



Apache Cuttings Descriptions Report

| Well Name : Madfish-1 | | Print Date 9/12/2008 | | |
|---|----------|---|--------|--------|
| Wellsite Geologist(s) : A Cruickshank G Fawns J Eastwood | | | | |
| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
| Main | | | | |
| 1551.0 - 1554.0 | 100 | CEMENT: Cement cavings | | |
| 1554.0 - 1560.0 | 60 40 | CEMENT: CALCILUTITE: See description below | | |
| 1560.0 - 1570.0 | 60 40 | CALCARENITE: light grey, light greenish grey, light grey to off white, medium greenish grey, very fine to medium quartz grains, dominantly very fine to fine, moderately well sorted, round to sub-angular, abundant argillaceous matrix, common dark lithics, trace glauconitic material, common micro-fossils, common orange crystalline calcite fragments, firm to moderately hard, very poor visible porosity, no hydrocarbon fluorescence. CALCILUTITE: light grey, light greenish grey, light grey to off white, medium greenish grey, occasional floating fine quartz grains, common dark lithics, minor glauconitic material, common micro-fossils, common orange crystalline calcite fragments,, firm, sub-blocky to blocky. | | |
| 1570.0 - 1580.0 | 70 30 | CALCARENITE: as above and commonly grading to CALCISILTITE. CALCILUTITE: as above and commonly grading to CALCISILTITE. | | |
| 1580.0 - 1590.0 | 60 40 | CALCARENITE: light grey, light orange brown, light greenish grey, very fine to medium quartz grains, dominantly very fine to fine, moderately well sorted, round to sub-angular, abundant argillaceous matrix and commonly grading to CALCISILTITE, common dark lithics, trace glauconitic material, common micro-fossils, common to abundant very hard orange brown crystalline calcite fragments, firm to moderately hard, very poor visible porosity, no hydrocarbon fluorescence. CALCILUTITE: light grey, light greenish grey, light grey to off white, medium greenish grey, occasionally arenaceous and locally grading to CALCISILTITE, common dark lithics, minor glauconitic material, common micro-fossils, common to abundant very hard orange brown crystalline calcite fragments, firm, sub-blocky to blocky. | | |
| 1590.0 - 1600.0 | 80 20 | CALCARENITE: as above, occasional orange brown, hard in part. CALCILUTITE: as above | 82 | 1 |
| 1600.0 - 1620.0 | 80 20 | CALCARENITE: light grey, light greenish grey, light grey to off white, occasionally light orange brown, very fine to medium quartz grains, dominantly very fine to fine, generally well sorted, round to sub-angular, dominantly rounded, abundant argillaceous matrix and commonly grading to CALCISILTITE, common dark lithics, trace glauconitic material, common micro-fossils, common to abundant very hard orange brown crystalline calcite fragments, firm to moderately hard, hard to very hard in part, very poor visible porosity, no hydrocarbon fluorescence. CALCILUTITE: light to medium greenish grey, light greenish grey, light grey to off white, occasionally arenaceous and locally grading to CALCISILTITE, common dark lithics, minor glauconitic material, common micro-fossils, common to abundant very hard orange brown crystalline calcite fragments, firm, sub-blocky to blocky. | | |
| 1620.0 - 1640.0 | 90 10 | CALCARENITE: as above CALCILUTITE: as above | 80 | 1 |
| 1640.0 - 1660.0 | 85 15 | CALCARENITE: light grey, light greenish grey, light grey to off white, occasionally light orange brown, very fine to medium quartz grains, dominantly very fine to fine, generally well sorted, round to sub-angular, dominantly rounded, abundant argillaceous matrix and commonly grading to CALCISILTITE, common dark lithics, trace glauconitic material, common micro-fossils, common to abundant very hard orange brown crystalline calcite fragments, firm to moderately hard, hard to very hard in part, very poor visible porosity, no hydrocarbon fluorescence. CALCILUTITE: light to medium greenish grey, light greenish grey, light grey to off white, occasionally arenaceous and locally grading to CALCISILTITE, common dark | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|---------------------|--|--------|--------|
| | | lithics, minor glauconitic material, common micro-fossils, common to abundant very hard orange brown crystalline calcite fragments, firm, sub-blocky to blocky. | | |
| 1660.0 - 1680.0 | 85 15 | CALCARENITE: as above, minor very coarse sub-angular quartz grains. CALCILUTITE: as above | 81 | 1 |
| 1680.0 - 1700.0 | 80 20 | CALCARENITE: light grey, light greenish grey, light grey to off white, occasionally light orange brown, very fine to medium quartz grains, dominantly very fine to fine, generally well sorted, round to sub-angular, dominantly rounded, abundant argillaceous matrix and commonly grading to CALCISILTITE, common dark lithics, trace glauconitic material, common micro-fossils, common to abundant very hard orange brown crystalline calcite fragments, firm to moderately hard, hard to very hard in part, very poor visible porosity, no hydrocarbon fluorescence. CALCILUTITE: light to medium greenish grey, light greenish grey, light grey to off white, occasionally arenaceous and locally grading to CALCISILTITE, common dark lithics, minor glauconitic material, common micro-fossils, common to abundant very hard orange brown crystalline calcite fragments, firm, sub-blocky to blocky. | 88 | 0 |
| 1700.0 - 1720.0 | 70 30 | CALCARENITE: Medium light grey, very fine to medium quartz grains, dominantly very fine to fine, well sorted, round to sub-angular, dominantly rounded, abundant argillaceous matrix and commonly grading to CALCISILTITE, minor dark lithics, trace glauconitic material, trace mica flakes, common micro-fossils, soft to disaggregated, very poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence. CALCILUTITE: Medium light grey to medium grey, minor silty and grading to CALCISILTITE, minor dark lithics, minor glauconitic material, common micro-fossils, minor very hard orange brown crystalline calcite fragments, sticky in part, soft to firm, dominantly soft, minor firm, sub-blocky to amorphous, dominantly sub-blocky, common amorphous. | 27 | 2 |
| 1720.0 - 1740.0 | 60 40 | CALCARENITE: as above CALCILUTITE: as above, becoming more silty. | 72 | 2 |
| 1740.0 - 1760.0 | 40 30 30 | CALCARENITE: Medium light grey, very fine to medium quartz grains, dominantly very fine to fine, well sorted, round to sub-angular, dominantly rounded, abundant argillaceous matrix and commonly grading to CALCISILTITE, minor dark lithics, trace glauconitic material, trace mica flakes, common micro-fossils, soft to disaggregated, very poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence. CALCISILTITE: Medium grey to olive grey, common argillaceous matrix and grading to CALCILUTITE, minor dark lithics, minor glauconitic material, common micro-fossils, minor micromicaceous, soft to firm, dominantly firm, minor soft, sub-blocky. CALCILUTITE: Medium grey to medium dark grey, minor medium light grey, minor olive grey, silty and grading to CALCISILTITE, minor dark lithics, minor glauconitic material, common micro-fossils, minor very hard orange brown crystalline calcite fragments, soft to firm, dominantly firm, minor soft, sub-blocky. | 35 | 2 |
| 1760.0 - 1780.0 | 60 20 20 0 | CALCISILTITE: as above CALCILUTITE: as above CALCARENITE: as above DOLOMITE: Trace only medium grey, argillaceous, very hard, blocky. | 43 | 3 |
| 1780.0 - 1800.0 | 50 30 20 0 | CALCISILTITE: Medium grey to olive grey, common argillaceous matrix and grading to CALCILUTITE, minor dark lithics, minor glauconitic material, common micro-fossils, minor micromicaceous, soft to firm, dominantly firm, minor soft, sub-blocky. CALCILUTITE: Medium grey to medium dark grey, minor light grey to medium light grey, minor olive grey, silty and grading to CALCISILTITE, argillaceous and grading to CALCAREOUS CLAYSTONE, minor dark lithics, minor glauconitic material, common micro-fossils, soft to firm, dominantly firm, minor soft, sub-blocky. CALCARENITE: Medium light grey, very fine to medium quartz grains, dominantly very fine to fine, well sorted, round to sub-angular, dominantly rounded, abundant argillaceous matrix and commonly grading to CALCISILTITE, minor dark lithics, trace glauconitic material, trace mica flakes, trace micro-fossils, soft to disaggregated, very poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence. DOLOMITE: as above | 35 | 2 |
| 1800.0 - 1820.0 | 50 30 | CALCILUTITE: as above, very argillaceous. CALCISILTITE: as above | 83 | 1 |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|---------------------------|---|--------|--------|
| 1800.0 - 1820.0 | 10 10 | CALCAREOUS CLAYSTONE: Medium dark grey to olive grey, grading to ARGILLACEOUS CALCILUTITE, trace dark lithics, soft to firm, sub-blocky. CALCARENITE: as above | 83 | 1 |
| 1820.0 - 1840.0 | 40 40 10 10 | CALCISILTITE: Medium grey to olive grey, common argillaceous matrix and grading to CALCILUTITE, minor dark lithics, minor glauconitic material, common micro-fossils, minor micromicaceous, soft to firm, dominantly firm, minor soft, sub-blocky. CALCAREOUS CLAYSTONE: Medium dark grey to olive grey, grading to ARGILLACEOUS CALCILUTITE, trace dark lithics, soft to firm, sub-blocky. CALCILUTITE: Light grey to medium light grey, common medium grey, minor olive grey, silty and grading to CALCISILTITE, argillaceous and grading to CALCAREOUS CLAYSTONE, minor dark lithics, minor glauconitic material, common micro-fossils, soft to firm, dominantly firm, minor soft, sub-blocky. CALCARENITE: Medium light grey, very fine to medium quartz grains, dominantly very fine to fine, well sorted, round to sub-angular, dominantly rounded, abundant argillaceous matrix, minor dark lithics, trace glauconitic material, trace micro-fossils, soft to disaggregated, very poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence. | 35 | 1 |
| 1840.0 - 1860.0 | 30 30 30 10 | CALCARENITE: Medium light grey, very fine to medium quartz grains, dominantly very fine to fine, well sorted, round to sub-angular, dominantly rounded, abundant argillaceous matrix, minor dark lithics, trace glauconitic material, trace micro-fossils, soft to disaggregated, dominantly soft, minor firm, very poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence. CALCISILTITE: as above CALCAREOUS CLAYSTONE: as above CALCILUTITE: as above | 28 | 2 |
| 1860.0 - 1880.0 | 35 30 20 10 5 | CALCARENITE: as above CALCISILTITE: Medium grey to olive grey, abundant argillaceous matrix and grading to CALCILUTITE, minor dark lithics, minor glauconitic material, common micro-fossils, minor micromicaceous, soft to firm, dominantly firm, minor soft, sub-blocky. CALCAREOUS CLAYSTONE: Medium dark grey to olive grey, grading to ARGILLACEOUS CALCILUTITE, trace dark lithics, soft to firm, sub-blocky. CALCILUTITE: Light grey to medium light grey, common medium grey, minor olive grey, silty and grading to CALCISILTITE, argillaceous and grading to CALCAREOUS CLAYSTONE, minor dark lithics, minor glauconitic material, common micro-fossils, soft to firm, dominantly firm, minor soft, sub-blocky. DOLOMITE: Olive grey to dark yellowish brown, minor medium grey, trace argillaceous, crystalline, grades to DOLOMITIC LIMESTONE, hard to brittle, dominantly blocky, fissile in part. | | |
| 1880.0 - 1900.0 | 45 25 20 10 | CALCISILTITE: Medium grey to olive grey, abundant argillaceous matrix, grading to CALCAREOUS SILTSTONE, minor dark lithics, minor glauconitic material, common micro-fossils, minor micromicaceous, soft to firm, dominantly firm, minor soft, sub-blocky. CALCAREOUS CLAYSTONE: as above CALCILUTITE: as above CALCARENITE: as above | 65 | 3 |
| 1900.0 - 1920.0 | 60 20 20 | CALCAREOUS SILTSTONE: as above CALCAREOUS CLAYSTONE: as above CALCARENITE: as above | | |
| 1920.0 - 1940.0 | 70 20 10 | CALCAREOUS SILTSTONE: Medium grey to olive grey, common medium light grey, abundant argillaceous matrix, grading to CALCISILTITE, trace dark lithics, trace glauconitic material, minor micromicaceous, soft to firm, dominantly firm, minor soft, sub-blocky. CALCAREOUS CLAYSTONE: Medium grey to olive grey, grading to CALCILUTITE, silty and grading to CALCISILTITE, trace dark lithics, trace glauconitic material, soft to firm, dominantly firm, minor soft, sub-blocky. CALCARENITE: Medium light grey, very fine to medium quartz grains, dominantly very fine to fine, well sorted, round to sub-angular, dominantly rounded, abundant argillaceous matrix, minor dark lithics, soft to disaggregated, dominantly soft, minor | 37 | 1 |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|-----|--|--------|--------|
| | | firm, very poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence. | | |
| 1940.0 - 1960.0 | 40 | CALCARENITE: as above, minor mica. | | |
| | 40 | CALCAREOUS SILTSTONE: as above | | |
| | 20 | CALCAREOUS CLAYSTONE: as above | | |
| 1960.0 - 1980.0 | 70 | CALCAREOUS SILTSTONE: as above | 30 | 5 |
| | 20 | CALCAREOUS CLAYSTONE: as above | | |
| | 10 | CALCARENITE: as above | | |
| 1980.0 - 2000.0 | 80 | CALCAREOUS SILTSTONE: Medium grey to olive grey, minor medium light grey, abundant argillaceous matrix, grading to CALCISILTITE, minor dark lithics, minor micromicaceous, trace ooids, trace calcareous fragments, soft to firm, dominantly firm, minor soft, sub-blocky. | | |
| | 20 | CALCAREOUS CLAYSTONE: Medium grey to olive grey, grading to CALCILUTITE, silty and grading to CALCISILTITE, trace dark lithics, soft to firm, dominantly firm, minor soft, sub-blocky. | | |
| 2000.0 - 2020.0 | 90 | CALCAREOUS SILTSTONE: Medium grey to olive grey, abundant argillaceous matrix, grading to CALCISILTITE, minor dark lithics, minor micromicaceous, trace ooids, trace calcareous fragments, trace glauconite material, trace very fine quartz grains, firm to brittle, dominantly firm, common brittle, blocky to sub-blocky, dominantly sub-blocky, minor blocky. | 44 | 1 |
| | 10 | CALCAREOUS CLAYSTONE: Medium grey to olive grey, grading to CALCILUTITE, silty and grading to CALCAREOUS SILTSTONE, trace dark lithics, soft to firm, dominantly firm, minor soft, sub-blocky. | | |
| 2020.0 - 2040.0 | 100 | CALCAREOUS SILTSTONE: as above | | |
| 2040.0 - 2050.0 | 100 | CALCAREOUS SILTSTONE: Medium grey to olive grey, abundant argillaceous matrix, grading to CALCISILTITE, minor dark lithics, trace micromicaceous, trace ooids, trace calcareous fragments, trace glauconite material, trace very fine quartz grains, firm to brittle, dominantly firm, common brittle, blocky to sub-blocky, dominantly sub-blocky, minor blocky. | | |
| 2050.0 - 2060.0 | 60 | CALCAREOUS SILTSTONE: Medium grey to olive grey, abundant argillaceous matrix and grading to CALCAREOUS CLAYSTONE, trace dolomitic, grading to CALCISILTITE, minor dark lithics, trace micromicaceous, trace ooids, trace calcareous fragments, trace glauconite material, trace very fine quartz grains, grading very fine CALCARENITE in part, firm to brittle, dominantly firm, common brittle, blocky to sub-blocky, dominantly sub-blocky, minor blocky. | 18 | 1 |
| | 40 | CALCAREOUS CLAYSTONE: Medium grey to olive grey, common medium light grey, grading to CALCILUTITE, silty and grading to CALCAREOUS SILTSTONE, trace dark lithics, soft to firm, dominantly firm, minor soft, sub-blocky. | | |
| 2060.0 - 2070.0 | 70 | CALCAREOUS SILTSTONE: as above | | |
| | 30 | CALCAREOUS CLAYSTONE: as above | | |
