



Company : Beach Petroleum Ltd

Well : Fermat-1

Interval : 971.00 - 2140.93 meters

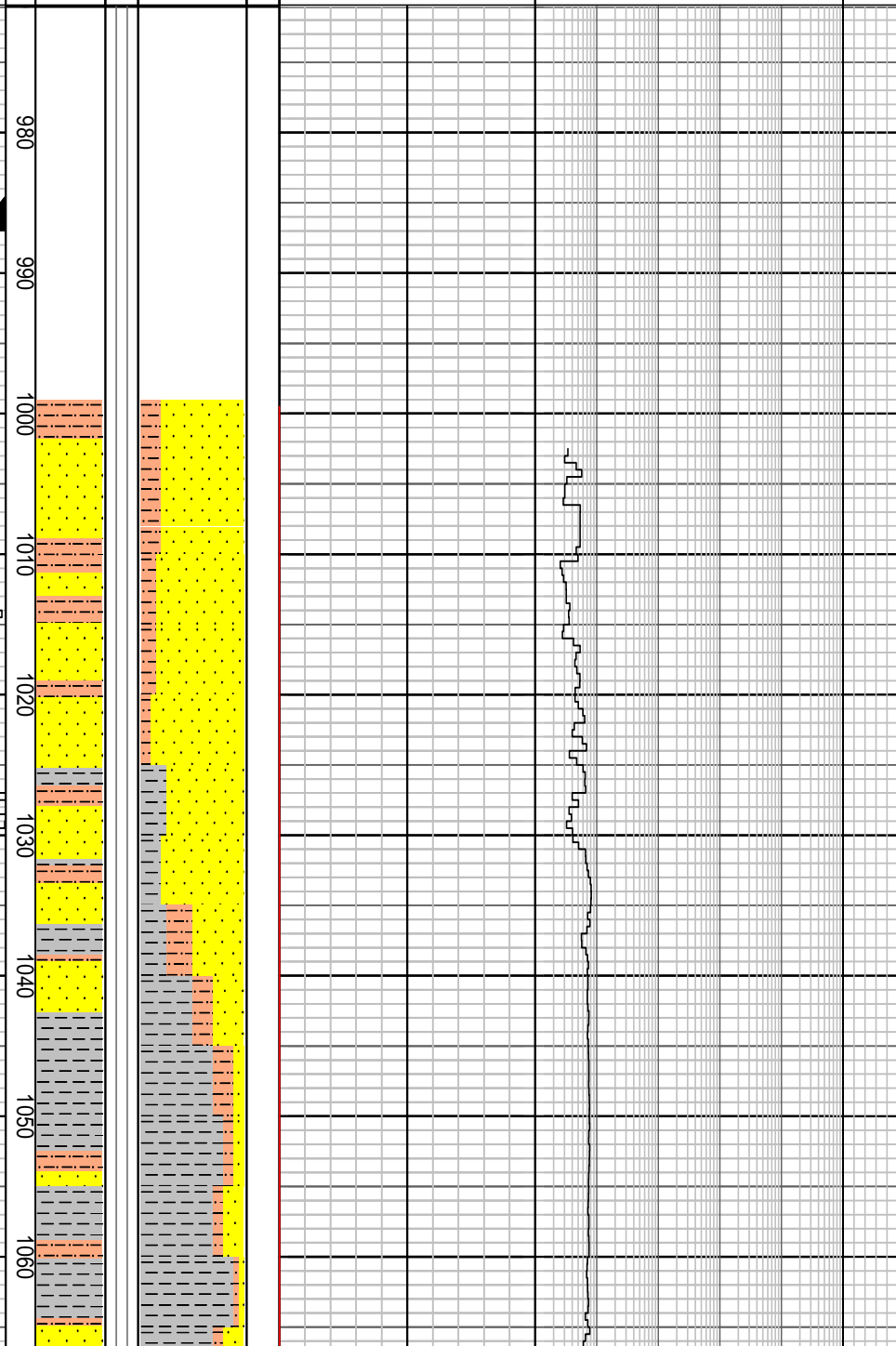
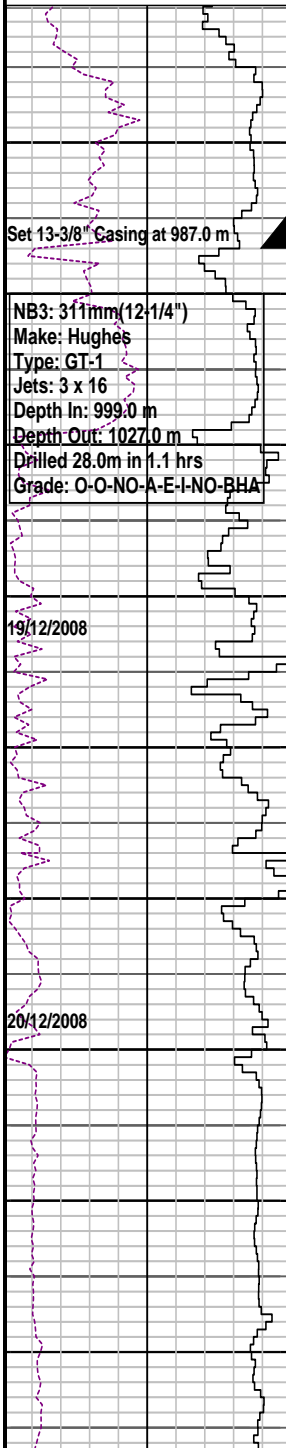
Created : 24/Dec/2008 5:14:49 AM



