

**APPENDIX 1**

**SAMPLE DESCRIPTIONS**

200' - 230' --- 100% SILTSTONE: medium brown, occasionally orange/brown, blocky to sub-blocky, occasionally sub-fissile, moderately hard to hard, predominant moderate strong calcareous cement, minor siliceous cement, becoming arenaceous in part.

230' - 260' --- 100% SANDSTONE: light green/grey, medium brown, minor light grey/off white, blocky to sub-blocky, minor sub-fissile, predominantly moderately hard, minor firm, predominant moderate strong calcareous cement, occasionally weak calcareous cement and siliceous cement, becoming arenaceous in part.  
TR LIMESTONE: clear, moderately hard, coarsely crystalline.

260' - 290' --- 100% SANDSTONE: predominantly medium brown, minor light green/grey, blocky to sub-fissile, firm to moderately hard, predominant moderate strong calcareous cement, minor weak calcareous cement (becoming dolomitic?) becoming arenaceous in part, (particular light green/grey aggregates).  
TR LIMESTONE: A/A.

290' - 320' --- 100% SANDSTONE: light green/grey, medium brown, light orange/brown, rest A/A.

320' - 350' --- 100% SANDSTONE: light green/grey, minor medium brown, orange/brown, blocky to sub-fissile, moderately soft to firm, moderately calcareous cement, aggregates common becoming arenaceous in part.  
TR LIMESTONE: clear, moderately hard, coarse crystal.

350' - 380' --- 100% SILTSTONE: light green/grey, minor medium brown, light orange/brown, blocky to sub-blocky, occasionally sub-fissile, moderately soft to moderately hard, predominant moderate strong calcareous cement, minor siliceous cement, aggregates common becoming arenaceous.  
TR LIMESTONE: clear, moderately hard, coarse to medium crystalline.

380' - 410' --- TR SANDSTONE: off white/light grey, very fine grained, sub-angular, very well sorted, moderately hard to hard, quartzose, moderately strong calcareous cement, predominant silty matrix.  
POROSITY: Nil.  
100% SHALE: light grey, fissile, occasionally sub-fissile to sub-blocky to blocky, moderately hard to hard, moderately strong calcareous cement, aggregates becoming arenaceous in part.  
TR LIMESTONE: A/A.

410' - 440' --- 10% SANDSTONE: off white/light grey, medium brown, light grey, pink/off white, very fine to fine grained, sub-angular to sub-rounded, well sorted, moderately hard to hard, moderately strong calcareous cement, very common silty matrix, trace micromicaceous.  
POROSITY: Nil.

90% SILTSTONE: light green/grey, orange brown, light brown/grey, blocky to sub-fissile, occasionally fissile, moderately hard, moderately strong calcareous cement.

TR LIMESTONE: clear, moderately hard, coarsely crystalline.

440' - 470' --- 30% SANDSTONE: orange/brown, mauve brown, off white, light grey, predominantly very fine grained, minor fine, rest A/A.  
POROSITY: Nil to poor to fair.

70% SILTSTONE: medium/brown, orange/brown, light green/grey, blocky to sub-fissile, occasionally fissile, moderately hard, moderate strong calcareous cement, becoming arenaceous in part, trace micromicaceous in some light green/grey aggregates.

470' - 500' --- 50% SANDSTONE: orange/white, orange/brown, mauve brown, off white, predominantly very fine grained, minor fine, occasionally clear loose medium grains, (sub-rounded), sub-angular to sub-rounded, moderately well sorted, moderately hard to hard, quartzose, moderate strong to strong calcareous cement, very common silty matrix, trace micromicaceous.  
POROSITY: Nil to poor.

50% SILTSTONE: A/A, predominant siliceous cement, minor calcareous cement.

500' - 530' --- 80% SANDSTONE: medium brown, light orange, off white, light green/white, light grey, occasional clear loose grains, very fine to fine grained, occasionally medium, rare coarse grains, sub-angular to sub-rounded, moderately well sorted, quartzose, moderately hard to hard, moderate strong calcareous cement, (becoming dolomitic in part), common silty matrix, trace micromicaceous.  
POROSITY: Nil to poor.

20% SILTSTONE: orange/brown, light grey, light green/grey, moderate brown, blocky to sub-fissile, occasionally fissile, moderate hard to hard, predominant moderate strong to strong siliceous cement, minor calcareous cement, becoming arenaceous in part, trace micromicaceous.

530' - 560' --- 70% SANDSTONE: A/A, predominant calcareous cement, minor siliceous cement.  
POROSITY: Nil to poor to fair.  
30% SILTSTONE: A/A, predominant siliceous cement, trace dolomitic cement.

560' - 590' --- 60% SANDSTONE: orange/brown, medium brown, trace off white, pink white, light grey/white, very fine to fine grained, predominantly sub-angular, minor sub-rounded, well sorted, quartzose, moderately hard to hard, moderate strong to strong calcareous cement, common silty matrix, trace micromicaceous.  
POROSITY: Nil to poor.  
40% SILTSTONE: light grey, medium orange/brown, blocky to fissile, moderately hard to hard, moderately strong, dolomitic cement, (becoming calcareous), becoming arenaceous in part, trace micromicaceous.  
POROSITY: Nil to poor.  
40% SILTSTONE: light grey, medium orange/brown, blocky to fissile, moderately hard to hard, moderate strong dolomitic cement (becoming calcareous), becoming arenaceous in part, trace micromicaceous.

590' - 620' --- 70% SANDSTONE: orange/brown, pink/off white, off white, occasionally clear loose grains; predominantly very fine to fine, (sub-angular to sub-rounded), minor medium and coarse grains (sub-rounded to rounded), moderately well sorted, quartzose, moderately hard to hard, moderately strong to strong calcareous cement, common silty matrix, becoming argillaceous in part.  
POROSITY: Nil to poor.  
30% SILTSTONE: orange/brown, moderate brown, minor light grey, white, blocky to sub-fissile, occasionally fissile, firm to moderately hard, predominant moderate strong siliceous cement, minor dolomitic cement, becoming arenaceous in part, trace micromicaceous.

620' - 650' --- 30% SANDSTONE: A/A.  
POROSITY: Nil to poor to fair.  
70% SILTSTONE: orange/brown, mauve/brown, medium brown, predominant dolomitic cement, minor siliceous cement, rest A/A.

650' - 680' --- TR SANDSTONE: light green/grey, orange/brown, very fine grained, sub-angular, very well sorted, quartzose, moderately hard, calcareous and dolomitic cement, common silty matrix.  
100% SILTSTONE: orange/brown, mauve/brown, light green/grey, sub-blocky to sub-fissile, occasionally fissile, firm to moderately hard, predominant moderate strong dolomitic cement, light green/grey aggregates, calcareous cement, becoming arenaceous in part, trace micromicaceous.

680' - 710' --- 10% SANDSTONE: off white, mauve/white, light orange/white, predominantly very fine grained, minor fine, sub-angular to sub-rounded, very well sorted, quartzose, moderately hard to hard, moderate strong to strong calcareous and dolomitic cement, common silty matrix, becoming argillaceous in part.

90% SILTSTONE: orange/brown, medium brown, occasional light green/grey, mauve/brown and banded mauve/brown and orange/brown, predominantly sub-blocky to sub-fissile, occasionally blocky and fissile, moderately hard to hard, moderately strong to strong dolomitic cement, becoming arenaceous in part.

710' - 740' --- TR SANDSTONE: A/A, very fine to fine grained, well sorted, occasionally medium grained.

100% SILTSTONE: A/A.

TR GYPSUM: white, sub-fissile, fibrous, often in large aggregates

740' - 770' --- 10% SANDSTONE: light green/off white, orange/brown, light pink/orange, light orange/off white, very fine to fine grained, sub-angular to sub-rounded, occasionally medium to coarse grained, sub-rounded to rounded, well sorted, quartzose, predominantly dolomitic cement (becoming calcareous in part), minor siliceous cement, (light pink/orange aggregates), common silty matrix.

90% SILTSTONE: orange/brown, mauve/brown, medium brown, off white/light grey, predominantly sub-blocky to sub-fissile, minor blocky, moderately hard to hard, moderate strong to strong dolomitic cement, becoming arenaceous in part.

TR GYPSUM: A/A.

770' - 800' --- 10% SANDSTONE: orange/brown, mauve/brown, very fine to fine, sub-angular to sub-rounded, (occasional light orange loose grains, medium to coarse, sub-rounded to rounded), well sorted, quartzose, moderately hard to hard, moderately strong calcareous cement, (becoming dolomitic), common silty matrix.

80% SILTSTONE: orange/brown, mauve/brown, mauve/medium grey, blocky to sub-fissile, occasionally fissile, moderately hard to hard, moderately strong to strong dolomitic cement, occasionally becoming arenaceous in part.

TR GYPSUM: clear, white, off white, soft, fibrous, common in 1 cm aggregates.

800' - 830' --- 20% SANDSTONE: A/A.

POROSITY: poor to fair to good.

80% SILTSTONE: A/A.

TR GYPSUM: clear, white, soft, fibrous.

830' - 860' --- 90% SANDSTONE: orange/brown, minor mauve/brown, predominantly very fine grained, minor fine, sub-angular to sub-rounded, occasionally medium and coarse grains, sub-rounded to rounded, well sorted, quartzose, moderately hard to hard, moderately strong to strong calcareous cement, (becoming dolomitic in part), abundant silty matrix.  
 POROSITY: Nil to poor to fair to good.  
 10% SILTSTONE: mauve/brown, orange/brown, minor light green/grey, blocky to sub-fissile, moderately hard to hard, predominant moderate strong siliceous cement, trace dolomitic cement.

860' - 890' --- 100% SANDSTONE: medium orange, minor red/brown, mauve/brown, occasionally light orange loose grains, predominantly medium grained (sub-rounded), minor very fine to fine, (sub-angular) and coarse (rounded), moderately sorted, quartzose, predominantly hard, minor moderate hard, moderate strong siliceous cement, (some very fine to fine grained aggregates slightly dolomitic cement), minor silty matrix.  
 POROSITY: poor to good.  
 SHOWS: Nil.  
 TR SILTSTONE: mauve/brown, medium brown, sub-blocky to fissile, moderately hard to hard, predominant moderate strong siliceous cement, minor calcareous (becoming dolomitic) cement.

