

NORTH DAKOTA GEOLOGICAL SURVEY CIRCULAR NO. 104

Summary of the D. D. Feldman Oil & Gas Company and Worley  
& Harrell, Inc. - Jack Benz #1  
Slope County, North Dakota  
Permit #394, Well #378

By John L. Hainer

D. D. Feldman Oil and Gas Co. and Worley & Harrell, Inc. - Jack Benz #1  
wildcat, Slope County, North Dakota, NE/4, Sec. 20 T. 135N. R.98W. (1980 feet  
from North line and 657.5 feet from west line of section). Elevation G.L.  
2942'; K.B. 2954'.

The D. D. Feldman-Jack Benz #1 was spudded August 29, 1953, drilled to a  
total depth of 8974 feet, found dry and plugged according to regulations  
November 4, 1953.

TESTING:

The following drill stem tests were made:

8575-8604 - open 1 hour, recovered 90' very slightly gas cut mud, FP 0#, 20  
minutes SIP 0#, HP 5100-4900#.

8690-8715 - open 2 hours, 52 minutes, recovered 8650' fresh water, very  
slightly M.C. and very slightly salty, FP 835-3710#, 1 hour SIP  
3700#, HP 4995-4707#.

8842-8864 - open 3 hours, recovered 1900' very slightly oil and gas cut muddy  
fresh water, FP 150-750#, 1 hour SIP 300#, HP 4600-4475#.

8963-8974 - open 3 hours, recovered 6724' slightly salty muddy water, FP 100-  
2850#, 1 hour SIP 3650#, HP 4750-4600#.

8880-8893 - open 3 hours, recovered 8850' slightly salty gas cut water, FP  
775-3750#, 1 hour SIP 3810#, HP 4790-4670#.

CORED INTERVALS:

Core #1 5050-5056

Core #2 5475-5525

Core #3 5558-5596

Core #4 7516-7559

Core #5 8641-8741

PLUGGING RECORD: (All measurements from K.B. which is 12' above G.L.)

8974-8720	drilling mud	5450-663	drilling mud
8720-8641	30 sacks cement	663-608	25 sacks cement
8641-5550	drilling mud	608- 45	drilling mud
5550-5450	40 sacks cement	45- 15	15 sacks cement

Surface casing left in hole: 10 3/4" from 638' to 15'. Steel cap welded on top of 10 3/4" casing.

Formation tops were determined from samples and electric logs, not all lithologic tops called in following list. Colors were determined from rock color chart.

TOPS

Cretaceous System	
Pierre Formation	1910
Niobrara Formation	3972
Greenhorn Formation	4563
Muddy	5156
Dakota	5472
Jurassic System	
Morrison Formation	5704
Sundance Formation	5735
Piper Formation	6540
Triassic System	
Spearfish Formation	6750
Permian System	
Minnekahta Formation	7040
Opeche Formation	7074
Pennsylvanian System	
Minnelusa Formation	7173
Mississippian System	
Amsden Formation	7315
Big Snowy Group	7510
Kibbey lime	8020
Charles Formation	8150
Mission Canyon Formation	8671
Total Depth	8974

675-692	Shale, light olive gray 5Y6/1, silty, little coal.
692-722	Same as above.
722-753	Shale, medium gray, silty, little coal.
753-782	Shale, medium gray, little limestone, grayish brown 5YR3/2, fine rained.
782-813	Shale, medium gray, silty.
813-843	Shale, medium gray, little limestone, grayish brown 5YR3/2, fine grained.
843-873	Shale, medium gray, few sand grains, subangular to rounded.
873-903	Shale, medium gray, limestone, light olive gray 5Y6/1 to grayish brown 5YR3/2, fine grained.
903-943	Same as above.
943-974	Shale, medium gray, silty.
974-1004	Shale, medium dark gray, little limestone, brownish gray.

