

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 105

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| HOLE TYPE | CORE |
| EASTING | 598,876 M AM GRID |
| NORTHING | 5,373,627 M AM GRID |
| ELEVATION | 466.10 M |
| TOTAL DEPTH DRILLED | 346.60 M |
| DRILLING STARTED | 10/02/62 |
| DRILLING TIME | 17 DAYS |
| CORE SIZE | 45.1 MM |
| HOLE SIZE | 75.7 MM |
| LENGTH CASED | |
| INITIAL WATER LEVEL | |
| WATER LEVEL AT GEOPHYSICAL LOGGING | |
| DRILLING FLUID | MUD |
| DRILLING CONTRACTOR | |
| GEOPHYSICAL LOGGING CONTRACTOR | |
| LITHOLOGICAL DESCRIPTION BY | |
| INFORMATION AVAILABLE : | GEOTECHNICAL DATA SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION |
| PETROPHYSICAL WIRELINE LOGS RUN : | |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|------------------------------|--|
| 3.50 | 3.50 | 25 | | 100% DOLERITE | SCREE, GREY-BROWN, MODERATELY WEATHERED, MODERATELY WEAK ROCK, MODERATE PERMIABILITY. |
| 19.60 | 16.10 | 75 | | 100% DOLERITE | MED.-FINE GRAINED, GREY, WITH TALC ON JOINTS AND CLAY ON JOINTS, UNWEATHERED, EXTREMELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC, SLIGHT PERMIABILITY. |
| 53.00 | 33.40 | 100 | | 100% DOLERITE | MED.-FINE GRAINED, GREY, WITH TALC ON JOINTS AND CLAY ON JOINTS, UNWEATHERED, EXTREMELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC, SLIGHT PERMIABILITY. |
| 82.84 | 29.84 | 100 | | 100% DOLERITE | MED.-FINE GRAINED, GREY, WITH TALC ON JOINTS AND CLAY ON JOINTS, UNWEATHERED, EXTREMELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC, SLIGHT PERMIABILITY. |
| 83.54 | 0.70 | 100 | | 100% DOLERITE | VERY FINE GRAINED, GREY, UNWEATHERED, EXTREMELY STRONG ROCK, SLIGHT PERMIABILITY. |
| 84.12 | 0.58 | 100 | | 50% MUDSTONE 50% MUDSTONE | MASSIVE, BAKED, GREY-GREEN. BAKED, PURPLE. UNWEATHERED, VERY STRONG ROCK, SLIGHT PERMIABILITY. |
| 84.40 | 0.28 | 100 | | 100% MUDSTONE | CARBONACEOUS, BAKED, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH SLICKENSIDES, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC, SLIGHT PERMIABILITY. |
| 85.22 | 0.82 | 100 | | 100% MUDSTONE | CARBONACEOUS, BAKED, DARK GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 86.95 | 1.73 | 100 | | 100% MUDSTONE | MASSIVE, BAKED, PINK-GREY, UNWEATHERED, WEAK ROCK, WITH SLICKENSIDES, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC, SLIGHT PERMIABILITY. |
| 88.45 | 1.50 | 100 | | 75% MUDSTONE 25% MUDSTONE | MASSIVE, BAKED, GREY-GREEN. MASSIVE, BAKED, CREAM. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 89.19 | 0.74 | 100 | | 100% MUDSTONE | BAKED, GREY-GREEN, UNWEATHERED, WEAK ROCK, WITH SLICKENSIDES, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC, SLIGHT PERMIABILITY. |
| 89.45 | 0.26 | 100 | | 100% MUDSTONE | GREEN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 92.10 | 2.65 | 100 | | 75% MUDSTONE 25% MUDSTONE | GREY-GREEN. GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 94.52 | 2.42 | 100 | | 60% MUDSTONE 40% MUDSTONE | CARBONACEOUS, MASSIVE, DARK GREY. MASSIVE, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|---|
| *** CORE DESCRIPTION *** | | | | | |
| 96.30 | 1.78 | 100 | | 90% MUDSTONE 10% MUDSTONE | SILTSTONE, MASSIVE, GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 96.46 | 0.16 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 96.54 | 0.08 | 100 | | 100% CARBONACEOUS MUDSTONE | DARK GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 96.60 | 0.06 | 100 | | 75% CARBONACEOUS MUDSTONE 25% COAL, BRIGHT | DARK GREY. BANDS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 96.68 | 0.08 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 96.95 | 0.27 | 100 | | 100% COAL | BRIGHT COAL, BANDS, BLACK, UNWEATHERED, WEAK ROCK, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 97.30 | 0.35 | 100 | | 85% CARBONACEOUS MUDSTONE 15% COAL | DARK GREY. BRIGHT COAL, BANDS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 97.53 | 0.23 | 100 | | 60% CARBONACEOUS MUDSTONE 40% COAL | COALY, BLACK. BANDS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 98.38 | 0.85 | 100 | | 95% CARBONACEOUS MUDSTONE 5% COAL, BRIGHT | BLACK. BANDS, STREAKS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 99.10 | 0.72 | 100 | | 90% CARBONACEOUS MUDSTONE 10% COAL, BRIGHT | COALY, BLACK. BANDS, BLACK. UNWEATHERED, WEAK ROCK, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CLAY & TALC, SLIGHT PERMIABILITY. |
| 99.74 | 0.64 | 100 | | 100% MUDSTONE | CARBONACEOUS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 100.40 | 0.66 | 100 | | 100% SILTSTONE | MASSIVE, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 101.60 | 1.20 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 103.40 | 1.80 | 100 | | 85% MUDSTONE 15% SILTSTONE | MASSIVE, GREY. BANDS, DARK GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 104.58 | 1.18 | 100 | | 80% CARBONACEOUS MUDSTONE 15% MUDSTONE 5% COAL | BLACK. BANDS, GREY. BANDS, STREAKS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 104.96 | 0.38 | 100 | | 85% SANDSTONE, MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE 5% COAL | CARBONACEOUS, DARK GREY. BANDS, LENSES, BLACK. LENSES, BANDS, BLACK. UNWEATHERED, MODERATELY STRONG ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|---|
| *** CORE DESCRIPTION *** | | | | | |
| 105.63 | 0.67 | 100 | | 85% SANDSTONE, MEDIUM GRAINED 10% CARBONACEOUS MUDSTONE 5% COAL | LIGHT GREY. BLACK. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, STRONG ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 106.20 | 0.57 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | BAKED, LIGHT GREY, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 106.50 | 0.30 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | BAKED, LIGHT GREY, UNWEATHERED, STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 106.60 | 0.10 | 100 | | 100% DOLERITE | VERY FINE GRAINED, GREY, UNWEATHERED, EXTREMELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 107.30 | 0.70 | 100 | | 100% DOLERITE | VERY FINE GRAINED, GREY, UNWEATHERED, EXTREMELY STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 132.00 | 24.70 | 100 | | 100% DOLERITE | MASSIVE, MED.-FINE GRAINED, GREY, UNWEATHERED, EXTREMELY STRONG ROCK, WIDELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 133.60 | 1.60 | 100 | | 100% DOLERITE | MED.-FINE GRAINED, GREY, UNWEATHERED, EXTREMELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 134.56 | 0.96 | 100 | | 100% DOLERITE | VERY FINE GRAINED, GREY, UNWEATHERED, EXTREMELY STRONG ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 134.93 | 0.37 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | BAKED, GREY-GREEN, UNWEATHERED, STRONG ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 135.10 | 0.17 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | BAKED, GREY-GREEN, WITH CHLORITE ON JOINTS, UNWEATHERED, STRONG ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., SLIGHT PERMIABILITY. |
| 136.00 | 0.90 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | BAKED, CREAM, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 136.60 | 0.60 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 138.10 | 1.50 | 25 | | 100% PEBBLE CONGLOMERATE | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 138.54 | 0.44 | 80 | | 85% SANDSTONE, MEDIUM GRAINED 15% PEBBLE CONGLOMERATE | LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 139.20 | 0.66 | 80 | | 100% PEBBLE CONGLOMERATE | LIGHT GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|--|
| *** CORE DESCRIPTION *** | | | | | |
| 139.50 | 0.30 | 90 | | 95% SANDSTONE 5% COAL | MED.-FINE GRAINED, LIGHT GREY. LAMINAE, STREAKS, BLACK. UNWEATHERED, WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 146.19 | 6.69 | 20 | | 75% PEBBLE CONGLOMERATE 25% SANDSTONE, MEDIUM GRAINED | LIGHT GREY. LIGHT GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 146.30 | 0.11 | 100 | | 40% SANDSTONE 30% CARBONACEOUS MUDSTONE 30% MUDSTONE | MED.-COARSE GRAINED, LIGHT GREY. BLACK. PELLETAL, GREY. UNWEATHERED, WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 146.54 | 0.24 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY. |
| 146.64 | 0.10 | 100 | | 95% COAL, HEAVY DULL 5% MUDSTONE | GRADING TO, COARSE GRAINED, BLACK. STREAKS, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 146.67 | 0.03 | 100 | | 100% MUDSTONE | BANDS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 146.77 | 0.10 | 100 | | 100% COAL, HEAVY DULL | BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 146.79 | 0.02 | 100 | | 100% MUDSTONE | BANDS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 146.90 | 0.11 | 100 | | 100% CARBONACEOUS MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 146.92 | 0.02 | 100 | | 100% MUDSTONE | BANDS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 146.97 | 0.05 | 100 | | 100% COAL, HEAVY DULL | GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 147.05 | 0.08 | 100 | | 100% CLAYSTONE | GREY-BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 147.15 | 0.10 | 100 | | 100% COAL, DULL | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 147.16 | 0.01 | 100 | | 100% CLAYSTONE | BANDS, GREY-BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 147.22 | 0.06 | 100 | | 100% CARBONACEOUS MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 147.27 | 0.05 | 100 | | 100% CLAYSTONE | COALY, STREAKS, GREY-BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 147.39 | 0.12 | 100 | | 100% COAL, HEAVY DULL | BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 147.45 | 0.06 | 100 | | 100% CARBONACEOUS MUDSTONE | SILTSTONE, STREAKS, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 147.58 | 0.13 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|---|
| *** CORE DESCRIPTION *** | | | | | |
| 147.87 | 0.29 | 100 | | 60% CARBONACEOUS MUDSTONE 30% MUDSTONE 10% COAL, HEAVY DULL | BLACK. CARBONACEOUS, DARK GREY. BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 148.02 | 0.15 | 100 | | 100% MUDSTONE | SILTSTONE, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 148.04 | 0.02 | 100 | | 100% CARBONACEOUS MUDSTONE | BANDS, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 148.12 | 0.08 | 100 | | 100% MUDSTONE | SILTSTONE, GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 148.22 | 0.10 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 148.23 | 0.03 | 100 | | 75% MUDSTONE 25% COAL, DULL | CREAM. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 148.28 | 0.03 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 148.37 | 0.09 | 100 | | 70% MUDSTONE 30% COAL | GREY-BROWN. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 148.44 | 0.07 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 148.52 | 0.05 | 100 | | 85% MUDSTONE 10% MUDSTONE 5% COAL | GREY. CARBONACEOUS, DARK GREY. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 148.59 | 0.07 | 100 | | 95% CARBONACEOUS MUDSTONE 5% MUDSTONE | COALY, BLACK. STREAKS, LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 148.61 | 0.02 | 100 | | 95% MUDSTONE 5% COAL | CARBONACEOUS, DARK GREY. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 148.81 | 0.20 | 100 | | 75% COAL, DULL 25% COAL, HEAVY DULL | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|---|
| *** CORE DESCRIPTION *** | | | | | |
