# Moa 2

QGC A BG Group business

**Scale 1:500**

## *Composite Well Log*

### Well Data

| | |
|---|---|
| **Well Name:** | Moa 2 |
| **Status:** | Petroleum - Exploration Well |
| **Area:** | |
| **Basin:** | Bowen Basin |
| **Location:** | ATP 768 |
| **PID:** | |
| **UWI:** | 100000789131 |

**Partners:**

BG International (Aus) Pty Limited 100%

| | |
|---|---|
| **Rig:** | TCL 1, Easternwell 106 |
| **Latitude:** | 25° 20' 27.5788" S |
| **Longitude:** | 149° 50' 26.2770" E |
| **Spud Date:** | 20-10-2014 (TCL 1) |
| **TD Date:** | 21-03-2015 |
| **Rig Release:** | 09-04-2015 (Easternwell 106) |
| **Datum:** | AHD |
| **RT Elevation:** | 276.26 |
| **TD Formation:** | Lower Rewan Group |
| **TD Depth:** | 4400.00mMDRT (driller) |
| | 4396.60mMDRT (logger) |

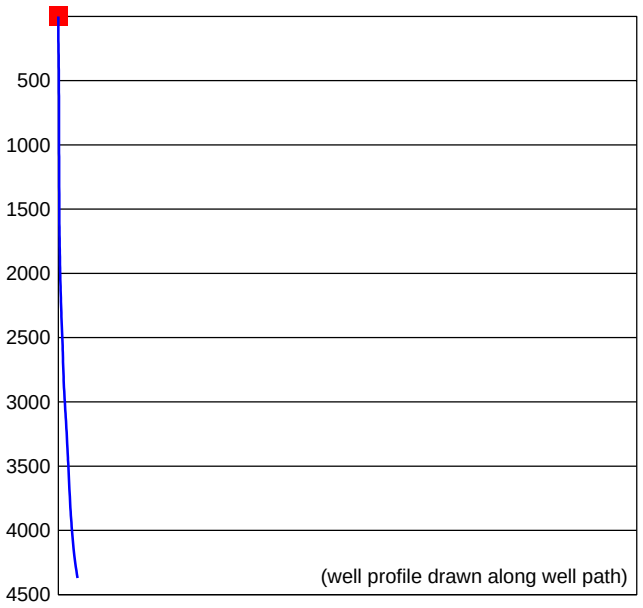
**Geologists:**

| | |
|---|---|
| Operations Geologist: | Anthony Mountford |
| Wellsite Geologist: | Anthony Drake |
| Wellsite Geologist: | Jim Mitchell |
| Wellsite Geologist: | Brendan Lacy |
| Wellsite Geologist: | John Pitman |

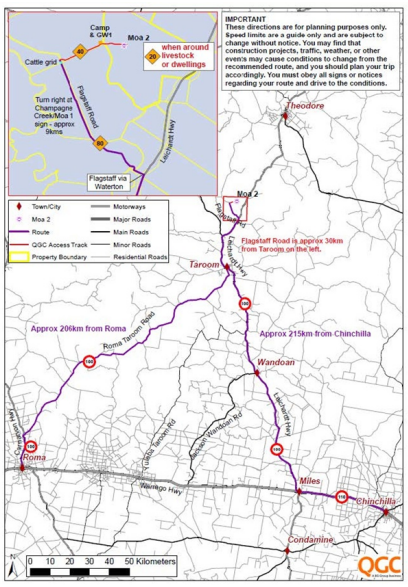
**Contractors:**

| | |
|---|---|
| Drilling: | Easternwell Energy |
| Wireline Logging: | Schlumberger |
| Cementing: | Halliburton |
| Mud Engineering: | Newpark |
| Mud Logging: | Weatherford |
| MWD: | Pathfinder |
| Coring: | Halliburton |

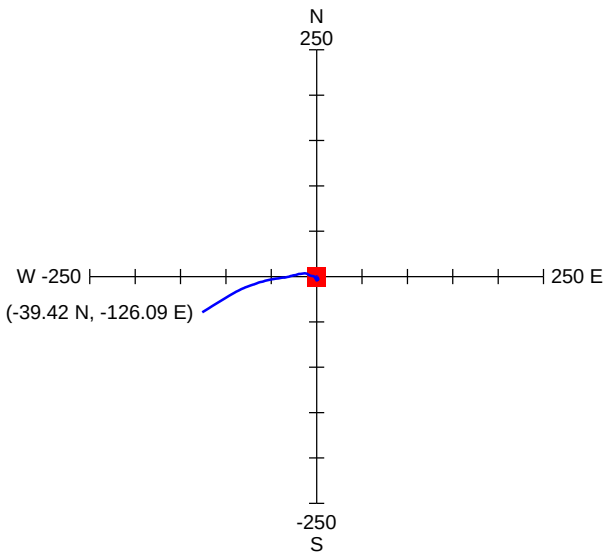
### Profile View of Well Path



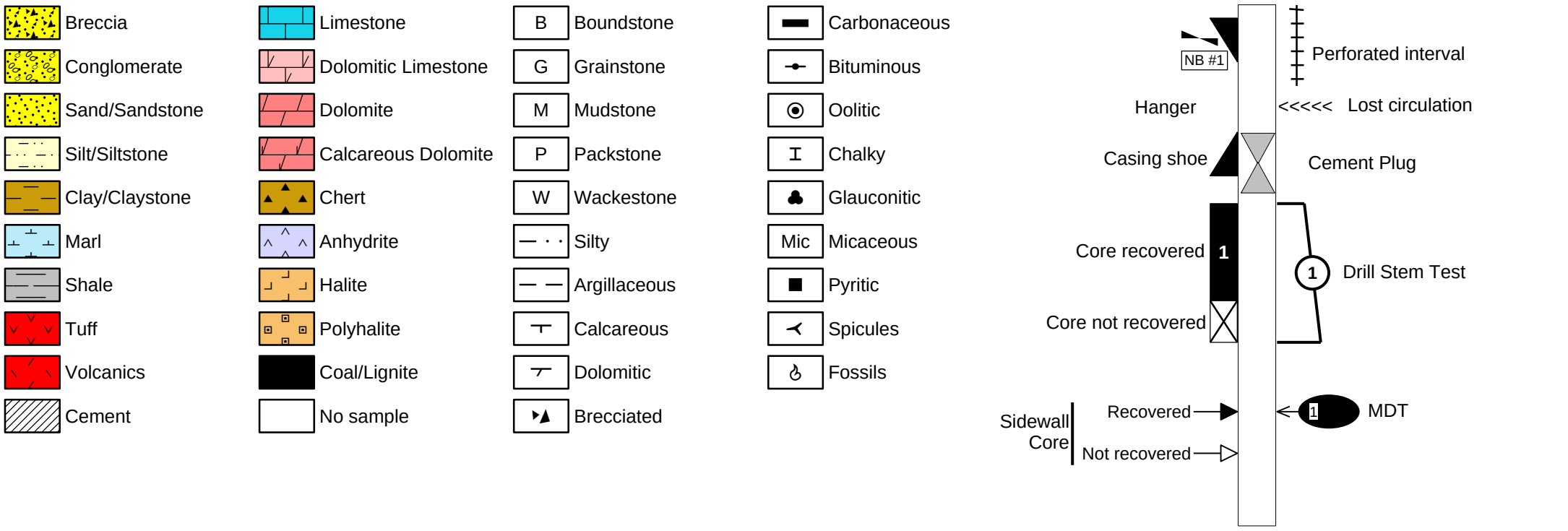

### Location Map




### Plan View of Well Path




### Key

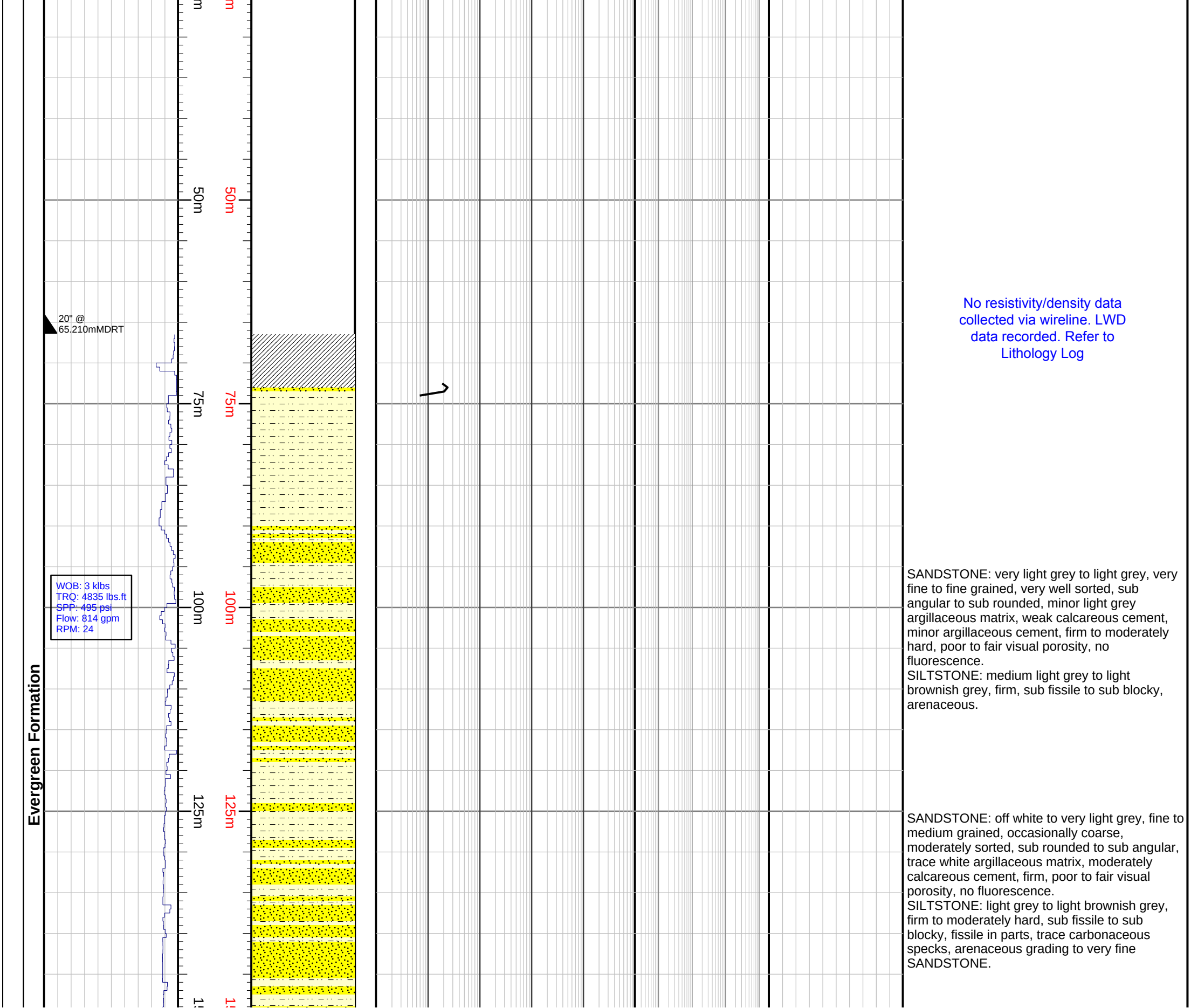



### Well Configuration

**Hole and Casing Details**

| Hole Size | Hole (mMDRT) | Casing Size | Shoe (mMDRT) | Hanger (mMDRT) | Comments |
|---|---|---|---|---|---|
| 26" | 68.91 | 20" | 65.21 | | Pre-set |
| 17 1/2" | 1018.00 | 13 3/8" | 1015.00 | | |

| | | | | | |
|---|---|---|---|---|---|
| 12 1/4" | 2647.00 | 9 5/8" | 2643.17 | | |
| 8 1/2" | 3360.70 | 7" | 3360.00 | 2575.01 | 7" 26 lb/ft TN110 HC liner |
| 6 1/8" | 4400.00 | 4 1/2" | 4395.00 | 2525.90 | |



Jurassic

WOB: 11 klbs
TRQ: 2651 lbs.ft
SPP: 793 psi
Flow: 938 gpm
RPM: 43

161.4mRT
161.4mTVD
Incl: 0.09°
Azi: 285.09

189.5mRT
189.5mTVD
Incl: 0°
Azi: 0

217.5mRT
217.5mTVD
Incl: 0.44°
Azi: 112.6

WOB: 12 klbs
TRQ: 6003 lbs.ft
SPP: 1488 psi
Flow: 1089 gpm
RPM: 96

246.5mRT
246.5mTVD
Incl: 0.18°
Azi: 229.8

274.1mRT
274.1mTVD
Incl: 0.97°
Azi: 116.19

WOB: 16 klbs
TRQ: 8887 lbs.ft
SPP: 1124 psi
Flow: 938 gpm
RPM: 63

302.8mRT
302.79mTVD
Incl: 1.06°
Azi: 142.82

331.2mRT
331.19mTVD
Incl: 0.88°
Azi: 134.47

SANDSTONE: off white to very light grey, fine to medium grain, trace coarse, sub angular to rounded, moderately well sorted, firm to hard, minor white argillaceous matrix, moderately strong calcareous cement, rare light green lithics, poor to fair visual porosity, fair inferred porosity , no fluorescence.
SILTSTONE: light grey to medium brown grey, firm to moderately hard, sub blocky, slightly carbonaceous.

SANDSTONE: very light grey to light grey, translucent, fine to medium grained, very well sorted to well sorted, sub angular to sub rounded, firm to moderately hard, moderate siliceous cement, minor white argillaceous matrix, trace carbonaceous specks, trace lithics, poor to fair visual porosity, poor to fair inferred porosity, no fluorescence.
SILTSTONE: light grey to medium brownish grey, dark grey, firm to moderately hard, sub blocky to blocky, arenaceous in parts, grades to very fine SANDSTONE.

SANDSTONE: off white to very light grey, translucent in parts, fine to medium grained, moderately well sorted, sub rounded to sub angular, moderately hard to hard, moderately calcareous cement, minor siliceous cement, common white argillaceous matrix, trace very light green lithics, poor to fair visual porosity, no fluorescence.
SILTSTONE: light grey to light brownish grey, firm to moderately hard, sub blocky to sub fissile, trace carbonaceous specks.

**Precipice Formation 225mMDRT**

SANDSTONE: as above – occasional medium to coarse loose grains, poor to fair visual porosity, fair inferred porosity.
SILTSTONE: as above.

SANDSTONE: clear and translucent quartz, light grey, medium to very coarse, 5-10% very fine to fine aggregates with fair visual porosity, angular to sub rounded, poor sorted, siliceous cement in part, trace lithics, trace to occasional pyrite nodules, firm, predominantly loose grains, good visual porosity, no fluorescence.
SILTSTONE: medium dark grey, firm to moderately hard, sub blocky to sub fissile, arenaceous in part, argillaceous in part, trace micro mica, trace carbonaceous specks.

SANDSTONE: clear and translucent quartz, fine to very coarse, sub angular to rounded, poor sorted, trace lithics, trace to occasional pyrite, loose, good visual porosity, no fluorescence.

No resistivity/density data collected via wireline. LWD data recorded. Refer to Lithology Log

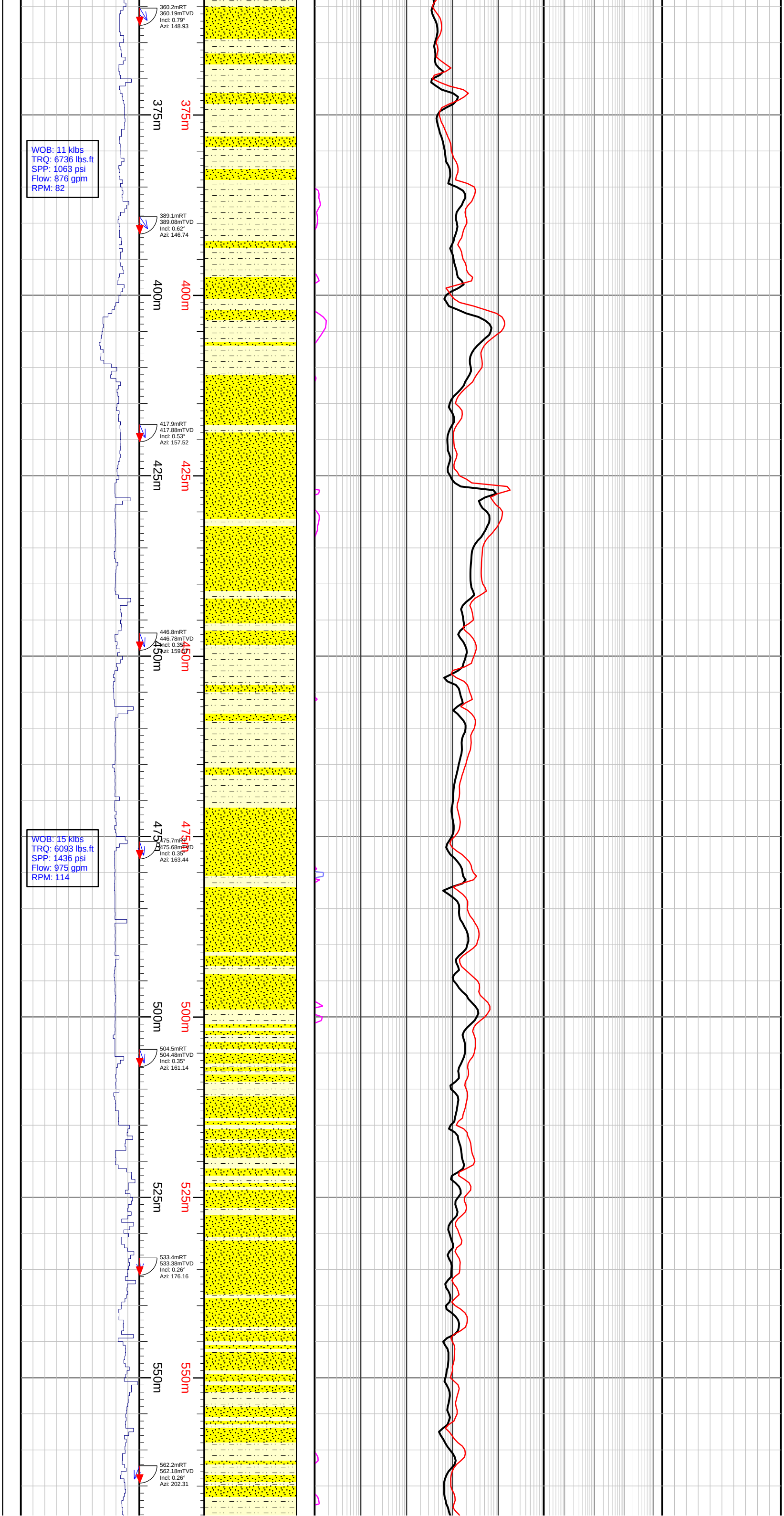
SANDSTONE: clear and translucent quartz, fine to very coarse, sub angular to rounded, poor sorted, trace lithics, trace to occasional pyrite, loose, good visual porosity, no fluorescence.