1004-1034 Same as above.  
 1034-1065 Shale, medium dark gray, limestone, brownish gray, some coal.  
 1065-1981 Missing.  
 1981-2014 Shale, light olive gray 5Y6/1.  
 2014-2041 Missing.  
 2041-2072 Shale, light olive gray 5Y6/1.  
 2072-2222 Shale, light olive gray 5Y6/1.  
 2222-2251 Shale, light olive gray to olive gray.  
 2251-2311 Shale, light olive gray, slightly bentonitic.  
 2311-2400 Shale, olive gray.  
 2400-2460 Missing.  
 2460-2490 Shale, light olive gray to brownish gray.  
 2490-2580 Shale, light olive gray 5Y6/1.  
 2580-2730 Shale, light olive gray, little siltstone, brownish gray 5YR4/1.  
 2730-2760 Shale, light olive gray.  
 2760-2820 Shale, light olive gray, some bentonite.  
 2820-2850 Shale, light olive gray, bentonitic. Little siltstone, brownish gray.  
 2850-2910 Shale, light olive gray, bentonitic. Little shale, medium light gray.  
 2910-2942 Missing.  
 2942-3032 Shale, medium, gray N5. Some dolomite, pale brown 5YR5/2, fine grained.  
 3032-3152 Shale, medium gray. More dolomite, pale brown.  
 3152-3331 Shale, medium gray.  
 3331-3513 Shale, medium gray to medium dark gray.  
 3513-3602 Shale, medium gray.  
 3602-3692 Shale, medium gray to medium dark gray.  
 3692-3710 Shale, medium gray to dark gray, bentonitic.  
 3710-3740 Shale, medium gray to dark gray.  
 3740-3820 Shale, medium gray to medium dark gray.  
 3820-3840 Shale, medium gray.  
 3840-3870 Shale, medium gray to medium dark gray.  
 3870-3890 Shale, medium gray to dark gray.  
 3890-3960 Shale, medium gray to medium dark gray.

Niobrara 3972

3960-3974 Missing.  
 3974-3984 Shale, medium light gray to medium gray.  
 3984-4045 Missing.  
 4045-4065 Shale, grayish black N2. Shale, medium gray, white specks.  
 4065-4084 Shale, medium gray to dark gray, white specks.  
 4084-4144 Shale, medium gray.  
 4144-4175 Shale, medium gray to dark gray. Little limestone, fine grained, crystalline, white.  
 4175-4205 Shale, medium gray to dark gray.  
 4205-4295 Shale, medium gray to black, some bentonite.  
 4295-4355 Shale, medium gray to black. Little dolomite, brownish gray 5YR4/1.  
 4355-4416 Shale, medium gray to dark gray.  
 4416-4560 Shale, medium gray to black.

Greenhorn 4563

4560-4590 Shale, medium gray to dark gray, calcareous.

4590-4648 Shaly limestone, medium light gray. Calcareous shale, dark gray, white specks. Shale, medium gray to black.

4648-4679 Shale, medium gray, dark gray calcareous, white specks.

4679-4710 Shale, medium gray to black, some shaly limestone, medium gray.

4710-4740 Shale, black, some medium gray as above.

4740-4770 Shale, light olive gray 5Y6/1 to black.

4770-4801 Shale, light olive gray to black, some bentonite.

4801-4831 Shale, medium gray to dark gray, calcareous, some bentonite.

4831-4920 Shale, medium gray to grayish black.

4920-4930 Shale, medium gray to black.

4930-4960 Shale, dark gray to black.

4960-4980 Shale, black.

4980-4990 Shale, dark gray to black.

4990-5000 Shale, dark gray to grayish black.

5000-5056 Shale, medium dark gray to grayish black.

5056-5066 Shale, grayish black.

5066-5076 Shale, dark gray.

5076-5086 Shale, dark gray to medium gray.

5086-5096 Shale, dark gray, little limestone, brownish gray, fragmental.