| 148.89 | 0.08 | 100 | | 95% MUDSTONE 5% COAL | GREY. STREAKS, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 148.93 | 0.04 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 148.98 | 0.05 | 100 | | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 149.03 | 0.05 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 149.13 | 0.10 | 100 | | 75% MUDSTONE 25% CARBONACEOUS MUDSTONE | CARBONACEOUS, GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 149.17 | 0.04 | 100 | | 100% CARBONACEOUS MUDSTONE | BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 149.21 | 0.04 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 149.26 | 0.05 | 100 | | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 149.31 | 0.05 | 100 | | 100% COAL, BRIGHT WITH FEW DULL BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 149.36 | 0.05 | 100 | | 60% CARBONACEOUS MUDSTONE 40% COAL, DULL | BLACK. BRIGHT COAL, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 149.38 | 0.02 | 100 | | 95% MUDSTONE 5% COAL, BRIGHT | CARBONACEOUS, GREY-BROWN. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 149.42 | 0.04 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 149.60 | 0.18 | 100 | | 100% MUDSTONE | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 149.63 | 0.03 | 100 | | 60% CARBONACEOUS MUDSTONE 40% MUDSTONE | BLACK. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 150.10 | 0.47 | 100 | | 75% MUDSTONE 25% SILTSTONE | INTERCALATIONS, SILTSTONE, GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

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|--------------------------|----------------|----------|------------------|--|---|
| *** CORE DESCRIPTION *** | | | | | |
| 150.25 | 0.15 | 100 | | 100% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 150.54 | 0.29 | 100 | | 55% SANDSTONE, FINE GRAINED 45% SANDSTONE, FINE GRAINED | LIGHT GREY. SILTSTONE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 150.64 | 0.10 | 100 | | 70% SANDSTONE, FINE GRAINED 30% COAL | SILTSTONE, GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 3 DEG., SLIGHT PERMIABILITY. |
| 151.09 | 0.45 | 100 | | 95% SANDSTONE 5% SILTSTONE | MED.-FINE GRAINED, LIGHT GREY. LENSES. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 151.17 | 0.08 | 100 | | 55% CARBONACEOUS MUDSTONE 30% MUDSTONE 15% MUDSTONE | BLACK. CARBONACEOUS, DARK GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 151.31 | 0.14 | 100 | | 95% MUDSTONE 5% COAL, BRIGHT | GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 151.37 | 0.06 | 100 | | 80% COAL, DULL 20% CARBONACEOUS MUDSTONE | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 151.44 | 0.07 | 100 | | 100% CARBONACEOUS MUDSTONE | BRIGHT COAL BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 151.54 | 0.10 | 100 | | 70% MUDSTONE 30% CARBONACEOUS MUDSTONE | GREY. COALY, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 151.60 | 0.06 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 151.65 | 0.05 | 100 | | 100% MUDSTONE | CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 151.73 | 0.08 | 100 | | 100% MUDSTONE | CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 151.79 | 0.06 | 100 | | 80% SILTSTONE 20% CARBONACEOUS MUDSTONE | CARBONACEOUS, BLACK. PELLETAL, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION *** |
|-----------------------|----------------|----------|------------------|---|--|
| 151.97 | 0.18 | 100 | | 95% CARBONACEOUS MUDSTONE 5% MUDSTONE | BLACK. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 152.09 | 0.12 | 100 | | 60% MUDSTONE 40% CARBONACEOUS MUDSTONE | GREY. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 152.98 | 0.89 | 100 | | 55% MUDSTONE 40% SILTSTONE 5% CARBONACEOUS MUDSTONE | GREY. GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 153.20 | 0.22 | 100 | | 100% CLAYSTONE | COALY, STREAKS, CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 153.23 | 0.03 | 100 | | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 153.28 | 0.05 | 100 | | 100% CLAYSTONE | COALY, FRAGMENTS, GREY-BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 153.31 | 0.03 | 100 | | 100% COAL, HEAVY DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 153.36 | 0.05 | 100 | | 60% CARBONACEOUS MUDSTONE 30% MUDSTONE 10% COAL | BLACK. GREY-BROWN. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 153.39 | 0.03 | 100 | | 100% MUDSTONE | COALY, STREAKS, GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 153.47 | 0.08 | 100 | | 80% CARBONACEOUS MUDSTONE 20% COAL, BRIGHT | BLACK. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 154.01 | 0.54 | 100 | | 100% CLAYSTONE | COALY, STREAKS, CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 154.91 | 0.90 | 100 | | 100% MUDSTONE | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 155.22 | 0.31 | 100 | | 95% COAL, DULL 5% MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 155.23 | 0.01 | 100 | | 100% MUDSTONE | BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|--|
| 155.48 | 0.25 | 100 | | 90% COAL, DULL 5% TONSTEIN 5% MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK. BANDS, GREY-BROWN. BANDS, GREY. WITH PYRITE ON JOINTS, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 155.58 | 0.10 | 100 | | 100% MUDSTONE | BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 155.67 | 0.09 | 100 | | 100% COAL, HEAVY DULL | GRADING TO, DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 155.70 | 0.03 | 100 | | 100% MUDSTONE | BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 155.78 | 0.08 | 100 | | 50% CARBONACEOUS MUDSTONE 30% MUDSTONE 20% COAL | BLACK. GREY. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 155.95 | 0.17 | 100 | | 100% COAL, HEAVY DULL | GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 156.00 | 0.05 | 100 | | 70% CLAYSTONE 20% TONSTEIN 10% MUDSTONE | GREY-BROWN. CREAM. BRIGHT COAL, STREAKS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 156.03 | 0.03 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 156.18 | 0.15 | 100 | | 50% MUDSTONE 40% CARBONACEOUS MUDSTONE 10% COAL | CARBONACEOUS, GREY. BLACK. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 156.23 | 0.05 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 156.33 | 0.10 | 100 | | 50% MUDSTONE 45% MUDSTONE 5% COAL | CARBONACEOUS, DARK GREY. GREY. STREAKS, BLACK. WITH PYRITE ON JOINTS, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 156.57 | 0.24 | 100 | | 50% MUDSTONE 45% MUDSTONE 5% COAL | CARBONACEOUS, DARK GREY. GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 156.72 | 0.15 | 100 | | 100% CLAYSTONE | GREY-BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|--|
| | | | | | *** CORE DESCRIPTION *** |
| 156.78 | 0.06 | 100 | | 100% CARBONACEOUS MUDSTONE | DARK GREY, UNWEATHERED, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 156.80 | 0.02 | 100 | | 100% MUDSTONE | BANDS, LIGHT GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 156.99 | 0.19 | 100 | | 90% CARBONACEOUS MUDSTONE 10% MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK. BANDS, GREY. UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 157.08 | 0.09 | 100 | | 100% MUDSTONE | COALY, STREAKS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 157.15 | 0.07 | 100 | | 100% CARBONACEOUS MUDSTONE | COALY, STREAKS, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 157.34 | 0.19 | 100 | | 60% MUDSTONE 40% MUDSTONE | COALY, STREAKS, GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 158.36 | 1.02 | 100 | | 95% MUDSTONE 5% MUDSTONE | MASSIVE, GREY. CARBONACEOUS, BANDS, DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 158.84 | 0.48 | 100 | | 50% SILTSTONE 45% MUDSTONE 5% CARBONACEOUS MUDSTONE | MASSIVE, GREY. GREY. STREAKS, BLACK. UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 55 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 159.18 | 0.34 | 100 | | 55% MUDSTONE 45% SILTSTONE | MASSIVE, GREY. MASSIVE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 159.37 | 0.19 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 159.42 | 0.05 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 159.63 | 0.21 | 100 | | 100% SILTSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 159.79 | 0.16 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 160.63 | 0.84 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|---|
| *** CORE DESCRIPTION *** | | | | | |
| 161.75 | 1.12 | 100 | | 60% SILTSTONE 40% SANDSTONE, FINE GRAINED | INTERCALATIONS, FINE GRAINED SANDSTONE, GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 162.94 | 1.19 | 100 | | 80% SANDSTONE 20% SILTSTONE | MED.-FINE GRAINED, INTERCALATIONS, LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 163.73 | 0.79 | 100 | | 70% SANDSTONE 30% SILTSTONE | MED.-FINE GRAINED, INTERCALATIONS, LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 164.06 | 0.33 | 100 | | 100% SANDSTONE, FINE GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT TRANSITIONAL, WITH CROSS LAMINATION, SLIGHT PERMIABILITY. |
| 164.65 | 0.59 | 100 | | 60% SILTSTONE 40% SANDSTONE | LAMINAE, INTERCALATIONS, GREY. MED.-FINE GRAINED, LAMINAE, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT EROSIONAL, WITH PLANT REMAINS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 164.96 | 0.31 | 100 | | 98% SANDSTONE, FINE GRAINED 2% SILTSTONE | GRADING TO, MED.-FINE GRAINED, LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY. |
| 165.03 | 0.07 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY. |
| 165.50 | 0.47 | 100 | | 80% SANDSTONE, MEDIUM GRAINED 15% SANDSTONE, FINE GRAINED 5% SILTSTONE | BANDS, INTERCALATIONS, LIGHT GREY. LAMINAE, LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY. |
| 165.53 | 0.03 | 100 | | 100% COAL | FRAGMENTS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 165.57 | 0.04 | 100 | | 100% MUDSTONE | CARBONACEOUS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY. |
| 165.67 | 0.10 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 165.68 | 0.01 | 100 | | 100% TONSTEIN | CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 165.72 | 0.04 | 100 | | 100% CARBONACEOUS MUDSTONE | BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 165.99 | 0.27 | 100 | | 99% COAL, DULL WITH NUMEROUS BRIGHT BANDS 1% MUDSTONE | BLACK. STREAKS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 166.03 | 0.04 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|---|
| 166.31 | 0.28 | 100 | | 95% COAL, DULL WITH FEW BRIGHT BANDS 5% MUDSTONE | BLACK. BANDS, PELLETAL. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 166.34 | 0.03 | 100 | | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 166.43 | 0.09 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 166.55 | 0.12 | 100 | | 100% MUDSTONE | BROWN, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT TRANSITIONAL, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 3 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 166.73 | 0.18 | 100 | | 100% SILTSTONE | GRADING TO, FINE GRAINED SANDSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 167.08 | 0.35 | 100 | | 75% SANDSTONE 25% SANDSTONE | MED.-FINE GRAINED, GRADING TO, GREY. VERY FINE GRAINED, GREY-BROWN. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY. |
| 167.62 | 0.54 | 100 | | 75% SILTSTONE 25% SANDSTONE | GREY. VERY FINE GRAINED. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, VERY CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 168.21 | 0.59 | 100 | | 100% TUFF | CREAM, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, BEDS DIP 8 DEG., SLIGHT PERMIABILITY. |