| 2070.0 - 2080.0 | 60 | CALCAREOUS CLAYSTONE: Medium grey to olive grey, common medium light grey, grading to CALCILUTITE, silty and grading to CALCAREOUS SILTSTONE, trace dark lithics, trace glauconite, trace fossils and ooids, soft to firm, dominantly firm, minor soft, sub-blocky. | | |
| | 40 | CALCAREOUS SILTSTONE: Medium grey to olive grey, abundant argillaceous matrix and grading to CALCAREOUS CLAYSTONE, trace dolomitic, grading to CALCISILTITE, minor dark lithics, trace micromicaceous, trace ooids, trace calcareous fragments, trace glauconite material, trace very fine quartz grains, firm to brittle, dominantly firm, common brittle, blocky to sub-blocky, dominantly sub-blocky, minor blocky. | | |
| 2080.0 - 2090.0 | 60 | CALCAREOUS CLAYSTONE: as above | | |
| | 40 | CALCAREOUS SILTSTONE: as above | | |
| 2090.0 - 2100.0 | 60 | CALCAREOUS SILTSTONE: Medium light grey, abundant argillaceous matrix and grading to CALCAREOUS CLAYSTONE, trace dolomitic, minor dark lithics, trace ooids, trace calcareous fragments, minor glauconite material, minor very fine quartz grains, firm to hard, dominantly firm, abundant brittle, minor hard, blocky to sub-blocky, dominantly sub-blocky, minor blocky. | 35 | 2 |
| | 40 | CALCAREOUS CLAYSTONE: Medium grey to olive grey, silty and grading to CALCAREOUS SILTSTONE, trace dark lithics, trace very fine glauconite, firm, sub-blocky. | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|--------------------|---|--------|--------|
| 2100.0 - 2110.0 | 70 30 | CALCAREOUS SILTSTONE: as above, increasing quartz, decreasing calcareous content. CALCAREOUS CLAYSTONE: as above | | |
| 2110.0 - 2120.0 | 80 20 | CALCAREOUS SILTSTONE: Medium light grey, abundant argillaceous matrix and grading to CALCAREOUS CLAYSTONE , trace dolomitic, minor dark lithics, trace calcareous fragments, minor glauconite material, common very fine quartz grains, firm to hard, dominantly firm, abundant brittle, minor hard, blocky to sub-blocky, dominantly sub-blocky, minor blocky. CALCAREOUS CLAYSTONE: Medium grey to olive grey, silty and grading to CALCAREOUS SILTSTONE , trace dark lithics, trace very fine glauconite, firm, sub-blocky. | 66 | 2 |
| 2120.0 - 2130.0 | 80 20 | CALCAREOUS SILTSTONE: as above, very argillaceous. CALCAREOUS CLAYSTONE: as above | 66 | 2 |
| 2130.0 - 2140.0 | 75 20 5 | CALCAREOUS SILTSTONE: Medium light grey, abundant argillaceous matrix and grading to CALCAREOUS CLAYSTONE , trace dolomitic, minor dark lithics, trace calcareous fragments, minor glauconite material, common very fine quartz grains and grading to SANDY SILTSTONE in part, firm to hard, dominantly firm, abundant brittle, minor hard, blocky to sub-blocky, dominantly sub-blocky, minor blocky. CALCAREOUS CLAYSTONE: Medium light grey, silty and grading to CALCAREOUS SILTSTONE , trace dark lithics, trace very fine glauconite, trace very fine quartz grains, firm, sub-blocky. CALCAREOUS SANDSTONE: Olive grey, very fine to fine, well sorted, round to sub-rounded, common calcareous cement, abundant argillaceous and silty matrix, trace dark lithics, trace glauconite, hard, very poor visible porosity, no hydrocarbon fluorescence. | 47 | 3 |
| 2140.0 - 2150.0 | 60 30 5 5 | CALCAREOUS SILTSTONE: as above CALCAREOUS CLAYSTONE: as above CALCAREOUS SANDSTONE: as above DOLOMITE: Olive grey, argillaceous, microcrystalline in part, hard, blocky to fissile. | | |
| 2150.0 - 2160.0 | 65 30 5 | CALCAREOUS SILTSTONE: Medium light grey, mottled appearance, grading to CALCISILTITE , abundant argillaceous matrix and grading to CALCAREOUS CLAYSTONE , rarely dolomitic, minor dark lithics, trace calcareous fragments, minor glauconite material, minor very fine quartz grains, firm to hard, dominantly moderately hard, abundant brittle, common firm, minor hard, blocky to sub-blocky, dominantly sub-blocky, minor blocky. CALCAREOUS CLAYSTONE: Medium light grey to olive grey, commonly grading to CALCILUTITE , silty and grading to CALCAREOUS SILTSTONE , trace dark lithics, trace very fine quartz grains, trace very fine glauconite, moderately hard, sub-blocky. DOLOMITE: Olive grey, argillaceous, microcrystalline in part, hard, blocky to fissile. | 85 | 3 |
| 2160.0 - 2170.0 | 65 30 5 | CALCAREOUS SILTSTONE: as above, minor micromicaceous. CALCAREOUS CLAYSTONE: as above DOLOMITE: as above | | |
| 2170.0 - 2180.0 | 55 40 5 | CALCAREOUS SILTSTONE: Medium light grey with mottled appearance, olive grey, abundant argillaceous matrix and grading to SILTY CALCAREOUS CLAYSTONE , commonly calcareous and grading to CALCISILTITE , rarely dolomitic, minor dark lithics, minor very fine quartz grains, trace dolomite micro-beds, trace very fine glauconite, firm to hard, dominantly moderately hard, abundant brittle, common firm, minor hard, blocky to sub-blocky, dominantly sub-blocky, minor blocky. CALCAREOUS CLAYSTONE: Medium light grey to olive grey, commonly grading to CALCILUTITE , silty and grading to CALCAREOUS SILTSTONE , trace dark lithics, trace very fine quartz grains, trace very fine glauconite, moderately hard, sub-blocky. DOLOMITE: as above | 84 | 2 |
| 2180.0 - 2190.0 | 50 45 5 | CALCAREOUS SILTSTONE: as above CALCAREOUS CLAYSTONE: as above DOLOMITE: Trace only as above. | | |
| 2190.0 - 2200.0 | 50 | CALCAREOUS CLAYSTONE: as above | 52 | 6 |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|---------------|---|--------|--------|
| 2190.0 - 2200.0 | 45 5 | CALCAREOUS SILTSTONE: as above DOLOMITE: as above | 52 | 6 |
| 2200.0 - 2210.0 | 50 45 5 | CALCAREOUS CLAYSTONE: as above CALCAREOUS SILTSTONE: as above DOLOMITE: as above | | |
| 2210.0 - 2220.0 | 60 40 | CALCAREOUS SILTSTONE: Medium light grey with mottled appearance, olive grey, abundant argillaceous matrix, rarely dolomitic, common dark lithics, commonly very finely arenaceous, trace dolomite micro-beds, trace very fine glauconite, firm to hard, dominantly moderately hard, blocky to sub-blocky. CALCAREOUS CLAYSTONE: Medium light grey to olive grey, commonly grading to CALCILUTITE, silty and grading to CALCAREOUS SILTSTONE, trace dark lithics, trace very fine quartz grains, trace very fine glauconite, moderately hard, sub-blocky. | 63 | 2 |
| 2220.0 - 2230.0 | 70 30 | CALCAREOUS SILTSTONE: Medium light grey with mottled appearance, olive grey, abundant argillaceous matrix, rarely dolomitic, common dark lithics, commonly very finely arenaceous, commonly microcrystalline, trace dolomite micro-beds, trace very fine glauconite, firm to very hard, dominantly moderately hard, blocky to sub-blocky. CALCAREOUS CLAYSTONE: Medium light grey to olive grey, silty and grading to a CALCAREOUS SILTSTONE in part, common dark lithics, trace very fine quartz grains, trace very fine glauconite, moderately hard, sub-blocky. | | |
| 2230.0 - 2240.0 | 60 40 | CALCAREOUS SILTSTONE: as above CALCAREOUS CLAYSTONE: as above | 70 | 4 |
| 2240.0 - 2250.0 | 60 40 | CALCAREOUS SILTSTONE: as above, increasingly common very fine glauconitic material, dominantly hard. CALCAREOUS CLAYSTONE: as above, increasingly common very fine glauconitic material. | | |
| 2250.0 - 2260.0 | 70 30 | CALCAREOUS SILTSTONE: Medium light grey to olive grey with mottled appearance, olive grey, abundant argillaceous matrix, common dark lithics, commonly very finely arenaceous, locally grading to a CALCAREOUS SANDSTONE, commonly microcrystalline, increasingly common very fine glauconitic material, firm to very hard, dominantly hard, blocky to sub-blocky. CALCAREOUS CLAYSTONE: Medium light grey to olive grey, silty and grading to a CALCAREOUS SILTSTONE in part, common dark lithics, trace very fine quartz grains, commonly microcrystalline, minor micro-fossils, increasingly common very fine glauconite, firm to hard, dominantly moderately hard, sub-blocky. | 80 | 9 |
| 2260.0 - 2270.0 | 60 40 | CALCAREOUS SILTSTONE: as above CALCAREOUS CLAYSTONE: as above | | |
| 2270.0 - 2280.0 | 70 30 | CALCAREOUS CLAYSTONE: as above, dominantly off white, abundantly crystalline, common to abundant dark lithics. CALCAREOUS SILTSTONE: as above | 75 | 10 |
| 2280.0 - 2290.0 | 80 20 | CALCAREOUS SILTSTONE: dominantly off white to olive grey with mottled appearance, light to medium grey, abundant argillaceous matrix, common dark lithics, commonly very finely arenaceous, common floating quartz grains, minor microcrystalline, minor very fine glauconitic material, firm to very hard, dominantly hard, blocky to sub-blocky. CALCAREOUS CLAYSTONE: as above | | |
| 2290.0 - 2300.0 | 80 20 | CALCAREOUS SILTSTONE: as above CALCAREOUS CLAYSTONE: dominantly off white, medium light grey to olive grey, silty and grading to a CALCAREOUS SILTSTONE in part, common dark lithics, trace very fine quartz grains, commonly microcrystalline, minor micro-fossils, increasingly common very fine glauconite, firm to hard, dominantly moderately hard, sub-blocky. | 80 | 6 |
| 2300.0 - 2310.0 | 80 20 | CALCAREOUS SILTSTONE: dominantly off white to olive grey with mottled appearance, light to medium grey, abundant argillaceous matrix, common dark lithics, commonly very finely arenaceous, common floating quartz grains, commonly microcrystalline, minor very fine glauconitic material, firm to very hard, dominantly hard, blocky to sub-blocky. CALCAREOUS CLAYSTONE: as above | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|-----|--|--------|--------|
| 2310.0 - 2320.0 | 90 | CALCAREOUS SILTSTONE: as above | 93 | 5 |
| | 10 | CALCAREOUS CLAYSTONE: dominantly off white, medium light grey to olive grey, silty and grading to a CALCAREOUS SILTSTONE in part, common dark lithics, trace very fine quartz grains, occasionally microcrystalline, minor micro-fossils, occasional fine glauconite, firm to hard, dominantly moderately hard, sub-blocky. Very high calcimetry readings!? | | |
| 2320.0 - 2330.0 | 80 | CALCAREOUS SILTSTONE: dominantly off white to olive grey with mottled appearance, light to medium grey, abundant argillaceous matrix, common dark lithics, commonly very finely arenaceous, common floating quartz grains, commonly microcrystalline, minor very fine glauconitic material, firm to very hard, dominantly hard, blocky to sub-blocky. | | |
| | 20 | CALCAREOUS CLAYSTONE: as above | | |
| 2330.0 - 2340.0 | 60 | CALCAREOUS SILTSTONE: as above | 75 | 19 |
| | 40 | CALCAREOUS CLAYSTONE: as above, dominantly hard. | | |
| 2340.0 - 2350.0 | 60 | CALCAREOUS SILTSTONE: as above | | |
| | 40 | CALCAREOUS CLAYSTONE: as above | | |
| 2350.0 - 2360.0 | 80 | CALCAREOUS SILTSTONE: dominantly off white to olive grey with mottled appearance, light to medium grey, abundant argillaceous matrix, common dark lithics, commonly very finely arenaceous, common floating quartz grains, commonly microcrystalline, minor very fine glauconitic material, firm to very hard, dominantly hard, blocky to sub-blocky. | 56 | 7 |
| | 20 | CALCAREOUS CLAYSTONE: dominantly off white, medium light grey to olive grey, silty and grading to a CALCAREOUS SILTSTONE in part, common dark lithics, trace very fine quartz grains, trace microcrystalline, minor micro-fossils, occasional very fine glauconite, firm to hard, dominantly moderately hard, sub-blocky. | | |
| 2360.0 - 2370.0 | 85 | CALCAREOUS SILTSTONE: as above | | |
| | 15 | CALCAREOUS CLAYSTONE: as above | | |
| 2370.0 - 2380.0 | 85 | CALCAREOUS SILTSTONE: dominantly off white to olive grey with mottled appearance, increasingly common olive grey, abundant argillaceous matrix, common dark lithics, common very finely arenaceous, common floating quartz grains, trace microcrystalline, minor very fine glauconitic material, firm to very hard, dominantly hard, blocky to sub-blocky. | 67 | 6 |
| | 15 | CALCAREOUS CLAYSTONE: commonly medium light grey, off white to light grey, olive grey, silty in part and occasionally grading to a CALCAREOUS SILTSTONE , common dark lithics, trace very fine quartz grains, trace microcrystalline, minor micro-fossils, occasional very fine glauconite, firm to hard, dominantly moderately hard, sub-blocky. | | |
| 2380.0 - 2390.0 | 60 | CALCAREOUS CLAYSTONE: olive grey, medium grey, minor pale grey to off white, common calcareous and grading to MARL , silty in part and locally grading to CALCAREOUS SILTSTONE , occasional dark lithics and micro-laminations, trace very fine quartz grains, rare micro-fossils, rare glauconitic material, firm to moderately hard, sub-blocky to black. | | |
| | 40 | CALCAREOUS SILTSTONE: dominantly off white to olive grey with mottled appearance, increasingly common olive grey, abundant argillaceous matrix, common dark lithics, common very finely arenaceous, common floating quartz grains, trace microcrystalline, minor very fine glauconitic material, firm to very hard, dominantly hard, blocky to sub-blocky. | | |
| 2390.0 - 2400.0 | 90 | CALCAREOUS CLAYSTONE: as above, occasional carbonaceous specks. | 63 | 6 |
| | 10 | CALCAREOUS SILTSTONE: as above | | |
| 2400.0 - 2410.0 | 100 | CALCAREOUS CLAYSTONE: as above, increasingly common carbonaceous specks. | | |
| 2410.0 - 2420.0 | 100 | CALCAREOUS CLAYSTONE: as above, rare disseminated pyrite and crystalline fragments. | 45 | 4 |
| 2420.0 - 2430.0 | 100 | CALCAREOUS CLAYSTONE: light olive grey to olive grey, off white to light greenish grey, commonly calcareous and grading to MARL , minor silty in part, common carbonaceous specks, rare loose very fine quartz grains, rare micro-fossils, rare disseminated pyrite and glauconitic material, firm to moderately hard, sub-blocky | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|-------------|--|--------|--------|
| | | to blocky. | | |
| 2430.0 - 2440.0 | 100 | CALCAREOUS CLAYSTONE: light olive grey to olive grey, off white to light greenish grey, commonly calcareous and grading to MARL, minor silty in part, common carbonaceous specks, common loose fine quartz grains, common micro-fossils and crystalline fragments, rare disseminated pyrite and glauconitic material, firm to moderately hard, sub-blocky to blocky. | 51 | 5 |
| 2440.0 - 2450.0 | 100 | CALCAREOUS CLAYSTONE: as above, increasingly common nodular and disseminated pyrite. | | |
| 2450.0 - 2460.0 | 100 | CALCAREOUS CLAYSTONE: light olive grey to olive grey, off white to light greenish grey, commonly calcareous and grading to MARL, minor silty in part, common carbonaceous specks, common loose fine quartz grains, common micro-fossils and crystalline fragments, rare disseminated pyrite, firm to moderately hard, sub-blocky to blocky. | 45 | 3 |
| 2460.0 - 2470.0 | 100 | CALCAREOUS CLAYSTONE: as above, rare carbonaceous material. | | |
| 2470.0 - 2480.0 | 100 | CALCAREOUS CLAYSTONE: as above | 45 | 3 |
| 2480.0 - 2490.0 | 100 | CALCAREOUS CLAYSTONE: light olive grey to olive grey, off white to light greenish grey, commonly calcareous and grading to MARL, rare carbonaceous specks, silty in part, common to abundant loose very fine to medium quartz grains, trace micro-fossils and crystalline fragments, rare disseminated pyrite, firm to moderately hard, sub-blocky to blocky. | | |
| 2490.0 - 2500.0 | 100 | CALCAREOUS CLAYSTONE: as above | 56 | 6 |
| 2500.0 - 2510.0 | 100 | CALCAREOUS CLAYSTONE: as above, minor to locally common nodular and disseminated pyrite. | | |
| 2510.0 - 2520.0 | 100 | CALCAREOUS CLAYSTONE: as above | 53 | 4 |
| 2520.0 - 2530.0 | 99 1 | CALCAREOUS CLAYSTONE: light olive grey to olive grey, off white to light greenish grey, commonly calcareous and grading to MARL, minor silty in part, rare carbonaceous specks, common to abundant loose very fine to medium quartz grains, trace micro-fossils and crystalline fragments, minor to locally common nodular and disseminated pyrite, firm to moderately hard, sub-blocky to blocky. DOLOMITIC SANDSTONE: Yellow, brownish yellow, pale grey to off white, very fine to fine, well sorted, round to sub-rounded, abundant moderately strong dolomitic cement, common pale grey argillaceous matrix and commonly grading to an ARENACEOUS SILTSTONE, firm to moderately hard aggregates, common loose grains, poor visible porosity, trace pale yellow green fluorescence. | | |