5096-5111 Shale, medium dark gray to dark gray.

5111-5130 Shale, light olive gray 5Y6/1 to dark gray.

5130-5140 Shale, dark gray.

Muddy 5156

5140-5160 Shale, dark gray, little siltstone, light olive gray 5Y6/1.

5160-5170 Sandstone, light olive gray 5Y6/1, fine grained, friable, intergranular porosity. Shale as above.

5170-5180 Sandstone, pale yellowish brown 10YR6/2 to white, fine grained, friable, intergranular porosity. Shale as above. Little limestone, medium dark gray, fine grained, dense.

5180-5190 Sandstone as above.

5190-5200 Sandstone as above some limestone brownish gray 5YR4/1, fine grained, dense.

5200-5220 Sandstone as above, siltstone, pale yellowish brown 10YR6/2, shale, dark gray.

5220-5250 Shale, dark gray, siltstone as above, little sandstone as above.

5250-5260 Shale, dark gray, little sandstone as above.

5260-5290 Shale, dark gray, little siltstone, medium light gray.

5290-5320 Shale, dark gray.

5320-5370 Shale, medium gray to dark gray.

5370-5450 Shale, medium dark gray to dark gray.

5450-5470 Shale, dark gray, siltstone, light olive gray 5Y6/1.

Dakota 5472

5470-5475 Shale, dark gray, little sandstone, pale yellowish brown 10YR6/2, fine grained, friable, calcareous cement.

5475-5477 Core #2. Sandstone, very light gray N8, fine grained, angular, with medium gray banding.

5477-5480 Sandstone, light gray N7, silty, much medium gray banding.

5480-5485 Siltstone, medium dark gray.

5485-5497½ Shale, dark gray, silty.

5497½-5505 Sandstone, very light gray N8, fine grained, angular with medium gray banding.

5505-5514 Siltstone, medium dark gray.

5514-5521½ Sandstone, pale yellowish brown 10YR6/2, well rounded to sub-

angular quartz grains up to 1 mm in diameter, poorly cemented, good porosity.

5521½-5525 Siltstone, very light gray N8, included siderite pellets.

5525-5545 Samples: Sandstone, light olive gray 5Y6/1, fine grained, silty. Shale, medium dark gray to dark gray.

5545-5555 Siltstone, pale yellowish brown 10YR6/2 to dark gray, shale as above.

5555-5558 Sandstone, yellowish gray 5Y8/1, fine grained, silty. Siltstone, medium gray.

5558-5562 Core #3. Sandstone, very light gray N8, fine grained, angular. Siltstone, medium gray, slight banding.

5562-5570 Siltstone, light gray to medium dark gray, marked banding.

5570-5575 Siltstone, very light gray to medium dark gray.

5575-5584 Siltstone, light gray to medium dark gray, banding.

5584-5887½ Siltstone, medium dark gray, sandstone, very light gray, fine grained, angular.

5587½-5590 Siltstone, medium gray.

5590-5595 Siltstone, very light gray, coarse, friable, slight dark gray banding.

5596-5610 Samples: Siltstone, light gray to medium dark gray, coarse friable.

5610-5620 Sandstone, very light gray, fine grained, angular, friable.

5620-5630 Siltstone, medium, light gray.

5630-5640 Siltstone, light gray to medium gray, little sandstone, yellowish gray 5Y8/1, fine grained, friable.

5640-5680 Sandstone as above.

5680-5690 Sandstone as above, little siltstone, greenish gray 5G6/1.

5690-5700 Sandstone as above.

#### Morrison 5704

5070-5710 Missing.

5710-5740 Shale, medium dark gray, pale yellowish brown 10YR6/2. Glauconitic siltstone.

5740-5750 Sandstone, very light gray N8, fine grained, rounded to sub-angular, friable.

5750-5760 Sandstone as above, glauconitic siltstone, shale, dusky yellow green, 5GY5/2.