870' --- REMARK: EST. TOP MEREENIE SS @ 870 FEET.

890' - 920' --- 100% SANDSTONE: medium orange, abundant light orange loose grains, predominant medium grains (sub-angular to sub-rounded), minor fine grains (sub-angular), occasionally coarse grained, (sub-rounded to rounded), well sorted, quartzose, semi-friable to moderately hard, moderate strong siliceous cement, trace black lithic fragments, silty matrix absent.  
 POROSITY: fair to good.  
 SHOWS: Nil.  
 TR SILTSTONE: mauve/brown, medium brown, A/A.

920' - 950' --- 90% SANDSTONE: medium and light orange, fine and medium grained (sub-angular to sub-rounded), occasional coarse grains, (sub-rounded to rounded), moderately well sorted, quartzose, friable to moderately hard, moderate weak to moderate strong siliceous cement, occasional calcareous cement, trace fine black lithic fragments.  
 POROSITY: poor to good.  
 SHOWS: Nil.  
 10% SILTSTONE: light green/grey, occasional banded light green/grey and medium brown, blocky to sub-blocky, soft to firm, weak calcareous cement.

950' - 980' --- 90% SANDSTONE: light orange, fine and medium grains, sub-angular to sub-rounded, rare coarse grains (rounded), well sorted, quartzose, friable, weak siliceous cement, trace fine black lithic fragments.  
 POROSITY: fair to good.  
 SHOWS: Nil.  
 10% SILTSTONE: light green/grey, medium brown, blocky to sub-fissile, light green/grey, soft to firm, medium brown, soft to moderately hard, weak calcareous cement, medium brown aggregates, occasional siliceous cement.

980' - 1010' --- 90% SANDSTONE: A/A.  
 POROSITY: good.  
 SHOWS: Nil.  
 10% SILTSTONE: A/A.

1010' - 1040' --- 100% SANDSTONE: light orange, fine and medium grains, sub-angular to sub-rounded, well sorted, quartzose, friable, weak siliceous cement.  
 POROSITY: good.  
 SHOWS: Nil.  
 TR SILTSTONE: light green/grey, medium brown, blocky to sub-fissile, soft to moderately hard, weak to moderate strong calcareous cement.

1040' - 1070' --- 90% SANDSTONE: A/A, and occasional clear and translucent loose grains, occasionally coarse grains, (rounded).  
 POROSITY: good.  
 SHOWS: Nil.  
 10% SILTSTONE: A/A.

1070' - 1100' --- 90% SANDSTONE: light orange, occasional yellow/orange, occasional clear and translucent loose grains, fine and medium grained, sub-angular to sub-rounded, occasional coarse grains, (rounded), well sorted, quartzose, friable, predominant weak, occasional strong siliceous cement, trace very fine black lithic fragments.  
 POROSITY: good.  
 SHOWS: Nil.  
 10% SILTSTONE: predominant light green/grey, minor medium brown and mauve/brown, blocky to sub-fissile, soft to moderately hard, weak to moderate strong calcareous cement.

1100' - 1130' --- 90% SANDSTONE: A/A.  
 POROSITY: fair to good.  
 SHOWS: Nil.  
 10% SILTSTONE: A/A, becoming arenaceous in part.

- 1130' - 1160' --- 90% SANDSTONE: light orange, occasional clear and translucent loose grains, fine and medium grained (sub-angular to sub-rounded), occasional coarse grains, (rounded), well sorted, quartzose, friable, weak siliceous cement, trace very fine black lithic fragments.  
POROSITY: fair to good.  
SHOWS: Nil.
- 10% SILTSTONE: light green/grey, medium brown, blocky to sub-blocky, occasionally sub-fissile, soft to moderately hard, weak to moderate strong calcareous cement.
- 1160' - 1180' --- 80% SANDSTONE: A/A, minor pink/clear, minor very fine grained (sub-angular), moderately well sorted.  
POROSITY: fair to good.  
SHOWS: Nil.
- 20% SILTSTONE: orange/brown, minor medium/brown, light green/grey, mauve/brown, orange/brown siliceous cement, mauve/brown dolomitic cement, rest A/A, becoming arenaceous in part.
- 1180' - 1210' --- 90% SANDSTONE: medium orange, light orange loose grains, fine and medium grained, (sub-angular to sub-rounded), occasionally very fine (sub-angular), well sorted, quartzose, friable, moderate weak siliceous cement, rare black lithic fragments.  
POROSITY: poor to fair to good.  
SHOWS: Nil.
- 10% SILTSTONE: medium brown, light green/grey, mauve/brown, blocky to sub-blocky, moderate soft to firm to moderate hard, light green/grey aggregates, calcareous cement, brown aggregates moderately strong dolomitic cement, becoming arenaceous in part.
- 1210' - 1240' --- 90% SANDSTONE: A/A, minor pink, coarse grains white.  
POROSITY: fair to good.  
SHOWS: Nil.
- 10% SANDSTONE: A/A.
- 1240' - 1270' --- 90% SANDSTONE: occasionally medium orange aggregates, rest light orange loose grains, occasional clear and translucent, predominant fine to medium grained (sub-angular to sub-rounded), occasionally very fine (sub-angular) and coarse (rounded), well sorted, quartzose, friable, weak siliceous cement.  
POROSITY: good.  
SHOWS: Nil.
- 10% SILTSTONE: medium brown, light green/grey, orange/brown, minor mauve/brown, blocky to sub-blocky, moderate soft to moderately hard, medium brown and orange brown, predominant moderate strong siliceous cement, rest dolomitic cement (becoming calcareous in part), becoming arenaceous in part.

1270' - 1300' --- 90% SANDSTONE: occasional pink and pale/orange aggregates, rest predominant light orange, minor clear and translucent loose grains, fine and medium grained (sub-angular to sub-rounded), occasionally very fine (angular to sub-angular) and coarse (rounded) grains, well sorted, quartzose, friable, weak siliceous cement.  
POROSITY: good.  
SHOWS: Nil.

10% SILTSTONE: light green/grey, mottled light green/grey to medium brown, mauve/brown, blocky to sub-blocky, occasionally sub-fissile and fissile, soft to moderate hard, light green/grey, weak dolomitic cement, rest moderately strong calcareous cement (becoming dolomitic), becoming arenaceous in part.

1300' - 1330' --- 100% SANDSTONE: A/A.  
POROSITY: good.  
SHOWS: Nil.

TR SILTSTONE: A/A.

1330' - 1360' --- 100% SANDSTONE: occasionally medium orange, pink and pink/orange aggregates, rest predominantly light orange, occasional translucent and clear loose grains, fine to medium grained, (sub-angular to sub-rounded), occasionally very fine (angular to sub-angular) and coarse (rounded) grains, well sorted, quartzose, friable, weak siliceous cement.  
POROSITY: good.  
SHOWS: Nil.

TR SILTSTONE: medium brown, light green/grey, blocky to sub-blocky, occasionally sub-fissile, soft to moderately hard, predominantly weak to moderate strong calcareous cement, minor dolomitic cement.

1360' - 1390' --- 100% SANDSTONE: occasional medium orange aggregates, rest predominantly light orange, minor translucent and clear loose grains, fine and medium grains (sub-angular to sub-rounded), occasionally very fine grained (angular to sub-angular), well sorted, quartzose, friable, weak siliceous cement.  
POROSITY: fair to good.  
SHOWS: Nil.

TR SILTSTONE: light green/grey, mauve/brown, medium brown, mottled green/grey and medium brown, blocky, occasionally sub-blocky and sub-fissile, soft to moderately hard, weak to moderate strong calcareous cement, mauve/brown aggregates common, becoming arenaceous.

1390' - 1420' --- 100% SANDSTONE: A/A, minor very fine grained, moderately well sorted.  
POROSITY: fair to good.  
SHOWS: Nil.  
TR SILTSTONE: A/A, minor red/brown, moderately hard, sub-fissile, siliceous cement.

1420' - 1450' --- 100% SANDSTONE: occasional medium and light orange aggregates, predominant light orange, occasional clear and translucent loose grains, very fine to fine and medium grains, angular to sub-angular to sub-rounded, moderately well sorted, quartzose, friable, weak siliceous cement.  
POROSITY: good.  
SHOWS: Nil.  
TR SILTSTONE: light green/grey, medium/brown, blocky to sub-blocky, firm to moderately hard, moderate strong calcareous cement.

1450' - 1480' --- 100% SANDSTONE: occasional small light orange and pink aggregates, predominantly light orange, occasional clear and translucent loose grains, very fine to fine and medium grains, angular to sub-angular to sub-rounded, moderately well sorted, quartzose, friable, weak siliceous cement.  
POROSITY: good.  
SHOWS: Nil.  
TR SILTSTONE: light green/grey, medium/brown, blocky to sub-blocky, firm to moderately hard, moderate strong calcareous cement.

1480' - 1510' --- 100% SANDSTONE: A/A, predominantly fine grained, minor very fine and medium.  
POROSITY: good.  
SHOWS: Nil.  
TR SILTSTONE: A/A.

1510' - 1530' --- 100% SANDSTONE: predominantly light orange loose grains, minor light orange, pink aggregates and clear, translucent loose grains, predominantly fine grained, minor very fine and medium, angular to sub-angular to sub-rounded, moderately well sorted, quartzose, friable, weak siliceous cement.  
POROSITY: good.  
SHOWS: Nil.  
TR SILTSTONE: medium brown, light green/grey, blocky to sub-blocky, firm to moderately hard, moderate strong calcareous cement.

1530' - 1560' --- 100% SANDSTONE: predominant light orange and light pink loose grains, rest A/A.  
POROSITY: good.  
SHOWS: Nil.  
TR SILTSTONE: A/A.