**Moolayember Formation 314mMDRT**

SANDSTONE: white, clear to translucent, medium to coarse grained, trace very coarse, poorly sorted, sub angular to sub rounded, common loose quartz, minor hard aggregates, common white argillaceous matrix, moderate siliceous cement, predominantly quartz, trace to occasional pyrite, rare lithics, poor visual porosity, poor inferred porosity, no fluorescence.

SANDSTONE: light grey white, fine to coarse grained, trace very coarse grains, poorly sorted, angular to sub rounded, firm to moderately hard, siliceous cement, trace calcareous cement in part, common light grey white argillaceous matrix, occasional silty and carbonaceous inclusions, rare pyrite and greenish lithics, poor to fair visual and inferred porosity, no fluorescence.
SILTSTONE: medium to dark grey, brown grey, firm to moderately hard, sub blocky to sub fissile, argillaceous, minor carbonaceous in part, trace coaly specks and fragments.

Precipice Formation




SANDSTONE: light grey, light brown grey, very fine to medium, trace coarse grains, angular to sub rounded, moderately sorted, moderately hard, calcareous cement, occasional to common light grey white argillaceous matrix, occasional to common lithics (greenish mineral, silty fragments, carbonaceous specks), poor visible porosity, no fluorescence.
SILTSTONE: brown grey, light to medium grey, firm to moderately hard, sub blocky to sub fissile, argillaceous, minor arenaceous in part, trace carbonaceous specks and fragments.

SANDSTONE: light grey, very fine to medium, sub angular to sub rounded, moderately sorted, moderately hard, calcareous cement, occasional light grey white argillaceous matrix, occasional lithics, trace greenish mineral, trace altered feldspar, trace mica, poor to fair visible porosity, no fluorescence.
SILTSTONE: medium dark grey, brown grey, firm to moderately hard, sub blocky to sub fissile, argillaceous, minor arenaceous in part, trace carbonaceous specks and fragments.

SANDSTONE: medium grey to green grey, minor light grey, very fine to fine, occasional medium, sub angular to sub rounded, well sorted, firm to moderately hard, calcareous cement, trace argillaceous matrix, abundant lithics (orange, green grey to grey), trace altered feldspar and mica, trace carbonaceous specks, poor visible porosity, no fluorescence.
SILTSTONE: medium grey, brown grey, firm to moderately hard, sub blocky to fissile, argillaceous, commonly arenaceous, carbonaceous specks.

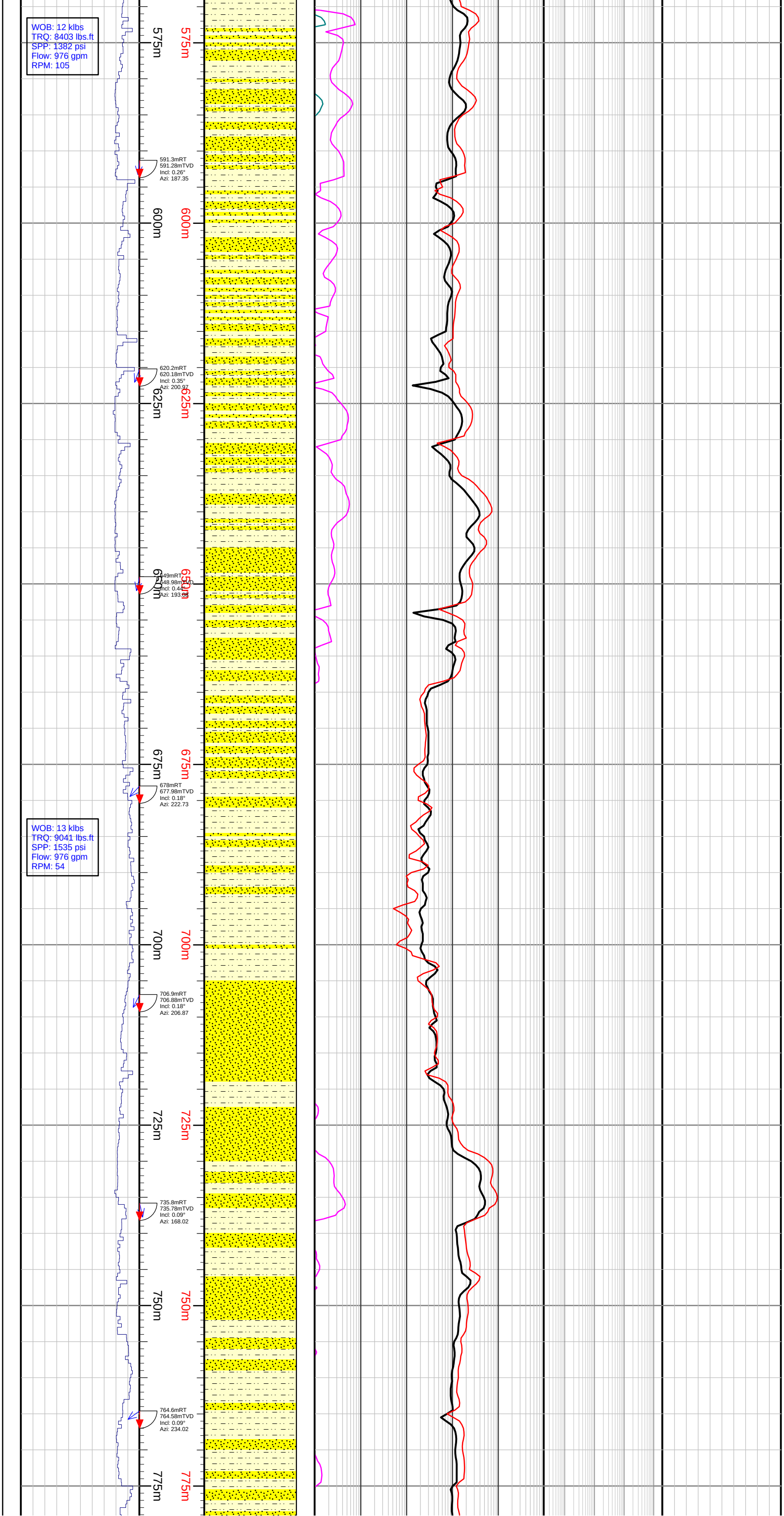
SANDSTONE: light grey, clear and translucent quartz, fine to coarse, trace very coarse grains, trace very fine to fine aggregates, sub angular to sub rounded, poorly sorted, firm, common loose grains, calcareous cement, occasional to common argillaceous matrix, occasional lithics (grey to green grey, orange), fair visual porosity, no fluorescence.
SILTSTONE: medium grey, brown grey, firm, sub blocky to sub fissile, argillaceous, grades to CLAYSTONE in part, minor arenaceous in part, trace carbonaceous specks.

SANDSTONE: light grey, very fine to medium, sub angular to sub rounded, moderately well sorted, moderately hard, siliceous cement, minor calcareous cement in part, common light grey white argillaceous matrix, occasional lithics (orange, green grey to grey), trace mica, poor visible porosity, no fluorescence.
SILTSTONE: as above

SANDSTONE: light grey, very fine to medium, sub angular to sub rounded, moderately well sorted, moderately hard, siliceous cement, calcareous cement in part, trace to locally common light grey white argillaceous matrix, occasional lithics (orange, green grey to grey), trace mica, trace carbonaceous specks, poor to occasionally fair visible porosity, no fluorescence.
SILTSTONE: medium dark grey, brown grey, firm to moderately hard, sub blocky to sub fissile, argillaceous, slightly arenaceous in part, trace carbonaceous specks, trace micro mica.

No resistivity/density data collected via wireline. LWD data recorded. Refer to Lithology Log

SANDSTONE: very light grey, light green grey, fine to medium, occasionally coarse, poor to moderately sorted, sub angular to sub rounded, occasionally angular, common to abundant loose quartz grain, minor firm to hard




aggregates, moderately calcareous cement, minor siliceous cement, white to light grey argillaceous matrix, common lithics (light green, brown orange, brown grey) trace feldspar, trace carbonaceous specks, poor to fair visual porosity, poor to fair inferred porosity, no fluorescence.
SILTSTONE: light grey to medium grey, light brown grey, firm to moderately hard, sub blocky to sub fissile, arenaceous in part grading to very fine SANDSTONE.

SANDSTONE: very light grey to light grey, very light green grey, fine to medium grain, well sorted, sub rounded to sub angular, hard, siliceous cement, trace off white argillaceous matrix, common lithics (pale brown, orange, green grey) trace carbonaceous specks, poor to fair visual porosity, no fluorescence.
SILTSTONE: light grey to light brown grey, firm to moderately hard, sub blocky to sub fissile, trace carbonaceous specks.

SANDSTONE: very light grey to light grey, light green grey, translucent, fine to medium grain, trace coarse, sub angular to sub rounded, trace rounded, poor sorted, common loose, occasionally moderately hard aggregates, siliceous cement, minor off white argillaceous matrix, trace lithics, trace feldspars, trace mica, trace carbonaceous specks, poor visual porosity, poor to fair inferred porosity, no fluorescence.
SILTSTONE: very light grey, brown grey, firm to moderately hard, sub blocky to sub fissile, rare blocky, arenaceous grading to very fine SANDSTONE, occasionally argillaceous, trace carbonaceous specks.

SANDSTONE: light grey, light green grey, fine to medium, trace to occasional coarse grains, sub angular to sub rounded, moderately sorted, firm to moderately hard, occasional to common loose grains, siliceous cement, minor calcareous cement in part, trace to occasional light grey white argillaceous matrix, occasional lithics, (green, orange and silty fragments), trace mica, trace altered feldspar, poor visible porosity, poor to fair inferred porosity, no fluorescence.

SANDSTONE: light grey, fine to medium, trace to occasional coarse grains, angular to sub rounded, moderately sorted, firm to moderately hard, occasional loose grains, siliceous cement, minor calcareous cement in part, occasional light grey white argillaceous matrix, occasional lithics, (green, pale orange, green grey), silty fragments, rare pyrite, trace carbonaceous specks, trace mica, poor visible porosity, poor to fair inferred porosity, no fluorescence.
SILTSTONE: medium grey, brown grey, moderately hard, sub blocky to sub fissile, argillaceous, arenaceous in part, carbonaceous specks, trace micro mica.

SILTSTONE: brown grey, medium grey, firm to moderately hard, sub blocky to sub fissile, argillaceous, slightly arenaceous in part, carbonaceous specks, trace micro mica.

Moolayember Formation

WOB: 9 klbs
TRQ: 2660 lbs.ft
SPP: 1539 psi
Flow: 975 gpm
RPM: 87

793.5mRT
793.48mTVD
Incl: 0.09°
Azi: 84.87

822.5mRT
822.48mTVD
Incl: 0°
Azi: 0

851.4mRT
851.38mTVD
Incl: 0.09°
Azi: 126.65

WOB: 15 klbs
TRQ: 9222 lbs.ft
SPP: 1613 psi
Flow: 974 gpm
RPM: 89

880.3mRT
880.28mTVD
Incl: 0°
Azi: 354.42

909.2mRT
909.18mTVD
Incl: 0.09°
Azi: 51.72

938mRT
937.98mTVD
Incl: 0.09°
Azi: 9.94

WOB: 17 klbs
TRQ: 5024 lbs.ft
SPP: 1691 psi
Flow: 985 gpm
RPM: 59

966.9mRT
966.88mTVD
Incl: 0.09°
Azi: 39.83

979mRT
978.98mTVD
Incl: 0.18°
Azi: 28.91

800m
825m
850m
875m
900m
925m
950m
975m

SANDSTONE: light grey, fine to medium, occasional coarse grains, angular to sub rounded, moderately sorted, firm to moderately hard, occasional loose grains, calcareous cement, occasional light grey white argillaceous matrix, occasional lithics, (green, pale orange, green grey), rare silty fragments, rare pyrite, trace carbonaceous specks, trace mica, poor visible porosity, poor to fair inferred porosity, no fluorescence.

SILTSTONE: medium grey, brown grey, firm to moderately hard, sub blocky to sub fissile, argillaceous, occasionally arenaceous in part, trace carbonaceous specks, trace micro mica.

SANDSTONE: light grey, fine to medium, trace to occasional coarse grains, sub angular to sub rounded, minor angular grains, moderately sorted, firm to moderately hard, occasional loose grains, calcareous cement, occasional light grey white argillaceous matrix, occasional lithics (orange, minor green to green grey), rare silty fragments, rare pyrite, trace carbonaceous specks, trace mica, poor visible porosity, poor to fair inferred porosity, no fluorescence.

SANDSTONE: light grey, fine to medium grain, sub angular to sub rounded, minor angular, moderately sorted, firm to moderately hard, occasionally loose, minor calcareous cement, occasionally light grey argillaceous matrix, trace lithics (orange, green grey), rare mica, rare pyrite, trace carbonaceous specks, poor visual porosity, poor to fair inferred porosity, no fluorescence.

SILTSTONE: light grey to medium grey, light brown grey, light green grey, firm to moderately hard, sub blocky to sub fissile, argillaceous, arenaceous in parts grading to very fine SANDSTONE, trace carbonaceous specks, trace micro mica.

SANDSTONE: light grey, clear to translucent, fine to medium grain, minor coarse, sub rounded to sub angular, trace angular, trace rounded, poor to moderately sorted, firm to moderately hard, predominantly loose quartz, minor calcareous cement, occasionally light grey to light green grey argillaceous matrix, trace lithics (green grey, orange) trace carbonaceous specks, trace mica, poor visual porosity, poor to fair inferred porosity, no fluorescence.

SILTSTONE: very light grey to light brown grey, firm to moderately hard, sub blocky to sub fissile, occasionally hard, argillaceous, arenaceous in parts grading to very fine SANDSTONE, minor to trace carbonaceous specks, micro mica in part.

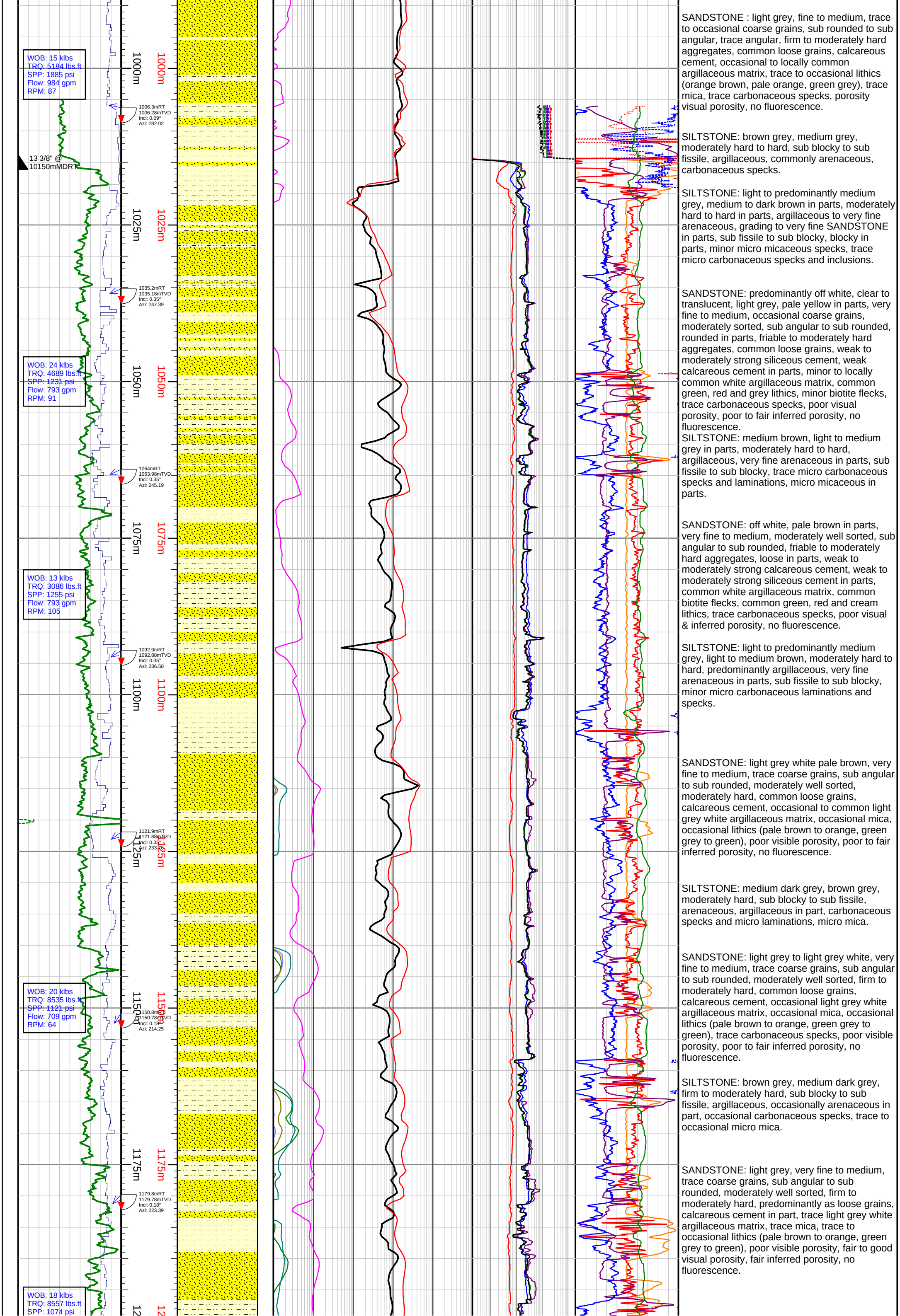
SANDSTONE: very light grey to light grey, light brown grey, translucent, very fine to medium grain, occasionally coarse, sub rounded to sub angular, trace angular, poor sorted, firm to moderately hard, common to abundant loose grain, weak calcareous cement, minor very light grey argillaceous matrix, trace lithics, trace mica, trace carbonaceous specks, poor visual porosity, poor to fair inferred porosity, no fluorescence.

SILTSTONE: light grey to medium grey, light brown grey, firm to moderately hard, sub blocky to fissile, predominantly sub fissile, argillaceous, arenaceous in parts grading to very fine SANDSTONE, micro mica.

SANDSTONE: very light grey to light grey, translucent to transparent, locally orange brown, fine to medium grain, occasionally coarse, sub rounded to sub angular, moderately well sorted, firm to moderately hard, common loose, minor weak calcareous cement, occasionally off white to very light grey argillaceous matrix, trace mica, trace lithics, trace carbonaceous specks, poor visual porosity, poor to fair inferred porosity, no fluorescence.

SANDSTONE: light grey, some light green grey, fine to medium, occasional coarse grains, sub rounded to sub angular, trace angular, firm to moderately hard aggregates, common loose grains, calcareous cement, trace to occasional light grey argillaceous matrix, trace to occasional lithics (orange brown, pale orange, green grey), trace mica, trace carbonaceous specks, porosity visual porosity, poor to fair inferred porosity, no fluorescence.

SILTSTONE: light to medium grey, light brown grey, firm to moderately hard, sub blocky to fissile, argillaceous, arenaceous in part, trace micro mica, trace carbonaceous.




