	Limestone--light grey, dense to chalky; much grey shale beginning at 6170.
6175	6185	Limestone--medium grey to light grey, sublithographic to dense; much medium grey to dark grey shale; traces of red shale, white anhydrite, and olive grey chert.
6185	6200	Limey shale--light brown (5YR5/6); small amounts of grey shale as above, increasing in quantity; some dense, light grey limestone.
6200	6220	Limey shale as above; some medium grey to dark grey shale; increasing steadily in quantity; some dense limestone, becoming pinkish at 6210; missing samples: 6215-6220.
6220	6230	Dolomitic limestone--greyish orange, micro-sugary; much dark grey to medium grey, splintery shale traces anhydrite and gypsum.
6230	6240	Shale--dark grey to medium grey; much grey to greyish orange dense limestone, becoming dolomitic at 6235; traces of anhydrite.
6240	6245	Limestone--yellow brown, fine sugary, somewhat dolomitic; some grey shale; small amounts of reddish shale; traces of anydrite.
6245	6255	Limestone--yellow brown and light grey, fine sugary and/or chalky; small amounts of grey shale; traces of reddish shale.
6255	6260	Limestone--pale yellow brown to light grey, sublithographic to chalky, partly fine crystalline.
6260	6270	Limestone--medium yellow brown to light grey, fine sugary to dense, partly dolomitic; traces of white anhydritc and dark grey shale.
6270	6280	Limestone--pale yellow brown to light grey, fine sugary to dense, partly chalky; much grey shale.
6280	6295	Shale--medium dark grey to dark grey, flaky, traces of red and greenish; much limestone as above, beginning at 6285 and increasing in quantity.
6295	6300	Limestone--pale, sublithographic to lithographic; much grey shale.
6300	6310	Limestone--very pale olive grey to very pale yellow grey, micro-sugary to dense, partly lithograhic; some grey shale.
6310	6315	Limestone--pale yellow brown to very pale orange, micro-sugary, partly chalky, partly dolomite.
<u>From</u>	<u>To</u>	<u>Formation</u>

6315	6320	Limestone--light olive grey, dense, slightly dolomitic in part; some limestone as above; small amounts of grey shale.
6320	6325	Limestone--very pale orange, fine sugary; partly chalky, slightly dolomitic in part; small amounts of grey shale.
6325	6330	Dolomitic limestone--very pale orange to very pale yellow brown, fine sugary, partly chalky; small amounts of shale.
6330	6365	Dolomitic limestone and limey dolomite--pale orange and pale yellow brown, sugary, partly chalky and sublithographic beginning at 6350; traces of anhydrite and shale.
6365	6385	Limestone--pale orange to very pale yellow brown, fine sugary to sublithographic, partly chalky, partly dolomitic, becoming more dolomitic and sugary at 6380; traces of anhydrite and grey shale.
6385	6400	Limestone--yellow brown to very pale orange, fine sugary to chalky becoming rather sublithographic at 6390; small amounts of shale; traces of quartz and anhydrite.
6400	6415	Limestone--very pale orange to very pale yellow brown, fine sugary to chalky, partly dolomitic; small amounts of grey shale; traces of anhydrite.
6415	6420	Dolomitic limestone--yellow grey, micro-sugary to chalky, grades to limey dolomite; some medium grey to dark grey shale.
6420	6430	Limey dolomite--yellow brown, sugary.
6430	6440	Shale--dark grey, flaky. (Cave?)
6440	6450	Limestone--very pale orange to very pale yellow brown, sublithographic, much dark grey shale, decreasing in quantity.
6450	6475	Limestone--very pale orange to very pale yellow brown, micro-sugary and/or sublithographic; some medium dark to dark grey shale, decreasing steadily in quantity; small amounts of very light olive grey, dense limestone beginning at 6465.
6475	6495	Limestone--light olive grey, very dense; much shale as above; fossils; some grey shale (6475-6480).
6495	6505	Limestone--light olive grey to very pale yellow brown, micro-sugary to sublithographic, partly chalky; traces of shale.
6505	6515	Limestone--very pale orange, sublithographic to lithographic; some dense, light olive grey shale beginning at 6510; small amounts of grey shale.
6515	6530	Shale--medium grey to medium dark grey; much very pale orange, fine sugary to sublithographic limestone.
6530	6560	Limestone--very pale orange to light grey to pale yellow brown, micro-sugary to dense, partly chalky; some grey shale; traces of red and green shale; traces of yellow, olive and brown shales beginning at 6540.
6560	6570	Dolomitic limestone--very pale orange to very light grey, becoming light olive grey, micro-sugary; much sublithographic limestone as above; some very light grey, chalky limestone; small amounts of dark grey shale.
6570	6575	Dolomitic limestone and limey dolomite--pale, micro-sugary to sublithographic, partly chalky.
<u>From</u>	<u>To</u>	<u>Formation</u>