5760-5780 Sandstone as above, shale, dusky yellow green, little shale, grayish red 10R4/2.

5780-5800 Sandstone as above, shale, dusky yellow green.

5800-5810 Sandstone, pale yellowish brown 10YR6/2, fine grained, friable. Shale, olive gray 5Y4/1.

#### Sundance 5810

5810-5820 Shale, olive gray, sandstone as above, little glauconite limestone.

5820-5840 Shale, olive gray, sandstone as above, little shale, grayish red 10R4/2.

5840-5850 Shale, olive gray, medium dark gray, sandstone as above, sandstone, pale red, 5R6/2, calcareous, fine grained, friable.

5850-5870 Shale, olive gray, medium dark gray, grayish yellow green 5GY7/2. Sandstone, pale yellowish brown 10YR6/2, sandstone, pale red 5R6/2, calcareous.

5870-5880 Shale, olive gray, medium dark gray, dusky yellow green 5GY5/2, grayish red 10R4/2. Sandstone, light olive gray 5Y6/1, fine

grained.

5880-5890 Missing.

5890-5900 Shale, medium dark gray, dusky yellow green, grayish red, dark yellowish brown 10YR4/2. Sandstone, very light gray, fine grain, friable.

5900-5910 Sandstone, light olive gray, glauconitic, fine grained, shale as above.

5910-5920 Shale, dark gray, dusky yellow green, shale, iron stained grayish red. Sandstone, light olive gray, glauconitic, fine grained.

5920-5960 Sandstone, light olive gray, 5Y6/1, slightly glauconitic, fine grained. Shale as above.

5960-5980 Shale, dark gray, dusky yellow green 5GY5/2, grayish red 10R4/2. Sandstone, light olive gray, fine grained.

5980-6010 Shale as above, sandstone, light olive gray to grayish green 10GY5/2, fine grained, calcareous cement.

6010-6030 Shale, dark gray, dusky yellow green 5GY5/2. Sandstone, light olive gray to grayish green 10GY5/2, fine grained, calcareous cement.

6030-6060 Shale as above. Sandstone, light olive gray, fine grained, calcareous cement.

6060-6090 Shale, dark gray, dusky yellow green 5GY5/2, grayish red 5R4/2. Sandstone, light olive gray, fine grained.

6090-6100 Shale as above. Little sandstone, pale brown 5YR5/2, fine grained.

6100-6120 Sandstone, pale yellowish brown 10YR6/2, shale as above.

6120-6170 Sandstone, pale yellowish brown, fine grained, shale, dark gray, dusky yellow green.

6170-6190 Shale as above, little sandstone as above.

6190-6220 Shale as above, sandstone, pale yellowish brown, calcareous cement, slightly glauconitic. Little limestone, pale yellowish brown, fine grain.

6220-6230 Sandstone, pale yellowish brown 10YR6/2, fine grained, calcareous. Little limestone, pale yellowish brown, dense.

6230-6240 Limestone, greenish gray 5GY6/1 to pale yellowish brown, fine grained, silty. Shale, grayish black N2.

6240-6250 Limestone, light olive gray 5Y6/1, fine grained, sandy.

6250-6280 Limestone, pale yellowish brown 10YR6/2, fine grained, sandy.

6280-6290 Limestone as above, shale, dark gray.

6290-6300 Limestone as above, shale, dark gray, brownish gray 5YR4/1. Shale, dark gray, iron stained.

6300-6310 Limestone as above, glauconitic limestone, shale as above.

6310-6320 Limestone as above, shale, dark gray, greenish gray 5GY6/1, calcareous.

6320-6330 Limestone, light olive gray 5Y6/1, fine grained, sandy, shale, dark gray.

6330-6360 Missing.

6360-6370 Shale, dark gray, some iron stained. Limestone as above.

6370-6400 Limestone as above, shale, medium dark gray.