SANDSTONE : light grey, fine to medium, trace to occasional coarse grains, sub rounded to sub angular, trace angular, firm to moderately hard aggregates, common loose grains, calcareous cement, occasional to locally common argillaceous matrix, trace to occasional lithics (orange brown, pale orange, green grey), trace mica, trace carbonaceous specks, porosity visual porosity, no fluorescence.

SILTSTONE: brown grey, medium grey, moderately hard to hard, sub blocky to sub fissile, argillaceous, commonly arenaceous, carbonaceous specks.

SILTSTONE: light to predominantly medium grey, medium to dark brown in parts, moderately hard to hard in parts, argillaceous to very fine arenaceous, grading to very fine SANDSTONE in parts, sub fissile to sub blocky, blocky in parts, minor micro micaceous specks, trace micro carbonaceous specks and inclusions.

SANDSTONE: predominantly off white, clear to translucent, light grey, pale yellow in parts, very fine to medium, occasional coarse grains, moderately sorted, sub angular to sub rounded, rounded in parts, friable to moderately hard aggregates, common loose grains, weak to moderately strong siliceous cement, weak calcareous cement in parts, minor to locally common white argillaceous matrix, common green, red and grey lithics, minor biotite flecks, trace carbonaceous specks, poor visual porosity, poor to fair inferred porosity, no fluorescence.

SILTSTONE: medium brown, light to medium grey in parts, moderately hard to hard, argillaceous, very fine arenaceous in parts, sub fissile to sub blocky, trace micro carbonaceous specks and laminations, micro micaceous in parts.

SANDSTONE: off white, pale brown in parts, very fine to medium, moderately well sorted, sub angular to sub rounded, friable to moderately hard aggregates, loose in parts, weak to moderately strong calcareous cement, weak to moderately strong siliceous cement in parts, common white argillaceous matrix, common biotite flecks, common green, red and cream lithics, trace carbonaceous specks, poor visual & inferred porosity, no fluorescence.

SILTSTONE: light to predominantly medium grey, light to medium brown, moderately hard to hard, predominantly argillaceous, very fine arenaceous in parts, sub fissile to sub blocky, minor micro carbonaceous laminations and specks.

SANDSTONE: light grey white pale brown, very fine to medium, trace coarse grains, sub angular to sub rounded, moderately well sorted, moderately hard, common loose grains, calcareous cement, occasional to common light grey white argillaceous matrix, occasional mica, occasional lithics (pale brown to orange, green grey to green), poor visible porosity, poor to fair inferred porosity, no fluorescence.

SILTSTONE: medium dark grey, brown grey, moderately hard, sub blocky to sub fissile, arenaceous, argillaceous in part, carbonaceous specks and micro laminations, micro mica.

SANDSTONE: light grey to light grey white, very fine to medium, trace coarse grains, sub angular to sub rounded, moderately well sorted, firm to moderately hard, common loose grains, calcareous cement, occasional light grey white argillaceous matrix, occasional mica, occasional lithics (pale brown to orange, green grey to green), trace carbonaceous specks, poor visible porosity, poor to fair inferred porosity, no fluorescence.

SILTSTONE: brown grey, medium dark grey, firm to moderately hard, sub blocky to sub fissile, argillaceous, occasionally arenaceous in part, occasional carbonaceous specks, trace to occasional micro mica.

SANDSTONE: light grey, very fine to medium, trace coarse grains, sub angular to sub rounded, moderately well sorted, firm to moderately hard, predominantly as loose grains, calcareous cement in part, trace light grey white argillaceous matrix, trace mica, trace to occasional lithics (pale brown to orange, green grey to green), poor visible porosity, fair to good visual porosity, fair inferred porosity, no fluorescence.

Flow: 709 gpm
RPM: 69

1208.6mRT
1208.58mTVD
Incl: 0.26°
Azi: 232.53

1237mRT
1236.98mTVD
Incl: 0.26°
Azi: 232.01

WOB: 33 klbs
TRQ: 10796 lbs.ft
SPP: 1046 psi
Flow: 711 gpm
RPM: 57

1265.6mRT
1265.57mTVD
Incl: 0.35°
Azi: 235.61

WOB: 29 klbs
TRQ: 12465 lbs.ft
SPP: 1052 psi
Flow: 710 gpm
RPM: 61

1294.9mRT
1294.87mTVD
Incl: 0.26°
Azi: 229.72

1323.6mRT
1323.57mTVD
Incl: 0.26°
Azi: 238.7

WOB: 35 klbs
TRQ: 12171 lbs.ft
SPP: 941 psi
Flow: 642 gpm
RPM: 51

1381.5mRT
1381.47mTVD
Incl: 0.18°
Azi: 211.62

WOB: 22 klbs
TRQ: 8948 lbs.ft
SPP: 1250 psi
Flow: 726 gpm
RPM: 62

82

1200m 1225m 1250m 1275m 1300m 1325m 1350m 1375m 1400m

Snake Creek Mudstone Member

Showgrounds Sandstone

SILTSTONE: medium dark grey, brown grey, moderately hard, sub blocky to sub fissile, arenaceous, argillaceous in part, carbonaceous specks and micro laminations, micro mica.

SANDSTONE: light grey, fine to coarse, angular to sub rounded, poorly sorted, firm to moderately hard, predominantly loose grains, minor siliceous cement in part, minor calcareous cement in part, trace to occasional light grey white argillaceous matrix, trace mica, occasional to common lithics (pale brown to orange, green grey to green), poor to fair visible and inferred porosity, no fluorescence.

SANDSTONE: light grey white, very fine to medium, trace coarse grains, occasional very fine to fine grained aggregates, sub angular to sub rounded, moderately well sorted, firm to moderately hard, occasional loose grains, minor calcareous cement in part, occasional siliceous cement in part, trace to occasional light grey white argillaceous matrix, trace mica, occasional to common lithics (pale brown to orange, green grey to green), poor visible porosity, poor to fair inferred porosity, no fluorescence.
SILTSTONE: brown grey, medium dark grey, firm to moderately hard, sub blocky to sub fissile, commonly arenaceous in part, argillaceous in part, carbonaceous specks, trace micro mica.

SANDSTONE: light grey white, very fine to medium, occasional to common coarse grains, sub angular to sub rounded, some angular grains, moderately sorted, firm to moderately hard, common loose grains, siliceous cement, minor calcareous cement in part, trace to occasional light grey white argillaceous matrix, trace mica, occasional to common lithics (pale brown to orange, green grey to green), poor visible porosity, poor to fair inferred porosity, no fluorescence.

SANDSTONE: clear to translucent, pale grey, off white, light to medium orange, light green, very fine to coarse, predominantly medium, moderately sorted, sub angular to sub rounded, angular in parts, generally loose grains, friable aggregates in parts, weak siliceous cement, trace weak calcareous cement, rare off white argillaceous matrix, common green, grey and cream lithics, trace carbonaceous specks, poor to occasionally fair inferred porosity, poor visual porosity, no fluorescence.

SILTSTONE: medium brown, medium grey, moderately hard, argillaceous, sub fissile to sub blocky, rare carbonaceous specks.

SANDSTONE: clear to translucent, pale grey to off white, light to medium orange, light medium green, very fine to coarse, predominantly medium, moderately sorted, sub angular to sub rounded, angular in parts, loose grains, common friable to moderately hard aggregates, weak to moderately strong siliceous cement, trace weak calcareous cement, off white argillaceous matrix, common green, grey and cream lithics, trace carbonaceous specks, poor inferred and visual porosity, no fluorescence.

SILTSTONE: medium to dark brown, light to medium grey,moderately hard, argillaceous to very fine arenaceous in parts, sub fissile to sub blocky, trace micro carbonaceous specks, trace biotite flakes.

**Snake Creek Mudstone Member 1357mMDRT**

SILTSTONE: medium to dark brown, medium grey in parts, moderately hard to hard, argillaceous, sub fissile to sub blocky.

**Showgrounds Sandstone 1379mMDRT**

SANDSTONE: clear to translucent, off white, pale grey, pale orange, light green, very fine to coarse, predominantly fine to medium, moderately sorted, sub angular to sub rounded, occasional angular fractured grains, generally loose and clean, friable to moderately hard aggregates in parts, trace off white argillaceous matrix, weak to occasionally moderately strong siliceous cement, trace weak calcareous cement, common grey, green, red, orange and cream lithics, trace carbonaceous specks, trace biotite flakes, poor to fair inferred porosity, poor visual porosity, no fluorescence.

SILTSTONE: light to predominantly medium grey, medium to dark brown, moderately hard,

argillaceous, sub fissile to sub blocky, tr micro carbonaceous specks.

**Clematis Group 1424mMDRT**

1425m

1438.9mRT
1438.87mTVD
Incl: 0.09°
Azi: 287.11

1450m

WOB: 25 klbs
TRQ: 10117 lbs.ft
SPP: 1239 psi
Flow: 726 gpm
RPM: 68

SANDSTONE:off white, clear to translucent, light grey, very fine to medium , occasionally coarse grains, moderately sorted, sub angular to sub rounded, friable to moderately hard aggregates, loose in parts, weak to moderately strong calcareous cement, weak to moderately strong siliceous cement in parts, common argillaceous matrix, common grey, green, orange and cream lithics, minor carbonaceous specks, trace biotite flakes, poor visual & inferred porosity, no fluorescence.

SILTSTONE: light to medium grey, light to medium brown in parts, moderately hard to hard, argillaceous, sub blocky to blocky, sub fissile in parts, trace carbonaceous specks.

1475m

SANDSTONE:off white, clear to translucent, light grey, very fine to medium , occasionally coarse grains, moderately sorted, sub angular to sub rounded, friable to moderately hard aggregates, loose in parts, weak to moderately strong calcareous cement, weak to moderately strong siliceous cement in parts, common argillaceous matrix, common grey, green, orange and cream lithics, minor carbonaceous specks, trace biotite flakes, poor visual & inferred porosity, no fluorescence.

SILTSTONE: light to medium grey, light greenish grey in parts, trace light brown, moderately hard to hard, argillaceous, very fine arenaceous in parts, micro micaceous, trace micro carbonaceous specks and laminations, rare cream lithics.

1500m

WOB: 27 klbs
TRQ: 11779 lbs.ft
SPP: 1418 psi
Flow: 725 gpm
RPM: 81

1496.6mRT
1496.57mTVD
Incl: 0.09°
Azi: 341.5

SANDSTONE: off white, clear to translucent, pale orange, very fine to medium, moderately well sorted, sub angular to sub rounded, friable aggregates, loose in parts, weak siliceous cement, minor to locally common white argillaceous matrix, common orange, cream, pale green and grey lithics, trace biotite flakes, poor visual and inferred porosity, no fluorescence.

1525m

1526mRT
1525.97mTVD
Incl: 0.18°
Azi: 318.49

31

SILTSTONE: light to medium grey, light greenish grey in parts, trace light brown, moderately hard to hard, argillaceous, very fine arenaceous in parts, micro micaceous, trace micro carbonaceous specks and laminations, rare cream lithics.

SANDSTONE: light grey, clear to translucent and pale orange quartz grains, very fine to medium, trace coarse grains, moderately sorted, sub angular to sub rounded, firm to moderately hard, common loose grains, siliceous cement, rare calcareous cement, trace light grey white argillaceous matrix, common lithics (pale orange, cream, pale brown, green grey), trace mica flakes, poor to fair visual and inferred porosity, no fluorescence.

1550m

WOB: 26 klbs
TRQ: 10485 lbs.ft
SPP: 1312 psi
Flow: 711 gpm
RPM: 82

30

SILTSTONE: brown grey, medium dark grey, minor light grey, firm, sub blocky to sub fissile, argillaceous, minor arenaceous in part, occasional carbonaceous specks, micro mica.

1575m

29

1584.2mRT
1584.17mTVD
Incl: 0.44°
Azi: 329.65

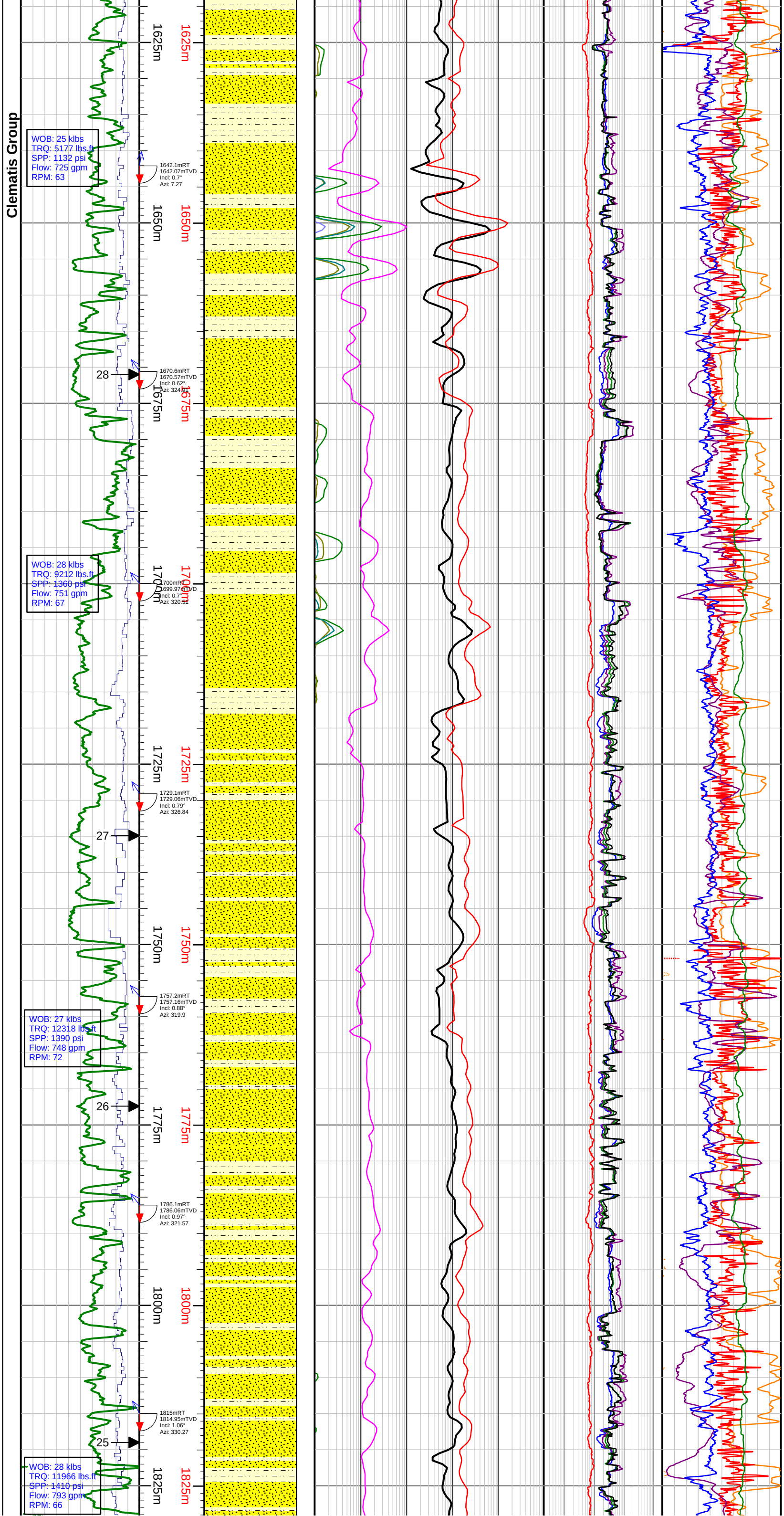
SANDSTONE: light grey, clear to translucent and pale orange quartz grains, very fine to medium, trace coarse grains, moderately sorted, sub angular to sub rounded, firm to moderately hard, occasional loose grains, siliceous cement, trace to occasional light grey white argillaceous matrix, occasional lithics (pale orange, pale brown, green grey), trace mica flakes, poor visual and inferred porosity, no fluorescence.

1600m

WOB: 29 klbs
TRQ: 12066 lbs.ft
SPP: 1551 psi
Flow: 791 gpm
RPM: 63

1613.1mRT
1613.07mTVD
Incl: 0.62°
Azi: 327.9

SANDSTONE: light grey, clear to translucent and minor pale orange quartz grains, very fine to medium, occasional coarse grains, moderately sorted, sub angular to sub rounded, firm to moderately hard, common loose grains, siliceous cement, trace light grey white argillaceous matrix, occasional lithics (pale orange, pale brown, green grey), trace mica flakes, poor visual porosity, poor to fair inferred porosity, no fluorescence.




SILTSTONE: brown grey, medium dark grey, minor light grey, firm, sub blocky to sub fissile, argillaceous, minor arenaceous in part, occasional carbonaceous specks, micro mica.

SANDSTONE: light grey, clear to translucent quartz grains, very fine to medium, trace coarse grains, moderately sorted, sub angular to sub rounded, firm to moderately hard, occasional loose grains, siliceous cement, trace to locally common light grey white argillaceous matrix, occasional to common lithics (green grey to green, minor orange to pale brown), trace mica flakes, poor to very poor visual and inferred porosity, no fluorescence.

SANDSTONE: light grey, clear to translucent quartz grains, very fine to medium, occasional to common coarse grains, moderately sorted, sub angular to sub rounded, firm to moderately hard, occasional to common loose grains, siliceous cement, trace to occasional light grey white argillaceous matrix, occasional to common lithics (green grey to green, orange to pale brown), trace mica flakes, poor visible porosity, poor to fair inferred porosity, no fluorescence.

SILTSTONE: brown grey, medium dark grey, minor light grey, firm, sub blocky to sub fissile, argillaceous, minor arenaceous in part, rare carbonaceous specks, micro mica.

SANDSTONE: light grey, clear to translucent quartz grains, very fine to medium, trace coarse grains, moderately sorted, sub angular to sub rounded, firm, predominantly loose grains, siliceous cement, trace to occasional light grey white argillaceous matrix, trace to occasional lithics (green grey to grey, orange to pale brown), trace mica flakes, poor visible porosity, poor to fair inferred porosity, no fluorescence.
SILTSTONE: as above.

SANDSTONE: light grey, clear to translucent quartz grains, very fine to medium, trace coarse grains, moderately sorted, sub angular to sub rounded, firm to moderately hard, trace to occasional loose grains, siliceous cement, some hard aggregates with pa brown calcareous cement, trace to occasional light grey white argillaceous matrix, occasional to common lithics (green grey to green, orange to pale brown), trace mica flakes, poor visible porosity, poor inferred porosity, no fluorescence.
SILTSTONE: brown grey, medium dark grey, minor light grey, firm, sub blocky to sub fissile, argillaceous, minor arenaceous in part, rare carbonaceous specks, micro mica.

SANDSTONE: light grey, clear to translucent quartz grains, very fine to medium, trace to occasional coarse to very coarse grains, moderately sorted, sub angular to sub rounded, firm to moderately hard, occasional loose grains, siliceous cement, trace to occasional light grey white argillaceous matrix, occasional to common lithics (green grey to green, orange to pale brown), trace mica flakes, poor visible porosity, poor to fair inferred porosity, no fluorescence.