INTEQ

FORMATION EVALUATION LOG

DRILLING PARAM		MD meters	Oil Show	LITHOLOGY %	CORE	TOTAL GAS	CHROMATOGRAPH	Calcimetry	Lithology Description
ROP (m/hr)						Total Gas (unit)	Methane ppm		
200 160 120 80 40		1:500	P F G			10 20 30 40 50	1 100000		
WEIGHT ON BIT (klbf)						1 100000			
10 20 30 40 50							1 100000		
							1 100000		
							1 100000		
							1 100000		
							1 100000		
							1 100000		



MW: 9.3 ppg FV: 180
 PV: 17 Gel: 11/14/16
 YP: 26 pH: 10.5

MD: 990.90m Inc: 2.28°
 TVD: 990.8m Azi: 226.38°

444 mm (17-1/2") Section TD @ 999.0m

FIT @ 987.0 m with 9.3 ppg
 EMW: 15.0 ppg @ 960 psi

SILTSTONE: olv gry, brn-grysh brn, mod calc, com pyr, com lit frag, frm-hd, blk-y-sbfis

SANDSTONE: clr-trnsl, lt smky gry, fros, w/ mnr yel-wh mky qtz & mnr musc, f-gran, sbang -sbrndd, p srt (bimodal), nod & dissem pyr, disagg, n fluor

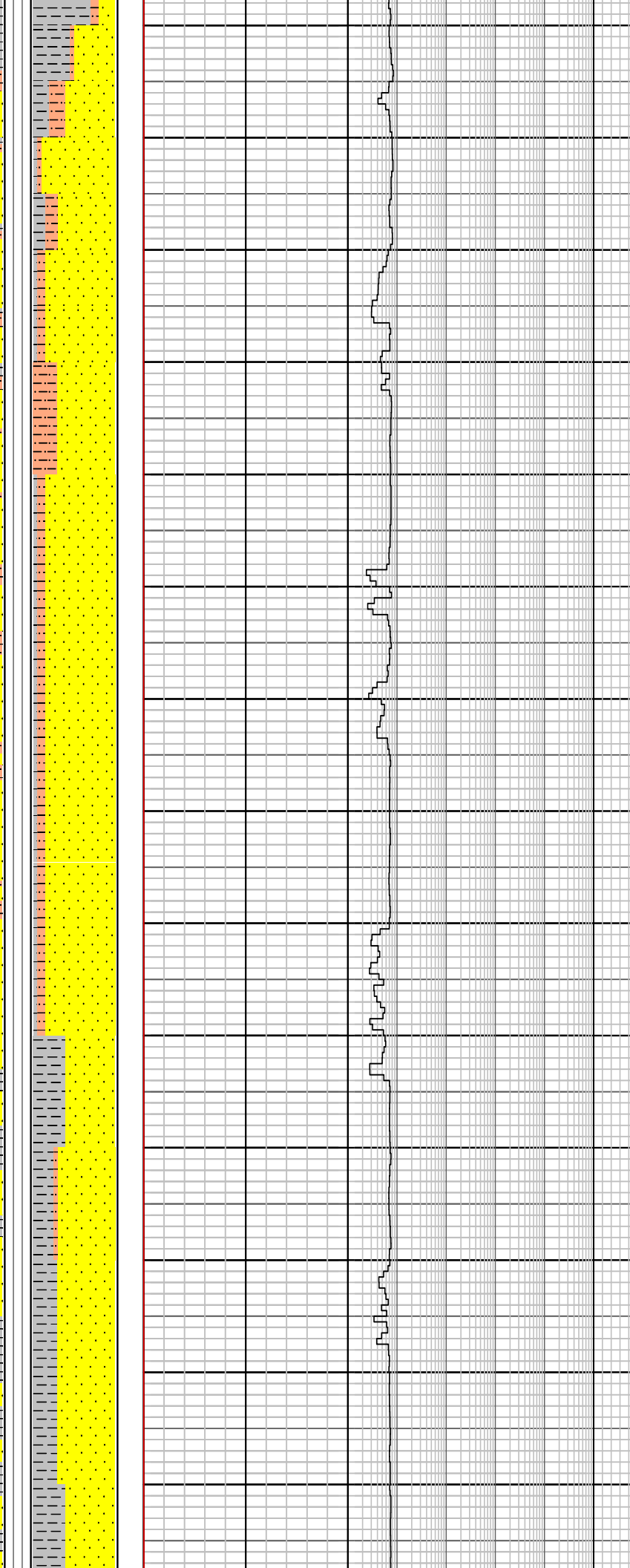
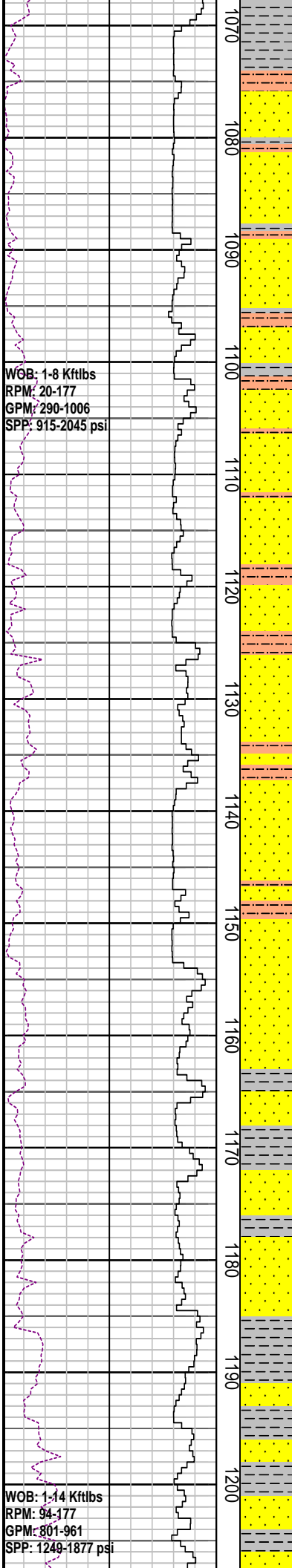
MW: 9.5 ppg FV: 153
 PV: 30 Gel: 10/15/17
 YP: 42 pH: 9.5