| 168.26 | 0.05 | 100 | | 100% CARBONACEOUS MUDSTONE | TUFFACEOUS, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 168.27 | 0.01 | 100 | | 100% CARBONACEOUS MUDSTONE | BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT TRANSITIONAL, SLIGHT PERMIABILITY. |
| 168.40 | 0.13 | 100 | | 100% COAL, HEAVY DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY. |
| 168.47 | 0.07 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK BROWN, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 168.58 | 0.11 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 168.67 | 0.09 | 100 | | 100% CARBONACEOUS MUDSTONE | BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 169.16 | 0.49 | 100 | | 100% TUFF | CREAM, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, BEDS DIP 10 DEG., WITH BURROWING, SLIGHT PERMIABILITY. |
| 169.48 | 0.32 | 100 | | 70% CARBONACEOUS MUDSTONE 30% COAL | BANDS, INTERCALATIONS, BROWN-BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 169.55 | 0.07 | 100 | | 95% MUDSTONE 5% COAL | CARBONACEOUS, DARK BROWN. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 169.58 | 0.03 | 100 | | 90% MUDSTONE 10% MUDSTONE | INTERCALATIONS, CREAM. CARBONACEOUS, DARK BROWN. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, SLIGHT PERMIABILITY. |
| 169.78 | 0.20 | 100 | | 75% SILTSTONE 25% SANDSTONE | BANDS, INTERCALATIONS, GREY. VERY FINE GRAINED, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, SLIGHT PERMIABILITY. |
| 170.31 | 0.53 | 100 | | 89% MUDSTONE 10% MUDSTONE 1% SANDSTONE | GREY. CARBONACEOUS, DARK BROWN. VERY FINE GRAINED, LAMINAE, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, SLIGHT PERMIABILITY. |
| 170.78 | 0.47 | 100 | | 100% SILTSTONE | LAMINAE, CREAM, UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, CLOSELY SPACED JOINTS, INFILLED WITH CALCITE, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 171.76 | 0.98 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, TIGHT NON PLANAR, SLIGHT PERMIABILITY. |
| 172.34 | 0.58 | 100 | | 90% SANDSTONE 10% SILTSTONE | VERY FINE GRAINED, INTERCALATIONS, GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, SLIGHT PERMIABILITY. |
| 172.52 | 0.18 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, CLOSELY SPACED JOINTS, JOINTS DIP 67 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 172.72 | 0.20 | 100 | | 90% SILTSTONE 10% MUDSTONE | GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 173.39 | 0.67 | 100 | | 100% MUDSTONE | SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|--|
| 173.47 | 0.08 | 100 | | 100% SILTSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, CLOSELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 173.94 | 0.47 | 100 | | 100% SANDSTONE | VERY FINE GRAINED, SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, WITH CROSS LAMINATION, SLIGHT PERMIABILITY. |
| 174.86 | 0.92 | 100 | | 95% SANDSTONE 5% SILTSTONE | MED.-FINE GRAINED, LIGHT GREY. BANDS, LAMINAE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, WITH PLANT REMAINS, WITH CROSS LAMINATION, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 175.99 | 1.13 | 100 | | 60% SILTSTONE 40% SANDSTONE | LAMINAE, INTERCALATIONS, GREY. VERY FINE GRAINED, LAMINAE, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 176.31 | 0.32 | 100 | | 85% SANDSTONE, MEDIUM GRAINED 15% SILTSTONE | LIGHT GREY. LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 176.57 | 0.26 | 100 | | 60% SANDSTONE, FINE GRAINED 40% SILTSTONE | LIGHT GREY. LAMINAE, LENSES, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 176.67 | 0.10 | 100 | | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 176.68 | 0.01 | 100 | | 100% COAL, BRIGHT | UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 176.96 | 0.28 | 100 | | 60% COAL, INTERBANDED DULL AND BRIGHT 40% COAL, BRIGHT WITH NUMEROUS DULL BANDS | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 177.21 | 0.25 | 100 | | 70% COAL, DULL WITH NUMEROUS BRIGHT BANDS 20% COAL, BRIGHT WITH NUMEROUS DULL BANDS 10% MUDSTONE | BLACK. BANDS, STREAKS, GREY-BROWN. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 177.27 | 0.06 | 100 | | 60% SILTSTONE 30% SILTSTONE 10% COAL | GREY. CARBONACEOUS, DARK GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION *** |
|-----------------------|----------------|----------|------------------|---|--|
| 177.42 | 0.15 | 100 | | 80% MUDSTONE 20% COAL, BRIGHT | SILTSTONE, CARBONACEOUS, DARK GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 177.73 | 0.31 | 100 | | 75% MUDSTONE 25% SILTSTONE | GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 178.01 | 0.28 | 100 | | 95% MUDSTONE 5% COAL | GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 178.49 | 0.48 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 178.73 | 0.24 | 100 | | 95% MUDSTONE 5% COAL | CARBONACEOUS, DARK GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 179.22 | 0.49 | 100 | | 90% MUDSTONE 10% SILTSTONE | GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 180.00 | 0.78 | 100 | | 95% SANDSTONE, FINE GRAINED 5% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 180.43 | 0.43 | 100 | | 80% SANDSTONE, FINE GRAINED 20% COAL | SILTSTONE, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 182.47 | 2.04 | 100 | | 60% SILTSTONE 40% MUDSTONE | MASSIVE, GREY. MASSIVE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 182.86 | 0.39 | 100 | | 90% SILTSTONE 10% COAL | GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 183.67 | 0.81 | 100 | | 75% MUDSTONE 15% SILTSTONE 10% MUDSTONE | GREY. CARBONACEOUS, DARK GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|--|
| 184.47 | 0.80 | 100 | | 75% SANDSTONE, FINE GRAINED 20% SILTSTONE 5% MUDSTONE | LIGHT GREY. BANDS, LAMINAE, DARK GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 184.87 | 0.40 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 185.02 | 0.15 | 100 | | 100% SILTSTONE | MASSIVE, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 185.17 | 0.15 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 185.56 | 0.39 | 100 | | 70% SANDSTONE, MEDIUM GRAINED 20% COAL 10% MUDSTONE | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 185.84 | 0.28 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 186.15 | 0.31 | 100 | | 75% SANDSTONE 15% COAL 10% MUDSTONE | MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. FRAGMENTS, STREAKS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 186.39 | 0.24 | 100 | | 60% SANDSTONE 40% SILTSTONE | MED.-FINE GRAINED, LIGHT GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 186.58 | 0.19 | 100 | | 75% SANDSTONE, MEDIUM GRAINED 20% MUDSTONE 5% COAL | LIGHT GREY. FRAGMENTS, PELLETAL, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 186.78 | 0.20 | 100 | | 100% SILTSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 186.82 | 0.04 | 100 | | 100% CARBONACEOUS MUDSTONE | DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 187.07 | 0.25 | 100 | | 95% COAL, DULL 5% MUDSTONE | BLACK. BANDS, STREAKS, BROWN. WITH PYRITE ON JOINTS, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY. |
| 187.10 | 0.03 | 100 | | 100% CARBONACEOUS MUDSTONE | BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 187.11 | 0.01 | 100 | | 100% CLAYSTONE | GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 187.13 | 0.02 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 187.15 | 0.02 | 100 | | 100% CLAYSTONE | SILTSTONE, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 187.25 | 0.10 | 100 | | 100% SILTSTONE | CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 187.32 | 0.07 | 100 | | 100% COAL, HEAVY DULL | GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 187.40 | 0.08 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 187.45 | 0.05 | 100 | | 100% CLAYSTONE | CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 187.60 | 0.15 | 0 | | CORE LOSS | |
| 187.62 | 0.02 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 187.77 | 0.15 | 100 | | 60% MUDSTONE 40% CARBONACEOUS MUDSTONE | COALY, STREAKS, GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 188.05 | 0.28 | 100 | | 90% MUDSTONE 10% CARBONACEOUS MUDSTONE | GREY. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 188.11 | 0.06 | 100 | | 80% CARBONACEOUS MUDSTONE 15% COAL, DULL 5% MUDSTONE | BLACK. BLACK. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 188.13 | 0.02 | 100 | | 100% CLAYSTONE | COALY, STREAKS, CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 188.37 | 0.24 | 100 | | 80% COAL, DULL 15% COAL, DULL WITH NUMEROUS BRIGHT BANDS 5% MUDSTONE | BLACK. BLACK. PELLETAL, LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 188.45 | 0.08 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 188.88 | 0.43 | 100 | | 80% MUDSTONE 20% SILTSTONE | GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 188.90 | 0.02 | 100 | | 100% CARBONACEOUS MUDSTONE | BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC Z | SAMPLE NUMBER | ROCK TYPE *** CORE DESCRIPTION *** | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|---|
| 188.95 | 0.05 | 100 | | 60% COAL, DULL 40% COAL, DULL | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 189.27 | 0.32 | 100 | | 90% COAL, DULL WITH FEW BRIGHT BANDS 10% CARBONACEOUS MUDSTONE | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 189.30 | 0.03 | 100 | | 70% CARBONACEOUS MUDSTONE 30% MUDSTONE | COALY, BLACK. BANDS, WHITE. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 189.37 | 0.07 | 100 | | 100% MUDSTONE | COALY, STREAKS, WHITE, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 189.41 | 0.04 | 100 | | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 189.43 | 0.02 | 100 | | 100% CLAYSTONE | COALY, STREAKS, CREAM, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 189.45 | 0.02 | 100 | | 75% COAL, DULL WITH NUMEROUS BRIGHT BANDS 25% MUDSTONE | STREAKS, FRAGMENTS, GREY-BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 189.52 | 0.07 | 100 | | 100% MUDSTONE | COALY, STREAKS, WHITE, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 189.65 | 0.13 | 100 | | 95% CARBONACEOUS MUDSTONE 5% MUDSTONE | BLACK. PELLETAL, GREY. UNWEATHERED, WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 189.70 | 0.05 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 189.72 | 0.02 | 100 | | 100% MUDSTONE | WHITE, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 189.90 | 0.18 | 100 | | 90% COAL, INTERBANDED DULL AND BRIGHT 5% MUDSTONE 5% COAL, BRIGHT WITH FEW DULL BANDS | BLACK. LENSES, PELLETAL, GREY. BLACK. UNWEATHERED, WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 190.04 | 0.14 | 100 | | 95% MUDSTONE 5% COAL | GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 190.23 | 0.19 | 100 | | 95% COAL, DULL WITH FEW BRIGHT BANDS 5% MUDSTONE | BLACK. LENSES, PELLETAL, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 190.25 | 0.02 | 100 | | 100% MUDSTONE | BANDS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 190.29 | 0.04 | 100 | | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 190.30 | 0.01 | 100 | | 100% MUDSTONE | BANDS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC # | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|--|