SANDSTONE: light grey, clear to translucent quartz grains, very fine to medium, trace coarse to very coarse grains, moderately sorted, sub angular to sub rounded, firm to moderately hard, occasional loose grains, siliceous cement, occasional light grey white argillaceous matrix, trace to occasional lithics (green grey to green, orange to pale brown), trace mica flakes, poor visible and inferred porosity, no fluorescence.

SILTSTONE: brown grey, firm, sub blocky to sub fissile, argillaceous, minor arenaceous in part, trace carbonaceous specks and micro mica.

SANDSTONE: clear to translucent, pale grey, off white, very fine to occasionally very coarse, predominantly fine to medium, moderately sorted, sub angular to sub rounded, friable to moderately hard aggregates, loose in parts, weak to moderately strong siliceous cement, minor off white argillaceous matrix, minor pale orange, cream and grey lithics, trace carbonaceous specks and biotite flakes, poor visual and inferred porosity, no fluorescence.

SILTSTONE: light to predominantly medium grey, dark grey in parts, moderately hard, argillaceous, very fine arenaceous in parts, sub blocky to sub fissile, micro micaceous, minor micro carbonaceous specks.

SANDSTONE: off white, pale grey, very pale green in parts, very fine to predominantly medium, trace coarse to very coarse grains, moderately well sorted, sub angular to sub rounded, predominantly friable aggregates, loose in parts, weak siliceous cement, common white argillaceous matrix, common green, grey, red and cream lithics,common biotite flakes, trace carbonaceous specks,poor visual and inferred porosity, no fluorescence.

1844mRT
1843.95mTVD
Incl: 0.97°
Azi: 346.79

1850m

1872.4mRT
1872.34mTVD
Incl: 0.97°
Azi: 327.54

1875m

4

WOB: 25 klbs
TRQ: 12140 lbs.ft
SPP: 1329 psi
Flow: 793 gpm
RPM: 68

1901.8mRT
1901.74mTVD
Incl: 1.14°
Azi: 301.7

1900m

23

1925m

1930.9mRT
1930.83mTVD
Incl: 1.14°
Azi: 296.17

WOB: 27 klbs
TRQ: 7463 lbs.ft
SPP: 1235 psi
Flow: 724 gpm
RPM: 66

1950m

1959.2mRT
1959.13mTVD
Incl: 1.06°
Azi: 294.94

1975m

1988.7mRT
1988.62mTVD
Incl: 1.14°
Azi: 277.27

WOB: 27 klbs
TRQ: 10067 lbs.ft
SPP: 1505 psi
Flow: 776 gpm
RPM: 66

2000m

2

2016.9mRT
2016.82mTVD
Incl: 1.49°
Azi: 274.63

2025m

SILTSTONE: dark grey, medium brownish grey in parts, moderately hard, argillaceous, sub blocky to sub fissile, micro micaceous, trace micro carbonaceous specks.

SANDSTONE: very pale green, pale grey, off white in parts,trace pale yellow to orange grains, very fine to occasionally coarse, predominantly fine to medium, moderately well sorted, sub angular to sub rounded, generally loose grains, common friable aggregates, weak siliceous cement, minor off white argillaceous matrix, common lithics (green,red, grey, orange), trace mica flakes, poor visual and inferred porosity, no fluorescence.

**Upper Rewan Group 1860mMDRT**

SILTSTONE: (1) reddish brown, moderately hard to hard, argillaceous, sub blocky to sub fissile. (2) light predominantly medium grey, light brown in parts, moderately hard to hard, argillaceous, very fine arenaceous in parts, sub blocky to sub fissile, micro micaceous, trace micro carbonaceous specks.

SANDSTONE: off white, light greenish grey, very fine to medium, predominantly fine, moderately well sorted, sub angular to sub rounded, friable to moderately hard aggregates, common loose grains, weak to moderately strong siliceous cement, abundant white argillaceous matrix, common lithics (grey,red,green,cream), minor biotite flakes, trace carbonaceous specks, very poor to poor visual porosity, poor inferred porosity, no fluorescence.

SANDSTONE: light grey, light green grey, very fine to medium, common fine grains, moderately well sorted, sub angular to sub rounded, friable to moderately hard aggregates, trace loose grains, siliceous cement, trace to occasional light grey argillaceous matrix, trace lithics (grey to green grey, orange), trace carbonaceous specks, very poor to poor visual porosity, no fluorescence.

SILTSTONE: medium dark grey, brown grey, trace red brown and light grey, argillaceous, minor arenaceous in part, trace carbonaceous specks.

SANDSTONE: light grey to light green grey, very fine to medium, moderately well sorted, sub angular to sub rounded, firm to moderately hard in part, occasional loose grains, siliceous cement, rare calcareous cement in part, trace to occasional light grey argillaceous matrix, occasional lithics (grey to green grey, orange), trace carbonaceous specks, poor visual porosity, no fluorescence.

SANDSTONE: light grey to light green grey, very fine to medium, moderately well sorted, sub angular to sub rounded, firm to moderately hard in part, trace loose grains, siliceous cement, minor calcareous cement in part, occasional to common argillaceous matrix, common lithics (grey to green grey, orange), trace carbonaceous specks, poor to very poor visual porosity, no fluorescence.

SILTSTONE: brown to brown grey, occasional medium grey, minor light grey, firm to moderately hard, sub blocky to fissile, argillaceous, minor arenaceous in part, trace carbonaceous specks.

SANDSTONE: light to medium grey, very fine to fine, trace medium, moderately well sorted, sub angular to sub rounded, firm to moderately hard, trace loose grains, siliceous cement, minor calcareous cement in part, occasional argillaceous matrix, trace to occasional lithics (grey to green grey, orange), trace carbonaceous specks, poor to very poor visual porosity, no fluorescence.

SILTSTONE: medium grey, brown grey to dark brown, firm to moderately hard, sub blocky to sub fissile, argillaceous, commonly arenaceous, trace carbonaceous specks.

SANDSTONE: light grey, light greenish grey, translucent, clear, fine to medium grained, moderately sorted, sub angular to predominantly sub rounded, moderately hard aggregates, loose in parts, moderately strong siliceous cement, trace green lithics, trace carbonaceous specks, tight to very poor visual porosity, no fluorescence.

WOB: 30 klbs
TRQ: 7239 lbs.ft
SPP: 1549 psi
Flow: 773 gpm
RPM: 72

2045.6mRT
2045.51mTVD
Incl: 1.06°
Azi: 271.83

21

2075.1mRT
2074.9mTVD
Incl: 1.76°
Azi: 287.64

WOB: 39 klbs
TRQ: 12191 lbs.ft
SPP: 1455 psi
Flow: 775 gpm
RPM: 69

20

2103.1mRT
2102.99mTVD
Incl: 1.67°
Azi: 286.24

19

2132.7mRT
2132.58mTVD
Incl: 1.41°
Azi: 293.71

WOB: 21 klbs
TRQ: 15623 lbs.ft
SPP: 1678 psi
Flow: 800 gpm
RPM: 76

2161.9mRT
2161.77mTVD
Incl: 1.49°
Azi: 295.2

18

2190.7mRT
2190.56mTVD
Incl: 1.67°
Azi: 300.21

WOB: 23 klbs
TRQ: 9576 lbs.ft
SPP: 1515 psi
Flow: 800 gpm
RPM: 83

17

2219.8mRT
2219.64mTVD
Incl: 1.67°
Azi: 305.66

16

WOB: 32 klbs
TRQ: 15538 lbs.ft

2050m
2075m
2100m
2125m
2150m
2175m
2200m
2225m

Upper Rewan Group

SILTSTONE: medium brown, reddish brown, medium grey, moderately hard, blocky to sub fissile, argillaceous in parts, commonly arenaceous, trace fine carbonaceous specks

SANDSTONE: light grey, light greenish grey, yellow grey, yellow brown, fine to occasionally medium grained, moderately sorted, sub angular to predominantly sub rounded, moderately hard, moderately strong siliceous cement, minor light grey and brownish grey argillaceous matrix, trace lithics, very poor visual porosity, no fluorescence.

SANDSTONE: light grey, light greenish grey, fine to occasionally medium grained, moderately well sorted, sub angular to predominantly sub rounded, moderately hard, moderately strong siliceous cement, minor light grey argillaceous matrix, trace lithics, very poor visual porosity, no fluorescence.

SILTSTONE: light to medium grey, moderately hard to hard, arenaceous grading to very fine SANDSTONE, blocky to sub fissile, trace fine carbonaceous specks

SANDSTONE: light grey, light greenish grey, fine to occasionally medium grained, moderately well sorted, sub angular to predominantly sub rounded, moderately hard, moderately strong siliceous cement, minor light grey argillaceous matrix, trace lithics, very poor visual porosity, no fluorescence.

SILTSTONE: light to medium grey, moderately hard to hard, arenaceous grading to very fine SANDSTONE, blocky to sub fissile, trace fine carbonaceous specks

SANDSTONE: light greenish grey, light grey, off white, translucent, very fine to medium, moderately well sorted, sub angular to sub rounded, friable to moderately hard aggregates, weak to moderately strong siliceous cement, minor white argillaceous matrix, minor lithics (red, green, grey, cream), very poor visual porosity, no fluorescence.

SILTSTONE: medium grey, reddish brown in parts, moderately hard to hard, argillaceous to very fine arenaceous, grading to SANDSTONE in parts, sub blocky to sub fissile, micro micaceous, trace micro carbonaceous specks & laminations.

SILTSTONE: light to medium grey, reddish brown in parts, trace medium to dark brown, moderately hard to hard in parts, argillaceous, sub blocky to sub fissile, blocky in parts, micro micaceous in parts, trace micro carbonaceous specks.

SANDSTONE: pale greenish grey, light grey, off white, translucent, very fine to medium, predominantly fine, well sorted, sub angular to sub rounded, friable to moderately hard aggregates, trace light grey to off white argillaceous matrix, weak to moderately strong siliceous cement, minor micro multicoloured lithics (green, grey, cream, red, yellow), trace micro carbonaceous specks, tight to very poor visual porosity, no fluorescence.

SANDSTONE: off white, light grey, pale greenish grey, very fine to medium, predominantly fine, moderately well sorted, sub angular to sub rounded, friable to moderately hard aggregates, hard in parts, loose in parts, weak to predominantly moderately strong siliceous cement, strong in parts, off white argillaceous matrix, minor lithics (cream, green, red, grey), trace micro carbonaceous specks and laminations, rare mica flakes, tight to very poor visual porosity, very poor inferred porosity, no fluorescence.

SILTSTONE: medium  brown, medium grey, reddish brown,moderately hard to hd, argillaceous to very fine arenaceous, grading to to very fine SANDSTONE in parts, predominantly sub blocky to sub fissile, blocky in parts, micro micaceous, trace micro carbonaceous specks.

SANDSTONE: pale green, off white, light grey, very fine to medium, moderately well sorted, sub angular to sub rounded, predominantly friable to moderately hard aggregates, loose in parts, weak to moderately strong siliceous cement, common white argillaceous matrix, minor micro lithics (cream, red, green, grey), trace biotite flakes, trace carbonaceous specks & micro laminations, tight to very poor visual porosity, very poor inferred porosity, no fluorescence.

SANDSTONE: off white, pale green, pale grey in parts, very fine to medium, moderately well

Triassic

SPP: 1676 psi
Flow: 800 gpm
RPM: 75

2275m
2276.9mRT
2276.72mTVD
Incl: 1.76°
Azi: 290.98

13

2300m
2306.6mRT
2306.4mTVD
Incl: 2.02°
Azi: 275.6

WOB: 27 klbs
TRQ: 4558 lbs.ft
SPP: 1659 psi
Flow: 771 gpm
RPM: 85

12

2325m
2334.9mRT
2334.68mTVD
Incl: 2.2°
Azi: 267.51

WOB: 24 klbs
TRQ: 14679 lbs.ft
SPP: 1748 psi
Flow: 770 gpm
RPM: 72

11

2350m
2363.8mRT
2363.56mTVD
Incl: 2.37°
Azi: 264.96

2375m

10

2392.9mRT
2392.63mTVD
Incl: 2.37°
Azi: 262.24

WOB: 30 klbs
TRQ: 11978 lbs.ft
SPP: 1693 psi
Flow: 745 gpm
RPM: 68

2400m

9

2421.6mRT
2421.31mTVD
Incl: 2.46°
Azi: 259.96

2425m

WOB: 27 klbs
TRQ: 9903 lbs.ft
SPP: 1656 psi
Flow: 751 gpm
RPM: 79

8

2450m
2451.2mRT
2450.88mTVD
Incl: 2.55°
Azi: 259.96

sorted, sub angular to sub rounded, moderately hard to hard aggregates, loose in parts, moderately strong to strong siliceous cement, off white argillaceous matrix, minor lithics, trace mica flkas, rare carbonaceous specks, tight to very poor visual porosity, very porr inferred porosity,no fluorescence.

SILTSTONE: light to medium brownish grey, medium brown in parts, moderately hard to hard, very hard in parts, argillaceous, very fine arenaceous in parts, sub blocky to sub fissile,blocky in parts, micro micaceous, trace micro carbonaceous specks.

SILTSTONE: medium brownish grey, moderately hard to hard, argillaceous, very fine arenaceous in parts, sub blocky to sub fissile, micro micaceous in parts, trace micro carbonaceous specks

SANDSTONE: light grey, off white, white, translucent, light greenish grey, fine to medium grained, moderately sorted, sub angular to sub rounded, moderately hard to hard, strong siliceous and minor calcareous cement, rare off white argillaceous matrix, trace carbonaceous fragments, trace green lithics, tight to very poor visual porosity, no fluorescence.

SILTSTONE: medium grey, medium brownish grey, moderately hard to hard, arenaceous, blocky to sub fissile, trace carbonaceous material, trace disseminated pyrite

SANDSTONE: light grey, off white, translucent, light greenish grey, fine to medium grained, moderately sorted, sub angular to sub rounded, moderately hard to hard, strong siliceous and minor calcareous cement, rare off white/light grey argillaceous matrix, trace carbonaceous fragments, trace green lithics, trace pyrite, very poor visual porosity, no fluorescence.

SILTSTONE: medium grey, medium brownish grey, moderately hard to hard, arenaceous, blocky to sub fissile, trace carbonaceous material

SANDSTONE: light grey, off white, light greenish grey, very fine to occasionally medium grained, fair to moderately sorted, sub angular to sub rounded, moderately hard to hard, strong siliceous cement, common light grey argillaceous matrix, trace lithics, minor carbonaceous fragments, very poor visual porosity, no fluorescence.

SILTSTONE: medium brownish grey, medium grey, moderately hard to hard, arenaceous, argillaceous in parts, blocky to sub fissile, trace carbonaceous fragments, trace micro micaceous

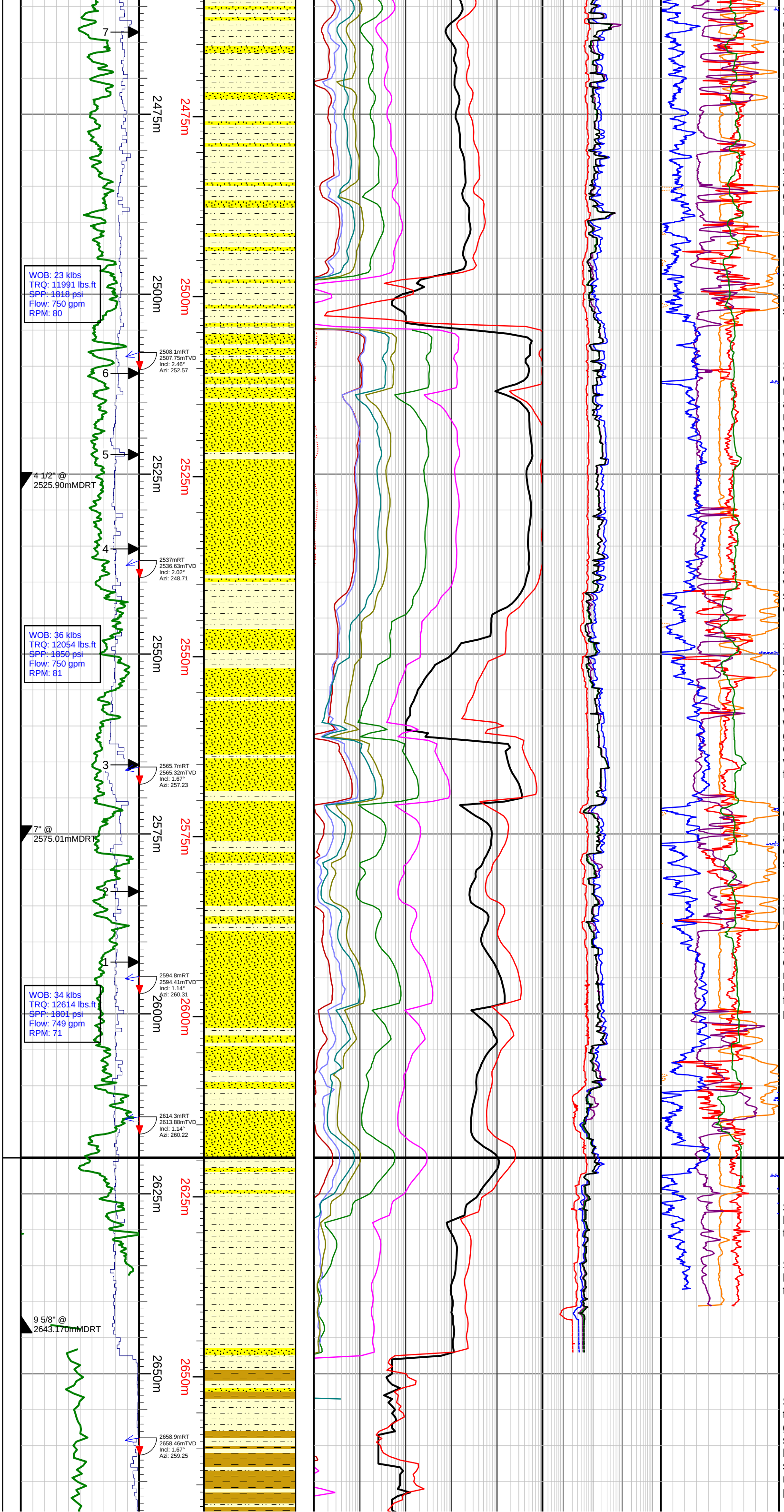
SANDSTONE: light grey, off white, light greenish grey in parts, very fine to occasionally medium grained, fair to moderately sorted, sub angular to sub rounded, moderately hard to hard, strong siliceous cement, trace calcareous cement, minor light grey argillaceous matrix, trace carbonaceous specks, trace lithics, very poor to poor visual porosity, no fluorescence.

SILTSTONE: medium brownish grey, medium grey, moderately hard to hard, arenaceous, argillaceous in parts, blocky to sub fissile, minor carbonaceous specks/fragments

SANDSTONE: light to medium grey, off white, translucent, trace greenish grey, very fine to fine, moderately well sorted, sub angular to sub rounded, moderately hard aggregates, trace friable, weak to moderately strong siliceous cement, trace calcareous cement, trace light grey argillaceous matrix, minor lithics, trace carbonaceous specks, poor visual porosity, no fluorescence.