MD: 1023.76m Inc: 2.63°
 TVD: 1023.6m Azi: 224.84°

SILTSTONE: olv gry-brn -lt gy, mod calc, com pyr, com lit frag, sft-v hd, blk-y-sbfis

CLAYSTONE: olv gy-mod olv brn, mod calc, sli slty, tr wh calc spar incl, tr carb mat, sft, mass-amor

MD: 1053.62m Inc: 2.63°
 TVD: 1053.4m Azi: 224.67°



SANDSTONE: clr-transl, lt smky gry, fros, w/ mod abd fspr, f-v crs, sbang-sbrndd, p srt (binodal), nod & dissem pyr, tr musc, disagg w/ mnr pyr cmt f-m sd agg, n fluor

MD: 1083.09m Inc: 2.60°
 TVD: 1082.9m Azi: 225.86°

SANDSTONE: clr-transl, lt smky gry, fros, w/ mod abd fspr, f-v crs, sbang-sbrndd, p srt (binodal), nod & dissem pyr, tr musc, disagg w/ mnr pyr cmt f-m sd agg, n fluor

SILTSTONE: dk gry-olv gry, sli calc I.P, loc v arg grd slty Clst I.P, sli aren, micr mic, tr carb spks, tr lit frag

MD: 1112.27m Inc: 2.75°
 TVD: 1112.0m Azi: 224.69°

MD: 1141.27m Inc: 2.61°
 TVD: 1141.4m Azi: 223.95°

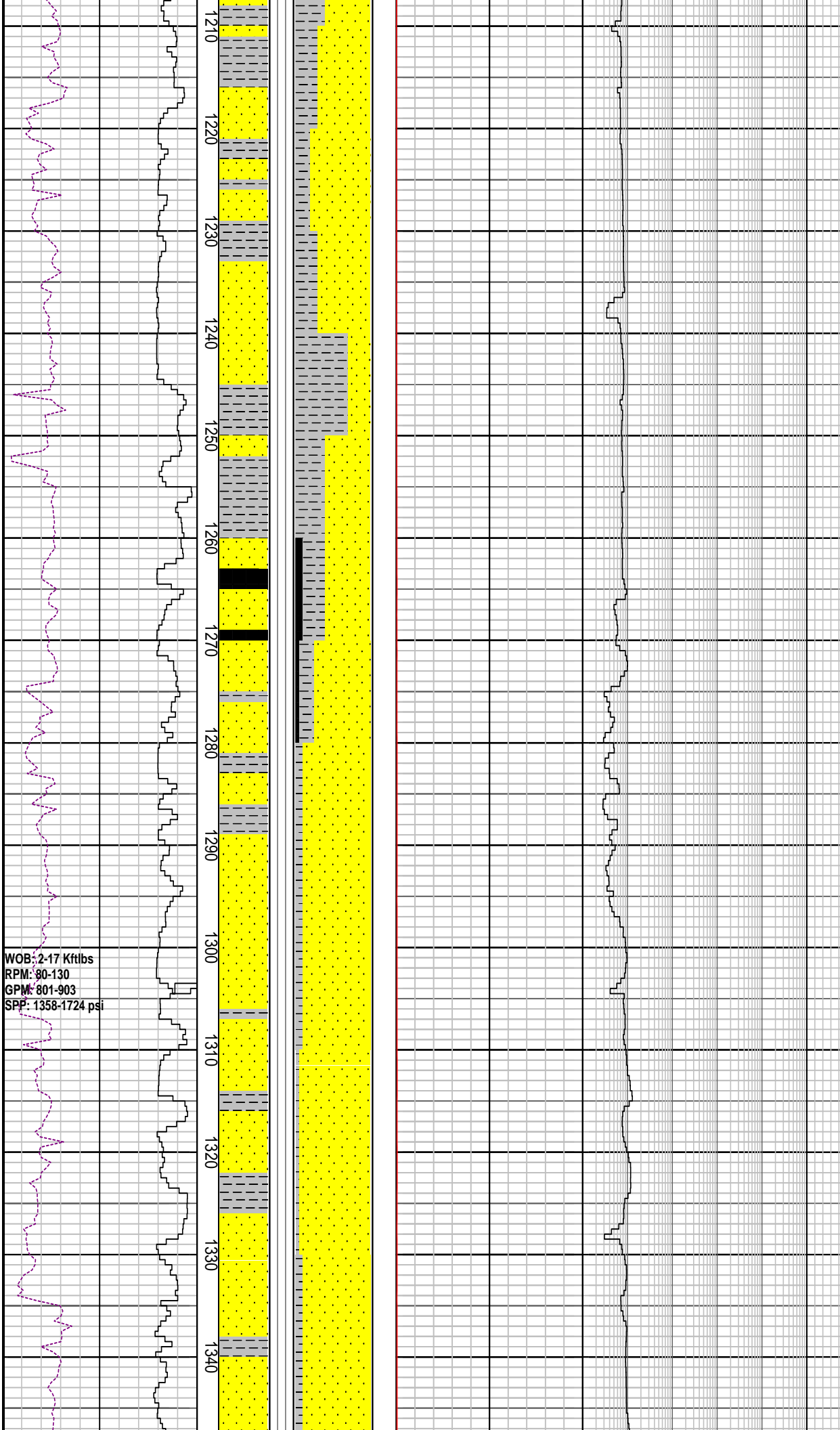
CLAYSTONE: dk gry-brn blk, mod slty, sli calc I.P. com carb/c frag, micr mic, tr musc, sft-plas, mass-blky I.P.