6400-6440 Limestone, light olive gray 5Y6/1, argillaceous. Shale, dark gray, greenish gray 5G6/1.

6440-6450 Shale, dark gray with linguloid brachiopods. Limestone, light olive gray 5Y6/1 to pale yellowish brown 10YR6/2, fine grained, crystalline, dense. Some white anhydrite.

6450-6470 Limestone as above, shale, medium dark gray.

6470-6480 Siltstone, pale reddish brown 10R5/4, calcareous.

6480-6490 Siltstone, pale yellowish orange 10YR8/6 to pale reddish brown 10R5/4, calcareous.

6490-6510 Siltstone, pale reddish brown, calcareous. Shale, medium dark gray.

6510-6530 Shale, medium dark gray, siltstone as above.

Piper 6540

6530-6560 Limestone, pale yellowish brown 10YR6/2, sublithographic. Shale and siltstone as above.

6560-6570 Limestone, pale yellowish brown to dark yellowish brown, 10YR4/2, fine grained, crystalline, dense.

6570-6600 Limestone, very pale orange 10YR8/2, dolomitic, fine grained, crystalline, dense.

6600-6610 Shale, medium dark gray, some limestone as above.

6610-6630 Shale and limestone as above shale, grayish red 10R4/2, calcareous.

6630-6640 Limestone, very pale orange, pale yellowish brown, fine grained. Limestone, grayish red, silty.

6640-6650 Missing.

6650-6670 Siltstone, pale reddish brown 10R5/4, slightly calcareous. Shale, medium dark gray.

6670-6680 Limestone, grayish orange pink 10R8/2, fine grained, dolomitic.

6680-6690 Limestone as above, shale, dark gray.

6690-6700 Shale, medium dark gray, limestone as above, siltstone, pale reddish brown, slightly calcareous.

6700-6730 Shale and siltstone as above.

6730-6750 Shale, medium gray to dark gray, moderate reddish brown 10R4/6.

Spearfish 6750

6750-6780 Shale as above with siltstone, moderate reddish orange 10R6/6.

6780-6820 Siltstone, pale reddish brown 10R5/4, shale, medium dark gray.

6820-6880 Shale, medium gray to medium dark gray.

6880-6910 Shale as above, siltstone, moderate reddish brown to moderate reddish orange.

6910-6990 Shale and siltstone as above, shale, grayish olive 10Y4/2.

6990-7020 Siltstone, pale reddish brown 10R5/4, shale, medium gray to medium dark gray.

Minnekahta 7040

7020-7060 Anhydrite, white to grayish pink 5R8/2, shale as above.

Opeche 7074

7060-7170 Shale, medium gray, grayish olive. Siltstone, grayish red to moderate reddish brown.

Minnelusa 7173

7170-7180 Sandstone, light red 5R6/6, fine grained, calcareous.

7180-7250 Sandstone, light red to grayish pink 5R8/2, fine grained, calcareous.

7250-7260 Sandstone, pale red 10R6/2, calcareous, fine grained.

7260-7290 Siltstone, moderate reddish brown 10R4/6, sandstone as above.

7290-7310 Same as above with few rounded quartz grains.

Amsden 7315

7310-7380 Dolomite, grayish pink 5R8/2, fine grained, dense.

7380-7390 Sandstone, grayish pink, fine grained, calcareous cement, friable.  
 7390-7400 Shale, medium dark gray to grayish black.  
 7400-7410 Shale as above, anhydrite, white.  
 7410-7480 Dolomite, grayish pink 5R8/2, fine grained, dense.  
 7480-7490 Missing.  
 7490-7500 Shale, medium gray to dark gray. Dolomite, pale yellowish brown 10YR6/2, some anhydrite.

