LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W-15017

TOTAL DEPTH: 10140 FT.

801 SAMPLES FROM 2110 TO 10140 FT.

COUNTY - MADISON1

LOCATION: T.02S R.09E S.22
LAT = 30D 17M 37S
LON = 83D 24M 40S

COMPLETION DATE: 11/19/81

ELEVATION: 113 FT

OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER:Amoco Production Co./(Delta)

WORKED BY:Worked 8/98 by William Waite; 801 bags of washed cuttings.
A major unconformity is encounterd around 4900 ft.seperating
Triassic from Ordovician sediments.

0.	-2110 .	000NOSM	NO SAMPLES
2110.	-3240 .	211CRCSU	UPPER CRETACEOUS
3240.	-3710 .	217CRCSL	LOWER CRETACEOUS
3710.	-4830 .	221JRSCU	UPPER JURASSIC
4830.	-4910 .	230TRSC	TRIASSIC
4910.	-5540 .	360ODVC	ORDOVICIAN
5540.	-5630 .	230DIBS	DIABASE
5630.	-5670 .	360ODVC	ORDOVICIAN
5670.	-5800 .	230DIBS	DIABASE
5800.	-5940 .	360ODVC	ORDOVICIAN
5940.	-9220 .	367ODVCL	LOWER ORDOVICIAN
9220.	-9270 .	230DIBS	DIABASE
9270.	-10140.	367ODVCL	LOWER ORDOVICIAN

0 - 2110 NO SAMPLES

2110 - 2120 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
10% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-20%, CHERT-05%, GYPSUM-01%
ORGANICS-01%
FOSSILS: NO FOSSILS
Dolomite possibly caved.

2120 - 2130 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, PIN POINT VUGS
INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-15%, CHERT-08%, GYPSUM-02%
ORGANICS-01%
FOSSILS: NO FOSSILS

2130 - 2140 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-20%, CHERT-05%, GYPSUM-01%
QUARTZ SAND-01%
FOSSILS: NO FOSSILS

2140 - 2150 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-20%, CHERT-05%, GYPSUM-01%
QUARTZ SAND-01%
FOSSILS: NO FOSSILS

2150 - 2160 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-10%, GYPSUM-01%
QUARTZ SAND-01%
FOSSILS: PLANT REMAINS
Chert abundant.

2160 - 2170 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-10%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: PLANT REMAINS

2170 - 2180 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-10%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: PLANT REMAINS

2180 - 2190 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-10%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: PLANT REMAINS

2190 - 2200 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-10%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: PLANT REMAINS

2200 - 2210 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-05%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2210 - 2220 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-05%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2220 - 2230 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-05%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2230 - 2240 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-05%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2240 - 2250 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-05%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2250 - 2260 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-05%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2260 - 2270 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-05%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2270 - 2280 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-05%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2280 - 2290 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-05%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2290 - 2300 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-05%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2300 - 2310 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-05%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2310 - 2320 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN
08% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-20%, DOLOMITE-05%, GYPSUM-01%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2320 - 2330 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-20%, CHERT-15%, GYPSUM-02%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2330 - 2340 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-20%, CHERT-15%, GYPSUM-02%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2340 - 2350 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%, CHERT-15%, GYPSUM-02%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2350 - 2360 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%, CHERT-15%, GYPSUM-02%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2360 - 2370 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%, CHERT-15%, GYPSUM-02%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2370 - 2380 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-15%, CHERT-15%, GYPSUM-02%
PLANT REMAINS-01%
FOSSILS: NO FOSSILS

2380 - 2390 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-10%, CALCILUTITE-10%, GYPSUM-01%
FOSSILS: SPICULES

2390 - 2400 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CALCILUTITE, CRYSTALS
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-20%, CALCILUTITE-20%
CHERT-05%, GYPSUM-01%
FOSSILS: SPICULES

2400 - 2410 LIMESTONE; YELLOWISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-20%, CALCILUTITE-20%
CHERT-05%, GYPSUM-01%
FOSSILS: SPICULES

2410 - 2420 LIMESTONE; YELLOWISH GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CRYSTALS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-10%, CALCILUTITE-10%
SPAR-03%, CHERT-01%
FOSSILS: NO FOSSILS

2420 - 2430 LIMESTONE; YELLOWISH GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CRYSTALS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-10%, CALCILUTITE-10%
SPAR-03%, CHERT-01%
FOSSILS: SPICULES

2430 - 2440 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CRYSTALS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-15%, DOLOMITE-05%, CHERT-03%
GYPSUM-01%
FOSSILS: PLANT REMAINS
Appearance of a light gray micritic mudstone (15%).

2440 - 2450 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CRYSTALS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-15%, DOLOMITE-05%, CHERT-03%
GYPSUM-01%
FOSSILS: PLANT REMAINS

2450 - 2460 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CRYSTALS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-15%, DOLOMITE-05%, CHERT-03%
GYPSUM-01%
FOSSILS: PLANT REMAINS

2460 - 2470 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CRYSTALS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-15%, DOLOMITE-05%, CHERT-03%
GYPSUM-01%
FOSSILS: PLANT REMAINS

2470 - 2480 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CRYSTALS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-15%, DOLOMITE-05%, CHERT-03%
GYPSUM-01%
FOSSILS: PLANT REMAINS

2480 - 2490 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CRYSTALS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-15%, DOLOMITE-05%, CHERT-03%
GYPSUM-01%
FOSSILS: PLANT REMAINS

2490 - 2500 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CRYSTALS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-15%, DOLOMITE-05%, CHERT-03%
GYPSUM-01%
FOSSILS: PLANT REMAINS

2500 - 2510 LIMESTONE; YELLOWISH GRAY TO LIGHT GRAY
08% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: CRYSTALS, CALCILUTITE
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-15%, DOLOMITE-05%, CHERT-03%
GYPSUM-01%
FOSSILS: PLANT REMAINS

2510 - 2520 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-05%, CLAY-05%, CHERT-02%
MICA-01%
FOSSILS: PLANT REMAINS

2520 - 2530 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-05%, CLAY-05%, CHERT-02%
MICA-01%
FOSSILS: PLANT REMAINS

2530 - 2540 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-05%, CLAY-05%, CHERT-02%
MICA-01%
FOSSILS: PLANT REMAINS

2540 - 2550 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE, MOLDIC
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-05%, CLAY-05%, CHERT-02%
MICA-01%
FOSSILS: PLANT REMAINS

2550 - 2560 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-05%, CLAY-05%, CHERT-02%
MICA-01%
FOSSILS: PLANT REMAINS

2560 - 2570 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-05%, DOLOMITE-03%, SPAR-01%
FOSSILS: PLANT REMAINS

2570 - 2580 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-05%, DOLOMITE-03%, SPAR-01%
FOSSILS: PLANT REMAINS

2580 - 2590 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-05%, DOLOMITE-03%, SPAR-01%
FOSSILS: PLANT REMAINS

2590 - 2600 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-05%, DOLOMITE-03%, SPAR-01%
FOSSILS: PLANT REMAINS

2600 - 2610 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CHERT-05%, DOLOMITE-03%, SPAR-01%
FOSSILS: PLANT REMAINS

2610 - 2620 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-10%, CHERT-10%, SPAR-01%
MICA-01%
OTHER FEATURES: LOW RECRYSTALLIZATION
FOSSILS: NO FOSSILS
Limestone mildly recrystallized.

2620 - 2630 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
GRAIN SIZE: MICROCRYSTALLINE; RANGE: FINE TO MEDIUM
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-10%, CHERT-10%, SPAR-01%
MICA-01%
OTHER FEATURES: LOW RECRYSTALLIZATION
FOSSILS: NO FOSSILS

2630 - 2640 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-10%, CHERT-10%, SPAR-01%
MICA-01%
OTHER FEATURES: LOW RECRYSTALLIZATION
FOSSILS: NO FOSSILS

2640 - 2650 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-10%, CHERT-10%, SPAR-01%
MICA-01%
OTHER FEATURES: LOW RECRYSTALLIZATION
FOSSILS: NO FOSSILS

2650 - 2660 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-10%, CHERT-10%, SPAR-01%
MICA-01%
OTHER FEATURES: LOW RECRYSTALLIZATION
FOSSILS: NO FOSSILS

2660 - 2670 LIMESTONE; WHITE TO YELLOWISH GRAY
10% POROSITY: INTERGRANULAR, INTERCRYSTALLINE
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-10%, CHERT-10%, SPAR-01%
MICA-01%
OTHER FEATURES: LOW RECRYSTALLIZATION
FOSSILS: NO FOSSILS

2670 - 2680 LIMESTONE; GRAYISH ORANGE
15% POROSITY: PIN POINT VUGS, INTERGRANULAR
POSSIBLY HIGH PERMEABILITY
GRAIN TYPE: BIOGENIC, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: DOLOMITE-15%, CHERT-05%
CALCILUTITE-02%, MICA-01%
OTHER FEATURES: HIGH RECRYSTALLIZATION
FOSSILS: NO FOSSILS
Limestone highly recrystallized.

2680 - 2690 CALCILUTITE; WHITE TO GRAYISH ORANGE
12% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-20%, SPAR-10%, CHERT-05%
FOSSILS: MOLLUSKS
Abrubt lithology change.

2690 - 2700 CALCILUTITE; WHITE TO GRAYISH ORANGE
12% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-20%, SPAR-10%, CHERT-05%
FOSSILS: MOLLUSKS

2700 - 2710 CALCILUTITE; WHITE TO GRAYISH ORANGE
12% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-20%, SPAR-10%, CHERT-05%
FOSSILS: MOLLUSKS

2710 - 2720 CALCILUTITE; WHITE TO GRAYISH ORANGE
12% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-20%, SPAR-10%, CHERT-05%
FOSSILS: MOLLUSKS

2720 - 2730 CALCILUTITE; WHITE TO GRAYISH ORANGE
12% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-20%, SPAR-10%, CHERT-05%
FOSSILS: MOLLUSKS

2730 - 2740 CALCILUTITE; WHITE
12% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-05%, SPAR-02%, CHERT-01%
FOSSILS: MOLLUSKS, SPICULES

2740 - 2750 CALCILUTITE; WHITE
12% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-05%, SPAR-02%, CHERT-01%
FOSSILS: MOLLUSKS, SPICULES

2750 - 2760 CALCILUTITE; WHITE
12% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-05%, SPAR-02%, CHERT-01%
FOSSILS: MOLLUSKS, SPICULES

2760 - 2770 CALCILUTITE; WHITE
12% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%
FOSSILS: MOLLUSKS
Lithology is a clean, white micrite.

2770 - 2780 CALCILUTITE; WHITE
15% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%
FOSSILS: MOLLUSKS

2780 - 2790 CALCILUTITE; WHITE
15% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%
FOSSILS: MOLLUSKS

2790 - 2800 CALCILUTITE; WHITE
15% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%
FOSSILS: MOLLUSKS

2800 - 2810 CALCILUTITE; WHITE
15% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%
FOSSILS: MOLLUSKS

2810 - 2820 CALCILUTITE; WHITE
15% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%
FOSSILS: MOLLUSKS

2820 - 2830 CALCILUTITE; YELLOWISH GRAY
15% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%
FOSSILS: MOLLUSKS
Lithology is the same, but color has changed to a light gray.

2830 - 2840 CALCILUTITE; YELLOWISH GRAY
15% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE; 10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%
FOSSILS: MOLLUSKS

2840 - 2850 CALCILUTITE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%, MICA-01%
FOSSILS: NO FOSSILS

2850 - 2860 CALCILUTITE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%, MICA-01%
FOSSILS: NO FOSSILS

2860 - 2870 CALCILUTITE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%, MICA-01%
FOSSILS: NO FOSSILS

2870 - 2880 CALCILUTITE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%, MICA-01%
FOSSILS: NO FOSSILS

2880 - 2890 CALCILUTITE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%, MICA-01%
FOSSILS: NO FOSSILS

2890 - 2900 CALCILUTITE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%, CHERT-02%
FOSSILS: NO FOSSILS

2900 - 2910 CALCILUTITE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%, CHERT-02%
FOSSILS: NO FOSSILS

2910 - 2920 CALCILUTITE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%, CHERT-02%
FOSSILS: NO FOSSILS

2920 - 2930 CALCILUTITE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%, CHERT-02%
FOSSILS: NO FOSSILS

2930 - 2940 CALCILUTITE; YELLOWISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: SPAR-02%, CHERT-02%
FOSSILS: NO FOSSILS

2940 - 2950 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SPAR-05%
FOSSILS: NO FOSSILS

2950 - 2960 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SPAR-05%
FOSSILS: NO FOSSILS

2960 - 2970 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SPAR-05%
FOSSILS: NO FOSSILS

2970 - 2980 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SPAR-05%
FOSSILS: NO FOSSILS

2980 - 2990 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SPAR-05%
FOSSILS: NO FOSSILS

2990 - 3000 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SPAR-05%
FOSSILS: NO FOSSILS

3000 - 3010 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SPAR-05%
FOSSILS: NO FOSSILS

3010 - 3020 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SPAR-05%
FOSSILS: NO FOSSILS

3020 - 3030 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
25% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SPAR-05%
FOSSILS: NO FOSSILS

3030 - 3040 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SHALE-05%, SPAR-03%
QUARTZ SAND-01%
FOSSILS: NO FOSSILS

3040 - 3050 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SHALE-05%, SPAR-03%
QUARTZ SAND-01%
FOSSILS: NO FOSSILS

3050 - 3060 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SHALE-05%, SPAR-03%
QUARTZ SAND-01%
FOSSILS: NO FOSSILS

3060 - 3070 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SHALE-05%, SPAR-03%
QUARTZ SAND-01%
FOSSILS: NO FOSSILS

3070 - 3080 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SHALE-05%, SPAR-03%
QUARTZ SAND-01%
FOSSILS: NO FOSSILS

3080 - 3090 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SHALE-05%, SPAR-03%
QUARTZ SAND-01%
FOSSILS: NO FOSSILS

3090 - 3100 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SHALE-05%, SPAR-03%
QUARTZ SAND-01%
FOSSILS: NO FOSSILS

3100 - 3110 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, CRYSTALS
20% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MEDIUM; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-25%, SHALE-05%, SPAR-03%
QUARTZ SAND-01%
FOSSILS: NO FOSSILS

3110 - 3120 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, SHALE-10%, SPAR-02%
FOSSILS: NO FOSSILS
Lithology is a light gray carbonate mud.

3120 - 3130 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, SHALE-10%, SPAR-02%
FOSSILS: NO FOSSILS

3130 - 3140 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, SHALE-10%, SPAR-02%
FOSSILS: NO FOSSILS

3140 - 3140 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, SHALE-10%, SPAR-02%
FOSSILS: NO FOSSILS

3140 - 3150 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, SHALE-10%, SPAR-02%
FOSSILS: NO FOSSILS

3150 - 3160 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, SHALE-10%, SPAR-02%
FOSSILS: NO FOSSILS

3160 - 3170 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, SHALE-10%, SPAR-02%
FOSSILS: NO FOSSILS

3170 - 3180 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, SHALE-10%, SPAR-02%
FOSSILS: NO FOSSILS

3180 - 3190 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, SHALE-10%, SPAR-02%
FOSSILS: NO FOSSILS

3190 - 3200 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, SHALE-10%, SPAR-02%
FOSSILS: NO FOSSILS

3200 - 3210 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, SHALE-10%, SPAR-02%
FOSSILS: NO FOSSILS

3210 - 3220 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, SHALE-10%, SPAR-02%
FOSSILS: NO FOSSILS

3220 - 3230 CALCILUTITE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN TYPE: CALCILUTITE, BIOGENIC
10% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, SHALE-10%, SPAR-02%
FOSSILS: NO FOSSILS

3230 - 3240 SHALE; MODERATE LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-40%, SPAR-02%, PYRITE-01%
FOSSILS: NO FOSSILS
Lithology is primarily a carbonate cemented black shale.
Shale is moderately fissile.

3240 - 3250 SHALE; MODERATE LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-40%, SPAR-02%, PYRITE-01%
FOSSILS: NO FOSSILS

3250 - 3260 SHALE; MODERATE LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-40%, SPAR-02%, PYRITE-01%
FOSSILS: NO FOSSILS

3260 - 3270 SHALE; MODERATE LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-40%, SPAR-02%, PYRITE-01%
FOSSILS: NO FOSSILS

3270 - 3280 SHALE; MODERATE LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-40%, SPAR-02%, PYRITE-01%
FOSSILS: NO FOSSILS

3280 - 3290 SHALE; LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-30%, SPAR-02%
FOSSILS: NO FOSSILS

3290 - 3300 SHALE; LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-30%, SPAR-02%
FOSSILS: NO FOSSILS
Shale is highly carbonate.

3300 - 3310 SHALE; LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-30%, SPAR-03%, PYRITE-01%
FOSSILS: NO FOSSILS

3310 - 3320 SHALE; LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-30%, SPAR-03%
FOSSILS: NO FOSSILS

3320 - 3330 SHALE; LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-30%, SPAR-03%
FOSSILS: FOSSIL MOLDS

3330 - 3340 SHALE; LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-30%, SPAR-03%
FOSSILS: NO FOSSILS

3340 - 3350 SHALE; LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-30%, SPAR-03%
FOSSILS: NO FOSSILS

3350 - 3360 SHALE; LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-30%, SPAR-03%
FOSSILS: NO FOSSILS

3360 - 3370 SHALE; LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-30%, SPAR-03%
FOSSILS: NO FOSSILS

3370 - 3380 SHALE; LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-30%, QUARTZ SAND-05%
SPAR-02%, PYRITE-01%
FOSSILS: NO FOSSILS
Sand is in the form of fine-grained, calcite cemented sandstone. Shale displays moderate fissility.

3380 - 3390 SHALE; LIGHT GRAY TO MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, SPAR-03%
QUARTZ SAND-03%
FOSSILS: NO FOSSILS

3390 - 3400 SHALE; LIGHT GRAY TO MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, SPAR-03%
QUARTZ SAND-03%, PYRITE-01%
FOSSILS: NO FOSSILS

3400 - 3410 SHALE; MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-08%, QUARTZ SAND-05%
PYRITE-01%
FOSSILS: NO FOSSILS
Sand content is actually fine-grained, well indurated sandstone.

3410 - 3420 SHALE; MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-08%, QUARTZ SAND-05%
PYRITE-01%
FOSSILS: NO FOSSILS

3420 - 3430 SHALE; MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-08%, QUARTZ SAND-05%
PYRITE-01%
FOSSILS: NO FOSSILS

3430 - 3440 SHALE; MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-08%, QUARTZ SAND-05%
PYRITE-01%
FOSSILS: NO FOSSILS

3440 - 3450 SHALE; MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, QUARTZ SAND-05%
PYRITE-01%
FOSSILS: NO FOSSILS

3450 - 3460 SHALE; MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, QUARTZ SAND-05%
CLAY-05%
FOSSILS: NO FOSSILS

3460 - 3470 SHALE; MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, QUARTZ SAND-05%
CLAY-05%
FOSSILS: NO FOSSILS

3470 - 3480 SHALE; MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, CLAY-05%
QUARTZ SAND-05%
FOSSILS: NO FOSSILS

3480 - 3490 SHALE; MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, QUARTZ SAND-08%
CLAY-05%, PYRITE-01%
FOSSILS: NO FOSSILS

3490 - 3490 SHALE; MODERATE LIGHT GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, QUARTZ SAND-08%
CLAY-05%, PYRITE-01%
FOSSILS: NO FOSSILS

3490 - 3500 SHALE; LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, QUARTZ SAND-08%
MICA-01%, PYRITE-01%
FOSSILS: NO FOSSILS
Shale is slightly micaceous.

3500 - 3510 SHALE; LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, QUARTZ SAND-08%
MICA-01%, PYRITE-01%
FOSSILS: NO FOSSILS

3510 - 3520 SHALE; LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, QUARTZ SAND-08%
MICA-01%, PYRITE-01%
FOSSILS: NO FOSSILS

3520 - 3530 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, QUARTZ SAND-10%
FOSSILS: NO FOSSILS
Sand content in the form of fine-grained
carbonate-cemented white sandstone.

3530 - 3540 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CALCILUTITE-10%, QUARTZ SAND-10%
FOSSILS: NO FOSSILS
Shale displays good fissility and is carbonate cemented.

3540 - 3550 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-02%, DOLOMITE-02%, MICA-01%
FOSSILS: NO FOSSILS

3550 - 3560 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-05%, DOLOMITE-02%, MICA-01%
QUARTZ SAND-01%
FOSSILS: NO FOSSILS

3560 - 3570 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-05%, QUARTZ SAND-05%
DOLOMITE-02%, MICA-01%
FOSSILS: NO FOSSILS

3570 - 3580 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-05%, QUARTZ SAND-05%
DOLOMITE-02%, MICA-01%
FOSSILS: NO FOSSILS

3580 - 3590 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-05%, QUARTZ SAND-05%
DOLOMITE-02%, MICA-01%
FOSSILS: NO FOSSILS

3590 - 3600 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-05%, QUARTZ SAND-05%
DOLOMITE-02%, MICA-01%
FOSSILS: NO FOSSILS

3600 - 3610 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: LIMESTONE-05%, QUARTZ SAND-05%
DOLOMITE-02%, MICA-01%
FOSSILS: NO FOSSILS

3610 - 3620 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, LIMESTONE-05%
MICA-01%, PYRITE-01%
Increase in sandstone content.

3620 - 3630 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-20%, LIMESTONE-05%
MICA-01%, PYRITE-01%
FOSSILS: NO FOSSILS

3630 - 3640 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-05%, LIMESTONE-01%
DOLOMITE-01%, MICA-01%
FOSSILS: NO FOSSILS
Sand is in the form of fine-grained, carbonate-cemented
Sandstone.

3640 - 3650 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-08%, LIMESTONE-03%
DOLOMITE-01%, MICA-01%
FOSSILS: NO FOSSILS
Limestone is primarily micrite.

3650 - 3660 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, LIMESTONE-02%
MICA-01%, PYRITE-01%
FOSSILS: NO FOSSILS

3660 - 3670 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, LIMESTONE-02%
MICA-01%
FOSSILS: NO FOSSILS
Most of the sand is sandstone as above. However, some of
the and is loose, angular, and very coarse.

3670 - 3680 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, LIMESTONE-02%
MICA-01%
FOSSILS: NO FOSSILS

3680 - 3690 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, LIMESTONE-03%
MICA-01%
FOSSILS: NO FOSSILS
Marked increase in sand content, which is primarily unconsolidated and very coarse-grained.

3690 - 3700 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, LIMESTONE-03%
MICA-01%
FOSSILS: NO FOSSILS

3700 - 3710 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, LIMESTONE-03%
MICA-01%
FOSSILS: NO FOSSILS

3710 - 3720 SAND; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-05%, MICA-01%, LIMESTONE-01%
FOSSILS: NO FOSSILS
Abrubt lithology change. Shale is probably caved from above.

3720 - 3730 SAND; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-05%, MICA-01%
FOSSILS: NO FOSSILS

3730 - 3740 SAND; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-05%, MICA-01%, LIMESTONE-01%
FOSSILS: NO FOSSILS

3740 - 3750 SAND; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-03%, SHALE-03%, MICA-01%
FOSSILS: NO FOSSILS

3750 - 3760 SAND; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-05%, LIMESTONE-04%, MICA-01%
FOSSILS: NO FOSSILS

3760 - 3770 SAND; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, MICA-01%
FOSSILS: NO FOSSILS
Shale probably caved.

3770 - 3780 SAND; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, MICA-01%
FOSSILS: NO FOSSILS

3780 - 3790 SAND; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, MICA-01%
FOSSILS: NO FOSSILS

3790 - 3800 SAND; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-01%, MICA-01%
FOSSILS: NO FOSSILS

3800 - 3810 SAND; VERY LIGHT ORANGE TO GRAYISH ORANGE
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-01%, MICA-01%
FOSSILS: NO FOSSILS

3810 - 3820 SAND; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
MOLDIC
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-03%, LIMESTONE-01%, MICA-01%
FOSSILS: NO FOSSILS
Shale probably caved.

3820 - 3830 SAND; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, CLAY-02%, LIMESTONE-01%
MICA-01%
FOSSILS: NO FOSSILS
Clay is brownish red in color.

3830 - 3840 SAND; VERY LIGHT ORANGE
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, CLAY-02%, LIMESTONE-01%
MICA-01%
FOSSILS: NO FOSSILS

3840 - 3850 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, LIMESTONE-02%, CLAY-02%
MICA-01%
FOSSILS: NO FOSSILS
Slight color change. Trace amount of phosphate also
present.

3850 - 3860 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, LIMESTONE-02%, CLAY-02%
MICA-01%
FOSSILS: NO FOSSILS

3860 - 3870 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, CLAY-02%, LIMESTONE-02%
MICA-01%
FOSSILS: NO FOSSILS

3870 - 3880 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, LIMESTONE-02%, CLAY-02%
MICA-01%
FOSSILS: NO FOSSILS

3880 - 3890 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, LIMESTONE-02%, CLAY-02%
MICA-01%
FOSSILS: NO FOSSILS

3890 - 3900 SAND; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-01%, MICA-01%
FOSSILS: NO FOSSILS
Slight color change. Sand is very clean; few accessories.

3900 - 3910 SAND; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-01%, MICA-01%
FOSSILS: NO FOSSILS

3910 - 3920 SAND; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-01%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS
Heavy minerals present.

3920 - 3930 SAND; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-01%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

3930 - 3940 SAND; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-01%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

3940 - 3950 SAND; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-01%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

3950 - 3960 SAND; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-01%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

3960 - 3970 SAND; VERY LIGHT ORANGE
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-01%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

3970 - 3980 SAND; GRAYISH ORANGE PINK
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-02%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS
Slight color change due to red clay staining sand grains.

3980 - 3990 SAND; GRAYISH ORANGE PINK
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-02%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

3990 - 4000 SAND; GRAYISH ORANGE PINK
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-02%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4000 - 4010 SAND; GRAYISH ORANGE PINK
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-02%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4010 - 4020 SAND; GRAYISH ORANGE PINK
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-02%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4020 - 4030 SAND; GRAYISH ORANGE PINK
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-02%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4030 - 4040 SAND; GRAYISH ORANGE PINK
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-02%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4040 - 4050 SAND; GRAYISH ORANGE PINK
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-02%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4050 - 4060 SAND; GRAYISH ORANGE PINK
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-02%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4060 - 4070 SAND; GRAYISH ORANGE PINK
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-02%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4070 - 4080 SAND; GRAYISH ORANGE PINK
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-02%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4080 - 4090 SAND; GRAYISH ORANGE PINK
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-02%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4090 - 4100 SAND; GRAYISH ORANGE PINK
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-02%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4100 - 4110 SAND; GRAYISH ORANGE PINK
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-02%, LIMESTONE-01%, MICA-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4110 - 4120 SAND; GRAYISH ORANGE PINK TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, LIMESTONE-02%, SHALE-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS
Increase in red, oxidized clay content.

4120 - 4130 SAND; GRAYISH ORANGE PINK TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, LIMESTONE-02%, SHALE-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4130 - 4140 SAND; GRAYISH ORANGE PINK TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, LIMESTONE-02%, SHALE-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4140 - 4150 SAND; GRAYISH ORANGE PINK TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, LIMESTONE-02%, SHALE-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4150 - 4160 SAND; GRAYISH ORANGE PINK TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, LIMESTONE-02%, SHALE-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4160 - 4170 SAND; GRAYISH ORANGE PINK TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-20%, LIMESTONE-02%, SHALE-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS
Further increase in red clay content.

4170 - 4180 SAND; GRAYISH ORANGE PINK TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-20%, LIMESTONE-02%, SHALE-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4180 - 4190 SAND; GRAYISH ORANGE PINK TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-20%, LIMESTONE-02%, SHALE-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4190 - 4200 SAND; GRAYISH ORANGE PINK TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-20%, LIMESTONE-02%, SHALE-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4200 - 4210 SAND; GRAYISH ORANGE PINK TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-20%, LIMESTONE-02%, SHALE-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4210 - 4220 SAND; GRAYISH ORANGE PINK TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-20%, LIMESTONE-02%, SHALE-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4220 - 4230 SAND; GRAYISH ORANGE PINK TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-20%, LIMESTONE-02%, SHALE-01%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

4230 - 4240 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, LIMESTONE-01%, MICA-01%
FOSSILS: NO FOSSILS
Sand is becoming very coarse.

4240 - 4250 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, LIMESTONE-01%, MICA-01%
FOSSILS: NO FOSSILS

4250 - 4260 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, LIMESTONE-01%, MICA-01%
FOSSILS: NO FOSSILS

4260 - 4270 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, LIMESTONE-01%, MICA-01%
FOSSILS: NO FOSSILS

4270 - 4280 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, LIMESTONE-01%, MICA-01%
FOSSILS: NO FOSSILS

4280 - 4290 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, LIMESTONE-01%, MICA-01%
FOSSILS: NO FOSSILS

4290 - 4300 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-02%, CLAY-02%, MICA-01%
FOSSILS: NO FOSSILS

4300 - 4310 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-02%, CLAY-02%, MICA-01%
FOSSILS: NO FOSSILS

4310 - 4320 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-02%, CLAY-02%, MICA-01%
FOSSILS: NO FOSSILS

4320 - 4330 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-02%, CLAY-02%, MICA-01%
FOSSILS: NO FOSSILS

4330 - 4340 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-02%, CLAY-02%, MICA-01%
FOSSILS: NO FOSSILS

4340 - 4350 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: LIMESTONE-02%, CLAY-02%, MICA-01%
FOSSILS: NO FOSSILS

4350 - 4360 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, LIMESTONE-01%
FOSSILS: NO FOSSILS

4360 - 4370 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, LIMESTONE-01%
FOSSILS: NO FOSSILS

4370 - 4380 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, LIMESTONE-01%
FOSSILS: NO FOSSILS

4380 - 4390 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, LIMESTONE-01%
FOSSILS: NO FOSSILS

4390 - 4400 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, LIMESTONE-01%
FOSSILS: NO FOSSILS

4400 - 4410 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-02%, LIMESTONE-01%
FOSSILS: NO FOSSILS

4410 - 4420 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4420 - 4430 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4430 - 4440 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4440 - 4450 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4450 - 4460 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4460 - 4470 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-08%, SHALE-02%, LIMESTONE-03%
FOSSILS: NO FOSSILS

4470 - 4480 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-08%, SHALE-02%, LIMESTONE-03%
FOSSILS: NO FOSSILS

4480 - 4490 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-08%, SHALE-02%, LIMESTONE-03%
FOSSILS: NO FOSSILS

4490 - 4500 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-08%, SHALE-02%, LIMESTONE-03%
FOSSILS: NO FOSSILS

4500 - 4510 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-08%, SHALE-02%, LIMESTONE-03%
FOSSILS: NO FOSSILS

4510 - 4520 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-08%, SHALE-02%, LIMESTONE-03%
FOSSILS: NO FOSSILS

4520 - 4530 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-08%, SHALE-02%, LIMESTONE-03%
FOSSILS: NO FOSSILS

4530 - 4540 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-08%, SHALE-02%, LIMESTONE-03%
FOSSILS: NO FOSSILS

4540 - 4550 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-08%, SHALE-02%, LIMESTONE-03%
FOSSILS: NO FOSSILS

4550 - 4560 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-08%, SHALE-02%, LIMESTONE-03%
FOSSILS: NO FOSSILS

4560 - 4570 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-08%, SHALE-02%, LIMESTONE-03%
FOSSILS: NO FOSSILS

4570 - 4580 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-10%, LIMESTONE-02%
FOSSILS: NO FOSSILS
Shale is light gray, fissile, and calcareous.

4580 - 4590 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-10%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4590 - 4600 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-10%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4600 - 4610 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN
15% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: SHALE-10%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4610 - 4620 SAND; LIGHT REDDISH BROWN TO MODERATE REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS
Clay is red and highly oxidized.

4620 - 4630 SAND; LIGHT REDDISH BROWN TO MODERATE REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4630 - 4640 SAND; LIGHT REDDISH BROWN TO MODERATE REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4640 - 4650 SAND; LIGHT REDDISH BROWN TO MODERATE REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4650 - 4660 SAND; LIGHT REDDISH BROWN TO MODERATE REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4660 - 4670 SAND; LIGHT REDDISH BROWN TO MODERATE REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4670 - 4680 SAND; LIGHT REDDISH BROWN TO MODERATE REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4680 - 4690 SAND; LIGHT REDDISH BROWN TO MODERATE REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4690 - 4700 SAND; LIGHT REDDISH BROWN TO MODERATE REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: VERY COARSE; RANGE: MEDIUM TO VERY COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-10%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4700 - 4710 SAND; LIGHT GRAYISH RED TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS
Abrubt change in grainsize and clay/shale content.

4710 - 4720 SAND; LIGHT GRAYISH RED TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4720 - 4730 SAND; LIGHT GRAYISH RED TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4730 - 4740 SAND; LIGHT GRAYISH RED TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4740 - 4750 SAND; LIGHT GRAYISH RED TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4750 - 4760 SAND; LIGHT GRAYISH RED TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4760 - 4770 SAND; LIGHT GRAYISH RED TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4770 - 4780 SAND; LIGHT GRAYISH RED TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4780 - 4790 SAND; LIGHT GRAYISH RED TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4790 - 4800 SAND; LIGHT GRAYISH RED TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4800 - 4810 SAND; LIGHT GRAYISH RED TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4810 - 4820 SAND; LIGHT GRAYISH RED TO LIGHT REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: FINE TO COARSE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-05%, SHALE-02%, LIMESTONE-02%
FOSSILS: NO FOSSILS

4820 - 4830 SAND; LIGHT GRAYISH RED TO DARK REDDISH BROWN
12% POROSITY: INTERGRANULAR, POSSIBLY HIGH PERMEABILITY
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
UNCONSOLIDATED
ACCESSORY MINERALS: CLAY-20%, SHALE-05%, LIMESTONE-01%
FOSSILS: NO FOSSILS
Marked increase in red mudstone.