| 190.42 | 0.12 | 100 | | 85% COAL, DULL WITH NUMEROUS BRIGHT BANDS 10% CARBONACEOUS MUDSTONE 5% COAL, BRIGHT WITH FEW DULL BANDS | BLACK. BLACK. BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 190.44 | 0.02 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 190.53 | 0.09 | 100 | | 90% CARBONACEOUS MUDSTONE 10% COAL | BLACK. STREAKS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 190.87 | 0.34 | 100 | | 100% MUDSTONE | COALY, STREAKS, GREY, UNWEATHERED, WEAK ROCK, WITH PLANT REMAINS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 191.40 | 0.53 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 55 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 191.80 | 0.40 | 100 | | 70% MUDSTONE 30% CARBONACEOUS MUDSTONE | MASSIVE, GREY. DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 192.41 | 0.61 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 192.48 | 0.07 | 100 | | 100% COAL, BRIGHT WITH NUMEROUS DULL BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 192.67 | 0.19 | 100 | | 95% MUDSTONE 5% COAL | GREY. STREAKS, BLACK. UNWEATHERED, WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 192.90 | 0.23 | 100 | | 80% MUDSTONE 20% MUDSTONE | GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 193.15 | 0.25 | 100 | | 85% CARBONACEOUS MUDSTONE 15% COAL | SILTSTONE, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 193.19 | 0.04 | 100 | | 100% MUDSTONE | GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 193.23 | 0.04 | 100 | | 55% MUDSTONE 45% COAL | FRAGMENTS, PELLETAL, GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 193.50 | 0.27 | 100 | | 80% COAL, DULL 20% COAL, HEAVY DULL | GRADING TO, HEAVY DULL COAL, BLACK. GRADING TO, COARSE GRAINED, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|---|
| *** CORE DESCRIPTION *** | | | | | |
| 193.52 | 0.02 | 100 | | 100% MUDSTONE | BANDS, GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 193.62 | 0.10 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 193.63 | 0.01 | 100 | | 100% MUDSTONE | BANDS, CREAM, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 193.89 | 0.26 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 193.91 | 0.02 | 100 | | 60% CARBONACEOUS MUDSTONE 40% MUDSTONE | BLACK. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 194.05 | 0.14 | 100 | | 100% MUDSTONE | LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 194.12 | 0.07 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 194.25 | 0.13 | 100 | | 100% MUDSTONE | SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 194.28 | 0.03 | 100 | | 100% COAL, HEAVY DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 194.53 | 0.25 | 100 | | 100% MUDSTONE | CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 194.87 | 0.34 | 100 | | 75% COAL, DULL WITH NUMEROUS BRIGHT BANDS 25% COAL, DULL WITH FEW BRIGHT BANDS | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 194.88 | 0.01 | 100 | | 100% MUDSTONE | BANDS, GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 194.98 | 0.10 | 100 | | 60% COAL, DULL WITH NUMEROUS BRIGHT BANDS 40% COAL, BRIGHT | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 195.03 | 0.05 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 195.07 | 0.04 | 100 | | 75% CARBONACEOUS MUDSTONE 25% MUDSTONE | BROWN-BLACK. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 195.19 | 0.12 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 195.42 | 0.23 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|---|
| *** CORE DESCRIPTION *** | | | | | |
| 195.62 | 0.20 | 100 | | 100% SANDSTONE, FINE GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 196.32 | 0.70 | 100 | | 90% MUDSTONE 10% MUDSTONE | GREY. CARBONACEOUS, BROWN-BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 196.80 | 0.48 | 100 | | 100% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 197.25 | 0.45 | 100 | | 95% SANDSTONE, FINE GRAINED 5% COAL | MASSIVE, LIGHT GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 198.20 | 0.95 | 100 | | 95% SANDSTONE, FINE GRAINED 5% SILTSTONE | LIGHT GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 198.32 | 0.12 | 100 | | 100% SANDSTONE, FINE GRAINED | SILTSTONE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 198.58 | 0.26 | 100 | | 100% SILTSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY. |
| 198.70 | 0.12 | 100 | | 100% CLAYSTONE | GREY, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 198.87 | 0.17 | 100 | | 95% COAL, HEAVY DULL 5% MUDSTONE | BLACK. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 198.96 | 0.09 | 100 | | 85% MUDSTONE 10% COAL 5% CARBONACEOUS MUDSTONE | CARBONACEOUS, GREY. FRAGMENTS, STREAKS, BLACK. BLACK. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 199.01 | 0.05 | 100 | | 100% CLAYSTONE | GREY, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 199.23 | 0.22 | 100 | | 75% CARBONACEOUS MUDSTONE 15% MUDSTONE 10% COAL | BLACK. BANDS, LIGHT BROWN. STREAKS, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|--|
| *** CORE DESCRIPTION *** | | | | | |
| 199.36 | 0.13 | 100 | | 90% COAL, INTERBANDED DULL AND BRIGHT 10% COAL, BRIGHT | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 199.41 | 0.05 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 201.90 | 2.49 | 100 | | 90% MUDSTONE 10% SILTSTONE | MASSIVE, GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 202.83 | 0.93 | 100 | | 60% MUDSTONE 30% SILTSTONE 10% SANDSTONE, FINE GRAINED | INTERCALATIONS, SILTSTONE, GREY. BANDS, LAMINAE, GREY. LAMINAE, BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 203.85 | 1.02 | 100 | | 75% SANDSTONE, FINE GRAINED 15% SILTSTONE 10% MUDSTONE | INTERCALATIONS, SILTSTONE, LIGHT GREY. BANDS, LAMINAE, GREY. LAMINAE, BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 3 DEG., SLIGHT PERMIABILITY. |
| 204.55 | 0.70 | 100 | | 75% MUDSTONE 20% SILTSTONE 5% SANDSTONE, FINE GRAINED | GREY. GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 4 DEG., SLIGHT PERMIABILITY. |
| 206.00 | 1.45 | 100 | | 90% MUDSTONE 10% SILTSTONE | MASSIVE, GREY. BANDS, LAMINAE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 206.12 | 0.12 | 100 | | 95% MUDSTONE 5% SILTSTONE | INTERCALATIONS, SILTSTONE, GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 207.10 | 0.98 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, CALCAREOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 207.53 | 0.43 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 211.20 | 3.67 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

TOP OF DALMAYNE B : 254.90 M R.L.

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|--|
| *** CORE DESCRIPTION *** | | | | | |
| 211.26 | 0.06 | 100 | | 60% CARBONACEOUS MUDSTONE 40% SANDSTONE | BANDS, BROWN. MED.-FINE GRAINED, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 212.33 | 1.07 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 212.40 | 0.07 | 100 | | 60% CARBONACEOUS MUDSTONE 40% MUDSTONE | BANDS, BROWN-BLACK. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 212.68 | 0.28 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 212.74 | 0.06 | 100 | | 75% SANDSTONE, MEDIUM GRAINED 25% COAL | LIGHT GREY. BANDS, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 212.80 | 0.06 | 100 | | 100% COAL, HEAVY DULL | GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 212.90 | 0.10 | 100 | | 60% MUDSTONE 30% CARBONACEOUS MUDSTONE 10% TONSTEIN | GREY. BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 213.08 | 0.18 | 100 | | 75% COAL, DULL WITH FEW BRIGHT BANDS 25% COAL, BRIGHT | BLACK. BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 213.32 | 0.24 | 100 | | 80% CARBONACEOUS MUDSTONE 15% CARBONACEOUS MUDSTONE 5% MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK. BRIGHT COAL, STREAKS, BLACK. BANDS, LENSES, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 213.37 | 0.05 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 214.02 | 0.65 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 214.07 | 0.05 | 100 | | 95% CLAYSTONE 5% COAL | WHITE. BANDS, BLACK. UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 214.22 | 0.15 | 100 | | 65% CARBONACEOUS MUDSTONE 25% MUDSTONE 10% COAL | CARBONACEOUS, DARK GREY. BANDS, STREAKS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 214.24 | 0.02 | 100 | | 100% CLAYSTONE | LIGHT BROWN, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 214.27 | 0.03 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|--|
| 214.37 | 0.10 | 100 | | 70% MUDSTONE 30% CLAYSTONE | CARBONACEOUS, GREY. WHITE. UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 214.43 | 0.06 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 214.67 | 0.24 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 214.74 | 0.07 | 100 | | 60% MUDSTONE 40% CARBONACEOUS MUDSTONE | CARBONACEOUS, BLACK. BLACK. UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 214.95 | 0.21 | 100 | | 90% CARBONACEOUS MUDSTONE 10% COAL, BRIGHT | BLACK. STREAKS, BANDS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 215.35 | 0.40 | 100 | | 60% MUDSTONE 40% MUDSTONE | CARBONACEOUS, DARK GREY. SILTSTONE, STREAKS, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 215.39 | 0.04 | 100 | | 100% MUDSTONE | BANDS, CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 215.56 | 0.17 | 100 | | 95% MUDSTONE 5% MUDSTONE | GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 215.86 | 0.30 | 100 | | 85% MUDSTONE 15% MUDSTONE | BRIGHT COAL, STREAKS, GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 216.25 | 0.39 | 100 | | 70% MUDSTONE 30% MUDSTONE | MASSIVE, GREY. CARBONACEOUS, LAMINAE, DARK GREY. UNWEATHERED, WEAK ROCK, THICKLY LAMINATED, BEDS DIP 3 DEG., SLIGHT PERMIABILITY. |
| 216.52 | 0.27 | 100 | | 75% MUDSTONE 25% SILTSTONE | CARBONACEOUS, DARK GREY. GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 216.78 | 0.26 | 100 | | 50% CARBONACEOUS MUDSTONE 30% MUDSTONE 20% MUDSTONE | BLACK. CARBONACEOUS, SILTSTONE, GREY-BROWN. BANDS, STREAKS, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 216.87 | 0.09 | 100 | | 100% CLAYSTONE | LIGHT BROWN, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 217.10 | 0.23 | 100 | | 75% CARBONACEOUS MUDSTONE 20% MUDSTONE 5% MUDSTONE | BLACK. CARBONACEOUS, GREY-BROWN. BANDS, STREAKS, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|--|
| 217.45 | 0.35 | 100 | | 75% MUDSTONE 20% MUDSTONE 5% TONSTEIN | SILTSTONE, GREY. CARBONACEOUS, BANDS, DARK GREY. BANDS, CREAM. UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 217.53 | 0.08 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 217.55 | 0.02 | 100 | | 100% MUDSTONE | BANDS, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 217.60 | 0.05 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 217.65 | 0.05 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 217.76 | 0.11 | 100 | | 80% CARBONACEOUS MUDSTONE 15% COAL, HEAVY DULL 5% MUDSTONE | BLACK. BLACK. BANDS, LIGHT BROWN. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 217.82 | 0.06 | 100 | | 100% MUDSTONE | CARBONACEOUS, GREY-BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 217.95 | 0.13 | 100 | | 70% CARBONACEOUS MUDSTONE 30% MUDSTONE | BLACK. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 218.06 | 0.11 | 100 | | 100% CARBONACEOUS MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 218.09 | 0.03 | 100 | | 60% CARBONACEOUS MUDSTONE 40% MUDSTONE | BLACK. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 218.15 | 0.06 | 100 | | 100% CARBONACEOUS MUDSTONE | SILTSTONE, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 218.38 | 0.23 | 100 | | 100% CARBONACEOUS MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 218.47 | 0.09 | 100 | | 100% MUDSTONE | TUFFACEOUS, LIGHT BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 218.55 | 0.08 | 100 | | 100% MUDSTONE | TUFFACEOUS, LIGHT BROWN, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 218.77 | 0.22 | 100 | | 75% SILTSTONE 25% MUDSTONE | TONSTEIN, BANDS, GREY. BANDS, CARBONACEOUS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 218.90 | 0.13 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|--|