MD: 1171.39m Inc: 2.66°
 TVD: 1171.1m Azi: 223.80°

SANDSTONE: clr-trnsl, fros, smky gy, f-m gr, mnr crs, tr v crs, sbang-sbrndd, p-mod srt, arg mtrx I.P. dissem & nod pyr, mnr carb mat, tr Fe stn qtz, fri-pred disagg, p-fr por, n f

MD: 1200.78m Inc: 2.64°
 TVD: 1200.4m Azi: 223.95°

TVD: 1200.4m Azi: 223.80°



CLAYSTONE: m-dk gy, mod slty, sli calc I.P. com pyr, mnr carb spks, sft-plas, mass-blky I.P.

MD: 1230.79m Inc: 2.72°
TVD: 1230.4m Azi: 225.15°

SANDSTONE: clr-trnsl, fros, smky gy, f-m gr, mnr crs, tr v crs, sbang-sbrndd, p-mod srt, arg mtrx I.P. dissemin & nod pyr, mnr carb mat, tr Fe stn qtz, fri-pred disagg, fr por, n flu

MW: 9.65 ppg FV: 74
PV: 23 Gel: 9/14/15
YP: 27 pH: 8.5

COAL: blk, sbbit, dll-sbvit lstr, plty fract, brit, blk-pty I.P.

CLAYSTONE: m-dk gy, mod slty, sli calc I.P. com pyr, mnr carb spks, sft-plas, mass-blky I.P.

MD: 1288.88m Inc: 2.77°
TVD: 1288.4m Azi: 225.56°

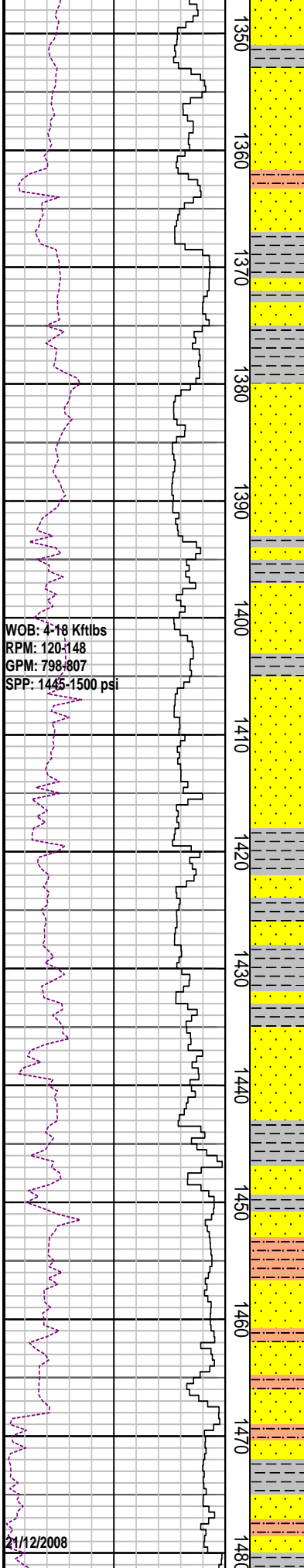
SANDSTONE: clr-trnsl, fros, smky gy, m-crs gr, sbang-sbrndd, mod srt, arg mtrx I.P. dissemin pyr cmt & nod pyr, com carb mat, micr mic, tr Fe stn qtz, p por, n fluor