| 2530.0 - 2540.0 | 100 | CALCAREOUS CLAYSTONE: as above | 50 | 2 |
| 2540.0 - 2550.0 | 100 | CALCAREOUS CLAYSTONE: as above | | |
| 2550.0 - 2560.0 | 100 | CALCAREOUS CLAYSTONE: light olive grey to olive grey, off white to light greenish grey, commonly calcareous and grading to MARL, minor silty in part, rare carbonaceous specks, trace to minor loose very fine to medium quartz grains, trace micro-fossils and crystalline fragments, minor nodular and disseminated pyrite, firm to moderately hard, sub-blocky to blocky. | 40 | 2 |
| 2560.0 - 2570.0 | 100 | CALCAREOUS CLAYSTONE: as above, common loose very fine to fine loose quartz grains. | | |
| 2570.0 - 2580.0 | 100 | CALCAREOUS CLAYSTONE: as above | 60 | 4 |
| 2580.0 - 2590.0 | 100 | CALCAREOUS CLAYSTONE: light olive grey to olive grey, off white to light greenish grey, commonly calcareous and grading to MARL, rare carbonaceous specks, silty in part, trace to minor loose very fine to medium quartz grains, trace micro-fossils and crystalline fragments, minor nodular and disseminated pyrite, firm to moderately hard, sub-blocky to blocky. | | |
| 2590.0 - 2600.0 | 100 | CALCAREOUS CLAYSTONE: as above | 45 | 4 |
| 2600.0 - 2610.0 | 100 | CALCAREOUS CLAYSTONE: light olive grey to olive grey, off white to light greenish grey, commonly calcareous and grading to MARL, rare carbonaceous specks, silty in part, trace to minor loose very fine to medium quartz grains, trace micro-fossils and crystalline fragments, minor nodular and disseminated pyrite, firm to moderately hard, sub-blocky to blocky. | | |
| 2610.0 - 2620.0 | 100 | CALCAREOUS CLAYSTONE: as above, increasingly common off white to light greenish grey. | 40 | 4 |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|-----|--|--------|--------|
| 2620.0 - 2630.0 | 100 | CALCAREOUS CLAYSTONE: as above | | |
| 2630.0 - 2640.0 | 100 | CALCAREOUS CLAYSTONE: Medium grey to medium dark grey, very calcareous and grading to MARL, trace silty in part, minor loose very fine quartz grains, trace micro-fossils and crystalline fragments, rare nodular and disseminated pyrite, soft to moderately hard, dominantly firm, minor soft, common brittle to moderately had, sub-blocky to sub-fissile, rarely amorphous. | 41 | 4 |
| 2640.0 - 2650.0 | 100 | CALCAREOUS CLAYSTONE: as above, trace dark greenish grey. | | |
| 2650.0 - 2670.0 | 100 | CALCAREOUS CLAYSTONE: Medium grey to medium dark grey, trace dark greenish grey, very calcareous and grading to MARL, trace silty in part, common loose and floating very fine quartz grains and grading to SANDY CLAYSTONE, minor fossils and crystalline fragments, rare nodular and disseminated pyrite, soft to moderately hard, dominantly firm, minor soft, common brittle to moderately had, sub-blocky to sub-fissile, rarely amorphous. | 41 | 2 |
| 2670.0 - 2680.0 | 100 | CALCAREOUS CLAYSTONE: as above, minor ooids. | 41 | 3 |
| 2680.0 - 2690.0 | 100 | CALCAREOUS CLAYSTONE: Medium grey to medium dark grey, minor dark greenish grey, very calcareous and grading to MARL, trace silty in part, minor loose very fine to fine quartz grains, minor fossils and crystalline fragments, minor ooids, rare nodular and disseminated pyrite, soft to moderately hard, dominantly firm, minor soft, common brittle to moderately had, sub-blocky to sub-fissile, dominantly sub-blocky, rarely amorphous. | | |
| 2690.0 - 2710.0 | 100 | CALCAREOUS CLAYSTONE: as above, becoming more silty. | 41 | 3 |
| 2710.0 - 2720.0 | 100 | CALCAREOUS CLAYSTONE: Medium grey to medium dark grey, minor dark greenish grey, very calcareous and grading to MARL, trace silty in part, minor loose very fine to fine quartz grains, minor fossils and crystalline fragments, trace ooids, trace nodular and disseminated pyrite, smooth texture in part, trace DOLOMITE micro-laminations, soft to moderately hard, dominantly firm to brittle, minor soft, minor moderately had, sub-blocky to sub-fissile, dominantly sub-blocky, rarely amorphous. | 41 | 3 |
| 2720.0 - 2730.0 | 100 | CALCAREOUS CLAYSTONE: as above | | |
| 2730.0 - 2740.0 | 100 | CALCAREOUS CLAYSTONE: as above, decreasing calcareous content. | 35 | 4 |
| 2740.0 - 2750.0 | 100 | CALCAREOUS CLAYSTONE: Medium grey, common medium dark grey, trace dark greenish grey, very calcareous and grading to MARL, trace silty in part, minor loose very fine to fine quartz grains, minor fossils and crystalline fragments, trace ooids, trace nodular and disseminated pyrite, trace carbonaceous material, smooth texture in part, common dispersive, very soft to brittle, dominantly soft to firm, common brittle, sub-blocky to sub-fissile, dominantly sub-blocky, abundant amorphous. | | |
| 2750.0 - 2760.0 | 100 | CALCAREOUS CLAYSTONE: as above | 33 | 5 |
| 2760.0 - 2770.0 | 100 | CALCAREOUS CLAYSTONE: as above, trace micromicaceous. | | |
| 2770.0 - 2780.0 | 100 | CALCAREOUS CLAYSTONE: Medium grey, common medium dark grey, trace dark greenish grey, minor olive grey, very calcareous, minor silty in part, minor loose very fine to fine quartz grains, trace fossils and crystalline fragments, trace nodular and disseminated pyrite, trace carbonaceous material, smooth texture in part, soft to moderately hard, dominantly firm to brittle, common moderately hard, sub-blocky to sub-fissile, dominantly sub-blocky. | 27 | 6 |
| 2780.0 - 2790.0 | 100 | CALCAREOUS CLAYSTONE: Medium grey, common medium dark grey, trace dark greenish grey, minor olive grey, 5% with mottled appearance and trace glauconite, very calcareous, minor silty in part, minor loose very fine to fine quartz grains, trace fossils and crystalline fragments, trace nodular and disseminated pyrite, trace carbonaceous material, smooth texture in part, soft to moderately hard, dominantly firm to brittle, common moderately hard, sub-blocky to sub-fissile, dominantly sub-blocky. | | |
| 2790.0 - 2800.0 | 100 | CALCAREOUS CLAYSTONE: as above | 26 | 5 |
| 2800.0 - 2810.0 | 100 | CALCAREOUS CLAYSTONE: Medium grey, common medium dark grey, trace dark greenish grey, minor olive grey, 5% greenish grey, trace with mottled appearance and trace glauconite, very calcareous, minor silty in part, minor loose very fine to fine quartz grains, trace fossils and crystalline fragments, trace nodular and disseminated pyrite, trace carbonaceous material, smooth texture in part, soft to brittle, dominantly firm to brittle, common soft, sub-blocky to sub-fissile, dominantly | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----------------|--|--------|--------|
| | | sub-blocky, minor amorphous. | | |
| 2810.0 - 2815.0 | 100 | CALCAREOUS CLAYSTONE: As above, dominantly medium grey, common medium light grey, increasing amorphous, | | |
| 2815.0 - 2820.0 | 100 | CALCAREOUS CLAYSTONE: Medium light grey to medium dark grey, minor olive grey, trace greenish grey to dark greenish grey, very calcareous, minor silty in part, trace loose very fine to fine quartz grains, trace fossils and crystalline fragments, trace nodular and disseminated pyrite, trace carbonaceous material, soft to brittle, dominantly firm to brittle, common soft, sub-blocky to sub-fissile, dominantly sub-blocky, minor amorphous. | 26 | 5 |
| 2820.0 - 2825.0 | 100 | CALCAREOUS CLAYSTONE: as above | | |
| 2825.0 - 2830.0 | 60 30 10 | SANDSTONE: Clear to translucent, olive grey, very fine to medium, dominantly very fine to fine, common medium, well sorted, sub-rounded to rounded, dominantly sub-rounded, abundant rounded, nil visible cement, abundant glauconite, trace pyrite, trace fossil, disaggregated, poor inferred porosity, no hydrocarbon fluorescence. CALCAREOUS CLAYSTONE: Medium light grey to medium dark grey, minor olive grey, trace greenish grey to dark greenish grey, very calcareous, minor silty in part, minor glauconite, trace very fine to fine quartz grains, trace fossils and crystalline fragments, trace nodular and disseminated pyrite, trace carbonaceous material, soft to brittle, dominantly firm to brittle, common soft, sub-blocky to sub-fissile, dominantly sub-blocky, minor amorphous. SILTSTONE: Dusky yellowish brown to brownish black, olive black in part, arenaceous, minor micromicaceous, trace very fine floating quartz grains, trace pyrite, soft to firm, sub-blocky. | | |
| 2830.0 - 2835.0 | 50 30 20 | SANDSTONE: Clear to translucent, olive grey, very fine to medium, dominantly very fine to fine, common medium, well sorted, sub-rounded to rounded, dominantly sub-rounded, abundant rounded, nil visible cement, abundant glauconite, trace pyrite, rare mica flakes, trace fossil, disaggregated, poor inferred porosity, no hydrocarbon fluorescence. SILTSTONE: as above, increasing argillaceous, minor glauconite. CALCAREOUS CLAYSTONE: as above | | |
| 2835.0 - 2840.0 | 40 30 30 | SANDSTONE: Clear to translucent, olive grey, very fine to medium, dominantly very fine to fine, common medium, well sorted, sub-rounded to rounded, dominantly sub-rounded, abundant rounded, nil visible cement, abundant glauconite, trace pyrite, rare mica flakes, trace fossil, disaggregated, poor inferred porosity, no hydrocarbon fluorescence. CALCAREOUS CLAYSTONE: Medium grey, minor olive grey, light grey, trace greenish grey, very calcareous where light grey, minor silty in part, trace glauconite, trace very fine to fine quartz grains, trace disseminated pyrite, trace carbonaceous material, soft to brittle, dominantly firm to brittle, common soft, sub-blocky to sub-fissile, dominantly sub-blocky, minor amorphous. SILTSTONE: Dominantly olive black, common greyish black to brownish black, arenaceous grading to argillaceous, dominantly minor to abundant in part very fine to coarse glauconite, minor micromicaceous, trace very fine floating quartz grains, rare mica flakes, trace pyrite, soft to firm, sub-blocky. | 27 | 5 |
| 2840.0 - 2845.0 | 50 40 10 | SILTSTONE: as above, abundant glauconite. SANDSTONE: as above, increasing medium grains. CALCAREOUS CLAYSTONE: as above | | |
| 2845.0 - 2850.0 | 70 30 0 | SILTSTONE: Dominantly olive black, common greyish black to brownish black, arenaceous grading to argillaceous, abundant very fine to coarse glauconite and grading to GLAUCONITIC SILTSTONE, minor micromicaceous, trace very fine floating quartz grains, rare mica flakes, trace pyrite, soft to firm, sub-blocky. SANDSTONE: Clear to translucent, olive grey, very fine to coarse, dominantly very fine to fine, common medium, rare coarse, well sorted, sub-rounded to rounded, dominantly sub-rounded, abundant rounded, nil visible cement, abundant glauconite, trace pyrite, rare mica flakes, trace fossil, disaggregated, poor inferred porosity, no hydrocarbon fluorescence. CALCAREOUS CLAYSTONE: Trace only as above. | | |
| 2850.0 - 2860.0 | 95 | GLAUCONITIC SANDSTONE: Clear to translucent, very fine to coarse, dominantly fine to medium, trace coarse, well sorted, angular to sub-rounded, dominantly sub-angular to sub-rounded, common angular, nil visible cement, trace pyrite cement, fine to coarse glauconite, rare pyrite, rare mica flakes, trace fossil, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | 14 | 1 |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----|--|--------|--------|
| 2850.0 - 2860.0 | 5 | SILTSTONE: as above | 14 | 1 |
| 2860.0 - 2865.0 | 60 | GLAUCONITIC SANDSTONE: as above | | |
| | 40 | SILTSTONE: Dominantly olive black, common greyish black to brownish black, arenaceous grading to argillaceous, abundant very fine to coarse glauconite and grading to GLAUCONITIC SILTSTONE , minor micromicaceous, trace very fine floating quartz grains, rare mica flakes, trace pyrite, soft to firm, sub-blocky. | | |
| 2865.0 - 2870.0 | 60 | GLAUCONITIC SANDSTONE: as above | | |
| | 35 | SILTSTONE: as above | | |
| | 5 | CALCAREOUS CLAYSTONE: Dark greenish grey, medium grey, light grey, very calcareous where light grey, minor silty in part, glauconite, trace disseminated pyrite, trace carbonaceous material, soft to firm, sub-blocky, minor amorphous. | | |
| 2870.0 - 2875.0 | 55 | GLAUCONITIC SANDSTONE: Clear to translucent, very fine to coarse, dominantly fine to medium, minor coarse, well sorted, angular to sub-rounded, dominantly sub-angular, abundant sub-rounded, common angular, nil visible cement, trace pyrite cement, trace dispersive argillaceous matrix, fine to coarse glauconite, rare pyrite, rare mica flakes, trace fossil, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | 13 | 1 |
| | 40 | SILTSTONE: Dominantly olive black, common greyish black to brownish black, arenaceous grading to argillaceous, abundant very fine to coarse glauconite and grading to GLAUCONITIC SILTSTONE , minor micromicaceous, trace very fine floating quartz grains, rare mica flakes, trace pyrite, soft to firm, sub-blocky. | | |
| | 5 | CALCAREOUS CLAYSTONE: Dark greenish grey, medium grey, light grey, very calcareous where light grey, minor silty in part, glauconite, trace disseminated pyrite, trace carbonaceous material, soft to firm, sub-blocky, minor amorphous. | | |
| 2875.0 - 2890.0 | 85 | GLAUCONITIC SANDSTONE: Clear to translucent, very fine to very coarse, dominantly fine to medium, minor coarse, rare very coarse, moderately sorted, angular to sub-rounded, dominantly sub-angular to angular, abundant sub-rounded, nil visible cement, trace pyrite cement, trace dispersive argillaceous matrix, fine to coarse glauconite, rare pyrite, rare mica flakes, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | | |
| | 10 | SILTSTONE: as above | | |
| | 5 | CALCAREOUS CLAYSTONE: as above | | |
| 2890.0 - 2895.0 | 75 | GLAUCONITIC SANDSTONE: as above | | |
| | 20 | SILTSTONE: Dominantly olive black, common greyish black to brownish black, arenaceous grading to argillaceous, abundant very fine to coarse glauconite and grading to GLAUCONITIC SILTSTONE , minor micromicaceous, trace very fine floating quartz grains, rare mica flakes, trace pyrite, soft to firm, sub-blocky. | | |
| | 5 | CLAYSTONE: Dark greenish grey, medium grey, light grey, very calcareous where light grey, minor silty in part, glauconite, trace disseminated pyrite, trace carbonaceous material, soft to firm, sub-blocky, minor amorphous. | | |
| 2895.0 - 2905.0 | 70 | GLAUCONITIC SANDSTONE: Clear to translucent, very fine to very coarse, dominantly fine to medium, common very fine, minor coarse to very coarse, poorly sorted, angular to rounded, dominantly sub-angular to angular, abundant sub-rounded, rounded coarser grains, rare pyrite cement, trace dispersive argillaceous matrix, fine to coarse glauconite and grading to GREENSAND , rare pyrite, rare mica flakes, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | 2 | 0 |
| | 20 | GLAUCONITIC SILTSTONE: Olive black to greyish black, common brownish black, arenaceous, very fine to coarse glauconite, minor micromicaceous, rare mica flakes, trace pyrite nodules, firm to moderately hard, sub-blocky. | | |
| | 10 | CLAYSTONE: Medium grey to medium dark grey, rare light grey, moderately calcareous, trace glauconite, brittle to hard, dominantly brittle to moderately hard, common hard, sub-blocky. | | |
| 2905.0 - 2910.0 | 70 | GLAUCONITIC SANDSTONE: as above, trace angular fissile quartz shards. | | |