1560' - 1590' --- 100% SANDSTONE: predominant light orange loose grains, occasionally clear, translucent, light pink loose grains and light orange aggregates, fine to medium grained, minor very fine and coarse, sub-angular to sub-rounded, well sorted, quartzose, friable, moderate weak siliceous cement.  
 POROSITY: good.  
 SHOWS: Nil.  
 TR SILTSTONE: medium brown, light green/grey, blocky, firm to moderately hard, moderate strong calcareous cement, becoming arenaceous in part.

1590' - 1620' --- 100% SANDSTONE: A/A.  
 POROSITY: good.  
 SHOWS: Nil.  
 TR SILTSTONE: A/A.

1620' - 1650' --- 100% SANDSTONE: predominant light orange loose grains, occasionally clear, translucent, light pink loose grains, rare small light orange aggregates, fine to medium grained, minor very fine, sub-angular to sub-rounded, well sorted, quartzose, friable, moderate weak siliceous cement.  
 POROSITY: good.  
 SHOWS: Nil.  
 TR SILTSTONE: medium brown, blocky, firm to moderately hard, moderately strong calcareous cement.

1650' - 1680' --- 100% SANDSTONE: A/A.  
 POROSITY: good.  
 SHOWS: Nil.  
 TR SILTSTONE: A/A.

1680' - 1710' --- 100% SANDSTONE: predominant light orange loose grains, occasional light orange aggregates and clear, light pink loose grains, predominantly fine to medium grains, minor very fine, sub-angular to sub-rounded, occasional coarse grains, rounded, well sorted, quartzose, predominantly friable, weak siliceous cement, common black lithic fragments in aggregates.  
 POROSITY: good.  
 SHOWS: Nil.  
 TR SILTSTONE: medium/brown, red/brown, blocky, weak to moderately hard, moderate strong dolomitic cement, red/brown siliceous cement.

1710' - 1740' --- 100% SANDSTONE: A/A.  
 POROSITY: good.  
 SHOWS: Nil.  
 TR SILTSTONE: A/A.

1740' - 1770' --- 100% SANDSTONE: predominantly light orange loose grains, minor light orange aggregates, occasional clear, translucent loose grains, predominantly fine to medium grained, minor very fine, sub-angular to sub-rounded, well sorted, quartzose, predominantly friable, weak, occasional moderate strong siliceous cement, trace black lithic fragments.

POROSITY: good.

SHOWS: Nil.

TR SILTSTONE: light green/grey, red/brown, medium brown, blocky to sub-fissile, firm to moderately hard, predominant calcareous cement (becoming dolomitic), red/brown aggregates, siliceous cement.

1770' - 1800' --- 100% SANDSTONE: predominant light orange loose grains, minor light orange and dark orange/brown aggregates, occasional clear and translucent loose grains, predominantly fine to medium grained, minor very fine, sub-angular to sub-rounded, well sorted, quartzose, predominantly friable, predominantly weak, occasional moderate strong siliceous cement, trace black lithic fragments.

POROSITY: good.

SHOWS: Nil.

TR SILTSTONE: light green/grey, moderate brown, blocky, firm to moderately hard, moderate strong calcareous and dolomitic cement.

1800' - 1840' --- 100% SANDSTONE: A/A, predominantly fine grained, minor medium, occasionally very fine.

POROSITY: good.

SHOWS: Nil.

TR SILTSTONE: A/A.

1840' - 1870' --- 100% SANDSTONE: light orange loose grains, occasionally medium orange and pink aggregates, clear and translucent loose grains, very fine to medium grained (sub-angular to sub-rounded), minor coarse (rounded), moderately sorted, quartzose, predominantly friable, weak siliceous cement.

POROSITY: good.

SHOWS: Nil.

TR SILTSTONE: medium brown, light green/grey, blocky, firm to moderately hard, moderate strong calcareous cement.

1870' - 1900' --- 100% SANDSTONE: light orange, light pink, clear and translucent, loose grains, occasional medium orange aggregates, very fine to medium grained (sub-angular to sub-rounded), minor coarse (rounded), moderately sorted, quartzose, friable, weak siliceous cement.  
 POROSITY: good.  
 SHOWS: Nil.  
 TR SILTSTONE: medium brown, blocky, moderately hard, moderate strong dolomitic cement.

1900' - 1930' --- 100% SANDSTONE: A/A.  
 POROSITY: good.  
 SHOWS: Nil.  
 TR SILTSTONE: A/A.

1930' - 1960' --- 100% SANDSTONE: light orange, light pink, clear and translucent loose grains, occasional white, occasional small, medium orange aggregates, fine to medium grained (sub-angular to sub-rounded), minor very fine, (angular to sub-angular) and coarse (rounded), moderately sorted, quartzose, friable, weak siliceous weak.  
 POROSITY: good.  
 SHOWS: Nil.

1960' - 1970' --- 100% SANDSTONE: A/A, occasional light pink/white aggregates.  
 POROSITY: good.  
 SHOWS: Nil.  
 TR SILTSTONE: light green/grey, minor medium/brown, blocky to sub-blocky, moderately hard, moderately strong dolomitic cement.

1970' - 1980 --- 100% SANDSTONE: light orange, clear, translucent, light pink loose grains, occasionally medium orange and mauve aggregates, predominant fine to medium grained (sub-angular to sub-rounded), minor very fine (angular to sub-rounded) and coarse (rounded), moderately sorted, quartzose, friable, weak siliceous cement.  
 POROSITY: good.  
 SHOWS: Nil.  
 TR SILTSTONE: light green/grey, medium brown, blocky, firm to moderately hard, moderate strong calcareous and dolomitic cement.

1980' - 1990' --- 100% SANDSTONE: A/A, coarse grains clear, occasional pale aggregates.  
 POROSITY: good.  
 SHOWS: Nil.  
 TR SILTSTONE: A/A.

1990' - 2000' --- 100% SANDSTONE: translucent, light orange, clear, occasional orange/yellow loose grains, occasional light pink and trace white aggregates, fine to coarse grained, sub-angular to rounded, moderately sorted, quartzose, friable, weak siliceous cement. POROSITY: good. SHOWS: Nil.

TR SILTSTONE: light green/grey, medium brown, blocky, firm to moderately hard, moderate strong calcareous and dolomitic cement.

2000' - 2010' --- 100% SANDSTONE: predominant clear and translucent loose grains, minor light orange, light pink loose grains and white aggregates, occasional mauve and pink/white aggregates, predominantly fine to medium grained (sub-angular to sub-rounded), minor very fine (angular to sub-angular) and coarse (rounded), moderately sorted, white aggregates common, poorly sorted, quartzose, predominantly friable, predominantly weak, occasional moderate strong siliceous cement. POROSITY: good. SHOWS: Nil.

TR SILTSTONE: A/A.

2009' --- REMARK: EST. TOP MEREENIE QUARTZITE @ 2009 FEET

2010' - 2020' --- 100% SANDSTONE: clear, translucent, light pink/orange, light orange, trace medium orange, loose grains, occasional white and light pink aggregates, predominantly fine to medium grained (sub-angular to sub-rounded), minor very fine (angular to sub-angular) and coarse (rounded), moderately sorted, aggregates common poorly sorted, quartzose, predominantly weak, occasional moderately strong siliceous cement. POROSITY: good. SHOWS: Nil.

TR SILTSTONE: light green/grey, medium brown, blocky, firm to moderately hard, moderate strong dolomitic cement (becoming calcareous).

2020' - 2030' --- 100% SANDSTONE: A/A. POROSITY: good. SHOWS: Nil.

TR SILTSTONE: A/A.

2030' - 2040' --- 100% SANDSTONE: A/A. POROSITY: good. SHOWS: Nil.

TR SILTSTONE: A/A.

2040' - 2070' --- 100% SANDSTONE: clear, translucent, light orange loose grains, minor white aggregates, very fine to coarse grained, predominantly moderate well sorting, although white aggregates occur as both very fine grained, very well sorted, fine to coarse grained, poorly sorted, quartzose, predominantly friable, minor moderate well cemented, weak and moderate strong siliceous cement.

POROSITY: fair to good.

SHOWS: Nil.

TR SILTSTONE: light green/grey, light grey, blocky, moderately hard to hard, moderate strong to strong calcareous cement.

2070' - 2100' --- 100% SANDSTONE: light orange, clear, translucent loose grains, white and occasional medium orange aggregates, very fine to medium grained (angular to sub-rounded), minor coarse (rounded), predominant moderate well sorted, although white aggregates either well sorted very fine grained or poorly sorted, very fine to coarse grained, quartzose, friable in part, moderately well cemented in part, weak to moderate strong siliceous cement.

POROSITY: poor to good.

SHOWS: Nil.

2100' - 2130' --- 100% SANDSTONE: clear, translucent, light orange loose grains, white and occasional medium orange aggregates, rest A/A.

POROSITY: poor to good.

SHOWS: Nil.

2130' - 2150' --- 100% SANDSTONE: clear, light orange, translucent loose grains and white aggregates, occasional medium orange aggregates, fine to medium grained (sub-angular to sub-rounded), minor very fine (angular to sub-angular) and coarse (rounded), predominant moderate well sorted, some white aggregates poorly sorted, quartzose, friable in part, moderately well cemented in part, weak to strong siliceous cement, rare black and red/brown lithic fragments.

POROSITY: poor to good.

SHOWS: Nil.

2150' - 2180' --- 100% SANDSTONE: A/A, although only trace white aggregates, sample predominantly friable, occasionally well cemented, 5% rock flour.

POROSITY: poor to good.

SHOWS: Nil.