WOB: 2-17 Kftlbs
RPM: 80-130
GPM: 801-903
SPP: 1358-1724 psi

MD: 1318.86m Inc: 2.69°
TVD: 1318.4m Azi: 226.89°

CLAYSTONE: dk gy-brn blk, mod slty grd to Arg Slst I.P. mnr carb mat & carb micr lam, sft-plas, mass-amor

SANDSTONE: qtz, clr-trnsl, fros, smky gy, m-crs gr, ang-sbrndd, rndd I.P. mod srt, slty arg mtrx I.P. dissemin pyr cmt & nod pyr, tr carb mat, micr mic, tr fspr, p



WOB: 4-18 Kftlbs
 RPM: 120-148
 GPM: 798-807
 SPP: 1445-1500 psi

21/12/2008

1350
1360
1370
1380
1390
1400
1410
1420
1430
1440
1450
1460
1470
1480

Carbide Run @ 1421.0 m
 Actual: 4825 strks
 Theoretical: 4811 strks
 Avg Hole Diameter : 12.29"
 Carbide Gas : 18 units

por, n fluor
CLAYSTONE: dk gy-brn blk, sli slty, mnr carb mat & carb micr lam, sft-plas, mass-amor

SILTSTONE: dk gy-brn gy, mod calc, loc v arg grd slty Clst I.P, micr mic, tr carb spks, tr lit frag, sft, blk

SANDSTONE: qtz, clr-trnsl, fros, smky gy, m-crs gr, sbang-sbrnrd, rndd I.P. mod srt, slty arg mtrx I.P, tr nod pyr, tr musc, tr carb mat, micr mic, tr fspr, p por, n fluor

CLAYSTONE: dk gy-brn gy, sli slty, gd to Slst, mnr carb mat & carb micr lam, sft-plas, mass-amor

MD: 1407.48m	Inc: 2.91°
TVD: 1406.9m	Azi: 229.04°

CLAYSTONE: dk gy-dk brn gy, mod-v slty arg mtrx, gd to Slst I.P. mnr carb mat & carb micr lam, sft-plas, mass-amor

MD: 1436.37m	Inc: 2.94°
TVD: 1435.7m	Azi: 228.54°

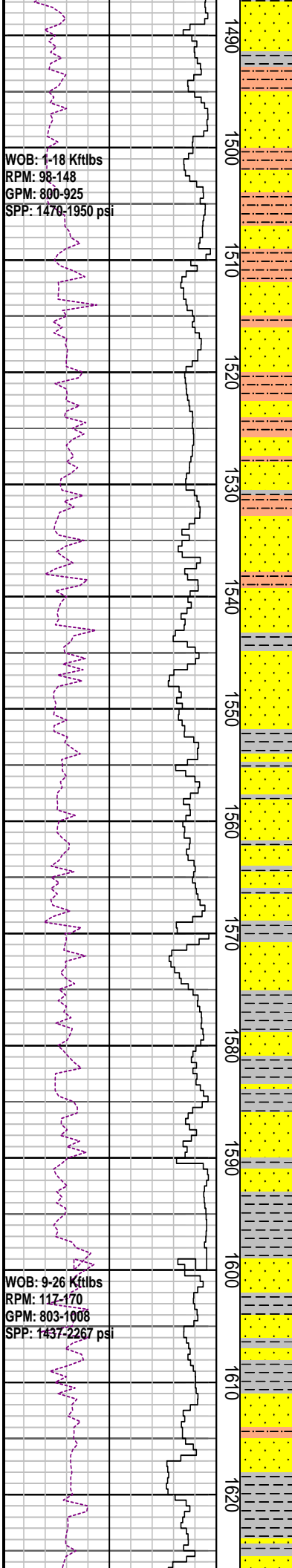
MW: 9.6 ppg	FV: 76
PV: 12	Gel: 9/14/17
YP: 49	pH: 9.5

SILTSTONE: dk gy-brn gy, mod calc, loc arg mtrx, grd slty Clst I.P, micr mic, tr carb spks, tr lit frag, sft, blk

MD: 1465.90m	Inc: 3.02°
TVD: 1465.2m	Azi: 227.97°

CLAYSTONE: dk gy-brn gy, mod calc, slty arg mtrx, gd to Slst I.P. mnr carb mat & carb micr lam, sft-plas, mass-amor

SANDSTONE:



WOB: 1-18 Kftlbs
 RPM: 98-148
 GPM: 800-925
 SPP: 1470-1950 psi

WOB: 9-26 Kftlbs
 RPM: 117-170
 GPM: 803-1008
 SPP: 1437-2267 psi

1490
1500
1510
1520
1530
1540
1550
1560
1570
1580
1590
1600
1610
1620

SANDSTONE: qtz, clr-trnsl, smky gy
 f-crs gr, ang-sbrndd, rndd I.P. mod srt,
 slty arg mtrx I.P, tr musc, tr carb mat,
 micr mic, p por, n fluor

MD: 1495.44m	Inc: 3.02°
TVD: 1494.2m	Azi: 227.27°

SILTSTONE: dk gy- lt brn gy, mod calc,
 loc arg mtrx, micr mic, tr carb spks, tr lit
 frag, sft, blkly

SANDSTONE: qtz, clr-trnsl, lt gy, v-f gr,
 ang-sbrndd, mod srt, slty arg mtrx I.P, tr
 carb mat, micr mic, p por, n fluor

MD: 1525.13m	Inc: 3.06°
TVD: 1524.4m	Azi: 228.31°

SANDSTONE: qtz, clr-trnsl, fros, f-m gr,
 mnv v crs, sbang-sbrndd, mod srt, wk
 calc cmt I.P, tr nod pyr, tr glau, com
 carb/c frag, occ crs mlky flt, occ rd lit
 frag, disagg, fr por,

MD: 1554.71m	Inc: 3.12°
TVD: 1553.9m	Azi: 227.55°

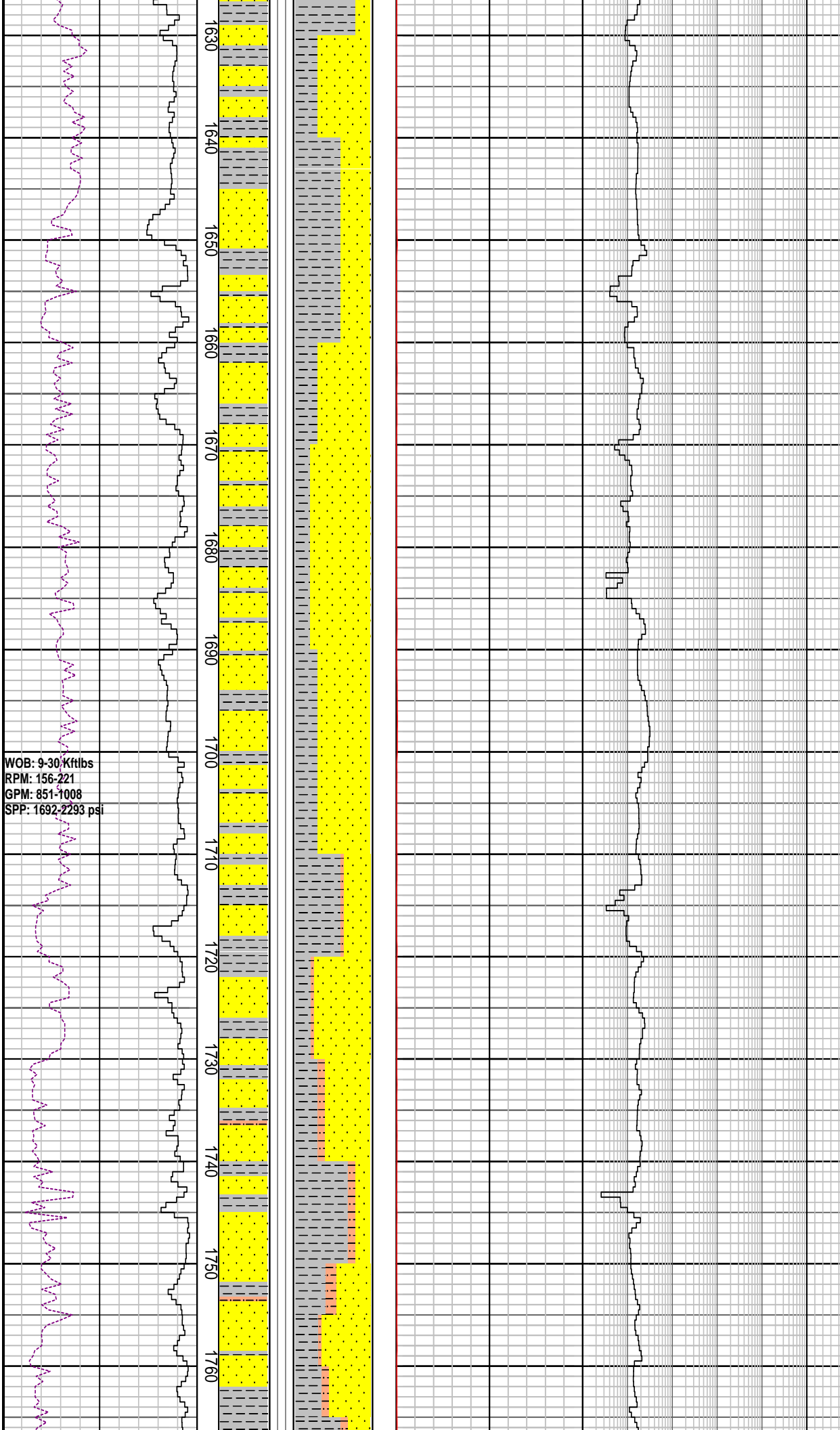
CLAYSTONE: brnsh gy-olv gry, yel gy
 I.P, loc v slty grd to Arg Sltst I.P, sli aren
 I.P, tr lit frag, com carb mat, micr mic,
 sft-plas, mass-blky

MD: 1584.40m	Inc: 3.16°
TVD: 1583.6m	Azi: 227.33°

SANDSTONE: qtz, clr-trnsl, fros, f-m gr,
 mnv v crs, sbang-sbrndd, mod srt, loc
 mod stg dolcalc cmt, tr nod pyr, com
 carb mat, tr crs mlky flt, tr lit frag,
 disagg, fr por, n fluor

SILTSTONE: pl yel brn, mod sil, mod
 arg, tr carb frag, tr lit frag, tr musc, sli
 chlor, hd, blkly

MD: 1614.18m	Inc: 3.15°
TVD: 1613.3m	Azi: 227.26°



CLAYSTONE: m dk gy-dk gy, v slty grd to Arg Sttst I.P, sli aren I.P, tr lit frag, mnr carb mat, micr mic, sft-plas, mass-blky

MD: 1643.45m	Inc: 3.22°
TVD: 1642.5m	Azi: 227.15°

SANDSTONE: qtz, clr-trnsl, fros, f-m gr, mnr v crs, sbang-sbrndd, mod srt, loc stg dol/sil cmt, tr nod pyr, com carb mat, mnr crs mlky flt, mod hd agg, disagg, v p-fr por, n fluor

CLAYSTONE: m dk gy-dk gy, slty, sli aren I.P, tr lit frag, tr carb mat, micr mic, sft-plas, mass-blky

MW: 9.6 ppg	FV: 69
PV: 21	Gel: 10/14/16
YP: 35	pH: 9.0

SANDSTONE: qtz, clr-trnsl, fros, f-m gr, mnr v crs, sbang-sbrndd, mod srt, loc stg dolcalc cmt, tr nod pyr, com carb mat, mnr crs mlky flt, tr lit frag, disagg, fr por, n fluor

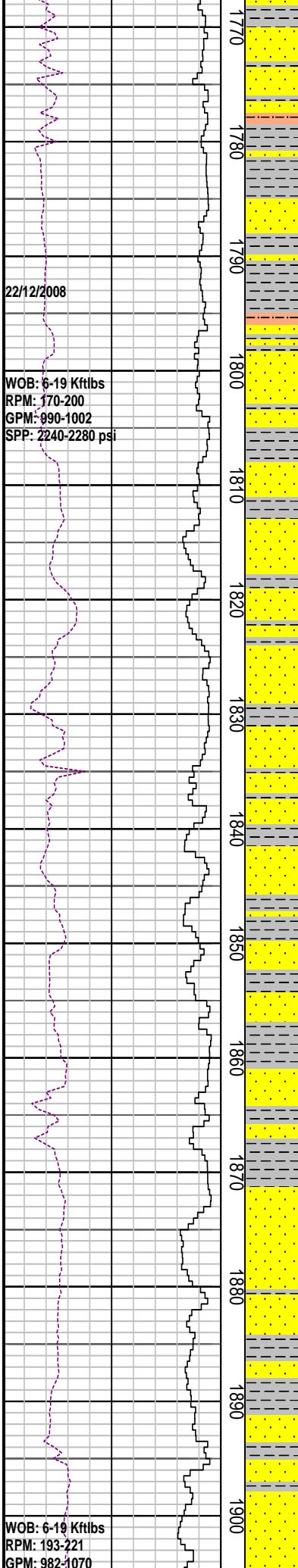
MD: 1732.53m	Inc: 3.23°
TVD: 1731.5m	Azi: 229.06°

MW: 9.65 ppg	FV: 76
PV: 21	Gel: 10/14/17
YP: 34	pH: 9.0

SANDSTONE: qtz, clr-trnsl, fros, v f-m, sbang-sbrndd, mod-wl srt, loc dolcalc cmt, occ pyr cmt, tr m nod pyr, tr m mlky qtz flt, mnr hd dol cmt f agg, v p-fr por, n fluor

MD: 1761.71m	Inc: 3.31°
TVD: 1760.6m	Azi: 229.32°

WOB: 9-30 Kftlbs
RPM: 156-221
GPM: 851-1008
SPP: 1692-2293 psi



22/12/2008

WOB: 6-19 Kftlbs
 RPM: 170-200
 GPM: 990-1002
 SPP: 2240-2280 psi

WOB: 6-19 Kftlbs
 RPM: 193-221
 GPM: 982-1070
 SPP: 2257-2393 psi

1770
1780
1790
1800
1810
1820
1830
1840
1850
1860
1870
1880
1890
1900

CLAYSTONE: m dk gy-dk gy, slty, sli aren I.P, tr lit frag, tr carb mat, micr mic, sft-plas, mass-blky

MD: 1791.33m	Inc: 3.27°
TVD: 1790.2m	Azi: 229.40°

SANDSTONE: qtz, clr-trnsl, fros, v f-m, sbang-sbrndd, mod-wl srt, loc dolcalc cmt, occ pyr cmt, tr m nod pyr, tr m mlky qtz fit, mnr hd dol cmt f agg, v p-fr por, n fluor

MD: 1820.98m	Inc: 3.35°
TVD: 1819.8m	Azi: 229.44°

CLAYSTONE: m dk gy-dk gy, slty, sli aren I.P, tr lit frag, tr carb mat, micr mic, sft-plas, mass-blky

CLAYSTONE: m dk gy-olv blk, slty grd to Arg Sltst I.P, tr lit frag, tr carb mat, micr mic, sft-plas, mass-blky

SANDSTONE: qtz, clr-trnsl, f-m gr, sbrndd-rndd, wl srt, loc dolcalc cmt, tr nod pyr, mnr kao, tr m mlky qtz fit, disagg p-fr por, n fluor

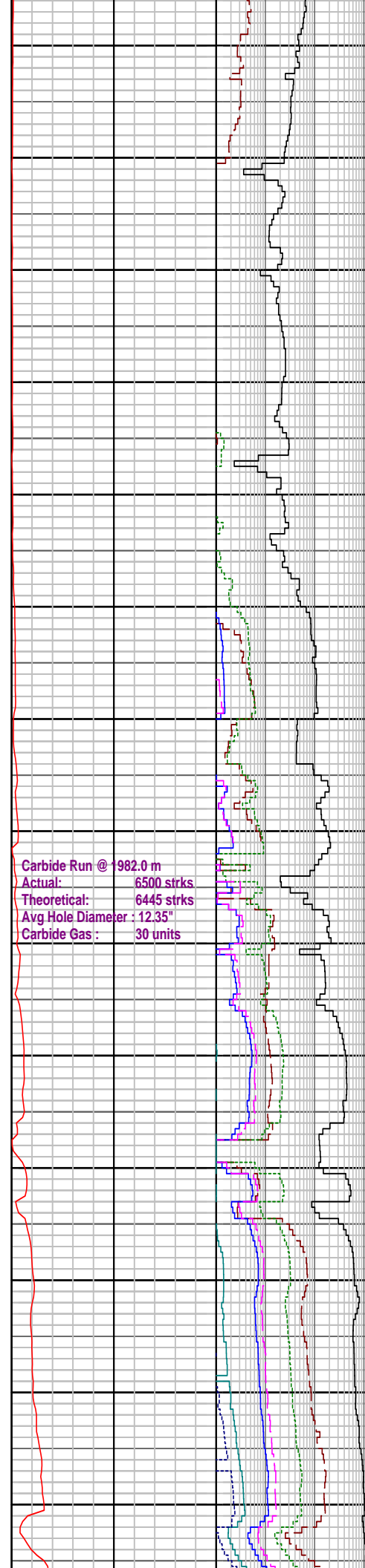
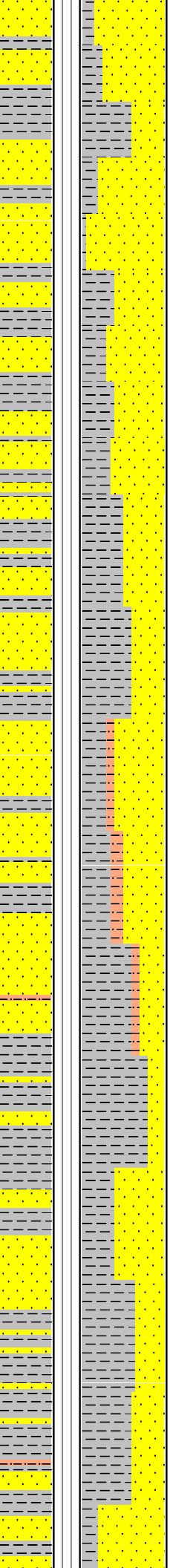
MD: 1880.19m	Inc: 3.46°
TVD: 1878.9m	Azi: 227.97°

CLAYSTONE: m dk gy-olv blk, slty grd to Arg Sltst I.P, tr lit frag, tr carb mat, micr mic, sft-plas, mass-blky

SANDSTONE: qtz, clr-trnsl, v f-f gr, com m gr, sbang-sbrndd, wl srt, loc dolcalc cmt, tr sil cmt, tr nod pyr, tr carb mat, tr Fe stn, tr f mlky qtz fit, disagg, p por, n fluor

WOB: 11-31 Kftlbs
RPM: 218-321
GPM: 1002-1261
SPP: 1618-2591 psi

1910
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010
2020
2030
2040



Carbide Run @ 1982.0 m
Actual: 6500 strks
Theoretical: 6445 strks
Avg Hole Diameter : 12.35"
Carbide Gas : 30 units

MW: 9.7 ppg FV: 52
PV: 15 Gel: 11/16/19
YP: 34 pH: 8.8

MD: 1939.47m Inc: 3.51°
TVD: 1938.0m Azi: 227.37°

CLAYSTONE: m dk gy-olv blk, slty grd to Arg Sltst, sli calc, mnr carb spk, micr mic, sft-plas, mass-blky

SANDSTONE: qtz, clr-trnsl, v f-m gr, mnr crs gr, sbang-sbrndd, wl srt, loc dolcalc cmt, tr stg sil cmt, tr nod & dissem pyr, com carb mat, tr Fe stn, tr f mlky qtz ftt, disagg, p-f

CLAYSTONE: m dk gy- brn gy, slty grd to Arg Sltst, sli calc, mnr carb spk, micr mic, sft-plas, mass-blky

SANDSTONE: qtz, clr-trnsl, v f-m, ang-sbrndd f gr, mod-wl srt, loc dolcalc/sil cmt, tr stg sil cmt, tr nod & dissem pyr, com carb mat, p-f por, n fluor

MD: 2028.16m Inc: 3.39°
TVD: 2026.6m Azi: 229.51°

CLAYSTONE: m dk gy- brn gy, slty grd to Arg Sltst, sli calc, mnr carb spk, micr mic, sft-plas, mass-blky