4830 - 4840 MUDSTONE; DARK REDDISH BROWN TO LIGHT GRAYISH RED
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, LIMESTONE-05%
SHALE-01%
FOSSILS: NO FOSSILS
Dominate lithology is a well indurated red mudstone.

4840 - 4850 MUDSTONE; DARK REDDISH BROWN TO LIGHT GRAYISH RED
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, LIMESTONE-05%
SHALE-01%
FOSSILS: NO FOSSILS

4850 - 4860 MUDSTONE; DARK REDDISH BROWN TO LIGHT GRAYISH RED
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, LIMESTONE-05%
SHALE-01%
FOSSILS: NO FOSSILS

4860 - 4870 MUDSTONE; DARK REDDISH BROWN TO LIGHT GRAYISH RED
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, LIMESTONE-05%
SHALE-01%
FOSSILS: NO FOSSILS

4870 - 4880 MUDSTONE; DARK REDDISH BROWN TO LIGHT GRAYISH RED
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, LIMESTONE-05%
SHALE-01%
FOSSILS: NO FOSSILS

4880 - 4890 MUDSTONE; DARK REDDISH BROWN TO LIGHT GRAYISH RED
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, LIMESTONE-05%
SHALE-01%
FOSSILS: NO FOSSILS

4890 - 4900 MUDSTONE; LIGHT REDDISH BROWN TO GRAYISH BROWN RED
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, LIMESTONE-05%
SHALE-02%
FOSSILS: NO FOSSILS
Sand includes coarse-grained, unconsolidated quartz sand as well as fine-grained, carbonate cemented sandstone.

4900 - 4910 MUDSTONE; LIGHT REDDISH BROWN TO GRAYISH BROWN RED
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, LIMESTONE-05%
SHALE-02%
FOSSILS: NO FOSSILS

4910 - 4920 MUDSTONE; LIGHT REDDISH BROWN TO GRAYISH BROWN RED
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, LIMESTONE-05%
SHALE-02%
FOSSILS: NO FOSSILS

4920 - 4930 MUDSTONE; LIGHT REDDISH BROWN TO GRAYISH BROWN RED
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, LIMESTONE-05%
SHALE-02%
FOSSILS: NO FOSSILS

4930 - 4940 MUDSTONE; LIGHT REDDISH BROWN TO GRAYISH BROWN RED
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, LIMESTONE-05%
SHALE-02%
FOSSILS: NO FOSSILS

4940 - 4950 MUDSTONE; LIGHT REDDISH BROWN TO GRAYISH BROWN RED
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, LIMESTONE-05%
SHALE-02%
FOSSILS: NO FOSSILS

4950 - 4960 MUDSTONE; LIGHT REDDISH BROWN TO GRAYISH BROWN RED
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, LIMESTONE-05%
SHALE-02%
FOSSILS: NO FOSSILS

4960 - 4970 MUDSTONE; LIGHT REDDISH BROWN TO GRAYISH BROWN RED
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, LIMESTONE-05%
SHALE-02%
FOSSILS: NO FOSSILS

4970 - 4980 MUDSTONE; LIGHT GRAYISH RED TO DARK REDDISH BROWN
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, SHALE-10%
LIMESTONE-05%
FOSSILS: NO FOSSILS
Increase in gray, fissile shale.

4980 - 4990 MUDSTONE; LIGHT GRAYISH RED TO DARK REDDISH BROWN
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, SHALE-10%
LIMESTONE-05%
FOSSILS: NO FOSSILS

4990 - 5000 MUDSTONE; LIGHT GRAYISH RED TO DARK REDDISH BROWN
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, SHALE-10%
LIMESTONE-05%
FOSSILS: NO FOSSILS

5000 - 5010 MUDSTONE; LIGHT GRAYISH RED TO DARK REDDISH BROWN
POROSITY: NOT OBSERVED
GOOD INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, SHALE-10%
LIMESTONE-05%
FOSSILS: NO FOSSILS

5010 - 5020 SHALE; MODERATE LIGHT GRAY TO LIGHT REDDISH BROWN
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, QUARTZ SAND-10%
LIMESTONE-04%
FOSSILS: NO FOSSILS
Dominate lithology is now a gray, calcareous, fissile shale.

5020 - 5030 SHALE; MODERATE LIGHT GRAY TO LIGHT REDDISH BROWN
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, QUARTZ SAND-10%
LIMESTONE-04%
FOSSILS: NO FOSSILS

5030 - 5040 SHALE; MODERATE LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, QUARTZ SAND-10%
LIMESTONE-04%
FOSSILS: NO FOSSILS

5040 - 5050 SHALE; MODERATE LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, QUARTZ SAND-10%
LIMESTONE-04%
FOSSILS: NO FOSSILS

5050 - 5060 SHALE; MODERATE LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, QUARTZ SAND-10%
LIMESTONE-04%
FOSSILS: NO FOSSILS

5060 - 5070 SHALE; MODERATE LIGHT GRAY TO MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
ACCESSORY MINERALS: CLAY-30%, QUARTZ SAND-10%
LIMESTONE-04%
FOSSILS: NO FOSSILS

5070 - 5080 SANDSTONE; MODERATE GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, LIMESTONE-01%
FOSSILS: WORM TRACES
Sandstone is stained with dead oil. About 5% of sample is red mudstone and siltstone caved from above.

5080 - 5090 NO SAMPLES

5090 - 5100 NO SAMPLES

5100 - 5110 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5110 - 5120 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5120 - 5130 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5130 - 5140 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5140 - 5150 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5150 - 5160 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5160 - 5170 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5170 - 5180 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5180 - 5190 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5190 - 5200 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5200 - 5210 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5210 - 5220 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5220 - 5230 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5230 - 5240 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5240 - 5250 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5250 - 5260 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5260 - 5270 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5270 - 5280 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5280 - 5290 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5290 - 5300 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5300 - 5310 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5310 - 5320 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5320 - 5330 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5330 - 5340 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5340 - 5350 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5350 - 5360 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5360 - 5370 SANDSTONE; MODERATE DARK GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ SAND-02%
FOSSILS: NO FOSSILS

5370 - 5380 SANDSTONE; LIGHT GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, QUARTZ SAND-05%
FOSSILS: NO FOSSILS
Color is noticably lighter. Oil stain is greatly reduced.
Black shale is probably caved.

5380 - 5390 SANDSTONE; LIGHT GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, QUARTZ SAND-05%
FOSSILS: NO FOSSILS

5390 - 5400 SANDSTONE; LIGHT GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, QUARTZ SAND-05%
FOSSILS: NO FOSSILS

5400 - 5410 SANDSTONE; LIGHT GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, QUARTZ SAND-05%
FOSSILS: NO FOSSILS

5410 - 5420 SANDSTONE; LIGHT GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, QUARTZ SAND-05%
FOSSILS: NO FOSSILS

5420 - 5430 SANDSTONE; WHITE
08% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
FOSSILS: NO FOSSILS
Sandstone is a clean white quartz arenite. About 30% of sample is black diabase.

5430 - 5440 SANDSTONE; WHITE
08% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
FOSSILS: NO FOSSILS
Diabase increases to about 50% of sample.

5440 - 5450 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS
Lithology is black diabase

5450 - 5460 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS
Diabase Sand is in the form of a clean, white, quartz arenite.

5460 - 5470 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5470 - 5480 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5480 - 5490 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5490 - 5500 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5500 - 5510 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5510 - 5520 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5520 - 5530 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5530 - 5540 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5540 - 5550 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5550 - 5560 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5560 - 5570 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5570 - 5580 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5580 - 5590 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5590 - 5600 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5600 - 5610 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5610 - 5620 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5620 - 5630 IGNEOUS; DARK GRAY
05% POROSITY: INTERCRYSTALLINE, LOW PERMEABILITY
GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-03%
FOSSILS: NO FOSSILS

5630 - 5640 SANDSTONE; MODERATE GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%
FOSSILS: NO FOSSILS
About 40% of sample is black diabase. Most sandstone is stained dark gray with dead oil.

5640 - 5650 SANDSTONE; MODERATE GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%
FOSSILS: NO FOSSILS

5650 - 5660 SANDSTONE; MODERATE GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%
FOSSILS: NO FOSSILS

5660 - 5670 SANDSTONE; MODERATE GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%
FOSSILS: NO FOSSILS

5670 - 5680 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-10%, SHALE-05%
FOSSILS: NO FOSSILS
Sand in the form of white sandstone as described above.
Shale is dark gray and fissile

5680 - 5690 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-10%, SHALE-05%
FOSSILS: NO FOSSILS

5690 - 5700 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-15%, SHALE-05%
FOSSILS: NO FOSSILS

5700 - 5710 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-15%, SHALE-05%
FOSSILS: NO FOSSILS

5710 - 5720 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-15%, SHALE-05%
FOSSILS: NO FOSSILS

5720 - 5730 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-15%, SHALE-05%
FOSSILS: NO FOSSILS

5730 - 5740 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-15%, SHALE-05%
FOSSILS: NO FOSSILS

5740 - 5750 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-15%, SHALE-08%
FOSSILS: NO FOSSILS

5750 - 5760 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-20%, SHALE-10%
FOSSILS: NO FOSSILS

5760 - 5770 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-20%, SHALE-10%
FOSSILS: NO FOSSILS

5770 - 5780 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-15%, SHALE-10%
FOSSILS: NO FOSSILS

5780 - 5790 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-15%, SHALE-10%
FOSSILS: NO FOSSILS

5790 - 5800 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-15%, SHALE-10%
FOSSILS: NO FOSSILS

5800 - 5810 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-10%, SHALE-05%
FOSSILS: NO FOSSILS

5810 - 5820 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-10%, SHALE-05%
FOSSILS: NO FOSSILS

5820 - 5830 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-10%, SHALE-05%
FOSSILS: NO FOSSILS

5830 - 5840 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-10%, SHALE-05%
FOSSILS: NO FOSSILS

5840 - 5850 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-10%, SHALE-05%
FOSSILS: NO FOSSILS

5850 - 5860 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-10%, SHALE-05%
FOSSILS: NO FOSSILS
About half the shale is yellowish brown in color.

5860 - 5870 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-10%, SHALE-05%
FOSSILS: NO FOSSILS

5870 - 5880 IGNEOUS; MODERATE LIGHT GRAY
04% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-10%, SHALE-05%
FOSSILS: NO FOSSILS

5880 - 5890 SHALE; MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS
Diabase comprises about 20% of sample. About 10% of shale is yellowish brown. Sand in the form of gray, fine-grained sandstone stained with oil.

5890 - 5900 SHALE; MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS

5900 - 5910 SHALE; MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS

5910 - 5920 SHALE; MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS

5920 - 5930 SHALE; MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS

5930 - 5940 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%
FOSSILS: NO FOSSILS
Diabase comprises about 10% of sample; probably caved.
Shale is very black. Believe this to be top of Cherry Lake formation.

5940 - 5950 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%
FOSSILS: NO FOSSILS

5950 - 5960 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%
FOSSILS: NO FOSSILS

5960 - 5970 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%
FOSSILS: NO FOSSILS

5970 - 5980 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%
FOSSILS: NO FOSSILS

5980 - 5990 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%
FOSSILS: NO FOSSILS

5990 - 6000 SANDSTONE; VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-50%
FOSSILS: NO FOSSILS
Shale very black, but probably caved. About 5% of shale is yellowish brown.

6000 - 6010 SANDSTONE; VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-50%
FOSSILS: NO FOSSILS

6010 - 6020 SANDSTONE; VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-50%
FOSSILS: NO FOSSILS

6020 - 6030 SANDSTONE; VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-50%
FOSSILS: NO FOSSILS

6030 - 6040 SANDSTONE; VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-50%
FOSSILS: NO FOSSILS

6040 - 6050 SANDSTONE; VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-50%
FOSSILS: NO FOSSILS

6050 - 6060 SANDSTONE; VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-50%
FOSSILS: NO FOSSILS

6060 - 6070 SANDSTONE; VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-50%
FOSSILS: NO FOSSILS

6070 - 6080 SANDSTONE; VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-50%
FOSSILS: NO FOSSILS

6080 - 6090 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS
Diabase present (3%). Shale very black.

6090 - 6100 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%
FOSSILS: NO FOSSILS

6100 - 6110 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-20%
FOSSILS: NO FOSSILS

6110 - 6120 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-25%
FOSSILS: NO FOSSILS
Sand in the form fine to medium-grained light gray sandstone. Sandstone content increasing. Shale slightly micaceous.

6120 - 6130 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-25%
FOSSILS: NO FOSSILS

6130 - 6140 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-25%
FOSSILS: NO FOSSILS

6140 - 6150 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-25%
FOSSILS: NO FOSSILS

6150 - 6160 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-25%
FOSSILS: NO FOSSILS

6160 - 6170 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS
Decrease in sandstone content. Slight color change.

6170 - 6180 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS

6180 - 6190 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS

6190 - 6200 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS

6200 - 6210 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS

6210 - 6220 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS

6220 - 6230 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS

6230 - 6240 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%
FOSSILS: NO FOSSILS

6240 - 6250 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%
FOSSILS: WORM TRACES
Sandstone now dominate lithology.

6250 - 6260 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%
FOSSILS: WORM TRACES

6260 - 6270 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%
FOSSILS: WORM TRACES

6270 - 6280 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%
FOSSILS: WORM TRACES

6280 - 6290 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%
FOSSILS: WORM TRACES

6290 - 6300 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%
FOSSILS: WORM TRACES

6300 - 6310 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%
FOSSILS: WORM TRACES

6310 - 6320 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%
FOSSILS: WORM TRACES

6320 - 6330 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%
FOSSILS: WORM TRACES

6330 - 6340 SANDSTONE; LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%
FOSSILS: WORM TRACES

6340 - 6350 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: NO FOSSILS
Sand in the form of sandstone as described above. Shale very black, fissile, slightly micaceous and calcareous.

6350 - 6360 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: NO FOSSILS

6360 - 6370 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: NO FOSSILS

6370 - 6380 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: NO FOSSILS

6380 - 6390 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: FOSSIL MOLDS
Diabase present(3%). Sandstone brownish gray from dead oil stain; fine to medium-grained.

6390 - 6400 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: FOSSIL MOLDS

6400 - 6410 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: FOSSIL MOLDS

6410 - 6420 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, MICA-01%
FOSSILS: NO FOSSILS

6420 - 6430 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, MICA-01%
FOSSILS: NO FOSSILS

6430 - 6440 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, MICA-01%
FOSSILS: FOSSIL MOLDS

6440 - 6450 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, MICA-01%
FOSSILS: NO FOSSILS

6450 - 6460 SHALE; MODERATE LIGHT GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, MICA-01%
FOSSILS: FOSSIL MOLDS

6460 - 6470 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, MICA-01%
FOSSILS: FOSSIL MOLDS

6470 - 6480 SHALE; MODERATE DARK GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, MICA-01%
FOSSILS: FOSSIL MOLDS

6480 - 6490 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, MICA-01%
FOSSILS: NO FOSSILS

6490 - 6500 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: NO FOSSILS

6500 - 6510 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: NO FOSSILS

6510 - 6520 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: NO FOSSILS

6520 - 6530 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: NO FOSSILS

6530 - 6540 SHALE; BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: FOSSIL MOLDS

6540 - 6550 SHALE; MODERATE DARK GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: FOSSIL MOLDS

6550 - 6560 SHALE; MODERATE DARK GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: FOSSIL MOLDS

6560 - 6570 SHALE; MODERATE DARK GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: FOSSIL MOLDS

6570 - 6580 SHALE; MODERATE DARK GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: FOSSIL MOLDS

6580 - 6590 SHALE; MODERATE DARK GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, MICA-01%
FOSSILS: FOSSIL MOLDS

6590 - 6600 SHALE; MODERATE DARK GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, MICA-01%
FOSSILS: NO FOSSILS

6600 - 6610 SHALE; MODERATE DARK GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, MICA-01%
FOSSILS: NO FOSSILS

6610 - 6620 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-20%, MICA-01%
FOSSILS: NO FOSSILS

6620 - 6630 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-20%, MICA-01%
FOSSILS: FOSSIL MOLDS

6630 - 6640 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: NO FOSSILS

6640 - 6650 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: NO FOSSILS

6650 - 6660 SHALE; MODERATE DARK GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: FOSSIL MOLDS

6660 - 6670 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: FOSSIL MOLDS

6670 - 6680 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: FOSSIL MOLDS

6680 - 6690 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: NO FOSSILS

6690 - 6700 SHALE; MODERATE GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX
ACCESSORY MINERALS: QUARTZ SAND-10%, MICA-01%
FOSSILS: FOSSIL MOLDS

6700 - 6710 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%
FOSSILS: NO FOSSILS
Increase in sandstone content. Sandstone white to pinkish in color; fine to medium grained.

6710 - 6710 SANDSTONE; VERY LIGHT ORANGE TO MODERATE ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-02%
FOSSILS: NO FOSSILS
Sandstone now dominate.

6710 - 6720 SANDSTONE; VERY LIGHT ORANGE TO MODERATE ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-02%
FOSSILS: NO FOSSILS

6720 - 6730 SANDSTONE; VERY LIGHT ORANGE TO MODERATE ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-02%
FOSSILS: NO FOSSILS

6730 - 6740 SANDSTONE; VERY LIGHT ORANGE TO MODERATE ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-02%
FOSSILS: NO FOSSILS

6740 - 6750 SANDSTONE; VERY LIGHT ORANGE TO MODERATE ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-02%
FOSSILS: NO FOSSILS

6750 - 6760 SANDSTONE; VERY LIGHT ORANGE TO MODERATE ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-02%
FOSSILS: NO FOSSILS

6760 - 6770 SANDSTONE; VERY LIGHT ORANGE TO MODERATE ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-02%
FOSSILS: NO FOSSILS

6770 - 6780 SANDSTONE; VERY LIGHT ORANGE TO MODERATE ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-02%
FOSSILS: NO FOSSILS

6780 - 6790 SANDSTONE; VERY LIGHT ORANGE TO MODERATE ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-02%
FOSSILS: NO FOSSILS

6790 - 6800 SANDSTONE; VERY LIGHT ORANGE TO MODERATE ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-02%
FOSSILS: NO FOSSILS

6800 - 6810 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, CLAY-05%
FOSSILS: FOSSIL MOLDS
Black shale now dominate lithology. Sandstone 15% as described above. Diabase present (3%).

6810 - 6820 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, CLAY-05%
FOSSILS: FOSSIL MOLDS

6820 - 6830 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, CLAY-05%
FOSSILS: FOSSIL MOLDS

6830 - 6840 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, CLAY-05%
FOSSILS: FOSSIL MOLDS

6840 - 6850 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-15%, CLAY-05%
FOSSILS: FOSSIL MOLDS

6850 - 6860 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-20%, CLAY-05%
HEAVY MINERALS-01%
FOSSILS: FOSSIL MOLDS
Heavy mineral grains present. Black phosphatic fossil fragments present. Sand in the form of pinkish gray to white, fine-grained sandstone.

6860 - 6870 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-20%, CLAY-05%
HEAVY MINERALS-01%
FOSSILS: FOSSIL MOLDS

6870 - 6880 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-20%, CLAY-05%
HEAVY MINERALS-01%
FOSSILS: FOSSIL MOLDS

6880 - 6890 SHALE; MODERATE GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-20%, CLAY-05%
HEAVY MINERALS-01%, GLAUCONITE-01%
FOSSILS: FOSSIL MOLDS

6890 - 6900 SANDSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
FOSSILS: FOSSIL MOLDS
Fossil fragments are phosphatic. Shale is as described above.

6900 - 6910 SANDSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
FOSSILS: FOSSIL MOLDS

6910 - 6920 SANDSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
FOSSILS: FOSSIL MOLDS

6920 - 6930 SANDSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
FOSSILS: FOSSIL MOLDS

6930 - 6940 SANDSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
FOSSILS: FOSSIL MOLDS

6940 - 6950 SANDSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
FOSSILS: FOSSIL MOLDS

6950 - 6960 SANDSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
FOSSILS: FOSSIL MOLDS

6960 - 6970 SANDSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
FOSSILS: FOSSIL MOLDS

6970 - 6980 SANDSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
FOSSILS: FOSSIL MOLDS

6980 - 6990 SANDSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
FOSSILS: FOSSIL MOLDS

6990 - 7000 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, GLAUCONITE-02%
MICA-01%
FOSSILS: FOSSIL MOLDS
Sandstone as decribed above. Shale is slightly micaceous.

7000 - 7010 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, GLAUCONITE-02%
MICA-01%
FOSSILS: FOSSIL MOLDS

7010 - 7020 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, GLAUCONITE-03%
MICA-01%
FOSSILS: FOSSIL MOLDS

7020 - 7030 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, GLAUCONITE-03%
MICA-01%
FOSSILS: FOSSIL MOLDS

7030 - 7040 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, GLAUCONITE-05%
MICA-01%
FOSSILS: FOSSIL MOLDS
Slight increase in glauconite content.

7040 - 7050 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, GLAUCONITE-05%
MICA-01%
FOSSILS: FOSSIL MOLDS

7050 - 7060 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, GLAUCONITE-05%
MICA-01%
FOSSILS: FOSSIL MOLDS

7060 - 7070 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, GLAUCONITE-05%
MICA-01%
FOSSILS: FOSSIL MOLDS

7070 - 7080 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, GLAUCONITE-04%
MICA-01%
FOSSILS: FOSSIL MOLDS

7080 - 7090 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, GLAUCONITE-04%
MICA-01%
FOSSILS: FOSSIL MOLDS

7090 - 7100 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-20%, GLAUCONITE-04%
MICA-01%
FOSSILS: FOSSIL MOLDS

7100 - 7110 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-20%, GLAUCONITE-04%
MICA-01%
FOSSILS: FOSSIL MOLDS

7110 - 7120 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-20%, GLAUCONITE-04%
MICA-01%
FOSSILS: FOSSIL MOLDS

7120 - 7130 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, GLAUCONITE-03%
MICA-01%
FOSSILS: FOSSIL MOLDS

7130 - 7140 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, GLAUCONITE-03%
MICA-01%
FOSSILS: FOSSIL MOLDS

7140 - 7150 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, GLAUCONITE-02%
MICA-01%
FOSSILS: FOSSIL MOLDS

7150 - 7160 SANDSTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE PINK
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
MICA-01%
FOSSILS: FOSSIL MOLDS
Shale;grayish black highly micaceous variety and medium
gray, nonmicaceous variety.

7160 - 7170 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
MICA-01%
FOSSILS: FOSSIL MOLDS

7170 - 7180 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
MICA-01%
FOSSILS: FOSSIL MOLDS

7180 - 7190 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
MICA-01%
FOSSILS: FOSSIL MOLDS

7190 - 7200 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
MICA-01%
FOSSILS: FOSSIL MOLDS

7200 - 7210 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
MICA-01%
FOSSILS: FOSSIL MOLDS

7210 - 7220 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-40%, GLAUCONITE-01%
MICA-01%
FOSSILS: FOSSIL MOLDS

7220 - 7230 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-30%, MICA-01%
FOSSILS: NO FOSSILS

7230 - 7240 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: HEAVY MINERALS-30%, MICA-01%
FOSSILS: NO FOSSILS

7240 - 7250 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS
Sandstone as above. Black shale varies from slightly to heavily micaceous.

7250 - 7260 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7260 - 7270 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7270 - 7280 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7280 - 7290 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7290 - 7300 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7300 - 7310 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7310 - 7320 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7320 - 7330 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-10%
FOSSILS: NO FOSSILS
Sandstone dominate; Shale probably caved.

7330 - 7340 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-10%
FOSSILS: NO FOSSILS

7340 - 7350 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-10%
FOSSILS: NO FOSSILS

7350 - 7360 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-10%
FOSSILS: NO FOSSILS

7360 - 7370 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-10%
FOSSILS: NO FOSSILS

7370 - 7380 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-10%
FOSSILS: NO FOSSILS

7380 - 7390 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-10%
FOSSILS: NO FOSSILS
Diabase present(3%).

7390 - 7400 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-10%
FOSSILS: NO FOSSILS

7400 - 7410 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, CLAY-10%
FOSSILS: NO FOSSILS

7410 - 7420 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, CLAY-10%
FOSSILS: NO FOSSILS

7420 - 7430 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, CLAY-10%
FOSSILS: NO FOSSILS

7430 - 7440 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, CLAY-10%
FOSSILS: NO FOSSILS

7440 - 7450 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, CLAY-10%
FOSSILS: NO FOSSILS

7450 - 7460 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, CLAY-10%
FOSSILS: NO FOSSILS

7460 - 7470 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, CLAY-10%
FOSSILS: NO FOSSILS

7470 - 7480 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, CLAY-10%
FOSSILS: NO FOSSILS

7480 - 7490 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, CLAY-10%
FOSSILS: NO FOSSILS

7490 - 7500 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, CLAY-10%
FOSSILS: NO FOSSILS

7500 - 7510 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, CLAY-10%
FOSSILS: NO FOSSILS

7510 - 7520 SANDSTONE; VERY LIGHT ORANGE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, CLAY-10%
FOSSILS: NO FOSSILS

7520 - 7530 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7530 - 7540 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7540 - 7550 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7550 - 7560 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7560 - 7570 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7570 - 7580 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7580 - 7590 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7590 - 7600 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7600 - 7610 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7610 - 7620 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7620 - 7630 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7630 - 7640 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7640 - 7650 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7650 - 7660 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7660 - 7670 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7670 - 7680 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7680 - 7690 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7690 - 7700 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

8190 - 8190 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS

8190 - 8190 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS

8190 - 8190 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS

8190 - 8190 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS

8190 - 8190 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS

8190 - 8190 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS

8190 - 8190 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS

8190 - 8190 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS

8190 - 8190 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS

8190 - 8190 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS

8190 - 8200 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8200 - 8210 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8210 - 8220 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8220 - 8230 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8230 - 8240 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8240 - 8250 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8250 - 8260 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8260 - 8270 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8270 - 8280 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8280 - 8290 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8290 - 8300 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8300 - 8310 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8310 - 8320 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8320 - 8330 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8330 - 8340 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8340 - 8350 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8350 - 8360 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8360 - 8370 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8370 - 8380 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8380 - 8390 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8390 - 8400 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8400 - 8410 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8410 - 8420 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8420 - 8430 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8430 - 8440 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8440 - 8450 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8450 - 8460 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8460 - 8470 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8470 - 8480 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8480 - 8490 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8490 - 8500 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8500 - 8510 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

7860 - 7870 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7870 - 7880 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7880 - 7890 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7890 - 7900 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7900 - 7910 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7910 - 7920 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7920 - 7930 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7930 - 7940 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7940 - 7950 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7950 - 7960 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7960 - 7970 SANDSTONE; LIGHT GRAY TO LIGHT OLIVE GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

7970 - 7980 SANDSTONE; LIGHT GRAY TO LIGHT OLIVE GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

7980 - 7990 SANDSTONE; LIGHT GRAY TO LIGHT OLIVE GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

7990 - 8000 SANDSTONE; LIGHT BROWNISH GRAY TO BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, SILT-10%, MICA-02%
FOSSILS: NO FOSSILS
Shale is yellowish brown and micaceous. Siltstone(10%) is medium dark gray.

8000 - 8010 SANDSTONE; LIGHT BROWNISH GRAY TO BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, SILT-10%, MICA-02%
FOSSILS: NO FOSSILS

8010 - 8020 SANDSTONE; LIGHT BROWNISH GRAY TO BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, SILT-10%, MICA-02%
FOSSILS: NO FOSSILS

8020 - 8030 SANDSTONE; LIGHT BROWNISH GRAY TO BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, SILT-10%, MICA-02%
FOSSILS: NO FOSSILS

8030 - 8040 SANDSTONE; LIGHT BROWNISH GRAY TO BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, SILT-10%, MICA-02%
FOSSILS: NO FOSSILS

8040 - 8050 SANDSTONE; LIGHT BROWNISH GRAY TO BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, SILT-10%, MICA-02%
FOSSILS: NO FOSSILS

8050 - 8060 SANDSTONE; LIGHT BROWNISH GRAY TO BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, SILT-10%, MICA-02%
FOSSILS: NO FOSSILS

8060 - 8070 SANDSTONE; LIGHT BROWNISH GRAY TO BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, SILT-10%, MICA-02%
FOSSILS: NO FOSSILS

8070 - 8080 SANDSTONE; LIGHT BROWNISH GRAY TO BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, SILT-10%, MICA-02%
FOSSILS: NO FOSSILS

8080 - 8090 SANDSTONE; LIGHT BROWNISH GRAY TO BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, SILT-10%, MICA-02%
FOSSILS: NO FOSSILS

8090 - 8100 SANDSTONE; LIGHT BROWNISH GRAY TO BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, SILT-10%, MICA-02%
FOSSILS: NO FOSSILS

8100 - 8110 SANDSTONE; LIGHT BROWNISH GRAY TO BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, SILT-10%, MICA-02%
FOSSILS: NO FOSSILS

8110 - 8120 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, SILT-10%, MICA-03%
QUARTZ SAND-02%
FOSSILS: NO FOSSILS

8120 - 8130 SANDSTONE; LIGHT BROWNISH GRAY TO BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, SILT-10%, MICA-02%
FOSSILS: NO FOSSILS

8130 - 8140 SANDSTONE; LIGHT BROWNISH GRAY TO BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, SILT-10%, MICA-02%
FOSSILS: NO FOSSILS

8140 - 8150 SHALE; MODERATE DARK GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS
Sandstone as described above; probably caved. Shale black and very fissile; also well induated.

8150 - 8160 SHALE; MODERATE DARK GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

8160 - 8170 SHALE; MODERATE DARK GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

8170 - 8180 SHALE; MODERATE DARK GRAY TO BLACK
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

8180 - 8190 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS
Clay in the form of dusky yellow claystone.

7770 - 7780 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7780 - 7790 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7790 - 7800 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7800 - 7810 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7810 - 7820 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7820 - 7830 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7830 - 7840 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7840 - 7850 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7850 - 7860 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7700 - 7710 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7710 - 7720 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7720 - 7730 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7730 - 7740 SANDSTONE; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, CLAY-05%, MICA-01%
FOSSILS: NO FOSSILS

7740 - 7750 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7750 - 7760 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

7760 - 7770 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-30%, CLAY-10%, MICA-01%
FOSSILS: NO FOSSILS

8510 - 8520 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8520 - 8530 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8530 - 8540 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8540 - 8550 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8550 - 8560 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8560 - 8570 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8570 - 8580 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8580 - 8590 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8590 - 8600 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8600 - 8610 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8610 - 8620 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8620 - 8630 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8630 - 8640 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8640 - 8650 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8650 - 8660 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8660 - 8670 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8670 - 8680 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8680 - 8690 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8690 - 8700 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8700 - 8710 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8710 - 8720 SHALE; MODERATE GRAY TO DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, CLAY-05%, MICA-02%
FOSSILS: NO FOSSILS

8720 - 8730 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8730 - 8740 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8740 - 8750 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8750 - 8760 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8760 - 8770 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8770 - 8780 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8780 - 8790 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8790 - 8800 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8800 - 8810 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8810 - 8820 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8820 - 8830 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8830 - 8840 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8840 - 8850 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8850 - 8860 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8860 - 8870 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8870 - 8880 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8880 - 8890 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8890 - 8900 SANDSTONE; VERY LIGHT GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-30%, MICA-01%
FOSSILS: NO FOSSILS

8900 - 8910 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

8910 - 8920 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

8920 - 8930 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

8930 - 8940 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

8940 - 8950 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

8950 - 8960 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

8960 - 8970 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

8970 - 8980 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

8980 - 8990 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

8990 - 9000 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

9000 - 9010 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

9010 - 9020 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

9020 - 9030 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

9030 - 9040 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

9040 - 9050 SHALE; DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%
FOSSILS: NO FOSSILS

9050 - 9060 SAND; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-20%, CLAY-05%
FOSSILS: NO FOSSILS
Shale is as described above.

9060 - 9070 SAND; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-20%, CLAY-05%
FOSSILS: NO FOSSILS

9070 - 9080 SAND; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-20%, CLAY-05%
FOSSILS: NO FOSSILS

9080 - 9090 SAND; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-20%, CLAY-05%
FOSSILS: NO FOSSILS

9090 - 9100 SAND; WHITE TO VERY LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-20%, CLAY-05%
FOSSILS: NO FOSSILS

9100 - 9110 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-35%, MICA-01%
FOSSILS: NO FOSSILS
Sandstone as described above. Trace of coarse
gray-red(oxidized) mica in shale.

9110 - 9120 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-35%, MICA-01%
FOSSILS: NO FOSSILS

9120 - 9130 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-35%, MICA-01%
FOSSILS: NO FOSSILS

9130 - 9140 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-35%, MICA-01%
FOSSILS: NO FOSSILS

9140 - 9150 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-35%, MICA-01%
FOSSILS: NO FOSSILS

9150 - 9160 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-35%, MICA-01%
FOSSILS: NO FOSSILS

9160 - 9170 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-35%, MICA-01%
FOSSILS: NO FOSSILS

9170 - 9180 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-35%, MICA-01%
FOSSILS: NO FOSSILS

9180 - 9190 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-35%, MICA-01%
FOSSILS: NO FOSSILS

9190 - 9200 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-35%, MICA-01%
FOSSILS: NO FOSSILS

9200 - 9210 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-35%, MICA-01%
FOSSILS: NO FOSSILS

9210 - 9220 SHALE; MODERATE GRAY TO MODERATE DARK GRAY
POROSITY: NOT OBSERVED; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-35%, MICA-01%
FOSSILS: NO FOSSILS

9220 - 9230 IGNEOUS; GREENISH BLACK
05% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: SHALE-03%, QUARTZ SAND-03%
FOSSILS: NO FOSSILS
Lithology is black diabase.