- 2180' - 2210' --- 100% SANDSTONE: light orange, clear, minor light pink and translucent loose grains, occasional small white and medium orange aggregates, predominantly fine to medium grained (sub-angular to sub-rounded), minor very fine (angular to sub-angular) and coarse (rounded), moderately well to well sorted, quartzose, predominantly friable, weak, occasional moderate strong siliceous cement. POROSITY: fair to good. SHOWS: Nil.
- TR SILTSTONE: predominant light green/grey, minor medium brown, blocky, firm to moderately hard, moderate strong calcareous cement, 2% rock flour.
- 2210' - 2240' --- 100% SANDSTONE: light orange, translucent, clear loose grains, rare small white and medium orange aggregates, rest A/A, coarse grains common, fractured. POROSITY: good. SHOWS: Nil.
- TR SILTSTONE: A/A.
- 2240' - 2270' --- 90% SANDSTONE: clear, translucent, light orange loose grains, minor small white and medium orange aggregates, fine to coarse grained, sub-angular to rounded, moderately sorted, quartzose, predominantly friable, minor well cemented, predominant weak, minor moderate strong siliceous cement. POROSITY: fair to good. SHOWS: Nil.
- 10% SILTSTONE: light green/grey, medium brown, blocky, firm to moderately hard, moderate strong calcareous cement, 10% of sample is rock flour.
- 2270' - 2300' --- 90% SANDSTONE: translucent, clear, light orange, pink/orange loose grains, minor small white, medium orange and pink/orange aggregates, fine to coarse grains, minor very fine grains, predominantly sub-angular to rounded, occasional angular, moderately sorted, quartzose, predominantly friable, minor well cemented, predominantly weak, minor moderate strong siliceous cement. POROSITY: poor to good. SHOWS: Nil.
- 10% SILTSTONE: light green/grey, blocky to sub-blocky, firm to moderately hard, moderate strong calcareous cement.
- 2300' - 2330' --- 100% SANDSTONE: A/A. POROSITY: fair to good. SHOWS: Nil.
- TR SILTSTONE: A/A, medium and coarse grains, common fractures.

2330' - 2360' --- SAMPLE LOST.

2360' - 2370' --- 100% SANDSTONE: clear, light pink, translucent loose grains, minor light pink/white, mauve aggregates, very fine to medium grained (angular to sub-rounded), minor coarse grains (sub-rounded to rounded), moderately well sorted, quartzose, predominantly friable, minor well cemented, medium to coarse grained, occasionally fractured.  
POROSITY: poor to good.  
SHOWS: Nil.  
TR SILTSTONE: light green/grey, blocky, moderately firm to hard, moderate strong to strong calcareous cement.

2370' - 2380' --- 100% SANDSTONE: light pink, light orange, clear loose grains, minor mauve/brown aggregates, occasional white aggregates, very fine to medium grained (angular to sub-rounded), occasionally coarse (rounded), moderately well sorted, quartzose, predominantly friable, minor well cemented, predominantly weak, minor moderate strong siliceous cement, trace silty matrix.  
POROSITY: poor to good.  
SHOWS: Nil.  
TR SILTSTONE: red/brown, sub-blocky, firm, moderate siliceous cement, common micromica, becoming arenaceous in part.

2380' - 2390' --- 100% SANDSTONE: A/A, plus occasional medium orange aggregates.  
POROSITY: poor to good.  
SHOWS: Nil.  
TR SILTSTONE: A/A, plus light green/grey, blocky, moderately hard, calcareous cement.

2390' - 2400' --- 80% SANDSTONE: light pink/orange, light orange, clear, translucent loose grains, occasional white, light pink and medium orange aggregates, predominantly very fine to medium (angular to sub-rounded), minor coarse (rounded), moderately well sorted, quartzose, predominantly friable, minor well cemented, predominantly weak, minor moderate strong siliceous cement.  
POROSITY: poor to good.  
SHOWS: Nil.  
20% SILTSTONE: orange/brown, dark red/brown, minor light green/grey and medium brown, orange/brown and red/brown aggregates, sub-blocky to fissile, hard, strong siliceous cement, trace dolomitic cement, trace micromicaceous becoming arenaceous in part, light green/grey aggregates, blocky, firm, calcareous cement, medium brown aggregates, sub-blocky to sub-fissile, hard, strong dolomitic cement.

2400' - 2430' --- 70% SANDSTONE: A/A.  
POROSITY: poor to good.  
SHOWS: Nil.  
30% SILTSTONE: A/A, plus light grey/green aggregates,  
sub-blocky to fissile, moderately hard, moderate  
strong siliceous cement, minor dolomitic cement.

2430' - 2460' --- 80% SANDSTONE: clear, light pink, translucent, light  
orange loose grains, minor pink, mauve, medium  
orange aggregates, very fine to medium grained  
(angular to sub-rounded), minor coarse (rounded),  
moderately well sorted, quartzose, predominantly  
friable, minor well cement, predominantly weak,  
minor strong siliceous cement.  
POROSITY: poor to good.  
SHOWS: Nil.  
20% SILTSTONE: medium brown, red/brown, orange/brown,  
light grey/green, blocky to sub-fissile,  
moderately hard to hard, moderate strong to strong  
siliceous cement, trace dolomitic cement, trace  
micromicaceous.

2460' - 2490' --- 90% SANDSTONE: clear, light pink, light orange,  
translucent loose grains, minor pink/mauve, medium  
orange, off white aggregates, very fine to medium  
grained (angular to sub-rounded), minor coarse  
(rounded), moderately well sorted, quartzose,  
predominantly friable, minor well cemented, weak  
to moderate strong siliceous cement.  
POROSITY: poor to good.  
SHOWS: Nil.  
10% SILTSTONE: orange/brown, red/brown, light  
grey/green, mauve/off white, sub-blocky to  
sub-fissile, moderately hard to hard, moderate  
strong to strong siliceous cement, trace dolomitic  
cement, trace micromicaceous.

2490' - 2520' --- 90% SANDSTONE: A/A.  
POROSITY: poor to good.  
SHOWS: Nil.  
10% SILTSTONE: predominant light grey/green, minor  
medium brown, blocky to sub-fissile, firm to  
moderately hard, calcareous and dolomitic cement,  
trace micromicaceous, (contaminated sample?)

2520' - 2530' --- 90% SANDSTONE: light pink, clear, light orange, translucent loose grains, minor light pink, medium orange and white aggregates, very fine to medium grained (angular to sub-rounded), minor coarse grains (rounded), moderately well sorted, quartzose, predominantly friable, minor well cemented, weak to moderate strong siliceous cement. POROSITY: fair to good. SHOWS: Nil.

10% SILTSTONE: light green/grey, medium brown, blocky to sub-fissile, occasionally fissile, moderate strong calcareous (light green/grey aggregates) and dolomitic cement (medium brown aggregates), trace micromicaceous.

2530' - 2540' --- 100% SANDSTONE: light orange, medium orange, minor dark red/brown, clear, mauve, predominantly fine grained (sub-angular to sub-rounded), minor very fine (sub-angular) and medium (sub-rounded), well sorted, predominantly friable, minor well cemented, weak to moderate strong siliceous cement. POROSITY: fair to good. SHOWS: Nil.

TR SILTSTONE: light grey/green, medium brown, blocky to sub-fissile, firm to moderately hard, moderate strong calcareous cement, trace micromicaceous.

2534' --- REMARK: EST. TOP CARMICHAEL SS @ 2534 FEET.

2540' - 2550' --- 100% SANDSTONE: A/A. POROSITY: good. SHOWS: Nil.

TR SILTSTONE: A/A, also trace black lithic fragments.

2550' - 2580' --- 100% SANDSTONE: light orange, medium orange, minor red/brown, clear, predominantly fine grained, minor very fine and medium, sub-angular to sub-rounded, well sorted, quartzose, friable in part, well cemented in part, weak to moderate strong siliceous cement, occasional secondary siliceous overgrowths, coarse grains, common fractured, common silty matrix in red/brown aggregates. POROSITY: fair to good. SHOWS: Nil.

TR SILTSTONE: light grey/green, medium brown, blocky to sub-blocky, firm to moderately hard, moderate strong calcareous cement (becoming dolomitic in part), trace micromicaceous.

2580' - 2610' --- 100% SANDSTONE: medium orange, light orange, minor red/brown, clear, predominantly fine and medium grained (sub-angular to sub-rounded), minor coarse (rounded), well sorted, rest A/A and trace black lithic fragments.  
 POROSITY: poor to good.  
 SHOWS: Nil.

TR  
 2600' --- SILTSTONE: A/A.  
 REMARK: EST. WATER FLOW @ 1000 BBL/HR.

2610' - 2640' --- 100% SANDSTONE: light orange, medium orange, minor red/brown, clear, fine to medium grained, sub-angular to sub-rounded, occasional coarse grains, rounded, well sorted, quartzose, friable in part, well cemented in part, weak to moderate strong siliceous cement, occasional secondary siliceous overgrowths.  
 POROSITY: poor to good.  
 SHOWS: Nil.

TR  
 SILTSTONE: predominant light grey/green, minor medium brown, blocky to sub-blocky, firm to moderately hard, moderate strong calcareous cement, trace micromicaceous.

2640' - 2670' --- 90% SANDSTONE: A/A, minor coarse grained, occasional silty matrix, moderately sorted.  
 POROSITY: poor to good.  
 SHOWS: Nil.

10% SILTSTONE: A/A, minor grey/mauve, becoming arenaceous in part.

2670' - 2700' --- 100% SANDSTONE: medium orange, light orange, red/brown, minor mauve brown aggregates and clear loose grains, predominantly fine grained, (sub-angular to sub-rounded), minor very fine (angular to sub-angular) and medium grained (sub-rounded), occasional coarse (rounded), well sorted, quartzose, friable in part, well cemented in part, weak to moderate strong siliceous cement, trace secondary siliceous overgrowths, common silty matrix in red/brown aggregates.  
 POROSITY: poor to good.  
 SHOWS: Nil.

TR  
 SILTSTONE: predominant light grey/green, minor medium brown, blocky, firm to moderately hard, moderate strong calcareous cement, occasional laminations, trace micromicaceous.

2700' - 2730' --- 100% SANDSTONE: medium orange, light orange, red/brown, occasional light pink, occasional clear, loose grains, predominantly fine grained, (sub-angular to sub-rounded), minor very fine (angular to sub-angular) and medium (sub-rounded), occasional coarse (rounded), well sorted, quartzose, friable in part, well cemented in part, weak to moderate strong siliceous cement, minor secondary siliceous overgrowths, common silty matrix in red/brown aggregates.