| 219.01 | 0.11 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 55 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 219.27 | 0.26 | 100 | | 90% MUDSTONE 10% MUDSTONE | TUFFACEOUS, LIGHT BROWN. CARBONACEOUS, BANDS, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 219.38 | 0.11 | 100 | | 95% CARBONACEOUS MUDSTONE 5% COAL | BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 219.43 | 0.05 | 100 | | 100% CARBONACEOUS MUDSTONE | BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 219.52 | 0.09 | 100 | | 80% CARBONACEOUS MUDSTONE 15% COAL 5% MUDSTONE | BLACK. BANDS, STREAKS, BLACK. PELLETAL, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 219.69 | 0.17 | 100 | | 100% COAL, DULL | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 219.70 | 0.01 | 100 | | 100% TONSTEIN | CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 219.77 | 0.07 | 100 | | 100% COAL, DULL | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 219.90 | 0.13 | 100 | | 100% CARBONACEOUS MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 219.97 | 0.07 | 100 | | 100% MUDSTONE | TUFFACEOUS, CREAM, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 220.01 | 0.04 | 100 | | 70% MUDSTONE 30% MUDSTONE | CARBONACEOUS, DARK GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 220.18 | 0.17 | 100 | | 85% MUDSTONE 15% CARBONACEOUS MUDSTONE | TUFFACEOUS, CREAM. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 220.29 | 0.11 | 100 | | 95% CARBONACEOUS MUDSTONE 5% COAL | BLACK. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 220.31 | 0.02 | 100 | | 100% MUDSTONE | COALY, STREAKS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 220.36 | 0.05 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--|----------------|----------|------------------|--|---|
| *** CORE DESCRIPTION *** | | | | | |
| 220.37 | 0.01 | 100 | | 100% MUDSTONE | BANDS, TUFFACEOUS, CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 220.47 | 0.10 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 220.82 | 0.35 | 100 | | 100% MUDSTONE | TUFFACEOUS, CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 220.91 | 0.09 | 100 | | 100% CLAYSTONE | CREAM, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 221.06 | 0.15 | 100 | | 100% CARBONACEOUS MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 221.12 | 0.06 | 100 | | 100% CLAYSTONE | CREAM, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 221.30 | 0.18 | 100 | | 100% CARBONACEOUS MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 221.37 | 0.07 | 100 | | 100% CARBONACEOUS MUDSTONE | SILTSTONE, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| BASE OF DALMAYNE B : THICKNESS= 10.17 M; SAMPLED THICKNESS= 0.00 M | | | | | |
| 221.46 | 0.09 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 221.50 | 0.04 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 221.90 | 0.40 | 100 | | 60% SILTSTONE 20% SANDSTONE, FINE GRAINED 20% MUDSTONE | GREY. LIGHT GREY. BANDS, CARBONACEOUS, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 222.11 | 0.21 | 100 | | 90% SANDSTONE, FINE GRAINED 10% SILTSTONE | GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 222.30 | 0.19 | 100 | | 100% MUDSTONE | CARBONACEOUS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 222.42 | 0.12 | 100 | | 100% MUDSTONE | SILTSTONE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 222.56 | 0.14 | 100 | | 100% CLAYSTONE | LIGHT GREY, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 222.77 | 0.21 | 100 | | 100% MUDSTONE | SILTSTONE, GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 223.07 | 0.30 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 65 DEG., TIGHT NON PLANAR, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 223.21 | 0.14 | 100 | | 100% CLAYSTONE | CREAM, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 223.33 | 0.12 | 100 | | 100% MUDSTONE | CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 223.50 | 0.17 | 100 | | 100% MUDSTONE | SILTSTONE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.50 | 1.00 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.00 | 0.50 | 100 | | 75% SANDSTONE, FINE GRAINED 25% SILTSTONE | GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.35 | 0.35 | 100 | | 75% SANDSTONE, FINE GRAINED 25% SILTSTONE | GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 225.95 | 0.60 | 100 | | 70% SANDSTONE, FINE GRAINED 30% SILTSTONE | GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, BEDS DIP 5 DEG., SLIGHT PERMIABILITY. |
| 228.00 | 2.05 | 100 | | 80% SANDSTONE, FINE GRAINED 20% SILTSTONE | COALY, LAMINAE, LIGHT GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 229.00 | 1.00 | 100 | | 80% SANDSTONE, FINE GRAINED 20% SILTSTONE | COALY, LAMINAE, LIGHT GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 229.18 | 0.18 | 100 | | 80% SANDSTONE, FINE GRAINED 20% SILTSTONE | COALY, LAMINAE, LIGHT GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 229.76 | 0.58 | 100 | | 85% SANDSTONE, FINE GRAINED 15% SILTSTONE | COALY, FRAGMENTS, LIGHT GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 230.60 | 0.84 | 100 | | 90% SANDSTONE, FINE GRAINED 10% SILTSTONE | LIGHT GREY. STREAKS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|---|
| *** CORE DESCRIPTION *** | | | | | |
| 231.11 | 0.51 | 100 | | 100% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 231.30 | 0.19 | 100 | | 100% SANDSTONE, FINE GRAINED | COALY, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 60 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 231.60 | 0.30 | 100 | | 100% SANDSTONE, FINE GRAINED | CARBONACEOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 232.08 | 0.48 | 100 | | 90% SANDSTONE, FINE GRAINED 10% COAL | CARBONACEOUS, LIGHT GREY. STREAKS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 232.12 | 0.04 | 100 | | 100% CARBONACEOUS MUDSTONE | BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 232.31 | 0.19 | 100 | | 50% SANDSTONE, FINE GRAINED 30% CARBONACEOUS MUDSTONE 20% MUDSTONE | LIGHT GREY. COALY, STREAKS, BLACK. BANDS, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 232.60 | 0.29 | 100 | | 70% SANDSTONE, FINE GRAINED 15% CARBONACEOUS MUDSTONE 15% MUDSTONE | LIGHT GREY. FRAGMENTS, LENSES, BLACK. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 232.96 | 0.36 | 100 | | 60% SANDSTONE 40% MUDSTONE | MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 233.05 | 0.09 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 233.12 | 0.07 | 100 | | 60% CARBONACEOUS MUDSTONE 40% MUDSTONE | FRAGMENTS, BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 233.46 | 0.34 | 100 | | 75% MUDSTONE 20% SANDSTONE, FINE GRAINED 5% CARBONACEOUS MUDSTONE | FRAGMENTS, PELLETAL, GREY. LIGHT GREY. FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 234.83 | 1.37 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|---|
| *** CORE DESCRIPTION *** | | | | | |
| 234.92 | 0.09 | 100 | | 100% SILTSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 235.07 | 0.15 | 100 | | 95% SANDSTONE 5% SILTSTONE | MED.-FINE GRAINED, LIGHT GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 235.16 | 0.09 | 100 | | 100% SILTSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 235.28 | 0.12 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 235.40 | 0.12 | 100 | | 100% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 235.82 | 0.42 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 236.42 | 0.60 | 100 | | 100% SANDSTONE, FINE GRAINED | CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 236.89 | 0.47 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 237.10 | 0.21 | 100 | | 95% SANDSTONE, FINE GRAINED 5% COAL | LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 239.08 | 1.98 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 240.17 | 1.09 | 100 | | 100% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 240.42 | 0.25 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 241.03 | 0.61 | 100 | | 80% SANDSTONE, FINE GRAINED 20% COAL | LIGHT GREY. LAMINAE, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 241.23 | 0.20 | 100 | | 90% SANDSTONE, MEDIUM GRAINED 10% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 242.28 | 1.05 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 242.34 | 0.06 | 100 | | 100% CARBONACEOUS MUDSTONE | BANDS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------------------|----------------|----------|------------------|--|---|
| *** CORE DESCRIPTION *** | | | | | |
| 242.80 | 0.46 | 100 | | 75% SANDSTONE, MEDIUM GRAINED 25% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 244.26 | 1.46 | 100 | | 90% SANDSTONE, MEDIUM GRAINED 10% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 245.66 | 1.40 | 100 | | 60% SANDSTONE, MEDIUM GRAINED 30% MUDSTONE 10% COAL | LIGHT GREY. FRAGMENTS, PELLETAL, GREY. LAMINAE, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 246.62 | 0.96 | 100 | | 90% SANDSTONE, MEDIUM GRAINED 10% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 252.58 | 5.96 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY. |
| TOP OF DALMAYNE C : 213.52 M R.L. | | | | | |
| 253.20 | 0.62 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 253.36 | 0.16 | 100 | | 60% CARBONACEOUS MUDSTONE 40% SANDSTONE, FINE GRAINED | BLACK. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 253.41 | 0.05 | 0 | | CORE LOSS | |
| 253.43 | 0.02 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 253.51 | 0.08 | 100 | | 100% MUDSTONE | TUFFACEOUS, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 253.60 | 0.69 | 100 | | 100% COAL, DULL | BRIGHT COAL BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 253.62 | 0.02 | 100 | | 60% COAL, DULL 40% CARBONACEOUS MUDSTONE | BLACK. FRAGMENTS, LENSES, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|---|----------------|----------|------------------|--|--|
| 253.87 | 0.25 | 100 | | 55% COAL, DULL 40% COAL, DULL WITH NUMEROUS BRIGHT BANDS 5% COAL, BRIGHT | BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 253.89 | 0.02 | 100 | | 100% MUDSTONE | SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 254.10 | 0.21 | 100 | | 95% CARBONACEOUS MUDSTONE 5% COAL, HEAVY DULL | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 254.13 | 0.03 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 254.55 | 0.42 | 100 | | 60% CARBONACEOUS MUDSTONE 25% MUDSTONE 15% MUDSTONE | BLACK. TUFFACEOUS, CREAM. CARBONACEOUS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 254.56 | 0.01 | 100 | | 100% COAL, BRIGHT WITH FEW DULL BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| BASE OF DALMAYNE C : THICKNESS= 1.98 M; SAMPLED THICKNESS= 0.00 M | | | | | |