9230 - 9240 IGNEOUS; GREENISH BLACK
05% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: SHALE-03%, QUARTZ SAND-03%
FOSSILS: NO FOSSILS

9240 - 9250 IGNEOUS; GREENISH BLACK
05% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: SHALE-30%, QUARTZ SAND-20%
FOSSILS: NO FOSSILS
Main lithology is diabase. Increase in shale and sandstone.
Sandstone light brown to white, very fine-grained, highly
indurated.

9250 - 9250 IGNEOUS; GREENISH BLACK
05% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: SHALE-30%, QUARTZ SAND-20%
FOSSILS: NO FOSSILS

9250 - 9250 IGNEOUS; GREENISH BLACK
05% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: SHALE-30%, QUARTZ SAND-20%
FOSSILS: NO FOSSILS

9250 - 9260 SILT; YELLOWISH GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT, CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, SHALE-05%, MICA-01%
FOSSILS: NO FOSSILS
Silt is in the form of highly indurated, micaceous
siltstone. Sandstone is as described above.

9260 - 9270 SILT; YELLOWISH GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT, CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, SHALE-05%, MICA-01%
FOSSILS: NO FOSSILS

9270 - 9280 SILT; YELLOWISH GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT, CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, SHALE-05%, MICA-01%
FOSSILS: NO FOSSILS

9280 - 9290 SILT; YELLOWISH GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT, CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, SHALE-05%, MICA-01%
FOSSILS: NO FOSSILS

9290 - 9300 SILT; YELLOWISH GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR, LOW PERMEABILITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT, CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-40%, SHALE-05%, MICA-01%
FOSSILS: NO FOSSILS

9300 - 9310 SANDSTONE; YELLOWISH GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SILT-20%, SHALE-20%, MICA-01%
FOSSILS: NO FOSSILS
Silt in the form of siltstone as described above.

9310 - 9320 SANDSTONE; YELLOWISH GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SILT-20%, SHALE-20%, MICA-01%
FOSSILS: NO FOSSILS

9320 - 9330 SANDSTONE; YELLOWISH GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SILT-20%, SHALE-20%, MICA-01%
FOSSILS: NO FOSSILS

9330 - 9340 SANDSTONE; YELLOWISH GRAY TO LIGHT BROWNISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SILT-20%, SHALE-20%, MICA-01%
FOSSILS: NO FOSSILS

9340 - 9350 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS
Abrubt color change. Shale and siltstone as described above. Sandstone contains calcite filled fractures.

9350 - 9360 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9360 - 9370 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9370 - 9380 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9380 - 9390 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9390 - 9400 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9400 - 9410 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9410 - 9420 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9420 - 9430 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9430 - 9440 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9440 - 9450 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9450 - 9460 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9460 - 9470 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9470 - 9480 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9480 - 9490 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9490 - 9500 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9500 - 9510 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9510 - 9520 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9520 - 9530 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9530 - 9540 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9540 - 9550 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9550 - 9560 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9560 - 9570 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9570 - 9580 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9580 - 9590 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9590 - 9600 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9600 - 9610 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9610 - 9620 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9620 - 9630 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9630 - 9640 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9640 - 9650 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9650 - 9660 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9660 - 9670 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9670 - 9680 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9680 - 9690 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9690 - 9700 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9700 - 9710 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9710 - 9720 SANDSTONE; GREENISH GRAY TO DARK GREENISH GRAY
08% POROSITY: INTERGRANULAR
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, SILT-10%, MICA-02%
HEAVY MINERALS-01%
FOSSILS: NO FOSSILS

9720 - 9730 IGNEOUS; GREENISH BLACK
05% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-25%, SHALE-25%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS
Lithology is a black diabase. Sand in the form of sandstone as described above. Shale is medium gray to brownish black and micaceous.

9730 - 9740 IGNEOUS; GREENISH BLACK
05% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-25%, SHALE-25%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS

9740 - 9750 IGNEOUS; GREENISH BLACK
05% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-25%, SHALE-25%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS

9750 - 9760 IGNEOUS; GREENISH BLACK
05% POROSITY: INTERCRYSTALLINE; GOOD INDURATION
ACCESSORY MINERALS: QUARTZ SAND-25%, SHALE-25%, SILT-05%
MICA-01%
FOSSILS: NO FOSSILS

9760 - 9760 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS
Sandstone is less indurated and micaceous. Shale is brownish gray, silty, and micaceous.

9760 - 9770 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9770 - 9780 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9780 - 9790 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9790 - 9800 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9800 - 9810 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9810 - 9820 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9820 - 9830 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9830 - 9840 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9840 - 9850 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9850 - 9860 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9860 - 9870 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9870 - 9880 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9880 - 9890 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9890 - 9900 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9900 - 9910 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9910 - 9920 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9920 - 9930 SANDSTONE; YELLOWISH GRAY TO LIGHT GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
MODERATE INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-15%, MICA-02%
FOSSILS: NO FOSSILS

9930 - 9940 SANDSTONE; GRAYISH GREEN TO LIGHT GRAYISH GREEN
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, MICA-02%
FOSSILS: NO FOSSILS
Abrubt color change. Sandstone highy indurated and micaceous. Trace of detrital chlorite.

9940 - 9950 SANDSTONE; GRAYISH GREEN TO LIGHT GRAYISH GREEN
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, MICA-02%
FOSSILS: NO FOSSILS

9950 - 9960 SANDSTONE; GRAYISH GREEN TO LIGHT GRAYISH GREEN
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, MICA-02%
FOSSILS: NO FOSSILS

9960 - 9970 SANDSTONE; GRAYISH GREEN TO LIGHT GRAYISH GREEN
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, MICA-02%
FOSSILS: NO FOSSILS

9970 - 9980 SANDSTONE; GRAYISH GREEN TO LIGHT GRAYISH GREEN
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, MICA-02%
FOSSILS: NO FOSSILS

9980 - 9990 SANDSTONE; GRAYISH GREEN TO LIGHT GRAYISH GREEN
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, MICA-02%
FOSSILS: NO FOSSILS

9990 -10000 SANDSTONE; GRAYISH GREEN TO LIGHT GRAYISH GREEN
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, MICA-02%
FOSSILS: NO FOSSILS

0000 -10010 SANDSTONE; GRAYISH GREEN TO LIGHT GRAYISH GREEN
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, MICA-02%
FOSSILS: NO FOSSILS

0010 -10020 SANDSTONE; GRAYISH GREEN TO LIGHT GRAYISH GREEN
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, MICA-02%
FOSSILS: NO FOSSILS

0020 -10030 SANDSTONE; GRAYISH GREEN TO LIGHT GRAYISH GREEN
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-10%, MICA-02%
FOSSILS: NO FOSSILS

0030 -10040 SANDSTONE; GRAYISH GREEN TO LIGHT GRAYISH GREEN
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, MICA-02%
FOSSILS: NO FOSSILS
Diabase present(10%). Increase in shale content.

0040 -10050 SANDSTONE; GRAYISH GREEN TO LIGHT GRAYISH GREEN
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, MICA-02%
FOSSILS: NO FOSSILS

0050 -10060 SANDSTONE; GRAYISH GREEN TO LIGHT GRAYISH GREEN
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-40%, MICA-02%
FOSSILS: NO FOSSILS

0060 -10070 SANDSTONE; GREENISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ-01%, MICA-01%
FOSSILS: NO FOSSILS
Sandstone highly indurated and micaceous. Loose euhedral quartz crystals present, possibly from a fracture.

0070 -10080 SANDSTONE; GREENISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ-01%, MICA-01%
FOSSILS: NO FOSSILS

0080 -10090 SANDSTONE; GREENISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ-01%, MICA-01%
FOSSILS: NO FOSSILS

0090 -10100 SANDSTONE; GREENISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ-01%, MICA-01%
FOSSILS: NO FOSSILS

0100 -10110 SANDSTONE; GREENISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ-01%, MICA-01%
FOSSILS: NO FOSSILS

0110 -10120 SANDSTONE; GREENISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ-01%, MICA-01%
FOSSILS: NO FOSSILS

0120 -10130 SANDSTONE; GREENISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ-01%, MICA-01%
FOSSILS: NO FOSSILS

0130 -10140 SANDSTONE; GREENISH GRAY
10% POROSITY: INTERGRANULAR
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE
ROUNDNESS: SUB-ANGULAR TO SUB-ROUNDED; MEDIUM SPHERICITY
GOOD INDURATION
CEMENT TYPE(S): SILICIC CEMENT
ACCESSORY MINERALS: SHALE-05%, QUARTZ-01%, MICA-01%
FOSSILS: NO FOSSILS

0140 TOTAL DEPTH

W- 15017
W 22-2 #1
Driller's Log

PERMIT #	: 1033
OWNER	: Amoco Prod. Co. Gilman Pape
LOCATION	: Sec 22, Twp 2S, Rge 9E
COUNTY	: Madison
ELEVATION	:
DRILLER	: Delta
STARTED	:
COMPLETED	:
DEPTH	:
CASING	:
HEAD	:
YIELD	:
USE	:
REMARKS	: 792 samples, rec'd 6-81

5

PERMIT 1033 MADISON COUNTY, FLORIDA

W 15017 Operator: Amoco Production Co

Elevation: c 93' GL c 114' DF. KB. Landowner: Gilman Paper 22-2, No 1

Total Depth: 10,148 Log: 10149 Drill. Corr.

Base Cretaceous: 4834' Log. 4720' Corr. Location: 1532' FWL, 1340' FNL

Pre-Cretaceous Thickness: 5314' Sec 22, Twp 2N, R 9E

Completion Date: 11/19/81

Description

Section consists mainly of dark gray (N2-4) shale and microcrystalline siltstone with interbedded very fine to fine grained mature quartz arenites (N7-8). E-log indicates that these two lithologies are thinly interbedded throughout the section. Sandstones appear to predominate in the lower part of the section below about 9400' while shales and siltstones predominate above.

The intervals between 7950-8170, 7680-7750, 7030-80, 6685-6700, 5220-5350, 5075-5180, 4834-4875 appear to contain higher percentages of sandstone but it is not possible to confirm this from the cuttings. Several diabase intrusions are present. Major intrusions occur between 5348-5440, and 5615-5750 (with a well developed aureole including spotted hornfels) Minor intrusions occur between 9209-9223 and 9714-18.

First Paleozoic cuttings appear around 4940 ft but contact is probably higher at 4834 judging by the E-log. The reddish brown silty mudstones encountered between 4820-5300+ are probably derived from the base of the Coastal Plain Sequence between about 4500-4834. They may be either Cretaceous or Jurassic.

W-15515
W-Md-5c-2N-8E

PERMIT #	:
OWNER	: Howard #1 Core
LOCATION	: Sec.5c Twp.2N Rge.8E
COUNTY	: Madison
ELEVATION	:
DRILLER	: Justin Hodges
STARTED	:
COMPLETED	:
DEPTH	: 0-315½
CASING	:
HEAD	:
YIELD	:
QUALITY	:
USE	:
REMARKS	: Rec'd

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15515
TOTAL DEPTH: 00287 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.02N R.08E S.05 D
LAT = N 30D 36M 18
LON = W 83D 33M 10

COMPLETION DATE - 02/22/84
OTHER TYPES OF LOGS AVAILABLE - NONE

ELEVATION - 160 FT

OWNER/DRILLER: HOWARD (JUSTIN HODGES)

WORKED BY: RON HOENSTINE,FEB,1984,CRYSTAL RIVER FM SHOWS ATYPICAL DOLOMITIZATION
TOPS REVISED 6/88 TOM SCOTT

0.0-	35.0	MICCOSUKEE FM.
35.0-	76.0	TORREYA FM.
76.0-	229.0	SUWANNEE LIMESTONE
229.0-	287.0	OCALA GROUP

0 - 0.1 NO SAMPLES

0.1- 1 SAND; GRAYISH ORANGE; 25% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; UNCONSOLIDATED;
ACCESSORY MINERALS: HEAVY MINERALS-01%, PHOSPHATIC SAND-01%, CLAY-02%;
OTHER FEATURES: PARTINGS;
UNIFORM IN APPEARANCE

1 - 4 SAND; MODERATE YELLOWISH BROWN; 26% POROSITY, INTERCRYSTALLINE, INTERGRANULAR;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: HEAVY MINERALS-01%, CLAY-03%;
OTHER FEATURES: PARTINGS;

4 - 6.5 SAND; LIGHT BROWN; 20% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN SIZE: FINE; RANGE: FINE TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: SILT-15%, CLAY-05%, IRON STAIN-01%;
FOSSILS: NO FOSSILS;

6.5- 8 SAND; MODERATE REDDISH BROWN TO GREENISH GRAY; 18% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: STREAKED, MOTTLED,
ACCESSORY MINERALS: SILT-10%, CLAY-25%, IRON STAIN-01%;
IRREGULAR CLAY LENSES INTERBEDDED WITH SAND AND SILT

8 - 11.5 SAND; LIGHT BROWN TO VERY LIGHT GRAY; 20% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-05%, IRON STAIN-01%;
OTHER FEATURES: PARTINGS;

11.5- 17 CLAY; LIGHT OLIVE GRAY; 12% POROSITY, LOW PERMEABILITY, INTERGRANULAR, INTERCRYSTALLINE;
MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: IRON STAIN-01%, QUARTZ SAND-03%, PHOSPHATIC SAND-01%;

17 - 17.3 SAND; DARK YELLOWISH ORANGE; 17% POROSITY, INTERCRYSTALLINE, INTERGRANULAR;
GRAIN SIZE: FINE; RANGE: VERY FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-05%, SILT-10%, PHOSPHATIC SAND-01%;
OTHER FEATURES: PARTINGS;

17.3- 18.5 CLAY; YELLOWISH GRAY TO LIGHT BROWN; 13% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE, INTERGRANULAR; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: SILT-10%, PHOSPHATIC SAND-01%;
DISTINCT LITHOLOGIC BREAK

18.5- 20 SAND; VERY LIGHT GRAY TO WHITE; 22% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: PHOSPHATIC SAND-01%, IRON STAIN-01%, CLAY-03%, SILT-05%;

20 - 20.9 SILT; LIGHT OLIVE GRAY TO DARK YELLOWISH ORANGE; 15% POROSITY, INTERGRANULAR, INTERCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-03%, QUARTZ SAND-08%, IRON STAIN-01%, PHOSPHATIC SAND-02%;
OTHER FEATURES: PARTINGS;
MOTTLING AND IRREGULAR STREAKING PRESENT

20.9- 22.3 CLAY; LIGHT OLIVE GRAY TO LIGHT BROWN; 11% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, LOW PERMEABILITY; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: SILT-10%, IRON STAIN-01%, PHOSPHATIC SAND-01%, QUARTZ SAND-01%;

22.3- 23.5 SILT; DARK YELLOWISH ORANGE TO GRAYISH ORANGE; 17% POROSITY, INTERCRYSTALLINE, INTERGRANULAR; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-01%, PHOSPHATIC SAND-01%;

23.5- 25.5 SILT; YELLOWISH GRAY; 15% POROSITY, INTERGRANULAR, INTERCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-10%, PHOSPHATIC SAND-01%, QUARTZ SAND-15%;
OTHER FEATURES: PARTINGS;
ISOLATED PATCHES OF ORGANICS

25.5- 28.5 CLAY; GRAYISH GREEN; 11% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE, INTERGRANULAR; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: PHOSPHATIC SAND-01%;
OTHER FEATURES: PARTINGS;
TYPICAL GRAYISH GREEN HAWTHORN CLAY, ORGANICS PRESENT

28.5- 33 NO SAMPLES

33 - 37 CLAY; LIGHT GRAYISH GREEN TO WHITE; 11% POROSITY, LOW PERMEABILITY, INTERGRANULAR, INTERCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: PYRITE-01%, IRON STAIN-01%;
ORGANIC INCLUSIONS

37 - 40 CLAY; WHITE TO LIGHT OLIVE; 12% POROSITY, LOW PERMEABILITY, INTERGRANULAR, INTERCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
PREDOMINANTLY KAOLIN

40 - 42 CLAY; GRAYISH ORANGE TO VERY LIGHT ORANGE; 11% POROSITY, LOW PERMEABILITY, INTERGRANULAR, INTERCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;

42 - 42.5 CLAY; VERY LIGHT ORANGE TO YELLOWISH GRAY; 11% POROSITY, LOW PERMEABILITY, INTERGRANULAR, INTERCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-01%, PHOSPHATIC SAND-01%;

42.5- 44.3 CLAY; WHITE; 13% POROSITY, INTERCRYSTALLINE, INTERGRANULAR; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: PHOSPHATIC SAND-01%;
FOSSILS: PLANT REMAINS;

44.3- 46 CLAY; LIGHT OLIVE GRAY; 12% POROSITY, LOW PERMEABILITY, INTERGRANULAR, INTERCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
MASSIVE OLIVE CLAY WITH KAOLIN AND PEAT INCLUSIONS

46 - 49 CLAY; GRAYISH BROWN TO LIGHT OLIVE GRAY; 11% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE, INTERGRANULAR; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: PHOSPHATIC SAND-03%, QUARTZ SAND-01%;
OTHER FEATURES: CALCAREOUS;

49 - 50 CLAY; WHITE; 14% POROSITY, INTERCRYSTALLINE, INTERGRANULAR; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: PHOSPHATIC SAND-01%, IRON STAIN-01%, QUARTZ SAND-01%;
OTHER FEATURES: CALCAREOUS;

50 - 54 SILT; GRAYISH ORANGE; 17% POROSITY, INTERGRANULAR, INTERCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-05%, CLAY-10%, PHOSPHATIC SAND-03%;
LEACHED PHOSPHATE PRESENT

54 - 54.5 CALCILUTITE; WHITE; 20% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC;
ACCESSORY MINERALS: QUARTZ SAND-01%, PHOSPHATIC SAND-01%, CLAY-05%;
FAIRLY UNIFORM TEXTURE

54.5- 61 CLAY; LIGHT OLIVE; 10% POROSITY, LOW PERMEABILITY, INTERGRANULAR, INTERCRYSTALLINE; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
OTHER FEATURES: CALCAREOUS;

61 - 62.5 CALCILUTITE; VERY LIGHT ORANGE TO LIGHT OLIVE; 20% POROSITY, LOW PERMEABILITY, INTERGRANULAR, INTERCRYSTALLINE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-01%, CLAY-10%;
DOMINANTLY MICRITE WITH GREEN OLIVE CLAY INCLUSIONS

62.5- 71 CHERT; WHITE TO LIGHT GRAY; 07% POROSITY, LOW PERMEABILITY, INTERGRANULAR, INTERCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): SILICIC CEMENT;
ACCESSORY MINERALS: CALCILUTITE-05%;
CHERT NODULES WITH MICRITE COATING

71 - 72 CALCILUTITE; WHITE; 21% POROSITY, PIN POINT VUGS, INTERGRANULAR, INTERCRYSTALLINE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-03%, PHOSPHATIC SAND-01%, CLAY-05%;

72 - 72.5 LIMESTONE; WHITE TO VERY LIGHT ORANGE; 18% POROSITY,
GRAIN TYPE: CALCILUTITE; 80% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;
ACCESSORY MINERALS: CLAY-08%, CHERT-02%;

72.5- 77 LIMESTONE; WHITE; 22% POROSITY, PIN POINT VUGS, VUGULAR, INTERGRANULAR;
GRAIN TYPE: CALCILUTITE, CRYSTALS; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: GRANULE; RANGE: FINE TO GRANULE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-01%, PHOSPHATIC SAND-01%;
OTHER FEATURES: CHALKY;

77 - 82 CALCARENITE; WHITE; 25% POROSITY, MOLDIC, INTERGRANULAR, VUGULAR;
GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC; 90% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: COARSE; RANGE: MEDIUM TO VERY COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
ACCESSORY MINERALS: PYRITE-01%, QUARTZ SAND-01%;
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS;

82 - 87 LIMESTONE; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY; 20% POROSITY, PIN POINT VUGS, INTERCRYSTALLINE, INTERGRANULAR;
GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: GRANULE; RANGE: GRANULE TO GRAVEL; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;
ACCESSORY MINERALS: CLAY-10%;
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL MOLDS;

87 - 92 LIMESTONE; WHITE; 19% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN TYPE: CALCILUTITE; 80% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: LITHOGRAPHIC; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-01%;
OTHER FEATURES: SUCROSIC;

92 - 92.5 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH ORANGE PINK; I % POROSITY, INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: CALCILUTITE, CRYSTALS; 80% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
ACCESSORY MINERALS: CLAY-03%;
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS, FOSSIL MOLDS;

92.5- 97 CALCARENITE; VERY LIGHT ORANGE; 22% POROSITY, PIN POINT VUGS, INTERGRANULAR, MOLDIC;
GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ACCESSORY MINERALS: CLAY-02%;
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS, FOSSIL FRAGMENTS, FOSSIL MOLDS;

97 - 103 NO SAMPLES

103 - 106 CALCARENITE; VERY LIGHT ORANGE; 24% POROSITY, PIN POINT VUGS, VUGULAR, INTERGRANULAR;
GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC; 90% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;
ACCESSORY MINERALS: CLAY-15%;
FOSSILS: BENTHIC FORAMINIFERA, CONES, MOLLUSKS, FOSSIL FRAGMENTS, FOSSIL MOLDS;

106 - 107 CALCARENITE; VERY LIGHT ORANGE; 22% POROSITY, PIN POINT VUGS, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
ACCESSORY MINERALS: PYRITE-01%;
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA, FOSSIL MOLDS;
UNIFORM TEXTURE

107 - 113 CALCARENITE; VERY LIGHT ORANGE; 26% POROSITY, VUGULAR, PIN POINT VUGS, INTERGRANULAR;
GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC; 90% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
ACCESSORY MINERALS: CLAY-04%;
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA, FOSSIL MOLDS;
RECRYSTALIZED COQUINA

113 - 114 CALCILUTITE; VERY LIGHT ORANGE; 21% POROSITY, PIN POINT VUGS, INTERGRANULAR;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
FOSSILS: FOSSIL MOLDS;

114 - 114.5 CHERT; PINKISH GRAY; 08% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): SILICIC CEMENT;
ACCESSORY MINERALS: CALCILUTITE-05%;

114.5- 115 AS ABOVE

115 - 116 LIMESTONE; VERY LIGHT ORANGE; 22% POROSITY, INTERCRYSTALLINE, INTERGRANULAR;
GRAIN TYPE: CALCILUTITE, CRYSTALS; 80% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: LITHOGRAPHIC; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS;

116 - 117 CALCARENITE; VERY LIGHT ORANGE; 26% POROSITY, PIN POINT VUGS, INTERGRANULAR, VUGULAR;
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS; 90% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS, FOSSIL FRAGMENTS, FOSSIL MOLDS, CONES;
COQUINA

117 - 118 CALCILUTITE; VERY LIGHT ORANGE; 22% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS, FOSSIL MOLDS;

118 - 141.5 CALCARENITE; VERY LIGHT ORANGE; 24% POROSITY, PIN POINT VUGS, INTERGRANULAR,
INTERCRYSTALLINE;
GRAIN TYPE: CRYSTALS, CALCILUTITE, BIOGENIC; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: SUCROSIC;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS, FOSSIL MOLDS;
RECRYSTALIZED

141.5- 150 CALCILUTITE; WHITE; 23% POROSITY, INTERCRYSTALLINE, INTERGRANULAR, PIN POINT VUGS;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-01%;
FOSSILS: FOSSIL MOLDS;
MICRITIC LIMESTONE DISPLAYING UNIFORM TEXTURE

150 - 160 AS ABOVE

160 - 170 AS ABOVE

170 - 177 DOLOMITE; VERY LIGHT ORANGE; 09% POROSITY, LOW PERMEABILITY, INTERGRANULAR, INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: CRYPTOCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: MICA-01%;
OTHER FEATURES: CALCAREOUS;

177 - 179 DOLOMITE; GRAYISH BROWN TO DARK YELLOWISH BROWN; 08% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: CRYPTOCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
HIGHLY INDURATED TIGHT DOLOMITE

179 - 182 CALCARENITE; VERY LIGHT ORANGE; 24% POROSITY, PIN POINT VUGS, VUGULAR, INTERGRANULAR;
GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC; 80% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL MOLDS, FOSSIL FRAGMENTS;
RECRYSTALIZED LIMESTONE, UNIFORM TEXTURE

182 - 184.5 DOLOMITE; LIGHT OLIVE GRAY TO BROWNISH GRAY; 09% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: CRYPTOCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: SPECKLED;
SILT INCLUSIONS PRESENT(193') INTERVAL

184.5- 196 DOLOMITE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN; 08% POROSITY, LOW PERMEABILITY, INTERGRANULAR, PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: CALCITE-01%;
OTHER FEATURES: SPECKLED, SUCROSIC, CALCAREOUS;
FOSSILS: FOSSIL MOLDS, MOLLUSKS;
TIGHT IMPERMEABLE DOLOMITE

196 - 204 DOLOMITE; GRAYISH ORANGE; 09% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: CLAY-01%;
OTHER FEATURES: SUCROSIC;
FINE UNIFORM TEXTURED TIGHT DOLOMITE

204 - 205 DOLOMITE; GRAYISH BROWN TO MODERATE YELLOWISH BROWN; 09% POROSITY, LOW PERMEABILITY, INTERGRANULAR, PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: SUCROSIC, SPECKLED;
FOSSILS: FOSSIL MOLDS, MOLLUSKS;

205 - 206.5 DOLOMITE; GRAYISH ORANGE; 09% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: CLAY-01%;
SIMILIAR TO THE (204') INTERVAL

206.5- 207 DOLOMITE; GRAYISH ORANGE; 10% POROSITY, LOW PERMEABILITY, INTERGRANULAR, INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: SUCROSIC;

207 - 209 DOLOMITE; LIGHT GRAYISH RED; 08% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE, INTERGRANULAR; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: CRYPTOCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: CLAY-01%;
OTHER FEATURES: SUCROSIC;
FOSSILS: MOLLUSKS, FOSSIL MOLDS, FOSSIL FRAGMENTS;
BORINGS AND BURROWS PRESENT

209 - 219 NO SAMPLES

219 - 220 DOLOMITE; MODERATE GRAY TO LIGHT GRAY; 08% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS;
CLAY INCLUSIONS IN CAVITIES

220 - 222 DOLOMITE; LIGHT GRAY TO YELLOWISH GRAY; 09% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: CLAY-01%, QUARTZ SAND-01%, MICA-01%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS;

222 - 224 NO SAMPLES

224 - 225 NUMEROUS ALTERED MICROFOSSILS

225 - 226 AS ABOVE

226 - 227 DOLOMITE; LIGHT GRAY TO YELLOWISH GRAY; 09% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE, PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: CALCAREOUS, SUCROSIC;

227 - 229 DOLOMITE; LIGHT GRAY; 11% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS, FOSSIL MOLDS, FOSSIL FRAGMENTS;

229 - 243 DOLOMITE; GRAYISH BROWN; 10% POROSITY, LOW PERMEABILITY, PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: PHOSPHATIC SAND-01%;
OTHER FEATURES: SUCROSIC, SPECKLED;
FOSSILS: BENTHIC FORAMINIFERA, MOLLUSKS, FOSSIL MOLDS, FOSSIL FRAGMENTS;
NUMEROUS ALTERED MICROFOSSILS

243 - 250 DOLOMITE; YELLOWISH GRAY; 11% POROSITY, LOW PERMEABILITY, PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: SUCROSIC;
FOSSILS: MOLLUSKS;

250 - 251 DOLOMITE; YELLOWISH GRAY; 12% POROSITY, LOW PERMEABILITY, PIN POINT VUGS, VUGULAR; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: CALCAREOUS, SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, BENTHIC FORAMINIFERA;
HIGHLY ALTERED COQUINA DISPLAYING PROMINENT MOLDS

251 - 260 AS ABOVE

260 - 267 CALCARENITE; YELLOWISH GRAY; 22% POROSITY, MOLDIC, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: GRANULE; RANGE: COARSE TO GRANULE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT;
ACCESSORY MINERALS: DOLOMITE-15%;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS, FOSSIL MOLDS, ALGAE;
RECRYSTALIZED COQUINA - PREDOMINANTLY BIVALVES

267 - 268 DOLOMITE; GRAYISH ORANGE; 09% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE;
50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: PHOSPHATIC SAND-01%, HEAVY MINERALS-01%;
OTHER FEATURES: SUCROSIC;
UNIFORM TEXTURE

268 - 270 DOLOMITE; YELLOWISH GRAY; 10% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE;
50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: MICA-01%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, FOSSIL MOLDS, FOSSIL FRAGMENTS;
DOLOMITIZED COQUINA

270 - 282 DOLOMITE; YELLOWISH GRAY; 09% POROSITY, LOW PERMEABILITY, INTERCRYSTALLINE;
50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: CRYPTOCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
FOSSILS: MOLLUSKS;
LEPIDOCYCLINA SP PRESENT

282 - 287.5

287.5 TOTAL DEPTH

W-15537
W-Md-5bab-2N-9E

PERMIT #	:
OWNER	: Burnett Core #1
LOCATION	: Sec.5bab Twp.2N Rge.9E
COUNTY	: Madison
ELEVATION	:
DRILLER	: Justin Hodges
STARTED	:
COMPLETED	:
DEPTH	: 0/2-322 26 Boxes Of Core
CASING	:
HEAD	:
YIELD	:
QUALITY	:
USE	:
REMARKS	: Rec'd 4/23/84

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15537

COUNTY - MADISON

TOTAL DEPTH: 322 FT.

LOCATION: T.02N R.09E S.05 B

SAMPLES - NONE

LAT = N 30D 36M 38

LON = W 83D 26M 28

COMPLETION DATE - 04/10/84

ELEVATION - 185 FT

OTHER TYPES OF LOGS AVAILABLE - ELECTRIC, GAMMA, NEUTRON

OWNER/DRILLER: BURNETT FBPG CORE HOLE (JUSTIN HODGES)

WORKED BY: STEVEN M. SPENCER MAY 15, 1984 GOOD CORE SAMPLES

0.0-	3.0	UNDIFFERENTIATED SAND AND CLAY
3.0-	29.3	MICCOSUKEE FM.
29.3-	109.0	HAWTHORN GROUP
109.0-	129.0	ST. MARKS FM.
129.0-	293.2	SUWANNEE LIMESTONE
293.2-	322.0	OCALA GROUP

0 - 2 NO SAMPLES

2 - 3 SAND; YELLOWISH GRAY TO YELLOWISH GRAY; 30% POROSITY, INTERGRANULAR;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-10%, SILT-01%, PLANT REMAINS-01%;

3 - 4 SAND; MODERATE ORANGE PINK TO VERY LIGHT ORANGE; 15% POROSITY, INTERGRANULAR;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-15%, HEAVY MINERALS-01%, IRON STAIN-01%;
INTERVAL 3-4' IS TRANSITION FROM TOPSOIL INTO MICCOSUKEE FM.

4 - 11.7 SAND; GRAYISH ORANGE PINK TO MODERATE ORANGE PINK; 15% POROSITY, INTERGRANULAR;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-15%, IRON STAIN-01%, HEAVY MINERALS-01%;
DISTINCT PURPLES AND PINK COLORS. THIN CLAY LAMINAE COMMON. GRAD ES ABRUPTLY INTO COARSER CLAYEY SANDS.

11.7- 13.7 SAND; LIGHT YELLOWISH ORANGE TO DARK YELLOWISH ORANGE; 18% POROSITY, INTERGRANULAR;
GRAIN SIZE: COARSE; RANGE: MEDIUM TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-10%, HEAVY MINERALS-01%;

13.7- 15 SAND; GRAYISH ORANGE TO DARK GRAYISH RED; 15% POROSITY, INTERGRANULAR;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-10%, HEAVY MINERALS-01%, IRON STAIN-01%;
CLAY LAMINAE COMMON.

15 - 16 SAND; LIGHT YELLOWISH ORANGE TO DARK YELLOWISH ORANGE; 18% POROSITY, INTERGRANULAR;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO FINE;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-10%;
CLAY LAMINAE COMMON. BECOMES UNCONSOLIDATED AT BOTTOM.

16 - 17.5 SAND; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE; 20% POROSITY, INTERGRANULAR;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; LOW SPHERICITY; UNCONSOLIDATED;
ACCESSORY MINERALS: CLAY-03%, HEAVY MINERALS-01%;
CLAY LENSES ARE FEW.

17.5- 19.2 SAND; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE; 20% POROSITY, INTERGRANULAR;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-07%, HEAVY MINERALS-01%;
GRADATIONALLY BECOMING MORE CLAYEY AND DARKER AT BOTTOM.

19.2- 19.9 CLAY BLEBS COMMON.

19.9- 21 CLAY; LIGHT YELLOWISH ORANGE TO MODERATE BROWN; LOW PERMEABILITY; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: LAMINATED, BEDDED, INTERBEDDED,
ACCESSORY MINERALS: QUARTZ SAND-25%, LIMONITE-05%, IRON STAIN-01%;
INTERBEDDED SAND AND LIMONITIC SAND COARSE TO FINE SIZE.

21 - 28.7 SAND; DARK YELLOWISH ORANGE TO LIGHT YELLOWISH ORANGE; 15% POROSITY, INTERGRANULAR;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-07%, HEAVY MINERALS-01%;
SAND OMTERBEDDED WOTJ C;AU ;EMSES AT 27.5' CLAY CONTENT INCREASING TOWARD BOTTOM.

28.7- 29.3 CLAY; GRAYISH ORANGE TO LIGHT YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-35%, HEAVY MINERALS-03%, MICA-01%;

29.3- 29.9 SAND LENSES COMMON WITH HEAVY MINERALS WITHIN.