SILTSTONE: light to medium brownish grey, light to medium grey, moderately hard to hard, arenaceous in part grading to very fine SANDSTONE, argillaceous in part, sub blocky to sub fissile, minor carbonaceous specks

SANDSTONE: pale green, light grey, off white in parts, very fine to medium, predominantly fine, moderately well sorted, sub angular to sub rounded, friable to predominantly moderately hard aggregates, hard in parts, weak to strong siliceous cement, minor light grey to off white argillaceous matrix, minor orange, cream and green lithics, very poor to poor porosity, no fluorescence.




SILTSTONE: light to predominantly medium grey, light to medium brown, dark brown in parts, predominantly moderately hard to hard argillaceous, very fine arenaceous in parts, sub blocky to sub fissile, blocky in parts, trace micro micaceous, trace micro carbonaceous specks, rare laminations.

SANDSTONE: off white, light grey, pale green in parts, very fine to medium, predominantly fine, moderately well sorted, sub angular to sub rounded, friable to predominantly moderately hard aggregates, hard in parts, weak to strong siliceous cement, minor light grey to off white argillaceous matrix, minor orange, cream and green lithics, trace carbonaceous specks, very poor to poor porosity, no fluorescence.

SILTSTONE: predominantly light to medium grey, light to medium brown, dark brown in parts, moderately hard to hard in parts, argillaceous to very fine arenaceous in parts, sub blocky to sub fissile, blocky in parts, micro micaceous in parts, minor micro carbonaceous specks and cream lithics.

SANDSTONE: off white, light grey, pale green, clear to translucent, very fine to fine, occasional medium grains, moderately well sorted, sub angular to sub rounded, friable to predominantly moderately hard aggregates, loose in parts, weak to moderately strong siliceous cement, weak calcareous cement in parts, abundant white argillaceous matrix, common orange, grey, cream and green lithics, trace carbonaceous specks, trace biotite flakes, poor visual and inferred inferred porosity, no fluorescence.

SILTSTONE: predominantly light to medium grey, light to medium brown, dark brown in parts, moderately hard to hard in parts, argillaceous to very fine arenaceous, grading to very fine SANDSTONE in parts, sub blocky to sub fissile, blocky in parts, rare micro carbonaceous specks.

SANDSTONE: off white, pale grey, very fine to predominantly fine, well sorted, sub angular to sub rounded, predominantly friable to moderately hard aggregates, loose in parts, weak to moderately strong siliceous cement, weak calcareous cement in parts, abundant white argillaceous matrix, common orange, grey, cream and green lithics, trace carbonaceous specks, trace biotite flakes, poor visual and inferred inferred porosity, no fluorescence.

SILTSTONE: light to medium grey, medium to dark brown in parts, moderately hard to hard in parts, dominantly argillaceous to trace very fine arenaceous, sub blocky to sub fissile, occasionally blocky, trace micro carbonaceous specks.

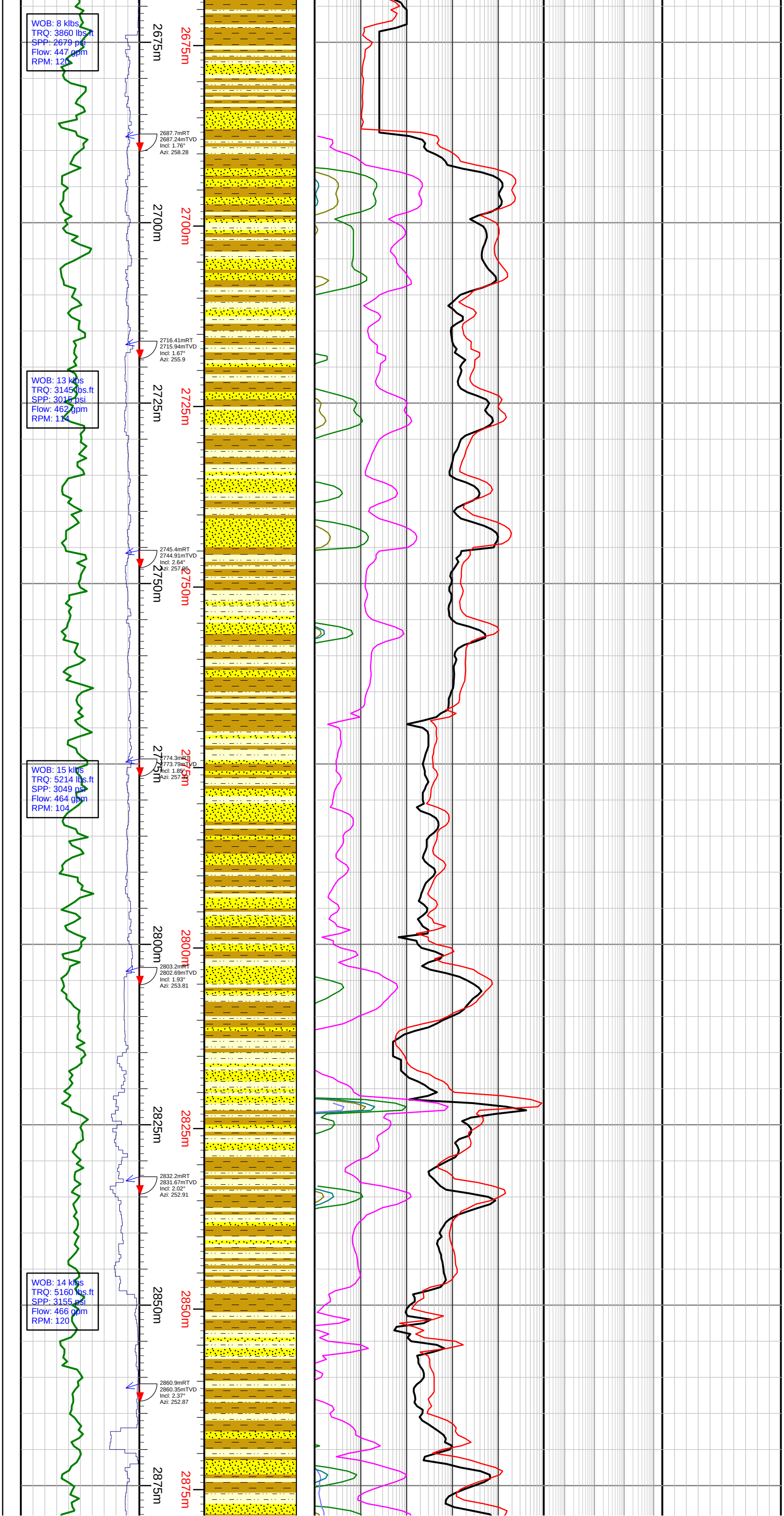
SANDSTONE: off white, light grey, very fine to fine, well sorted, sub angular to sub rounded, predominantly friable to moderately hard aggregates, loose in parts, weak to moderately strong siliceous cement, weak calcareous cement in parts, abundant white argillaceous matrix, common orange, grey, cream and green lithics, trace carbonaceous specks, trace biotite flakes, poor visual and inferred inferred porosity, no fluorescence.

**Intra-Rewan Claystone 2620mMDRT**

SILTSTONE: red brown, brick red, moderately hard, blocky to sub fissile, argillaceous grading to CLAYSTONE.

SILTSTONE: red brown, brick red, moderately hard, blocky to sub fissile, argillaceous grading to CLAYSTONE.

SANDSTONE: very light grey to light grey, transparent to translucent, very fine to fine grained, trace medium, moderately well to well sorted, sub angular to sub rounded, moderately hard, commonly loose, minor moderately strong siliceous cement, common off white argillaceous matrix, trace green lithics, poor visual porosity, poor inferred porosity, no fluorescence.




SILTSTONE: reddish brown, orange grey, lutaceous grading to CLAYSTONE, firm to moderately hard, sub blocky to fissile.

CLAYSTONE: reddish brown, argillaceous grading to SILTSTONE, soft to dispersive, amorphous.

SANDSTONE: light grey, light pinkish grey, off white, very fine to fine grained, well sorted, firm to friable, weak calcareous cement, abundant white argillaceous matrix, trace lithics, poor visual porosity, no fluorescence.

SILTSTONE: reddish brown, grading to CLAYSTONE, moderately hard, locally very finely, arenaceous, blocky to sub fissile.

CLAYSTONE: reddish brown, silty in parts grading to SILTSTONE, soft to firm, blocky to amorphous.

SILTSTONE: reddish brown, grading to CLAYSTONE, moderately hard, locally very finely, arenaceous, blocky to sub fissile.

CLAYSTONE: reddish brown, silty in parts grading to SILTSTONE, soft to firm, blocky to amorphous

SANDSTONE: light grey, light brown grey to light red grey, very fine to fine, sub angular to sub rounded, well sorted, firm to moderately hard, weak calcareous cement, common light grey white argillaceous matrix, common lithics (green grey, minor orange), trace silty fragments, very poor visible porosity, no fluorescence.
SILTSTONE: as above.
CLAYSTONE: as above.

SANDSTONE: light grey, light brown grey, light red brown, minor green grey, very fine to fine, sub angular to sub rounded, well sorted, firm to moderately hard, occasional loose grains, weak calcareous cement, trace to common light grey white argillaceous matrix, occasional to common lithics (green grey, grey, black, minor orange), poor visible and inferred porosity, no fluorescence.

SILTSTONE: red brown to dark red brown, green grey, firm, sub blocky to sub fissile, commonly arenaceous, argillaceous in part and grades to CLAYSTONE in part.

CLAYSTONE: red brown to dark red brown, soft to firm, sub blocky to sub fissile, amorphous in part, silty and grades to SILTSTONE in part.

No resistivity/density data collected via wireline. LWD data recorded. Refer to Lithology Log

SANDSTONE: light grey, light brown grey, very fine to fine, sub angular to sub rounded, well sorted, friable to moderately hard, weak calcareous cement, common to abundant light grey white argillaceous matrix, occasional lithics (green, grey), very poor visible porosity, no fluorescence.

SILTSTONE: red brown to dark red brown, firm, sub blocky to sub fissile, argillaceous in part and grades to CLAYSTONE in part, occasionally arenaceous.

CLAYSTONE: red brown to dark red brown, soft to firm, sub blocky to sub fissile, amorphous in part, silty and grades to SILTSTONE in part.

SANDSTONE: very light grey to light grey, light brown grey, light greenish grey, very fine to fine, trace medium grained, sub angular to sub rounded, well sorted, friable to moderately hard, weak calcareous cement, common to abundant light grey white argillaceous matrix, occasional lithics (green, grey, brown), trace carbonaceous specks, poor to very poor visible porosity, no fluorescence.

SILTSTONE: red brown to dark red brown, firm, sub blocky to sub fissile, argillaceous in part and grades to CLAYSTONE in part, occasionally arenaceous.

CLAYSTONE: red brown to dark red brown, soft to firm, sub blocky to sub fissile, amorphous in part, silty and grades to SILTSTONE in part.

SANDSTONE: light grey to light green grey, light brown grey, very fine to fine grained, sub angular to sub rounded, well sorted, friable to moderately hard, calcareous cement, common light grey argillaceous matrix, common lithics

Intra-Rewan Claystone

2889.9mRT
2889.32mTVD
Incl: 2.55°
Azi: 256.32

2900m

2918.8mRT
2918.19mTVD
Incl: 3.08°
Azi: 259.21

WOB: 13 klbs
TRQ: 5466 lbs.ft
SPP: 3306 psi
Flow: 489 gpm
RPM: 160

2925m

2947.7mRT
2947.04mTVD
Incl: 3.17°
Azi: 260.05

2950m

2976.5mRT
2975.8mTVD
Incl: 3.17°
Azi: 260.01

WOB: 7 klbs
TRQ: 7336 lbs.ft
SPP: 2413 psi
Flow: 499 gpm
RPM: 120

2975m

3000m

3005.5mRT
3004.75mTVD
Incl: 3.52°
Azi: 262.02

3025m

3034.4mRT
3033.6mTVD
Incl: 3.43°
Azi: 260.75

3050m

3063.3mRT
3062.44mTVD
Incl: 3.43°
Azi: 260.6

3075m

light grey argillaceous matrix, common lithics (greenish grey, minor grey and black), very poor visual porosity, no fluorescence.

SILTSTONE: red brown to dark red brown, rare grey to green grey, firm to moderately hard, sub blocky to fissile in part, argillaceous and grades to CLAYSTONE, occasionally arenaceous in part.

CLAYSTONE: red brown to dark red brown, soft to firm, sub blocky to fissile, silty and grades to SILTSTONE in part.

SANDSTONE: light grey to light green grey, light brown grey, very fine to fine grained, sub angular to sub rounded, well sorted, firm to moderately hard, rare loose grains, calcareous cement, occasional light grey argillaceous matrix, occasional to common lithics (greenish grey, minor grey, black and orange), trace white crystalline calcite fragments, very rare pyrite, very poor visual porosity, no fluorescence.

SILTSTONE: red brown to dark red brown, occasional grey to green grey, firm to moderately hard, sub blocky to fissile in part, argillaceous and grades to CLAYSTONE, occasionally arenaceous in part.

CLAYSTONE: red brown to dark red brown, soft to firm, sub blocky to fissile, silty and grades to SILTSTONE in part.

No resistivity/density data collected via wireline. LWD data recorded. Refer to Lithology Log

SANDSTONE: light grey to light green grey, light brown grey, very fine to fine grain, sub angular to sub rounded, well sorted, firm to moderately hard, trace loose grain, weak calcareous cement, occasional light grey argillaceous matrix, occasional grey green and orange lithics, very poor visual porosity, no fluorescence.

SILTSTONE: reddish brown to dark reddish brown, trace light greenish grey to greenish grey, firm to moderately hard, sub blocky to fissile, lutaceous grading to CLAYSTONE, minor arenaceous and grading to very fine SANDSTONE in part.

CLAYSTONE: reddish brown to dark reddish brown, firm to moderately hard, sub blocky to fissile, rarely blocky, silty grading to SILTSTONE in parts.

SANDSTONE: light grey to light green grey, light brown grey, very fine to fine grained, rare medium grains, sub angular to sub rounded, well sorted, firm to moderately hard, trace loose grains, calcareous cement, common light grey argillaceous matrix, occasional grey green and orange lithics, very poor visual porosity, no fluorescence.
SILTSTONE: reddish brown to dark reddish brown, trace light greenish grey to grey, firm to moderately hard, sub blocky to fissile, argillaceous and commonly grades to CLAYSTONE, some arenaceous in part. .
CLAYSTONE: reddish brown to dark reddish brown, firm to moderately hard, sub blocky to fissile, silty and grades to SILTSTONE in parts.

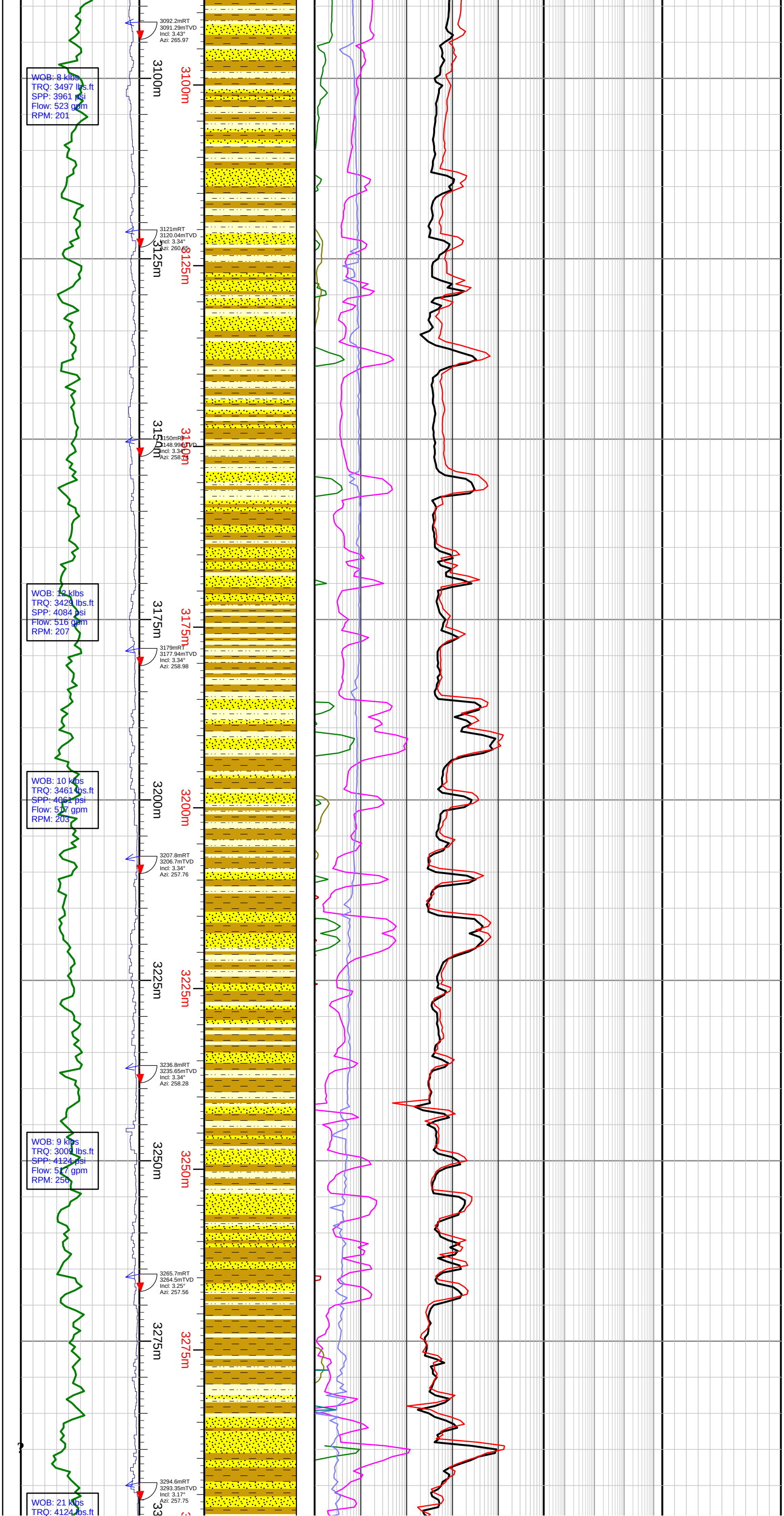
SILTSTONE: moderate reddish brown to dark reddish brown, firm, sub blocky to sub fissile, occasionally fissile, arenaceous in parts grading to very fine SANDSTONE, lutaceous grading to CLAYSTONE in parts.

SILTSTONE: light reddish brown to dark reddish brown, soft to firm, occasionally moderately hard, sub blocky to sub fissile, grades to very fine grained SANDSTONE in part, grades to CLAYSTONE.

CLAYSTONE: light reddish brown to moderately reddish brown, soft to firm, occasionally dispersive, sub blocky to amorphous, predominantly sub fissile, grades to SILTSTONE in part.