6575	6590	Limestone--very pale orange to very light grey, dense to sublithographic; some dark grey to white mottled, dense to chalky limestone beginning at 6585; small amounts of dark grey shale.
6590	6600	Limestone--very light grey to pale yellow grey, micro-sugary, partly denser and dolomitic at 6595; some grey shale.
6600	6610	Limestone--very pale orange to very light grey to very light brown, micro-sugary to dense, partly chalky, becoming mostly sublithographic; small amounts of grey shale.
6610	6615	Limestone--very pale orange, partly light grey, fine sugary to dense, partly chalky, slightly shaly.
6615	6620	Limestone--very pale orange to very pale yellow brown, dense to chalky, slightly shaly; traces of shale and pyrite.
6620	6625	Limestone--very pale orange to very pale yellow brown, micro-sugary to dense, partly chalky; much dark grey, partly greenish, flaky shale.
6625	6630	Limey shale--moderate reddish orange (10R6/6); much very pale yellow brown, dense limestone; some dark grey shale; traces of sand and pyrite.
6630	6640	Limestone--yellow brown, very dense to sublithographic; some shale as above, increasing in quantity.
6640	6650	Shale--medium grey to dark grey, traces of red and green; some dense limestone as above; traces of anhydrite and shell fragments.
6650	6665	Limestone--very pale orange to almost white, dense to sublithographic; much shale as above.
6665	6680	Limestone--almost white, sublithographic; small amounts of grey shale; some dense, grey and very pale yellow brown limestone beginning at 6670.
6680	6700	Limetone--very pale yellow brown, very dense, some almost white limestone as above; small amounts of grey shale.
6700	6730	Limestone--very pale brown to very light grey, very dense, much is chalky and sublithographic; small amounts of shale.
6730	6760	Limestone--very pale orange to very pale yellow brown, very dense to sublithographic, partly chalky; traces of shale.
6760	6780	Limestone--vsry pale yellow brown to very pale orange, sublithographic, partly dense, quite chalky (6765-6775); small amounts of grey shale.
6780	6785	Shale--medium grey to dark grey; much dense, light grey to very light brown limestone.
6785	6800	Limestone--light grey to very pale orange, micro-sugary to dense, partly chalky; some dark grey shale, increasing at 6795.
6800	6805	Dolomitic limestone--pale yellow brown to light grey, micro-sugary; some dark grey shale.
6805	6810	Limestone--light grey to pale yellow brown, micro-sugary; much dark grey shale (6805-6810).
6810	6815	Limestone--medium grey, dense; some very pale orange, chalky limestone; much dark grey shale.
<u>From</u>	<u>To</u>	<u>Formation</u>

6815	6835	Limestone--very pale orange to light grey, micro-sugary to dense, shaly, partly chalky, increasingly dolomitic beginning at 6825; some grey shale; traces of fine to medium, rounded sand.
6835	6865	Dolomitic limestone--almost white, micro-sugary to dense, becoming yellow grey at 6850; small amounts of shale increasing at 6850.
6865	6880	Limestone--very pale yellow grey, micro-sugary and/or dense, partly dolomitic; much dark grey shale, traces of red and green shales.
6880	6895	Dolomitic limestone--very pale yellow grey, dense; much dark grey shale, decreasing rapidly in quantity.
6895	6905	Dolomitic limestone--light grey to very pale yellow grey, very dense; small amounts of dark grey shale.
6905	6910	Limestone--very light grey to very light brown, micro-sugary, shaly, somewhat dolomitic, small amounts of dark grey shale.
6910	6915	Limey shale to shaly lime--very light grey to very light brown, lumpy; much limestone as above.
6915	6925	Shale--medium grey to dark grey; much light grey and light brown, micro-sugary, shaly limestone.
6925	6935	Limey dolomite--very pale orange to white, rather pearly, very dense; much grey shale, decreasing in quantity.
6935	6995	Dolomite--very pale orange, dense, vitreous, partly crystalline; much dark grey shale (6965-6970); missing samples: 6940-6965, 6970-6985.
6995	7060	Dolomite--very pale orange, dense, vitreous, partly crystalline, somewhat limey; much dark grey shale, decreasing steadily in quantity and ending at 7010.
7060	7070	Limestone--almost white, sublithographic; much dense dolomite as above, decreasing in quantity.
7070	7075	Dolomitic limestone--very pale orange to white, micro-sugary to dense.
7075	7080	Dolomite--very pale orange to white, micro-sugary to dense, slightly limey.
7080	7090	Limestone--almost white, dense, rather vitreous, increasingly dolomite.
7090	7100	Dolomitic limestone--very pale orange to white, sublithographic to dense.
7100	7120	Limey dolomite--very pale orange to white, sublithographic to dense; much dark grey shale (slightly green in part) beginning at 7110.
7120	7135	Dolomitic limestone--very pale orange to white, micro-sugary to dense, partly limey dolomite beginning at 7130; much dark grey shale.
7135	7155	Dolomitic limestone and limey dolomite--very pale orange to white, sublithographic; some dark grey shale beginning at 7145; traces of sand beginning at 7145.
7155	7175	Dolomite--very pale, dense, vitreous, increasingly limey; much dark grey shale; traces of fine sand; missing samples: 7165-7175.
<u>From</u>	<u>To</u>	<u>Formation</u>