POROSITY: poor to good.

SHOWS: Nil.

TR SILTSTONE: light grey/green, minor medium brown, blocky, firm to moderately hard, moderate strong calcareous cement, trace micromicaceous.

2730' - 2750' --- 60% SANDSTONE: predominantly clear, translucent, light orange loose grains, minor medium orange, pink/orange, white and light yellow aggregates, rest A/A.

POROSITY: poor to good.

SHOWS: Nil.

40% SILTSTONE: predominantly red/brown, minor light grey/green, medium brown, occasional mauve/brown, blocky to sub-blocky, occasionally sub-fissile, firm to moderately hard, red/brown aggregates, moderate strong siliceous cement, rest predominantly calcareous, minor siliceous cement, red/brown aggregates, becoming arenaceous in part.

2750' - 2760' --- 40% SANDSTONE: clear, translucent, light orange loose grains, minor white pink/orange aggregates, very fine to fine grained, minor medium, angular to sub-rounded, moderately well sorted, quartzose, predominantly friable, weak to moderate strong siliceous cement.

POROSITY: poor to good.

SHOWS: Nil.

60% SILTSTONE: A/A.

2758' --- REMARK: EST. TOP UPPER STOKES SS @ 2758 FEET.

2760' - 2770' --- 10% SANDSTONE: clear, translucent, light orange, loose grains, occasional pink/orange, off white aggregates, predominantly fine to medium grained (sub-angular to sub-rounded), minor very fine (sub-angular) and coarse (rounded), moderately well sorted, quartzose, friable, minor well cement, weak to moderate strong siliceous cement.

90% SILTSTONE: predominant dark red brown, minor light grey/green, mottled red/brown and green/grey, occasional medium brown, mauve/brown, blocky to sub-fissile, occasionally fissile, moderately hard to hard, moderate strong to strong siliceous cement, trace dolomitic cement in light grey/green aggregates, red/brown aggregates becoming arenaceous in part.

2770' - 2780' --- 10% SANDSTONE: A/A.  
90% SILTSTONE: A/A.

2780' - 2810' --- TR SANDSTONE: off white, light orange/off white, minor clear loose grains, fine to medium grained, sub-angular to sub-rounded, moderately well sorted, quartzose, predominantly friable, minor well cemented, weak to moderate strong siliceous cement.  
100% SILTSTONE: dark red/brown, minor light grey/green, mottled red/brown and grey/green, occasional off white, blocky to sub-fissile, moderately hard to hard, moderate strong to strong siliceous cement, minor dolomitic cement (particularly in grey/green aggregates), becoming arenaceous in part, trace micromicaceous.

2810' - 2840' --- TR SANDSTONE: A/A.  
100% SILTSTONE: A/A.

2840' - 2870' --- tr SANDSTONE: clear, light orange, translucent loose grains, very fine to medium grained, angular to sub-rounded, moderately sorted, quartzose, friable, weak siliceous cement.  
100% SILTSTONE: dark red/brown, orange/brown, light grey/green, minor off white, mottled red/brown and grey/green, occasional red/mauve, blocky to sub-fissile, occasionally fissile, moderately hard to hard, moderate strong to strong siliceous cement, grey/green and off white aggregates, predominantly dolomitic cement, becoming arenaceous in part, trace micromicaceous.

2870' - 2900' --- 10% SANDSTONE: A/A, occasional white aggregates, occasional coarse grains (rounded).  
90% SILTSTONE: A/A.

2900' - 2930' --- 20% SANDSTONE: clear, translucent loose grains, medium orange, pink/orange aggregates, very fine to fine grained, angular to sub-rounded, minor medium grained, (sub-rounded), well sorted, quartzose, friable in part, well cemented in part, weak to moderate strong siliceous cement.  
POROSITY: poor to good.  
SHOWS: Nil.  
80% SILTSTONE: dark red/bron, orange/brown, light grey/green, mauve/brown, blocky to sub-fissile, moderately hard to hard, moderate strong to strong siliceous cement, grey/green aggregates, predominant dolomitic cement, red/brown aggregates becoming slightly arenaceous in part, trace micromicaceous.

2930' - 2960' --- TR SANDSTONE: A/A.  
100% SILTSTONE: A/A.

2960' - 2990' --- TR SANDSTONE: clear, light orange, translucent loose grains, very fine to fine grained, angular to sub-rounded, well sorted, quartzose, friable, weak siliceous cement.  
100% SILTSTONE: dark red/brown, orange/brown, light grey/green, minor off white, mauve/brown, blocky to sub-fissile, moderately hard to hard, predominant moderate strong siliceous cement, light grey/green and off white aggregates predominantly dolomitic cement, becoming slightly arenaceous in part, trace micromicaceous.

2990' - 3020' --- TR SANDSTONE: A/A.  
100% SILTSTONE: A/A, also occasional mottled red/brown and light grey/green aggregates.

3020' - 3050' --- TR SANDSTONE: clear, translucent, light orange, loose grains, very fine to medium grained, angular to sub-rounded, moderately well sorted, quartzose, friable, weak siliceous cement.  
100% SILTSTONE: dark red/brown, light grey/green, minor orange/brown, medium brown, light grey/off white, mauve/brown, blocky to sub-fissile, moderately hard to hard, predominant moderate strong to strong siliceous cement, minor dolomitic cement in all coloured aggregates, slightly arenaceous in part, trace micromicaceous.

3050' - 3065' --- TR SANDSTONE: A/A.  
100% SILTSTONE: A/A.

3065' - 3100' --- 100% SILTSTONE: predominant dark red/brown, minor light grey/green, occasional mottled red/brown and grey/green, off white/light grey, blocky to sub-fissile, hard to moderately hard, predominant strong to moderate strong siliceous cement, minor dolomitic cement, trace micromicaceous.

3100' - 3130' --- 100% SILTSTONE: dark red/brown (60%), light grey/green (40%), rest A/A.

3130' - 3160' --- 100% SILTSTONE: dark red/brown (80%), light grey/green (15%), rest orange/brown, medium brown, blocky to sub-fissile, moderately hard to hard, moderate hard to hard, moderate strong to strong siliceous cement (dolomitic cement absent), trace micromicaceous.

3160' - 3190' --- 100% SILTSTONE: 90% dark red/brown, 10% light grey/green, light orange/brown, rest A/A, occasionally fissile.

3190' - 3220' --- 100% SILTSTONE: 90% dark red/brown, rest light grey/green, light orange/brown and occasional off white, blocky to sub-fissile, trace fissile, moderately hard to hard, moderate strong to strong siliceous cement, trace micromicaceous.

3220' - 3250' --- 100% SILTSTONE: 95% dark red/brown, rest A/A.

3250' - 3280' --- 100% SILTSTONE: 70% dark red/brown, 30% light grey/green, blocky to sub-fissile, moderately hard to hard, moderate strong to strong siliceous cement, trace micromicaceous.

3280' - 3310' --- 100% SILTSTONE: 95% dark red/brown, rest light grey/green, light orange/brown, blocky to sub-fissile, occasionally fissile, rest A/A.

3310' - 3340' --- 100% SILTSTONE: 90% light red brown, sub-blocky to sub-fissile, moderately hard, micromicaceous in part, siliceous cement, trace dolomitic cement. 10% light grey green, sub-blocky to sub-fissile, moderately hard, micromicaceous in part, siliceous cement, rare dolomitic cement.

3340' - 3370' --- 100% SILTSTONE: 90% medium to light red brown, sub-blocky to sub-fissile, predominantly sub-blocky, moderately hard to micromicaceous in part, siliceous cement, trace dolomitic cement, 10% light grey green and light grey, sub-blocky, moderately hard, siliceous cement, rare dolomitic cement.

3370' - 3400' --- 100% SILTSTONE: 100% medium red brown, sub-blocky, moderately hard, moderately strong siliceous cement, very rare grey green, A/A.

3400' - 3450' --- 100% SILTSTONE: 90% light to medium red brown and minor mauve brown, sub-blocky to sub-fissile, predominantly sub-blocky, firm to moderately hard, moderate siliceous cement, 10% light grey green and light grey, rare off white grey, sub-blocky, moderately hard, moderate siliceous cement.

3450' - 3480' --- 100% SILTSTONE: 100% medium red brown minor light red brown and light grey green, sub-blocky, minor sub-fissile, firm to moderately hard, moderate strong siliceous cement.

3480' - 3510' --- 100% SILTSTONE: A/A.

- 3510' - 3540' --- 100% SILTSTONE: 20% medium red brown, sub-blocky, firm to moderately hard, 20% mauve brown, sub-fissile to fissile, firm to moderately hard, 20% light yellow red brown, sub-fissile firm to moderately hard, 10% dark red brown, sub-blocky to sub-fissile, firm to moderately hard, 20% light green grey, sub-blocky to sub-fissile, firm to moderately hard, 10% off white to light grey, blocky to sub-blocky, moderate strong dolomitic cement.
- 3540' - 3550' --- 100% SILTSTONE: 50% light brown, sub-fissile to fissile, predominantly fissile, firm, moderate siliceous cement, rare micromicaceous, 20% dark red brown, sub-blocky to sub-fissile, firm moderate siliceous cement, 20% light grey green, sub-fissile to fissile, firm to moderate siliceous cement, 10% grey, sub-fissile to fissile, firm to moderate siliceous cement.
- 3550' - 3560' --- 100% SILTSTONE: 50% light brown to light red brown, sub-fissile to fissile, predominantly fissile, moderately firm, moderate siliceous cement, minor dolomitic cement, 30% dark red brown to sub-blocky, firm moderate siliceous cement, 20% medium red brown sub-blocky, firm moderate siliceous cement, trace grey fissile, firm siltstone, quartz grains clear, sub-angular.
- 3560' - 3570' --- 90% SILTSTONE: 80% light to moderate red brown, sub-blocky to sub-fissile and fissile, predominantly sub-fissile, firm to moderate siliceous cement, 10% dark red brown, sub-fissile, firm moderate siliceous cement, 10% light grey green, rare clear quartz grains.  
 10% DOLOMITE: off white to very light orange, hard blocky, cryptocrystalline.
- 3575' --- REMARK: EST TOP LOWER STOKES @ 3565 FEET.
- 3570' - 3580' --- 90% SILTSTONE: 60% light to medium red/brown, sub-blocky to sub-fissile, firm moderate siliceous cement, trace dolomitic cement, 30% brown, blocky to sub-fissile, predominantly sub-fissile, occasional as larger pieces firm to moderately hard, hard, occasional mottling with red brown, moderate siliceous cement.  
 10% DOLOMITE: clear to off white and very light orange hard, blocky, cryptocrystalline to medium crystals.