SANDSTONE: light brown grey, light grey, very fine to fine, sub angular to sub rounded, well sorted, firm to moderately hard, calcareous cement, occasional light brown grey argillaceous / silty matrix, occasional lithics (green grey, brown grey, cream, dark grey), very poor visible porosity, no fluorescence.

SILTSTONE: red brown to dark red brown, some brown grey, firm to moderately hard, sub




blocky to sub fissile, argillaceous, and grades to CLAYSTONE, occasionally arenaceous in part.

CLAYSTONE: red brown to dark red brown, soft to moderately hard, sub blocky to sub fissile, silty and grades to SILTSTONE in part.

SANDSTONE: light brown grey, light grey to occasional light green grey, very fine to fine, sub angular to sub rounded, well sorted, firm to moderately hard, calcareous cement, occasional to common light brown grey argillaceous / silty matrix, grades to SILTSTONE in part, occasional lithics (green grey, brown grey, cream), very poor visible porosity, no fluorescence.

SILTSTONE: red brown to dark red brown, firm to moderately hard, sub blocky to sub fissile, argillaceous, and grades to CLAYSTONE, occasionally arenaceous in part.

CLAYSTONE: red brown to dark red brown, soft to moderately hard, sub blocky to sub fissile, silty and grades to SILTSTONE in part.

SANDSTONE: as above.
SILTSTONE: as above.
CLAYSTONE: as above.

SANDSTONE: light grey to light brownish grey, very fine to fine grained, sub angular to sub rounded, well sorted, firm to moderately hard, occasionally soft, weak calcareous cement, common to abundant very light grey to light brownish grey argillaceous matrix, grades to SILTSTONE in part, trace to minor greenish grey lithics, very poor visible porosity, no fluorescence.

SILTSTONE: moderate reddish brown to dark reddish brown, occasionally brownish grey to greenish grey, firm to moderately hard, occasionally soft, blocky to sub fissile, predominantly sub blocky, lutaceous grading to CLAYSTONE, occasionally arenaceous grading to very fine SANDSTONE.

CLAYSTONE: moderate reddish brown to dark reddish brown, soft to firm, dispersive in part, sub blocky to sub fissile, arenaceous grading to SILTSTONE in part.

SANDSTONE: light brown grey to light grey, very fine to fine grained, rare medium grains, sub angular to sub rounded, moderately well sorted, friable to firm, common weak calcareous cement, common light grey to light brown grey argillaceous / silty matrix, grades to SILTSTONE in part, occasional lithics ( greenish grey to grey, light reddish brown, cream), very poor visible porosity, no fluorescence.

SILTSTONE: red brown to dark red brown, brown grey, firm, sub blocky to sub fissile, commonly argillaceous, occasionally arenaceous in part.

CLAYSTONE: red brown to dark red brown, soft to firm, sub blocky to sub fissile, silty and grades to SILTSTONE.

SANDSTONE: light grey to light green grey, occasional light brown grey, very fine to fine grained, rare medium grains, sub angular to sub rounded, moderately well sorted, friable to firm, common weak calcareous cement, common light grey to light brown grey argillaceous/silty matrix, grades to SILTSTONE in part, common lithics (greenish grey to grey, light reddish brown, cream), very poor visible porosity, no fluorescence.

CLAYSTONE: red brown to dark red brown, soft to firm, sub blocky to sub fissile, silty and grades to SILTSTONE.

SILTSTONE: red brown, minor brown grey, green grey to grey, soft to firm, sub blocky to sub fissile, arenaceous, commonly argillaceous.
CLAYSTONE: red brown to dark red brown, soft to firm, sub blocky to sub fissile, silty and grades to SILTSTONE.

SANDSTONE: light grey to light greenish grey, occasional light brown grey, very fine to fine grained, rare medium grains, sub angular to sub rounded, moderately well sorted, friable to firm, common calcareous cement, common light grey to light brown grey argillaceous matrix, grades to SILTSTONE in part, common lithics (greenish

SPP: 4126 psi
Flow: 511 gpm
RPM: 190

3300m

grey to grey, light reddish brown, cream), very poor visible porosity, no fluorescence.

SILTSTONE: red brown, minor brown grey, green grey to grey, soft to firm, sub blocky to sub fissile, arenaceous, commonly argillaceous.

CLAYSTONE: red brown to dark red brown, soft to firm, sub blocky to sub fissile, silty and grades to SILTSTONE.

**Lower Rewan Group 3323mMDRT**

3323.4mRT
3322.11mTVD
Incl: 3.08°
Azi: 258.1

3325m

SANDSTONE: light grey to light greenish grey, occasional light brown grey, very fine to fine grained, rare medium grains, sub angular to sub rounded, well sorted, friable to firm, calcareous cement, common light grey to light brown grey argillaceous matrix, grades to SILTSTONE in part, occasional lithics (greenish grey to grey, dark grey, cream), very poor visible porosity, no fluorescence.

WOB: 18 klbs
TRQ: 4353 lbs.ft
SPP: 3829 psi
Flow: 474 gpm
RPM: 218

3350m

SILTSTONE: red brown, occasional green grey, minor brown grey, soft to firm, sub blocky to sub fissile, argillaceous, occasionally arenaceous in part.

CLAYSTONE: red brown to dark red brown, soft to firm, sub blocky to sub fissile, silty and grades to SILTSTONE.

7" @
33600mMDRT

SILTSTONE: medium reddish brown, very finely arenaceous in parts, argillaceous in parts grading to CLAYSTONE, moderately hard, sub blocky to sub fissile.

3364.8mRT
3363.45mTVD
Incl: 2.9°
Azi: 257.64

CLAYSTONE: 40% reddish brown, grading to SILTSTONE in parts, firm to moderately hard, sub blocky to blocky. 20% light greenish grey, soft, dispersive, blocky.

3375m

WOB: 12 klbs
TRQ: 2162 lbs.ft
SPP: 3610 psi
Flow: 348 gpm
RPM: 68

CLAYSTONE: reddish brown, very soft to predominantly firm, moderately hard to hard in parts, sub blocky to amorphous, blocky in parts, sub fissile in parts.

SILTSTONE: light to medium grey, fmr to moderately hard, argillaceous to very fine arenaceous, grading to to very fine SANDSTONE in parts, sub blocky to sub fissile, trace micro carbonaceous specks.

3393.7mRT
3392.32mTVD
Incl: 2.81°
Azi: 259.41

3400m

SANDSTONE: light grey to greenish grey, off white in parts, very fine to fine, well sorted, sub angular to sub rounded, firm to moderately hard, weak to moderately strong siliceous cement, common pale grey to off white argillaceous matrix, minor cream, grey and green lithics, trace micro carbonaceous specks, poor visual porosity, no fluorescence.

SANDSTONE: light grey, light greenish grey, translucent, clear, fine grained, well sorted, sub angular to sub rounded, friable, moderately strong calcareous cement, common light grey argillaceous matrix, trace lithics, trace carbonaceous fragments, poor visual porosity, no fluorescence.
SILTSTONE: reddish brown, argillaceous grading to CLAYSTONE, moderately hard, sub blocky.
CLAYSTONE: reddish brown, firm, blocky to sub fissile, grading to SILTSTONE

3425m

3436.9mRT
3435.47mTVD
Incl: 2.73°
Azi: 255.69

SANDSTONE: light grey, fine to medium grained, sub angular to sub rounded, moderately well sorted, friable to moderately hard, weak calcareous cement, moderately strong siliceous cement, abundant light grey argillaceous matrix, trace lithics, trace carbonaceous specks, poor visual porosity, no fluorescence.

WOB: 18 klbs
TRQ: 3526 lbs.ft
SPP: 3879 psi
Flow: 348 gpm
RPM: 110

3450m

3451.5mRT
3450.05mTVD
Incl: 2.55°
Azi: 253.19

CLAYSTONE: light grey, light greenish grey (10%), red brown (50%), firm to moderately hard, blocky to sub blocky, grading to SILTSTONE

3475m

3480.5mRT
3479.02mTVD
Incl: 2.55°
Azi: 250.18

SANDSTONE: light grey, light greenish grey, translucent, very fine to fine grained, well sorted, sub angular to sub rounded, friable to predominantly moderately hard, moderately strong siliceous cement, rare calcareous cement, minor light grey argillaceous matrix, trace lithics, trace carbonaceous specks, poor visual porosity, no fluorescence.

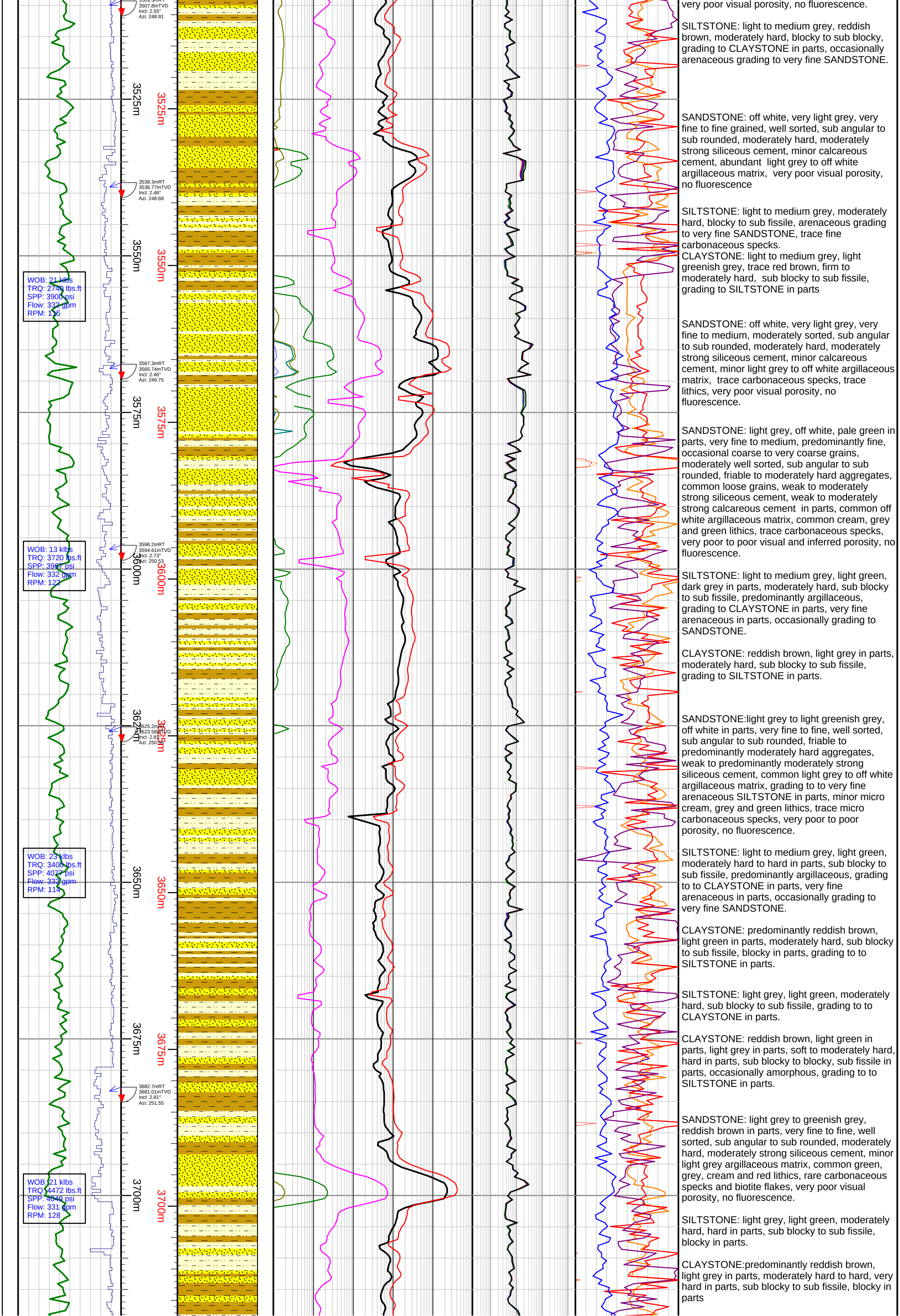
CLAYSTONE: reddish brown, light to medium greenish grey (10%), firm, blocky to sub blocky, grading to SILTSTONE

WOB: 22 klbs
TRQ: 3260 lbs.ft
SPP: 4159 psi
Flow: 332 gpm
RPM: 112

3500m

SANDSTONE: light grey, very fine grained, well sorted, sub angular to sub rounded, moderately hard, moderately strong siliceous cement, rare calcareous cement, common light grey argillaceous matrix, trace carbonaceous specks,

3509.3mRT




very poor visual porosity, no fluorescence.

SILTSTONE: light to medium grey, reddish brown, moderately hard, blocky to sub blocky, grading to CLAYSTONE in parts, occasionally arenaceous grading to very fine SANDSTONE.

SANDSTONE: off white, very light grey, very fine to fine grained, well sorted, sub angular to sub rounded, moderately hard, moderately strong siliceous cement, minor calcareous cement, abundant light grey to off white argillaceous matrix, very poor visual porosity, no fluorescence

SILTSTONE: light to medium grey, moderately hard, blocky to sub fissile, arenaceous grading to very fine SANDSTONE, trace fine carbonaceous specks.
CLAYSTONE: light to medium grey, light greenish grey, trace red brown, firm to moderately hard, sub blocky to sub fissile, grading to SILTSTONE in parts

SANDSTONE: off white, very light grey, very fine to medium, moderately sorted, sub angular to sub rounded, moderately hard, moderately strong siliceous cement, minor calcareous cement, minor light grey to off white argillaceous matrix, trace carbonaceous specks, trace lithics, very poor visual porosity, no fluorescence.

SANDSTONE: light grey, off white, pale green in parts, very fine to medium, predominantly fine, occasional coarse to very coarse grains, moderately well sorted, sub angular to sub rounded, friable to moderately hard aggregates, common loose grains, weak to moderately strong siliceous cement, weak to moderately strong calcareous cement in parts, common off white argillaceous matrix, common cream, grey and green lithics, trace carbonaceous specks, very poor to poor visual and inferred porosity, no fluorescence.

SILTSTONE: light to medium grey, light green, dark grey in parts, moderately hard, sub blocky to sub fissile, predominantly argillaceous, grading to CLAYSTONE in parts, very fine arenaceous in parts, occasionally grading to SANDSTONE.

CLAYSTONE: reddish brown, light grey in parts, moderately hard, sub blocky to sub fissile, grading to SILTSTONE in parts.

SANDSTONE:light grey to light greenish grey, off white in parts, very fine to fine, well sorted, sub angular to sub rounded, friable to predominantly moderately hard aggregates, weak to predominantly moderately strong siliceous cement, common light grey to off white argillaceous matrix, grading to to very fine arenaceous SILTSTONE in parts, minor micro cream, grey and green lithics, trace micro carbonaceous specks, very poor to poor porosity, no fluorescence.

SILTSTONE: light to medium grey, light green, moderately hard to hard in parts, sub blocky to sub fissile, predominantly argillaceous, grading to to CLAYSTONE in parts, very fine arenaceous in parts, occasionally grading to very fine SANDSTONE.

CLAYSTONE: predominantly reddish brown, light green in parts, moderately hard, sub blocky to sub fissile, blocky in parts, grading to to SILTSTONE in parts.

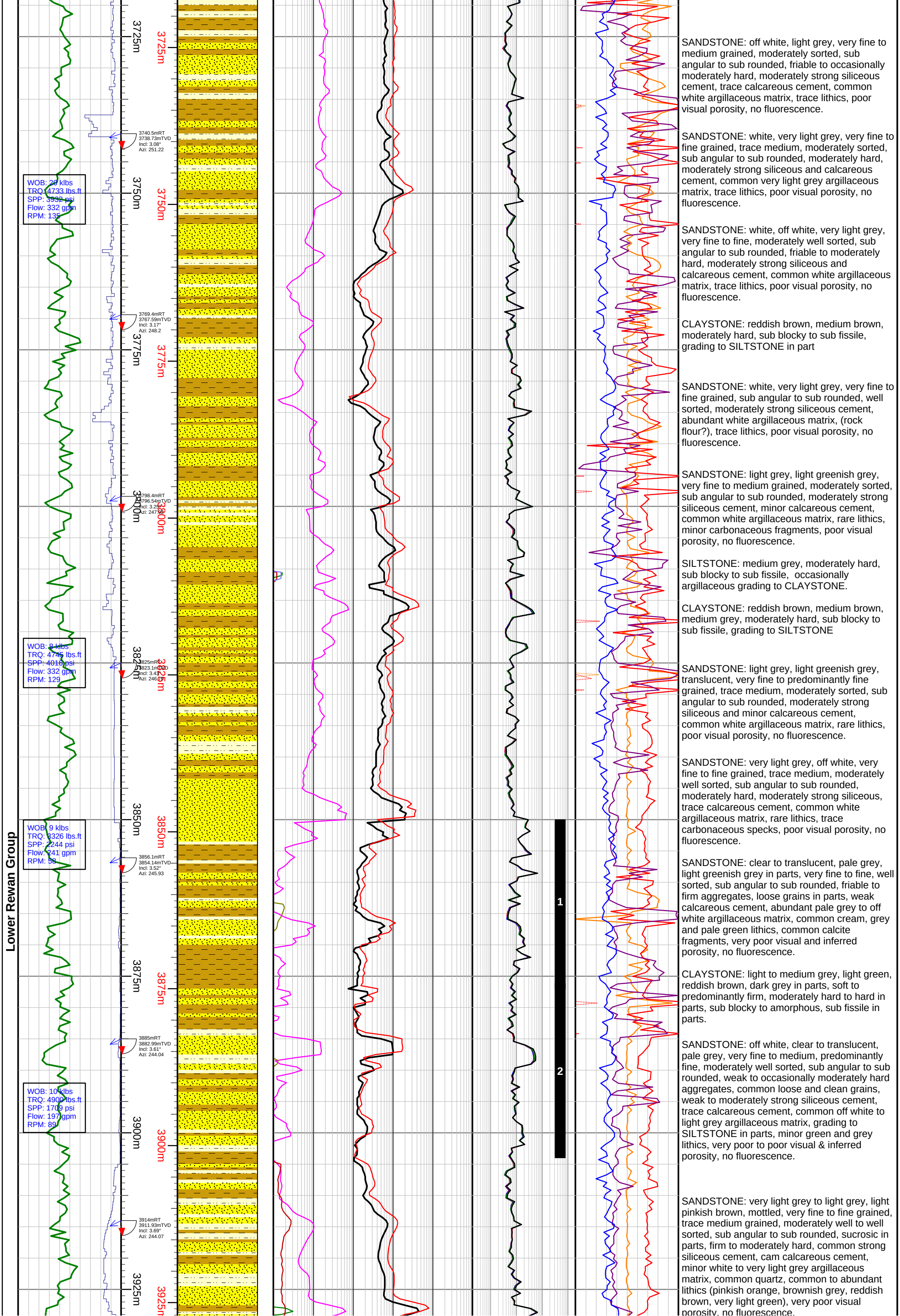
SILTSTONE: light grey, light green, moderately hard, sub blocky to sub fissile, grading to to CLAYSTONE in parts.