7175	7185	Dolomitic limestone--very pale orange to white, sub-lithographic, partly limey dolomite beginning at 7180; much dark grey shale; traces of fine, subangular sand.
7185	7200	Dolomite--very pale orange to white, very dense, becoming limey; some grey shale; traces of reddish and pinkish shale, green shale, and subangular sand.
7200	7205	Dolomitic limestone--almost white, sublithographic; small amounts of grey shale.
7205	7215	Limey dolomite--very pale orange to almost white, micro-sugary to very dense; some dark grey shale; traces of anhydrite and red shale.
7215	7240	Dolomite--very pale orange to almost white, very dense; much dark grey shale; traces of anhydrite and red shale; traces of pyrite and yellow sandstone at 7235; missing samples: 7220-7230.
7240	7245	Dolomitic limestone--very pale orange to almost white, very dense; some dark grey shale; traces of sand, reddish sandstone and anhydrite.
7245	7260	Limestone--very pale orange to almost white, very dense, much is limey dolomite beginning at 7250; some dark grey shale; traces of red shale, yellow sandstone, sand, and fossiliferous grey limestone.
7260	7285	Limey dolomite and dolomitic limestone--very pale orange to almost white, very dense; much dark grey shale; traces of red shale and round sand; missing samples: 7265-7285.
7285	7290	Dolomite to limestone--very pale orange to white to yellow brown, very dense, partly micro-sugary; much dark grey shale; traces of sand, red shale, hematite and green shale.
7290	7300	Limey dolomite--pale, micro-sugary to sublithographic, partly dolomitic limestone; small amounts of grey shale; traces of red shale.
7300	7310	Dolomite--very pale orange and white, very dense and vitreous, partly fine sugary; small amounts of shale.
7310	7315	Limestone--very pale orange to pale yellow brown to white, sugary to very dense, partly dolomitic.
7315	7330	Limey dolomite--very pale orange to very light grey, micro-sugary to very dense; much very pale orange to light olive grey, very dense limestone beginning at 7320; a small amount of grey to white mottled, fossiliferous limestone beginning at 7325; small amounts of grey shale; traces of sand, pyrite, green shale, and bryozoa beginning at 7325.
7330	7335	Limey dolomite to limestone--light grey to very pale orange, micro-sugary to dense; much grey shale; traces of red shale and fine sand.
7335	7350	Dolomite--light grey to very pale orange, micro-sugary to dense, some is limestone; much medium grey to dark grey shale; small amounts of sand; traces of pyrite; traces of reddish, greenish, and yellowish shale beginning at 7345.
7350	7355	Shale--dark grey, some variegated; some pale, dense, dolomitic limestone.
<u>From</u>	<u>To</u>	<u>Formation</u>