| 254.98 | 0.42 | 100 | | 75% MUDSTONE 25% MUDSTONE | GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 255.50 | 0.52 | 100 | | 100% MUDSTONE | SILTSTONE, MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG. TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 256.80 | 1.30 | 100 | | 100% SILTSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 257.68 | 0.88 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 258.00 | 0.32 | 100 | | 70% MUDSTONE 30% MUDSTONE | GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 258.70 | 0.70 | 100 | | 85% MUDSTONE 15% SILTSTONE | GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 259.10 | 0.40 | 100 | | 85% MUDSTONE 15% SILTSTONE | MASSIVE, GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 259.64 | 0.54 | 100 | | 70% MUDSTONE 30% SILTSTONE | MASSIVE, GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 261.10 | 1.46 | 100 | | 60% SILTSTONE 40% MUDSTONE | DARK GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 5 DEG., SLIGHT PERMIABILITY. |
| 261.46 | 0.36 | 100 | | 70% MUDSTONE 30% SILTSTONE | GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 261.55 | 0.09 | 100 | | 100% CLAYSTONE | LIGHT GREEN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 261.71 | 0.16 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 262.08 | 0.37 | 100 | | 75% MUDSTONE 25% SILTSTONE | GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 262.26 | 0.18 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 263.00 | 0.74 | 100 | | 80% SANDSTONE, MEDIUM GRAINED 20% SANDSTONE, FINE GRAINED | COALY, LAMINAE, LIGHT GREY. BANDS. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 263.80 | 0.80 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 264.20 | 0.40 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% COAL | LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 265.60 | 1.40 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|---|
| *** CORE DESCRIPTION *** | | | | | |
| 268.60 | 3.00 | 50 | | 55% SANDSTONE, MEDIUM GRAINED 45% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY. COALY, STREAKS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 270.36 | 1.76 | 100 | | 80% SANDSTONE, FINE GRAINED 15% COAL 5% SANDSTONE, MEDIUM GRAINED | LIGHT GREY. LAMINAE, BLACK. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 10 DEG., SLIGHT PERMIABILITY. |
| 270.53 | 0.17 | 100 | | 50% SANDSTONE, MEDIUM GRAINED 35% SANDSTONE, FINE GRAINED 15% MUDSTONE | LIGHT GREY. LIGHT GREY. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 270.79 | 0.26 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 272.34 | 1.55 | 100 | | 70% SANDSTONE, MEDIUM GRAINED 25% COAL 5% MUDSTONE | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 273.52 | 1.18 | 100 | | 55% SANDSTONE, MEDIUM GRAINED 45% SANDSTONE, FINE GRAINED | COALY, STREAKS, LIGHT GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 274.20 | 0.68 | 100 | | 75% SANDSTONE, MEDIUM GRAINED 20% COAL 5% MUDSTONE | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SEPARATION ALONG SOME BEDDING SURFACES, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 274.38 | 0.18 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 274.67 | 0.29 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 274.87 | 0.20 | 100 | | 90% SANDSTONE, FINE GRAINED 10% COAL | LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 275.91 | 1.04 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION *** |
|-----------------------|----------------|----------|------------------|--|---|
| 276.14 | 0.23 | 100 | | 90% SANDSTONE 10% COAL | MED.-FINE GRAINED, LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 276.81 | 0.67 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 277.11 | 0.30 | 100 | | 85% SANDSTONE 15% MUDSTONE | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 277.17 | 0.06 | 100 | | 80% SANDSTONE, FINE GRAINED 20% COAL | LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 277.65 | 0.48 | 100 | | 100% SANDSTONE | MED.-COARSE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 277.68 | 0.03 | 100 | | 100% CARBONACEOUS MUDSTONE | FRAGMENTS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 280.31 | 2.63 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 280.47 | 0.16 | 100 | | 95% MUDSTONE 5% SANDSTONE | GREY. LENSES, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 280.55 | 0.08 | 100 | | 70% SANDSTONE 30% MUDSTONE | LIGHT GREY. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 280.66 | 0.11 | 100 | | 90% MUDSTONE 10% CARBONACEOUS MUDSTONE | GREY. FRAGMENTS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 281.18 | 0.52 | 100 | | 60% MUDSTONE 40% SANDSTONE, FINE GRAINED | BANDS, GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 281.32 | 0.14 | 100 | | 80% SANDSTONE, FINE GRAINED 20% SANDSTONE, MEDIUM GRAINED | LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 281.37 | 0.05 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 281.47 | 0.10 | 100 | | 100% SILTSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|--|
| *** CORE DESCRIPTION *** | | | | | |
| 281.55 | 0.08 | 100 | | 75% SANDSTONE, MEDIUM GRAINED 25% SILTSTONE | LIGHT GREY. FRAGMENTS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 281.86 | 0.31 | 100 | | 100% SILTSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 282.08 | 0.22 | 100 | | 55% SANDSTONE, FINE GRAINED 45% SILTSTONE | LIGHT GREY. FRAGMENTS, LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 282.88 | 0.80 | 100 | | 90% SILTSTONE 10% SANDSTONE, MEDIUM GRAINED | GREY. BANDS, LENSES, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY. |
| 283.00 | 0.12 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% SILTSTONE | LIGHT GREY. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 283.04 | 0.04 | 100 | | 100% SANDSTONE, FINE GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 283.82 | 0.78 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 283.94 | 0.12 | 100 | | 75% SANDSTONE, FINE GRAINED 25% COAL | LIGHT GREY. LAMINAE, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 284.63 | 0.69 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 284.72 | 0.09 | 100 | | 55% SANDSTONE, MEDIUM GRAINED 30% SANDSTONE, FINE GRAINED 15% COAL | LIGHT GREY. LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 287.15 | 2.43 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 288.18 | 1.03 | 100 | | 60% SANDSTONE, FINE GRAINED 40% SANDSTONE, MEDIUM GRAINED | LIGHT GREY. LIGHT GREY. WITH STREAKS OF CALCITE, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 289.88 | 1.70 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | CALCAREOUS, LIGHT GREY, WITH CALCITE ON JOINTS, UNWEATHERED, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|--|
| *** CORE DESCRIPTION *** | | | | | |
| 291.15 | 1.27 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 291.34 | 0.19 | 100 | | 100% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., OPEN, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 291.92 | 0.58 | 100 | | 100% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 292.70 | 0.78 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 293.25 | 0.55 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 293.50 | 0.25 | 100 | | 85% SANDSTONE, MEDIUM GRAINED 15% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 293.73 | 0.23 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 294.08 | 0.35 | 100 | | 75% SANDSTONE, MEDIUM GRAINED 25% MUDSTONE | LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 294.25 | 0.17 | 100 | | 90% SANDSTONE, FINE GRAINED 10% COAL | LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 295.45 | 1.20 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, WITH STREAKS OF CALCITE, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 295.60 | 0.15 | 100 | | 60% SANDSTONE, FINE GRAINED 40% SANDSTONE, MEDIUM GRAINED | LIGHT GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 295.88 | 0.28 | 100 | | 100% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 296.28 | 0.40 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, WITH STREAKS OF CALCITE, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 296.40 | 0.12 | 100 | | 100% SANDSTONE, FINE GRAINED | CALCAREOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 297.18 | 0.78 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 297.66 | 0.48 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% MUDSTONE | LIGHT GREY. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 298.10 | 0.44 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 299.50 | 1.40 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT NON PLANAR, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 300.90 | 1.40 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 301.82 | 0.92 | 100 | | 75% SANDSTONE, MEDIUM GRAINED 25% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY. LIGHT GREY. WITH STREAKS OF CALCITE, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 308.54 | 6.72 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 308.66 | 0.12 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WIDELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 309.90 | 1.24 | 100 | | 85% SANDSTONE, MEDIUM GRAINED 15% MUDSTONE | LIGHT GREY. FRAGMENTS, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 311.06 | 1.16 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 311.41 | 0.35 | 100 | | 90% SANDSTONE, MEDIUM GRAINED 10% MUDSTONE | GREY-GREEN. FRAGMENTS, GREY-GREEN. UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 311.58 | 0.17 | 100 | | 60% MUDSTONE 40% SANDSTONE, MEDIUM GRAINED | FRAGMENTS, GREY-GREEN. GREY-GREEN. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 311.76 | 0.18 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, GREY-GREEN, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 312.52 | 0.76 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|---|----------------|----------|------------------|---|---|
| 312.61 | 0.09 | 100 | | 100% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 312.71 | 0.10 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 313.25 | 0.54 | 100 | | 65% MUDSTONE 30% MUDSTONE 5% COAL | GREY. CARBONACEOUS, BANDS, DARK GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 313.61 | 0.36 | 100 | | 80% MUDSTONE 15% MUDSTONE 5% COAL | GREY. CARBONACEOUS, DARK GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 313.63 | 0.02 | 100 | | 100% MUDSTONE | TUFFACEOUS, CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 313.95 | 0.32 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 314.21 | 0.26 | 100 | | 90% MUDSTONE 10% CARBONACEOUS MUDSTONE | COALY, FRAGMENTS, GREY. LENSES, STREAKS, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 314.49 | 0.28 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| ----- TOP OF DALMAYNE D UPPER : 151.61 M R.L. ----- | | | | | |
| 314.62 | 0.13 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 314.65 | 0.03 | 100 | | 100% COAL, BRIGHT WITH FEW DULL BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 314.78 | 0.13 | 100 | | 100% COAL, DULL | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| ----- BASE OF DALMAYNE D UPPER : THICKNESS= 0.29 M; SAMPLED THICKNESS= 0.00 M ----- | | | | | |
| 314.99 | 0.21 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION *** |