29.9- 31.5 SAND; GRAYISH YELLOW TO DARK YELLOWISH ORANGE; 10% POROSITY, INTERGRANULAR;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CLAY-20%, HEAVY MINERALS-03%, MICA-01%;
CLAY LENS AT 29.5&30.5,SAND BECOMES BETTER CEMENTED BELOW 30.5'

31.5- 34 CLAY; LIGHT YELLOWISH ORANGE TO DARK YELLOWISH ORANGE; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, LAMINATED,
ACCESSORY MINERALS: QUARTZ SAND-35%, PHOSPHATIC SAND-03%, MICA-01%, HEAVY MINERALS-01%;
VERY SANDY IRON STAINED CLAY BECOMING MASSIVE AT 34', PHOSHATE. GRAINS (MEDIUM TO FINE) BLEACHED WHITE, TRACE TO 2 OR 3%, BEGINNING AT 32.5'. KAOLINITE BLEBS THROUGHOUT.

34 - 36.5 CLAY; GRAYISH YELLOW TO LIGHT GRAYISH GREEN; LOW PERMEABILITY; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: PHOSPHATIC SAND-03%, QUARTZ SAND-03%, IRON STAIN-01%, MICA-01%;
WAXY GRAY IRON STAINED CLAY WITH BLEACHED, FINE SIZE PHOSPHORITE SAND CONTENT INCREASES AT 36.5'

36.5- 47 CLAY; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-40%, PHOSPHATIC SAND-04%, HEAVY MINERALS-01%,
IRON STAIN-01%;
VERY SANDY WITH TRACE MICAS. GRADES INTO GRAYISH MASSIVE CLAY AT ABOUT 47'. 46.5-47.5 BLEACHED PHOSPHORITE PEBBLES IN UNCONSOLIDATED SAND AND CLAY.

47 - 49.2 CLAY; LIGHT GRAYISH GREEN TO LIGHT GREENISH YELLOW; LOW PERMEABILITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-05%, PHOSPHATIC SAND-03%, MICA-01%, IRON STAIN-01%;
BLEACHED PHOSPHORITE THROUGHOUT, VERY FINE SIZE. ABRUPT LITHO CHANGE AT 49.2' FROM WAXY CLAY TO CLAYEY SAND. TRACE HEAVIES.

49.2- 55.7 SAND; VERY LIGHT ORANGE TO GRAYISH YELLOW; 15% POROSITY, INTERGRANULAR;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-20%, PHOSPHATIC SAND-04%, IRON STAIN-01%, MICA-01%;
THIN CLAY LENSES COMMON. GRADES INTO A MASSIVE CLAY. 2 INCHES THICK, MED TO COARSE SIZE PHOSPHORITE SEAM AT 53.2'. TRACE HEAVI

55.7- 58 CLAY; LIGHT OLIVE GRAY TO VERY LIGHT ORANGE; LOW PERMEABILITY; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: QUARTZ SAND-05%, PHOSPHATIC SAND-04%;
GRADES INTO FINE SAND BELOW. WAXY.

58 - 58.7 SAND; VERY LIGHT ORANGE TO GRAYISH YELLOW; 15% POROSITY, INTERGRANULAR;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-10%, PHOSPHATIC SAND-04%, HEAVY MINERALS-01%;

58.7- 59.7 CLAY; LIGHT OLIVE GRAY TO LIGHT OLIVE; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: PHOSPHATIC SAND-05%, QUARTZ SAND-04%, HEAVY MINERALS-01%;
WAXY CLAY WITH BLEACHED PHOSPHORITE THROUGHOUT.

59.7- 60.7 SAND; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY; 07% POROSITY, INTERGRANULAR;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO ;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-12%, HEAVY MINERALS-01%, PHOSPHATIC SAND-01%;

60.7- 64 CLAY; WHITE TO VERY LIGHT ORANGE; LOW PERMEABILITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-15%, HEAVY MINERALS-01%;
DARK MATERIAL THROUGHOUT TRACE AMOUNTS.

64 - 79 CLAY; WHITE TO YELLOWISH GRAY; LOW PERMEABILITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-15%, HEAVY MINERALS-01%;
CLAY INDURATION IS POOR TO UNCONSOLIDATED. SOME OF CORE MATERIAL LOST DURING DRILLING DUE TO NATURE OF CLEY I.E.,ENCONSOLIDATED.

79 - 90.5 CLAY; WHITE TO VERY LIGHT ORANGE; GOOD INDURATION;
CEMENT TYPE(S): CLAY MATRIX, SILICIC CEMENT;
ACCESSORY MINERALS: QUARTZ SAND-05%, HEAVY MINERALS-01%, PHOSPHATIC SAND-01%;
PO4 INDICATES DEFINATE PHOSPHATE CONTENT IN ROCK. CAVITY AT 84' -84.5, CAVITY FILLING MATERIAL i.e.,SAND AND CLAY,FROM 83-84.5 AND 88-89. ABRUPT TRANSITION AT 90.5 INTO CLAY CLAST ZONE.

90.5- 104 CLAY; LIGHT GREENISH GRAY TO YELLOWISH GRAY; INTERGRANULAR; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
CLASTS OF HARD CLAY AS FLOAT IN CLAY MATRIX. PO4 INDICATES PHOSPHATE IN OR ON WAXEY CLASTS AND IN MATRIX MATERIAL.

104 - 109 CLAY; LIGHT GREENISH GRAY TO YELLOWISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX;
ACCESSORY MINERALS: DOLOMITE-%;
FEW DOLOMITE NODULES. ABURPT TRANSITION INTO INDURATED ZONE BELOW

109 - 111 DOLOMITE; YELLOWISH GRAY TO VERY LIGHT ORANGE; INTERGRANULAR, INTERCRYSTALLINE; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX, DOLOMITE CEMENT;
ACCESSORY MINERALS: CLAY-07%, QUARTZ SAND-05%;
QUARTZ SAND IMBEDDED IN THE DOLOMITE. CLAY CONTENT DECREASING AT BOTTOM. TRACE ORGANICS.

111 - 115 LIMESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY; 05% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;
ACCESSORY MINERALS: DOLOMITE-10%, QUARTZ SAND-05%, CLAY-05%;
FOSSILS: FOSSIL FRAGMENTS;

115 - 115.5 DOLOMITE,CLAY AND QUARTZ SAND CONTENT VARIABLE AND DECREASING WIT DEPTH.
LOST CIRCULATION AT 115'.

115.5- 120 LIMESTONE; VERY LIGHT ORANGE TO WHITE; 05% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC;
GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
ACCESSORY MINERALS: QUARTZ SAND-03%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS;

120 - 126 LIMESTONE; VERY LIGHT ORANGE TO WHITE; 08% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC;
GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, DOLOMITE CEMENT;
ACCESSORY MINERALS: DOLOMITE-25%, QUARTZ SAND-02%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS;
CAVITY 122-123. COMPOSITION VARIABLE CALCILUTITE TO CALCARINITE. GRADING INTO MORE BIOGENIC AND DOLOMITEC MATERIAL.

126 - 129 LIMESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY; 08% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC;
GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT;
ACCESSORY MINERALS: DOLOMITE-30%, QUARTZ SAND-02%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS;
CAVITY AT 126-129. BIOGENIC MATERIAL IN CRACKS. MINOR OR TRACE QUARTZ SAND EMBEDDED IN LIMESTONE.

129 - 139 CALCARENITE; VERY LIGHT ORANGE; 15% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN TYPE: SKELETAL, BIOGENIC, CRYSTALS; 95% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
ACCESSORY MINERALS: QUARTZ SAND-01%, IRON STAIN-01%;
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS, MILIOLIDS, CONES;
WACKESTONE TO GRAINSTONE.

139 - 141 CALCARENITE; VERY LIGHT ORANGE TO DARK YELLOWISH BROWN; 10% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SILICIC CEMENT;
ACCESSORY MINERALS: CHERT-30%, IRON STAIN-01%;
WACKESTONE TO GRIANSTONE. 2-4 INCH CHERT LENSES PRESENT.

141 - 146 CALCARENITE; VERY LIGHT ORANGE TO WHITE; 16% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN TYPE: SKELETAL, BIOGENIC, CRYSTALS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS, FOSSIL FRAGMENTS;
ALLOCHEMS BECOME SMALLER IN SIZE.

146 - 154 CALCARENITE; VERY LIGHT ORANGE; 15% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN TYPE: SKELETAL, BIOGENIC, CRYSTALS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS, FOSSIL FRAGMENTS;
GRADES FROM FINER GRAIN TO COARSE THEN GRADING TO FINER AT BASE.

154 - 160 CALCILUTITE; WHITE TO VERY LIGHT ORANGE; 05% POROSITY, INTERGRANULAR, LOW PERMEABILITY, INTERCRYSTALLINE;
GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO FINE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL FRAGMENTS;
VERY TIGHT,GRADING INTO RECRYSTALIZED LIMESTINE. 3' CAVITY AT 16

160 - 170 LIMESTONE; WHITE TO VERY LIGHT ORANGE; 10% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: SKELETAL, BIOGENIC, CRYSTALS;
GOOD INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT, CALCILUTITE MATRIX;
OTHER FEATURES: HIGH RECRYSTALLIZATION;
FOSSILS: FOSSIL FRAGMENTS, MILIOLIDS;
ALLOCHEMS IN SPAR AS FLOAT. BIOGENIC UNFILLING IN SOME VOIDS, GRADATIONAL INTO CALCILUTITE.

170 - 171 CALCILUTITE; VERY LIGHT ORANGE TO WHITE; 12% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
FOSSILS: SPICULES, FOSSIL MOLDS, MOLLUSKS;

171 - 171.7 LIMESTONE; VERY LIGHT ORANGE TO WHITE; 10% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN TYPE: SKELETAL, CALCILUTITE;
RANGE: MICROCRYSTALLINE TO COARSE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
ACCESSORY MINERALS: IRON STAIN-01%;
COMPOSITION VARIABLE, GRADES FROM HIGHLY RECRYSTALLIZED TO SKELETAL CALCARENTIE.

171.7- 180 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 20% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC;
GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE; 90% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: BENTHIC FORAMINIFERA, CONES, MOLLUSKS, FOSSIL FRAGMENTS, FOSSIL MOLDS;
PREDOMINANTLY PACKSTONE TO GRAINSTONE. SMALL ZONES OF TIGHT, WEL RECRYSTALLIZED LIMESTONE THROUGHOUT. GOOD PERMEABILITY.

180 - 190 AS ABOVE

190 - 200 AS ABOVE

200 - 208.3 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 18% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC;
GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
SLIGHTLY FINER GRAINED AND BETTER INDURATED. TRANSITION SHARP AT BASE TO A MICRITE.

208.3- 210 CALCILUTITE; WHITE; INTERGRANULAR, LOW PERMEABILITY;
GRAIN TYPE: CALCILUTITE;
POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
ACCESSORY MINERALS: CLAY- %;
OTHER FEATURES: CHALKY, PLASTIC;
SOFT AND PLASTIC WHEN FRESH (WET). CLAY BLEBS.

210 - 213 LIMESTONE; WHITE TO VERY LIGHT ORANGE; 15% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC;
GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS; 40% ALLOCHEMICAL CONSTITUENTS;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;

213 - 217 CALCARENITE; WHITE; 20% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC;
GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;

217 - 225 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 17% POROSITY, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, CALCILUTITE; 80% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: FINE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
PELLOIDAL TEXTURES COMMON.

225 - 233 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 18% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE; 80% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO VERY COARSE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
PELLOIDAL TEXTURE THROUGHOUT. TRANSITIONAL INTO CALCIRUDITE.

233 - 236 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 22% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS;
95% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: COARSE; RANGE: FINE TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
VERY COARSE CALCIRUDITE TEXTURE BECOMING FINER GRAINED AT BOTTOM PELLOIDAL STRUCTURES COMMON.

236 - 240 CALCARENITE; WHITE; 20% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; MODERATE INDURATION;
SIMILAR TO ABOVE SAMPLES.

240 - 242 LIMESTONE; LIGHT GRAY TO YELLOWISH GRAY; 08% POROSITY, INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: SKELETAL, BIOGENIC;
GRAIN SIZE: COARSE; RANGE: MEDIUM TO COARSE; GOOD INDURATION;
CEMENT TYPE(S): SILICIC CEMENT;
ACCESSORY MINERALS: CHERT-35%;
SILICA ENRICHED LIMESTONE. SILICA CEMENT VARIES 20-80% i.e. CHERTY LIMESTONE. LITHO TYPE ENDS AT CAVITY 242'.

242 - 247 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 20% POROSITY, INTERGRANULAR, VUGULAR;
GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
GRAINSTONE TO PACKSTONE

247 - 251 LIMESTONE; MODERATE BROWN TO WHITE; 12% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: SKELETAL, BIOGENIC, CRYSTALS;
GOOD INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT, CALCILUTITE MATRIX;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
RECRYSTALIZATION VARIABLE LOW TO HIGH.

251 - 256.8 CALCARENITE; VERY LIGHT ORANGE TO WHITE; 20% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, VUGULAR;
GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE; 90% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: COARSE; RANGE: FINE TO GRANULE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: LOW RECRYSTALLIZATION;
FOSSILIFEROUS AND SEVERAL LARGE VUGS. TURITELA FEW,MOLLUCKS COMMO

256.8- 260 CALCARENITE; VERY LIGHT ORANGE TO WHITE; 12% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, CRYSTALS, SKELETAL;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;

260 - 261 CALCILUTITE; WHITE; 10% POROSITY, INTERGRANULAR;
GRAIN TYPE: CALCILUTITE, SKELETAL; 10% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: CHALKY;
GRADES CA;CAREMOTE GRADES CALCARENITE TO MICRITIC LIMESTONE. PLASTIC WHEN WET (FRES

261 - 266 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 15% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS; 65% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;

266 - 267 CALCILUTITE; WHITE TO VERY LIGHT ORANGE; 10% POROSITY, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: CALCILUTITE, BIOGENIC;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;

267 - 267.4 DOLOMITE; VERY LIGHT ORANGE TO DARK YELLOWISH BROWN; 07% POROSITY, INTERCRYSTALLINE, INTERGRANULAR, PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: QUARTZ-02%;
OTHER FEATURES: HIGH RECRYSTALLIZATION;
DOLOMITIC SILT-INDURATED. QUARTZ FILLING SOME VUGS.

267.4- 270 DOLOMITE; DARK YELLOWISH BROWN TO MODERATE YELLOWISH BROWN; 20% POROSITY, INTERCRYSTALLINE, INTERGRANULAR, PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: CALCITE-02%;
OTHER FEATURES: SUCROSIC, HIGH RECRYSTALLIZATION;

270 - 271.3 DOLOMITE; DARK YELLOWISH BROWN TO VERY LIGHT ORANGE; 17% POROSITY, INTERCRYSTALLINE, INTERGRANULAR, PIN POINT VUGS; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
ACCESSORY MINERALS: SPAR-05%, CALCITE-03%;
OTHER FEATURES: SUCROSIC;
NUMEROUS FINE FRACTURES HEALED WITH SPARY CALCITE. DOLOSILT AT BOTTOM BUT INDURATED.

271.3- 272.6 DOLOMITE; DARK YELLOWISH BROWN TO VERY LIGHT ORANGE; 15% POROSITY, INTERCRYSTALLINE, INTERGRANULAR, PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: SUCROSIC, HIGH RECRYSTALLIZATION;
VERY SUCROSIC AND WELL INDURATED.

272.6- 273.1 DOLOMITE; GRAYISH ORANGE TO LIGHT OLIVE GRAY; 13% POROSITY, INTERCRYSTALLINE, INTERGRANULAR, PIN POINT VUGS; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: LAMINATED,
OTHER FEATURES: SUCROSIC, MEDIUM RECRYSTALLIZATION;

273.1- 277 DOLOMITE; GRAYISH ORANGE TO MODERATE YELLOWISH BROWN; 20% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, VUGULAR; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: LAMINATED,
ACCESSORY MINERALS: CALCITE-02%, PYRITE-01%;
OTHER FEATURES: SUCROSIC, MEDIUM RECRYSTALLIZATION;
TURRITELLIDS THROUGHOUT. INDURATION IS VARIABLE-POOR TO GOOD. QUITE BIOGENIC LOOKING.

277 - 278 DOLOMITE; VERY LIGHT ORANGE TO WHITE; 08% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS; 0-10% ALTERED; ANHEDRAL;
GRAIN SIZE: CRYPTOCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;
MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CLAY MATRIX;
ACCESSORY MINERALS: CALCITE-25%;
OTHER FEATURES: CHALKY;
TRANSITIONAL FROM DOLOMITE TO LIMESTONE. CALCILUTITIC AT BASE.

278 - 278.2 CLAY; GREENISH GRAY TO GREENISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX;
ACCESSORY MINERALS: CALCITE-15%;

278.2- 282.3 CALCARENITE; WHITE; 12% POROSITY, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: CALCILUTITE, BIOGENIC; 65% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: LOW RECRYSTALLIZATION;

282.3- 286.5 DOLOMITE; GRAYISH BROWN TO YELLOWISH GRAY; 15% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX;
ACCESSORY MINERALS: CALCITE-10%;
GRADATIONAL FRON 285-BASE AND 286.3-286.5 BEING VERY BIOGENIC WITH TURRITELLIDS AND POSSIBLE LEPIDOCYCLINA FRAGMENTS. RECRYSTALLIZATION VARIES HIGH UPHOLE TO LOW DOWNHOLE.

286.5- 293.2 CALCARENITE; WHITE; 22% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, VUGULAR;
GRAIN TYPE: SKELETAL, BIOGENIC; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO VERY COARSE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
TURRILELLIDS AND LEPIDOCYCLINA INFREQUENT.

293.2- 301.2 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 30% POROSITY, INTERGRANULAR, MOLDIC, VUGULAR;
GRAIN TYPE: SKELETAL, BIOGENIC; 95% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO GRAVEL; POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: COQUINA;
COQUINA LIKE-VERY FOSSILIFEROUS. LEPIDOCYCLINA, CONUS AND NUMEROUS BRYOZOANS. RICH IN MOLLUSK.

301.2- 301.7 CALCARENITE; LIGHT GRAY TO VERY LIGHT ORANGE; 15% POROSITY, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: SKELETAL, BIOGENIC;
GRAIN SIZE: COARSE; RANGE: COARSE TO VERY COARSE; GOOD INDURATION;
CEMENT TYPE(S): SILICIC CEMENT;
ACCESSORY MINERALS: CHERT-35%;
LEPIDOCYCLINA AND OPERCULINOIDES COMMON. CHERTIFICATION HAS SET IN. DARK ORGANIC LIKE BLEBS COMMON.

301.7- 306 CALCARENITE; LIGHT GRAY TO VERY LIGHT ORANGE; 25% POROSITY, INTERGRANULAR, MOLDIC, VUGULAR;
GRAIN TYPE: SKELETAL, BIOGENIC; 95% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: COQUINA;
SIMILAR TO 293.2 TO 301.2.

306 - 317 CALCARENITE; LIGHT GRAY TO VERY LIGHT ORANGE; 18% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS; 70% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: LOW RECRYSTALLIZATION;
VERY LITTLE SKELETAL DEBRIS AT TOP, BECOMES INCRESAIN VERY LITTLE SKELETAL DEBRIS AT TOP, BECOMES INCREASINGLY SKELETAL (i.e. LEPIDOCYCLINA AND OPERCULINOIDES) WITH DEPTH.

317 - 321 DOLOMITE; DARK YELLOWISH BROWN TO GRAYISH ORANGE; 15% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: SPAR-02%;
OTHER FEATURES: SUCROSIC;

321 - 322 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 17% POROSITY, INTERGRANULAR;
GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE; 65% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO VERY COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SIMILAR TO 306 TO 317'.

322 TOTAL DEPTH

LITHOLOGIC WELL LOG PRINTOUT SOURCE - FGS

WELL NUMBER: W- 15537 COUNTY - MADISON
TOTAL DEPTH: N/A FT. LOCATION: T/R/S - NO ENTRY
SAMPLES - NONE LAT/LON - NO ENTRY
COMPLETION DATE - N/A ELEVATION - N/A FT
OTHER TYPES OF LOGS AVAILABLE - ELECTRIC, GAMMA, NEUTRON

0 - 2 NO SAMPLES

2 - 3 SAND; YELLOWISH GRAY TO YELLOWISH GRAY; 30% POROSITY, INTERGRANULAR;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-10%, SILT-01%, PLANT REMAINS-01%;

3 - 4 SAND; MODERATE ORANGE PINK TO VERY LIGHT ORANGE; 15% POROSITY, INTERGRANULAR;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-15%, HEAVY MINERALS-01%, IRON STAIN-01%;
INTERVAL 3-4' IS TRANSITION FROM TOPSOIL INTO MICCOSUKEE FM.

4 - 11.7 SAND; GRAYISH ORANGE PINK TO MODERATE ORANGE PINK; 15% POROSITY, INTERGRANULAR;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-15%, IRON STAIN-01%, HEAVY MINERALS-01%;
DISTINCT PURPLES AND PINK COLORS. THIN CLAY LAMINAE COMMON. GRAD ES ABRUPTLY
INTO COARSER CLAYEY SANDS.

11.7- 13.7 SAND; LIGHT YELLOWISH ORANGE TO DARK YELLOWISH ORANGE; 18% POROSITY,
INTERGRANULAR;
GRAIN SIZE: COARSE; RANGE: MEDIUM TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-10%, HEAVY MINERALS-01%;

13.7- 15 SAND; GRAYISH ORANGE TO DARK GRAYISH RED; 15% POROSITY, INTERGRANULAR;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-10%, HEAVY MINERALS-01%, IRON STAIN-01%;
CLAY LAMINAE COMMON.

15 - 16 SAND; LIGHT YELLOWISH ORANGE TO DARK YELLOWISH ORANGE; 18% POROSITY, INTERGRANULAR;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO FINE;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-10%;
CLAY LAMINAE COMMON. BECOMES UNCONSOLIDATED AT BOTTOM.

16 - 17.5 SAND; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE; 20% POROSITY, INTERGRANULAR;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; LOW SPHERICITY; UNCONSOLIDATED;
ACCESSORY MINERALS: CLAY-03%, HEAVY MINERALS-01%;
CLAY LENSES ARE FEW.

17.5- 19.2 SAND; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE; 20% POROSITY, INTERGRANULAR;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-07%, HEAVY MINERALS-01%;
GRADATIONALLY BECOMING MORE CLAYEY AND DARKER AT BOTTOM.

19.2- 19.9 CLAY BLEBS COMMON.

19.9- 21 CLAY; LIGHT YELLOWISH ORANGE TO MODERATE BROWN; LOW PERMEABILITY;
MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: LAMINATED, BEDDED, INTERBEDDED,
ACCESSORY MINERALS: QUARTZ SAND-25%, LIMONITE-05%, IRON STAIN-01%;
INTERBEDDED SAND AND LIMONITIC SAND COARSE TO FINE SIZE.

21 - 28.7 SAND; DARK YELLOWISH ORANGE TO LIGHT YELLOWISH ORANGE; 15% POROSITY, INTERGRANULAR;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-07%, HEAVY MINERALS-01%;
SAND OMTERBEDDED WOTJ C;AU ;EMSES AT 27.5' CLAY CONTENT INCREASING TOWARD BOTTOM.

28.7- 29.3 CLAY; GRAYISH ORANGE TO LIGHT YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-35%, HEAVY MINERALS-03%, MICA-01%;

29.3- 29.9 SAND LENSES COMMON WITH HEAVY MINERALS WITHIN.

29.9- 31.5 SAND; GRAYISH YELLOW TO DARK YELLOWISH ORANGE; 10% POROSITY, INTERGRANULAR;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CLAY-20%, HEAVY MINERALS-03%, MICA-01%;
CLAY LENS AT 29.5&30.5,SAND BECOMES BETTER CEMENTED BELOW 30.5'

31.5- 34 CLAY; LIGHT YELLOWISH ORANGE TO DARK YELLOWISH ORANGE; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, LAMINATED,
ACCESSORY MINERALS: QUARTZ SAND-35%, PHOSPHATIC SAND-03%, MICA-01%,
HEAVY MINERALS-01%;
VERY SANDY IRON STAINED CLAY BECOMING MASSIVE AT 34', PHOSHATE. GRAINS (MEDIUM TO FINE) BLEACHED WHITE, TRACE TO 2 OR 3%, BEGINNING AT 32.5'. KAOLINITE BLEBS THROUGHOUT.

34 - 36.5 CLAY; GRAYISH YELLOW TO LIGHT GRAYISH GREEN; LOW PERMEABILITY;
MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: PHOSPHATIC SAND-03%, QUARTZ SAND-03%, IRON STAIN-01%,
MICA-01%;
WAXY GRAY IRON STAINED CLAY WITH BLEACHED, FINE SIZE PHOSPHORITE SAND CONTENT INCREASES AT 36.5'

36.5- 47 CLAY; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-40%, PHOSPHATIC SAND-04%, HEAVY MINERALS-01%,
IRON STAIN-01%;
VERY SANDY WITH TRACE MICAS. GRADES INTO GRAYISH MASSIVE CLAY AT ABOUT 47'.
46.5-47.5 BLEACHED PHOSPHORITE PEBBLES IN UNCONSOLIDATED SAND AND CLAY.

47 - 49.2 CLAY; LIGHT GRAYISH GREEN TO LIGHT GREENISH YELLOW; LOW PERMEABILITY;
POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-05%, PHOSPHATIC SAND-03%, MICA-01%,
IRON STAIN-01%;
BLEACHED PHOSPHORITE THROUGHOUT, VERY FINE SIZE. ABRUPT LITHO CHANGE AT 49.2' FROM WAXY CLAY TO CLAYEY SAND. TRACE HEAVIES.

49.2- 55.7 SAND; VERY LIGHT ORANGE TO GRAYISH YELLOW; 15% POROSITY, INTERGRANULAR;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-20%, PHOSPHATIC SAND-04%, IRON STAIN-01%, MICA-01%;
THIN CLAY LENSES COMMON. GRADES INTO A MASSIVE CLAY. 2 INCHES THICK, MED TO COARSE SIZE PHOSPHORITE SEAM AT 53.2'. TRACE HEAVI

55.7- 58 CLAY; LIGHT OLIVE GRAY TO VERY LIGHT ORANGE; LOW PERMEABILITY;
MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: QUARTZ SAND-05%, PHOSPHATIC SAND-04%;
GRADES INTO FINE SAND BELOW. WAXY.

58 - 58.7 SAND; VERY LIGHT ORANGE TO GRAYISH YELLOW; 15% POROSITY, INTERGRANULAR;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-10%, PHOSPHATIC SAND-04%, HEAVY MINERALS-01%;

58.7- 59.7 CLAY; LIGHT OLIVE GRAY TO LIGHT OLIVE; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: PHOSPHATIC SAND-05%, QUARTZ SAND-04%, HEAVY MINERALS-01%;
WAXY CLAY WITH BLEACHED PHOSPHORITE THROUGHOUT.

59.7- 60.7 SAND; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY; 07% POROSITY, INTERGRANULAR;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO ;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: CLAY-12%, HEAVY MINERALS-01%, PHOSPHATIC SAND-01%;

60.7- 64 CLAY; WHITE TO VERY LIGHT ORANGE; LOW PERMEABILITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-15%, HEAVY MINERALS-01%;
DARK MATERIAL THROUGHOUT TRACE AMOUNTS.

64 - 79 CLAY; WHITE TO YELLOWISH GRAY; LOW PERMEABILITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-15%, HEAVY MINERALS-01%;
CLAY INDURATION IS POOR TO UNCONSOLIDATED. SOME OF CORE MATERIAL LOST DURING DRILLING DUE TO NATURE OF CLEY I.E.,ENCONSOLIDATED.

79 - 90.5 CLAY; WHITE TO VERY LIGHT ORANGE; GOOD INDURATION;
CEMENT TYPE(S): CLAY MATRIX, SILICIC CEMENT;
ACCESSORY MINERALS: QUARTZ SAND-05%, HEAVY MINERALS-01%, PHOSPHATIC SAND-01%;
PO4 INDICATES DEFINATE PHOSPHATE CONTENT IN ROCK. CAVITY AT 84' -84.5, CAVITY FILLING MATERIAL i.e.,SAND AND CLAY,FROM 83-84.5 AND 88-89. ABRUPT TRANSITION AT 90.5 INTO CLAY CLAST ZONE.

90.5- 104 CLAY; LIGHT GREENISH GRAY TO YELLOWISH GRAY; INTERGRANULAR; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
CLASTS OF HARD CLAY AS FLOAT IN CLAY MATRIX. PO4 INDICATES PHOSPHATE IN OR ON WAXEY CLASTS AND IN MATRIX MATERIAL.

104 - 109 CLAY; LIGHT GREENISH GRAY TO YELLOWISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX;
ACCESSORY MINERALS: DOLOMITE-%;
FEW DOLOMITE NODULES. ABURPT TRANSITION INTO INDURATED ZONE BELOW

109 - 111 DOLOMITE; YELLOWISH GRAY TO VERY LIGHT ORANGE; INTERGRANULAR,
INTERCRYSTALLINE; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO VERY FINE;
MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX, DOLOMITE CEMENT;
ACCESSORY MINERALS: CLAY-07%, QUARTZ SAND-05%;
QUARTZ SAND IMBEDDED IN THE DOLOMITE. CLAY CONTENT DECREASING AT BOTTOM. TRACE
ORGANICS.

111 - 115 LIMESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY; 05% POROSITY, INTERGRANULAR,
INTERCRYSTALLINE;
GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;
ACCESSORY MINERALS: DOLOMITE-10%, QUARTZ SAND-05%, CLAY-05%;
FOSSILS: FOSSIL FRAGMENTS;

115 - 115.5 DOLOMITE,CLAY AND QUARTZ SAND CONTENT VARIABLE AND DECREASING
WIT DEPTH. LOST CIRCULATION AT 115'.

115.5- 120 LIMESTONE; VERY LIGHT ORANGE TO WHITE; 05% POROSITY, INTERGRANULAR,
INTERCRYSTALLINE, MOLDIC;
GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
ACCESSORY MINERALS: QUARTZ SAND-03%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS;

120 - 126 LIMESTONE; VERY LIGHT ORANGE TO WHITE; 08% POROSITY, INTERGRANULAR,
INTERCRYSTALLINE, MOLDIC;
GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT, DOLOMITE CEMENT;
ACCESSORY MINERALS: DOLOMITE-25%, QUARTZ SAND-02%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS;
CAVITY 122-123. COMPOSITION VARIABLE CALCILUTITE TO CALCARINITE. GRADING INTO
MORE BIOGENIC AND DOLOMITEC MATERIAL.

126 - 129 LIMESTONE; VERY LIGHT ORANGE TO YELLOWISH GRAY; 08% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC;
GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, DOLOMITE CEMENT;
ACCESSORY MINERALS: DOLOMITE-30%, QUARTZ SAND-02%;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS;
CAVITY AT 126-129. BIOGENIC MATERIAL IN CRACKS. MINOR OR TRACE QUARTZ SAND EMBEDDED IN LIMESTONE.

129 - 139 CALCARENITE; VERY LIGHT ORANGE; 15% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN TYPE: SKELETAL, BIOGENIC, CRYSTALS; 95% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
ACCESSORY MINERALS: QUARTZ SAND-01%, IRON STAIN-01%;
FOSSILS: BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS, MILIOLIDS, CONES;
WACKESTONE TO GRAINSTONE.

139 - 141 CALCARENITE; VERY LIGHT ORANGE TO DARK YELLOWISH BROWN; 10% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SILICIC CEMENT;
ACCESSORY MINERALS: CHERT-30%, IRON STAIN-01%;
WACKESTONE TO GRIANSTONE. 2-4 INCH CHERT LENSES PRESENT.

141 - 146 CALCARENITE; VERY LIGHT ORANGE TO WHITE; 16% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN TYPE: SKELETAL, BIOGENIC, CRYSTALS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS, FOSSIL FRAGMENTS;
ALLOCHEMS BECOME SMALLER IN SIZE.

146 - 154 CALCARENITE; VERY LIGHT ORANGE; 15% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN TYPE: SKELETAL, BIOGENIC, CRYSTALS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
FOSSILS: BENTHIC FORAMINIFERA, CONES, MILIOLIDS, FOSSIL FRAGMENTS;
GRADES FROM FINER GRAIN TO COARSE THEN GRADING TO FINER AT BASE.

154 - 160 CALCILUTITE; WHITE TO VERY LIGHT ORANGE; 05% POROSITY, INTERGRANULAR,
LOW PERMEABILITY, INTERCRYSTALLINE;
GRAIN TYPE: CALCILUTITE, BIOGENIC, CRYSTALS;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO FINE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL FRAGMENTS;
VERY TIGHT,GRADING INTO RECRYSTALIZED LIMESTINE. 3' CAVITY AT 16

160 - 170 LIMESTONE; WHITE TO VERY LIGHT ORANGE; 10% POROSITY, INTERGRANULAR,
INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: SKELETAL, BIOGENIC, CRYSTALS;
GOOD INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT, CALCILUTITE MATRIX;
OTHER FEATURES: HIGH RECRYSTALLIZATION;
FOSSILS: FOSSIL FRAGMENTS, MILIOLIDS;
ALLOCHEMS IN SPAR AS FLOAT. BIOGENIC UNFILLING IN SOME VOIDS, GRADATIONAL INTO
CALCILUTITE.