CLAYSTONE: reddish brown, light green in parts, light grey in parts, soft to moderately hard, hard in parts, sub blocky to blocky, sub fissile in parts, occasionally amorphous, grading to to SILTSTONE in parts.

SANDSTONE: light grey to greenish grey, reddish brown in parts, very fine to fine, well sorted, sub angular to sub rounded, moderately hard, moderately strong siliceous cement, minor light grey argillaceous matrix, common green, grey, cream and red lithics, rare carbonaceous specks and biotite flakes, very poor visual porosity, no fluorescence.

SILTSTONE: light grey, light green, moderately hard, hard in parts, sub blocky to sub fissile, blocky in parts.

CLAYSTONE:predominantly reddish brown, light grey in parts, moderately hard to hard, very hard in parts, sub blocky to sub fissile, blocky in parts




SANDSTONE: off white, light grey, very fine to medium grained, moderately sorted, sub angular to sub rounded, friable to occasionally moderately hard, moderately strong siliceous cement, trace calcareous cement, common white argillaceous matrix, trace lithics, poor visual porosity, no fluorescence.

SANDSTONE: white, very light grey, very fine to fine grained, trace medium, moderately sorted, sub angular to sub rounded, moderately hard, moderately strong siliceous and calcareous cement, common very light grey argillaceous matrix, trace lithics, poor visual porosity, no fluorescence.

SANDSTONE: white, off white, very light grey, very fine to fine, moderately well sorted, sub angular to sub rounded, friable to moderately hard, moderately strong siliceous and calcareous cement, common white argillaceous matrix, trace lithics, poor visual porosity, no fluorescence.

CLAYSTONE: reddish brown, medium brown, moderately hard, sub blocky to sub fissile, grading to SILTSTONE in part

SANDSTONE: white, very light grey, very fine to fine grained, sub angular to sub rounded, well sorted, moderately strong siliceous cement, abundant white argillaceous matrix, (rock flour?), trace lithics, poor visual porosity, no fluorescence.

SANDSTONE: light grey, light greenish grey, very fine to medium grained, moderately sorted, sub angular to sub rounded, moderately strong siliceous cement, minor calcareous cement, common white argillaceous matrix, rare lithics, minor carbonaceous fragments, poor visual porosity, no fluorescence.

SILTSTONE: medium grey, moderately hard, sub blocky to sub fissile, occasionally argillaceous grading to CLAYSTONE.

CLAYSTONE: reddish brown, medium brown, medium grey, moderately hard, sub blocky to sub fissile, grading to SILTSTONE

SANDSTONE: light grey, light greenish grey, translucent, very fine to predominantly fine grained, trace medium, moderately sorted, sub angular to sub rounded, moderately strong siliceous and minor calcareous cement, common white argillaceous matrix, rare lithics, poor visual porosity, no fluorescence.

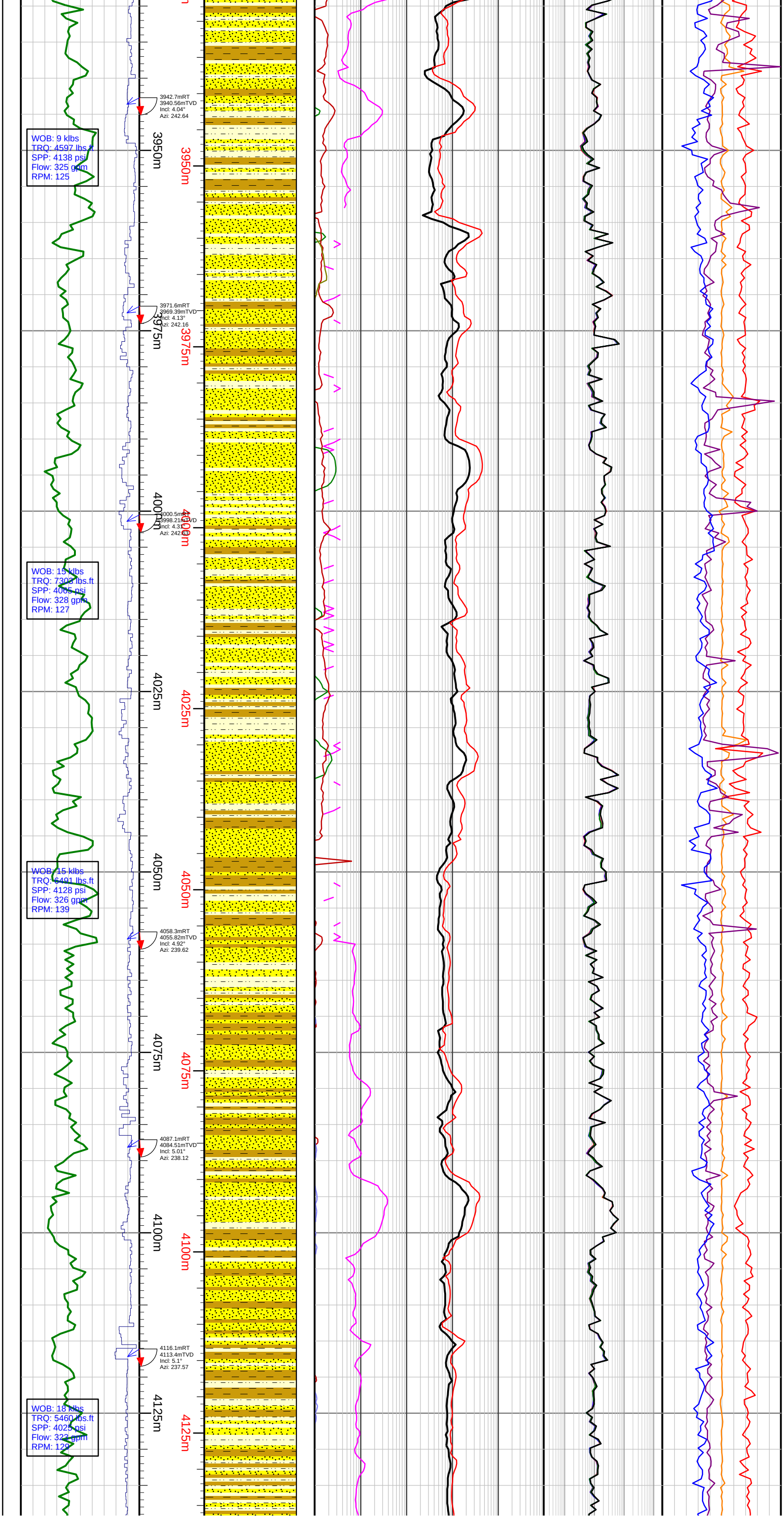
SANDSTONE: very light grey, off white, very fine to fine grained, trace medium, moderately well sorted, sub angular to sub rounded, moderately hard, moderately strong siliceous, trace calcareous cement, common white argillaceous matrix, rare lithics, trace carbonaceous specks, poor visual porosity, no fluorescence.

SANDSTONE: clear to translucent, pale grey, light greenish grey in parts, very fine to fine, well sorted, sub angular to sub rounded, friable to firm aggregates, loose grains in parts, weak calcareous cement, abundant pale grey to off white argillaceous matrix, common cream, grey and pale green lithics, common calcite fragments, very poor visual and inferred porosity, no fluorescence.

CLAYSTONE: light to medium grey, light green, reddish brown, dark grey in parts, soft to predominantly firm, moderately hard to hard in parts, sub blocky to amorphous, sub fissile in parts.

SANDSTONE: off white, clear to translucent, pale grey, very fine to medium, predominantly fine, moderately well sorted, sub angular to sub rounded, weak to occasionally moderately hard aggregates, common loose and clean grains, weak to moderately strong siliceous cement, trace calcareous cement, common off white to light grey argillaceous matrix, grading to SILTSTONE in parts, minor green and grey lithics, very poor to poor visual & inferred porosity, no fluorescence.

SANDSTONE: very light grey to light grey, light pinkish brown, mottled, very fine to fine grained, trace medium grained, moderately well to well sorted, sub angular to sub rounded, sucrosic in parts, firm to moderately hard, common strong siliceous cement, cam calcareous cement, minor white to very light grey argillaceous matrix, common quartz, common to abundant lithics (pinkish orange, brownish grey, reddish brown, very light green), very poor visual porosity, no fluorescence.




SILTSTONE: very light grey, light greenish grey, light pinkish grey, soft to firm, trace carbonaceous specks, sub blocky to sub fissile.

CLAYSTONE: light pinkish brown to light reddish brown, soft to firm, slightly dispersive in parts, trace carbonaceous specks, sub fissile to sub blocky.

SILTSTONE: very light grey to light greenish grey, light pinkish grey, soft to firm, moderately hard in part, blocky to sub fissile.

CLAYSTONE: light pinkish brown to light reddish brown, soft to firm, slightly dispersive in parts, trace carbonaceous specks, sub fissile to sub blocky.

SANDSTONE: very light grey to light grey, light greenish grey, very fine to fine grained, well to very well sorted, sub rounded to sub angular, firm to moderately hard, friable in parts, minor siliceous cement, common calcareous cement, white to very light grey argillaceous matrix, trace to minor lithics (light reddish brown, very light green grey), trace carbonaceous specks, very poor visual porosity, no fluorescence.

SANDSTONE: very light grey, light greenish grey, very fine to fine grained, well, sorted, sub angular to sub rounded, moderately strong siliceous cement, minor calcareous cement, common light grey argillaceous matrix, minor green and red lithics, poor visual porosity, no fluorescence.

SILTSTONE: light to medium grey, moderately hard, sub blocky to sub fissile, trace fissile, arenaceous grading to very fine SANDSTONE.

CLAYSTONE: reddish brown, orange red, firm to moderately hard, blocky to sub fissile

SANDSTONE: very light grey, light greenish grey, very fine to fine grained, well sorted, sub angular to sub rounded, moderately strong siliceous cement, common calcareous cement, abundant light grey argillaceous matrix, minor lithics, poor visual porosity, no fluorescence.

SILTSTONE: medium grey, moderately hard, sub blocky to sub fissile, arenaceous grading to very fine SANDSTONE.

SANDSTONE: light grey, very fine to fine grained, well sorted, sub angular to sub rounded, moderately strong siliceous cement, rare calcareous cement, abundant white argillaceous matrix, trace green lithics, poor visual porosity, no fluorescence.

SILTSTONE: light to predominantly medium grey, moderately hard, trace lithics, sub blocky to sub fissile, argillaceous in parts grading to CLAYSTONE, commonly arenaceous grading to very fine SANDSTONE.

CLAYSTONE: medium grey, soft to firm, dispersive in parts, blocky to sub fissile, grading to SILTSTONE in parts

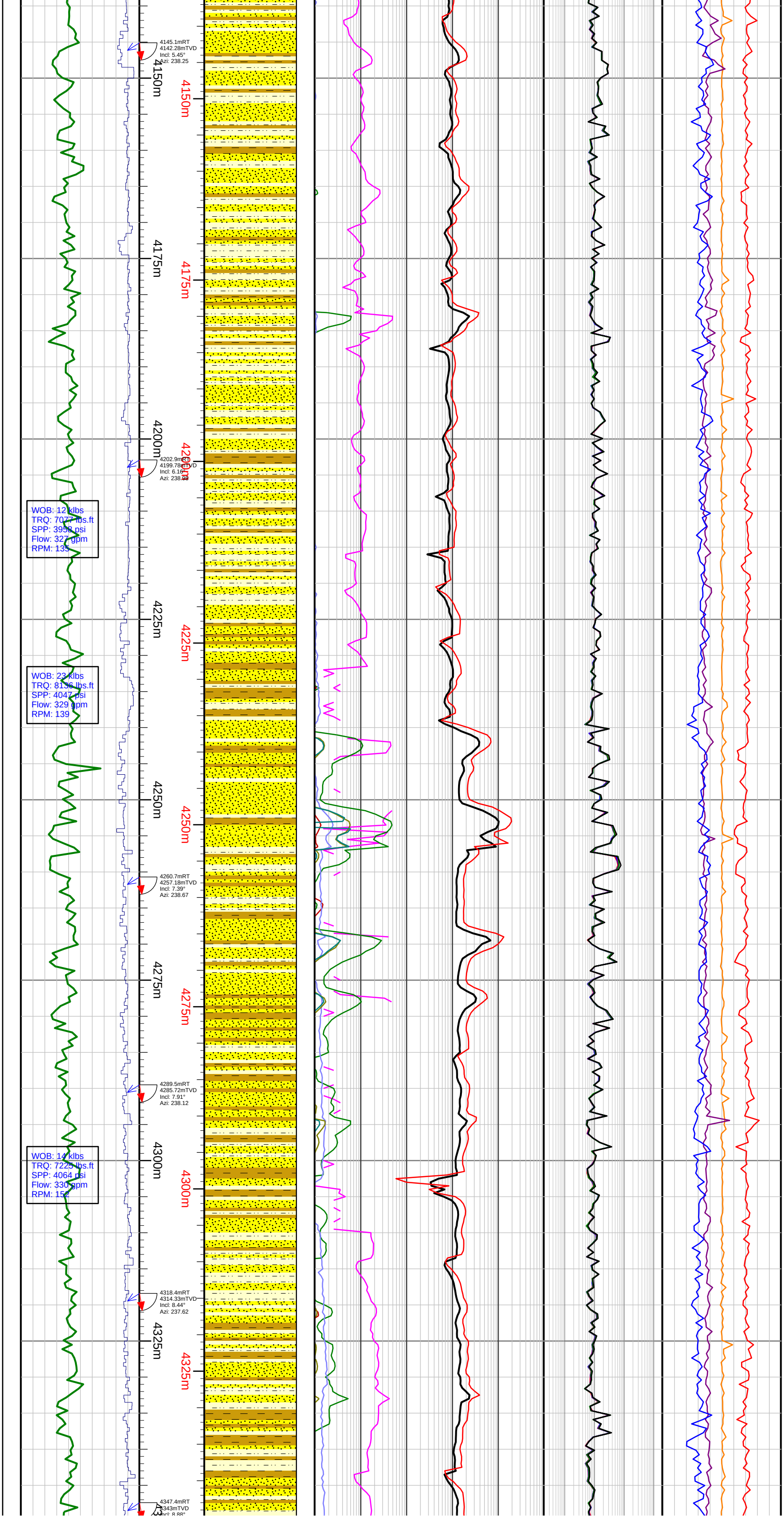
SANDSTONE: very light to light grey, very fine to fine grained, well sorted, sub angular to sub rounded, moderately hard, moderately strong siliceous cement, trace calcareous cement, minor white argillaceous matrix, trace green lithics, poor visual porosity, no fluorescence.

SANDSTONE: light grey to light greenish grey, very fine to predominantly fine grained, well sorted, sub angular to sub rounded, moderately hard, friable in part, moderately strong siliceous cement, rare calcareous cement, minor light grey argillaceous matrix, trace lithics, trace carbonaceous specks, poor visual porosity, no fluorescence.

SILTSTONE: medium grey, moderately hard, sub blocky to sub fissile, commonly arenaceous grading to very fine SANDSTONE.

CLAYSTONE: light to medium grey, light greenish grey, moderately hard, blocky to sub fissile.

SANDSTONE: very light grey to light greenish grey, very fine to fine grained, well sorted, sub angular to sub rounded, friable to firm, loose in parts, moderate siliceous cement, minor calcareous cement, minor white argillaceous matrix, trace to minor lithics (dark brown, reddish brown), poor to very poor visual porosity, no fluorescence.




SILTSTONE: light grey, light greenish grey, reddish brown, firm to moderately hard, arenaceous in parts grading to very fine SANDSTONE, sub blocky to sub fissile.

CLAYSTONE: reddish brown, pinkish brown, very light grey to light grey, firm to moderately hard, blocky to sub fissile, predominantly sub blocky.

SANDSTONE: light grey to light greenish grey, reddish brown, mottled in parts, very fine to fine grained, trace medium grained, moderately well to well sorted, sub angular to sub rounded, moderately hard to hard, strong siliceous cement, minor calcareous cement, minor very light grey to white argillaceous matrix, trace to minor lithics (dark grey, greenish grey, reddish brown), poor visual porosity, no fluorescence.

SILTSTONE: very light grey to light greenish grey, dark grey, occasionally pinkish brown, soft to firm, arenaceous in parts grading to very fine SANDSTONE, sub blocky to sub fissile.

CLAYSTONE: very light grey to medium grey, soft to firm, occasionally dispersive, blocky to sub fissile, predominantly sub blocky.

SANDSTONE: very light grey to light grey, very fine to medium grained, moderately well to well sorted, friable to moderately hard, strong localized siliceous cement, trace to minor white to very light grey argillaceous matrix, predominantly quartz, trace to minor lithics (light brown, dark reddish brown, light greenish grey), argillaceous grading to SILTSTONE in parts, poor to very poor visual porosity, no fluorescence.

SILTSTONE: very light grey to light grey, reddish brown, firm to hard, sub blocky to sub fissile, arenaceous grading to very fine SANDSTONE in parts.

CLAYSTONE: very light grey to medium grey, pinkish brown, firm to hard, sub blocky to sub fissile.

SANDSTONE: very light grey to light grey, very fine to occasionally medium grained, moderately well sorted, friable to predominantly moderately hard, strong siliceous cement, minor very light grey argillaceous matrix, minor lithics, grading to SILTSTONE in part, poor to very poor visual porosity, no fluorescence.

SILTSTONE: light grey to occasionally medium grey, moderately hard, sub blocky to sub fissile, arenaceous grading to very fine SANDSTONE in parts.

CLAYSTONE: very light grey to medium grey, light brownish grey, firm, sub blocky to sub fissile

SANDSTONE: very light grey to light grey, white to off white, very fine to fine occasionally medium grained, moderately well sorted, friable to moderately hard, moderately strong siliceous cement, rare very light grey argillaceous matrix, common green/black lithics, very poor to poor visual porosity, no fluorescence.