| | 25 | GLAUCONITIC SILTSTONE: as above | | |
| | 5 | CLAYSTONE: as above | | |
| 2910.0 - 2915.0 | 80 | GLAUCONITIC SANDSTONE: Clear to translucent, fine to very coarse, dominantly medium, common coarse to very coarse, moderately sorted, angular to rounded, dominantly sub-angular, abundant sub-rounded, common angular, minor rounded, trace moderately strong siliceous cement, rare strong pyrite cement, fine to coarse | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----|---|--------|--------|
| | 15 | glaucinite and grading to GREENSAND, minor quartz shards, rare pyrite, rare mica flakes, trace rose quartz, disaggregated, good inferred porosity, no hydrocarbon fluorescence. GLAUCONITIC SILTSTONE: Olive black to greyish black, common brownish black, arenaceous, very fine to coarse glauconite, minor micromicaceous, rare mica flakes, trace pyrite nodules, firm to moderately hard, sub-blocky. | | |
| | 5 | CLAYSTONE: Medium grey to medium dark grey, rare light grey, weakly to moderately calcareous, trace glauconite, minor micromicaceous, brittle to hard, dominantly brittle to moderately hard, common hard, sub-blocky. | | |
| 2915.0 - 2920.0 | 80 | SANDSTONE: Clear to translucent, opaque, fine to very coarse, bi-modal with fine to medium (50%) and coarse to very coarse (50%), well sorted, angular to rounded, dominantly sub-angular, abundant sub-rounded, abundant angular, minor rounded, trace moderately strong siliceous cement, rare strong pyrite cement, abundant fine to coarse glauconite and grading to GLAUCONITIC SANDSTONE where fine to medium grained, minor quartz shards, rare pyrite, trace rose quartz, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | 1 | 0 |
| | 15 | GLAUCONITIC SILTSTONE: as above | | |
| | 5 | CLAYSTONE: as above, pyritised in part. | | |
| 2920.0 - 2925.0 | 90 | SANDSTONE: as above, 40% fine to medium, 60% coarse to very coarse. | | |
| | 10 | CLAYSTONE: as above | | |
| | 0 | SILTSTONE: Trace only olive black to greyish black, arenaceous, common very fine to coarse glauconite, minor micromicaceous, firm to moderately hard, sub-blocky. | | |
| 2925.0 - 2930.0 | 90 | SANDSTONE: Clear to translucent, opaque, very fine to very coarse, bi-modal with very fine to medium (50%) and coarse to very coarse (50%), well sorted, angular to rounded, dominantly sub-angular, abundant sub-rounded, abundant angular, minor rounded, trace moderately strong siliceous cement, rare strong pyrite cement, abundant fine to coarse glauconite and grading to GLAUCONITIC SANDSTONE where very fine to medium grained, minor quartz shards, rare pyrite, trace rose quartz, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | | |
| | 10 | CLAYSTONE: as above | | |
| 2930.0 - 2940.0 | 95 | SANDSTONE: Dominantly opaque, common clear to translucent, coarse to very coarse, dominantly very coarse, abundant coarse, well sorted, angular to rounded, dominantly sub-rounded to rounded, abundant sub-angular, common angular, trace fine glauconite, minor quartz shards, trace nodular pyrite, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | 1 | 0 |
| | 5 | CLAYSTONE: Medium dark grey, weakly calcareous, common micromicaceous, brittle to hard, dominantly brittle to moderately hard, common hard, sub-blocky. | | |
| 2940.0 - 2950.0 | 95 | SANDSTONE: Dominantly opaque, abundant clear to translucent, fine to very coarse, bi-modal with fine to medium (30%) and coarse to very coarse (70%), well sorted, angular to rounded, dominantly sub-rounded to rounded, abundant sub-angular, common angular, trace fine glauconite, minor quartz shards, trace nodular pyrite, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | | |
| | 5 | CLAYSTONE: as above | | |
| 2950.0 - 2960.0 | 95 | SANDSTONE: as above | 1 | 1 |
| | 5 | CLAYSTONE: as above | | |
| 2960.0 - 2970.0 | 90 | SANDSTONE: Dominantly opaque, abundant clear to translucent, fine to very coarse, bi-modal with fine to medium (40%) and coarse to very coarse (60%), well sorted, angular to rounded, dominantly sub-rounded to rounded, abundant sub-angular, common angular, trace moderate siliceous cement, trace fine glauconite, minor quartz shards, trace nodular pyrite, friable aggregates, dominantly disaggregated, poor visible porosity, good inferred porosity, no hydrocarbon fluorescence. | | |
| | 5 | CLAYSTONE: Medium dark grey, commonly silty and grading to ARGILLACEOUS SILTSTONE, weakly calcareous, common micromicaceous, brittle to hard, dominantly brittle to moderately hard, common hard, sub-blocky. | | |
| | 5 | SILTSTONE: Medium dark grey, mottled appearance, arenaceous to minor argillaceous in part, trace to minor carbonaceous material, abundant argillaceous matrix and grading to SILTY CLAYSTONE, trace very fine quartz grains, soft to brittle, dominantly firm, common soft, minor brittle, sub-blocky. | | |
| 2970.0 - 2980.0 | 85 | SANDSTONE: Dominantly opaque, abundant clear to translucent, fine to very coarse, bi-modal with fine to medium (20%) and coarse to very coarse (80%), well sorted, angular to rounded, dominantly sub-rounded to rounded, abundant | 1 | 0 |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----|---|--------|--------|
| | 5 | sub-angular, minor angular, trace moderate siliceous cement, trace fine glauconite, trace quartz shards, trace nodular pyrite, rare carbonaceous material, friable aggregates, dominantly disaggregated, poor visible porosity, good inferred porosity, no hydrocarbon fluorescence. CLAYSTONE: as above | | |
| | 5 | SILTSTONE: as above | | |
| | 5 | COAL: Black to greyish black, humic, lignitic, dull to earthy, rare sub-vitreous, brittle to hard, blocky to sub-blocky, hackly fracture, silty in part, trace disseminated pyrite. | | |
| 2980.0 - 2990.0 | 95 | SANDSTONE: Dominantly opaque, abundant clear to translucent, coarse to very coarse, well sorted, angular to rounded, dominantly sub-rounded to rounded, abundant sub-angular, common well rounded, minor angular, trace quartz shards, trace nodular pyrite, trace carbonaceous material, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | | |
| | 5 | SILTSTONE: Medium dark grey, arenaceous to minor argillaceous in part, trace to minor carbonaceous material, abundant argillaceous matrix and grading to SILTY CLAYSTONE, trace very fine quartz grains, soft to brittle, dominantly firm, common soft, minor brittle, sub-blocky. | | |
| 2990.0 - 3000.0 | 90 | SANDSTONE: as above | 0 | 0 |
| | 10 | SILTSTONE: as above | | |
| 3000.0 - 3010.0 | 90 | SANDSTONE: as above, increasing pyrite. | | |
| | 10 | SILTSTONE: as above | | |
| 3010.0 - 3020.0 | 75 | SANDSTONE: Dominantly opaque, abundant clear to translucent, fine to very coarse, dominantly coarse to very coarse, abundant fine to medium, moderately sorted, angular to rounded, dominantly sub-rounded to rounded, abundant sub-angular, common well rounded, minor angular, trace moderate calcareous cement, trace strong pyrite cement, trace quartz shards, trace nodular pyrite, trace carbonaceous material, friable aggregates, dominantly disaggregated, poor visible porosity, good inferred porosity, no hydrocarbon fluorescence. | 0 | 0 |
| | 25 | SILTSTONE: Medium dark grey, dominantly very finely arenaceous to minor argillaceous in part, trace to minor carbonaceous material, abundant argillaceous matrix and grading to SILTY CLAYSTONE, trace lithics, soft to brittle, dominantly firm, common soft, minor brittle, sub-blocky. | | |
| 3020.0 - 3030.0 | 60 | SANDSTONE: Opaque, clear to translucent, very fine to very coarse, poorly sorted, angular to rounded, dominantly sub-rounded to rounded, abundant sub-angular, common well rounded, minor angular, trace moderate calcareous cement, trace strong pyrite cement, trace quartz shards, trace nodular pyrite, trace carbonaceous material, friable aggregates, dominantly disaggregated, poor visible porosity, good inferred porosity, no hydrocarbon fluorescence. | | |
| | 30 | SILTSTONE: Medium dark grey, minor brownish black, dominantly very finely arenaceous to minor argillaceous in part, carbonaceous where brownish black, trace to minor carbonaceous material, abundant argillaceous matrix and grading to SILTY CLAYSTONE, trace very fine glauconite, trace lithics, firm to brittle, dominantly firm, minor brittle, sub-blocky. | | |
| | 10 | CLAYSTONE: Medium grey, silty and grading to SILTY CLAYSTONE and ARGILLACEOUS SILTSTONE, trace to minor carbonaceous material, trace lithics, trace carbonaceous material, weakly calcareous, firm to brittle, dominantly firm, minor brittle, sub-blocky. | | |
| 3030.0 - 3040.0 | 60 | SANDSTONE: as above | 0 | 0 |
| | 30 | SILTSTONE: as above | | |
| | 10 | CLAYSTONE: as above | | |
| 3040.0 - 3050.0 | 75 | SANDSTONE: Opaque, clear to translucent, fine to very coarse, dominantly medium to coarse, minor fine, abundant very coarse, moderately sorted, angular to rounded, dominantly angular to sub-angular, minor sub-rounded to rounded, trace strong pyrite cement, trace quartz shards, trace nodular pyrite, trace carbonaceous material, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | | |
| | 20 | SILTSTONE: Dark grey to olive black, minor brownish black, arenaceous to minor argillaceous in part, carbonaceous where brownish black, trace to minor carbonaceous material and laminae, trace micromicaceous, trace lithics, firm to brittle, dominantly firm, minor brittle, sub-blocky. | | |
| | 5 | CLAYSTONE: Trace only as above, micromicaceous in part. | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----|--|--------|--------|
| 3050.0 - 3060.0 | 85 | SANDSTONE: Opaque, clear to translucent, very fine to very coarse, dominantly coarse to very coarse, abundant very fine to medium, poorly sorted, angular to rounded, dominantly sub-angular to sub-rounded, common angular and rounded, trace strong pyrite cement, trace quartz shards, trace nodular pyrite, trace carbonaceous material, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | 1 | 0 |
| | 10 | SILTSTONE: as above | | |
| | 5 | CLAYSTONE: as above | | |
| 3060.0 - 3070.0 | 85 | SANDSTONE: Opaque, clear to translucent, very fine to very coarse, very poorly sorted, angular to rounded, dominantly sub-angular to sub-rounded, common angular and rounded, trace strong pyrite cement, trace quartz shards, trace nodular pyrite, trace carbonaceous material, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | | |
| | 5 | SILTSTONE: Dark grey to olive black, minor brownish black, arenaceous to minor argillaceous in part, carbonaceous where brownish black, trace to minor carbonaceous material and laminae, trace micromicaceous, trace lithics, firm to brittle, dominantly firm, minor brittle, sub-blocky. | | |
| | 5 | CLAYSTONE: Medium grey, silty and grading to SILTY CLAYSTONE and ARGILLACEOUS SILTSTONE, trace to minor carbonaceous material, trace lithics, trace carbonaceous material, trace micromicaceous, weakly calcareous, firm to brittle, dominantly firm, minor brittle, sub-blocky. | | |
| | 5 | COAL: Black to greyish black, humic, lignitic, dull to earthy, brittle to hard, blocky to sub-blocky, hackly fracture, silty in part and grading to CARBONACEOUS SILTSTONE, trace disseminated pyrite. | | |
| 3070.0 - 3080.0 | 75 | SANDSTONE: Opaque, clear to translucent, very fine to very coarse, dominantly coarse to very coarse, common very fine to medium, poorly sorted, angular to rounded, dominantly sub-angular to sub-rounded, common angular and rounded, trace strong pyrite cement, trace quartz shards, trace nodular pyrite, trace carbonaceous material, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | 1 | 0 |
| | 25 | SILTSTONE: as above, very arenaceous in part. | | |
| 3080.0 - 3090.0 | 70 | SANDSTONE: as above | | |
| | 30 | SILTSTONE: Dark grey to olive black, abundant brownish black, arenaceous to minor argillaceous in part, carbonaceous where brownish black, trace to minor carbonaceous material and laminae, trace micromicaceous, trace lithics, firm to brittle, dominantly firm, minor brittle, sub-blocky. | | |
| 3090.0 - 3100.0 | 70 | SANDSTONE: as above | 0 | 0 |
| | 30 | SILTSTONE: as above | | |
| 3100.0 - 3110.0 | 75 | SANDSTONE: clear to translucent, pale grey and off white, very fine to very coarse, dominantly very fine and very coarse, poorly sorted, sub-rounded where very fine to fine, sub-rounded to angular white coarse to very coarse, minor weak calcareous cement, common to locally abundant off white and light grey argillaceous matrix where very fine and commonly grading to an ARENACEOUS SILTSTONE in part, trace to minor moderately strong pyritic cement, minor nodular pyrite, generally loose, moderately hard aggregates, poor to fair inferred porosity, no hydrocarbon fluorescence. | | |
| | 25 | SILTSTONE: olive grey to medium brown grey, common light grey to off white, occasionally dark grey to olive black, commonly arenaceous and grading to a SILTY SANDSTONE, common carbonaceous material and localised COAL fragments where brownish black, trace micromicaceous, trace lithics, moderately hard to hard, minor brittle, sub-block to blocky. Silt and clay portion is being washed from sample - should be much higher percentage. | | |
| 3110.0 - 3120.0 | 80 | SANDSTONE: as above, abundant off white argillaceous matrix and commonly occurring as rock flour, common grading to an ARENACEOUS SILTSTONE. | 0 | 0 |
| | 20 | SILTSTONE: as above, increasingly off white in colour. Silt and clay portion is being washed from sample - should be much higher percentage. | | |
| 3120.0 - 3130.0 | 75 | SANDSTONE: as above, common moderately strong very fine to fine aggregates | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|--------------|--|--------|--------|
| | 25 | with abundant off white argillaceous matrix and generally grading to an ARENACEOUS SILTSTONE, very poor visible porosity. SILTSTONE: as above, increasingly common carbonaceous laminations. Silt and clay portion is being washed from sample - should be much higher percentage. | | |
| 3130.0 - 3140.0 | 70 30 | SANDSTONE: pale grey and off white, translucent, very fine to very coarse, dominantly very fine and very coarse, poorly sorted, sub-rounded where very fine to fine, sub-rounded to angular white coarse to very coarse, minor weak calcareous cement, minor to locally common off white matrix where very fine and commonly grading to an ARENACEOUS SILTSTONE in part, trace to minor moderately strong pyritic cement, minor nodular pyrite, generally loose, moderately hard aggregates, poor to fair inferred porosity, no hydrocarbon fluorescence. SILTSTONE: olive grey to medium brown grey, common light grey to off white, occasionally dark grey to olive black, commonly arenaceous and grading to a SILTY SANDSTONE, common carbonaceous material and localised COAL fragments where brownish black, minor micromicaceous and lithics, occasional nodular and disseminated pyrite, moderately hard to hard, minor brittle, sub-block to blocky. Silt and clay portion is being washed from sample - should be much higher percentage. | 0 | 0 |
| 3140.0 - 3150.0 | 60 40 | SANDSTONE: as above SILTSTONE: as above | | |
| 3150.0 - 3160.0 | 85 15 | SANDSTONE: as above, dominantly coarse to very coarse clean and frosted quartz grains. SILTSTONE: off white to light grey, commonly olive grey, occasionally olive black and medium brown, commonly arenaceous and grading to a SILTY SANDSTONE, occasional carbonaceous material and localised COAL fragments where brownish black, minor micromicaceous and lithics, occasional nodular and disseminated pyrite, moderately hard to hard, minor brittle, sub-block to blocky. Silt and clay portion is being washed from sample - should be much higher percentage. | 0 | 0 |
| 3160.0 - 3170.0 | 85 15 | SANDSTONE: clear to translucent, pale grey and off white in part, very fine to very coarse, dominantly coarse to very coarse, moderately sorted, sub-rounded where very fine to fine, sub-rounded to angular where coarse to very coarse, minor weak calcareous cement, minor to locally common off white matrix where very fine, trace to minor moderately strong pyritic cement, minor nodular pyrite, generally loose fractured grains, occasional chert grains, moderately hard aggregates, fair to good inferred porosity, no hydrocarbon fluorescence. SILTSTONE: as above Silt and clay portion is being washed from sample - should be much higher percentage. | | |
| 3170.0 - 3180.0 | 95 5 | SANDSTONE: clear to translucent, pale grey and off white in part, dominantly coarse to very coarse, minor very fine to fine, well sorted, sub-rounded to angular where coarse to very coarse, sub-rounded where very fine to fine, minor weak calcareous cement, minor to locally common off white matrix where very fine, trace to minor moderately strong pyritic cement, minor nodular pyrite, trace COAL fragments, generally loose fractured grains, common medium grey chert grains, rare moderately hard aggregates, good inferred porosity, no hydrocarbon fluorescence. SILTSTONE: off white to light grey, commonly olive grey, occasionally olive black and medium brown, commonly arenaceous and grading to a SILTY SANDSTONE, occasional carbonaceous material and localised COAL laminations and fragments where brownish black, minor micromicaceous and lithics, occasional nodular and disseminated pyrite, moderately hard to hard, sub-block to blocky. Silt and clay portion is being washed from sample - should be much higher percentage. | 0 | 0 |
| 3180.0 - 3190.0 | 95 5 | SANDSTONE: as above SILTSTONE: as above | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----|--|--------|--------|
| | | Silt and clay portion is being washed from sample - should be much higher percentage. | | |
| 3190.0 - 3200.0 | 95 | SANDSTONE: clear to translucent, frosted, trace pale grey to off white in part, very fine to very coarse, dominantly coarse to very coarse, poorly sorted, sub-rounded to angular where coarse to very coarse, sub-rounded where very fine to fine, minor weak calcareous cement, rare off white matrix where very fine grained, trace to minor moderately strong pyritic cement, generally loose clean fractured grains, common medium grey chert grains, rare moderately hard aggregates, fair to good inferred porosity, no hydrocarbon fluorescence. | 0 | 0 |
| | 5 | SILTSTONE: off white to light grey, olive grey, occasionally olive black and medium brown, commonly arenaceous and grading to a SILTY SANDSTONE, occasional carbonaceous material and localised COAL laminations and fragments where brownish black, minor micromicaceous and lithics, occasional nodular and disseminated pyrite, moderately hard to hard, sub-block to blocky. | | |
| | | Silt and clay portion is being washed from sample - should be much higher percentage. | | |
| 3200.0 - 3210.0 | 90 | SANDSTONE: clear to translucent, pale grey and off white in part, dominantly coarse to very coarse, minor very fine to fine, well sorted, sub-rounded to angular where coarse to very coarse, sub-rounded where very fine to fine, minor weak calcareous cement, minor to locally common off white matrix where very fine, trace to minor moderately strong pyritic cement, minor nodular pyrite, occasional COAL fragments, occasional iron staining, generally loose fractured grains, common medium grey chert grains, rare moderately hard aggregates, good inferred porosity, no hydrocarbon fluorescence. | | |
| | 10 | SILTSTONE: off white to light grey, commonly olive grey, occasionally olive black and medium brown, commonly arenaceous and grading to a SILTY SANDSTONE, common carbonaceous material and localised COAL laminations and fragments where brownish black, minor micromicaceous and lithics, occasional nodular and disseminated pyrite, moderately hard to hard, sub-block to blocky. | | |
| | | Silt and clay portion is being washed from sample - should be much higher percentage. | | |
| 3210.0 - 3220.0 | 85 | SANDSTONE: as above | 0 | 0 |
| | 15 | SILTSTONE: as above, common micromicaceous and muscovite micas. | | |
| | | Silt and clay portion is being washed from sample - should be much higher percentage. | | |
| 3220.0 - 3230.0 | 90 | SANDSTONE: clear to translucent, pale grey and off white in part, dominantly coarse to very coarse, minor very fine to fine, generally well sorted, sub-rounded to angular where coarse to very coarse, sub-rounded where very fine to fine, minor to locally common off white matrix where very fine grained, trace moderately strong pyritic cement, minor nodular pyrite, occasional iron staining, generally loose fractured grains, common medium grey chert grains, rare moderately hard aggregates, good inferred porosity, no hydrocarbon fluorescence. | | |
| | 10 | SILTSTONE: off white to light grey, commonly olive grey, occasionally olive black and medium brown, commonly arenaceous and grading to a SILTY SANDSTONE, common carbonaceous material and localised COAL laminations and fragments where brownish black, minor micromicaceous and lithics, occasional nodular and disseminated pyrite, moderately hard to hard, sub-block to blocky. | | |
| | | Silt and clay portion is being washed from sample - should be much higher percentage. | | |
| 3230.0 - 3240.0 | 80 | SANDSTONE: clear to translucent, pale grey and off white in part, dominantly coarse to very coarse, minor very fine to fine, well sorted, sub-rounded to angular where coarse to very coarse, sub-rounded where very fine to fine, minor weak calcareous cement, minor to locally common pale grey to off white matrix where very fine to fine aggregates, trace to minor moderately strong pyritic cement, minor nodular pyrite, occasional COAL fragments, occasional iron staining, generally loose fractured grains, common medium grey chert grains, rare moderately hard aggregates, good inferred porosity, no hydrocarbon fluorescence. | 0 | 0 |
| | 20 | SILTSTONE: off white to light grey, commonly olive grey, occasionally olive black and medium brown, commonly arenaceous and grading to a SILTY SANDSTONE, | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----------|---|--------|--------|
| | | argillaceous in part, common carbonaceous material and localised COAL laminations and fragments where brownish black, minor micromicaceous and lithics, occasional nodular pyrite, moderately hard to hard, sub-block to blocky. Silt and clay portion is being washed from sample - should be much higher percentage. | | |
| 3240.0 - 3250.0 | 80 20 | SANDSTONE: as above SILTSTONE: as above Silt and clay portion is being washed from sample - should be much higher percentage. | | |
| 3250.0 - 3260.0 | 85 15 | SANDSTONE: as above, dominantly coarse to very coarse. SILTSTONE: as above | 0 | 0 |
| 3260.0 - 3270.0 | 90 10 | SANDSTONE: as above SILTSTONE: as above | | |
| 3270.0 - 3280.0 | 90 10 | SANDSTONE: clear to translucent, minor pale grey and off white in part, dominantly coarse to very coarse grains, minor very fine to fine, generally well sorted, sub-rounded to angular where coarse to very coarse, sub-rounded where very fine to fine, minor to locally common pale grey to off white matrix where very fine to fine aggregates, trace to minor moderately strong pyritic cement, minor nodular pyrite, occasional iron staining, generally loose fractured grains, common medium grey chert grains, rare moderately hard aggregates, good inferred porosity, no hydrocarbon fluorescence. SILTSTONE: light grey, light grey to medium brown, occasionally olive black and medium brown, commonly arenaceous and grading to a SILTY SANDSTONE, argillaceous in part, common carbonaceous material and localised COAL laminations and fragments where brownish black, minor micromicaceous and lithics, occasional nodular pyrite, moderately hard to hard, sub-block to blocky. Clay fraction being lost from sample during washing process. Clay portion is much higher | 0 | 0 |
| 3280.0 - 3290.0 | 90 10 | SANDSTONE: as above SILTSTONE: as above Clay fraction being lost from sample during washing process. Clay portion is much higher | | |
| 3290.0 - 3300.0 | 90 10 | SANDSTONE: clear to translucent, minor pale grey and off white in part, dominantly coarse to very coarse grains, minor very fine to fine, generally well sorted, sub-rounded to angular where coarse to very coarse, sub-rounded where very fine to fine, minor to locally common pale grey to off white matrix where very fine to fine aggregates, minor to locally common moderately strong pyritic cement, minor nodular pyrite, occasional iron staining, generally loose fractured grains, common medium grey chert grains, rare moderately hard aggregates, good inferred porosity, no hydrocarbon fluorescence. SILTSTONE: as above Clay fraction being lost from sample during washing process. Clay portion is much higher | 0 | 0 |
| 3300.0 - 3310.0 | 90 10 | SANDSTONE: clear to translucent, minor pale grey and off white in part, very fine to very coarse, poorly sorted, sub-rounded to angular where coarse to very coarse, sub-rounded where very fine to fine, minor to locally common pale grey to off white silty matrix where very fine to fine aggregates, minor to locally common moderately strong pyritic cement, minor nodular pyrite, occasional iron staining in coarse to very coarse grains, generally loose fractured grains, common medium grey chert grains, rare moderately hard aggregates, good inferred porosity, no hydrocarbon fluorescence. SILTSTONE: light grey, light grey to medium brown, occasionally olive black and medium brown, commonly arenaceous and grading to a SILTY SANDSTONE, argillaceous in part, common carbonaceous material and localised COAL laminations | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----|---|--------|--------|
| | | and fragments where brownish black, minor micromicaceous and lithics, occasional nodular pyrite, moderately hard to hard, sub-block to blocky. Clay fraction being lost from sample during washing process. Clay portion is much higher | | |
| 3310.0 - 3320.0 | 80 | SANDSTONE: clear to translucent, off white to pale grey where very fine to fine aggregates, very fine to very coarse, poorly sorted, very well sorted aggregates, sub-rounded to angular where coarse to very coarse, sub-rounded where very fine to fine, common to abundant pale grey to off white silty matrix where very fine to fine grained aggregates and generally grading to an ARENACEOUS SILTSTONE, locally common moderately strong pyritic cement, minor nodular pyrite, generally loose fractured coarse grains, common medium grey chert grains, rare fine glauconite material, moderately hard very fine to fine grained aggregates, very poor visible porosity associated with aggregates, good inferred porosity, no hydrocarbon fluorescence. | 0 | 0 |
| | 20 | SILTSTONE: off white to light grey, light grey to medium brown, rare olive black and medium brown, generally arenaceous and common grading to a SILTY SANDSTONE, argillaceous in part, common carbonaceous laminations and specks, minor micromicaceous, occasional nodular and disseminated pyrite, moderately hard to hard, sub-block to blocky. Clay fraction being lost from sample during washing process. Clay portion is much higher | | |
| 3320.0 - 3330.0 | 75 | SANDSTONE: as above | | |
| | 25 | SILTSTONE: as above | | |
| 3330.0 - 3337.0 | 75 | SANDSTONE: as above, common to locally abundant pyritic cement, common muscovite micas. | 0 | 0 |
| | 25 | SILTSTONE: as above Clay fraction being lost from sample during washing process. Clay portion is much higher | | |
| 3337.0 - 3340.0 | 80 | SANDSTONE: Clear to translucent, very fine to coarse, dominantly fine to medium, common very fine and coarse, well sorted, sub-angular to rounded, minor nodular pyrite, common glauconite, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | | |
| | 10 | SILTSTONE: Medium grey to olive grey, dominantly arenaceous and common grading to a SILTY SANDSTONE, argillaceous in part, minor carbonaceous laminations and specks, minor micromicaceous, minor nodular and disseminated pyrite, brittle to moderately hard, sub-blocky. | | |
| | 10 | CLAYSTONE: Medium grey to medium dark grey, minor olive grey, moderately calcareous, silty in part and grading to ARGILLACEOUS SILTSTONE, minor carbonaceous material, common micromicaceous, trace very fine lithics, trace very fine glauconite, dispersive in part, firm to moderately hard, dominantly firm to brittle, common moderately hard, sub-blocky to sub-fissile, rarely fissile to splintery, common amorphous. Common CaCO ₂ | | |
| 3340.0 - 3350.0 | 40 | CLAYSTONE: Medium grey to medium dark grey, minor olive grey, moderately calcareous, silty in part and grading to ARGILLACEOUS SILTSTONE, minor carbonaceous material, common micromicaceous, trace very fine lithics, trace very fine glauconite, dispersive in part, firm to moderately hard, dominantly firm to brittle, common moderately hard, sub-blocky to sub-fissile, rarely fissile to splintery, common amorphous. | | |
| | 40 | SILTSTONE: Medium grey to olive grey, dominantly arenaceous and common grading to a SILTY SANDSTONE, argillaceous in part, minor carbonaceous laminations and specks, minor micromicaceous, minor nodular and disseminated pyrite, brittle to moderately hard, sub-blocky. | | |
| | 20 | SANDSTONE: Clear to translucent, medium light where very fine to fine aggregates, very fine to very coarse, poorly sorted, very well sorted aggregates, sub-rounded to angular where coarse to very coarse, sub-rounded where very fine to fine, common to abundant pale grey silty matrix where very fine to fine grained aggregates and generally grading to an ARENACEOUS SILTSTONE, trace moderately strong pyritic cement, minor nodular pyrite, generally loose fractured coarse grains, trace chert grains, rare fine glauconite material, moderately hard very fine to fine grained | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----|---|--------|--------|
| | | aggregates, dominantly disaggregated, very poor visible porosity associated with aggregates, fair inferred porosity, no hydrocarbon fluorescence. | | |
| 3350.0 - 3360.0 | 50 | SILTSTONE: Medium grey to olive grey, minor dark grey to olive black, dominantly arenaceous, common argillaceous matrix, minor to locally common carbonaceous laminations and specks, minor micromicaceous, minor nodular and disseminated pyrite, brittle to moderately hard, sub-blocky. | | |
| | 30 | CLAYSTONE: as above | | |
| | 20 | SANDSTONE: Clear to translucent, very fine to very coarse, dominantly very fine to fine, abundant medium, minor coarse to very coarse, well sorted, angular to rounded, dominantly sub-angular to sub-rounded, common rounded, minor angular, trace nodular pyrite, minor glauconite, trace mica flakes, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | | |
| 3360.0 - 3370.0 | 40 | SANDSTONE: Clear to translucent, very fine to very coarse, dominantly very fine to fine, abundant medium, minor coarse to very coarse, well sorted, angular to rounded, dominantly sub-angular to sub-rounded, common rounded, minor angular, trace nodular pyrite, minor glauconite, trace mica flakes, disaggregated, good inferred porosity, no hydrocarbon fluorescence. | | |