|-----------------------|----------------|----------|------------------|---|--|
| 315.59 | 0.60 | 100 | | 75% MUDSTONE 25% MUDSTONE | SILTSTONE, GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 316.02 | 0.43 | 100 | | 55% MUDSTONE 45% CLAYSTONE | COALY, STREAKS, GREY. GREY. UNWEATHERED, VERY WEAK ROCK, WITH CARBONACEOUS WISPS, RAPID SLAKING, SLIGHT PERMIABILITY. |
| 316.15 | 0.13 | 100 | | 90% CARBONACEOUS MUDSTONE 10% COAL, DULL | BRIGHT COAL, STREAKS, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 316.55 | 0.40 | 100 | | 100% SILTSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 316.63 | 0.08 | 100 | | 100% MUDSTONE | CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 316.78 | 0.15 | 100 | | 100% MUDSTONE | SILTSTONE, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 317.04 | 0.26 | 100 | | 100% MUDSTONE | SILTSTONE, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 70 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 317.30 | 0.26 | 100 | | 90% MUDSTONE 10% MUDSTONE | CARBONACEOUS, DARK GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 317.67 | 0.37 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 317.80 | 0.13 | 100 | | 100% MUDSTONE | SILTSTONE, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 318.27 | 0.47 | 100 | | 60% MUDSTONE 40% SILTSTONE | GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 318.58 | 0.31 | 100 | | 60% MUDSTONE 40% SILTSTONE | GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|--|
| 318.95 | 0.37 | 100 | | 60% SILTSTONE 30% MUDSTONE 10% CARBONACEOUS MUDSTONE | GRADING TO, FINE GRAINED SANDSTONE, GREY. BANDS, GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 4 DEG., SLIGHT PERMIABILITY. |
| 319.18 | 0.23 | 100 | | 90% SANDSTONE, FINE GRAINED 10% SILTSTONE | LIGHT GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 319.72 | 0.54 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 320.30 | 0.58 | 100 | | 85% SANDSTONE, FINE GRAINED 15% COAL | LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 3 DEG., EFFECTIVELY IMPERMIABLE. |
| 320.37 | 0.07 | 100 | | 55% SANDSTONE, FINE GRAINED 45% COAL | LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 321.25 | 0.88 | 100 | | 95% SANDSTONE 5% COAL | MED.-FINE GRAINED, LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 321.97 | 0.72 | 100 | | 90% SANDSTONE, FINE GRAINED 10% COAL | LIGHT GREY. LAMINAE, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 322.33 | 0.36 | 100 | | 100% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, EFFECTIVELY IMPERMIABLE. |
| 324.25 | 1.92 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 324.48 | 0.23 | 100 | | 100% SANDSTONE, FINE GRAINED | COALY, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 325.04 | 0.56 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% COAL | LIGHT GREY. FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 328.90 | 3.86 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 330.23 | 1.33 | 100 | | 95% SANDSTONE 5% COAL | MED.-COARSE GRAINED, LIGHT GREY. STREAKS, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|---|----------------|----------|------------------|--|--|
| 330.41 | 0.18 | 100 | | 55% SANDSTONE, FINE GRAINED 45% COAL | LIGHT GREY. LAMINAE, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 7 DEG., EFFECTIVELY IMPERMIABLE. |
| 330.94 | 0.53 | 100 | | 75% SANDSTONE, MEDIUM GRAINED 25% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 331.04 | 0.10 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 331.60 | 0.56 | 100 | | 90% SANDSTONE 10% COAL | MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 331.72 | 0.12 | 100 | 105T1 | 100% SANDSTONE | MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 331.85 | 0.13 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 332.10 | 0.25 | 100 | | 70% SANDSTONE, FINE GRAINED 25% COAL 5% COAL, BRIGHT | LIGHT GREY. FRAGMENTS, LAMINAE, BLACK. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 332.25 | 0.15 | 100 | 105T2 | 100% SANDSTONE | MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, EFFECTIVELY IMPERMIABLE. |
| 332.25 | 0.00 | 100 | 10512 | 100% SANDSTONE | MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, SLIGHT PERMIABILITY. |
| TOP OF DALMAYNE D LOWER : 133.85 M R.L. | | | | | |
| 332.26 | 0.01 | 100 | 105A1 | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 332.33 | 0.07 | 100 | 105A1 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 332.44 | 0.11 | 100 | 105A1 | 95% COAL, MID LUSTROUS 5% COAL, BRIGHT | BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 332.47 | 0.03 | 100 | 105A1 | 100% COAL, BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|--|
| 332.52 | 0.05 | 100 | 105A1 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 332.53 | 0.01 | 100 | 105A1 | 60% COAL, DULL WITH NUMEROUS BRIGHT BANDS 40% COAL, BRIGHT | BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 332.56 | 0.03 | 100 | 105A1 | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 332.57 | 0.01 | 100 | 105A1 | 80% COAL, DULL 20% MUDSTONE | BLACK. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 332.61 | 0.04 | 100 | 105A1 | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 332.77 | 0.16 | 100 | 105A1 | 100% COAL, MID LUSTROUS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 332.79 | 0.02 | 100 | 105A1 | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 332.82 | 0.03 | 100 | 105A1 | 100% COAL, MID LUSTROUS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 332.90 | 0.08 | 100 | 105A1 | 85% COAL, MID LUSTROUS - BRIGHT 15% COAL, BRIGHT | BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 332.94 | 0.04 | 100 | 105A1 | 100% COAL, MID LUSTROUS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 332.96 | 0.02 | 100 | 105A1 | 100% COAL, BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 333.07 | 0.11 | 100 | 105A1 | 100% COAL, MID LUSTROUS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 333.20 | 0.13 | 100 | 105A1 | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 333.21 | 0.01 | 100 | 105A1 | 60% COAL, BRIGHT 40% COAL, DULL | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 333.22 | 0.01 | 100 | 105A1 | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 333.23 | 0.01 | 100 | 105A1 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 333.25 | 0.02 | 100 | 105A1 | 75% COAL, MID LUSTROUS - BRIGHT 25% COAL, BRIGHT | BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|--|
| | | | | | *** CORE DESCRIPTION *** |
| 333.33 | 0.08 | 100 | 105A1 | 80% CARBONACEOUS MUDSTONE 20% COAL, BRIGHT | COALY, BLACK. BANDS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 333.34 | 0.01 | 100 | 105A1 | 100% COAL, BRIGHT | BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 333.43 | 0.09 | 100 | 105A2 | 85% MUDSTONE 15% CARBONACEOUS MUDSTONE | COALY, STREAKS, GREY. DARK GREY. UNWEATHERED, WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 333.56 | 0.13 | 100 | 105T3 | 100% MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 333.56 | 0.00 | 100 | 105A2 | 100% MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLOW SLAKING, SLIGHT PERMIABILITY. |
| 333.67 | 0.11 | 100 | 105A2 | 90% MUDSTONE 10% CARBONACEOUS MUDSTONE | GREY. LENSES, STREAKS, DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 333.76 | 0.09 | 100 | 105A2 | 60% MUDSTONE 40% MUDSTONE | GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 333.86 | 0.10 | 100 | 105A2 | 100% CLAYSTONE | DARK GREEN, WITH STREAKS OF CALCITE, UNWEATHERED, VERY WEAK ROCK, WITH PLANT REMAINS, RAPID SLAKING, MODERATELY STICKY, SLIGHT PERMIABILITY. |
| 333.89 | 0.03 | 100 | 105A3 | 100% CARBONACEOUS MUDSTONE | COALY, STREAKS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 333.93 | 0.04 | 100 | 105A3 | 60% MUDSTONE 40% CARBONACEOUS MUDSTONE | GREY. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 333.97 | 0.04 | 100 | 105A3 | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 333.98 | 0.01 | 100 | 105A3 | 100% MUDSTONE | CARBONACEOUS, BANDS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.01 | 0.03 | 100 | 105A3 | 100% CARBONACEOUS MUDSTONE | COALY, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.04 | 0.03 | 100 | 105A3 | 60% MUDSTONE 40% MUDSTONE | GREY. CARBONACEOUS, COALY, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.08 | 0.04 | 100 | 105A4 | 100% COAL, HEAVY DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.09 | 0.01 | 100 | 105A4 | 55% CARBONACEOUS MUDSTONE 45% MUDSTONE | BANDS, BLACK. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.13 | 0.04 | 100 | 105A4 | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|--|
| *** CORE DESCRIPTION *** | | | | | |
| 334.18 | 0.05 | 100 | 105A4 | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, WITH CALCITE ON JOINTS, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.19 | 0.01 | 100 | 105A4 | 60% COAL, DULL WITH FEW BRIGHT BANDS 25% MUDSTONE 15% COAL, BRIGHT | BLACK. LENSES, GREY. LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.22 | 0.03 | 100 | 105A4 | 100% COAL, MID LUSTROUS - DULL | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.23 | 0.01 | 100 | 105A4 | 55% COAL, BRIGHT 45% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.25 | 0.02 | 100 | 105A4 | 60% COAL, MID LUSTROUS 40% COAL, DULL | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.34 | 0.09 | 100 | 105A4 | 100% COAL, MID LUSTROUS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.35 | 0.01 | 100 | 105A4 | 100% COAL, MID LUSTROUS - DULL | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.36 | 0.01 | 100 | 105A5 | 45% TONSTEIN 30% COAL, MID LUSTROUS 25% CARBONACEOUS MUDSTONE | BANDS, GREY-BROWN. BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.38 | 0.02 | 100 | 105A5 | 90% TONSTEIN 10% COAL | CLAYSTONE, CREAM. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.42 | 0.04 | 100 | 105A6 | 100% COAL, MID LUSTROUS | BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.45 | 0.03 | 100 | 105A6 | 100% COAL, MID LUSTROUS - DULL | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.46 | 0.01 | 100 | 105A6 | 60% COAL, MID LUSTROUS - DULL 40% CLAYSTONE | BLACK. BANDS, LIGHT BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.47 | 0.01 | 100 | 105A6 | 80% COAL, MID LUSTROUS 20% CLAYSTONE | BRIGHT COAL, STREAKS, BLACK. BANDS, LIGHT BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.72 | 0.25 | 100 | 105A6 | 100% COAL, MID LUSTROUS | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.73 | 0.01 | 100 | 105A6 | 100% COAL, MID LUSTROUS - BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC. X | SAMPLE NUMBER | ROCK TYPE *** CORE DESCRIPTION *** | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|-----------|------------------|---|---|