Big Snowy 7510

7500-7516 Shale and dolomite as above.  
 7516-7518 Core #4. Shale, medium dark gray, dolomite, pale yellowish brown 10YR6/2, fine grained, dense.  
 7518-7521 Dolomite, brownish gray 5YR4/1, dense, fine grained. Sandstone, light gray, fine grained, silty.  
 7521-7522 Dolomite, dark gray, sandy to dolomitic sandstone.  
 7522-7525 Dolomite, light olive gray 5Y6/1, sandy to sandstone, medium gray, fine grained, dolomitic.  
 7525-7528 Sandstone, light gray, fine grained, to medium dark gray, dolomitic.  
 7528-7531 Sandstone, brownish gray 5YR4/1, fine grained, dolomitic.  
 7531-7533 Sandstone, banded grayish black and yellowish gray, fine grained, silty.  
 7533-7536 Sandstone, pale yellowish brown with dark gray streaks, fine grained, friable.  
 7536-7540 Sandstone, very light gray, fine grained.  
 7540-7543 Shale, dark greenish gray 5GY4/1 to light olive gray 5Y6/1, sandy.  
 7543-7546 Sandstone, greenish gray 5GY6/1, fine grained.  
 7546-7548 Sandstone as above with quartz pebbles up to 2 mm in diameter.  
 7548-7551 Dolomite, pinkish gray 5YR8/1, fine grained, dense, vuggy.  
 7551-7554 Dolomite, pinkish gray to pale yellowish brown 10YR6/2, fine grained, dense, vuggy.  
 7554-7560 Missing.  
 7560-7590 Samples. Shale, medium gray to dark gray, shale pale yellowish green 10GY7/2, dolomite, pale yellowish brown 10YR6/2, dense, fine grained.  
 7590-7620 As above with some grayish red 5R4/2 dolomite.  
 7620-7630 Shale, dark gray to grayish black.  
 7630-7640 Shale, medium gray to dark gray, shale, pale yellowish green.  
 7640-7650 Missing.  
 7650-7670 Limestone, pale yellowish brown, fine grained, dense. Shale, pale yellowish green 10GY7/2.  
 7670-7680 Shale, medium gray to dark gray, pale yellowish green, limestone as above.  
 7680-7690 Shale, medium gray to dark gray.  
 7690-7700 Limestone, pale yellowish brown. Shale, pale yellowish green 10GY7/2.  
 7700-7730 Limestone, pale yellowish brown 10YR6/2 to grayish brown 5YR3/2, fine grained, dense.  
 7730-7750 Shale, medium dark gray.  
 7750-7760 Limestone, brownish black 5YR2/1, fine grained, dense.  
 7760-7790 Shale, dark gray.  
 7790-7860 Shale, medium gray to medium dark gray, grayish yellow green 5GY7/2, dusky yellow 5Y6/4, grayish red 5R4/2.  
 7860-7900 Shale, medium gray to medium dark gray.  
 7900-7910 Shale, varicolored. Some calcareous and dolomitic shale.



7910-7920 Shale, dark gray.  
 7920-7930 Shale, dark gray, blackish red 5R2/2, calcareous.  
 7930-7940 Sandstone, pale red 10R6/2, fine grained, slightly calcareous.  
 7940-8020 Shale, varicolored, little sandstone as above.

Kibbey lime 8020  
 8020-8050 Limestone, pale yellowish brown 10YR6/2, yellowish gray 5Y8/1, brownish gray 5YR4/1, fine grained, dense.  
 8050-8060 Limestone as above with varicolored shale.  
 8060-8070 Varicolored shale, limestone as above. Sandstone, very light gray, fine grained.  
 8070-8080 Shale, medium gray to dark gray, little limestone and sandstone as above.  
 8080-8120 Siltstone, pale red 10R5/2, dolomitic. Shale as above.  
 8120-8140 Shale, medium to dark gray, white anhydrite.

Charles 8150  
 8140-8160 Varicolored shale, white anhydrite, limestone, pale yellowish brown, 10YR6/2.  
 8160-8190 Shale, anhydrite and limestone as above with fragmental limestone.  
 8190-8220 Limestone, pale yellowish brown, dense to grayish brown, fragmental.  
 8220-8240 Limestone as above with white anhydrite.  
 8240-8260 Shale, dark gray to grayish black, white anhydrite.  
 8260-8280 Limestone, medium gray, dolomitic, fine grained, white anhydrite.  
 8280-8300 Limestone, pale yellowish brown to grayish brown, 5YR3/2, fine grained, dense.  
 8300-8310 Shale, medium gray to medium dark gray.  
 8310-8320 Limestone, pale yellowish brown to grayish brown 5YR3/2, fine grained, dense. Little white anhydrite.  
 8320-8340 Anhydrite, white.  
 8340-8360 Anhydrite, limestone as above.  
 8360-8366 Limestone, pale yellowish brown, fine grained, white anhydrite.  
 8366-8390 Limestone, pale yellowish brown to grayish brown, fine grained.  
 8390-8400 Limestone as above, dolomite, light olive gray 5Y6/1. Shale, medium gray to dark gray.  
 8400-8410 Shale, medium dark gray to dark gray.  
 8410-8430 Dolomite, light brownish gray 5YR6/1, white anhydrite.  
 8430-8520 Limestone, dusky brown 5YR2/2, dolomite and anhydrite as above.  
 8520-8530 Shale, dark gray.  
 8530-8540 Shale, medium gray, limestone as above.  
 8540-8570 Limestone, dusky brown 5YR2/2 to pale yellowish brown 10YR6/2, fine grained.  
 8570-8590 Shale, light, olive gray 5Y6/1, white anhydrite.  
 8590-8604 Limestone, pale yellowish brown 10YR6/2 to dusky brown 5YR2/2, white anhydrite.  
 8604-8630 Shale, dark gray to black.  
 8630-8641 Anhydrite, white to very light gray.  
 8641-8646 Core #5. Anhydrite, white to very light gray.  
 8646-8656 Anhydrite, brownish black 5YR2/1, dense.  
 8656-8661 Anhydrite, white to light brownish gray, 5YR6/1.  
 8661-8671 Anhydrite, brownish black 5YR2/1, dense.

Mission Canyon 8671

8671-8674 Dolomite, pale brown 5YR5/2, sandy, finely fragmental, fair porosity.

8674-8676 Limestone, brownish black 5YR2/1, fine grained, dense, poor porosity.

8676-8680 Limestone, brownish gray 5YR4/1, fine grained, dense.

8680-8691 Dolomite, pale yellowish brown 10YR6/2, microsucrosic, pinpoint porosity.

8691-8706 Limestone, brownish gray 5YR4/1, microsucrosic, good porosity.

8706-8711 Dolomite, pale brown 5YR5/2, microsucrosic, good porosity, sandy.

8711-8721 Limestone, brownish gray, 5YR4/1, microsucrosic to slightly fragmental, good pinpoint porosity.

8721-8726 Limestone as above becoming dolomitic.

8726-8731 Limestone, pale brown 5YR5/2, microsucrosic with oolites, good porosity.

8731-8736 Limestone, brownish gray 5YR4/1, microsucrosic fragmental, good porosity.

8736-8741 Dolomite, brownish gray 5YR4/1, microsucrosic, fair porosity.

8741-8790 Missing.

8790-8810 Samples. Dolomite, light olive gray 5Y6/1, microsucrosic, sandy.

8810-8880 Limestone, pale yellowish brown 10YR6/2, fine grained. Subangular quartz grains up to 0.5 mm in diameter.

8880-8930 Limestone, pale yellowish brown to brownish gray 5YR4/1, fine grained.

8930-8940 Limestone as above with dolomite, light gray, fine grained.

8940-8960 Limestone, pale yellowish brown 10YR6/2, pseudo-oolitic.

8974 Total Depth.