| | 35 | SILTSTONE: Medium grey to olive grey, minor dark grey to olive black, mottled appearance in part, dominantly arenaceous, carbonaceous in part where olive black, common argillaceous matrix, minor to locally common carbonaceous laminations and specks, common glauconite where olive black, common micromicaceous, minor nodular and disseminated pyrite, brittle to moderately hard, sub-blocky. | | |
| | 25 | CLAYSTONE: Medium grey to medium dark grey, abundant olive grey, minor dark greenish grey, moderately to strongly calcareous, silty in part, minor carbonaceous material, abundant micromicaceous, trace very fine lithics, trace very fine glauconite, firm to moderately hard, dominantly firm to brittle, abundant moderately hard, sub-blocky to sub-fissile, rarely fissile to splintery. | | |
| 3370.0 - 3380.0 | 40 | SANDSTONE: as above | | |
| | 40 | SILTSTONE: as above, increasing olive black. | | |
| | 20 | CLAYSTONE: as above, trace disseminated pyrite, trace quartz grains. | | |
| 3380.0 - 3390.0 | 50 | SILTSTONE: Dominantly olive black, medium grey to olive grey, minor dark grey, mottled appearance in part, arenaceous, weakly calcareous in part, common argillaceous matrix, minor to common carbonaceous laminations and specks, trace glauconite, common micromicaceous, minor nodular and disseminated pyrite, common fine quartz, grades to SILTY SANDSTONE in part, firm to brittle, sub-blocky. | | |
| | 30 | SANDSTONE: Clear to translucent, medium grey aggregates, very fine to very coarse, dominantly very fine to fine, minor medium, minor coarse to very coarse, well sorted, angular to rounded, dominantly sub-rounded to rounded, abundant sub-angular, minor angular, rare strong calcareous cemented aggregates, trace pyrite cement, silty matrix and grading to SILTY SANDSTONE, trace glauconite, trace mica flakes, hard aggregates, dominantly disaggregated, very poor visual porosity, fair inferred porosity, no hydrocarbon fluorescence. | | |
| | 20 | CLAYSTONE: Medium grey to medium dark grey, abundant olive grey, minor dark greenish grey, moderately to strongly calcareous, silty in part, minor carbonaceous material, abundant micromicaceous, trace very fine lithics, trace very fine glauconite, trace disseminated pyrite, trace quartz grains, firm to moderately hard, dominantly firm to brittle, abundant moderately hard, sub-blocky to sub-fissile, rarely fissile to splintery. | | |
| 3390.0 - 3400.0 | 50 | SILTSTONE: as above | | |
| | 30 | SANDSTONE: as above | | |
| | 20 | CLAYSTONE: as above | | |
| 3400.0 - 3410.0 | 55 | SILTSTONE: Olive black, very arenaceous, common argillaceous matrix, minor to common carbonaceous laminations and specks, trace very fine glauconite, common micromicaceous, minor nodular and disseminated pyrite, common fine quartz, grades to SILTY SANDSTONE in part, firm to brittle, sub-blocky. | | |
| | 40 | SANDSTONE: Clear to translucent, medium grey aggregates, very fine to very coarse, dominantly very fine to fine, minor medium, minor coarse to very coarse, well sorted, angular to rounded, dominantly sub-rounded to rounded, abundant sub-angular, minor angular, rare strong calcareous cemented aggregates, trace pyrite cement, silty matrix and grading to SILTY SANDSTONE, trace very fine glauconite, trace mica flakes, hard aggregates, dominantly disaggregated, very poor visual porosity, fair inferred porosity, no hydrocarbon fluorescence. | | |
| | 5 | CLAYSTONE: Dark greenish grey to medium dark grey, moderately to strongly | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|---------------|---|--------|--------|
| | | calcareous grading to dolomitic, micromicaceous, hard, sub-blocky to blocky. | | |
| 3410.0 - 3420.0 | 50 45 5 | SILTSTONE: as above SANDSTONE: as above CLAYSTONE: as above | | |
| 3420.0 - 3430.0 | 50 50 | SANDSTONE: Clear to translucent, very fine to coarse, dominantly fine, abundant very fine, common medium, rare coarse, well sorted, angular to rounded, dominantly sub-rounded to rounded, abundant sub-angular, minor angular, trace residual pyrite cement, trace pyrite nodules, trace very fine glauconite, trace carbonaceous material, trace mica flakes, disaggregated, fair inferred porosity, no hydrocarbon fluorescence. SILTSTONE: Olive black, very arenaceous, common argillaceous matrix, common carbonaceous laminations and material, trace very fine glauconite, common micromicaceous, minor nodular and disseminated pyrite, common fine quartz, grades to SILTY SANDSTONE in part, soft to moderately hard, dominantly firm, minor soft, common brittle, minor moderately hard, sub-blocky. | | |
| 3430.0 - 3440.0 | 70 30 | SILTSTONE: as above SANDSTONE: as above | | |
| 3440.0 - 3450.0 | 60 40 | SILTSTONE: Olive black, very arenaceous, common argillaceous matrix, common carbonaceous laminations and material, trace very fine glauconite, common micromicaceous, minor nodular and disseminated pyrite, common fine quartz, grades to SILTY SANDSTONE in part, soft to moderately hard, dominantly firm, minor soft, common brittle, minor moderately hard, sub-blocky. SANDSTONE: Clear to translucent, very fine to coarse, dominantly fine, abundant very fine, common medium, rare coarse, well sorted, angular to rounded, dominantly sub-rounded to rounded, abundant sub-angular, minor angular, trace residual pyrite cement, trace pyrite nodules, trace very fine glauconite, trace carbonaceous material, trace mica flakes, disaggregated, fair inferred porosity, no hydrocarbon fluorescence. | | |
| 3450.0 - 3460.0 | 50 50 | SANDSTONE: as above SILTSTONE: as above | | |
| 3460.0 - 3470.0 | 70 30 | SANDSTONE: Clear to translucent, very fine to medium, dominantly very fine to fine, rare coarse grains, well sorted, angular to sub-rounded, minor weak calcareous cement, trace residual pyrite cement, common to locally abundant olive grey silty matrix and locally grading to an ARENACEOUS SILTSTONE, common carbonaceous material, trace mica flakes, generally disaggregated, minor firm aggregates, poor visible porosity, fair inferred porosity, no hydrocarbon fluorescence. SILTSTONE: Olive black, very arenaceous, common argillaceous matrix, common carbonaceous laminations and material, trace very fine glauconite, commonly micromicaceous, minor nodular and disseminated pyrite, common fine quartz, grades to SILTY SANDSTONE in part, firm to moderately hard, sub-blocky. | | |
| 3470.0 - 3480.0 | 50 50 | SANDSTONE: as above SILTSTONE: as above | | |
| 3480.0 - 3490.0 | 55 45 | SANDSTONE: Clear to translucent, very fine to fine, rare medium grains, well sorted, sub-angular to sub-rounded, minor weak calcareous cement, common to abundant olive grey silty matrix and commonly grading to an ARENACEOUS SILTSTONE, common carbonaceous laminations and specks, common lithics, generally disaggregated, minor firm aggregates, poor visible porosity, fair inferred porosity, no hydrocarbon fluorescence. SILTSTONE: Olive black, very arenaceous, common argillaceous matrix, common carbonaceous laminations and material, trace very fine glauconite, commonly micromicaceous, minor nodular and disseminated pyrite, common fine quartz, grades to SILTY SANDSTONE in part, firm to moderately hard, sub-blocky. | | |
| 3490.0 - 3500.0 | 55 45 | SANDSTONE: as above, rare very coarse frosted grains. SILTSTONE: as above | | |
| 3500.0 - 3510.0 | 60 40 | SILTSTONE: Olive black, very arenaceous, common argillaceous matrix, common carbonaceous laminations and material, trace very fine glauconite, commonly micromicaceous, minor nodular and disseminated pyrite, common fine quartz, grades to SILTY SANDSTONE in part, firm to moderately hard, sub-blocky. SANDSTONE: Clear to translucent, very fine to fine, rare medium grains, well sorted, sub-angular to sub-rounded, minor weak calcareous cement, common to abundant olive grey silty matrix and commonly grading to an ARENACEOUS SILTSTONE, common carbonaceous laminations and specks, common lithics, | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----------|--|--------|--------|
| | | generally disaggregated, minor firm aggregates, poor visible porosity, fair inferred porosity, no hydrocarbon fluorescence. | | |
| 3510.0 - 3520.0 | 70 30 | SILTSTONE: as above SANDSTONE: as above | | |
| 3520.0 - 3530.0 | 50 50 | SANDSTONE: as above SILTSTONE: as above | | |
| 3530.0 - 3540.0 | 60 40 | SANDSTONE: Clear to translucent, very fine to fine, rare medium grains, well sorted, sub-angular to sub-rounded, minor weak calcareous cement, common to abundant olive grey silty matrix and commonly grading to an ARENACEOUS SILTSTONE, common carbonaceous laminations and specks, common lithics, generally disaggregated, minor firm aggregates, poor visible porosity, fair inferred porosity, no hydrocarbon fluorescence. SILTSTONE: Olive black, very arenaceous, common argillaceous matrix, common to abundant carbonaceous laminations and specks, trace very fine glauconite, commonly micromicaceous, minor nodular and disseminated pyrite, common fine quartz, grades to SILTY SANDSTONE in part, firm to moderately hard, sub-blocky. | | |
| 3540.0 - 3550.0 | 80 20 | SILTSTONE: as above, common argillaceous matrix, common to abundant carbonaceous laminations and specks. SANDSTONE: as above | | |
| 3550.0 - 3560.0 | 70 30 | SILTSTONE: Olive grey, very arenaceous, common argillaceous matrix, common carbonaceous laminations and material, trace very fine glauconite, commonly micromicaceous, trace nodular pyrite, commonly grades to SILTY SANDSTONE, common to abundant carbonaceous laminations and specks, soft to moderately hard, dominantly firm to brittle, common soft, common moderately hard, sub-blocky. SANDSTONE: Clear to translucent, very fine to fine, rare medium grains, well sorted, sub-angular to sub-rounded, trace weak calcareous cement, common to abundant olive grey silty matrix and commonly grading to an ARENACEOUS SILTSTONE, common carbonaceous laminations and specks, common lithics, generally disaggregated, minor firm aggregates, poor visible porosity, fair inferred porosity, no hydrocarbon fluorescence. | | |
| 3560.0 - 3570.0 | 90 10 | SILTSTONE: as above SANDSTONE: as above | | |
| 3570.0 - 3580.0 | 95 5 | SILTSTONE: as above SANDSTONE: as above | | |
| 3580.0 - 3590.0 | 95 5 | SILTSTONE: Olive grey, very arenaceous, common argillaceous matrix, trace very fine glauconite, commonly micromicaceous, trace nodular pyrite, commonly grades to SILTY SANDSTONE, common to abundant carbonaceous laminations and specks, soft to moderately hard, dominantly firm to brittle, common soft, common moderately hard, sub-blocky. SANDSTONE: pale brown, off white, minor translucent, very fine to fine, dominantly very fine, rare medium grains and coarse frosted grains, well sorted, sub-angular to sub-rounded, trace weak calcareous cement, common to abundant olive grey silty matrix and commonly grading to an ARENACEOUS SILTSTONE, common carbonaceous laminations and specks, common lithics and reworked glauconite material, occasional nodular pyrite, generally disaggregated, moderately hard aggregates, very poor visible porosity, no hydrocarbon fluorescence. | | |
| 3590.0 - 3600.0 | 80 20 | SILTSTONE: as above SANDSTONE: as above, occasional platy micas, decreasing glauconite material. | | |
| 3600.0 - 3610.0 | 85 15 | SILTSTONE: as above SANDSTONE: as above | | |
| 3610.0 - 3620.0 | 75 25 | SILTSTONE: as above, increasingly argillaceous and locally becoming an ARGILLACEOUS SILTSTONE. SANDSTONE: as above | | |
| 3620.0 - 3640.0 | 55 | SILTSTONE: Olive grey, medium brown grey, arenaceous and commonly grading to a SILTY SANDSTONE, locally common argillaceous matrix, common carbonaceous laminations and specks, minor calcareous material, trace very fine glauconite, commonly micromicaceous, trace nodular pyrite, firm to moderately hard, sub-blocky. | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----|---|--------|--------|
| 3620.0 - 3640.0 | 45 | SANDSTONE: light brown to olive grey, very fine to fine, dominantly very fine, well sorted, rounded to sub-angular, minor weak calcareous cement, common to abundant olive grey silty matrix and commonly grading to an ARENACEOUS SILTSTONE, common carbonaceous laminations and specks, common lithics and reworked glauconite material, occasional nodular pyrite, generally disaggregated, moderately hard aggregates, very poor visible porosity, no hydrocarbon fluorescence. | | |
| 3640.0 - 3650.0 | 65 | SANDSTONE: light brown to olive grey, translucent in part, very fine to medium grained, occasional coarse frosted angular grains, dominantly very fine, generally well sorted, rounded to sub-angular, minor weak calcareous cement, common to abundant olive grey silty matrix and commonly grading to an ARENACEOUS SILTSTONE, common carbonaceous laminations and specks, common lithics, minor nodular pyrite and reworked glauconitic material, generally disaggregated, moderately hard very fine grained aggregates, very poor visible porosity, no hydrocarbon fluorescence. | | |
| | 35 | SILTSTONE: Olive grey, medium brown grey, arenaceous and commonly grading to a SILTY SANDSTONE, locally common argillaceous matrix, common carbonaceous laminations and specks, minor calcareous material, trace very fine glauconite, commonly micromicaceous and platy micas, trace nodular pyrite, firm to moderately hard, sub-blocky. | | |
| 3650.0 - 3660.0 | 85 | SANDSTONE: as above, are very fine aggregates, poor to fair inferred porosity. | | |
| | 15 | SILTSTONE: as above | | |
| 3660.0 - 3670.0 | 70 | SANDSTONE: as above, poor to fair inferred porosity. | | |
| | 30 | SILTSTONE: as above | | |
| 3670.0 - 3680.0 | 70 | SANDSTONE: light brown to olive grey, translucent in part, very fine to medium grained, occasional coarse frosted angular grains, dominantly very fine, generally well sorted, rounded to sub-angular, minor weak calcareous cement, common to abundant olive grey silty matrix and commonly grading to an ARENACEOUS SILTSTONE, common carbonaceous laminations and specks, common lithics, minor nodular pyrite and reworked glauconitic material, generally disaggregated, moderately hard very fine grained aggregates, as above, poor to fair inferred porosity, no hydrocarbon fluorescence. | | |
| | 30 | SILTSTONE: Olive grey, medium brown grey, arenaceous and commonly grading to a SILTY SANDSTONE, locally common argillaceous matrix, common carbonaceous laminations and specks, minor calcareous material, trace very fine glauconite, commonly micromicaceous and platy micas, trace nodular pyrite, firm to moderately hard, sub-blocky. | | |
| 3680.0 - 3690.0 | 70 | SANDSTONE: as above | | |
| | 30 | SILTSTONE: as above | | |
| 3690.0 - 3700.0 | 60 | SANDSTONE: light brown to olive grey, minor off white to translucent, very fine to medium grains, occasional coarse frosted angular grains, dominantly very fine, generally well sorted, rounded to sub-angular, minor weak calcareous cement, increasingly common moderately strong pyritic cement, common to abundant olive grey silty matrix and commonly grading to an ARENACEOUS SILTSTONE, common carbonaceous specks, common lithics, minor pyrite, common reworked glauconitic material, generally disaggregated, occasional rock flour, rare moderately hard aggregates, very poor visible porosity, no hydrocarbon fluorescence. | | |