3580' - 3590' --- 90% SILTSTONE: 70% light to medium brown, 20% medium red brown 10% grey green, sub-blocky to sub-fissile and fissile, predominantly sub-fissile, firm, moderate siliceous cement, trace dolomitic cement.  
10% DOLOMITE: A/A.  
3585' --- REMARK: 50% of sample is metal shavings.

3590' - 3620' --- 100% SILTSTONE: 80% light brown, sub-fissile to fissile, soft to moderately firm, weak siliceous cement, 20% medium red brown, sub-blocky, firm, siliceous cement, trace dolomitic cement.  
10% DOLOMITE: off white, blocky, hard, cryptocrystalline.

3620' - 3650' --- 100% SILTSTONE: 80% light brown, sub-fissile to fissile, soft to moderate firm, weak dolomitic cement 10% light to medium red brown, sub-blocky to sub-fissile, firm moderate siliceous cement, 10% grey green blocky, firm to moderate hard, moderate siliceous cement.  
TR DOLOMITE: A/A.

3650' - 3680' --- 90% SILTSTONE: 80% medium red brown, sub-blocky to sub-fissile, firm moderate siliceous cement, trace dolomitic cement, 20% grey green, sub-blocky, firm to moderately hard, moderate siliceous cement.  
10% DOLOMITE: off white with black speckles, blocky hard, possible carbonaceous fragments, microcrystalline.

3680' - 3710' --- 90% SILTSTONE: A/A.  
10% DOLOMITE: clean white, off white with black speckles, blocky hard, microcrystalline, carbonaceous fragments.

3710' - 3740' --- 90% SILTSTONE: 70% red brown, sub-blocky, firm, weak dolomitic cement, 30% grey green, blocky to sub-blocky, moderately hard, moderate dolomitic cement, trace light brown suspected to be rock flour, soft.  
10% DOLOMITE: white to off white with minor black speckles, light grey green, blocky microcrystalline, moderately hard.

3740' - 3770' --- 90% SILTSTONE: 30% red brown, blocky to sub-blocky, firm to moderate siliceous cement, 70% grey green, blocky to sub-blocky, moderately hard, moderate dolomitic cement.  
10% DOLOMITE: white to off white, light grey green, grey blocky microcrystalline, moderately hard.

3770' - 3800' --- 100% SILTSTONE: 90% red brown, blocky to sub-blocky, firm, moderate siliceous cement, trace dolomitic cement, 10% grey green, blocky to sub-fissile, firm, moderate dolomitic cement.  
TR DOLOMITE: A/A.  
3800' --- REMARK: EST TOP UPPER STAIRWAY @ 3800 FT.

3800' - 3815' --- TR SANDSTONE: very rare clear quartz grains, very fine to medium grained, sub-angular.  
100% SILTSTONE: A/A.

3815' - 3820' --- 50% SANDSTONE: clear, very fine grained, occasional fine to medium, sub-angular, well sorted, loose quartz grains, occasional sub-rounded to rounded.  
POROSITY: Nil to poor.  
SHOWS: Nil.  
50% SILTSTONE: 70% red brown, blocky to sub-blocky, firm to moderate siliceous cement, 30% grey green, blocky to sub-fissile, moderately hard, moderate dolomitic cement.

3820' - 3830' --- 50% SANDSTONE: clear to light grey, sub-angular to sub-rounded, very fine grained, moderately well sorted, quartzose, moderate strong siliceous cement, moderately hard.  
POROSITY: Nil to poor.  
SHOWS: Nil.  
50% SILTSTONE: light red brown, sub-blocky to sub-fissile, firm to moderate white siliceous cement.

3830' - 3860' --- 30% SANDSTONE: A/A.  
60% SILTSTONE: A/A.  
10% DOLOMITE: clear to white, blocky, hard, microcrystalline, occurring as small sand size grains.

3860' - 3890' --- 50% SANDSTONE: clear to light grey, sub-angular to sub-rounded, predominant sub-rounded, very fine to medium grained, predominantly very fine, fine and medium grains, sub-rounded to rounded, quartzose, moderate strong siliceous cement, moderate hard, trace pyrite.  
POROSITY: Nil to poor.  
SHOWS: Nil.  
30% SILTSTONE: light red brown, moderate grey, (50:50), sub-blocky to sub-fissile, moderately hard, grey with occasional finely disseminated pyrite.  
20% DOLOMITE: A/A.

3890' - 3920' --- 90% SANDSTONE: clear to light grey, sub-angular to sub-rounded, very fine to medium grained, quartzose, moderate strong siliceous cement, moderately hard, fine to medium grains sub-rounded to rounded, trace dolomitic cement, trace carbonaceous.  
 POROSITY: Nil to poor.  
 SHOWS: Nil.

10% SILTSTONE: light red brown, sub-blocky to sub-fissile, moderately hard, trace light grey, sub-fissile, moderate hard, rare pyrite.

TR DOLOMITE: off white, blocky, microcrystalline, hard.

3920' - 3950' --- 70% SANDSTONE: light grey, clear when loose, 100% loose, very fine to fine grained, sub-angular to sub-rounded, occasional round well sorted, quartzose, moderate strong siliceous cement, friable to moderate hard.  
 POROSITY: Nil to poor.  
 SHOWS: Nil.

30% SILTSTONE: light red brown, sub-blocky to sub-fissile, firm to moderately hard, moderate siliceous cement, trace light green, sub-blocky, firm to moderate siliceous cement, trace light grey, sub-blocky, firm to moderate siliceous cement.

3950' - 3980' --- 40% SANDSTONE: light grey, clear when loose, 100% loose, very fine to fine grained, sub-angular to sub-rounded, predominantly sub-angular, well sorted, quartzose, weak to moderate strong siliceous cement, friable to moderately hard.  
 POROSITY: Nil to poor.  
 SHOWS: Nil.

50% SILTSTONE: light red brown to red brown to red brown, minor grey and light grey green, sub-blocky minor sub-fissile, firm to moderate siliceous cement, occasional grey lithics.

10% DOLOMITE: white to off white, blocky, hard microcrystalline.

3980' - 4010' --- 50% SANDSTONE: A/A, trace dark grey lithics.  
 40% SILTSTONE: 70% medium grey, blocky to sub-blocky, moderately soft, weak siliceous cement, trace very finely disseminated pyrite, 30% red brown, sub-blocky, firm, moderate siliceous cement.  
 10% DOLOMITE: A/A.

4010' - 4040' --- 50% SANDSTONE: light grey and off white, very fine to fine grained, generally fine, sub-angular to sub-rounded, moderately well sorted, quartzose, trace siliceous cement, trace dolomitic cement, pyritic aggregates, speckled glauconite.  
POROSITY: Nil.  
SHOWS: Nil.

40% SILTSTONE: 90% grey, blocky to sub-blocky, firm, weak siliceous cement, trace very finely disseminated pyrite, 10% red brown, sub-blocky, firm, moderate siliceous cement.

10% DOLOMITE: A/A.

4040' - 4070' --- 60% SANDSTONE: clear to light grey, trace off white, very fine to fine grained, predominantly fine, sub-angular to sub-rounded, well sorted, quartzose, moderate strong siliceous cement, friable to moderately hard, 100% loose grains, trace finely disseminated pyrite and occasional round grains.  
POROSITY: poor.  
SHOWS: Nil.

20% SILTSTONE: red brown, grey, 50:50, sub-blocky, firm to moderately hard, minor finely disseminated pyrite.

20% DOLOMITE: off white, blocky, hard, microcrystalline

4070' - 4100' --- 70% SANDSTONE: A/A.  
20% SILTSTONE: A/A.  
10% DOLOMITE: A/A.

4100' - 4130' --- 10% SANDSTONE: clear very fine to fine grained, sub-angular to sub-rounded, well sorted, quartzose, moderate strong siliceous cement, moderate hard, minor disseminated pyrite and pyritic aggregates, trace mica.  
POROSITY: Nil to poor.  
SHOWS: Nil.

80% SILTSTONE: 90% grey, sub-blocky to sub-fissile, moderately hard, siliceous cement, finely disseminated pyrite, 10% red brown and light grey green, sub-blocky, finely arenaceous, moderately hard.

10% DOLOMITE: A/A.

4130' - 4180' --- 30% SANDSTONE: off white to light grey, very fine to fine grained, sub-angular, moderately well sorted, quartzose, moderate weak siliceous cement, rare dolomitic cement, moderately friable, rare pyrite, rare black lithics.  
 POROSITY: Nil.  
 SHOWS: Nil.

70% SILTSTONE: grey to slightly brownish grey, sub-blocky to sub-fissile, firm to predominant moderate weak siliceous cement, minor calcareous cement, minor finely disseminated pyrite, micaceous flakes and occasional round grains.

TR DOLOMITE: off white, blocky finely crystalline, moderately hard.

4180' - 4240' --- 50% SANDSTONE: off white to very light brown, very fine to fine grained, sub-angular to sub-rounded, minor round fine grains, quartzose weak siliceous cement, friable, minor dark grey lithics, moderately well sorted.  
 POROSITY: poor.  
 SHOWS: Nil.