170 - 171 CALCILUTITE; VERY LIGHT ORANGE TO WHITE; 12% POROSITY, INTERGRANULAR,
INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: CALCILUTITE, CRYSTALS, BIOGENIC;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
FOSSILS: SPICULES, FOSSIL MOLDS, MOLLUSKS;

171 - 171.7 LIMESTONE; VERY LIGHT ORANGE TO WHITE; 10% POROSITY, INTERGRANULAR,
INTERCRYSTALLINE;
GRAIN TYPE: SKELETAL, CALCILUTITE;
RANGE: MICROCRYSTALLINE TO COARSE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
ACCESSORY MINERALS: IRON STAIN-01%;
COMPOSITION VARIABLE, GRADES FROM HIGHLY RECRYSTALLIZED TO SKELETAL CALCARENTIE.

171.7- 180 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 20% POROSITY, INTERGRANULAR,
INTERCRYSTALLINE, MOLDIC;
GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE; 90% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
FOSSILS: BENTHIC FORAMINIFERA, CONES, MOLLUSKS, FOSSIL FRAGMENTS, FOSSIL MOLDS;
PREDOMINANTLY PACKSTONE TO GRAINSTONE. SMALL ZONES OF TIGHT, WEL RECRYSTALLIZED
LIMESTONE THROUGHOUT. GOOD PERMEABILITY.

180 - 190 AS ABOVE

190 - 200 AS ABOVE

200 - 208.3 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 18% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC;
GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
SLIGHTLY FINER GRAINED AND BETTER INDURATED. TRANSITION SHARP AT BASE TO A MICRITE.

208.3- 210 CALCILUTITE; WHITE; INTERGRANULAR, LOW PERMEABILITY;
GRAIN TYPE: CALCILUTITE;
POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
ACCESSORY MINERALS: CLAY- %;
OTHER FEATURES: CHALKY, PLASTIC;
SOFT AND PLASTIC WHEN FRESH (WET). CLAY BLEBS.

210 - 213 LIMESTONE; WHITE TO VERY LIGHT ORANGE; 15% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC;
GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS; 40% ALLOCHEMICAL CONSTITUENTS;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;

213 - 217 CALCARENITE; WHITE; 20% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, MOLDIC;
GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;

217 - 225 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 17% POROSITY, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, CALCILUTITE; 80% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: FINE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
PELLOIDAL TEXTURES COMMON.

225 - 233 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 18% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE; 80% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO VERY COARSE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
PELLOIDAL TEXTURE THROUGHOUT. TRANSITIONAL INTO CALCIRUDITE.

233 - 236 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 22% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS;
95% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: COARSE; RANGE: FINE TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
VERY COARSE CALCIRUDITE TEXTURE BECOMING FINER GRAINED AT BOTTOM PELLOIDAL STRUCTURES COMMON.

236 - 240 CALCARENITE; WHITE; 20% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, SKELETAL, CALCILUTITE; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; MODERATE INDURATION;
SIMILAR TO ABOVE SAMPLES.

240 - 242 LIMESTONE; LIGHT GRAY TO YELLOWISH GRAY; 08% POROSITY, INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: SKELETAL, BIOGENIC;
GRAIN SIZE: COARSE; RANGE: MEDIUM TO COARSE; GOOD INDURATION;
CEMENT TYPE(S): SILICIC CEMENT;
ACCESSORY MINERALS: CHERT-35%;
SILICA ENRICHED LIMESTONE. SILICA CEMENT VARIES 20-80% i.e. CHERTY LIMESTONE.
LITHO TYPE ENDS AT CAVITY 242'.

242 - 247 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 20% POROSITY, INTERGRANULAR, VUGULAR;
GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
GRAINSTONE TO PACKSTONE

247 - 251 LIMESTONE; MODERATE BROWN TO WHITE; 12% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: SKELETAL, BIOGENIC, CRYSTALS;
GOOD INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT, CALCILUTITE MATRIX;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;
RECRYSTALIZATION VARIABLE LOW TO HIGH.

251 - 256.8 CALCARENITE; VERY LIGHT ORANGE TO WHITE; 20% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, VUGULAR;
GRAIN TYPE: SKELETAL, CRYSTALS, CALCILUTITE; 90% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: COARSE; RANGE: FINE TO GRANULE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: LOW RECRYSTALLIZATION;
FOSSILIFEROUS AND SEVERAL LARGE VUGS. TURITELA FEW,MOLLUCKS COMMO

256.8- 260 CALCARENITE; VERY LIGHT ORANGE TO WHITE; 12% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, CRYSTALS, SKELETAL;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;

260 - 261 CALCILUTITE; WHITE; 10% POROSITY, INTERGRANULAR;
GRAIN TYPE: CALCILUTITE, SKELETAL; 10% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO FINE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: CHALKY;
GRADES CA;CAREMOTE GRADES CALCARENITE TO MICRITIC LIMESTONE. PLASTIC WHEN WET (FRES

261 - 266 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 15% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS;
GRAIN TYPE: BIOGENIC, CALCILUTITE, CRYSTALS; 65% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;

266 - 267 CALCILUTITE; WHITE TO VERY LIGHT ORANGE; 10% POROSITY, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: CALCILUTITE, BIOGENIC;
GRAIN SIZE: MICROCRYSTALLINE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: MEDIUM RECRYSTALLIZATION;

267 - 267.4 DOLOMITE; VERY LIGHT ORANGE TO DARK YELLOWISH BROWN; 07% POROSITY, INTERCRYSTALLINE, INTERGRANULAR, PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: QUARTZ-02%;
OTHER FEATURES: HIGH RECRYSTALLIZATION;
DOLOMITIC SILT-INDURATED. QUARTZ FILLING SOME VUGS.

267.4- 270 DOLOMITE; DARK YELLOWISH BROWN TO MODERATE YELLOWISH BROWN; 20% POROSITY, INTERCRYSTALLINE, INTERGRANULAR, PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO VERY FINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: CALCITE-02%;
OTHER FEATURES: SUCROSIC, HIGH RECRYSTALLIZATION;

270 - 271.3 DOLOMITE; DARK YELLOWISH BROWN TO VERY LIGHT ORANGE; 17% POROSITY, INTERCRYSTALLINE, INTERGRANULAR, PIN POINT VUGS; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO VERY FINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, SPARRY CALCITE CEMENT;
ACCESSORY MINERALS: SPAR-05%, CALCITE-03%;
OTHER FEATURES: SUCROSIC;
NUMEROUS FINE FRACTURES HEALED WITH SPARY CALCITE. DOLOSILT AT BOTTOM BUT INDURATED.

271.3- 272.6 DOLOMITE; DARK YELLOWISH BROWN TO VERY LIGHT ORANGE; 15% POROSITY, INTERCRYSTALLINE, INTERGRANULAR, PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO VERY FINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
OTHER FEATURES: SUCROSIC, HIGH RECRYSTALLIZATION;
VERY SUCROSIC AND WELL INDURATED.

272.6- 273.1 DOLOMITE; GRAYISH ORANGE TO LIGHT OLIVE GRAY; 13% POROSITY, INTERCRYSTALLINE, INTERGRANULAR, PIN POINT VUGS; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: LAMINATED,
OTHER FEATURES: SUCROSIC, MEDIUM RECRYSTALLIZATION;
TURRITELLEDS.

273.1- 277 DOLOMITE; GRAYISH ORANGE TO MODERATE YELLOWISH BROWN; 20% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, VUGULAR; 10-50% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO VERY FINE;
MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: LAMINATED,
ACCESSORY MINERALS: CALCITE-02%, PYRITE-01%;
OTHER FEATURES: SUCROSIC, MEDIUM RECRYSTALLIZATION;

QUITE BIOGENIC LOOKING.

277 - 278 DOLOMITE; VERY LIGHT ORANGE TO WHITE; 08% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS; 0-10% ALTERED; ANHEDRAL;
GRAIN SIZE: CRYPTOCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO MICROCRYSTALLINE;
MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CLAY MATRIX;
ACCESSORY MINERALS: CALCITE-25%;
OTHER FEATURES: CHALKY;
TRANSITIONAL FROM DOLOMITE TO LIMESTONE. CALCILUTITIC AT BASE.

278 - 278.2 CLAY; GREENISH GRAY TO GREENISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX;
ACCESSORY MINERALS: CALCITE-15%;

278.2- 282.3 CALCARENITE; WHITE; 12% POROSITY, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: CALCILUTITE, BIOGENIC; 65% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: LOW RECRYSTALLIZATION;

282.3- 286.5 DOLOMITE; GRAYISH BROWN TO YELLOWISH GRAY; 15% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, VUGULAR; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: CRYPTOCRYSTALLINE TO VERY FINE;
GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX;
ACCESSORY MINERALS: CALCITE-10%;
GRADATIONAL FROM 285-BASE AND 286.3-286.5 BEING VERY BIOGENIC WITH TURRITELLIDS AND POSSIBLE LEPIDOCYCLINA FRAGMENTS. RECRYSTALLIZATION VARIES HIGH UPHOLE TO LOW DOWNHOLE.

286.5- 293.2 CALCARENITE; WHITE; 22% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, VUGULAR;
GRAIN TYPE: SKELETAL, BIOGENIC; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO VERY COARSE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, SPARRY CALCITE CEMENT;
TURRILELLIDS AND LEPIDOCYCLINA INFREQUENT.

293.2- 301.2 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 30% POROSITY, INTERGRANULAR, MOLDIC, VUGULAR;
GRAIN TYPE: SKELETAL, BIOGENIC; 95% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO GRAVEL; POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: COQUINA;
COQUINA LIKE-VERY FOSSILIFEROUS. LEPIDOCYCLINA, CONUS AND NUMEROUS BRYOZOANS. RICH IN MOLLUSK.

301.2- 301.7 CALCARENITE; LIGHT GRAY TO VERY LIGHT ORANGE; 15% POROSITY, INTERGRANULAR, PIN POINT VUGS;
GRAIN TYPE: SKELETAL, BIOGENIC;
GRAIN SIZE: COARSE; RANGE: COARSE TO VERY COARSE; GOOD INDURATION;
CEMENT TYPE(S): SILICIC CEMENT;
ACCESSORY MINERALS: CHERT-35%;
LEPIDOCYCLINA AND OPERCULINOIDES COMMON. CHERTIFICATION HAS SET IN. DARK ORGANIC LIKE BLEBS COMMON.

301.7- 306 CALCARENITE; LIGHT GRAY TO VERY LIGHT ORANGE; 25% POROSITY, INTERGRANULAR, MOLDIC, VUGULAR;
GRAIN TYPE: SKELETAL, BIOGENIC; 95% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: VERY COARSE; RANGE: COARSE TO VERY COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: COQUINA;
SIMILAR TO 293.2 TO 301.2.

306 - 317 CALCARENITE; LIGHT GRAY TO VERY LIGHT ORANGE; 18% POROSITY, INTERGRANULAR, INTERCRYSTALLINE;
GRAIN TYPE: BIOGENIC, SKELETAL, CRYSTALS; 70% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO FINE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
OTHER FEATURES: LOW RECRYSTALLIZATION;
VERY LITTLE SKELETAL DEBRIS AT TOP, BECOMES INCRESAIN VERY LITTLE SKELETAL DEBRIS AT TOP, BECOMES INCREASINGLY SKELETAL (i.e. LEPIDOCYCLINA AND OPERCULINOIDES) WITH DEPTH.

317 - 321 DOLOMITE; DARK YELLOWISH BROWN TO GRAYISH ORANGE; 15% POROSITY, INTERGRANULAR, INTERCRYSTALLINE, PIN POINT VUGS; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: SPAR-02%;
OTHER FEATURES: SUCROSIC;

321 - 322 CALCARENITE; WHITE TO VERY LIGHT ORANGE; 17% POROSITY, INTERGRANULAR;
GRAIN TYPE: SKELETAL, BIOGENIC, CALCILUTITE; 65% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: MICROCRYSTALLINE TO VERY COARSE; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SIMILAR TO 306 TO 317'.

322 TOTAL DEPTH

W- 15728
W Hoenstine #1 Core

PERMIT #	:	
OWNER	:	J. Hodges
LOCATION	:	T3N, R10E, S33
COUNTY	:	Madison
ELEVATION	:	
DRILLER	:	J. Hodges
STARTED	:	
COMPLETED	:	
DEPTH	:	287
CASING	:	
HEAD	:	
YIELD	:	
QUALITY	:	
USE	:	
REMARKS	:	22 boxes of cores

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W-15728

TOTAL DEPTH: 130 FT.

SAMPLES - NONE

COMPLETION DATE: N/A

OTHER TYPES OF LOGS AVAILABLE - NONE

COUNTY - MADISON

LOCATION: T.03N R.10E S.33
LAT = 30D 36M 50S
LON = 83D 18M 33S

ELEVATION: 130 FT

WORKED BY:D. ALLISON (5/14/89)

0.	-	7.	090UDSC	UNDIFFERENTIATED SAND AND CLAY
7.	-	12.	122MCSK	MICCOSUKEE FM.
12.	-	55.	122HTRN	HAWTHORN GROUP
55.	-	87.	123SMRK	123SMRK
87.	-	130.	123SWNN	SUWANNEE LIMESTONE

TOTAL DEPTH

W- 15803
W Connie #1 Core

PERMIT #	:	
OWNER	:	
LOCATION	:	T1N, R9E, S34bbd
2 miles south of Madison on 56, at the tree maintananc station		
COUNTY	:	Madison
ELEVATION	:	161'
DRILLER	:	Mike Brown and Associates
STARTED	:	
COMPLETED	:	August 10, 1985
DEPTH	:	100 ft. of recovery,
CASING	:	actual well is deeper
HEAD	:	
YIELD	:	
QUALITY	:	
USE	:	ambient water quality well
REMARKS	:	7 boxes of cores

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15803
TOTAL DEPTH: 00100 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.01N R.09E S.34
LAT = N 30D 26M 49
LON = W 83D 24M 07

COMPLETION DATE - 08/ /85
OTHER TYPES OF LOGS AVAILABLE - NONE

ELEVATION - 161 FT

OWNER/DRILLER: FL DIV OF FORESTRY-MADISON WORK CENTER (MIKE BROWN-FEDCO)

WORKED BY: GARRETT 8/7/85

0. - 4. UNDIFFERENTIATED SAND AND CLAY
4. - 39. ~~HAWTHORN GROUP~~ MICC
72 ~~39.~~ - 86. ST. MARKS FM.
86. - 87. SUWANNEE LIMESTONE

0 - 4 SAND; MODERATE YELLOWISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED,
ACCESSORY MINERALS: CLAY-03%, PLANT REMAINS-03%, PEAT-02%;
OTHER FEATURES: GRANULAR, MUDDY;
FOSSILS: ORGANICS;

4 - 12.5 CLAY; DARK YELLOWISH ORANGE TO MODERATE BROWN; 87% POROSITY, POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, LAMINATED, BANDED, MOTTLED,
ACCESSORY MINERALS: QUARTZ SAND-15%, HEAVY MINERALS-01%;
OTHER FEATURES: PLASTIC, PLATY;
FOSSILS: NO FOSSILS;
PRIMARILY DARK YELLOWISH ORANGE CLAY WITH INTERBEDS OF MODERATE BROWN PREDOMINATE IN THE 4-8' SECTION AND THINNER LAMINATED LIGHT OLIVE GRAY INTERBEDS IN THE 8-12' SECTION.

12.5- 13 SAND; DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED,
ACCESSORY MINERALS: CLAY-03%, HEAVY MINERALS-01%, PLANT REMAINS-03%, LIMONITE-03%;
OTHER FEATURES: GRANULAR, MUDDY;
FOSSILS: ORGANICS;

13 - 14 CLAY; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, BANDED, LAMINATED,
ACCESSORY MINERALS: QUARTZ SAND-10%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;
THE MINOR BEDS ARE LIGHTER AND CONTAIN LARGER SAND CLASTS.

14 - 15 SAND; DARK YELLOWISH ORANGE TO LIGHT YELLOWISH ORANGE;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-40%, PLANT REMAINS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

15 - 18 SAND; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE;
GRAIN SIZE: COARSE; RANGE: COARSE TO VERY COARSE;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED,
ACCESSORY MINERALS: CLAY-03%, HEMATITE-01%, HEAVY MINERALS-01%, PLANT REMAINS-02%;
OTHER FEATURES: GRANULAR, MUDDY;
FOSSILS: ORGANICS;

18 - 20 SAND; DARK YELLOWISH ORANGE TO LIGHT YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED, MOTTLED,
ACCESSORY MINERALS: CLAY-10%, HEMATITE-01%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

20 - 24 SAND; DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED,
ACCESSORY MINERALS: CLAY-10%, HEMATITE-01%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, MUDDY;
FOSSILS: NO FOSSILS;
LESS WELL CONSOLIDATED SANDY CLAY THAN THE OVERLYING AND UNDERLYING INTERVALS.

24 - 30 SAND; DARK YELLOWISH ORANGE TO LIGHT YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-09%, HEMATITE-01%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, MUDDY;
FOSSILS: NO FOSSILS;
POOR RECOVERY (2.5') FROM 25-34'.

30 - 34 SAND; LIGHT YELLOWISH ORANGE TO DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-08%, HEMATITE-01%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

34 - 39.2 SAND; DARK YELLOWISH ORANGE TO LIGHT BROWN; 33% POROSITY,
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-08%, HEMATITE-01%, HEAVY MINERALS-01%, PLANT REMAINS-02%;
OTHER FEATURES: GRANULAR, MUDDY;
FOSSILS: ORGANICS;

39.2- 43.5 CLAY; DARK YELLOWISH ORANGE TO YELLOWISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: BEDDED, NODULAR,
ACCESSORY MINERALS: QUARTZ SAND-45%;
OTHER FEATURES: HIGH RECRYSTALLIZATION, FOSSILIFEROUS, GREASY, FOSSILIFEROUS;
FOSSILS: DIATOMS, BARNACLES;
NODULAR IN THE LOWER SECTION OF THE INTERVAL ONLY, NODES ARE BALLS OF SAND, THIS INTERVAL REPRESENTS THE EXTENT OF THE GRADATIONAL CONTACT BETWEEN

43.5- 50 CLAY; LIGHT GREENISH YELLOW TO GRAYISH YELLOW; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, MOTTLED, NODULAR,
ACCESSORY MINERALS: QUARTZ SAND-47%, HEAVY MINERALS-01%, PHOSPHATIC SAND-02%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

50 - 58.5 SAND; GRAYISH YELLOW TO DARK GRAYISH YELLOW;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: BEDDED, INTERBEDDED,
ACCESSORY MINERALS: CLAY-40%, HEAVY MINERALS-01%, HEMATITE-01%, PHOSPHATIC SAND-02%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;
THERE IS A GOOD DEAL OF SAND IN THE CLAY MATRIX, WHICH IS MUDDY AND POORLY SORTED, NOT LIKE THE OVER OR UNDERLYING SEQUENCES. INCLUDED CLASTS ARE HEMATITE LUMPS HEAVY MINERALS AND PIECES OF ORGANICS.

58.5- 60 CLAY; LIGHT GREENISH YELLOW TO OLIVE GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: BEDDED, INTERBEDDED, MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-45%, PHOSPHATIC SAND-02%, PEAT-03%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

60 - 61 SAND; DARK YELLOWISH ORANGE TO DARK GRAYISH YELLOW;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: HEMATITE-02%, HEAVY MINERALS-01%, CLAY-12%;
BEDS OF DARK YELLOWISH SAND WITHIN THE PALE GREENISH YELLOW CLAY

61 - 69 CLAY; LIGHT GREENISH YELLOW TO GRAYISH YELLOW; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: LAMINATED, INTERBEDDED, NODULAR,
ACCESSORY MINERALS: QUARTZ SAND-30%, PHOSPHATIC SAND-02%, PEAT-03%, HEAVY MINERALS-02%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

69 - 69.5 CLAY; OLIVE GRAY TO LIGHT GREENISH YELLOW; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: BEDDED, INTERBEDDED,
ACCESSORY MINERALS: QUARTZ SAND-40%, PHOSPHATIC SAND-02%, PEAT-08%, CHERT-03%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;
PHOSPHATIC RUBBLE ZONE, WHITE CLAY MIXED WITH BLACK ORGANIC RESIDUE AND CHERT.

69.5- 72 CLAY; YELLOWISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-45%, PHOSPHATIC SAND-02%, PEAT-01%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

ST MKS

72 - 79 CLAY; YELLOWISH GRAY; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, PHOSPHATE CEMENT;
SEDIMENTARY STRUCTURES: BIOTURBATED, BRECCIATED,
ACCESSORY MINERALS: QUARTZ SAND-15%, PHOSPHATIC SAND-03%, CALCILUTITE-18%,
MANGANESE OXIDE-03%;
OTHER FEATURES: PLATY, PLASTIC, CHALKY;
FOSSILS: NO FOSSILS;
CALCAREOUS MUD CONTAINING BRECCIATED LIMESTONE PARTICLES THE LIMESTONE CLASTS ARE PROBABLY DERIVED FROM THE ST MARKS AND SUWANEE FORMATIONS.

79 - 86 SAND; VERY LIGHT GRAY;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE;
ROUNDNESS:ANGULAR; LOW SPHERICITY; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, PHOSPHATE CEMENT;
SEDIMENTARY STRUCTURES: BIOTURBATED, BRECCIATED,
ACCESSORY MINERALS: CALCILUTITE-30%, PHOSPHATIC SAND-.5%, CLAY-10%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;
AT 89' THE CLAY BECOMES MUCH MORE CALCAREOUS THAN THE SEQUENCE ABOVE IT, FOR THIS REASON IT WAS CALLED MICRITE IT INCORPORATES CLASTIC LIMESTONE, LIKE THE OVERLYING SEQUENCE.

86 - 87 CALCILUTITE; WHITE;
GRAIN TYPE: INTRACLASTS, BIOGENIC, CALCILUTITE;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO MICROCRYSTALLINE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
ACCESSORY MINERALS: CLAY-02%;
OTHER FEATURES: PLATY, CHALKY;
FOSSILS: NO FOSSILS;
EITHER 86 OR 87' IS THE TOP OF THE SUWANEE, CUTTINGS BELOW HERE CONTAIN CHERY AND SANDY LIMESTONE WHICH IS LIKELY DRIFT.

87 - 100

100 TOTAL DEPTH

W-W15846

PERMIT #	:
OWNER	: FL Div. of forestry
LOCATION	: Lovette Tower T02 R08 Sec 22
COUNTY	: Madison
ELEVATION	:
DRILLER	: Mike Brown (Fedco)
STARTED	:
COMPLETED	: 8/85
DEPTH	: 51'
CASING	: yes
HEAD	:
YIELD	:
QUALITY	: ambient water quality
USE	: monitoring well
REMARKS	:

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15846
TOTAL DEPTH: 00099 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.02N R.08E S.22 B
LAT = N 30D 34M 00
LON = W 83D 30M 52

COMPLETION DATE - 08/13/85
ELEVATION - 135 FT
OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER: FL.
OWNER/DRILLER: FL. DIV. OF FORESRTY-LEASED TO MD. COUNTY (MIKE BROWN-F.E.D.C.O.)

WORKED BY: GARRETT 8/26/85

0. - 23. MICCOSUKEE FM. 0-21 kc
23. - 51. HAWTHORN GROUP 21- ~50.5
51. - 99. SUWANNEE LIMESTONE

0 - 10 SAND; MODERATE YELLOWISH BROWN TO YELLOWISH GRAY;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS:SUB-ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED,
ACCESSORY MINERALS: CLAY-15%, LIMONITE-02%, HEAVY MINERALS-01%;
OTHER FEATURES: MUDDY, GRANULAR;
FOSSILS: NO FOSSILS;
INTERBEDS OF GRAY CLAY IN A CLAYEY SAND LITHOL- OGY, GRAY BEDS ARE 1-2CM THICK, GRAIN SIZE DECREASES DOWNWARD

10 - 15 SAND; LIGHT BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-35%, HEAVY MINERALS-02%;
OTHER FEATURES: PLASTIC, GRANULAR;
FOSSILS: NO FOSSILS;
THIS SEQUENCE IS A BRIGHTER (LIGHT BROWN) COLOR THAN THE OVER AND UNDERLYING SEQUENCES, NEAR 15' THERE APPEARS TO BE INTERBEDDING OF LIGHTER COLORED CLAYS (PALE YELLOWISH ORANGE)

15 - 21 SAND; DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, LAMINATED,
ACCESSORY MINERALS: CLAY-35%, LIMONITE-01%, HEAVY MINERALS-01%;
OTHER FEATURES: PLASTIC, GRANULAR;
FOSSILS: NO FOSSILS;
BEDDING CONSISTS OF LIGHTER AND DARKER ORANGE BEDS- THIS IS ATTRIBUTED TO THE CLAY COLOR

21 - 21.5 CLAY; MODERATE YELLOWISH BROWN TO DARK YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-30%, HEAVY MINERALS-01%, PHOSPHATIC SAND-02%;
OTHER FEATURES: PLASTIC, PLATY;
FOSSILS: NO FOSSILS;
FINELY LAMINATED CLAY LAYERS GRADING FROM UNDER- LYING YELLOWISH GRAY CLAY BEDS

21.5- 22.5 SAND; GRAYISH YELLOW TO DARK GRAYISH YELLOW;
GRAIN SIZE: FINE; RANGE: FINE TO FINE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, BEDDED, BRECCIATED, NODULAR,
ACCESSORY MINERALS: CLAY-30%, HEAVY MINERALS-01%, PHOSPHATIC SAND-02%, MICA-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;
PRIMARILY DARK YELLOWISH ORANGE CLAYEY SAND WITH TWO 1-1.5 INCH THICK BEDS OF PHOSPHATIC SAND AND REDUCED IRON, THE ORANGE LAYERS ARE LESS PHOSPHATIC THAN THE DUSKY AND GRAYISH YEL- LOW LAYERS, THIS SEQUENCE AND THE SAND BELOW IT CONTAIN WHITE CEMENTED (SILICA CEMENT?) PIECES OF SANDSTONE, THIS SS DOESN'T REACT WITH HCL

22.5- 28 SAND; DARK YELLOWISH ORANGE TO LIGHT YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, BRECCIATED,
ACCESSORY MINERALS: CLAY-15%, HEAVY MINERALS-01%, PHOSPHATIC SAND-.5%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

28 - 30.5 SAND; DARK YELLOWISH BROWN TO DARK YELLOWISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: BEDDED, MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-18%, HEAVY MINERALS-01%, PLANT REMAINS-01%, PHOSPHATIC SAND-.5%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;
SANDS WITH CLAY MATRIX, CLAY IS ORGANIC RICH

30.5- 34.5 CLAY; YELLOWISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED, BEDDED,
ACCESSORY MINERALS: QUARTZ SAND-25%, HEAVY MINERALS-01%, PHOSPHATIC SAND-02%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;
LAYERS OF THIS CLAY ARE HIGH IN ORGANIC MATERIAL

34.5- 41 SAND; GRAYISH ORANGE TO DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-06%, LIMONITE-01%, HEAVY MINERALS-01%, PHOSPHATIC SAND-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;
THIS PART OF THE CORE LOOKS UNCONSOLIDATED, DRILLERS MAY HAVE LOST CIRCULATION OR THERE MAY BE A WATER PRODUCING ZONE HERE

41 - 43 CLAY; LIGHT OLIVE TO LIGHT GREENISH YELLOW; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-15%, PHOSPHATIC SAND-02%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

43 - 46 CLAY; YELLOWISH GRAY TO DARK GRAYISH YELLOW; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: BIOTURBATED, MOTTLED, LAMINATED,
ACCESSORY MINERALS: QUARTZ SAND-10%, PHOSPHATIC SAND-03%, HEAVY MINERALS-01%, HEMATITE-01%;
OTHER FEATURES: PLASTIC, PLATY;
FOSSILS: NO FOSSILS;
BEDDED CLAY CONTAINING REDUCED IRON, LIMONITE POCKETS AND WHAT LOOKS LIKE BALLS (RIP-UP CLASTS?) OF WHITE ORANGE CLAY

46 - 50.5 CLAY; LIGHT GREENISH GRAY TO LIGHT GREENISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-10%, PHOSPHATIC SAND-03%, HEAVY MINERALS-01%, HEMATITE-01%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;
THIS CLAY IS LAYERED WITH BLACK POSSIBLY REDUCED IRON OR ORGANIC CLAY LAYERS, IT IS MOTTLED, STREAKY AND CONTAINS CHUNKS OF ROUGHLY SPHERICAL CLAY BALLS AND LARGE (5CM DIAMETER) SOMETIMES HOLLOW CONCRETIONS OF CHERT

50.5- 51 LIMESTONE; YELLOWISH GRAY TO WHITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;
ACCESSORY MINERALS: CLAY-15%, HEAVY MINERALS-01%, HEMATITE-01%, PHOSPHATIC SAND-02%;
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL FRAGMENTS, ECHINOID, BENTHIC FORAMINIFERA;
LIGHT GREENISH GRAY CLAY MIXED WITH WHITE MICRI- TIC CLAY AND CARBONATE BRECCIA (SWNN BECAUSE OF PRESENCE OF FORAMS)

51 - 60 CALCARENITE; VERY LIGHT ORANGE;
GRAIN TYPE: CRYSTALS, SKELETAL, PELLET;
MODERATE INDURATION;
CEMENT TYPE(S): SPARRY CALCITE CEMENT;
ACCESSORY MINERALS: CLAY-03%, MANGANESE OXIDE-01%;
FOSSILS: FOSSIL FRAGMENTS, ECHINOID, BENTHIC FORAMINIFERA;
CUTTINGS FROM THE INSIDE OF THE BARRELL

60 - 84.2 CALCARENITE; VERY LIGHT ORANGE;
GRAIN TYPE: SKELETAL, BIOGENIC, INTRACLASTS; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO MICROCRYSTALLINE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED,
ACCESSORY MINERALS: HEMATITE-01%;
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL FRAGMENTS, ECHINOID, BENTHIC FORAMINIFERA;
20% RECOVERY FOR INTERVAL FROM 60-99'

84.2- 84.8 DOLOMITE; LIGHT BROWN; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: HEMATITE-02%;
FOSSILS: FOSSIL FRAGMENTS, ECHINOID, BENTHIC FORAMINIFERA;

84.8- 98.5 CALCARENITE; VERY LIGHT ORANGE;
GRAIN TYPE: SKELETAL, BIOGENIC, INTRACLASTS; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO MICROCRYSTALLINE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED,
ACCESSORY MINERALS: HEMATITE-01%;
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL FRAGMENTS, ECHINOID, BENTHIC FORAMINIFERA;
SOME AREAS HAVE BEEN DIAGENETICALLY RECRYSTAL- LIZED 100%

98.5 TOTAL DEPTH

W15858

W- 15858
W

PERMIT #	:	
OWNER	:	FL DIV. OF FORESTRY
LOCATION	:	Gibson Tower T 2 N, R 10 E, Sec. 35 BA
COUNTY	:	Madison
ELEVATION	:	
DRILLER	:	FEDCO Mike Brown
STARTED	:	12/85
COMPLETED	:	12/85
DEPTH	:	110 feet
CASING	:	
HEAD	:	
YIELD	:	
QUALITY	:	
USE	:	ambient water quality monitoring well
REMARKS	:	

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W-15858
TOTAL DEPTH: 00110 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.02N R.10E S.35 ba
LAT = 30D 32M 13S
LON = 83D 17M 42S

COMPLETION DATE: /01/86
ELEVATION: 165 FT
OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER:DRILLER: FLORIDA DIVISION OF FORESRTY DRILLER: MIKE BROWN (F.E

WORKED BY:GARRETT (12/20/85)

0.	-	8.	090UDSC	UNDIFFERENTIATED SAND AND CLAY
8.	-	63.	122MCSK	MICCOSUKEE FM.
63.	-	93.	122HTRN	HAWTHORN GROUP
93.	-	99.	122SMRK	ST. MARKS FM.
99.	-	110.	123SWNN	SUWANNEE LIMESTONE

0 - 2 SAND; DARK YELLOWISH BROWN
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE
LOW SPHERICITY; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CLAY-06%, PEAT-03%, HEAVY MINERALS-01%
OTHER FEATURES: GRANULAR, MUDDY
FOSSILS: NO FOSSILS

2 - 4 CLAY; LIGHT GREENISH GRAY
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: QUARTZ SAND-09%, HEAVY MINERALS-.5%
OTHER FEATURES: PLATY, PLASTIC
FOSSILS: NO FOSSILS

4 - 7.5 SAND; GRAYISH BROWN TO DARK YELLOWISH BROWN
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE
MEDIUM SPHERICITY; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CLAY-04%, HEAVY MINERALS-01%
HEMATITE-01%
OTHER FEATURES: GRANULAR, PLATY
FOSSILS: NO FOSSILS

7.5- 10 CLAY; DARK YELLOWISH ORANGE TO MODERATE REDDISH BROWN
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED
ACCESSORY MINERALS: QUARTZ SAND-45%, HEAVY MINERALS-01%
HEMATITE-01%
OTHER FEATURES: GRANULAR, PLATY
FOSSILS: NO FOSSILS
DARK YELLOWISH BROWN SANDY CLAY MOTTLED WITH MODERATE
REDDISH BROWN AND PALE YELLOWISH BROWN CLAY

10 - 16.5 CLAY; DARK YELLOWISH ORANGE TO GRAYISH BROWN
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED
ACCESSORY MINERALS: QUARTZ SAND-45%, HEAVY MINERALS-01%
OTHER FEATURES: PLATY, PLASTIC
FOSSILS: NO FOSSILS
DARK YELLOWISH BROWN SANDY CLAY MOTTLED WITH PALE YELLOWISH BROWN CLAY