| | 40 | SILTSTONE: Olive grey, medium brown grey, arenaceous and commonly grading to a SILTY SANDSTONE, locally common argillaceous matrix, common carbonaceous laminations and specks, minor calcareous material, trace very fine glauconite, commonly micromicaceous and platy micas, trace nodular pyrite, firm to moderately hard, sub-blocky. | | |
| 3700.0 - 3710.0 | 60 | SANDSTONE: as above | | |
| | 40 | SILTSTONE: as above | | |
| 3710.0 - 3718.0 | 75 | SANDSTONE: light brown to olive grey, minor off white to translucent, very fine to medium grains, occasional coarse frosted angular grains, dominantly very fine, generally well sorted, rounded to sub-angular, minor weak calcareous cement, increasingly common moderately strong pyritic cement, common to abundant olive grey silty matrix and commonly grading to an ARENACEOUS SILTSTONE, common carbonaceous specks, common lithics, minor pyrite, common reworked glauconitic material, generally disaggregated, occasional rock flour, rare moderately hard aggregates, very poor visible porosity, no hydrocarbon fluorescence. | | |
| | 25 | SILTSTONE: Olive grey, medium brown grey, arenaceous and commonly grading to a SILTY SANDSTONE, locally common argillaceous matrix, common carbonaceous | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----|---|--------|--------|
| | | laminations and specks, minor calcareous material, trace very fine glauconite, commonly micromicaceous and platy micas, trace nodular pyrite, firm to moderately hard, sub-blocky. | | |
| 3718.0 - 3720.0 | 60 | SILTSTONE: as above | | |
| | 40 | SANDSTONE: as above | | |
| 3720.0 - 3730.0 | 70 | SILTSTONE: as above | | |
| | 30 | SANDSTONE: as above | | |
| 3730.0 - 3740.0 | 70 | SILTSTONE: as above | | |
| | 30 | SANDSTONE: as above | | |
| 3740.0 - 3750.0 | 80 | SILTSTONE: Olive grey, medium brown grey, very arenaceous and commonly grading to a SILTY SANDSTONE, minor argillaceous, common carbonaceous laminations and specks, minor calcareous material, trace very fine glauconite, commonly micromicaceous, trace nodular pyrite, firm to moderately hard, sub-blocky. | | |
| | 20 | SANDSTONE: light brown to olive grey, minor off white, very fine to fine grains, occasional coarse frosted angular grains, dominantly very fine, well sorted, rounded to sub-angular, minor weak calcareous cement, common to abundant olive grey silty matrix and commonly grading to an ARENACEOUS SILTSTONE, minor off white argillaceous matrix, common carbonaceous specks, common lithics, minor reworked glauconitic material, generally disaggregated, moderately hard to hard aggregates, very poor visible porosity, no hydrocarbon fluorescence. | | |
| 3750.0 - 3760.0 | 70 | SILTSTONE: as above | | |
| | 30 | SANDSTONE: as above | | |
| 3760.0 - 3770.0 | 70 | SILTSTONE: as above | | |
| | 30 | SANDSTONE: as above, very fine to medium, occasional coarse frosted angular grains, dominantly very fine. | | |
| 3770.0 - 3780.0 | 75 | SILTSTONE: Olive grey, medium brown grey, very arenaceous and commonly grading to a SILTY SANDSTONE, minor argillaceous, common carbonaceous laminations and specks, minor calcareous material, trace very fine glauconite, commonly micromicaceous, trace nodular pyrite, firm to moderately hard, sub-blocky. | | |
| | 25 | SANDSTONE: light brown to olive grey, minor off white, very fine to medium, occasional coarse frosted angular grains, dominantly very fine, generally well sorted, rounded to sub-angular, minor weak calcareous cement, common to abundant olive grey silty matrix and commonly grading to an ARENACEOUS SILTSTONE, minor off white argillaceous matrix, common carbonaceous specks, common lithics, minor reworked glauconitic material, generally disaggregated, moderately hard to hard aggregates, very poor visible porosity, no hydrocarbon fluorescence. | | |
| 3780.0 - 3790.0 | 80 | SILTSTONE: as above | | |
| | 20 | SANDSTONE: as above | | |
| 3790.0 - 3800.0 | 55 | SANDSTONE: light brown to olive grey, minor off white, translucent very fine to medium, occasional coarse frosted angular grains, dominantly very fine, generally well sorted, rounded to sub-angular, minor weak calcareous cement, common to abundant olive grey silty matrix and commonly grading to an ARENACEOUS SILTSTONE, minor off white argillaceous matrix, common carbonaceous specks, common lithics, minor reworked glauconitic material, generally disaggregated, moderately hard to hard aggregates, very poor visible porosity, no hydrocarbon fluorescence. | | |
| | 45 | SILTSTONE: Olive grey, medium brown grey, rare to minor pale brown to tan, very arenaceous and commonly grading to a SILTY SANDSTONE, occasional carbonaceous laminations and specks, minor calcareous material, locally very fine glauconitic material, commonly micromicaceous, firm to moderately hard, sub-blocky. | | |
| 3800.0 - 3810.0 | 60 | SILTSTONE: as above | | |
| | 40 | SANDSTONE: as above, occasional rock flour, increasing common off white argillaceous matrix. | | |
| 3810.0 - 3820.0 | 50 | SANDSTONE: Medium grey aggregates, clear to translucent, very fine to coarse, dominantly fine, abundant very fine, abundant medium, minor coarse, well sorted, rounded to sub-angular, minor weak to moderate calcareous cement, trace residual pyrite cement, common to abundant olive grey silty matrix and commonly grading to an SILTY SANDSTONE, minor light grey argillaceous matrix, common carbonaceous specks, common lithics, minor reworked glauconitic material, rare mica flakes, | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----|--|--------|--------|
| | 50 | <p>dominantly disaggregated, minor moderately hard to hard aggregates, very poor visible porosity, fair inferred porosity, no hydrocarbon fluorescence.</p> <p>SILTSTONE: Dominantly olive black, minor olive grey, dominantly arenaceous, minor argillaceous and grading to SILTY CLAYSTONE, minor carbonaceous laminations and specks, common micromicaceous, trace mica flakes, minor calcareous material, trace very fine glauconite, trace to in part common very fine quartz, firm to moderately hard, dominantly firm to brittle, common moderately hard, sub-blocky.</p> | | |
| 3820.0 - 3830.0 | 55 | <p>SANDSTONE: Medium grey aggregates, clear to translucent, very fine to coarse, dominantly fine to medium, abundant very fine, minor coarse, well sorted, rounded to sub-angular, minor weak to moderate calcareous cement, trace residual pyrite cement, common to abundant olive grey silty matrix and commonly grading to an SILTY SANDSTONE, trace greyish orange calcareous matrix, minor light grey argillaceous matrix, common carbonaceous specks, common lithics, minor reworked glauconitic material, rare mica flakes, dominantly disaggregated, rare friable to moderately hard aggregates, very poor visible porosity, fair inferred porosity, no hydrocarbon fluorescence.</p> | | |
| | 45 | <p>SILTSTONE: Dark grey to olive black, trace olive grey, arenaceous, argillaceous in part and grading to SILTY CLAYSTONE, minor to common carbonaceous laminations and specks, common micromicaceous, trace mica flakes, minor calcareous material, trace very fine glauconite, trace to in part common very fine quartz, firm to moderately hard, dominantly firm to brittle, common moderately hard, sub-blocky.</p> | | |
| 3830.0 - 3840.0 | 50 | <p>SANDSTONE: as above, dominantly fine, abundant medium.</p> | | |
| | 50 | <p>SILTSTONE: as above</p> | | |
| 3840.0 - 3850.0 | 80 | <p>SANDSTONE: Medium grey aggregates, clear to translucent, very fine to coarse, dominantly fine, common very fine, minor medium to coarse, very well sorted, rounded to angular, dominantly sub-angular to sub-rounded, common rounded, minor angular, trace weak calcareous cement, trace olive grey silty matrix and grading to an SILTY SANDSTONE, trace light grey argillaceous matrix, common carbonaceous specks, common lithics, minor reworked glauconitic material, minor mica flakes, dominantly disaggregated, trace firm aggregates, very poor visible porosity, fair inferred porosity, no hydrocarbon fluorescence.</p> | | |
| | 20 | <p>SILTSTONE: Dark grey to olive black, common greyish black, common arenaceous, common argillaceous and grading to SILTY CLAYSTONE, minor carbonaceous laminae and specks, micromicaceous, trace mica flakes, trace calcareous material, trace very fine glauconite, trace very fine quartz, soft to brittle, dominantly firm, common soft, minor brittle, sub-blocky.</p> | | |
| 3850.0 - 3860.0 | 50 | <p>SANDSTONE: Medium grey aggregates, clear to translucent, very fine to coarse, dominantly very fine to medium, minor coarse, well sorted, rounded to angular, dominantly sub-angular to sub-rounded, common rounded, minor angular, trace weak calcareous cement, trace olive grey silty matrix and grading to an SILTY SANDSTONE, trace light grey argillaceous matrix, trace greyish orange to very light grey calcareous matrix, common carbonaceous specks, common lithics, trace reworked glauconitic material, rare mica flakes, dominantly disaggregated, trace firm aggregates, very poor visible porosity, fair inferred porosity, no hydrocarbon fluorescence.</p> | | |
| | 50 | <p>SILTSTONE: as above</p> | | |
| 3860.0 - 3870.0 | 60 | <p>SILTSTONE: Olive black, common dark grey and greyish black, dominantly arenaceous, common argillaceous, minor carbonaceous laminae and specks, micromicaceous, trace mica flakes, trace calcareous material, trace very fine glauconite, trace very fine quartz, soft to moderately hard, dominantly firm to brittle, common soft, minor moderately hard, sub-blocky.</p> | | |
| | 40 | <p>SANDSTONE: as above, trace well cemented aggregates, calcareous cement, trace carbonaceous laminae.</p> | | |
| 3870.0 - 3880.0 | 70 | <p>SILTSTONE: as above, minor micromicaceous, trace pyrite, trace lithics.</p> | | |
| | 30 | <p>SANDSTONE: as above</p> | | |
| 3880.0 - 3890.0 | 70 | <p>SILTSTONE: as above</p> | | |
| | 30 | <p>SANDSTONE: as above, trace very coarse.</p> | | |
| 3890.0 - 3900.0 | 80 | <p>SILTSTONE: Olive black to greyish black, minor dark grey, arenaceous, common argillaceous, common carbonaceous laminae and specks, trace micromicaceous, minor calcareous material, minor lithics, trace very fine glauconite, trace very fine quartz, trace pyrite, soft to hard, dominantly brittle to moderately hard, minor soft to firm, common brittle and hard, sub-blocky to sub-fissile.</p> | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----------|--|--------|--------|
| 3890.0 - 3900.0 | 20 | SANDSTONE: Medium grey to medium dark grey aggregates, clear to translucent, very fine to coarse, dominantly very fine to fine, common medium, minor coarse, well sorted, rounded to angular, dominantly sub-angular to sub-rounded, common rounded, minor angular, trace strong calcareous cement, trace olive grey silty matrix and grading to an SILTY SANDSTONE, trace light grey argillaceous matrix, common carbonaceous specks, common lithics, rare mica flakes, dominantly disaggregated, trace friable to hard aggregates, very poor visible porosity, fair inferred porosity, no hydrocarbon fluorescence. | | |
| 3900.0 - 3910.0 | 90 10 | SILTSTONE: as above SANDSTONE: as above | | |
| 3910.0 - 3920.0 | 80 20 | SILTSTONE: as above SANDSTONE: as above | | |
| 3920.0 - 3930.0 | 60 40 | SILTSTONE: Olive black to greyish black, arenaceous, minor argillaceous, common carbonaceous laminae and specks, trace micromicaceous, minor calcareous material, minor lithics, trace very fine glauconite, trace pyrite, soft to hard, dominantly brittle to moderately hard, minor soft to firm, common brittle and hard, sub-blocky to sub-fissile. SANDSTONE: Medium grey to medium dark grey aggregates, clear to translucent, very fine to coarse, dominantly very fine to fine, common medium, trace coarse, well sorted, rounded to angular, dominantly sub-angular to sub-rounded, common rounded, minor angular, trace strong calcareous cement, trace olive grey silty matrix and grading to an SILTY SANDSTONE, common carbonaceous specks, common lithics, rare mica flakes, dominantly disaggregated, trace friable to hard aggregates, very poor visible porosity, fair inferred porosity, no hydrocarbon fluorescence. | | |
| 3930.0 - 3940.0 | 80 20 | SILTSTONE: as above SANDSTONE: as above | | |
| 3940.0 - 3950.0 | 80 20 | SILTSTONE: as above SANDSTONE: as above | | |
| 3950.0 - 3960.0 | 90 10 | SILTSTONE: Olive black, minor greyish black, arenaceous, common carbonaceous laminae and specks, trace micromicaceous, minor calcareous material, minor lithics, trace glauconite, trace pyrite, soft to hard, dominantly brittle to moderately hard, minor soft to firm, common brittle and hard, sub-blocky to sub-fissile. SANDSTONE: Clear to translucent, very fine to medium, dominantly very fine to fine, common medium, very well sorted, rounded to sub-angular, dominantly sub-angular to sub-rounded, common rounded, minor angular, trace mica flakes, disaggregated, poor inferred porosity, no hydrocarbon fluorescence. | | |
| 3960.0 - 3970.0 | 70 30 | SILTSTONE: as above SANDSTONE: as above, rare coarse. | | |
| 3970.0 - 3980.0 | 80 20 | SILTSTONE: as above SANDSTONE: as above | | |
| 3980.0 - 3990.0 | 80 20 | SILTSTONE: Olive black, minor greyish black, arenaceous, common carbonaceous laminae and specks, trace micromicaceous, minor calcareous material, minor lithics, trace glauconite, trace pyrite, soft to hard, dominantly brittle to moderately hard, minor soft to firm, common brittle and hard, sub-blocky to sub-fissile. SANDSTONE: Clear to translucent, very fine to coarse, dominantly very fine to fine, common medium, trace coarse, well sorted, rounded to sub-angular, dominantly sub-angular to sub-rounded, common rounded, minor angular, trace mica flakes, disaggregated, poor inferred porosity, no hydrocarbon fluorescence. | | |
| 3990.0 - 4000.0 | 90 10 | SILTSTONE: as above SANDSTONE: as above | | |
| 4000.0 - 4010.0 | 80 20 | SILTSTONE: Olive black, minor greyish black, arenaceous, carbonaceous in part where greyish black, common carbonaceous laminae and specks, minor micromicaceous, trace calcareous material, minor lithics, trace glauconite, trace pyrite, soft to hard, dominantly brittle to moderately hard, minor soft to firm, common brittle and hard, sub-blocky to sub-fissile, dominantly sub-blocky. SANDSTONE: Clear to translucent, very fine to coarse, dominantly very fine to fine, common medium, trace coarse, well sorted, rounded to sub-angular, dominantly sub-angular to sub-rounded, common rounded, minor angular, trace mica flakes, | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----------------------|--|--------|--------|
| | | disaggregated, poor inferred porosity, no hydrocarbon fluorescence. | | |
| 4010.0 - 4020.0 | 90 10 | SILTSTONE: as above SANDSTONE: as above | | |
| 4020.0 - 4030.0 | 90 10 | SILTSTONE: as above, increasing carbonaceous. SANDSTONE: as above, trace weak to moderately cemented aggregates, siliceous cement, very poor visible porosity. | | |
| 4030.0 - 4038.0 | 90 10 | SILTSTONE: Olive black, common greyish black, very arenaceous, carbonaceous where greyish black, minor argillaceous, common carbonaceous laminae and specks, minor micromicaceous, minor lithics, trace glauconite, trace pyrite, soft to hard, dominantly brittle to hard where arenaceous, hard where carbonaceous, minor soft to firm where argillaceous, sub-blocky to sub-fissile, dominantly sub-blocky. SANDSTONE: Clear to translucent, medium grey aggregates, very fine to coarse, dominantly very fine to fine, common medium, trace coarse, well sorted, rounded to sub-angular, dominantly sub-angular to sub-rounded, common rounded, minor angular, trace weak to moderately siliceous cement, argillaceous matrix, disaggregated, friable aggregates, very poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence. Spot sample with 0.5% gas. | | |