50% SILTSTONE: grey, blocky to sub-blocky, minor sub-fissile, firm, finely disseminated pyrite, occasional sandy, trace micaceous.

TR DOLOMITE: A/A.

4240' - 4270' --- 50% SANDSTONE: white to off white, (predominant) very light brown, very fine to fine grained, sub-angular to rounded, fine grains rounded, moderately well sorted, quartzose, friable to moderately hard, trace pyrite, moderate strong siliceous cement, trace dolomitic cement, moderate abundant dark lithics, trace bioturbated.  
 POROSITY: poor.  
 SHOWS: Nil.

50% SILTSTONE: A/A.

4270' - 4300' --- 70% SANDSTONE: off white to light brown, very fine to fine grained, sub-angular to rounded, predominantly sub-angular to sub-rounded, moderately well sorted, quartzose, siliceous cement, trace dolomitic cement, minor dark grey lithics, friable to moderately hard, trace carbonaceous material.  
 POROSITY: Nil to poor.  
 SHOWS: Nil.

30% SILTSTONE: 50% light brassy grey to sub-blocky, siliceous cement, firm, 50% light orange brown, sub-blocky, firm siliceous cement, trace light green.

TR COAL: black, blocky firm.

4300' - 4330' --- 50% SANDSTONE: clear to off white, minor milky translucent, very fine to fine grained, predominantly fine grained, sub-angular to rounded, predominately sub-rounded, minor rounded, moderately well sorted, quartzose, moderately strong siliceous cement, trace dolomitic cement, moderately hard, occasional black lithics.  
 POROSITY: Nil to poor.  
 SHOWS: Nil.

50% SILTSTONE: 70% light orange brown, firm, sub-blocky, weakly dolomitic cement, 30% grey, sub-blocky, firm siliceous cement, trace lithic grains, sub-blocky to sub-fissile, firm siliceous cement.

4330' - 4340' --- 50% SANDSTONE: clear to light grey, very fine to fine grained, sub-angular, minor sub-rounded, moderately well sorted, quartzose, moderate strong siliceous cement, hard, minor iron staining, trace dolomitic cement.  
 POROSITY: Nil.  
 SHOWS: Nil.

50% SILTSTONE: A/A.

4340' - 4345' --- 80% SANDSTONE: clear to minor light grey, very fine to fine grained, predominantly fine, angular to rounded, predominantly sub-angular to sub-rounded, moderately well sorted, quartzose, moderate strong siliceous cement, moderately hard, trace pyrite and grey staining, trace dolomitic cement, 95% loose grains.  
 POROSITY: Nil to poor.  
 SHOWS: Nil.

20% SILTSTONE: 50% grey, sub-blocky to sub-fissile, finely pyritic, firm to moderately hard, 50% red brown, blocky to sub-blocky, firm, finely arenaceous.

4345' --- REMARK: EST TOP LOWER STAIRWAY @ 4345'

4345' - 4350' --- 70% SANDSTONE: A/A, with minor clear medium rounded quartz grains.  
 30% SILTSTONE: 20% grey A/A, 80% red brown, A/A.

4350' - 4360' --- 90% SANDSTONE: clear to white, minor light grey, very fine to fine grained, predominantly fine, angular to sub-angular, minor sub-rounded, moderately well sorted, quartzose, moderately strong siliceous cement, trace dolomitic cement, moderately hard, 95% loose grains.  
 POROSITY: Nil.  
 SHOWS: Nil.

10% SILTSTONE: grey, red/brown, (50:50), sub-blocky, firm, finely arenaceous and minor fine pyrite.

4360' - 4370' --- 80% SANDSTONE: clear to white loose quartz grains, very fine to fine, predominantly fine, sub-angular, minor angular and rounded, moderately well sorted, quartzose, moderate strong siliceous cement, trace dolomitic cement, moderately hard.  
 POROSITY: Nil.  
 SHOWS: Nil.  
 20% SILTSTONE: A/A.

4370' - 4380' --- 90% SANDSTONE: pale grey to off white, very fine to coarse grained, occasionally very coarse, rounded to well rounded, most grains are frosted and pitted, poor sorting, quartzose, moderately hard to hard, siliceous cement, trace dolomitic, medium and coarse grains in very fine grained matrix.  
 4372' --- REMARK: RE-COMMENCED DRILLING 10/4/86 @ 4372 FT.  
 POROSITY: Nil.  
 SHOWS: 100% dull blue white fluorescence (oil based mud contamination), fast milky yellow cut.  
 10% SILTSTONE: medium to dark grey, blocky to sub-fissile, brittle, laminated.

4380' - 4410' --- 90% SANDSTONE: A/A, becoming more dirty pale grey, occasionally dark silt inclusions, occasional pyrite matrix.  
 POROSITY: Nil.  
 SHOWS: 100% dull blue white to milky fluorescence, fast milky yellow cut, (oil based mud contamination).  
 10% SILTSTONE: A/A.

4410' - 4440' --- 90% SANDSTONE: light grey to dirty light grey, very fine to fine grained, sub-rounded to rounded, well sorted, quartzose, moderately hard to hard, strong siliceous and dolomitic cement, dark silty matrix, (possible bioturbation), few siltstone inclusions.  
 POROSITY: Nil.  
 SHOWS: A/A.  
 10% SILTSTONE: medium grey to black, blocky, brittle to moderately hard, no bedding, occasionally dolomitic.  
 4525' --- REMARK: GEOLOGRAPH CABLE BROKEN 4525 TO 4449 FT.

4440' - 4470' --- 20% SANDSTONE: pale grey to dirty pale grey, fine to coarse grained, sub-rounded to rounded, poorly sorted, quartzose, siliceous and trace dolomitic cement, moderately hard, occasional dark silty matrix and lithics, minor disseminated pyrite.  
 POROSITY: Nil.  
 SHOWS: A/A, (oil based mud contamination).  
 80% SILTSTONE: medium grey to black, blocky, moderately soft to moderately hard, trace disseminated pyrite, occasionally calcareous.

4470' - 4500' --- 80% SANDSTONE: very pale grey to white, fine to coarse grained, sub-rounded to rounded, poorly sorted, quartzose, brittle to hard, occasionally friable, siliceous and patchy calcareous cement, occasionally lithics, minor pyrite, well cemented by quartz overgrowths.

POROSITY: nil to trace medium primary intergranular.  
SHOWS: 100% milky yellow fluorescence, fast streaming white cut (oil based mud), minor interstitial dead oil.

20% SILTSTONE: A/A.

4500' - 4530' --- 70% SANDSTONE: light to dirty light grey, A/A, fossiliferous.  
POROSITY" Nil to trace very good primary intergranular.  
SHOWS: A/A.  
30% SILTSTONE: A/A.

4535' --- REMARK: EST TOP HORN VALLEY @ 4535 FT.

4530' - 4540' --- 50% SANDSTONE: light grey to dark dirty grey, fine grained, sub-angular to sub-rounded, well sorted, quartzose, moderately hard to hard, strong siliceous cement, trace patchy dolomitic and calcareous cement, patchy dark silty matrix (bioturbation), common pyritic nodules and aggregates, occasional dark lithics.  
POROSITY: Nil.  
SHOWS: oil based mud contamination.  
50% SILTSTONE: medium grey to black, blocky to sub-fissile, moderately soft to moderately hard, sandy in part, occasionally calcareous, common pyritic disseminates.

4540' - 4550' --- 60% SANDSTONE: light grey, becoming more patchy dark grey, very fine to fine grained, sub-angular to sub-rounded, moderately well sorted, quartzose, moderately hard to hard, strong siliceous cement, minor patchy calcareous and dolomitic cement, common dark silty matrix, common pyrite nodules and aggregates, common fine dark lithics.  
POROSITY: Nil.  
SHOWS: A/A.  
40% SILTSTONE: A/A, grades from SANDSTONE.

4550' - 4560' --- 10% SANDSTONE: A/A.  
90% SILTSTONE: medium to dark grey, blocky to sub-fissile, calcareous in parts, laminated, minor disseminated pyrite.

4560' - 4570' --- TR SANDSTONE: A/A.  
100% SILTSTONE: A/A.  
TR LIMESTONE: off white, buff grey, light brown grey, medium crystalline, hard.

4570' - 4600' --- TR SANDSTONE: light grey to dirty light grey, very fine grained, siliceous and calcareous cement, minor silty matrix.  
90% SILTSTONE: medium to dark grey, blocky to sub-fissile, calcareous in part, laminated, minor disseminated pyrite.  
TR LIMESTONE: A/A.  
10% DOLOMITE: white, off white, light buff grey, buff, medium to coarse crystalline, hard, fossiliferous, minor siltstone inclusions.

4600' - 4630' --- TR SANDSTONE: light grey to patchy medium brown grey, very fine grained, siliceous, calcareous and dolomitic cement, hard, occasional dark lithics.  
100% SILTSTONE: A/A.  
TR DOLOMITE: off white to patchy buff grey, medium crystalline, fossiliferous, lithic inclusions, calcareous in parts.

4630' - 4660' --- TR SANDSTONE: A/A.  
100% SILTSTONE: dark grey to black, blocky to sub-fissile, moderately soft to moderately hard, calcareous and dolomitic in part, minor pyrite.  
TR DOLOMITE: A/A, layered.

4660' - 4690' --- 100% SILTSTONE: A/A.  
TR DOLOMITE: A/A.

4690' - 4720' --- 90% SILTSTONE: medium to dark grey, blocky to sub-fissile, moderately hard, laminated, calcareous and dolomitic in parts, minor pyrite disseminates and aggregates.  
10% DOLOMITE: medium buff grey to honey brown, finely crystalline, hard, occasionally calcareous.

4720' - 4750' --- 90% SILTSTONE: medium grey, blocky to sub-fissile, laminated, calcareous and dolomitic in parts, minor pyrite disseminates and laminates.  
10% DOLOMITE: A/A, fine to medium crystalline.

4750' - 4755 --- 80% SILTSTONE: A/A, becoming more calcareous.  
20% DOLOMITE: white, buff, buff grey, honey brown, fine to medium crystalline, blocky, hard.