16.5- 20.3 CLAY; MODERATE REDDISH BROWN TO GRAYISH BROWN
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED, BEDDED, LAMINATED
ACCESSORY MINERALS: QUARTZ SAND-40%, HEAVY MINERALS-01%
OTHER FEATURES: PLATY, PLASTIC
FOSSILS: NO FOSSILS
BEDS ARE PRIMARILY MODERATE REDDISH BROWN CLAYEY SAND WITH PALE YELLOWISH BROWN CLAY INTERBEDS

20.3- 30 SAND; MODERATE REDDISH ORANGE TO GRAYISH ORANGE PINK
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED, BEDDED, LAMINATED
ACCESSORY MINERALS: CLAY-45%, HEAVY MINERALS-01%
OTHER FEATURES: GRANULAR, PLATY, PLASTIC
FOSSILS: NO FOSSILS
INTERVAL IS MODERATE REDDISH ORANGE WITH FINELY LAMINATED GRAYISH ORANGE PINK INTERBEDS, ONLY SLIGHTLY MORE SAND THAN ABOVE BUT ENOUGH TO MAKE THE SAND PROPORTION GREATER THAN 50%

30 - 35 SAND; DARK YELLOWISH ORANGE TO LIGHT YELLOWISH ORANGE
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED, BEDDED, LAMINATED
ACCESSORY MINERALS: CLAY-25%, HEAVY MINERALS-01%
OTHER FEATURES: GRANULAR, PLATY, PLASTIC
FOSSILS: NO FOSSILS
INTERVAL IS DARK AND PALE YELLOWISH ORANGE CLAYEY SAND WITH MOTTLES OF WHITE AND MODERATE ORANGE PINK BEDS OF SIMILAR COMPOSITION

35 - 40 SAND; MODERATE ORANGE PINK TO LIGHT YELLOWISH ORANGE
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: BEDDED, INTERBEDDED, LAMINATED
ACCESSORY MINERALS: CLAY-20%, HEAVY MINERALS-01%
OTHER FEATURES: GRANULAR, PLATY, PLASTIC
FOSSILS: NO FOSSILS
MOTTLING SEEN ABOVE MAY BE DUE TO DRILLING SOME IN THIS INTERVAL ARE VERY FINELY LAMINATED, CLAY COLORS CHANGE FROM PRIMARILY DARK YELLOWISH ORANGE TO PRIMARILYREDDISH OR PINKISH

40 - 47 NO SAMPLES

47 - 49 SAND; DARK YELLOWISH ORANGE TO VERY LIGHT ORANGE
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE
MEDIUM SPHERICITY; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, BEDDED
ACCESSORY MINERALS: CLAY-15%, HEAVY MINERALS-01%
PHOSPHATIC SAND-01%
OTHER FEATURES: GRANULAR, PLATY, PLASTIC
FOSSILS: NO FOSSILS
REWORKED PHOSPHATIC CLAY (POSSIBLY CALCIFLOUR- APATITE) IN THE LOWEST PORTION OF THIS SEQUENCE

49 - 53 SAND; DARK YELLOWISH ORANGE TO VERY LIGHT GRAY
GRAIN SIZE: COARSE; RANGE: MEDIUM TO GRANULE
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, BEDDED
ACCESSORY MINERALS: CLAY-09%, HEAVY MINERALS-01%
PHOSPHATIC SAND-.5%, HEMATITE-02%
OTHER FEATURES: GRANULAR, PLATY
FOSSILS: NO FOSSILS
COARSE SAND WITH DARK YELLOWISH ORANGE CLAY WITH INTERBEDS OF REDUCED IRON (AS CEMENT)AND WHITE PHOSPHATIC CLAY

53 - 55 SAND; MODERATE BROWN TO LIGHT BROWN
GRAIN SIZE: MEDIUM; RANGE: FINE TO GRANULE
MEDIUM SPHERICITY; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: INTERBEDDED
ACCESSORY MINERALS: CLAY-12%, PEAT-04%, HEMATITE-02%
OTHER FEATURES: GRANULAR, PLATY
FOSSILS: NO FOSSILS
POSSIBLE WEATHERED ZONE OR SOIL ZONE THAT FORM- ED ON THE SURFACE OF THE HAWTHORN FORMATION, CONTIANS SUBSTANTIAL REWORKED? PHOSPHATE

55 - 60 CLAY; WHITE TO MODERATE YELLOWISH BROWN
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX, IRON CEMENT, DOLOMITE CEMENT
SEDIMENTARY STRUCTURES: MOTTLED
ACCESSORY MINERALS: QUARTZ SAND-35%, HEMATITE-05%
HEAVY MINERALS-01%, PHOSPHATIC SAND-03%
OTHER FEATURES: PLATY, PLASTIC, GRANULAR
FOSSILS: NO FOSSILS
BRECCIATED LITHOLOGY, POSSIBLY RUBBLE ZONE AT AN
UNCONFORMITY PHOSPHATIC CLAY(LIKE MATERIAL) WITH IRON OR
MANGANESE DENDRITES DEVELOPED ON THE CLAY

60 - 62.5 CLAY; DARK YELLOWISH ORANGE TO DARK YELLOWISH BROWN
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: STYLOLITIC, INTERBEDDED, BEDDED
ACCESSORY MINERALS: QUARTZ SAND-10%, HEAVY MINERALS-01%
PHOSPHATIC SAND-03%
OTHER FEATURES: PLATY, PLASTIC
FOSSILS: NO FOSSILS
CONTAINS RIP-UP CLASTS OF WHITE CLAY, PHOSPHATE POSSIBLY
REPRESENTED IN THE CLAY FORM

62.5- 65 CLAY; DARK YELLOWISH BROWN TO DARK YELLOWISH ORANGE
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-35%, HEMATITE-03%
PHOSPHATIC SAND-06%, ANHYDRITE-01%
OTHER FEATURES: PLATY, PLASTIC
FOSSILS: NO FOSSILS
PHOSPHATE PRESENT IN CLAY FORM

65 - 71.5 CLAY; YELLOWISH GRAY
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
ACCESSORY MINERALS: QUARTZ SAND-25%, HEMATITE-02%
PHOSPHATIC SAND-06%, HEAVY MINERALS-01%
OTHER FEATURES: PLATY, PLASTIC
FOSSILS: NO FOSSILS

71.5- 72.6 CLAY; YELLOWISH GRAY TO LIGHT OLIVE BROWN
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: QUARTZ SAND-08%, PHOSPHATIC SAND-06%
HEAVY MINERALS-01%
OTHER FEATURES: PLATY, PLASTIC
FOSSILS: NO FOSSILS
LIGHT OLIVE BROWN CLAY RIP-UP CLASTS (UP TO 2 CM) IN
YELLOWISH GREEN CLAY MATRIX

72.6- 73.6 CLAY; LIGHT GRAY TO DARK GRAY
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: QUARTZ SAND-25%, PHOSPHATIC SAND-06%
HEAVY MINERALS-01%
OTHER FEATURES: PLATY, PLASTIC
FOSSILS: NO FOSSILS
DARK GRAY CLAY RIP-UP CLASTS (UP TO 2CM) IN A LIGHT GRAY
CLAY MATRIX

73.6- 76.8 CLAY; YELLOWISH GRAY TO LIGHT OLIVE BROWN
POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: BRECCIATED
ACCESSORY MINERALS: QUARTZ SAND-35%, PHOSPHATIC SAND-07%
HEAVY MINERALS-01%
OTHER FEATURES: PLATY, PLASTIC
FOSSILS: NO FOSSILS
THIS CLAY CAN BE WELL CONSOLIDATED AND HARD

76.8- 80.7 SAND; YELLOWISH GRAY TO MODERATE GRAYISH GREEN
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM
MEDIUM SPHERICITY; MODERATE INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: BIOTURBATED
ACCESSORY MINERALS: CLAY-35%, PHOSPHATIC SAND-07%
HEAVY MINERALS-01%
OTHER FEATURES: PLATY, PLASTIC
FOSSILS: NO FOSSILS
LITHOLOGY CONTIANS SMALL WHITE OVOIDS OF WEATHERED
PHOSPHORITE, SEQUENCE APPEARS BIOTURBATED WITH CLASTS OF
DUSKY YELLOW GREEN CLAY AND POSSIBLE PELLETS, IN THE LOWER
PART OF THE SECTION THE CLAY CLASTS ARE LIGHT OLIVE BROWN

80.7- 89.5 SAND; YELLOWISH GRAY
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM
MEDIUM SPHERICITY; POOR INDURATION
CEMENT TYPE(S): CLAY MATRIX
SEDIMENTARY STRUCTURES: MOTTLED, MASSIVE, BIOTURBATED
ACCESSORY MINERALS: CLAY-25%, PHOSPHATIC SAND-07%
HEAVY MINERALS-01%
OTHER FEATURES: PLATY, PLASTIC
FOSSILS: NO FOSSILS

89.5- 93 CALCILUTITE; VERY LIGHT ORANGE TO GRAYISH BROWN
GRAIN TYPE: CALCILUTITE, INTRACLASTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MICROCRYSTALLINE
POOR INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX
SEDIMENTARY STRUCTURES: MOTTLED, MASSIVE, BIOTURBATED
ACCESSORY MINERALS: CLAY-15%, PHOSPHATIC SAND-03%
QUARTZ SAND-20%, CHERT-03%
OTHER FEATURES: CHALKY, PLATY
FOSSILS: FOSSIL FRAGMENTS, DIATOMS

93 - 98.5 CALCILUTITE; VERY LIGHT ORANGE
GRAIN TYPE: CALCILUTITE, INTRACLASTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO MICROCRYSTALLINE
MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: CLAY-30%, QUARTZ SAND-15%
PHOSPHATIC SAND-03%
OTHER FEATURES: CHALKY, PLATY
FOSSILS: FOSSIL FRAGMENTS
RECOVERY HERE ISN'T VERY GOOD 2 FEET OF ACTUAL RECOVERY FOR EIGHT FEET, 5 INCHES OF THIS ARE CRUMBLY CLAYEY CARBONATE OVERLYING ST. MARKS LIMESTONE AND MAY BE REWORKED. 3 INCHES ARE WHAT COULD BE CALLED GOOD ST. MARKS FORMATION

98.5- 110 CALCARENITE; VERY LIGHT ORANGE TO WHITE
GRAIN TYPE: CRYSTALS, BIOGENIC, INTRACLASTS
90% ALLOCHEMICAL CONSTITUENTS
GRAIN SIZE: MICROCRYSTALLINE
RANGE: MICROCRYSTALLINE TO VERY FINE; MODERATE INDURATION
CEMENT TYPE(S): CALCILUTITE MATRIX
SEDIMENTARY STRUCTURES: MASSIVE
ACCESSORY MINERALS: HEMATITE-01%
OTHER FEATURES: COQUINA, SUCROSIC
FOSSILS: FOSSIL FRAGMENTS
DENDRITIC MANGANESE OR IRON STAIN ON SOME SURFACES

110 TOTAL DEPTH

W15881

W- 15881
W

PERMIT #	:
OWNER	: Fl. Div. of Forestry
LOCATION	: Mill Creek Tower T. 2 S., R. 10 E., Sec. 35
COUNTY	: Madison
ELEVATION	:
DRILLER	: Fedco
STARTED	: 2/86
COMPLETED	: 2/86
DEPTH	: 45'
CASING	:
HEAD	:
YIELD	:
QUALITY	:
USE	: ambient water quality
REMARKS	: water monitoring program

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15881

COUNTY - MADISON

TOTAL DEPTH: 00045 FT.

LOCATION: T.02S R.10E S.35

SAMPLES - NONE

LAT = N 30D 15M 53

LON = W 83D 17M 02

COMPLETION DATE - 03/ /86

ELEVATION - 082 FT

OTHER TYPES OF LOGS AVAILABLE - NONE

0. - 24. UNDIFFERENTIATED SAND AND CLAY
24. - 40. SUWANNEE LIMESTONE
40. - 45. OCALA GROUP

0 - .5 SAND; YELLOWISH GRAY;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS:ROUNDED; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-08%, PLANT REMAINS-03%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;
SOIL ZONE

.5- 6 SAND; VERY LIGHT ORANGE TO GRAYISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-03%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

6 - 12 SAND; DARK YELLOWISH ORANGE TO LIGHT GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: BEDDED, LAMINATED, MASSIVE,
ACCESSORY MINERALS: CLAY-08%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

12 - 14.8 SAND; GRAYISH ORANGE PINK TO GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, LAMINATED,
ACCESSORY MINERALS: CLAY-06%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

14.8- 18 SAND; DARK YELLOWISH BROWN TO LIGHT GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS: ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, LAMINATED,
ACCESSORY MINERALS: CLAY-09%;
FOSSILS: NO FOSSILS;

18 - 20 SAND; GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-11%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

20 - 23.5 CLAY; LIGHT OLIVE GRAY TO MODERATE ORANGE PINK; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: LAMINATED, BEDDED,
ACCESSORY MINERALS: QUARTZ SAND-35%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

23.5- 32 DOLOMITE; GRAYISH ORANGE; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-10%;
OTHER FEATURES: SUCROSIC;
FOSSILS: MOLLUSKS, FOSSIL MOLDS;
KARST TOPOGRAPHY IS WELL DEVELOPED HERE TWENTY FEET FROM HERE THE EXPOSURE OF DOLOMITE IS MUCH MORE EXTENSIVE DESCRIBED HERE, IN THE ACTUAL CORE 2 FEET OF NONDESCRIPT DOLOMITE ARE UNDERLIAN BY PALE YELLOWISH BROWN CLAYEY SAND LIKE THAT DESCRIBED BELOW

32 - 40 SAND; GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS: ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-08%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

40 - 40.1 DOLOMITE; LIGHT BROWNISH GRAY TO BROWNISH GRAY; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-10%;
OTHER FEATURES: SUCROSIC;
FOSSILS: MOLLUSKS, FOSSIL FRAGMENTS;

40.1- 45 CALCARENITE; GRAYISH ORANGE;
GRAIN TYPE: SKELETAL, INTRACLASTS, BIOGENIC; 90% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-10%, CLAY-03%;
OTHER FEATURES: SUCROSIC;
FOSSILS: BENTHIC FORAMINIFERA, CORAL, MOLLUSKS, FOSSIL FRAGMENTS, FOSSIL MOLDS;

45 TOTAL DEPTH

W-15884
W

PERMIT #	:	
OWNER	:	Fl Division of Forestry
LOCATION	:	Aucilla Tower 01 S 06 E 02
COUNTY	:	Madison
ELEVATION	:	102'
DRILLER	:	Davis Drilling for FEDCO
STARTED	:	
COMPLETED	:	March 1986
DEPTH	:	73'
CASING	:	
HEAD	:	
YIELD	:	
QUALITY	:	
USE	:	Monitoring Well for the determination of water quality for SRWMD
REMARKS	:	

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15884
TOTAL DEPTH: 00073 FT.
SAMPLES - NONE

COMPLETION DATE - 03/ /86
OTHER TYPES OF LOGS AVAILABLE - NONE

COUNTY - MADISON
LOCATION: T.01S R.06E S.02
LAT = N 30D 25M 22
LON = W 83D 42M 04
ELEVATION - 102 FT

0. - 22 UNDIFFERENTIATED SAND AND CLAY
22. - 59 HAWTHORN GROUP ?
59. - 73. SUWANNEE LIMESTONE

0 - 2 SAND; DARK BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE, STREAKED,
ACCESSORY MINERALS: CLAY-03%;
OTHER FEATURES: GRANULAR;
FOSSILS: ORGANICS;

2 - 3 SAND; GRAYISH ORANGE TO VERY LIGHT ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

3 - 8 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: VERY FINE TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

8 - 15 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: HEAVY MINERALS-01%, CLAY-15%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;
INTERLAYERS OF MORE CLAY-RICH LAYERS

15 - 22 SAND; VERY LIGHT ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: HEAVY MINERALS-01%, CLAY-03%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

22 - 24 CLAY; GREENISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: HEAVY MINERALS-02%, QUARTZ SAND-28%;
OTHER FEATURES: PLATY;
FOSSILS: NO FOSSILS;

24 - 32 CLAY; GREENISH GRAY TO MODERATE GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, BEDDED,
ACCESSORY MINERALS: HEAVY MINERALS-02%, PHOSPHATIC SAND-01%;
OTHER FEATURES: PLATY;
FOSSILS: NO FOSSILS;
MAINLY CLAY WITH INTERLAYERS OF SANDIER CLAY

32 - 39 SAND; YELLOWISH GRAY;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: HEAVY MINERALS-02%, PHOSPHATIC SAND-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;
SEQUENCE GRADES FROM CLAY-RICH TO SAND-RICH INTERVALS RATHER THAN BEING BEDDED

39 - 45 GRAVEL; YELLOWISH GRAY TO LIGHT OLIVE GRAY;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: BRECCIATED,
ACCESSORY MINERALS: PHOSPHATIC SAND-20%, CALCILUTITE-25%, QUARTZ SAND-25%, CLAY-30%; NOT
OTHER FEATURES: PLATY;
FOSSILS: NO FOSSILS;
RUBBLE ZONE, CONTIANS PHOSPHORITE AND SANDY CALCIFLOURAPATITE, DARK AND LIGHT BRECCIA-RE SPECTIVELY

45 - 49 CLAY; GREENISH GRAY TO YELLOWISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX, DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: BRECCIATED,
ACCESSORY MINERALS: CALCILUTITE-20%, QUARTZ SAND-20%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY, GRANULAR;
FOSSILS: NO FOSSILS;
CONTIANS BLEBS OF CALCIFLOURAPATITE

49 - 50 CALCILUTITE; VERY LIGHT GRAY;
GRAIN TYPE: CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-15%;
OTHER FEATURES: CHALKY;
FOSSILS: NO FOSSILS;
WHITE "CARBONATE" MATERIAL TESTS POSITVE FOR PHOSPHATE, THIS MAY BE CALCIFLOURAPATIE

50 - 54 GRAVEL; LIGHT OLIVE GRAY TO VERY LIGHT GRAY;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: BRECCIATED,
ACCESSORY MINERALS: CLAY-35%, PHOSPHATIC SAND-25%, QUARTZ SAND-40%;
OTHER FEATURES: PLATY;
FOSSILS: NO FOSSILS;
RUBBLE ZONE OF PHOSPHATE (DARK) AND LITHIFIED CALCIFLOURAPATITE (CHALKY WHITE)

54 - 58 CLAY; LIGHT OLIVE GRAY TO MODERATE YELLOWISH BROWN; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED, BRECCIATED,
ACCESSORY MINERALS: QUARTZ SAND-20%, PHOSPHATIC SAND-15%;
OTHER FEATURES: PLATY;
FOSSILS: NO FOSSILS;
AS ABOVE, BUT MORE CLAY AND LESS GRAVEL

58 - 60 LIMESTONE; VERY LIGHT GRAY;
GRAIN TYPE: CALCILUTITE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-15%;
OTHER FEATURES: CHALKY;
FOSSILS: NO FOSSILS;

60 - 70 DOLOMITE; GRAYISH BROWN; 50-90% ALTERED; EUHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
ACCESSORY MINERALS: QUARTZ SAND-05%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS;

70 - 73 60-73' EXTREMELY WELL RECRYSTALLIZED, HAS THE APPEARANCE OF THE SUWANNEE, BUT NO FORAMS ARE DISCERNABLE

73 TOTAL DEPTH

W- 15888
W

PERMIT #	:
OWNER	: FL Division of Forestry
LOCATION	: Hopewell Tower 01 S 09 E 20 Madison
COUNTY	:
ELEVATION	: 162'
DRILLER	: Davis Drilling Co., FEDCO
STARTED	: March 1986
COMPLETED	: March 1986
DEPTH	: 89'
CASING	: 7 Boxes of core 0-89
HEAD	:
YIELD	:
QUALITY	: Monitoring Well for the
USE	: SRWMD
REMARKS	:

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15888
TOTAL DEPTH: 00087 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.01S R.09E S.20
LAT = N 30D 22M 59
LON = W 83D 26M 37

COMPLETION DATE - 03/ /86
ELEVATION - 160 FT
OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER: HOPEWELL TOWER, FL DIV. OF FORESRTY (FEDCO)

WORKED BY: GARRETT 3/10/86

0. -	5.	UNDIFFERENTIATED SAND AND CLAY
5. -	27.	MICCOSUKEE FM.
27. -	72.	HAWTHORN GROUP
72. -	82.	ST. MARKS FM.
82. -	89.	SUWANNEE LIMESTONE

0 - 4 NO SAMPLES

4 - 4.5 SAND; DARK BROWN;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-08%, PLANT REMAINS-03%;
OTHER FEATURES: GRANULAR;
FOSSILS: FOSSIL FRAGMENTS;
SOIL ZONE

4.5- 6.2 SAND; LIGHT BROWN;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-09%, HEAVY MINERALS-01%, HEMATITE-02%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: FOSSIL FRAGMENTS;

6.2- 8.5 CLAY; DARK YELLOWISH ORANGE TO LIGHT YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, STREAKED, BEDDED,
ACCESSORY MINERALS: QUARTZ SAND-39%, HEAVY MINERALS-01%, HEMATITE-01%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: FOSSIL FRAGMENTS;

8.5- 10 SAND; LIGHT BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-08%, HEAVY MINERALS-01%, HEMATITE-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: FOSSIL FRAGMENTS;

10 - 12 SAND; DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-15%, HEAVY MINERALS-01%, HEMATITE-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: FOSSIL FRAGMENTS;

12 - 19 SAND; LIGHT BROWN TO DARK YELLOWISH ORANGE;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: STREAKED, INTERBEDDED, BEDDED,
ACCESSORY MINERALS: CLAY-20%, HEAVY MINERALS-01%, HEMATITE-01%, MICA-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: FOSSIL FRAGMENTS;
SOME INTERBEDS ARE YELLOWISH GRAY AND CLAY-RICH, LAMINAE OR LAYERS ARE 1 OR 2 MM THICK,
DETRITAL MICA

19 - 26.5 SAND; DARK YELLOWISH ORANGE TO VERY LIGHT ORANGE;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED, MOTTLED,
ACCESSORY MINERALS: CLAY-09%, HEAVY MINERALS-01%, HEMATITE-01%, MICA-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: FOSSIL FRAGMENTS;

26.5- 37.5 CLAY; YELLOWISH GRAY TO PINKISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, STYLOLITIC,
ACCESSORY MINERALS: QUARTZ SAND-25%, HEAVY MINERALS-01%, HEMATITE-01%, PHOSPHATIC SAND-03%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: FOSSIL FRAGMENTS;
CONTAINS A FEW LUMPS OF WELL CEMENTED MATERIAL NOT CALCIUM CARBONATE

37.5- 46.5 CLAY; YELLOWISH GRAY TO VERY LIGHT ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, STYLOLITIC, BRECCIATED,
ACCESSORY MINERALS: QUARTZ SAND-20%, DOLOMITE-15%, PHOSPHATIC SAND-03%, HEMATITE-02%;
OTHER FEATURES: GRANULAR, PLATY, SUCROSIC;
FOSSILS: FOSSIL FRAGMENTS;
CEMENTED SANDY CLAY, THIS MATERIAL MAY BE REWORKED OR A PRODUCT OF SELECTED DIAGENESIS, ZONES ALSO CONTAIN DOLOSILT MATRIX RATHER THAN CLAY.

46.5- 49.7 SAND; YELLOWISH GRAY TO LIGHT YELLOWISH ORANGE;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: BRECCIATED, MASSIVE,
ACCESSORY MINERALS: CLAY-20%, DOLOMITE-09%, PHOSPHATIC SAND-03%, CALCILUTITE-09%;
OTHER FEATURES: GRANULAR, SUCROSIC;
FOSSILS: FOSSIL FRAGMENTS;
RUBBLE ZONE ON TOP OF THE LIMESTONE UNIT

49.7- 60 DOLOMITE; VERY LIGHT ORANGE; 50-90% ALTERED; SUBHEDRAL;
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-15%, PHOSPHATIC SAND-01%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS;
RECRYSTALLIZED SANDY DOLOMITE WITH VOID POROSITY, CONTAINS CLAY CLASTS

60 - 72 CLAY; YELLOWISH GRAY TO DARK YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: BRECCIATED, MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-15%, CALCILUTITE-20%, PHOSPHATIC SAND-01%, CHERT-01%;
OTHER FEATURES: PLATY, CHALKY, CALCAREOUS;
FOSSILS: FOSSIL FRAGMENTS;
ROUNDED CLASTS OF CLAY, CARBONATE AND SAND CLASTS

72 - 81.5 CALCILUTITE; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE;
GRAIN TYPE: BIOGENIC, SKELETAL, INTRACLASTS;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO MICROCRYSTALLINE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-08%, QUARTZ SAND-08%;
OTHER FEATURES: CHALKY, COQUINA, CALCAREOUS;
FOSSILS: MOLLUSKS, BENTHIC FORAMINIFERA;
THIS SEQUENCE IS A MIXTURE OF CLAY, REWORKED SKELETAL CARBONATE AND MOLLUSK MOLDS, IT MAY NOT ACTUALLY CONTAIN FORAMS (NONE IDENTIFIABLE) BUT THERE ARE MANY SMALL PIECES OF CACO3 IN THESE, THE OTHER CONSTITUENTS MAKE IT PLAUSIBLE THAT THIS IS ST. MARKS RATHER THAN SUWANNEE

81.5- 89 CALCARENITE; VERY LIGHT ORANGE;
GRAIN TYPE: BIOGENIC, SKELETAL, PELLET;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO MICROCRYSTALLINE;
MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CALCILUTITE-10%;
OTHER FEATURES: COQUINA;
FOSSILS: FOSSIL FRAGMENTS, ECHINOID, BENTHIC FORAMINIFERA, CONES, MILIOLIDS;
5" OF CLAY FROM 88.0 TO 88.5' YELLOWISH GRAY AND DARK YELLOWISH ORANGE CLAY, CONTAINS DICTYOCONUS COOKII, MILLIOLIDS, ECHINOID SPINES

89 TOTAL DEPTH

W- 15911
W

PERMIT #	:	
OWNER	:	Container Corporation
LOCATION	:	01 S 07 E 34
COUNTY	:	Madison County
ELEVATION	:	
DRILLER	:	Davis Drilling, FEDCO
STARTED	:	
COMPLETED	:	February 1986
DEPTH	:	94'
CASING	:	
HEAD	:	
YIELD	:	
QUALITY	:	
USE	:	Monitoring well for
REMARKS	:	SRWMD

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15911
TOTAL DEPTH: 94 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.01S R.07E S.34
LAT = N 30D 21M 32
LON = W 83D 36M 17

COMPLETION DATE - N/A
ELEVATION - 95 FT

OTHER TYPES OF LOGS AVAILABLE - NONE

0. - 2. UNDIFFERENTIATED SAND AND CLAY
2. - 83. HAWTHORN GROUP
83. - 94. SUWANNEE LIMESTONE

0 - 1.5 SAND; DARK YELLOWISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED,
ACCESSORY MINERALS: PLANT REMAINS-03%, CLAY-04%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

1.5- 10 SAND; LIGHT BROWNISH GRAY TO DARK YELLOWISH ORANGE;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, BANDED,
ACCESSORY MINERALS: PHOSPHATIC SAND-02%, CLAY-15%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY, GRANULAR;
FOSSILS: NO FOSSILS;
PHOSPHATIC MUD, TYPICAL OF THE HAWTHORN IN THIS AREA- AS A MATRIX, AND AS DISCRETE INTERLAYERS

10 - 12 SAND; LIGHT BROWN TO MODERATE ORANGE PINK;
GRAIN SIZE: FINE; RANGE: FINE TO FINE;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, BEDDED,
ACCESSORY MINERALS: PHOSPHATIC SAND-02%, CLAY-28%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY, GRANULAR;
FOSSILS: NO FOSSILS;

12 - 14 CLAY; YELLOWISH GRAY TO LIGHT OLIVE GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: STYLOLITIC, STREAKED, MOTTLED,
ACCESSORY MINERALS: PHOSPHATIC SAND-01%, HEAVY MINERALS-01%, QUARTZ SAND-43%;
OTHER FEATURES: PLATY;
FOSSILS: NO FOSSILS;

14 - 18 SAND; YELLOWISH GRAY TO DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: STYLOLITIC, STREAKED, MOTTLED,
ACCESSORY MINERALS: PHOSPHATIC SAND-02%, HEAVY MINERALS-01%, CLAY-12%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

18 - 22 SAND; YELLOWISH GRAY;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: STREAKED, MOTTLED,
ACCESSORY MINERALS: HEAVY MINERALS-02%, PHOSPHATIC SAND-01%, CLAY-15%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

22 - 26 SAND; YELLOWISH GRAY TO LIGHT BROWNISH GRAY;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, STREAKED, STYLOLITIC,
ACCESSORY MINERALS: HEAVY MINERALS-01%, PHOSPHATIC SAND-01%, CLAY-15%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

26 - 28 SAND; YELLOWISH GRAY;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO GRANULE;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, STREAKED,
ACCESSORY MINERALS: HEAVY MINERALS-01%, PHOSPHATIC SAND-01%, CLAY-15%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

28 - 37 SAND; YELLOWISH GRAY;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, STREAKED,
ACCESSORY MINERALS: HEAVY MINERALS-01%, PHOSPHATIC SAND-01%, CLAY-12%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

37 - 44 SAND; YELLOWISH GRAY;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: HEAVY MINERALS-01%, PHOSPHATIC SAND-.5%, CLAY-18%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

44 - 51 SAND; DARK YELLOWISH ORANGE TO MODERATE YELLOWISH BROWN;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, STREAKED, BEDDED,
ACCESSORY MINERALS: HEAVY MINERALS-.5%, CLAY-21%;
OTHER FEATURES: PLATY, GRANULAR;
FOSSILS: NO FOSSILS;
UNUSUAL FOR THE HAWE UNUSAUL FOR THE HAWTHORN, DARK YELLOWISH ORANGE AND DARKER ORANGE COLORS ARE PREVALENT, COULD REPRESENT A LOW SEA STAND, MOTTLED APPEARANCE RESEMBLES MICCOSUKEE

51 - 53 SAND; DARK YELLOWISH ORANGE TO LIGHT OLIVE BROWN;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED, INTERBEDDED,
ACCESSORY MINERALS: HEAVY MINERALS-01%, CLAY-28%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

53 - 62 CLAY; DARK YELLOWISH ORANGE TO MODERATE YELLOWISH BROWN; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED, INTERBEDDED,
ACCESSORY MINERALS: QUARTZ SAND-35%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY;
FOSSILS: NO FOSSILS;
CLAY WITH INTERBEDDED SANDY LAYERS

62 - 67 CALCILUTITE; WHITE TO DARK YELLOWISH ORANGE;
POOR INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, BEDDED, MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-10%, CLAY-15%, DOLOMITE-20%;
OTHER FEATURES: CHALKY, SUCROSIC, PLATY, VARVED;
FOSSILS: NO FOSSILS;
WEATHERED CARBONATE RESIDUE, REACTS SLOWLY WITH HCL, INTERLAYERED WITH CLAYEY DOLOSILT

67 - 71 SAND; DARK YELLOWISH ORANGE TO MODERATE YELLOWISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-20%, DOLOMITE-25%;
OTHER FEATURES: PLATY, SUCROSIC;
FOSSILS: NO FOSSILS;

71 - 83 DOLO-SILT; YELLOWISH GRAY TO VERY LIGHT ORANGE; POOR INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT, CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-03%;
OTHER FEATURES: SUCROSIC;
FOSSILS: NO FOSSILS;

83 - 89 DOLOMITE; VERY LIGHT ORANGE; 50-90% ALTERED; EUHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-08%, CLAY-03%, CHERT-04%;
OTHER FEATURES: SUCROSIC;
FOSSILS: NO FOSSILS;
DIAGENETIC ALTERATION EXTENSIVE, RECRYSTALLIZATION COMPLETE

89 - 94 DOLOMITE; VERY LIGHT ORANGE; 50-90% ALTERED; EUHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-03%, CLAY-02%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS;
THIS MAY HAVE BEEN BEACH ROCK

94 TOTAL DEPTH

W15931

W- 15931
W

PERMIT #	:
OWNER	:Container Corporation
LOCATION	:T. 1 N, R. 7 E, Sec. 33
COUNTY	:Madison
ELEVATION	:100'
DRILLER	:FEDCO
STARTED	:
COMPLETED	:6/86
DEPTH	:102'
CASING	:
HEAD	:
YIELD	:
QUALITY	:
USE	:Ambient Groundwater
REMARKS	:Monitoring Network

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15931
TOTAL DEPTH: 00102 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.01N R.07E S.33
LAT = N 30D 26M 13
LON = W 83D 37M 14

COMPLETION DATE - N/A
OTHER TYPES OF LOGS AVAILABLE - NONE

ELEVATION - 100 FT

OWNER/DRILLER: CONTAINER CORP (FEDCO)

WORKED BY: GARRETT 6/19/86.

0. -	5.	UNDIFFERENTIATED SAND AND CLAY
5. -	58.	MICCOSUKEE FM.
58. -	100.	HAWTHORN GROUP
100. -	102.	SUWANNEE LIMESTONE

0 - 2 NO SAMPLES

2 - 5 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-07%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

5 - 9 CLAY; MODERATE REDDISH BROWN TO GRAYISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-45%;
OTHER FEATURES: PLATY, GRANULAR;
FOSSILS: NO FOSSILS;
HIGH SAND CONTENT.