CLAYSTONE: very light grey to medium grey, light brownish grey, firm, sub blocky to sub fissile

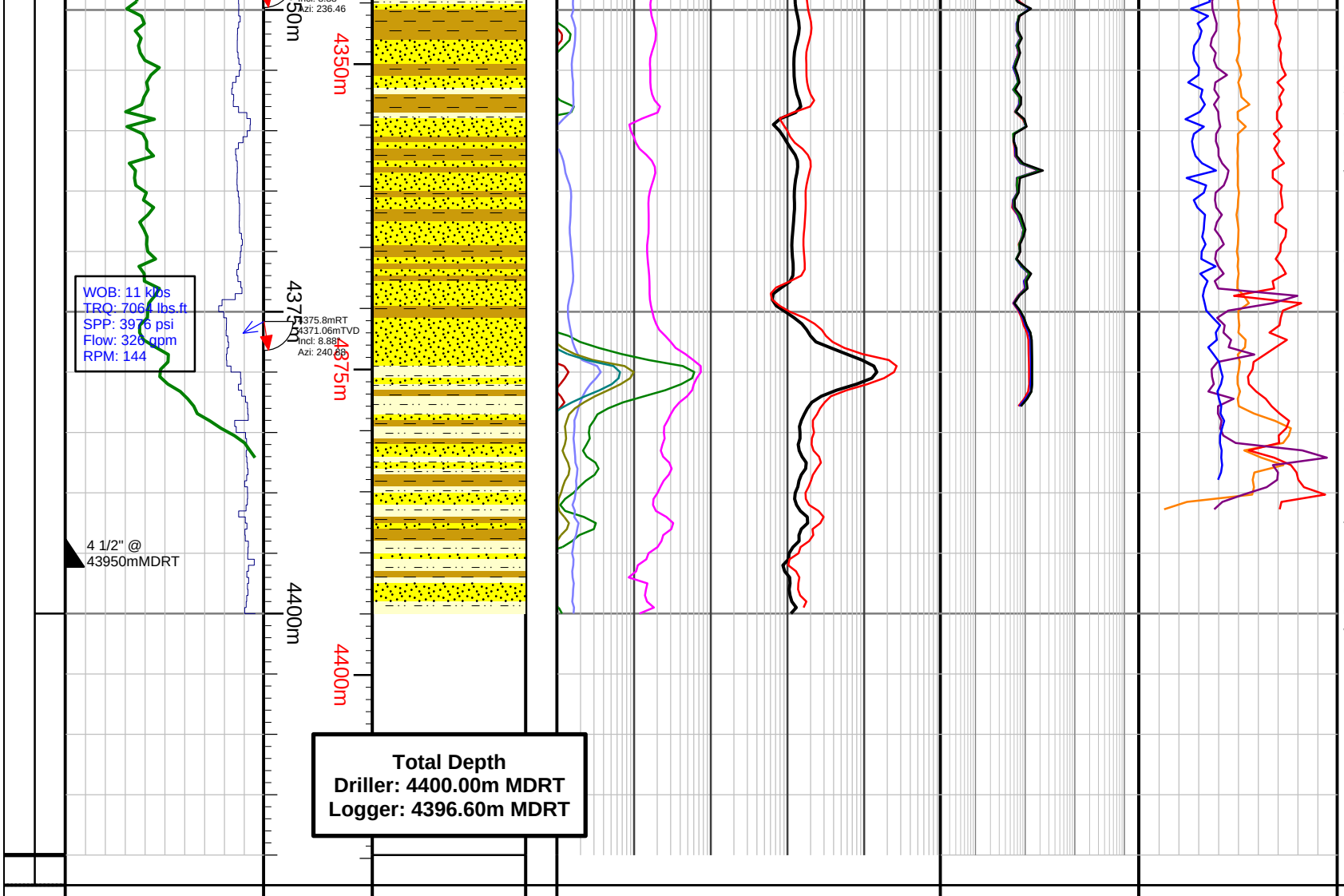
SANDSTONE: very light grey to white, light grey, very fine to fine grained, moderately well sorted, friable to moderately hard, moderately strong siliceous cement, minor very light grey argillaceous matrix, common lithics (green/black/brown), very poor to poor visual porosity, no fluorescence.

CLAYSTONE: moderate reddish brown, occasionally light grey to light greenish grey, firm to moderately hard, sub blocky to sub fissile, grading to argillaceous SILTSTONE

SANDSTONE: very light grey to white, light grey, very fine to fine grained, moderately well sorted, friable to moderately hard, moderately strong siliceous cement, abundant very light grey argillaceous matrix, common lithics (green/black/brown), very poor to poor visual porosity, no fluorescence.

SILTSTONE: very light grey to light grey, minor medium grey, moderately hard, sub blocky to sub fissile, arenaceous grading to very fine SANDSTONE in part.

CLAYSTONE: light grey to light greenish grey, firm to moderately hard, sub blocky to sub fissile, grading to argillaceous SILTSTONE

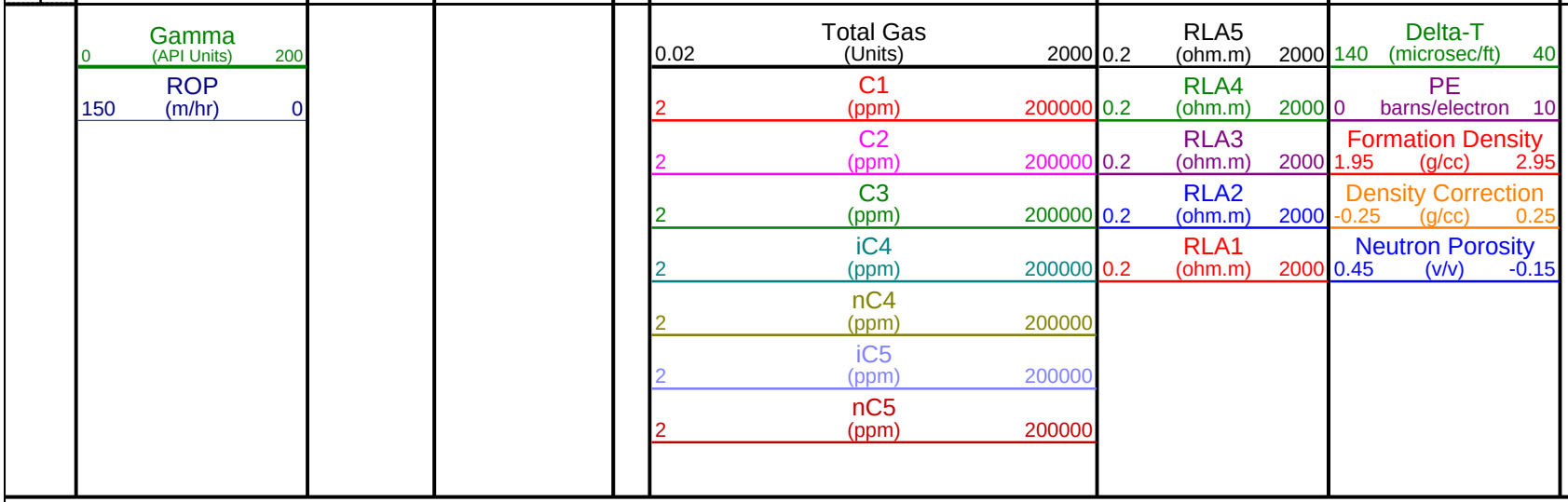



SANDSTONE: very light grey to white, light grey, very fine to fine grained, moderately well sorted, moderately hard, moderately strong siliceous cement, minor very light grey to white argillaceous matrix, minor lithics, trace carbonaceous inclusions, very poor to poor visual porosity, no fluorescence.

SILTSTONE: light - medium grey, moderately hard, sub blocky to sub fissile, arenaceous grading to very fine SANDSTONE.

SANDSTONE: white, very light grey, very fine to predominantly fine grained, trace medium, moderately sorted, friable to moderately hard, moderately strong siliceous cement, common calcareous cement, minor white argillaceous matrix, common lithics, trace carbonaceous inclusions, trace white LIMESTONE fragments, poor visual porosity, no fluorescence.

SANDSTONE: very light grey to light grey, very fine to fine occasionally medium grained, moderately sorted, sub angular to sub rounded, moderately hard, moderately strong siliceous cement, rare light grey argillaceous matrix, common lithics (green, black, brown), poor visual porosity, no fluorescence.




## Moa 2

**Sidewall Cores**

| Depth (mMDRT) | Recovery | Lithology/Comments |
|---|---|---|
| 2592.80 | Good | SANDSTONE: translucent, light grey, clear, very fine to fine grained, well sorted, sub rounded to sub angular, hard, strong siliceous cement (?), common white argillaceous matrix, trace green lithics, trace carbonaceous specks, poor visual porosity, no fluorescence. |
| 2583.00 | Good | SANDSTONE: medium grey, very fine to fine grained, sub rounded, well sorted, hard, strong siliceous cement, abundant medium grey silty matrix, grading to arenaceous SILTSTONE, very poor visual porosity, no fluorescence. |
| 2565.40 | Good | SANDSTONE: light grey, off white, very fine to fine grained, sub angular to sub rounded, well sorted, hard, strong cement, common off white argillaceous matrix, common green and red lithics, trace fine carbonaceous specks, poor visual porosity, no fluorescence. |
| 2535.40 | Good | SANDSTONE: light grey, very fine to predominantly fine grained, sub rounded, well sorted, hard, strong cement, common white argillaceous matrix, rare green and red lithics, rare carbonaceous flecks, poor visual porosity, no fluorescence. |
| 2522.30 | Good | SANDSTONE: translucent, off white, fine to medium grained, moderately sorted, sub angular to sub rounded, hard, strong cement, common off white argillaceous matrix, trace green lithics, trace carbonaceous inclusions, poor visual porosity, no fluorescence. |
| 2511.00 | Good | SANDSTONE: very light grey, translucent, very fine to fine grained, well sorted, sub angular to sub rounded, hard, strong cement, common white argillaceous matrix, trace lithics, rare carbonaceous specks, very poor visual porosity, no fluorescence. |
| 2463.60 | Good | SANDSTONE: medium grey, very fine to fine grained, well sorted, sub angular to sub rounded, hard, strong cement, abundant medium grey silty matrix, grading to arenaceous SILTSTONE, trace lithics, trace carb specks, very poor visual porosity, no fluorescence |
| 2449.00 | Good | SILTSTONE: medium grey, hard, very finely arenaceous ?, trace carbonaceous specks. |
| 2418.70 | Good | SILTSTONE: / VERY FINE SANDSTONE: medium grey, hard, trace lithics, trace carbonaceous specks. |
| 2389.50 | Good | SILTSTONE: medium grey, very finely arenaceous grading to very fine SANDSTONE, hard, trace fine carbonaceous specks. |
| 2348.90 | Good | SANDSTONE: light grey, very fine to fine, well sorted, sub angular to sub rounded, hard, strong cement, common white argillaceous matrix, trace lithics, rare carbonaceous specks, poor visual porosity, no fluorescence. |
| 2324.60 | Good | SANDSTONE: light grey to off white mottled, very fine to fine grained, well sorted, sub angular to sub rounded, hard, strong cement, common medium grey silty and white argillaceous matrix, trace green lithics, trace carbonaceous flecks, poor visual porosity, no fluorescence. |
| 2295.20 | Good | SILTSTONE: medium grey, hard, very fine arenaceous. |
| 2272.10 | Good | SANDSTONE: light grey, off white in parts, very fine, well sorted, sub angular to sub rounded, rounded in parts, friable to moderately hard, weak to moderately strong siliceous cement, common light grey silty and white argillaceous matrix, trace carbonaceous specks, trace biotite flakes, trace green lithics, very poor to poor visual porosity, no fluorescence. |
| 2269.10 | Good | SANDSTONE: pale grey, clear to translucent, off white in parts, very fine, well sorted, sub angular to sub rounded, rounded in parts, friable to moderately hard, weak to moderately strong siliceous cement, minor light grey silty and white argillaceous matrix, trace carbonaceous specks, trace pale green lithics, rare mica flakes, very poor to poor visual porosity, no fluorescence. |
| 2241.40 | Good | SANDSTONE: pale greenish grey, light grey to translucent in parts, very fine to fine, well sorted, sub angular to sub rounded, rounded in parts, friable to predominantly moderately hard, weak to moderately strong siliceous cement, weak calcareous cement in parts, minor light grey silty to argillaceous matrix, trace carbonaceous specks, trace pale green lithics, rare mica flakes, poor visual porosity, no fluorescence. |
| 2221.00 | Good | SANDSTONE: pale greenish grey, very fine to fine, well sorted, sub angular to sub rounded, friable to predominantly moderately hard, weak to moderately strong siliceous cement, weak calcareous cement in parts, trace pale grey silty to argillaceous matrix, trace carbonaceous specks and laminations, trace pale green lithics, rare mica flakes, poor porosity, no fluorescence. |
| 2184.50 | Good | SANDSTONE: light grey, pale greenish grey, trace off white, very fine to fine, occasional medium grains, moderately well sorted, sub angular to sub rounded, friable to predominantly moderately hard, weak to predominantly moderately strong siliceous cement, minor pale grey to trace off white silty to argillaceous matrix, trace carbonaceous specks, trace pale green, grey and cream lithics, rare mica flakes, poor porosity, no fluorescence. |
| 2132.50 | Good | SANDSTONE: pale greenish grey, light grey, trace off white, very fine to fine, well sorted, sub angular to sub rounded, friable to predominantly moderately hard, weak to predominantly moderately strong siliceous cement, minor pale grey to trace off white argillaceous matrix, minor pale green and cream lithics, trace carbonaceous specks, trace biotite flakes, very poor to poor visual porosity, no fluorescence. |
| 2103.80 | Good | SANDSTONE: light grey, off white and pale greenish grey in parts, very fine to predominantly fine, well sorted, sub angular to sub rounded, predominantly friable to moderately hard, weak to moderately strong siliceous cement, minor pale grey to off white argillaceous matrix, trace pale green, grey and orange lithics, rare |

| | | |
|---|---|---|
| | | carbonaceous specks, poor visual porosity, no fluorescence. |
| 2075.50 | Good | SANDSTONE: pale greenish grey, light grey, very fine to fine, well sorted, sub angular to sub rounded, friable to predominantly moderately hard, weak to predominantly moderately strong siliceous cement, trace pale grey argillaceous matrix, minor green, grey, red and cream lithics, rare carbonaceous specks, very poor to poor visual porosity, no fluorescence. |
| 2010.70 | Good | SANDSTONE: pale to translucent brown, very fine to fine, well sorted, sub angular to sub rounded, moderately hard to hard, moderately strong to strong siliceous cement, trace brown silty to argillaceous matrix, minor green, grey, brown and cream lithics, rare carbonaceous specks, very poor to poor visual porosity, no fluorescence. |
| 1921.50 | Good | SANDSTONE: light medium green, very fine to predominantly fine, occasional medium grain, moderately well sorted, sub angular to sub rounded, angular in parts, moderately hard to hard, moderately strong to strong siliceous cement, trace green silty matrix, trace brown and cream lithics, rare carbonaceous specks, very poor to poor visual porosity, no fluorescence. |
| 1884.90 | Good | SANDSTONE: light grey, off white, very fine to fine, well sorted, sub angular to sub rounded, friable to moderately hard, weak to predominately moderately strong siliceous cement, minor light grey to off white argillaceous matrix, common cream, green and light orange lithics, minor micro carbonaceous specks, trace biotite flakes, very poor to poor visual porosity, no fluorescence. |
| 1819.00 | Good | SANDSTONE: off white, clear to translucent, very fine to predominantly medium, moderately well sorted, sub angular to sub rounded, friable to moderately hard, weak to predominantly moderately strong calcareous cement, weak siliceous cement in parts, common off white argillaceous matrix, minor pale green, grey and occasional brown lithics, trace micro carbonaceous specks, poor visual porosity, no fluorescence. |
| 1772.40 | Good | SANDSTONE: off white, clear to translucent, very fine to predominantly medium, moderately well sorted, sub angular to sub rounded, friable to moderately hard, weak to moderately strong siliceous cement, common off white argillaceous matrix, minor pale green, grey and occasional brown lithics, trace micro carbonaceous specks, trace biotite flakes, poor visual porosity, no fluorescence. |
| 1734.90 | Good | SANDSTONE: off white, clear to translucent, very fine to medium, moderately well sorted, sub angular to sub rounded, friable to moderately hard, weak to moderately strong siliceous cement, weak calcareous cement in parts, common off white argillaceous matrix, minor pale green, grey and occasional brown lithics, trace micro carbonaceous specks, poor visual porosity, no fluorescence. |
| 1671.00 | Good | SANDSTONE: off white, clear to translucent, pale orange, very fine to medium, moderately well sorted, sub angular to sub rounded, friable to moderately hard, weak to moderately strong siliceous cement, weak calcareous cement in parts, common off white argillaceous matrix, trace pale green and grey lithics, trace mica flakes, poor visual porosity, no fluorescence. |
| 1577.40 | Good | SANDSTONE: off white, clear to translucent, pale grey in parts, very fine to medium, moderately well sorted, sub angular to sub rounded, predominantly friable to moderately hard, weak to moderately strong siliceous cement, common off white argillaceous matrix, trace pale green and rare orange lithics, trace biotite flakes, poor visual porosity, no fluorescence. |
| 1548.20 | Good | SANDSTONE: light greenish grey, light grey to off white, clear to translucent in parts, very fine to medium, moderately well sorted, sub angular to sub rounded, friable to moderately hard, weak to moderately strong siliceous cement, minor off white argillaceous matrix, minor pale green lithics, minor biotite flakes, poor visual porosity, no fluorescence. |
| 1528.80 | Good | SANDSTONE: off white, pale orange, clear to translucent in parts, very fine to medium, moderately well sorted, sub angular to sub rounded, friable to moderately hard, weak to moderately strong siliceous cement, common off white argillaceous matrix, trace pale green and grey lithics, rare carbonaceous specks, poor visual porosity, no fluorescence. |
| 1402.10 | Good | SANDSTONE: off white, clear to translucent, very fine to fine, well sorted, sub angular to sub rounded, predominantly friable to moderately hard in parts, predominantly weak to moderately strong siliceous cement, common off white argillaceous matrix, trace pale green and grey lithics, poor visual porosity, no fluorescence. |

**Conventional Core**

| No | Interval (m MDRT) | Cut (m) | Recovered (m) | Recovery (%) | Formation |
|---|---|---|---|---|---|
| 1 | 3850.00 - 3877.00 | 27.00 | 26.19 | 97.0 | Lower Rewan Group |
| 2 | 3877.00 - 3904.00 | 27.00 | 27.20 | 101.0 | Lower Rewan Group |

**MWD Summary**

| Hole Size (inch) | Tool | Run | Depth Interval (mMDRT) | Date | Max Temp (°C) |
|---|---|---|---|---|---|
| 17 1/2" | AWR-ABS-HDS1L | 1 | 67 - 1018 | 30/01/2015 to 02/02/2015 | 64 |
| 12 1/4" | AWR-DPM | 2 | 1018 - 2647 | 07/02/2015 to 14/02/2015 | 70 |
| 8 1/2" | AWR-iDNSC-SonicPacer-QPM-HDS1-L-ABS | 3 | 2647 - 2658 | 22-02-2015 | 60 |
| 8 1/2" | AWR-iDNSC-SonicPacer-QPM-HDS1-L-ABS | 4 | 2656 - 3002 | 23-02-2015 to 26-02-2015 | 82 |
| 8 1/2" | AWR-iDNSC-ABS-DPM-HDS1- Sonic Pacer | 5 | 3002 - 3362.5 | 28-02-2015 to 06-03-2015 | 92.6 |
| 6 1/8" | AWR-iDNSC-ABS-DPM-HDS1 | 6 | 3362.5 - 3850 | 11-03-2015 to 14-03-2015 | 108.6 |
| 6 1/8" | AWR-iDNSC-ABS-DPM-HDS1 | 7 | 3850 - 4387 | 19-03-2015 to 21-03-2015 | 123.0 |
| 6 1/8" | AWR-iDNSC-ABS-DPM-HDS1 | 8 | 3850 - 4385 | 24-03-2015 to 26-03-2015 | 123.0 |