| 4038.0 - 4040.0 | 90 10 | SILTSTONE: as above SANDSTONE: as above | | |
| 4040.0 - 4050.0 | 80 80 20 20 | SILTSTONE: as above SILTSTONE: Olive black, common greyish black, very arenaceous, carbonaceous where greyish black, minor argillaceous, common carbonaceous laminae and specks, minor micromicaceous, minor lithics, trace glauconite, trace pyrite, soft to hard, dominantly brittle to hard where arenaceous, hard where carbonaceous, minor soft to firm where argillaceous, sub-blocky to sub-fissile, dominantly sub-blocky. SANDSTONE: Clear to translucent, medium grey aggregates, very fine to coarse, dominantly very fine to fine, common medium, trace coarse, well sorted, rounded to sub-angular, dominantly sub-angular to sub-rounded, common rounded, minor angular, trace weak to moderately siliceous cement, argillaceous matrix, disaggregated, friable aggregates, very poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence. SANDSTONE: as above | | |
| 4050.0 - 4060.0 | 90 10 | SILTSTONE: Olive black, common greyish black, very arenaceous, carbonaceous where greyish black, minor argillaceous, common carbonaceous laminae and specks, minor micromicaceous, minor lithics, trace glauconite, trace pyrite, soft to hard, dominantly brittle to hard where arenaceous, hard where carbonaceous, minor soft to firm where argillaceous, sub-blocky to sub-fissile, dominantly sub-blocky. SANDSTONE: Clear to translucent, medium grey aggregates, very fine to fine, very well sorted, rounded to sub-angular, dominantly sub-angular to sub-rounded, common rounded, minor angular, trace moderately strong calcareous cement, abundant argillaceous matrix, abundant lithics, trace altered feldspar, trace carbonaceous material, trace very fine glauconite, dominantly disaggregated, friable to brittle aggregates, poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence. | | |
| 4060.0 - 4070.0 | 90 10 | SILTSTONE: as above, trace dark yellowish brown and moderately calcareous. SANDSTONE: as above, hard aggregates in part. | | |
| 4070.0 - 4080.0 | 70 30 | SILTSTONE: as above SANDSTONE: as above | | |
| 4080.0 - 4090.0 | 90 10 | SILTSTONE: Olive black, arenaceous, rarely carbonaceous, minor argillaceous, rarely dolomitic, micromicaceous, rare carbonaceous laminae and specks, minor lithics, trace nodular and disseminated pyrite, trace calcareous fragments, firm to moderately hard, dominantly brittle, abundant moderately hard, common firm, sub-blocky to sub-fissile, dominantly sub-blocky. SANDSTONE: Clear to translucent, medium light grey to medium grey aggregates, very fine to fine, very well sorted, sub-rounded to sub-angular, moderately strong calcareous cement, moderately strong siliceous cement in part, abundant argillaceous matrix, common lithics, trace altered feldspar, trace carbonaceous material, dominantly brittle to hard aggregates, abundant disaggregated, very poor | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|----|---|--------|--------|
| | | visible porosity, poor inferred porosity, no hydrocarbon fluorescence, trace calcite mineral fluorescence. | | |
| 4090.0 - 4100.0 | 90 | SILTSTONE: as above, common soft and dispersive. | | |
| | 10 | SANDSTONE: as above | | |
| 4100.0 - 4110.0 | 90 | SILTSTONE: as above | | |
| | 10 | SANDSTONE: Clear to translucent, medium light grey to medium grey aggregates, very fine to fine, very well sorted, sub-rounded to sub-angular, dominantly moderately strong calcareous cement, trace moderately strong siliceous cement in part, abundant argillaceous matrix, common lithics, trace very fine carbonaceous material, dominantly brittle to hard aggregates, abundant disaggregated, very poor visible porosity, poor inferred porosity, hydrocarbon fluorescence. FLUORESCENCE : (5%) Dull to moderately bright patchy to even yellowish green fluorescence associated with calcareous cemented aggregates, very slow yellowish green streaming cut, thin residue ring (>5 minutes to form ring). | | |
| 4110.0 - 4120.0 | 90 | SILTSTONE: Olive black, argillaceous, abundant arenaceous, trace dolomitic, micromicaceous, minor very fine carbonaceous material, trace lithics, trace nodular and disseminated pyrite, trace calcareous fragments, soft to moderately hard, dominantly brittle, abundant moderately hard, common firm and soft, sub-blocky to sub-fissile, dominantly sub-blocky. | | |
| | 10 | SANDSTONE: Clear to translucent, medium light grey to medium grey aggregates, very fine to fine, very well sorted, sub-rounded to sub-angular, dominantly moderately strong calcareous cement, trace moderately strong siliceous cement in part, abundant argillaceous matrix, common lithics, trace very fine carbonaceous material, dominantly brittle to hard aggregates, abundant disaggregated, very poor visible porosity, poor inferred porosity, hydrocarbon fluorescence. FLUORESCENCE : (Trace) Dull to moderately bright patchy to even yellowish green fluorescence associated with calcareous cemented aggregates, very slow yellowish green streaming cut, no residue ring after 10 minutes. | | |
| 4120.0 - 4130.0 | 90 | SILTSTONE: as above | | |
| | 10 | SANDSTONE: as above FLUORESCENCE : (5%) Dull to moderately bright patchy to even yellowish green fluorescence associated with calcareous cemented aggregates, very slow yellowish green streaming cut, thin residue ring (>5 minutes to form ring). | | |
| 4130.0 - 4140.0 | 90 | SILTSTONE: Olive black, argillaceous, abundant arenaceous, trace dolomitic, micromicaceous, minor very fine carbonaceous material, trace lithics, trace nodular and disseminated pyrite, trace calcareous fragments, soft to moderately hard, dominantly brittle, abundant moderately hard, common firm and soft, sub-blocky to sub-fissile, dominantly sub-blocky. | | |
| | 10 | SANDSTONE: Clear to translucent, medium light grey to medium grey aggregates, very fine to fine, very well sorted, sub-rounded to sub-angular, dominantly moderate strong calcareous cement, trace moderately strong siliceous cement in part, abundant argillaceous matrix, common lithics, trace very fine carbonaceous material, dominantly brittle to hard aggregates, abundant disaggregated, very poor visible porosity, poor inferred porosity, hydrocarbon fluorescence. FLUORESCENCE : (Trace) Dull to moderately bright patchy to even yellowish green fluorescence associated with calcareous cemented aggregates, no cut. | | |
| 4140.0 - 4150.0 | 90 | SILTSTONE: as above | | |
| | 10 | SANDSTONE: as above FLUORESCENCE : (Trace) Dull to moderately bright patchy to even yellowish green fluorescence associated with calcareous cemented aggregates, very slow yellowish green streaming cut, thin residue ring (>5 minutes to form ring). | | |
| 4150.0 - 4160.0 | 90 | SILTSTONE: Olive black, argillaceous, abundant arenaceous, trace dolomitic, micromicaceous, minor very fine carbonaceous material, trace lithics, trace nodular and disseminated pyrite, trace calcareous fragments, soft to moderately hard, dominantly brittle, abundant moderately hard, common firm and soft, sub-blocky to sub-fissile, dominantly sub-blocky. | | |
| | 10 | SANDSTONE: Clear to translucent, medium light grey to medium grey aggregates, very fine to fine, very well sorted, sub-rounded to sub-angular, dominantly moderate strong calcareous cement, trace moderately strong siliceous cement in part, abundant argillaceous matrix, common lithics, trace very fine carbonaceous material, dominantly brittle to hard aggregates, abundant disaggregated, very poor visible porosity, poor inferred porosity, hydrocarbon fluorescence. FLUORESCENCE : (Trace) Dull to moderately bright patchy to even yellowish green fluorescence associated with calcareous cemented aggregates, very slow | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|-----|--|--------|--------|
| | | yellowish green streaming cut, thin residue ring (>5 minutes to form ring). | | |
| 4160.0 - 4170.0 | 85 | SILTSTONE: Olive black, argillaceous and arenaceous, micromicaceous, trace mica flakes, rare very fine carbonaceous material, trace lithics, trace nodular and disseminated pyrite, trace calcareous fragments, soft to moderately hard, dominantly brittle, abundant moderately hard, common firm and soft, sub-blocky to sub-fissile, dominantly sub-blocky. | | |
| | 15 | SANDSTONE: Clear to translucent, medium light grey to medium grey aggregates, very fine to fine, very well sorted, sub-rounded to sub-angular, dominantly moderate strong calcareous cement, trace moderately strong siliceous cement in part, abundant argillaceous matrix, common lithics, trace very fine carbonaceous material, dominantly brittle to hard aggregates, abundant disaggregated, very poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence. | | |
| 4170.0 - 4180.0 | 100 | SILTSTONE: Olive black, dominantly argillaceous, common arenaceous, micromicaceous, trace mica flakes, rare very fine carbonaceous material, trace lithics, trace nodular and disseminated pyrite, trace very fine glauconite, firm to moderately hard, dominantly firm to brittle, minor moderately hard, sub-blocky to sub-fissile, dominantly sub-blocky. | | |
| 4180.0 - 4190.0 | 100 | SILTSTONE: as above, increasing arenaceous. | | |
| 4190.0 - 4200.0 | 100 | SILTSTONE: as above | | |
| 4200.0 - 4210.0 | 100 | SILTSTONE: dark grey to olive black, dominantly argillaceous, commonly arenaceous, micromicaceous, trace carbonaceous specks, trace very fine glauconite grains, firm to moderately hard, brittle in part, sub-blocky to sub-fissile. | | |
| 4210.0 - 4220.0 | 100 | SILTSTONE: as above | | |
| 4220.0 - 4230.0 | 100 | SILTSTONE: as above, increasing arenaceous. | | |
| 4230.0 - 4235.0 | 100 | SILTSTONE: Olive black, dominantly argillaceous, abundant arenaceous, micromicaceous, trace carbonaceous specks, trace very fine glauconite grains, firm to moderately hard, brittle in part, sub-blocky to sub-fissile. | | |
| 4235.0 - 4240.0 | 100 | SILTSTONE: Olive black, dominantly argillaceous, abundant arenaceous, micromicaceous, minor carbonaceous specks and trace laminations, trace very fine glauconite grains, trace lithics, trace white calcareous material, firm to moderately hard, brittle in part, sub-blocky to sub-fissile. | | |
| 4240.0 - 4245.0 | 100 | SILTSTONE: as above | | |
| 4245.0 - 4250.0 | 100 | SILTSTONE: as above - trace nodular pyrite. | | |
| 4250.0 - 4255.0 | 100 | SILTSTONE: Olive black, dominantly argillaceous, abundant arenaceous, micromicaceous, trace carbonaceous specks and laminations, trace very fine glauconite grains, trace nodular pyrite, trace white calcareous material, firm to moderately hard, brittle in part, sub-blocky to sub-fissile. | | |
| 4255.0 - 4260.0 | 100 | SILTSTONE: as above | | |
| 4260.0 - 4265.0 | 100 | SILTSTONE: as above | | |
| 4265.0 - 4270.0 | 100 | SILTSTONE: medium dark grey to olive black, abundantly argillaceous, commonly arenaceous, micromicaceous, trace carbonaceous specks, trace very fine glauconite grains, trace nodular pyrite, trace white calcareous material, firm to moderately hard, brittle in part, sub-blocky to sub-fissile. | | |
| 4270.0 - 4275.0 | 100 | SILTSTONE: as above | | |
| 4275.0 - 4280.0 | 100 | SILTSTONE: as above | | |
| 4280.0 - 4285.0 | 100 | SILTSTONE: medium dark grey to olive black, abundantly argillaceous, commonly arenaceous, micromicaceous, trace carbonaceous specks, trace very fine glauconite grains, trace nodular pyrite, trace white calcareous material, firm to moderately hard, brittle in part, sub-blocky to sub-fissile. | | |
| 4285.0 - 4290.0 | 100 | SILTSTONE: as above | | |
| 4290.0 - 4300.0 | 100 | SILTSTONE: dark grey to olive black, commonly argillaceous, minor arenaceous, micromicaceous, trace carbonaceous specks, trace very fine glauconite grains, trace nodular and disseminated pyrite, trace white calcareous material, firm to moderately hard, brittle in part, sub-blocky to sub-fissile. | | |

| Interval (m) | % | Lithology / Show Descriptions | Ca (%) | Mg (%) |
|-----------------|-----|--|--------|--------|
| 4300.0 - 4310.0 | 100 | SILTSTONE: as above | | |
| 4310.0 - 4320.0 | 100 | SILTSTONE: dark grey to olive black, commonly argillaceous, minor arenaceous, micromicaceous, trace carbonaceous specks, trace very fine glauconite grains, trace nodular pyrite, trace white calcareous material, firm to moderately hard, brittle in part, sub-blocky to sub-fissile. | | |
| 4320.0 - 4330.0 | 100 | SILTSTONE: as above | | |
| 4330.0 - 4340.0 | 100 | SILTSTONE: dark grey to olive black, commonly argillaceous, rare arenaceous, micromicaceous, trace carbonaceous specks, trace very fine glauconite grains, trace white calcareous material, firm to moderately hard, brittle in part, sub-blocky to sub-fissile. | | |
| 4340.0 - 4350.0 | 100 | SILTSTONE: as above | | |
| 4350.0 - 4360.0 | 100 | SILTSTONE: as above | | |
| 4360.0 - 4370.0 | 100 | SILTSTONE: dark grey to olive black, commonly argillaceous, rare arenaceous, micromicaceous, trace carbonaceous specks, trace very fine glauconite grains, trace white calcareous material, trace nodular pyrite, firm to hard, brittle in part, sub-blocky to sub-fissile. | | |
| 4370.0 - 4380.0 | 100 | SILTSTONE: Dominantly olive black, minor dark grey, argillaceous, minor arenaceous, micromicaceous, trace mica flakes, trace carbonaceous specks, trace very fine glauconite, trace calcareous fragments, firm to hard, common brittle, sub-blocky to sub-fissile. | | |
| 4380.0 - 4390.0 | 90 | SILTSTONE: Olive black to dark grey, minor greenish black, argillaceous, common arenaceous, micromicaceous, trace mica flakes, trace carbonaceous specks, trace very fine glauconite, trace calcareous fragments, trace nodular pyrite, firm to hard, common brittle, dominantly sub-blocky, common sub-fissile. | | |
| | 10 | SANDSTONE: Clear to translucent, medium light grey aggregates, very fine to fine, very well sorted, sub-rounded to angular, dominantly sub-angular to sub-rounded, common angular, weak siliceous cement, white argillaceous matrix, friable aggregates, dominantly disaggregated, poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence. | | |
| 4390.0 - 4400.0 | 85 | SILTSTONE: as above | | |
| | 15 | SANDSTONE: as above, trace medium grains. | | |
| 4400.0 - 4410.0 | 50 | SILTSTONE: Olive black to dark grey, common greenish black, argillaceous and arenaceous, micromicaceous, trace mica flakes, minor carbonaceous specks and material, trace very fine glauconite, trace calcareous fragments, trace nodular and disseminated pyrite, trace lithics, firm to hard, dominantly moderately hard to hard, common firm and brittle, dominantly sub-blocky, common sub-fissile. | | |
| | 50 | SANDSTONE: Clear to translucent, medium light grey aggregates, very fine to medium, dominantly very fine to fine, minor medium, very well sorted, sub-rounded to angular, dominantly sub-angular, common sub-rounded, abundant angular, weak siliceous cement, white argillaceous matrix, trace lithics, trace very fine carbonaceous material, friable aggregates, dominantly disaggregated, poor visible porosity, poor inferred porosity, no hydrocarbon fluorescence. Common white rock flour. | | |
| 4410.0 - 4420.0 | 50 | SILTSTONE: as above | | |
| | 50 | SANDSTONE: as above, trace silty matrix. | | |
| | | | | |