9 - 17 SAND; LIGHT BROWN TO YELLOWISH GRAY;
GRAIN SIZE: FINE; RANGE: FINE TO ;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-15%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

17 - 20 NO SAMPLES

20 - 21.5 SAND; MODERATE REDDISH BROWN TO GRAYISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: DOLOMITE-25%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

21.5- 22 CLAY; YELLOWISH GRAY TO LIGHT BROWN; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-20%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

22 - 27 NO SAMPLES

27 - 29 SAND; DARK YELLOWISH ORANGE TO YELLOWISH GRAY;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-35%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

29 - 33 SAND; DARK YELLOWISH ORANGE;
GRAIN SIZE: FINE; RANGE: FINE TO FINE;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-40%, HEAVY MINERALS-01%, PHOSPHATIC SAND-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

33 - 38 SAND; DARK YELLOWISH ORANGE TO VERY LIGHT ORANGE;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: BEDDED, INTERBEDDED, LAMINATED,
ACCESSORY MINERALS: CLAY-30%, HEAVY MINERALS-01%, PHOSPHATIC SAND-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

38 - 47 NO SAMPLES

47 - 48.5 SAND; DARK YELLOWISH ORANGE TO VERY LIGHT ORANGE;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED, BEDDED, INTERBEDDED, LAMINATED,
ACCESSORY MINERALS: CLAY-35%, HEAVY MINERALS-01%, PHOSPHATIC SAND-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

48.5- 49 SAND; VERY LIGHT ORANGE;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-35%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

49 - 58 SAND; VERY LIGHT ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-05%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

58 - 60 SAND; YELLOWISH GRAY TO DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED, BEDDED, INTERBEDDED,
ACCESSORY MINERALS: CLAY-12%, PHOSPHATIC SAND-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;
CONTAINS REDDISH CLAY-RICH INTERBEDS.

60 - 63 NO SAMPLES

63 - 64 SAND; DARK YELLOWISH ORANGE TO LIGHT BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, MOTTLED,
ACCESSORY MINERALS: CLAY-18%, HEAVY MINERALS-02%, PHOSPHATIC SAND-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

64 - 68 CLAY; GREENISH GRAY TO DARK YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, BEDDED, MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-45%, HEAVY MINERALS-02%;
OTHER FEATURES: PLATY, GRANULAR, SUCROSIC;
FOSSILS: NO FOSSILS;

68 - 71 NO SAMPLES

71 - 73.5 CLAY; LIGHT BROWN; 86% POROSITY, POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: FISSILE, BEDDED, MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-45%, PHOSPHATIC SAND-03%;
OTHER FEATURES: PLATY, GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;

73.5- 75 CLAY; DARK YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-40%, HEAVY MINERALS-01%, PHOSPHATIC SAND-03%;
OTHER FEATURES: PLATY, UNWASHED SAMPLE, GRANULAR;
FOSSILS: NO FOSSILS;
POOR RECOVERY (18%) FOR INTERVAL FROM 75-102', THIS IS COMPLICATED BY THE LACK OF LEGIBLE LABLING.

75 - 96 NO SAMPLES

96 - 98 SAND; VERY LIGHT ORANGE TO DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-20%, CHERT-05%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

98 - 100 SAND; VERY LIGHT ORANGE TO DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, NODULAR,
ACCESSORY MINERALS: CLAY-25%, CHERT-10%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;
MICA AND CHERT PRESENT, CHERT PORTIONS EXTREMELY WELL INDURATED, THE PRESENCE OF CHERT MAY EXPLAIN THE POOR RECOVERY.

100 - 102 CALCARENITE; VERY LIGHT ORANGE;
GRAIN TYPE: INTRACLASTS, SKELETAL, BIOGENIC; 10% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
ACCESSORY MINERALS: QUARTZ SAND-15%;
OTHER FEATURES: CHALKY;
FOSSILS: BENTHIC FORAMINIFERA, ECHINOID, MILIOLIDS;
IDENTIFIED SEVERAL DICTYOCONUS COOKEI.

102 TOTAL DEPTH

W- 15936
W

PERMIT #	:	
OWNER	:	Albert Phillips
LOCATION	:	T1N R11E S18cc Blue Spring
COUNTY	:	Madison
ELEVATION	:	
DRILLER	:	Albert Phillips Geol. Rig
STARTED	:	
COMPLETED	:	
DEPTH	:	
CASING	:	
HEAD	:	
YIELD	:	
QUALITY	:	
USE	:	
REMARKS	:	3 boxes of cores

0-8
8-16
16-24

W15960

W-15960
W

PERMIT #	:
OWNER	: Buckeye Cellulose
LOCATION	: T. 2 S. ~~R. E.~~ R6E Sec. 3
COUNTY	: Madison
ELEVATION	: 75'
DRILLER	: FEDCO
STARTED	:
COMPLETED	: 10/86
DEPTH	: 97'
CASING	:
HEAD	:
YIELD	:
QUALITY	:
USE	: Ambient Groundwater Monitoring Network
REMARKS	:

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15960
TOTAL DEPTH: 00097 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.02S R.06E S.03
LAT = N 30D 20M 16
LON = W 83D 42M 28

COMPLETION DATE - 08/21/86
ELEVATION - 075 FT
OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER: BUCKEYE CELLULOSE (FEDCO)

WORKED BY: DESCRIBED BY CONNIE GARRETT 8/25/86

0. - 52. UNDIFFERENTIATED SAND AND CLAY
52. - 73. HAWTHORN GROUP
73. - 97. SUWANNEE LIMESTONE

0 - 3.5 SAND; GRAYISH BROWN TO GRAYISH ORANGE;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: BEDDED,
ACCESSORY MINERALS: HEAVY MINERALS-01%, PEAT-02%, PLANT REMAINS-01%, CLAY-03%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

3.5- 5.5 SAND; VERY LIGHT ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: HEAVY MINERALS-01%, CLAY-.5%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

5.5- 7.5 SAND; DARK YELLOWISH ORANGE TO DARK YELLOWISH BROWN;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED, STYLOLITIC,
ACCESSORY MINERALS: CLAY-05%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

7.5- 13 SAND; GRAYISH BROWN TO DARK YELLOWISH BROWN;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED, STYLOLITIC,
ACCESSORY MINERALS: CLAY-03%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

13 - 15 CLAY; OLIVE GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-40%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

15 - 20 SAND; LIGHT OLIVE GRAY TO OLIVE GRAY;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: HEAVY MINERALS-01%, CLAY-20%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

20 - 22 CLAY; GRAYISH BROWN TO OLIVE GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED, STYLOLITIC,
ACCESSORY MINERALS: QUARTZ SAND-35%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

22 - 31 SAND; GRAYISH BROWN;
GRAIN SIZE: COARSE; RANGE: FINE TO GRANULE;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-08%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

31 - 33 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-01%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

33 - 34 SAND; GRAYISH BROWN TO GRAYISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS: ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-30%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

34 - 43 CLAY; LIGHT OLIVE GRAY TO BROWNISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, BEDDED,
ACCESSORY MINERALS: QUARTZ SAND-40%;
OTHER FEATURES: PLATY;
FOSSILS: NO FOSSILS;
ZONE LAYER OF DARKER CLAY 6 INCHES THICK

43 - 43.5 SAND; VERY LIGHT ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS:ANGULAR; LOW SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-.5%, HEAVY MINERALS-.5%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

43.5- 44 SAND; LIGHT OLIVE GRAY;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-35%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

44 - 45 SAND; VERY LIGHT ORANGE TO GRAYISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-08%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

45 - 46 SAND; VERY LIGHT GRAY TO GRAYISH BROWN;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-30%;
OTHER FEATURES: COQUINA; } this doesn't make sense
FOSSILS: NO FOSSILS;

46 - 52 CLAY; LIGHT OLIVE GRAY TO OLIVE GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-30%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

52 - 54 SAND; GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-15%, HEAVY MINERALS-01%, PHOSPHATIC SAND-01%;
LEACHED PHOSPHATE

54 - 70 SAND; MODERATE LIGHT GRAY TO GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX, SILICIC CEMENT;
SEDIMENTARY STRUCTURES: BRECCIATED,
ACCESSORY MINERALS: CLAY-20%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;
INCOMPLETE RECOVERY, PORTIONS ARE MODERATELY WELL INDURATED AND FORM BRECCIA-LIKE LIGHT TO DARK GRAY LUMPS

70 - 72.5 SAND; LIGHT OLIVE GRAY TO PINKISH GRAY;
GRAIN SIZE: COARSE; RANGE: MEDIUM TO COARSE;
ROUNDNESS:ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: BIOTURBATED, MOTTLED,
ACCESSORY MINERALS: CLAY-15%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

72.5- 78 DOLO-SILT; VERY LIGHT ORANGE; POOR INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MOTTLED,
OTHER FEATURES: SUCROSIC;
FOSSILS: NO FOSSILS;

78 - 83 DOLOMITE; VERY LIGHT ORANGE TO GRAYISH ORANGE; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: QUARTZ SAND-04%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, ECHINOID, BENTHIC FORAMINIFERA, MILIOLIDS;

83 - 85 DOLO-SILT; VERY LIGHT ORANGE; POOR INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MOTTLED,
OTHER FEATURES: SUCROSIC;
FOSSILS: NO FOSSILS;

85 - 85.5 CHERT; MODERATE GRAY TO LIGHT GRAY; GOOD INDURATION;
CEMENT TYPE(S): SILICIC CEMENT;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: QUARTZ SAND-01%, CLAY-01%;
FOSSILS: NO FOSSILS;

85.5- 97 DOLOMITE; VERY LIGHT ORANGE TO GRAYISH ORANGE; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO VERY FINE; MODERATE INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: QUARTZ SAND-04%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, ECHINOID, BENTHIC FORAMINIFERA, MILIOLIDS;

97 TOTAL DEPTH

W15974

W-15974
W

PERMIT #	:
OWNER	:Buckeye Cellulose
LOCATION	:T. 2 S. R. 8 E. Sec. 2
COUNTY	:Madison
ELEVATION	:100'
DRILLER	:FEDCO
STARTED	:
COMPLETED	:10/86
DEPTH	:95'
CASING	:
HEAD	:
YIELD	:
QUALITY	:
USE	:Ambient Groundwater Monitoring Network
REMARKS	:

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15974
TOTAL DEPTH: 00095 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.02S R.08E S.02
LAT = N 30D 20M 49
LON = W 83D 29M 33

COMPLETION DATE - 09/ /86
OTHER TYPES OF LOGS AVAILABLE - NONE

ELEVATION - 103 FT

OWNER/DRILLER: BUCKEYE (FEDCO)

WORKED BY: DESCRIBED BY CONNIE GARRETT, 10/31/86. HTRN FM TESTS POSITIVE FOR PHOSPHATE BUT CONTAINS NO GRAIN SIZED PARTICALS.

0. - 17. UNDIFFERENTIATED SAND AND CLAY
17. - 82. HAWTHORN GROUP
82. - 95. SUWANNEE LIMESTONE

0 - 2 SAND; GRAYISH BROWN TO DARK YELLOWISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS:ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-02%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

2 - 3 SAND; VERY LIGHT ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

3 - 6 SAND; GRAYISH BROWN TO LIGHT BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-15%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

6 - 9.5 SAND; GRAYISH BROWN TO VERY LIGHT ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, INTERBEDDED, STREAKED,
ACCESSORY MINERALS: CLAY-08%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;
SEQUENCE 6-10 HAS VERY THIN IRREGULAR CLAY BEDS

9.5- 12.5 SAND; VERY LIGHT ORANGE TO LIGHT OLIVE GRAY;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: STREAKED, MASSIVE,
ACCESSORY MINERALS: CLAY-11%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;
INFREQUENT, THIN CLAY BEDS

12.5- 17 SAND; VERY LIGHT ORANGE TO DARK YELLOWISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, INTERBEDDED,
ACCESSORY MINERALS: CLAY-15%, HEAVY MINERALS-02%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;
FREQUENT MOTTLED CLAY BEDS INTERBEDDED WITH SANDY BEDS

17 - 18.5 CLAY; LIGHT OLIVE GRAY TO LIGHT BROWN; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: QUARTZ SAND-40%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY;
FOSSILS: NO FOSSILS;

18.5- 20 SAND; GRAYISH BROWN TO GRAYISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED, INTERBEDDED,
ACCESSORY MINERALS: CLAY-30%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

20 - 28 CLAY; YELLOWISH GRAY TO WHITE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CALCILUTITE-05%, QUARTZ SAND-40%;
OTHER FEATURES: PLATY, CHALKY;
FOSSILS: NO FOSSILS;
CONTINUOUS SEQUENCE OF CLAY CONTAINING BLEBS OF MICRITE AND FINE QUARTZ SAND

not calcilutite

28 - 30 CALCILUTITE; YELLOWISH GRAY TO WHITE;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO FINE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CLAY-35%, QUARTZ SAND-15%;
OTHER FEATURES: PLATY, CHALKY;
FOSSILS: NO FOSSILS;
not MICRITE INTERLAYERED WITH CLAY

30 - 35.5 CLAY; DARK YELLOWISH ORANGE TO WHITE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CALCILUTITE-05%, QUARTZ SAND-40%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY, CHALKY;
FOSSILS: NO FOSSILS;
CONTINUOUS SEQUENCE OF CLAY CONTAINING BLEBS OF MICRITE AND FINE QUARTZ SAND. THIS SEQUENCE OVERLIES A 2ND LAYER OF IRON OXIDE FORMING SILT AND GRAVEL SIZED PARTICLES.

35.5- 38 CLAY; DARK YELLOWISH ORANGE TO GRAYISH RED; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CALCITE-10%, QUARTZ SAND-15%, HEAVY MINERALS-07%;
OTHER FEATURES: CHALKY;
FOSSILS: ECHINOID, BENTHIC FORAMINIFERA, FOSSIL FRAGMENTS;
CLAY CONTAINS RECOGNIZABLE FOSSIL FRAGMENTS MANY OF WHICH ARE ECHINOID SPINES AND INTENSELY ABRADED FORAMS. IRON COMPOUNDS ABUNDANT, POSSIBLY CHAMOSITE

Also phosphatic

15 grains -

38 - 48 CALCARENITE; WHITE TO DARK YELLOWISH ORANGE;
GRAIN TYPE: SKELETAL, CALCILUTITE; 80% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: FINE; RANGE: MICROCRYSTALLINE TO MEDIUM; POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-15%, QUARTZ SAND-03%;
OTHER FEATURES: CHALKY;
FOSSILS: ECHINOID, BENTHIC FORAMINIFERA;

48 - 51 CLAY; YELLOWISH GRAY TO LIGHT OLIVE BROWN; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED, BIOTURBATED,
ACCESSORY MINERALS: QUARTZ SAND-30%, CALCILUTITE-01%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY;
FOSSILS: ECHINOID;

51 - 54 CALCILUTITE; WHITE TO DARK YELLOWISH ORANGE; poss. dolosilt + cly
GRAIN TYPE: CALCILUTITE, SKELETAL; 03% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO MICROCRYSTALLINE; POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX, CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-05%, CLAY-20%;
OTHER FEATURES: CHALKY, PLATY;
FOSSILS: NO FOSSILS;

54 - 82 CLAY; YELLOWISH GRAY TO DARK YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-30%, CALCILUTITE-04%;
OTHER FEATURES: PLATY, CHALKY;
FOSSILS: NO FOSSILS;
SEQUENCE NEARLY DEVOID OF SAND TO 63' THEN BECOMES SANDIER WITH ISOLATED LAYERS OF QUARTZITE. MICRITE BLEBS THROUGHOUT SOME PEAT AT 72'

82 - 82.7 DOLOMITE; GRAYISH ORANGE TO YELLOWISH GRAY; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: QUARTZ SAND-10%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, BENTHIC FORAMINIFERA;

82.7- 91 CLAY; YELLOWISH GRAY TO DARK YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: QUARTZ SAND-15%, CALCILUTITE-20%;
OTHER FEATURES: CHALKY;
FOSSILS: NO FOSSILS;

91 - 95 DOLOMITE; VERY LIGHT ORANGE TO GRAYISH YELLOW; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: MICROCRYSTALLINE; RANGE: MICROCRYSTALLINE TO VERY FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: QUARTZ SAND-10%, CHERT-15%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, BENTHIC FORAMINIFERA;

95 TOTAL DEPTH

W15980

W-
W ~~15980~~

PERMIT #	:
OWNER	:
LOCATION	:T 2 S., R 10 E., Sec 4
COUNTY	:Madison
ELEVATION	:
DRILLER	:FEDCO, Davis Drillers
STARTED	:
COMPLETED	:11/86
DEPTH	:52
CASING	:
HEAD	:
YIELD	:
QUALITY	:
USE	:Ambient Groundwater
REMARKS	:Monitoring Network

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15980
TOTAL DEPTH: 00052 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.02S R.10E S.04
LAT = N 30D 21M 35
LON = W 83D 19M 30

COMPLETION DATE - 11/ /86
OTHER TYPES OF LOGS AVAILABLE - NONE

ELEVATION - 90 FT

OWNER/DRILLER: (FEDCO) PERHAPS IN BUCKEYE OR SOME OTHER TREE COMPANY LAND

WORKED BY: DESCRIBED BY CONNIE GARRETT 12/03/86

0. - 22. UNDIFFERENTIATED SAND AND CLAY
22. - 33. HAWTHORN GROUP
33. - 52. SUWANNEE LIMESTONE

0 - 1 SAND; GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-03%, PEAT-02%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

1 - 4 SAND; VERY LIGHT ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-01%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

4 - 6 SAND; WHITE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: HEAVY MINERALS-.5%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

6 - 7 SAND; GRAYISH ORANGE TO GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-06%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

7 - 18 NO SAMPLES

18 - 19 SAND; GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-03%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

19 - 22 SAND; GRAYISH BROWN;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-12%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

22 - 25 CLAY; YELLOWISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-30%, HEAVY MINERALS-02%;
OTHER FEATURES: PLATY;
FOSSILS: NO FOSSILS;

25 - 25.5 SAND; DARK YELLOWISH ORANGE TO GRAYISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: LAMINATED, BEDDED,
ACCESSORY MINERALS: CLAY-06%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;
LIMESTONE BRECCIA AS CLASTS

25.5- 30 CLAY; YELLOWISH GRAY TO DARK YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: LAMINATED, BEDDED, MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-12%;
OTHER FEATURES: PLATY;
FOSSILS: NO FOSSILS;

30 - 33 CLAY; YELLOWISH GRAY TO DARK YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, LAMINATED, BEDDED,
ACCESSORY MINERALS: QUARTZ SAND-20%, HEAVY MINERALS-.5%;
OTHER FEATURES: PLATY;
FOSSILS: NO FOSSILS;

33 - 38 DOLO-SILT; VERY LIGHT ORANGE; POOR INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: DOLOMITE-30%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS, MOLLUSKS;
POWDERY FINE DOLOSILT WITH LARGE LUMPS OF CEMENTED DOLOMITE REPLACED PIECES OF CARBONATE

38 - 52 DOLOMITE; VERY LIGHT ORANGE; 50-90% ALTERED; EUHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS, MOLLUSKS;
6'' OF DOLOSTONE RECOVERED FROM 14 ' OF WELL

52 TOTAL DEPTH

W15981

W- 15981
W

PERMIT #	:
OWNER	:
LOCATION	: T 1 S., R 11 E., Sec 9
COUNTY	: Madison
ELEVATION	:
DRILLER	: FEDCO, Davis Drillers
STARTED	:
COMPLETED	: 11/86
DEPTH	: 62
CASING	:
HEAD	:
YIELD	:
QUALITY	:
USE	: Ambient Groundwater
REMARKS	: Monitoring Network

coded Sept 29

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15981
TOTAL DEPTH: 00062 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.01S R.11E S.29
LAT = N 30D 24M 48
LON = W 83D 13M 30

COMPLETION DATE - 11/ /86
ELEVATION - 75 FT
OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER: FEDCO DON'T KNOW WHO OWNS THE LAND

WORKED BY: DESCRIBED BY CONNIE GARRETT 12/04/86

0. - 12. UNDIFFERENTIATED SAND AND CLAY
12. - 23. NO SAMPLES
23. - 25. UNDIFFERENTIATED SAND AND CLAY
25. - 62. OCALA LIMESTONE UPPER MEMBER

0 - 2 SAND; VERY LIGHT ORANGE TO DARK YELLOWISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: HEAVY MINERALS-01%, CLAY-01%, PLANT REMAINS-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

2 - 4 SAND; VERY LIGHT ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: PLANT REMAINS-01%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

4 - 6 NO SAMPLES

6 - 8 SAND; VERY LIGHT ORANGE TO DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO GRANULE;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CLAY-06%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;
INTERBEDDED SANDY AND CLAYEY SAND BEDS

8 - 12 SAND; GRAYISH ORANGE TO DARK YELLOWISH ORANGE;
ACCESSORY MINERALS: CLAY-12%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

12 - 23 NO SAMPLES

23 - 24.5 SAND; GRAYISH BROWN;
GRAIN SIZE: GRANULE; RANGE: MEDIUM TO GRANULE;
ROUNDNESS: ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-03%, CALCITE-15%;
OTHER FEATURES: GRANULAR, CHALKY;
FOSSILS: FOSSIL FRAGMENTS, MOLLUSKS, BENTHIC FORAMINIFERA;

24.5- 25 CALCILUTITE; VERY LIGHT ORANGE TO WHITE;
GRAIN TYPE: SKELETAL, CALCILUTITE; 75% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO GRANULE; POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL FRAGMENTS, BRYOZOA, BENTHIC FORAMINIFERA, MOLLUSKS;
OPERCULINOIDES SP. LEPIDOCYCLINA SP.

25 - 30 NO SAMPLES

30 - 32 CALCARENITE; VERY LIGHT ORANGE;
GRAIN TYPE: SKELETAL, CALCILUTITE; 85% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO GRANULE; POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA;
MYOGYPSINA SP., LEPIDOCYCLINA SP., OPERCULINOIDES SP.

32 - 40 NO SAMPLES

40 - 42 CALCARENITE; VERY LIGHT ORANGE;
GRAIN TYPE: SKELETAL, CALCILUTITE; 80% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO GRANULE; POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA, BRYOZOA, SPICULES;

42 - 50 NO SAMPLES

50 - 52 CALCARENITE; VERY LIGHT ORANGE;
GRAIN TYPE: SKELETAL, CALCILUTITE; 80% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: COARSE; RANGE: COARSE TO GRANULE; POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA, BRYOZOA, MOLLUSKS;

52 - 60 NO SAMPLES

60 - 62 CALCARENITE; VERY LIGHT ORANGE;
GRAIN TYPE: SKELETAL, CALCILUTITE; 70% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: COARSE; RANGE: MEDIUM TO GRANULE; POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL FRAGMENTS, BENTHIC FORAMINIFERA, BRYOZOA, ECHINOID;
QUALITY OF PRESERVATION INCREASED DRAMATICALLY AT 60'-62' INTERVAL, BRYOZOA,
OPERCULINOIDES SP. AND LEPIDOCYCLINA SP. PREVALENT

62 TOTAL DEPTH

W15982

W- 15982
W

PERMIT #	:
OWNER	:
LOCATION	: T 1 S., R 10 E., Sec 30
COUNTY	: Madison
ELEVATION	:
DRILLER	: FEDCO, Davis Drillers
STARTED	:
COMPLETED	: 11/86
DEPTH	: 45
CASING	:
HEAD	:
YIELD	:
QUALITY	:
USE	: Ambient Groundwater
REMARKS	: Monitoring Network

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15982
TOTAL DEPTH: 00045 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.01S R.10E S.30
LAT = N 30D 22M 15
LON = W 83D 21M 45

COMPLETION DATE - 11/ /86
OTHER TYPES OF LOGS AVAILABLE - NONE

ELEVATION - 95 FT

OWNER/DRILLER: (FEDCO) POSSIBLY LOCATED ON PULPWOOD PROPERTY

WORKED BY: DESCRIBED BY CONNIE GARRETT 12/4/86

0. - 36. UNDIFFERENTIATED SAND AND CLAY
36. - 45. SUWANNEE LIMESTONE

0 - 2 SAND; GRAYISH BROWN TO OLIVE GRAY;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS: ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: PLANT REMAINS-02%, CLAY-03%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

2 - 4 SAND; DARK YELLOWISH ORANGE TO VERY LIGHT ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-09%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

4 - 10 NO SAMPLES

10 - 12 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS: ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, MOTTLED,
ACCESSORY MINERALS: CLAY-08%, HEAVY MINERALS-02%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

12 - 18 NO SAMPLES

18 - 20 CLAY; YELLOWISH GRAY TO DARK YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-25%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

20 - 30 NO SAMPLES

30 - 32 CLAY; DARK YELLOWISH ORANGE TO WHITE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-07%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

32 - 34 CLAY; DARK YELLOWISH ORANGE TO WHITE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED, INTERBEDDED,
ACCESSORY MINERALS: QUARTZ SAND-30%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY, GRANULAR;
FOSSILS: NO FOSSILS;
FINE SAND WITH WHITE CLAY MATRIX IS INTERBEDDED WITH DARK YELLOWISH ORANGE CLAY

34 - 36 NO SAMPLES

36 - 37 DOLOMITE; GRAYISH BROWN; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, BENTHIC FORAMINIFERA;

37 - 41 DOLO-SILT; GRAYISH BROWN TO GRAYISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, BENTHIC FORAMINIFERA;

41 - 44.5 DOLOMITE; GRAYISH BROWN TO GRAYISH ORANGE; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, BENTHIC FORAMINIFERA;

44.5- 44.7 CLAY; DARK YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: BRECCIATED,
ACCESSORY MINERALS: QUARTZ SAND-15%, DOLOMITE-10%;
OTHER FEATURES: PLATY, GRANULAR, SUCROSIC;
FOSSILS: FOSSIL MOLDS;
DOLOMITE BRECCIA IN A SAND/CLAY MATRIX

44.7- 45 DOLOMITE; GRAYISH BROWN TO GRAYISH ORANGE; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, BENTHIC FORAMINIFERA;

45 TOTAL DEPTH

W15983

W- 15983
W

PERMIT #	:
OWNER	:
LOCATION	:T 2 S., R 9 E., Sec 34
COUNTY	:Madison
ELEVATION	:
DRILLER	:FEDCO, Davis Drillers
STARTED	:
COMPLETED	:11/86
DEPTH	:62
CASING	:
HEAD	:
YIELD	:
QUALITY	:
USE	:Ambient Groundwater
REMARKS	:Monitoring Network

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15983
TOTAL DEPTH: 00062 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.02S R.09E S.34
LAT = N 30D 16M 02
LON = W 83D 24M 37

COMPLETION DATE - 11/ /86
ELEVATION - 99 FT
OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER: (FEDCO PULPWOOD COMPANY LAND?)

WORKED BY: DESCRIBED BY CONNIE GARRETT 12/4/86

0. - 32. UNDIFFERENTIATED SAND AND CLAY
32. - 62. SUWANNEE LIMESTONE

0 - 2 SAND; GRAYISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, MOTTLED,
ACCESSORY MINERALS: CLAY-03%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

2 - 6 NO SAMPLES

6 - 8 SAND; GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, STREAKED, MOTTLED,
ACCESSORY MINERALS: CLAY-30%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

8 - 16 NO SAMPLES

16 - 20 SAND; VERY LIGHT ORANGE TO GRAYISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-40%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

20 - 32 NO SAMPLES

32 - 34 CALCILUTITE; WHITE;
GRAIN TYPE: CALCILUTITE, SKELETAL; 15% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM; POOR INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, BIOTURBATED,
ACCESSORY MINERALS: QUARTZ SAND-01%, CLAY-05%;
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL FRAGMENTS;

34 - 41 NO SAMPLES

41 - 58 DOLOMITE; GRAYISH ORANGE; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, BENTHIC FORAMINIFERA, MOLLUSKS;
SAMPLE COMPLETELY DOLOMITIZED, HIGH DEVELOPMENT OF MOLDS THE MOLDS APPEAR TO BE OF MOLLUSKS, FORAMS (BENTHIC AND POSSIBLY PLANKTIC) SOME APPEAR TO BE DICTYOCONUS SP.

58 - 62 DOLOMITE; GRAYISH ORANGE; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, BENTHIC FORAMINIFERA;

62 TOTAL DEPTH

W15984

W- 15984
W

PERMIT #	: Lee School
OWNER	: Madison School Board
LOCATION	: T 1 S., R ~~11~~ 10E E., Sec 11
COUNTY	: Madison
ELEVATION	:
DRILLER	: FEDCO, Davis Drillers
STARTED	:
COMPLETED	: 12/86
DEPTH	: 57
CASING	:
HEAD	:
YIELD	:
QUALITY	:
USE	: Ambient Groundwater
REMARKS	: Monitoring Network

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15984
TOTAL DEPTH: 00057 FT.
SAMPLES - NONE

COMPLETION DATE - 12/ /86
OTHER TYPES OF LOGS AVAILABLE - NONE

COUNTY - MADISON
LOCATION: T.01S R.~~1~~ 10E S.11
LAT = ~~N 30D 24M 47~~
LON = W ~~83D 17M 28~~
ELEVATION - 80 FT

OWNER/DRILLER: FEDCO

WORKED BY: DESCRIBED BY CONNIE GARRETT 12/31/86
THIS CORE REPRESENTS FLOODPLAIN DEPOSITS — for what river?

0. - 57. UNDIFFERENTIATED SAND AND CLAY

0 - 12 SAND; BROWNISH GRAY TO LIGHT BROWNISH GRAY;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED,
ACCESSORY MINERALS: CLAY-40%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

12 - 58 BOX CONTAINS ANOTHER 3" OF CRUMBLY BROWNISH GRAY CLAY

58 TOTAL DEPTH

W15986

W- 15986
W

PERMIT #	:
OWNER	:
LOCATION	: T 1 N., R 8 E., Sec 34
COUNTY	: Madison
ELEVATION	:
DRILLER	: FEDCO, Davis Drillers
STARTED	:
COMPLETED	: 12/86
DEPTH	: 101
CASING	:
HEAD	:
YIELD	:
QUALITY	:
USE	: Ambient Groundwater
REMARKS	: Monitoring Network

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15986
TOTAL DEPTH: 00101 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.01N R.08E S.34
LAT = N 30D 26M 37
LON = W 83D 30M 31

COMPLETION DATE - 12/ /86
ELEVATION - 125 FT
OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER: (FEDCO)

WORKED BY: DESCRIBED BY CONNIE GARRETT 12/31/86

2. - 32. MICCOSUKEE FM.
32. - 98. HAWTHORN GROUP
98. - 101. SUWANNEE LIMESTONE

0 - 4 SAND; LIGHT BROWN TO MODERATE BROWN;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-15%, PLANT REMAINS-02%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

4 - 20 NO SAMPLES

20 - 22 SAND; LIGHT BROWN TO DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-10%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

22 - 32 NO SAMPLES

32 - 34 SAND; VERY LIGHT ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-03%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

34 - 40 NO SAMPLES

40 - 42 SAND; VERY LIGHT ORANGE TO LIGHT YELLOWISH ORANGE;
GRAIN SIZE: COARSE; RANGE: MEDIUM TO COARSE;
ROUNDNESS: ANGULAR TO ROUNDED; MEDIUM SPHERICITY; MODERATE INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-15%, HEAVY MINERALS-02%;
OTHER FEATURES: GRANULAR, UNWASHED SAMPLE;
FOSSILS: NO FOSSILS;

42 - 50 NO SAMPLES

50 - 52 CLAY; DARK YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED, INTERBEDDED,
ACCESSORY MINERALS: QUARTZ SAND-35%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

52 - 67 NO SAMPLES

67 - 69 SAND; YELLOWISH GRAY TO DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-10%, HEAVY MINERALS-01%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

69 - 72 NO SAMPLES

72 - 74 CLAY; DARK YELLOWISH ORANGE TO MODERATE YELLOWISH BROWN; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-05%, CALCILUTITE-06%;
OTHER FEATURES: PLATY, PLASTIC, CHALKY;
FOSSILS: NO FOSSILS;

74 - 80 NO SAMPLES

80 - 81 CLAY; DARK YELLOWISH ORANGE TO YELLOWISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-15%, CALCILUTITE-02%;
OTHER FEATURES: PLATY, PLASTIC;
FOSSILS: NO FOSSILS;

81 - 82 SAND; YELLOWISH GRAY;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-05%;
OTHER FEATURES: GRANULAR, PLATY;
FOSSILS: NO FOSSILS;

82 - 98 NO SAMPLES

98 - 101 CALCILUTITE; VERY LIGHT ORANGE;
GRAIN TYPE: INTRACLASTS, PELLET CAST, SKELETAL CAST; 90% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-05%;
OTHER FEATURES: SUCROSIC;
FOSSILS: NO FOSSILS;

101 TOTAL DEPTH

W15987

W-W 15987

PERMIT #	:
OWNER	:Greenville Tower
LOCATION	:T 1 N., R. 7 E., Sec 04
COUNTY	:Madison
ELEVATION	:
DRILLER	:FEDCO Davis Drilling
STARTED	:
COMPLETED	:12/86
DEPTH	:222
CASING	:
HEAD	:
YIELD	:
QUALITY	:
USE	:Ambient Groundwater
REMARKS	:Monitoring Network

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15987
TOTAL DEPTH: 002 FT.
60 SAMPLES FROM 0 TO 0 FT.

COMPLETION DATE - N/A
OTHER TYPES OF LOGS AVAILABLE - NONE

COUNTY - MADISON
LOCATION: T.01N R.07E S.04
LAT = N 30D 40M 00
LON = W 83D 37M 45
ELEVATION - 221 FT

no elev. that high in sec 180+-

OWNER/DRILLER: GREENVILLE TOWER (FEDCO)

WORKED BY: DESCRIBED BY CONNIE GARRETT 1/05/87
THIS CORE WAS PROBABLY TAKEN FROM A SINKHOLE FOR THIS REASON, NO INFORMATION CONCERNING FORMATIONS IS GIVEN

. - .