7355	7370	Shale--dark grey, some reddish; some limestone and dolomite as above, increasing amounts of limestone; traces of mottled white to black, crystalline limestone beginning at 7360; traces of bryozoa at 7365.
7370	7420	Limestone--white to black, dense, fossiliferous; some fine sugary to dense, pale dolomite ending at 7375; some grey and reddish shale increasing in quantity; traces of sand at 7375; traces of bryozoa; missing samples: 7380-7385; 7395-7420.
7420	7425	Limestone--very light olive grey to very pale yellow brown, very dense, partly micro-sugary; some grey and white, fossiliferous limestone as above; traces of red and grey shale and pyrite.
7425	7455	Limestone--yellow brown, very dense; much dense, grey and white, fossiliferous limestone as above; traces of white lithographic limestone, bryozoa, and white anhydrite beginning at 7435; missing samples: 7430-7435.
7455	7475	Limestone--yellow brown to white to very light grey, micro-sugary to sublithographic; some grey limestone as above; traces of shale, anhydrite, and pyrite; missing samples: 7460-7475.
7475	7480	Limestone--very light olive grey to very pale yellow brown, micro-sugary to sublithographic; much medium dark grey to dark grey shale; traces of pyrite and sand.
7480	7485	Shale--medium grey to dark grey, partly greenish grey, some reddish, traces of olive and brown; small amounts of limestone, anhydrite, and dolomite as above.
7485	7495	Shale--grey and reddish; some dense, pale limestone, dolomite and anhydrite; traces of green shale.
7495	7505	Shale--medium grey to dark grey, increasing amounts of reddish shale; traces of yellow, green, and brown shale; small amounts of dense limestone and dolomite.
7505	7510	Shale--black, some red green, and grey shale; some pale, dense to micro-sugary limestone and dolomite.
7510	7520	Limestone--very pale yellow brown to pale orange, micro-sugary, partly chalky and crystalline; some shale as above; traces of dolomite, anhydrite, and fine sand.
7520	7525	Limestone--pale orange, micro-sugary to sublithographic; much shale as above; traces of anhydrite, sandstone, and dolomite.
7525	7530	Limey dolomite to dolomitic limestone--very pale orange, micro-sugary to dense, much red, grey, green, yellow, and purple shale.
7530	7535	Limey dolomite as above; much grey and red shale; traces of purple and greenish shale; small amounts of limestone.
7535	7540	Shale--variegated; much dense limey dolomite to dolomitic limestone as above.
7540	7545	Limey dolomite to dolomitic limestone--very pale orange, micro-sugary; much grey and red shale; traces of white anhydrite.
7545	7560	Limey dolomite--pale orange to pale orange brown, dense to micro-sugary, partly dolomitic limestone beginning at 7550, some shale as above.
<u>From</u>	<u>To</u>	<u>Formation</u>

7560	7580	Limey dolomite to dolomitic limestone--very pale orange to almost white, micro-sugary to very dense, increasingly limey; some grey and red shale; traces of green shale, anhydrite, and very fine sand.
7580	7585	Dolomite--pale yellow brown, micro-sugary, somewhat limey; traces of shale, anhydrite, fine sand, and fossil fragments.
7585	7595	Limestone--very pale yellow brown and very pale orange, micro-sugary; some shale, decreasing in quantity; traces of anhydrite and orange sandstone.
7595	7600	Limestone to dolomite--very pale yellow brown, micro-sugary to dense; small amounts of red, yellow and grey shale; traces of anhydrite.
7600	7615	Limestone--very pale orange to almost white, micro-sugary, partly dolomitic; small amounts of shale.
7615	7625	Limestone--very pale yellow grey to very pale yellow brown, micro-sugary to sublithographic; traces of shale and anhydrite.
7625	7645	Limestone--yellow grey, micro-sugary to sublithographic; traces of shale (increasing), pyrite and anhydrite.
7645	7650	Limestone--very pale yellow grey, dense, partly chalky, partly dolomite; some grey shale.
7650	7655	Shale--black, grey, red, green, olive; much very pale yellow brown to almost white, crystalline to sublithographic limestone, partly dolomite.
7655	7665	Limestone--very pale yellow brown, micro-sugary to sublithographic, very dense in parts; some grey and red shale; traces of anhydrite and olive shale.
7665	7680	Limestone--very pale yellow brown, micro-sugary to sublithographic, partly dolomitic; some dark grey shale; traces of silty red shale; missing samples: 7670-7680.
7680	7720	Limestone--very light brown to very light grey, micro-sugary to sublithographic; some dark grey shale, decreasing in quantity; traces of reddish shale and fine sandstone; missing samples: 7690-7700; 7705-7710.
7720	7725	Limestone--pale brown to very pale orange, fine sugary to sublithographic; small amounts of grey, green, and reddish shales.
7725	7730	Limestone--very pale yellow brown, micro-sugary to chalky; some grey and reddish shale; traces of greenish shale.
7730	7740	Limestone--yellow brown to light grey, crystalline and/or chalky, partly micro-sugary; small amounts of shale; traces of medium sand and white anhydrite.
7740	7770	Limestone--very pale yellow brown to very pale yellow grey, micro-sugary, partly sublithographic and crystalline; traces of medium dark grey shale.
7770	7780	Limestone--very pale yellow brown, fine sugary to chalky; traces of shale.
7780	7800	Limestone--very pale yellow brown to yellow brown, fine sugary to sublithographic, becoming denser at 7785; becoming partly fine sugary and very pale orange at 7790; traces of dark grey shale.
7800	7820	Limestone--very pale orange and yellow grey, fine sugary to sublithographic; traces of shale.
<u>From</u>	<u>To</u>	<u>Formation</u>

7820	7835	Limestone--yellow brown to pale orange, fine sugary to sub-lithographic, becoming denser at 7830; traces of shale and bryozoa.
7835	7850	Limestone--pale yellow brown to almost white, micro-sugary to chalky, partly crystalline.
7850		Total depth.