4755' - 4760' --- TR SANDSTONE: light grey to dirty dark grey, very fine to fine grained, dolomitic cement, glauconitic.  
40% SILTSTONE: medium grey, sub-fissile to fissile, laminates, pyrite, non-calcareous, dolomitic in parts, fossiliferous.  
60% DOLOMITE: mottled white, buff and buff grey, fine to coarse crystalline, hard, common glauconite pyrite.

4756' --- REMARK: ESTIMATED TOP P1 @ 4756 FT.

4760' - 4770' --- 70% SANDSTONE: light grey to dirty brown grey, very fine grained, sub-rounded, well sorted, quartzose, strong dolomitic cement, dark silty matrix in parts, hard, common glauconite, minor pyrite.  
POROSITY: Nil.  
SHOWS: oil based mud contamination.  
20% SILTSTONE: A/A.  
10% DOLOMITE: A/A.

4770' - 4780' --- 90% SANDSTONE: A/A, very fine to fine grained.  
POROSITY: Nil.  
SHOWS: A/A.  
10% SILTSTONE: A/A.  
TR DOLOMITE: A/A.

4780' - 4790' --- 90% SANDSTONE: pale grey to medium brown grey, very fine to fine grained, sub-angular to sub-rounded, well sorted, hard, dolomitic cement, siliceous cement increasing, occasionally with dark silty matrix, common glauconite, occasional pyritic aggregates.  
POROSITY: Nil.  
SHOWS: milky white to pale yellow fluorescence, slow streaming white cut, (oil based mud contamination).

10% SILTSTONE: medium to dark grey, blocky to sub-fissile, dolomitic in part, trace calcareous, minor pyrite.

TR DOLOMITE: off white to buff grey, medium to coarse crystalline, glauconitic, pyritic.

4790' - 4800' --- 80% SANDSTONE: dark brown grey to minor clean white, very fine to fine grained, sub-angular to sub-rounded, well sorted, siliceous cement, trace dolomitic and calcareous cement, hard to moderately friable to parts, minor glauconite, dark silty matrix in parts, minor pyritic aggregates, common dead oil staining.  
POROSITY: poor to fair, 1 degree intergranular in clean sand. Nil porosity in other.  
SHOWS: milky yellow fluorescence, no cut, minor amounts clean sand appears live oil stained, common dead oil staining.

20% SILTSTONE: medium grey to black, blocky to sub-fissile, grades to fine sandstone, laminated.

4794' --- REMARK: ESTIMATED P1-40 SAND 4794-4813 FT (GOOD CORRELATION WITH EM 8).

4800' - 4810' --- 90% SANDSTONE: off white, pale grey, minor white, also light to dark brown grey, very fine to fine grained, sub-rounded, well sorted, quartzose, siliceous cement, trace dolomitic and calcareous cement, hard to minor moderate friable, silty matrix in parts, occasional pyritic aggregates, light to dark brown grey colour from dead oil stain, cuttings with residual oil staining mostly friable.  
POROSITY: Nil to poor.  
SHOWS: milky yellow fluorescence, instant slow streaming white cut, (oil based mud contamination), common interstitial dead oil, trace live oil stain.

10% SILTSTONE: A/A.

4810' - 4820' --- 40% SANDSTONE: light grey, buff, medium brown grey, trace white, very fine to fine grained, A/A.  
POROSITY: Nil.  
SHOWS: A/A, (oil based mud contamination).

60% SILTSTONE: medium grey to dark grey, blocky to sub-fissile, occasionally fissile, calcareous in parts, moderately soft to moderately hard.

4820' - 4830' --- 90% SANDSTONE: pale grey, off white, light brown grey to dark grey, very fine to fine grained, trace rounded coarse, sub-angular to sub-rounded, well

sorted, strong siliceous cement, trace dolomitic, minor silty matrix, generally hard, occasionally friable, common interstitial dead oil, minor pyrite, trace glauconitic.

POROSITY: Nil to poor.

SHOWS: milky white to pale yellow fluorescence, instant moderate streaming white cut (oil based mud contamination), common interstitial dead oil, 20% of clean sandstone cuttings appear live oil stained.

10% SILTSTONE: medium grey, blocky to fissile, laminated, moderate soft to moderately hard, trace calcareous.

4830' - 4840' --- 100% SANDSTONE: clean off white to white, trace with greenish tinge, light brown, minor brown grey, dominantly fine grained, 20% medium and coarse, sub-rounded to rounded, moderate to poorly sorted, weak to moderate strong siliceous cement, common calcareous, trace dolomitic, quartzose, moderately hard to commonly friable, minor dead oil stain, minor pyritic aggregates, trace glauconitic, trace cloritic.

POROSITY: poor to good, 1 degrees intergranular, minor 2 degrees porosity.

SHOWS: 80% live oil stained, milky white to pale yellow fluorescence, instant moderate streaming white cut.

TR SILTSTONE: A/A.

REMARK: P1-80 SAND 4833-4843 (GOOD CORRELATION WITH EM 8).

4840' - 4845' --- 90% SANDSTONE: off white, light grey to dark brown grey, fine to coarse grained, dominantly fine, sub-rounded to rounded, moderately sorted, siliceous cement, hard to occasionally friable, dark silty matrix in parts, pyritic.

POROSITY: poor to minor good, 1 degrees intergranular.

SHOWS: 20% live oil stained, milky white to pale yellow fluorescence, instant streaming white cut (oil based mud contamination).

10% SILTSTONE: medium grey, blocky to fissile, laminated, moderate soft to moderately hard, laminated.

4845' - 4850' --- 60% SANDSTONE: dark brown grey to minor light brown and light grey, fine grained, trace coarse, sub-angular to sub-rounded, moderately well sorted, siliceous cement, hard, common silty matrix, minor pyrite.

POROSITY: Nil to poor.

SHOWS: trace live oil stained, A/A, minor dead oil.

40% SILTSTONE: medium brown grey, A/A, minor disseminated pyrite.

4850' - 4860' --- 80% SANDSTONE: off white to pale grey, fine to medium grained, trace coarse, sub-angular to rounded, moderately sorted, hard to common friable weak

siliceous cement, minor pyritic aggregates, trace black lithics.

POROSITY: poor.

SHOWS: milky white to pale yellow fluorescence, slow streaming white cut, common live oil staining.

20% SILTSTONE: medium to dark grey, blocky to sub-fissile, common laminated, trace calcareous and dolomitic, moderately hard.

4860' - 4870' --- 30% SANDSTONE: light grey to off white and medium grey, fine to medium grained, dominantly fine, sub-angular to sub-rounded, moderately well sorted, strong siliceous and dolomitic cement, moderately hard to hard, minor pyrite, common dark lithics, minor interstitial dead oil.

POROSITY: Nil.

SHOWS: 40% live oil stained, milky white to pale yellow fluorescence, instant streaming white cut (oil based mud contamination).

70% SILTSTONE: A/A.

4870' - 4880' --- 90% SANDSTONE: light grey, minor medium grey and off white, fine grained, sub-angular to sub-rounded, well sorted, strong siliceous and minor dolomitic cement, hard to occasionally moderate friable, common dark lithics, minor pyrite aggregates.

POROSITY: Nil.

SHOWS: milky white to pale yellow fluorescence, slow faint streaming white cut (oil based mud contamination), 30% live oil stained.

10% SILTSTONE: medium grey to black, blocky to sub-fissile, laminated, minor pyrite, trace dolomitic.

4880' - 4890' --- 30% SANDSTONE: off white, buff, light to medium grey, fine grained, occasionally fine to medium, sub-angular to sub-rounded, moderately well sorted, strong siliceous cement, minor pyritic aggregates, trace black lithics.

POROSITY: Nil to poor.

SHOWS: milky white to pale yellow fluorescence, instant streaming white cut (oil based mud contamination), 40% appear live oil stained.

70% SILTSTONE: medium to dark brown grey, blocky to sub-fissile, moderately hard, laminated, pyritic in parts.

4890' - 4900' --- 50% SANDSTONE: off white to light grey, minor medium grey with green tinge, fine to occasionally medium grained, sub-rounded to rounded, moderately well sorted, strong siliceous cement, hard to occasionally friable, minor black silts, minor pyritic aggregates.

POROSITY: Nil to poor.

SHOWS: A/A, (oil based mud contamination), 50% live oil stained.

50% SILTSTONE: A/A.

4900' - 4920' --- 30% SANDSTONE: light grey, off white, minor white and medium grey, fine grained, fine grained, trace

medium, sub-rounded, well sorted, moderately strong siliceous cement, hard to occasionally friable, minor black lithics.

POROSITY: Nil to poor.

SHOWS: milky white to pale yellow fluorescence, instant streaming white cut (oil based mud contamination), 20% live oil staining.

70% SILTSTONE: medium brown grey to dark grey, blocky to sub-fissile, minor fissile, moderately hard, laminated, minor disseminated pyrite.

4920' - 4930' --- 40% SANDSTONE: dirty light grey to medium grey, minor off white and pale grey, very fine to fine grained, sub-angular to sub-rounded, well sorted, siliceous cement, moderately hard to hard, minor black lithics, minor pyrite, minor dark silty matrix.

POROSITY: Nil.

SHOWS: milky white to pale yellow fluorescence, instant streaming white cut (oil based mud contamination), minor live oil staining.

60% SILTSTONE: A/A.

4930' - 4940' --- 60% SANDSTONE: medium grey, very fine to fine grained, sub-angular to sub-rounded, well sorted, strong siliceous cement, trace calcareous, hard, quartzose, common dark lithics, silty matrix in parts, minor pyritic aggregates.

POROSITY: Nil.

SHOWS: oil based mud contamination. Nil live oil staining.

40% SILTSTONE: medium brown grey to dark grey, blocky to sub-fissile, occasionally fissile, moderately hard, laminated, minor disseminated pyrite, trace calcareous.

REMARK: EM 25 TD 4940 FT @ 1210 HRS 17/4/86