0 - 8 NO SAMPLES

8 - 10 CLAY; LIGHT GRAYISH RED TO LIGHT BROWN; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-25%;
OTHER FEATURES: PLASTIC;
FOSSILS: NO FOSSILS;

10 - 14 SAND; VERY LIGHT ORANGE TO DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-20%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;

14 - 18 SAND; MODERATE REDDISH BROWN TO LIGHT BROWN;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-45%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
INTERLAYERED CLAY AND CLAYEY SAND BEDS

18 - 25 SAND; LIGHT REDDISH BROWN TO DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-35%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
INTERLAYERED AS ABOVE

25 - 40 SAND; MODERATE REDDISH BROWN TO LIGHT BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-30%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;

40 - 41 SAND; LIGHT REDDISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-25%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;

41 - 48 SAND; LIGHT BROWN TO DARK YELLOWISH ORANGE;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STYLOLITIC,
ACCESSORY MINERALS: CLAY-25%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;

48 - 65 SAND; DARK GRAYISH YELLOW;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED, INTERBEDDED,
ACCESSORY MINERALS: CLAY-30%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
CONTAINS CHUNKS OF SANDSTONE IN AN OTHERWISE POORLY INDURATED SEDIMENTARY SEQUENCE

65 - 68 SAND; YELLOWISH GRAY TO MODERATE YELLOW;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STYLOLITIC, STREAKED,
ACCESSORY MINERALS: CLAY-35%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
CHUNKS OF SANDSTONE AS ABOVE

68 - 70.5 CLAY; LIGHT OLIVE TO YELLOWISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, INTERBEDDED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-45%;
OTHER FEATURES: PLASTIC, PLATY;
FOSSILS: NO FOSSILS;
INTERLAYERED SAND AND CLAY

70.5- 75 CLAY; LIGHT OLIVE TO LIGHT BROWN; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, INTERBEDDED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-45%;
OTHER FEATURES: PLASTIC, PLATY;
FOSSILS: NO FOSSILS;
INTERLAYERED SAND AND CLAY

75 - 88 NO SAMPLES

88 - 98 SAND; LIGHT BROWN TO VERY LIGHT ORANGE;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-15%;
OTHER FEATURES: PLASTIC, GRANULAR;
FOSSILS: NO FOSSILS;
SAMPLE EXTREMELY WET, POSSIBLY MIXED WITH WATER DURING DRILLING PROCESS-SEVERAL INTACT LAYERS OF GRAYISH GREEN CLAY WITH LARGE OVOIDS OF LEACHED PHOSPHATE

98 - 121 NO SAMPLES

121 - 132 SAND; LIGHT YELLOWISH ORANGE TO VERY LIGHT ORANGE;
GRAIN SIZE: COARSE; RANGE: MEDIUM TO COARSE;
ROUNDNESS: ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, STREAKED,
ACCESSORY MINERALS: CLAY-15%, PHOSPHATIC SAND-08%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;
LEACHED PHOSPHATE OVOIDS IN A PALE YELLOWISH ORANGE MATRIX WITH ROUNDED SAND GRAINS

132 - 138 SAND; LIGHT YELLOWISH ORANGE TO VERY LIGHT ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO COARSE;
ROUNDNESS:ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-16%, PHOSPHATIC SAND-03%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;
SEQUENCE BETWEEN 129' AND 133' CONTAINS SEVERAL INTERVALS OF CHARCOAL

138 - 140.5 SAND; LIGHT YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, STREAKED, MOTTLED,
ACCESSORY MINERALS: CLAY-15%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

140.5- 142 SAND; YELLOWISH GRAY;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: STREAKED, MOTTLED,
ACCESSORY MINERALS: CLAY-08%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

142 - 146 SAND; LIGHT YELLOWISH ORANGE TO YELLOWISH GRAY;
GRAIN SIZE: FINE; RANGE: FINE TO FINE;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: STREAKED, MOTTLED, INTERBEDDED,
ACCESSORY MINERALS: CLAY-15%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
INTERBEDDED GRAY AND PALE ORANGE CLAYEY SAND

146 - 153 SAND; LIGHT YELLOWISH ORANGE TO LIGHT BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: STREAKED, MOTTLED,
ACCESSORY MINERALS: CLAY-30%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
GRAY CLAYEY SAND MOTTLED WITH LIGHT BROWN AND PALE GREENISH YELLOW CLAYEY SAND

153 - 162 NO SAMPLES

162 - 164.5 SAND; LIGHT YELLOWISH ORANGE TO LIGHT BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: STREAKED, MOTTLED,
ACCESSORY MINERALS: CLAY-30%, PHOSPHATIC SAND-02%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
MOTTLED AS ABOVE

164.5- 172 NO SAMPLES

172 - 184 SAND; LIGHT YELLOWISH ORANGE TO LIGHT BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: STREAKED, MOTTLED,
ACCESSORY MINERALS: CLAY-30%, PHOSPHATIC SAND-02%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
MOTTLED AS ABOVE

184 - 195.5 SAND; LIGHT YELLOWISH ORANGE TO LIGHT BROWN;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: STREAKED, MOTTLED,
ACCESSORY MINERALS: CLAY-30%, PHOSPHATIC SAND-01%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
MOTTLED AS ABOVE, BUT LIGHT BROWN SWATCHES ARE MUCH LESS FREQUENT

195.5- 204.5 SAND; YELLOWISH GRAY TO GRAYISH YELLOW;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-25%, PHOSPHATIC SAND-02%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
GRAY CLAYEY SAND MOTTLED WITH MODERATE YELLOW AND PALE GREENISH YELLOW SAND. CLAY MOTTLED WITH IT

204.5- 212 SAND; YELLOWISH GRAY TO GRAYISH BROWN;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-15%, PHOSPHATIC SAND-02%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
PEAT-COLORED CLAY FORMS LARGE MOTTLED AREAS THROUGH THIS INTERVAL

212 - 222 SAND; YELLOWISH GRAY TO GRAYISH YELLOW;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-25%, PHOSPHATIC SAND-02%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;

222 TOTAL DEPTH

W15991

W-15991
W

PERMIT #	:
OWNER	: Madison Co. Landfill
LOCATION	: T 1 N., R 9 E., Sec 11
COUNTY	: Madison
ELEVATION	:
DRILLER	: FEDCO, Davis Drillers
STARTED	:
COMPLETED	: 1/87
DEPTH	:
CASING	:
HEAD	:
YIELD	:
QUALITY	:
USE	: Ambient Groundwater Monitoring Network
REMARKS	:

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 15991
TOTAL DEPTH: 00125 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.01N R.09E S.11
LAT = N 30D 30M 06
LON = W 83D 23M 39

COMPLETION DATE - 1 / /70
ELEVATION - 120 FT
OTHER TYPES OF LOGS AVAILABLE - NONE

OWNER/DRILLER: MADISON PROP. (FEDCO)

WORKED BY: DESCRIBED BY CONNIE GARRETT 1/21/87

0. - 2. UNDIFFERENTIATED SAND AND CLAY
2. - 80. HAWTHORN GROUP
80. - 125. SUWANNEE LIMESTONE

0 - 2 SAND; PINKISH GRAY TO DARK YELLOWISH BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED,
ACCESSORY MINERALS: CLAY-07%;
OTHER FEATURES: GRANULAR;
FOSSILS: NO FOSSILS;

2 - 9 NO SAMPLES

9 - 13 SAND; DARK YELLOWISH ORANGE TO LIGHT OLIVE GRAY;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-17%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;

13 - 16 SAND; MODERATE BROWN TO LIGHT OLIVE GRAY;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED, STREAKED,
ACCESSORY MINERALS: CLAY-25%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
CHUNKS OF THIS SEQUENCE ARE MUCH MORE WELL INDURATED THAN OTHERS; THE MATRIX OR CEMENT APPEARS TO BE CLAY OR IRON, CLAY CONTENT INCREASES DOWN SECTION

16 - 18.5 CLAY; YELLOWISH GRAY TO LIGHT BROWNISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED,
ACCESSORY MINERALS: QUARTZ SAND-15%;
OTHER FEATURES: PLASTIC;
FOSSILS: NO FOSSILS;

18.5- 39 SAND; ;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, INTERBEDDED, MOTTLED,
ACCESSORY MINERALS: CLAY-25%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
PALE YELLOWISH BROWN CLAYEY SAND; MASSIVE OR INTERBEDDED WITH FINE LAMINAE OF YELLOWISH GRAY CLAY

39 - 42 SAND; YELLOWISH GRAY;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-06%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;

42 - 50 NO SAMPLES

50 - 54 SAND; YELLOWISH GRAY;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-26%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;

54 - 57 SAND; LIGHT OLIVE TO YELLOWISH GRAY;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: STREAKED, MOTTLED,
ACCESSORY MINERALS: CLAY-35%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
OLIVE FLECKS AND STREAKS OF CLAY IN YELLOWISH GRAY CLAYEY SAND

57 - 70 SAND; YELLOWISH GRAY TO LIGHT OLIVE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MOTTLED,
ACCESSORY MINERALS: CLAY-35%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLASTIC;
FOSSILS: NO FOSSILS;
SAMPLES ALL WET AND PLASTIC. CLAY CONTENT VARIES FROM 14% TO 40%, CONTAINS CLASTS OF WELL CEMENTED SAND, SILICA CEMENT

70 - 79.5 CLAY; LIGHT OLIVE TO YELLOWISH GRAY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-40%, HEAVY MINERALS-01%;
OTHER FEATURES: PLASTIC;
FOSSILS: NO FOSSILS;
CONTAINS LUMPS OF CHERT THAT APPEAR TO HAVE REPLACED CALCAREOUS MATERIAL (MOLDS OF FORAMS?)

79.5- 81.5 CLAY; VERY LIGHT ORANGE TO LIGHT OLIVE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, STREAKED,
ACCESSORY MINERALS: QUARTZ SAND-25%, HEAVY MINERALS-01%;
OTHER FEATURES: PLASTIC;
FOSSILS: FOSSIL MOLDS;
GRAY CLAY AND CARBONATE RESIDIUUM

81.5- 85 CLAY; GRAYISH BROWN TO VERY LIGHT ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, STREAKED, BRECCIATED,
ACCESSORY MINERALS: QUARTZ SAND-35%, HEAVY MINERALS-01%;
OTHER FEATURES: PLASTIC;
FOSSILS: FOSSIL FRAGMENTS;
CARBONATE RESIDIUM CONTAINS BRECCIA WHICH MAY BE A RELIC RUBBLE ZONE DEVELOPED ON THE ERODED SURFACE OF THE UNDERLY- ING CARBONATES, BRECCIA IS WELL CEMENTED

85 - 93 CLAY; DARK YELLOWISH ORANGE TO GRAYISH OLIVE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: INTERBEDDED, MOTTLED, STREAKED, BRECCIATED,
ACCESSORY MINERALS: QUARTZ SAND-25%, HEAVY MINERALS-01%;
OTHER FEATURES: PLASTIC;
FOSSILS: FOSSIL FRAGMENTS, FOSSIL MOLDS;
SAME COMMENTS AS ABOVE,EXCEPT THE CLAYS ARE DARK YELLOWISH ORANGE AND PALE OLIVE AND MAY BE LAMINATED. A GREATER PROTION OF THE SEQUENCE IS BRECCIA, CEMENT FOR THE BRECCIATED CLASTS MAY BE CALCITE, HEMATITE OR SILICA, SOME DICTYOCONUS CASTS ARE PRESERVED IN THE CHERT.

93 - 103 SAND; GRAYISH BROWN TO VERY LIGHT ORANGE;
GRAIN SIZE: COARSE; RANGE: MEDIUM TO COARSE;
ROUNDNESS:ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX, CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: BRECCIATED,
ACCESSORY MINERALS: CALCILUTITE-25%, CLAY-05%, HEAVY MINERALS-01%;
OTHER FEATURES: GRANULAR, PLASTIC, CHALKY;
FOSSILS: FOSSIL FRAGMENTS;

103 - 108.5 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN;
GRAIN TYPE: INTRACLASTS, CALCILUTITE;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-03%;
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, MILIOLIDS, ECHINOID;
VOID POROSITY DEVELOPED FROM GASTROPOD MOLDS

108.5- 110.5 DOLOMITE; OLIVE GRAY TO YELLOWISH GRAY; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-02%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, MILIOLIDS, ECHINOID;

110.5- 111.5 LIMESTONE; VERY LIGHT ORANGE TO GRAYISH BROWN;
GRAIN TYPE: INTRACLASTS, CALCILUTITE;
GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-02%;
OTHER FEATURES: CHALKY;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, MILIOLIDS, ECHINOID;

111.5- 116 DOLOMITE; OLIVE GRAY TO YELLOWISH GRAY; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-02%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS;

116 - 118.5 DOLOMITE; GRAYISH BROWN TO GRAYISH BROWN; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-02%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, MILIOLIDS, ECHINOID;

118.5- 119 DOLOMITE; OLIVE GRAY TO YELLOWISH GRAY; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: FINE; RANGE: FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-02%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, MILIOLIDS, ECHINOID;

119 - 120 ORTHOQUARTZITE; GRAYISH BROWN TO GRAYISH BROWN; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-02%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, MILIOLIDS, ECHINOID;

120 - 125 DOLOMITE; OLIVE GRAY TO YELLOWISH GRAY; 90-100% ALTERED; EUHEDRAL;
GRAIN SIZE: FINE; RANGE: FINE TO FINE; GOOD INDURATION;
CEMENT TYPE(S): DOLOMITE CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-02%;
OTHER FEATURES: SUCROSIC;
FOSSILS: FOSSIL MOLDS, MOLLUSKS, MILIOLIDS, ECHINOID;

125 TOTAL DEPTH

W-
W 16021

PERMIT #	:	
OWNER	:	
LOCATION	:	T3 R8 S28
COUNTY	:	Madison
ELEVATION	:	
DRILLER	:	
STARTED	:	
COMPLETED	:	
DEPTH	:	
CASING	:	
HEAD	:	
YIELD	:	
QUALITY	:	
USE	:	
REMARKS	:	8 boxes of cores

LITHOLOGIC WELL LOG PRINTOUT

SOURCE - FGS

WELL NUMBER: W- 16021
TOTAL DEPTH: 00121 FT.
SAMPLES - NONE

COUNTY - MADISON
LOCATION: T.03N R.08E S.28
LAT = N 30D 37M 46
LON = W 83D 40M 45

COMPLETION DATE - 01/09/87
OTHER TYPES OF LOGS AVAILABLE - SONIC

ELEVATION - 155 FT

OWNER/DRILLER: POOLE HUDSON SITE 48

WORKED BY: DESCRIBED BY SHELTON GRAVES

00. - 29. MICCOSUKEE FM.
29. - 90. HAWTHORN GROUP
90. - 132. SUWANNEE LIMESTONE

0 - 4 SAND; MODERATE REDDISH BROWN TO DARK YELLOWISH ORANGE;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): IRON CEMENT;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: HEMATITE-15%, CLAY-05%, HEAVY MINERALS-05%;
OTHER FEATURES: PLASTIC;
FOSSILS: NO FOSSILS;

4 - 17 NO SAMPLES

17 - 29 SAND; LIGHT BROWN;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, MOTTLED,
ACCESSORY MINERALS: CLAY-10%;
OTHER FEATURES: PLASTIC;
FOSSILS: NO FOSSILS;
POSITIVE TEST FOR PHOSPHATE

29 - 34 SAND; DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: COARSE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-10%, PHOSPHATIC SAND-05%;
OTHER FEATURES: PLASTIC;
FOSSILS: NO FOSSILS;
CONCENTRATION OF CLAY AT 32.2 ', SMALLER CONCENTRATIONS OF CLAY SCATTERED THROUGHOUT

34 - 36.5 CLAY; DARK YELLOWISH ORANGE; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-35%, PHOSPHATIC SAND-05%, MANGANESE OXIDE-01%;
OTHER FEATURES: PLASTIC;
FOSSILS: NO FOSSILS;

36.5- 40 SAND; DARK YELLOWISH ORANGE TO LIGHT YELLOWISH ORANGE;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-15%, MANGANESE OXIDE-05%;
OTHER FEATURES: PLASTIC;
FOSSILS: NO FOSSILS;
STREAKS OF MANGANESE OXIDE AND MANGANESE OXIDE COATED PEBBLES SCATTERED BETWEEN 38' AND 40 '. 1/2 " LENSE OF CLAY BETWEEN 39.5' AND 40'.

40 - 43 SAND; LIGHT OLIVE;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-25%, HEAVY MINERALS-01%;
OTHER FEATURES: PLASTIC;
FOSSILS: NO FOSSILS;
CONCENTRATIONS OF CLAY SCATTERED THROUGHOUT

43 - 53.5 SAND; LIGHT OLIVE;
GRAIN SIZE: MEDIUM; RANGE: FINE TO MEDIUM;
ROUNDNESS: SUB-ANGULAR TO ROUNDED; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-35%, HEAVY MINERALS-01%;
OTHER FEATURES: PLASTIC;
FOSSILS: NO FOSSILS;
POSITIVE TEST FOR PHOSPHATE.

53.5- 57.5 CLAY; LIGHT YELLOWISH ORANGE TO LIGHT GREENISH YELLOW; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-40%, PHOSPHATIC SAND-01%;
OTHER FEATURES: PLASTIC;
FOSSILS: NO FOSSILS;

57.5- 59 SAND; YELLOWISH GRAY TO DARK YELLOWISH ORANGE;
GRAIN SIZE: MEDIUM; RANGE: MEDIUM TO FINE;
ROUNDNESS: ROUNDED TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CLAY-40%, MANGANESE OXIDE-02%;
OTHER FEATURES: PLASTIC;
FOSSILS: NO FOSSILS;
PEBBLES OF WELL LITHIFIED SANS PEBBLES OF WELL LITHIFIED SANDSTONE WITH ENCRUSTATIONS OF MANGANESE OXIDE SCATTERED THROUGHOUT.

59 - 80 SAND; YELLOWISH GRAY TO LIGHT GREENISH YELLOW;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; POOR INDURATION;
CEMENT TYPE(S): CLAY MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE, LAMINATED,
ACCESSORY MINERALS: CLAY-10%, HEAVY MINERALS-02%;
OTHER FEATURES: PLASTIC;
FOSSILS: NO FOSSILS;
LAMINAE CONTAINING HIGH CONCENTRATIONS OF MANGANESE OXIDE SCATTERED THROUGHOUT.

80 - 90 NO SAMPLES

90 - 100 LIMESTONE; WHITE;
GRAIN TYPE: BIOGENIC, CALCILUTITE; 60% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: MEDIUM; RANGE: FINE TO COARSE; GOOD INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: CALCILUTITE-30%, QUARTZ SAND-05%;
OTHER FEATURES: CALCAREOUS;
FOSSILS: PLANKTONIC FORAMINIFERA, MOLLUSKS, FOSSIL MOLDS;
POOR RECOVERY.

100 - 102 SAND; YELLOWISH GRAY TO LIGHT GREENISH YELLOW;
GRAIN SIZE: FINE; RANGE: FINE TO MEDIUM;
ROUNDNESS: ANGULAR TO SUB-ANGULAR; MEDIUM SPHERICITY; UNCONSOLIDATED;
SEDIMENTARY STRUCTURES: MASSIVE, LAMINATED,
ACCESSORY MINERALS: CLAY-01%, HEAVY MINERALS-02%;
OTHER FEATURES: PLASTIC;
FOSSILS: NO FOSSILS;
MAYBE A CAVITY FILLING.

102 - 123 LIMESTONE; WHITE;
GRAIN TYPE: CALCILUTITE, BIOGENIC; 35% ALLOCHEMICAL CONSTITUENTS;
GRAIN SIZE: VERY FINE; RANGE: VERY FINE TO MEDIUM; MODERATE INDURATION;
CEMENT TYPE(S): CALCILUTITE MATRIX;
SEDIMENTARY STRUCTURES: MASSIVE,
ACCESSORY MINERALS: QUARTZ SAND-05%, HEAVY MINERALS-03%;
OTHER FEATURES: CALCAREOUS;
FOSSILS: FOSSIL MOLDS, PLANKTONIC FORAMINIFERA;
POOR RECOVERY.

123 TOTAL DEPTH

W-16753
W

PERMIT #	:
OWNER	: JIFFY FOOD STORE LEE FLA
LOCATION	: SEC.11aa TWP.1s RGE.10E
COUNTY	: MADISON
ELEVATION	: 91.5
DRILLER	: DER
STARTED	: 1/14/92
COMPLETED	: 1/29/92
DEPTH	: 8-80
CASING	: 3 BOXES OF CORES
HEAD	:
YIELD	:
QUALITY	:
USE	:
REMARKS	: REC.5/28/92

Wgi-412
(Driller's log)
Rec'd. May 18, 1936

OWNER	: Madison Light & Power Co., Madison,Fla.
LOCATION	: AT Madison
COUNTY	: Madison
ELEVATION	: 133'
STARTED	: October 5, 1925
COMPLETED	: January 29, 1926
CASING	: 10"
DEPTH	: 315'
DRILLER	: Gray Artesian Well Company, Pensacola, Florida
YIELD	: 714 GPM
REMARKS	: See well data sheet

0-6	Sand
6-35	Sandy clay
35-60	White mud
60-100	White limestone
100-120	Chalky lime rock
120-125	Chalky clay
125-153	Chalky limestone
153-192	Lime rock
192-207	Hard brown rock
207-228	Lime rock
228-233	Brown lime rock
233-245	Lime rock
245-265	Brown rock
265-315	Gray lime
315	Total Depth

Wgi-880
Water analysis

OWNER	: Greenville, Fla.
LOCATION	: Greenville
COUNTY	: Madison
ELEVATION	:
DRILLER	:
STARTED	:
COMPLETED	:
DEPTH	: 210'
CASING	:
HEAD	:
YIELD	:
USE	:
QUALITY	:
REMARKS	: No samples received from driller

WATER ANALYSIS

Date Collected 9 - 17 - 58
Date Analyzed 9 - 19 - 58

		PPM
Total Dissolved Solids 103°C		222
Total Hardness (versenate)		228
Alkalinity, as $CaCO_3$		184
Non-Carbonate Hardness		44
Bicarbonate, HCO_3		224
Iron, Fe Plant eff. - 1.90	Dist	0.61
Sulfate, SO_4		21
Chloride, Cl		10
Calcium, Ca		64
Magnesium, Mg		16
Fluoride, F.		0.0
Stability Index (2 pHs - pH)		7.0
Non-Corrosive		Possibly
Appearance		Brownish
Color		10
Odor		None
Carbon Dioxide, as CO_2		6
Bicarbonate, as $CaCO_3$		184
Carbonate, as $CaCO_3$		0
Hydroxide, as $CaCO_3$		0
Temperature at Collection, °F		Unknown
pH (Field)		Unknown
pH (Laboratory)		7.8
pHs		7.4

Wgi-880
Water Analysis

OWNER	: Greenville, Fla.
LOCATION	: Greenville
COUNTY	: Madison
ELEVATION	:
DRILLER	:
STARTED	:
COMPLETED	:
DEPTH	: 210'
CASING	:
HEAD	:
YIELD	:
USE	:
QUALITY	:
REMARKS	: No samples received from driller

WATER ANALYSIS

Date Collected 10-7-58
Date Analyzed 10-17-58

	PPM
Total Dissolved Solids 103°C	217
Total Hardness (versenate)	198
Alkalinity, as $CaCO_3$	196
Non-Carbonate Hardness	2
Bicarbonate, HCO_3	239
Iron, Fe	1.1
Sulfate, SO_4	8
Chloride, Cl	9
Calcium, Ca	61
Magnesium, Mg	10
Fluoride, F.	0.15
Stability Index (2 pHs - pH)	7.7
Corrosive	Probably
Color	20
Odor	None
Carbon Dioxide, as CO_2	30
Bicarbonate, as $CaCO_2$	196
Carbonate, as $CaCO_2$	0
Hydroxide, as $CaCO_2$	0
Temperature at Collection, °F	70°
pH (Field)	7.1
pH (Laboratory)	7.2
pHs	7.4
Phosphate, P_2O_5	

AS-104
(Driller's Log)
January 17, 1952

OWNER	:	Florida Geological Survey
LOCATION	:	NW$\frac{1}{4}$ SE$\frac{1}{4}$ Sec. 12, T1S, R10E, about 1 mile E. of Lee on south side of US 90, opposite tenant house
COUNTY	:	Madison
ELEVATION	:	
STARTED	:	September 1951
COMPLETED	:	Same
DEPTH	:	85'
DRILLER	:	George Hadd, F. G. S.
HEAD	:	
REMARKS	:	15 samples brought in by G. Hadd, November, 1951

0 - 4	Brown to purple sandy clay
4 - 9	Purple w/brown sandy clay
9 - 14	Same
14 - 19	Brown to cream, sandy clay
19 - 24	Dark purple clay
24 - 29	Black to cream clay
29 - 34	Black clay
34 - 39	Same
29 - 44	Same
44 - 49	Black, blue, gray clay
49 - 54	Same
54 - 59	Same
59 - 64	Rock
64 - 69	Rock and cavity
69 - 74	)
74 - 79	)
79 - 84	) SAME
84 - 85	)
85	Hard rock - drill won't cut

AS-104
(George Hadd)
January 18, 1952

OWNER	:	Florida Geological Survey
LOCATION	:	NW$\frac{1}{4}$ SE$\frac{1}{4}$ Sec. 12, T1S, R10E, about 1 mile E. of Lee on south side of US 90, opposite tenant house.
COUNTY	:	Madison
ELEVATION	:	
STARTED	:	September, 1951
COMPLETED	:	Same
DEPTH	:	85'
DRILLER	:	George Hadd, F. G. S.
HEAD	:	
REMARKS	:	15 samples brought in by G. Hadd, November, 1951

0 - 4	Fine to medium, sub-rounded to sub-angular, clear to frosted quartz sand in matrix of light purplish-brown clay. Rare, small, rounded, black phosphate grains.
4 - 9	Fine to medium w/ higher percent of medium than above, sub-rounded to sub-angular, clear to frosted quartz sand in matrix of light purple clay.
9 - 14	Same
14 - 19	Same w/ higher per cent of fine quartz sand.
19 - 24	Same in dark purple clay matrix.
24 - 29	Same in dark purple black clay matrix
29 - 34, 34-39, 39-44, 44-49	Same
59 - 64	Fine to medium, sub-rounded to sub-angular, clear to frosted quartz sand in a matrix of black clay. Cream, porous, soft, fragmental limestone, common phosphate grains, pyrite and mica.
64-69, 69-74, 74-79, 79-85	Same w/ higher per cent of sand in brown clay matrix.

AS-108
(Driller's Log)
January 17, 1952

OWNER	:	Florida Geological Survey
LOCATION	:	SW$\frac{1}{4}$ NW$\frac{1}{4}$ Sec. 18, T1N, R8E on crest of hill approximately 3.5 miles west of Madison opposite house.
COUNTY	:	Madison
ELEVATION	:	
STARTED	:	10-18-51
COMPLETED	:	Same
DEPTH	:	19'
DRILLER	:	George Hadd, F. G. S.
HEAD	:	
REMARKS	:	4 samples brought in by George Hadd, November, 1951

0 - 4	Brown argillaceous sand
4 - 9	Red to cream sandy clay
9 - 14	Same but more red
14 - 19	Same

AS-142
(Driller's Log)
Sept. 3, 1952

STR does not match verbal log
poss - see 18

OWNER	:	Florida Geological Survey
LOCATION	:	About 2 miles west of Madison City Limits on the south side of hwy. US 90 and about 100 feet southwest of white church on the north side of US 90. SW/4 NW/4 Sec. 15 T1N R8E
COUNTY	:	Madison
ELEVATION	:	
STARTED	:	July 22, 1952
COMPLETED	:	July 22, 1952
DEPTH	:	60'
DRILLER	:	Bill Yon, FGS
USE	:	Test
REMARKS	:	24 samples, 0-60', were brought in by Bill Yon, 7-22-52

0-2-1/2	Soil grading into a red sand and clay and mottled red and greenish gray clay
2-1/2-5	Red sand & mottled red and greenish-gray clay
5-7-1/2	Red sand and clay
7-1/2-10	Light reddish orange sand and clay, more sand than clay
10-12-1/2	Same
12-1/2-15	Same
15-17-1/2	Red & greenish gray sand and clay
17-1/2-20	Same
20-22-1/2	Same
22-1/2-25	Same
25-27-1/2	Same
27-1/2-30	Same
30-32-1/2	Red to rust brown sand and clay
32-1/2-35	Rust brown sand and clay
35-37-1/2	Rust brown to rust brown and greenish gray clay
37-1/2-40	Same
40-42-1/2	Rust brown and gray clay and sand containing a hard material which is white.

AS-143
(Driller's Log)
August 29, 1952

OWNER	:	Florida Geological Survey
LOCATION	:	0.9 of a mile W of Greenville on S side of US 90, NE/4 SW/4 Sec. 19, T1N, R7E
COUNTY	:	Madison
ELEVATION	:	
DRILLER	:	Bill Yon, FGS
STARTED	:	July 29, 1952
COMPLETED	:	July 29, 1952
DEPTH	:	80'
USE	:	Test
REMARKS	:	34 samples, 0-80', brought in by Bill Yon, July 30, 1952

0 - 2-1/2	Top soil and red sand and clay
2-1/2-5	Red sand and clay
5-7-1/2	Same
7-1/2-10	Same
10-12-1/2	Same
12-1/2-15	Same
15-17-1/2	(
17-1/2-20	(
20-22-1/2	(
22-1/2-25	(
25-27-1/2	(Same
27-1/2-30	(
30-32-1/2	(
32-1/2-35	(
35-37-1/2	(
37-1/2-40	(
40-42-1/2	Red to rust brown sand and clay
42-1/2-45	Rust brown sand and clay with layers of greenish-gray clay
47-1/2-50	Grayish green sand and clay
50-52-1/2	Rust brown sand & clay containing very little greenish gray clay
52-1/2-55	Same
55-57-1/2	Same
57-1/2-60	
60-62-1/2	Rust brown sand & clay
62-1/2-65	Same
65-67-1/2	Same
67-1/2-70	Rust brown & greenish gray sand & clay
70-72-1/2	Dark greenish gray clay & sand
72-1/2-75	Same
75-77-1/2	Some light greenish gray clay and sand and rust brown sand & clay
77-1/2-80	Light greenish gray clay and sand & rust brown sand and clay (2 samples)

AS-155
(Driller's Log)
Sept. 10, 1952

OWNER	:	Florida Geological Survey
LOCATION	:	About 100' SW of Sta. 32 on US 90 about 10' NE of RR crossing, 2.1 mi. E of Eastern Greenville city limits on S side of US 90
COUNTY	:	Madison
ELEVATION	:	
DRILLER	:	Jim Cullison, Jr., FGS
STARTED	:	
COMPLETED	:	
DEPTH	:	80'
USE	:	Test
REMARKS	:	32 samples, 0-80', brought in by Roy Godbold, 8-19-52

0-2-1/2	Rust-brown sand & clay
2-1/2-5	Same
5-7-1/2	Red to rust brown sand & clay
7-1/2-10	Same
10-12-1/2	Rust brown sand & clay
12-1/2-15	(
15-17-1/2	(
17-1/2-20	(
20-22-1/2	(
22-1/2-25	(Same
25-27-1/2	(
27-1/2-30	(
30-32-1/2	(
32-1/2-35	(
35-37-1/3	(
37-1/3-40	(
40-42-1/2	Rust brown sand & clay & streaks of gray clay
42-1/2-45	Rust brown & gray sand & clay containing hard material and small pebbles
45-47-1/2	Rust brown & gray sand & clay
47-1/2-50	Same
50-52-1/2	Rust brown sand & clay
52-1/2-55	Same
55-57-1/2	Light gray sand & clay
57-1/2-60	Light gray sand & rust brown sand & clay
60-62-1/2	Same
62-1/2-65	Same
65-67-1/2	Same
67-1/2-70	Same
70-72-1/2	Light gray sand & clay
72-1/2-75	Same
75-77-1/2	Same
77-1/2-80	Same

AS-156
(Driller's Log)
Sept. 10, 1952

OWNER	:	Florida Geological Survey
LOCATION	:	About 0.2 miles E of the east end of the Aucilla River bridge and the Nside of US 90 NW/4 NE/4 Sec. 16, T1N, R6e
COUNTY	:	Madison
ELEVATION	:	
DRILLER	:	
STARTED	:	Aug. 21, 1952
COMPLETED	:	Aug. 21, 1952
DEPTH	:	90'
USE	:	Test
REMARKS	:	36 samples, 0-90', received 8-19-52 from Bill Yon and Jim Cullison, Jr.

0-2-1/2	Tan soil grading into a mottled mist-brown, red & dark gray clay
2-1/2-5	Rust-brown, red & dark gray clay
5-7-1/2	Rust brown, red & dark gray clay grading into a lighter gray clay
7-1/2-10	Light gray sand & clay
10-12-1/2	Same
12-1/2-15	Same
15-17-1/2	(
17-1/2-20	(
20-22-1/2	(
22-1/2-25	(
25-27-1/2	(
27-1/2-30	(
30-32-1/2	(
32-1/2-35	(Same
35-37-1/2	(
37-1/2-40	(
40-42-1/2	(
42-1/2-45	(
45-47-1/2	(
47-1/2-50	(
50-52-1/2	(
52-1/2-55	(
55-57-1/2	(
60-62-1/2	(
62-1/2-65	Gray & purple sand & clay
65-67-1/2	
67-1/2-70	Gray sand & clay containing rock material
70 -72-1/2	
72-1/2-75	Tan or rust brown gray sand & clay
75-77-1/2	Same
77-1/2-80	Purple & gray & tan or rust brown sand & clay
80-82-1/2	Purple gray, tan or rust brown sand & clay containing rock material
82-1/2-85	Gray,tan or rust brown sand & clay containing rock material
85-87-1/2	Same
87-1/2-90	Same