| 334.74 | 0.01 | 100 | 105A6 | 60% TONSTEIN 40% COAL, DULL | BANDS, LIGHT GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.83 | 0.09 | 100 | 105A6 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.84 | 0.01 | 100 | 105A6 | 100% MUDSTONE | CARBONACEOUS, BANDS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.85 | 0.01 | 100 | 105A6 | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.86 | 0.01 | 100 | 105A6 | 100% COAL, MID LUSTROUS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.89 | 0.03 | 100 | 105A6 | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.90 | 0.01 | 100 | 105A6 | 85% COAL, DULL 15% MUDSTONE | BLACK. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.92 | 0.02 | 100 | 105A6 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.93 | 0.01 | 100 | 105A6 | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.94 | 0.01 | 100 | 105A6 | 90% MUDSTONE 10% COAL, BRIGHT | BANDS, CARBONACEOUS, DARK GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.97 | 0.03 | 100 | 105A6 | 75% COAL, INTERBANDED DULL AND BRIGHT 25% COAL, BRIGHT | BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 334.99 | 0.02 | 100 | 105A6 | 55% COAL, BRIGHT 40% COAL, DULL WITH FEW BRIGHT BANDS 5% MUDSTONE | BANDS, BLACK. BLACK. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.09 | 0.10 | 100 | 105A6 | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.13 | 0.04 | 100 | 105A6 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.19 | 0.06 | 100 | 105A6 | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.20 | 0.01 | 100 | 105A6 | 60% COAL, BRIGHT 40% COAL, DULL | BANDS, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|---|
| *** CORE DESCRIPTION *** | | | | | |
| 335.22 | 0.02 | 100 | 105A6 | 100% COAL, MID LUSTROUS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.23 | 0.01 | 100 | 105A6 | 100% COAL, MID LUSTROUS - BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.24 | 0.01 | 100 | 105A6 | 100% COAL, BRIGHT | BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.25 | 0.01 | 100 | 105A6 | 55% MUDSTONE 45% CARBONACEOUS MUDSTONE | GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.27 | 0.02 | 100 | 105A6 | 75% COAL, DULL WITH NUMEROUS BRIGHT BANDS 25% COAL, BRIGHT | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 335.28 | 0.01 | 100 | 105A6 | 100% MUDSTONE | CARBONACEOUS, GREY, WITH PYRITE ON JOINTS, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 335.32 | 0.04 | 100 | 105A6 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, WITH PYRITE ON JOINTS, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 335.33 | 0.01 | 100 | 105A6 | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.36 | 0.03 | 100 | 105A6 | 100% COAL, MID LUSTROUS | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.37 | 0.01 | 100 | 105A6 | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.39 | 0.02 | 100 | 105A6 | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.40 | 0.01 | 100 | 105A6 | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.43 | 0.03 | 100 | 105A6 | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.45 | 0.02 | 100 | 105A6 | 100% COAL, MID LUSTROUS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.46 | 0.01 | 100 | 105A6 | 50% COAL, BRIGHT 50% COAL, MID LUSTROUS | BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE *** CORE DESCRIPTION *** | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|--|
| 335.54 | 0.08 | 100 | 105A6 | 90% COAL, MID LUSTROUS 10% COAL, BRIGHT | BLACK. BANDS. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.55 | 0.01 | 100 | 105A6 | 75% COAL, BRIGHT 25% COAL, MID LUSTROUS | BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.56 | 0.01 | 100 | 105A6 | 100% COAL, MID LUSTROUS | BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.58 | 0.02 | 100 | 105A6 | 100% COAL, BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.63 | 0.05 | 100 | 105A6 | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.64 | 0.01 | 100 | 105A7 | 55% CARBONACEOUS MUDSTONE 45% COAL, HEAVY DULL | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.81 | 0.17 | 100 | 105A7 | 100% MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, SLOW SLAKING, SLIGHT PERMIABILITY. |
| 335.96 | 0.15 | 100 | 105T4 | 100% MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 335.96 | 0.00 | 100 | 105A7 | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.04 | 0.08 | 100 | 105A7 | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.38 | 0.34 | 100 | 105A8 | 75% COAL, HEAVY DULL 25% COAL, CANNEL | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.40 | 0.02 | 100 | 105A9 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.45 | 0.05 | 100 | 105A9 | 100% COAL, MID LUSTROUS | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.46 | 0.01 | 100 | 105A9 | 100% COAL, BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.48 | 0.02 | 100 | 105A9 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.54 | 0.06 | 100 | 105A9 | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.58 | 0.04 | 100 | 10510 | 100% TONSTEIN | CARBONACEOUS, STREAKS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.62 | 0.04 | 100 | 10511 | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE *** CORE DESCRIPTION *** | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|--|
| 336.64 | 0.02 | 100 | 10511 | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.66 | 0.02 | 100 | 10511 | 60% CARBONACEOUS MUDSTONE 40% COAL, BRIGHT | DARK GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.69 | 0.03 | 100 | 10511 | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.76 | 0.07 | 100 | 10511 | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.77 | 0.01 | 100 | 10511 | 100% CLAYSTONE | CARBONACEOUS, STREAKS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.81 | 0.04 | 100 | 10511 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.96 | 0.15 | 100 | 10511 | 100% COAL, MID LUSTROUS - DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 336.99 | 0.03 | 100 | 10511 | 60% COAL, BRIGHT 40% COAL, MID LUSTROUS | BANDS, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 337.09 | 0.10 | 100 | 10511 | 100% COAL, MID LUSTROUS - DULL | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 337.10 | 0.01 | 100 | 10511 | 75% COAL, BRIGHT 25% MUDSTONE | CALCITIC, BLACK. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 337.13 | 0.03 | 100 | 10511 | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 337.14 | 0.01 | 100 | 10511 | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 337.16 | 0.02 | 100 | 10511 | 60% MUDSTONE 40% COAL, BRIGHT | BRIGHT COAL, STREAKS, GREY. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 337.22 | 0.06 | 100 | 10511 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 337.23 | 0.01 | 100 | 10511 | 100% COAL, BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 337.36 | 0.13 | 100 | 10511 | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 337.38 | 0.02 | 100 | 10511 | 95% CARBONACEOUS MUDSTONE 5% COAL, BRIGHT | BLACK. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG. TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|---|----------------|----------|------------------|--|--|
| 337.49 | 0.11 | 100 | 10511 | 100% COAL, BRIGHT WITH NUMEROUS DULL BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 337.50 | 0.01 | 100 | 10511 | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| BASE OF DALMAYNE D LOWER : THICKNESS= 5.25 M; SAMPLED THICKNESS= 5.25 M | | | | | |
| 337.52 | 0.02 | 100 | 10512 | 100% CARBONACEOUS MUDSTONE | DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 337.60 | 0.08 | 100 | 10512 | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLOW SLAKING, SLIGHT PERMIABILITY. |
| 337.74 | 0.14 | 100 | 105T5 | 100% MUDSTONE | SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 337.88 | 0.14 | 100 | 105T6 | 80% SANDSTONE 20% SANDSTONE, FINE GRAINED | MED.-FINE GRAINED, LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 337.93 | 0.05 | 100 | | 100% SANDSTONE, FINE GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 338.27 | 0.34 | 100 | | 90% SANDSTONE, MEDIUM GRAINED 10% SANDSTONE, FINE GRAINED | LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 338.70 | 0.43 | 100 | | 100% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 339.00 | 0.30 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WIDELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 339.27 | 0.27 | 100 | | 60% SANDSTONE, FINE GRAINED 40% COAL | LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 339.61 | 0.34 | 100 | | 85% SANDSTONE, FINE GRAINED 15% SILTSTONE | LIGHT GREY. BANDS, FRAGMENTS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY LAMINATED, BEDS DIP 5 DEG., SLIGHT PERMIABILITY. |
| 339.90 | 0.29 | 100 | | 50% SILTSTONE 35% SANDSTONE, FINE GRAINED 15% MUDSTONE | DARK GREY. BANDS, LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 340.00 | 0.10 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|---|
| 340.03 | 0.03 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 340.21 | 0.18 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 340.50 | 0.29 | 100 | | 100% MUDSTONE | FRAGMENTS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 340.52 | 0.02 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 340.65 | 0.13 | 100 | | 95% MUDSTONE 5% CARBONACEOUS MUDSTONE | GREY. FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 340.69 | 0.04 | 100 | | 60% CARBONACEOUS MUDSTONE 40% MUDSTONE | BLACK. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 340.78 | 0.09 | 100 | | 60% CARBONACEOUS MUDSTONE 25% COAL, HEAVY DULL 15% MUDSTONE | BLACK. BRIGHT COAL, STREAKS, BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 341.03 | 0.25 | 100 | | 95% MUDSTONE 5% CARBONACEOUS MUDSTONE | GREY. BANDS, BROWN-BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 341.10 | 0.07 | 100 | | 80% CARBONACEOUS MUDSTONE 20% COAL, BRIGHT | BLACK. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 341.14 | 0.04 | 100 | | 70% MUDSTONE 30% CARBONACEOUS MUDSTONE | COALY, STREAKS, CREAM. BANDS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 341.16 | 0.02 | 100 | | 100% COAL, BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 341.25 | 0.09 | 100 | | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 341.45 | 0.20 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 341.75 | 0.30 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 342.35 | 0.60 | 100 | | 55% MUDSTONE 30% MUDSTONE 15% SANDSTONE, FINE GRAINED | GREY. SILTSTONE, GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 342.60 | 0.25 | 100 | | 60% MUDSTONE 40% SANDSTONE, FINE GRAINED | GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, INFILLED WITH CLAY & TALC, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 342.70 | 0.10 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 343.15 | 0.45 | 100 | | 75% SANDSTONE 25% SILTSTONE | MED.-FINE GRAINED, LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 343.42 | 0.27 | 100 | | 90% SANDSTONE, MEDIUM GRAINED 10% SANDSTONE, FINE GRAINED | LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 343.63 | 0.21 | 100 | | 100% SILTSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 343.67 | 0.04 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 343.91 | 0.24 | 100 | | 100% SILTSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 344.50 | 0.59 | 100 | | 100% SANDSTONE, FINE GRAINED | SILTSTONE, MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 345.73 | 1.23 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 346.01 | 0.28 | 100 | | 100% SILTSTONE | GRADING TO, FINE GRAINED SANDSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 346.05 | 0.04 | 100 | | 100% SANDSTONE, FINE GRAINED | COALY, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 346.60 | 0.55 | 100 | | 100% SANDSTONE | VERY FINE GRAINED, SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |