

AVG BGC: 1790u

AVG BGC: 1900u

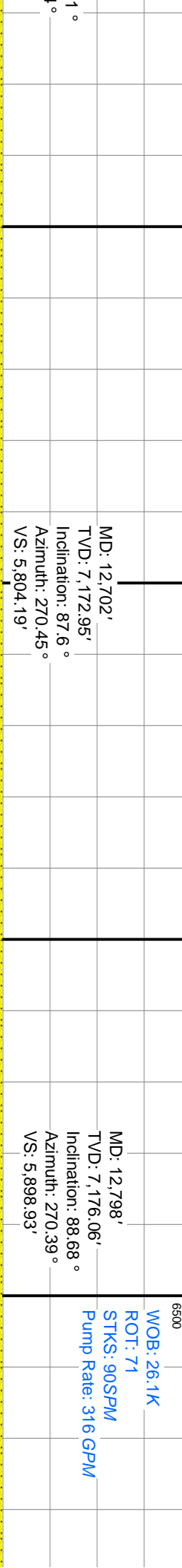
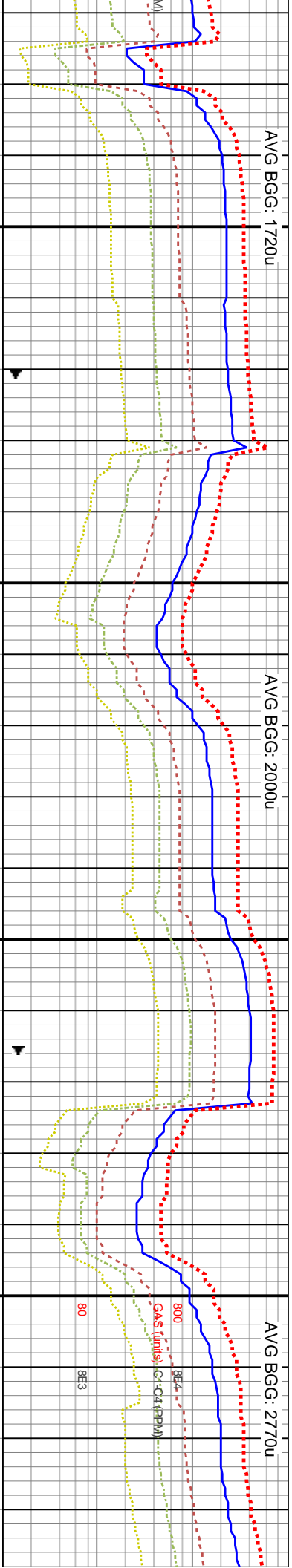
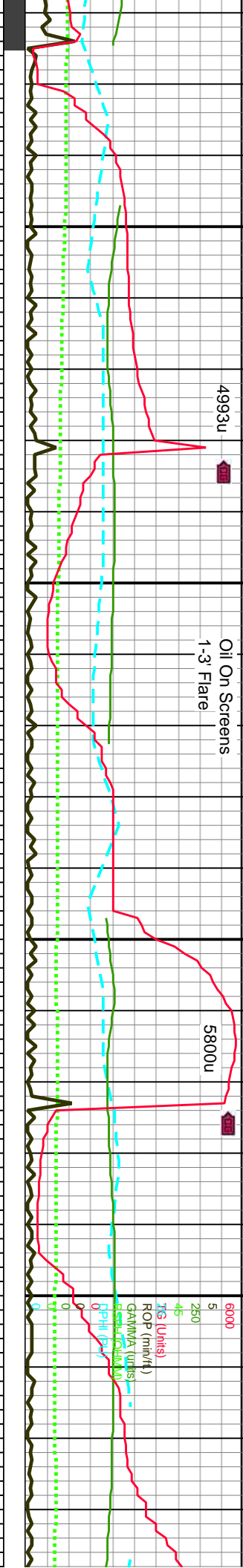
MD: 12,414'
TVD: 7,165.13'
Inclination: 89.11 °
Azimuth: 272.9 °
VS: 5,518.83'

MD: 12,510'
TVD: 7,166.24'
Inclination: 89.57 °
Azimuth: 272.67 °
VS: 5,614.16'

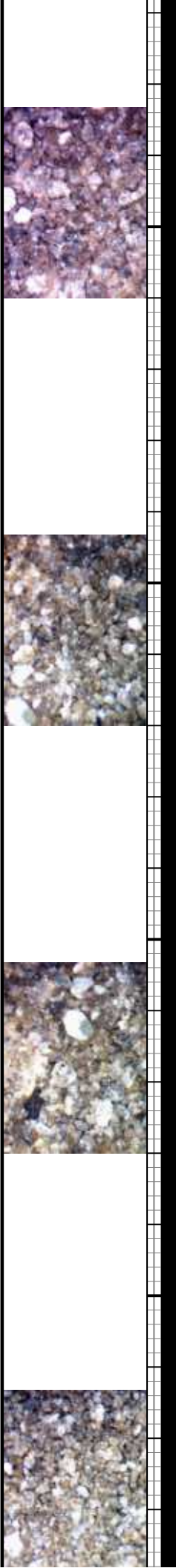
MD: 12,606'
TVD: 7,168.77'
Inclination: 87.4
Azimuth: 271.6
VS: 5,709.33'

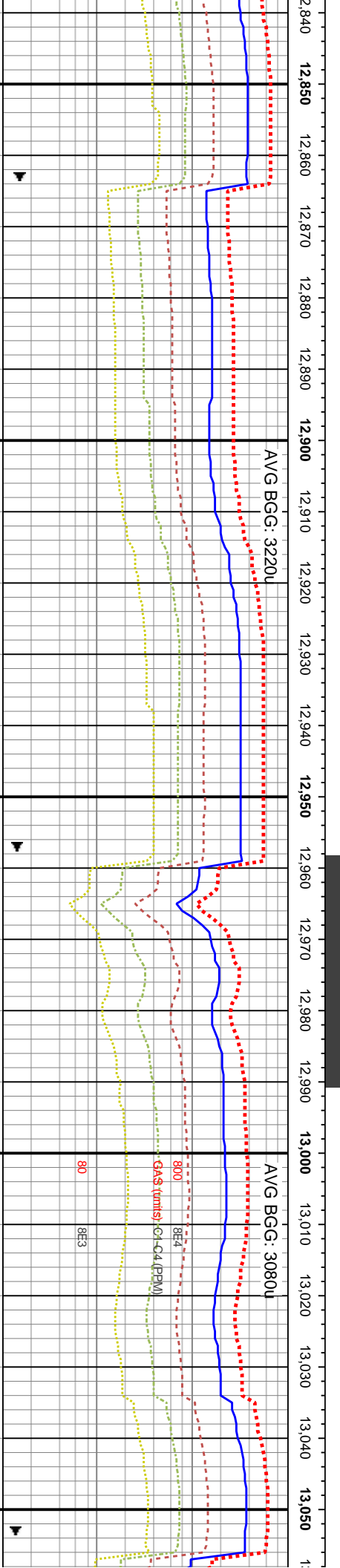
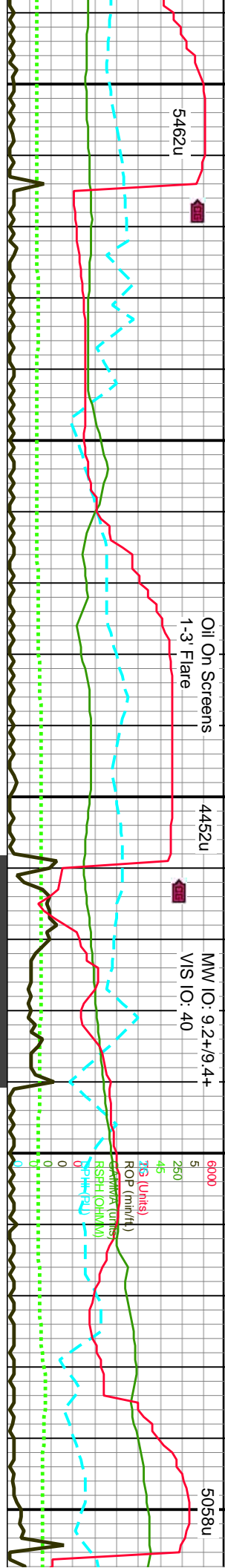
12420-12480 SS: pred med gy brn- amb, occ lt gy- lt gy brn, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, pred cmt clus, sme unconcs, tr l mod strd, cmtd clus, sily- arg thru, tr intgr por, tr pyr, tr gn cut, g- v g lt bl resdl ring, tr o blk sh	12480-12540 SS: pred med gy brn- amb, occ lt gy- lt gy brn, pred f- u f grnd, fri- frm clus, sb rnd- sb ang grs, pred cmt clus, bcm unconcs, l med sb ang trnsi qtz grs, mod strd, cmtd clus, calc cmtd, sily- arg thru, tr intgr por, tr pyr, tr glauc, g- v g lt gn cut, g- v g lt bl resdl ring, tr o stn, sme dk gy- blk sh	12540-12600 SS: pred med gy brn- amb, occ lt gy- lt gy brn, pred f- u f grnd, fri- frm clus, sb rnd- sb ang grs, pred cmt clus, bcm unconcs, l med sb ang trnsi qtz grs, mod strd, cmtd clus, calc cmtd, sily- arg thru, tr pyr, tr glauc, g- v g lt gn cut, g- v g lt bl resdl ring, tr o stn, sme dk gy- blk sh	12600-12660 occ lt gy- lt gy rnd- sb ang grs, mod strd, intgr por, tr pyr, resdl ring, tr o
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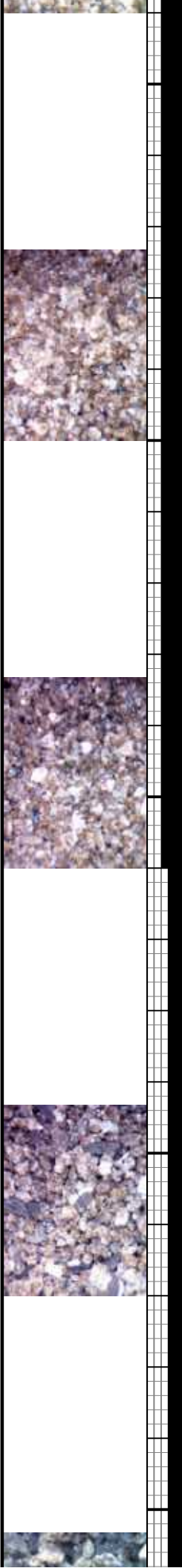
SS: pred med gy brn- amb, ip trnsi, brn, pred f- u f grnd, fir- frm clus, sb s, clus uncon, l med sb ang trnsi qtz cmtd clus, calc cmtd, silty- arg thru, tr sht, sme dk gy- blk sh	12660-12720 SS: pred med gy brn- amb, ip trnsi, occ lt gy- lt gy brn, pred f- u f grnd, fir- frm clus, sb rnd- sb ang grs, clus uncon, l med sb ang trnsi qtz grs, mod strd, cmtd clus, calc cmtd, silty- arg thru, tr intgr por, tr pyr, tr glauc, g- v g lt gn cut, g- v g lt bl resd ring, tr o str, sme dk gy- blk sh	12720-12780 SS: pred med gy brn- amb, ip trnsi, occ lt gy- lt gy brn, pred f- u f grnd, fir- frm clus, sb rnd- sb ang grs, clus uncon, l med sb ang trnsi qtz grs, mod strd, cmtd clus, calc cmtd, silty- arg thru, tr intgr por, tr pyr, tr glauc, g- v g lt gn cut, g- v g lt bl resd ring, tr o str, sme dk gy- blk sh	12780-12840 SS: pred trnsi med gy brn- amb, occ lt gy- lt gy brn, pred f- u f grnd, pred clus uncon, sme fir- frm clus, sb rnd- sb ang grs, l med sb ang trnsi qtz grs, mod strd, cmtd clus, calc cmtd, silty- arg thru, tr intgr por, tr pyr, tr glauc, g- v g lt bl resd ring, tr o str
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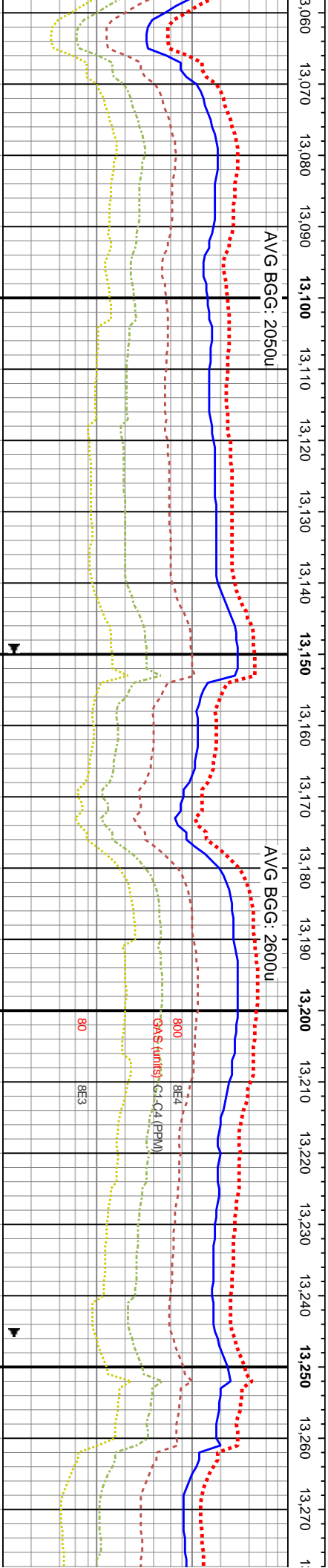
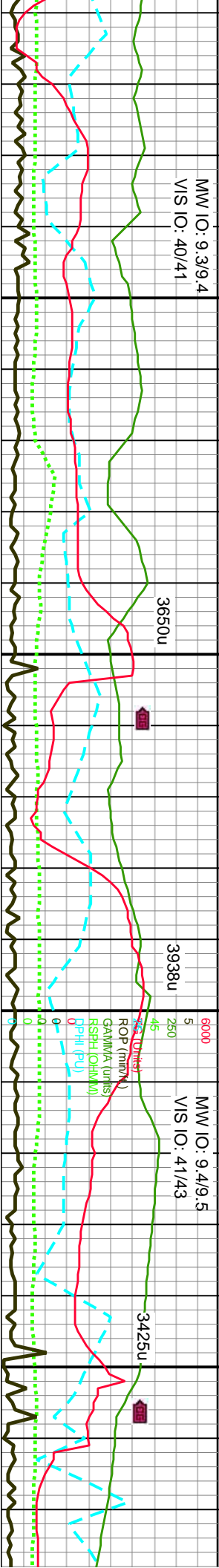




MD: 12,893' TVD: 7,177.49' Inclination: 89.6° Azimuth: 270.33° VS: 5,992.71'	VS @ 12,960'	MD: 12,989' TVD: 7,179.58' Inclination: 87.9° Azimuth: 270.96° VS: 6,087.53'
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12840-12900 SS: pred gy brn- amb, occ lt gy- lt gy brn, trnsi, pred f- u f gmd, pred clus uncon, sme fri- frm clus, sb md- sb ang grs, l med sb ang trnsi qtz grs, mod strd, cmtid clus, calc cmtid, silty- arg thru, tr intgr por, tr pyr, tr glauc, g- v g lt gn cut, g- v g lt bl resdl ring, tr o stn	12900-12960 SS: pred gy brn- amb, occ lt gy- lt gy brn, trnsi, pred f- u f gmd, pred clus uncon, sme fri- frm clus, sb md- sb ang grs, l med sb ang trnsi qtz grs, mod strd, cmtid clus, calc cmtid, silty- arg thru, tr intgr por, tr pyr, tr glauc, g- v g lt gn cut, g- v g lt bl resdl ring, tr o stn	12960-13020 SS: pred med gy brn- amb, occ lt gy- lt gy brn, sme trnsi, pred f- u f gmd, fri- frm, sb md- sb ang grs, pred cmt clus, tr uncon, tr l med sb ang trnsi qtz grs, mod strd, cmtid clus, calc cmtid, silty- arg thru, tr intgr por, sl pyr, tr glauc, g- v g lt gn cut, g- v g lt bl resdl ring, tr o stn, sme dk gy- blk sh	13020-13080 60% SS 40% SH: pred med gy brn- amb, occ lt gy- lt gy brn, sme trnsi, u f gmd, fri- frm, sb md- sb ang grs, pred cmt clus, tr l med sb ang trnsi qtz grs, mod strd, cmtid clus, calc cmtid, silty- arg thru, tr intgr por, tr pyr, tr glauc, g- v g lt gn cut, g- v g lt bl resdl ring, tr o stn, sme dk gy- blk sh
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MD: 13,085'
TVD: 7,182.32'
Inclination: 88.83°
Azimuth: 271.15°
VS: 6,182.44'

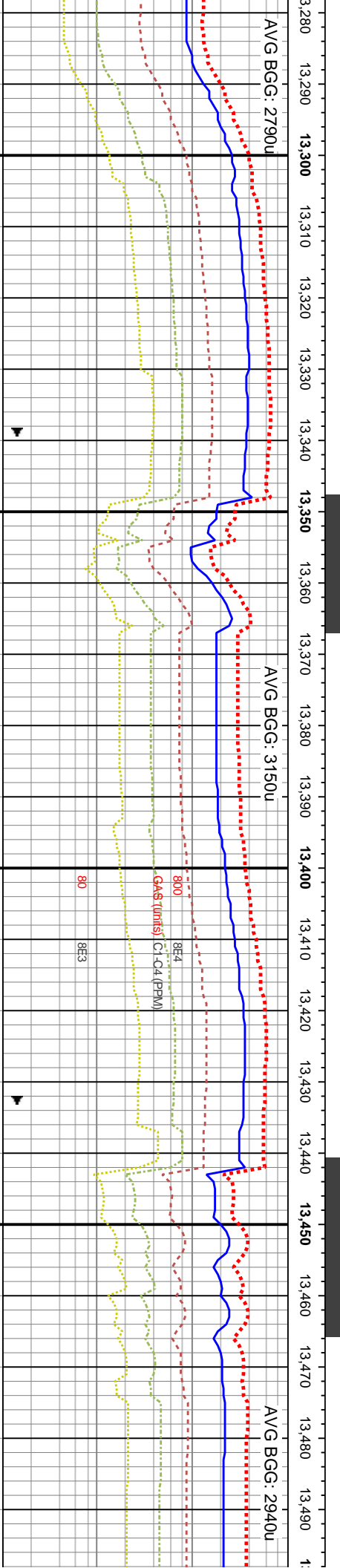
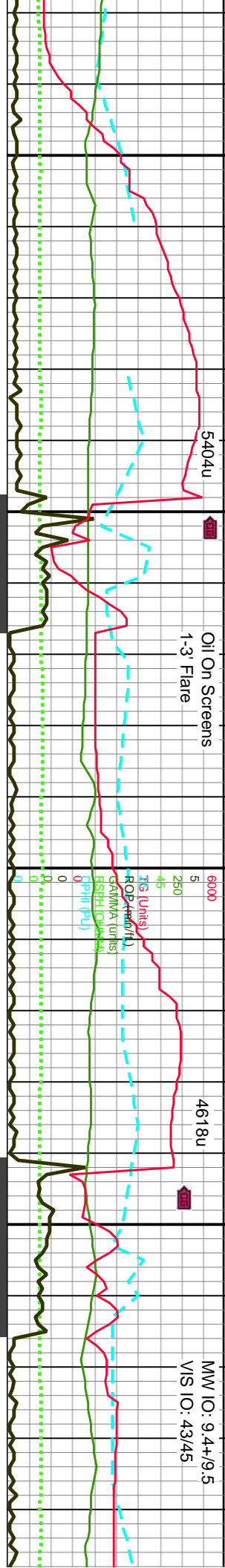
MD: 13,181'
TVD: 7,183.56'
Inclination: 89.69°
Azimuth: 272.46°
VS: 6,277.56'

WOB: 27.5K
ROT: 73
STKS: 89SPM
Pump Rate: 312 GPM

MD: 13,272'
TVD: 7,182
Inclination:
Azimuth: 2
VS: 6,372.8

13080-13140 60% SS 40% SH: pred med gy brn-amb, occ lt gy- lt gy brn, sme tnsi, v dk brn- blk, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, pred cmt clus, tr uncons, tr l med sb ang tnsi qtz grs, mod srtid, cmtid clus, calc cmtid, tr tab cal, silty- arg thru, tr ingr por, sl pyrc- pyr nod, tr glauc, fr bl wh- gn yel cut, g yel resdl ring, abnt dk gy- blk sh	13140-13200 60% SS 40% SH: pred med gy brn-amb, occ lt gy- lt gy brn, sme tnsi, v dk brn- blk, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, pred cmt clus, tr uncons, tr l med sb ang tnsi qtz grs, mod srtid, cmtid clus, calc cmtid, tr tab cal, silty- arg thru, tr ingr por, sl pyrc- pyr nod, tr glauc, fr bl wh- gn yel cut, g yel resdl ring, abnt dk gy- blk sh	13200-13260 70% SS 30% SH: pred med gy brn-amb, occ lt gy brn, tnsi, sme blk, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, pred cmt clus, v tr uncons, tr l med sb ang tnsi qtz grs, mod srtid, cmtid clus, calc cmtid, tr tab cal, silty- arg thru, tr ingr por, sl pyrc- pyr nod, tr glauc, fr bl wh- gn yel cut, g yel resdl ring, abnt dk gy- blk sh	13260-13320 S tnsi, sme blk, f ang grs, pred c tnsi qtz grs, m arg thru, tr intg gn yel cut, g ye
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MD: 13.373'
TVD: 7,180.42'
Inclination: 91.42°
Azimuth: 271.07°
VS: 6,467.91'

WOB: 29.4K
ROT: 70
STKS: 56SPM
Pump Rate: 304 GPM

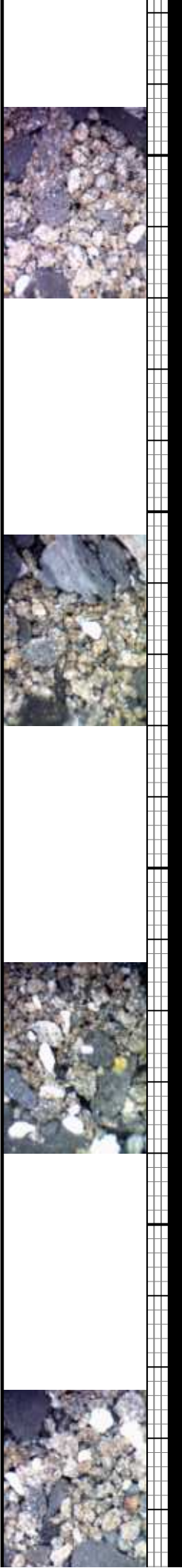
MD: 13.469'
TVD: 7,179.28'
Inclination: 89.94°
Azimuth: 270.09°
VS: 6,562.74'

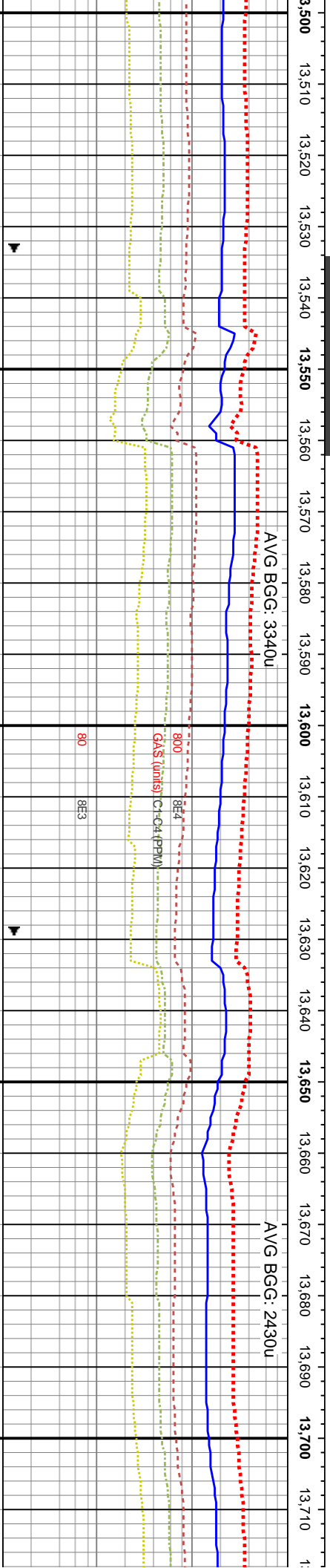
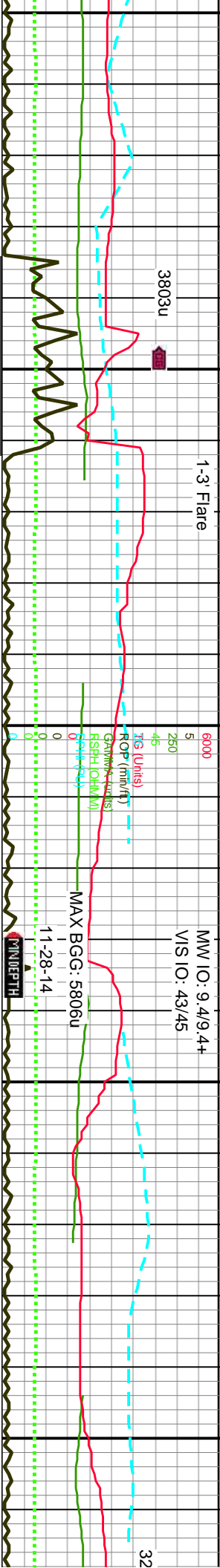
SS: pred med-lt gy brn, sme amb, pred f- u f gmd, fri-frm, sb rmd-sb ant clus, v tr unconcs, tr l med sb ang sb ang trnsd qtz grs, mod strd, cmtd clus, calc cmtd, sily-arg thru, tr intgr por, tr dissim-nod pyr, tr glauc, g lt gn yel resdl ring, abnt dk gy-blk sh

13320-13380 SS: pred med gy brn, sme amb, sme lt gy- gy brn trnsd, sme blk, pred f- u f gmd, fri-frm, sb rmd-sb ang grs, pred cnt clus, v tr unconcs, tr l med sb ang trnsd qtz grs, mod strd, cmtd clus, calc cmtd, sily-arg thru, tr intgr por, tr dissim-nod pyr, tr glauc, g lt gn yel cut, g yel resdl ring, abnt dk gy-blk sh

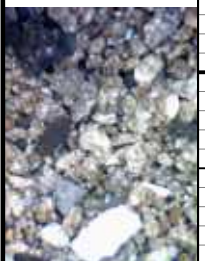
13380-13440 SS: pred med gy br- amb, sme lt gy- gy brn, trnsd, sme blk, pred f- u f gmd, fri-frm, sb rmd-sb ang grs, pred cnt clus, v tr unconcs, tr l med sb ang trnsd qtz grs, mod strd, cmtd clus, calc cmtd, sily-arg thru, tr intgr por, tr dissim-nod pyr, tr glauc, g lt gn yel cut, g yel resdl ring, abnt dk gy-blk sh

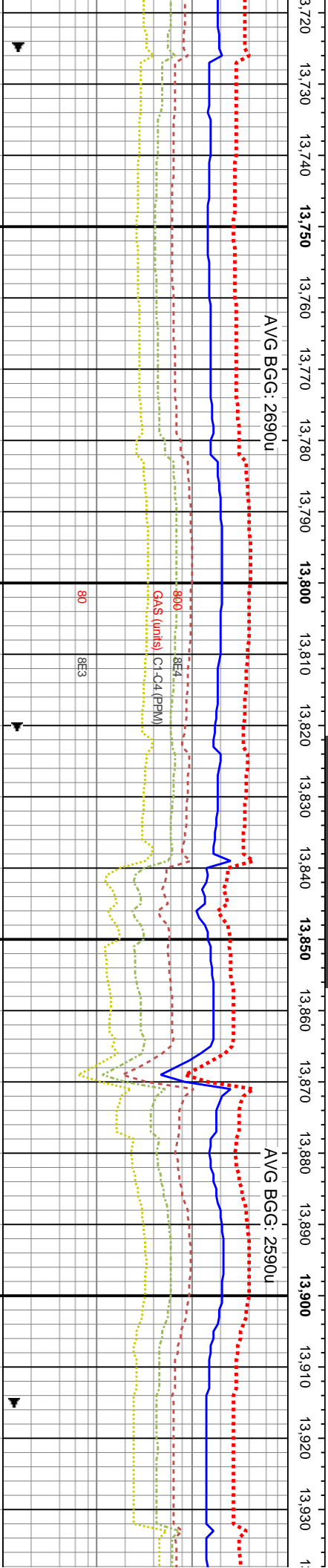
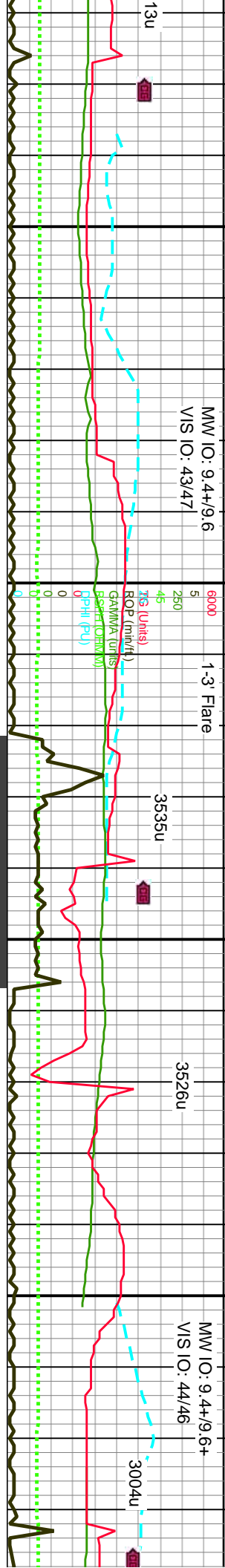
13440-13500 SS: pred med gy br- amb, sme lt gy- gy brn, trnsd, sme blk, pred f- u f gmd, fri-frm, sb rmd-sb ang grs, pred cnt clus, v tr unconcs, tr l med sb ang trnsd qtz grs, mod strd, cmtd clus, calc cmtd, sily-arg thru, tr intgr por, tr dissim-nod pyr, tr glauc, g lt gn yel cut, g yel resdl ring, tr dk gy-blk sh



[illegible]

TVD (ft)	
13500-13560 SS: pred med gy brn-amb, sme gy brn, ip tmsl, pred f- u f gnd, fir- frm, sb rnd- sb ang grs, cnt clus, sme unconcs, tr l med sb rnd tmsl qtz grs, mod strd, cmtid clus, calc cmtid, sily- arg thru, tr intgr por, tr pyr, tr glauc, g lt gn yel cut, g yel resdl ring, tr dk gy- blk sh	13560-13620 SS: pred med gy brn-amb, sme gy brn, ip tmsl, pred f- u f gnd, fir- frm, sb rnd- sb ang grs, cnt clus, sme unconcs, tr l med sb rnd tmsl qtz grs, mod strd, cmtid clus, calc cmtid, sily- arg thru, tr intgr por, tr pyr, tr glauc, g lt gn yel cut, g yel resdl ring, tr dk gy- blk sh
8000	
13620-13680 SS: pred lt- med gy brn, amb, sme lt gy, ip tmsl, pred f- u f gnd, fir- frm, sb rnd- sb ang grs, cnt clus, sme unconcs, sme l med sb rnd tmsl qtz grs, mod strd, cmtid clus, calc cmtid, sily- arg thru, tr intgr por, tr pyr, tr glauc, g lt gn yel cut, g yel resdl ring, tr dk gy- blk sh	13680-13740 SS: pred lt- med gy t brn, amb, sme lt gy, ip tmsl, pred f- u f gnd, fir- frm, sb rnd- sb ang grs, cnt clus, sme unconcs, sme l med sb rnd tmsl qtz grs, mod strd, cmtid clus, calc cmtid, sily- arg thru, tr intgr por, tr pyr, tr glauc, g lt gn yel cut, g yel resdl ring, tr dk gy- blk sh





WOB: 28.4K
ROT: .70
STKS: 86SPM
Pump Rate: 304 GPM

MD: 13,756'
TVD: 7,180.2'
Inclination: 91.05 °
Azimuth: 270.53 °
VS: 6,846.11'

MD: 13,852'
TVD: 7,180.46'
Inclination: 88.64 °
Azimuth: 270.15 °
VS: 6,940.87'

TVD (ft)

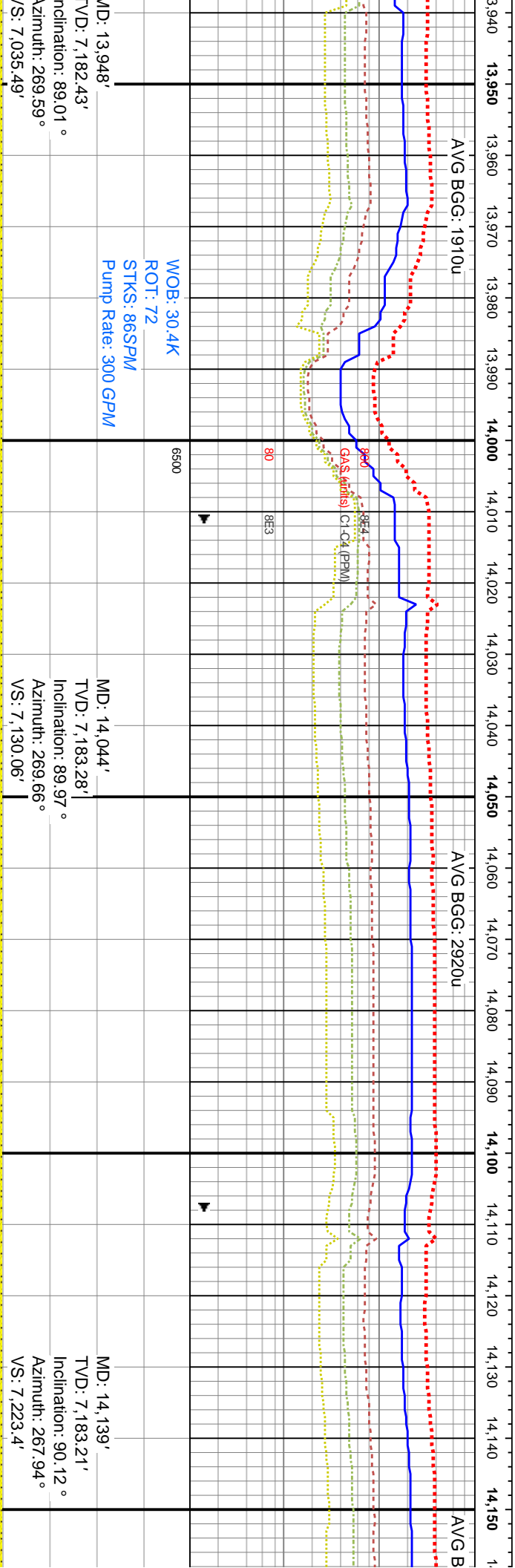
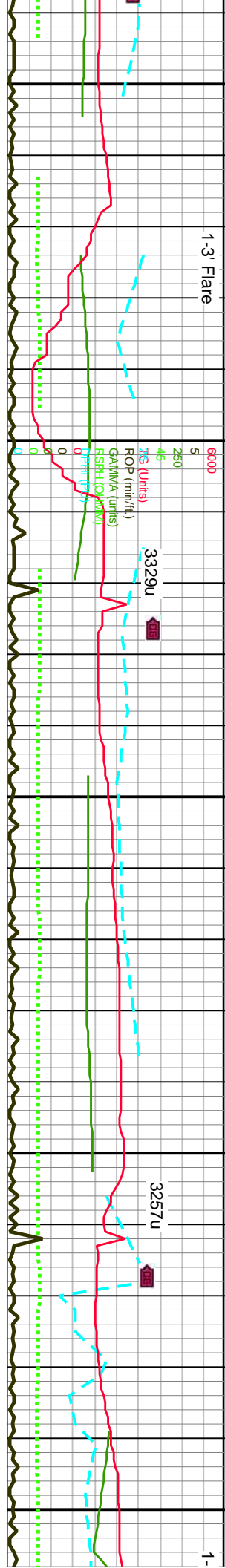
13740-13800 SS: pred lt- med gy brn, amb, sme lt gy, ip trnsl, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, cnt clus, sme unconcs, sme l med sb rnd trnsl qtz grs, mod strd, calc cmtd, slty- arg thru, tr intgr por, tr pyr, tr glauc, g lt gn yel cut, g yel resdl ring, tr dk gy- blk sh, tr ls

13800-13860 SS: pred lt- med gy brn- amb, sme lt gy, ip trnsl, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, pred unconcs grns, sme cnt clus, sme l med sb rnd trnsl qtz grs, mod strd, calc cmtd, slty- arg thru, tr intgr por, tr pyr, tr glauc, tr tab cal, g- v g lt gn yel cut, g yel resdl ring, rr blk sh

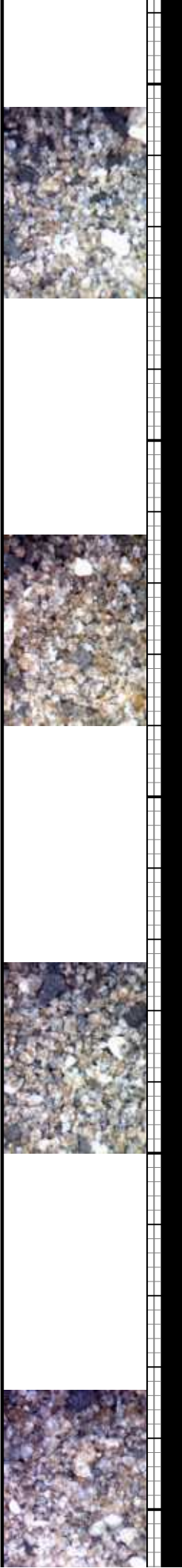
13860-13920 SS: pred lt- med gy brn- amb, sme lt gy, ip trnsl, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, pred unconcs grns, sme cnt clus, sme l med sb rnd trnsl qtz grs, mod strd, calc cmtd, slty- arg thru, tr intgr por, tr pyr, tr glauc, tr tab cal, g- v g lt gn yel cut, g yel resdl ring, rr blk sh

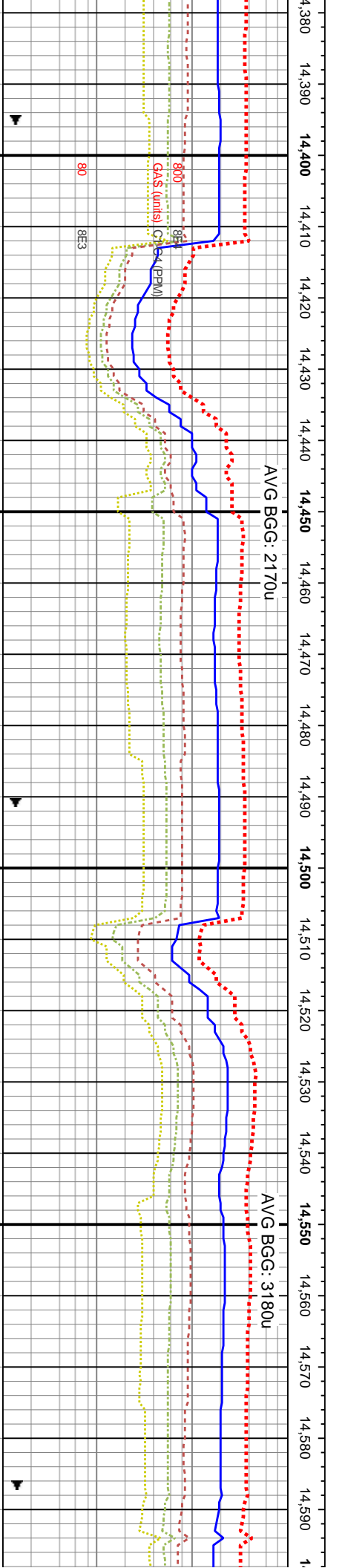
13920-13980 SS: pred lt- med gy brn, amb, sme lt gy, ip trnsl, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, pred unconcs grns, sme cnt clus, sme l med sb rnd trnsl qtz grs, mod strd, calc cmtd, slty- arg thru, tr intgr por, tr pyr, tr glauc, tr tab cal, g- v g lt gn yel cut, g yel resdl ring, rr blk sh







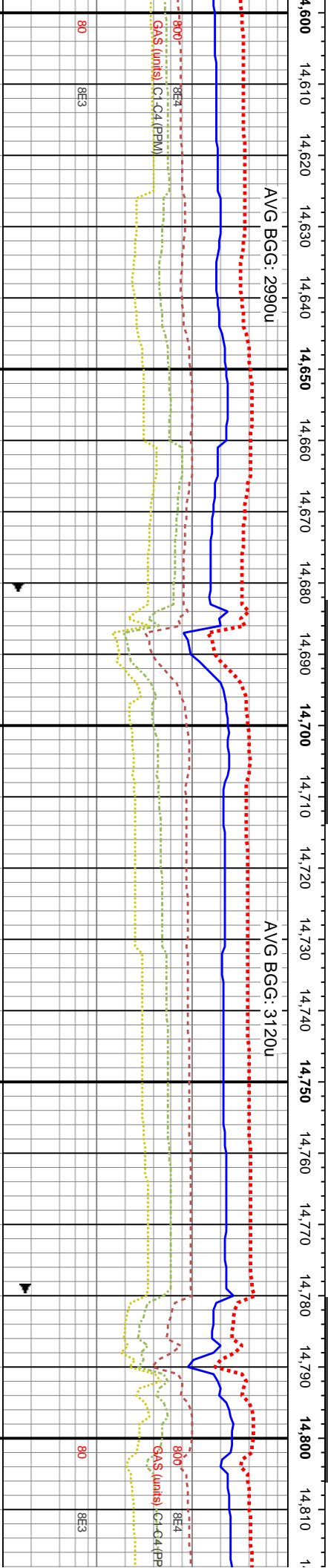
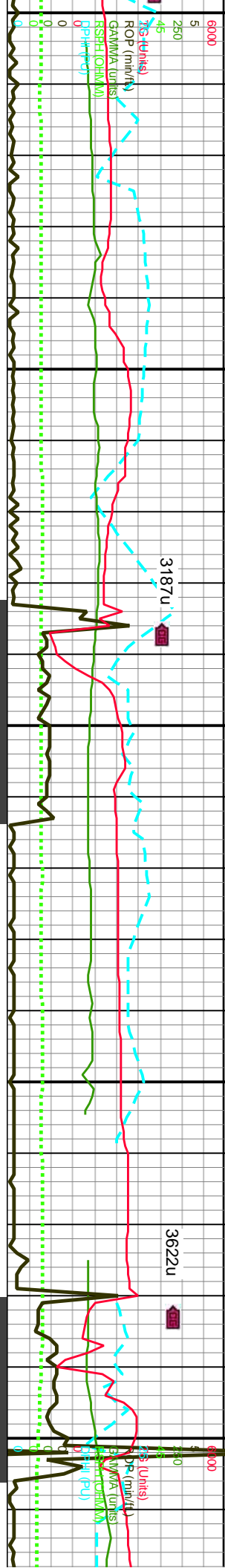


3,948'	7,182.43'	89.01 °	269.59 °	7,035.49'	30.4K	.72	86SPM	300 GPM
MD: 13,948'	VD: 7,182.43'	Inclination: 89.01 °	Azimuth: 269.59 °	VS: 7,035.49'	WOB: 30.4K	ROT: .72	STKS: 86SPM	Pump Rate: 300 GPM
13980-14040 SS: pred med gy brn-amb, sme lt gy- lt gy brn, ip trns, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, pred uncon grms, sme cnt clus, sme l med sb rnd trns qtz grs, mod strd, calc cntd, sily- arg thru, tr intgr por, tr pyr, tr glauc, tr tab cal, g lt gn yel cut, g- v g yel resdl ring, rr blk sh	14040-14100 SS: pred med gy brn amb, sme lt gy, ip trns, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, uncons grms, cnt clus, sme l med sb ang trns qtz grs, mod strd, calc cntd, sily- arg thru, tr intgr por, tr pyr, tr glauc, g lt gn yel cut, g- v g yel resdl ring	14100-14160 SS: pred med- lt gy brn-amb, sme lt gy, ip trns, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, uncon grms, cnt clus, sme l med sb ang trns qtz grs, mod strd, calc cntd, sily- arg thru, tr intgr por, tr pyr, tr glauc, g lt gn yel cut, g- v g yel resdl ring						







MD: 14,618'
TVD: 7,189.75'
Inclination: 90.8°
Azimuth: 267.89°
VS: 7,692.91'

MD: 14,714'
TVD: 7,189.52'
Inclination: 89.48°
Azimuth: 267.72°
VS: 7,786.91'

WOB: 51K
ROT: 6-33
STKS: 89SPM
MD: 14,810' 311
TVD: 7,191.64'
Inclination: 87.99°
Azimuth: 268.57°
VS: 7,881'

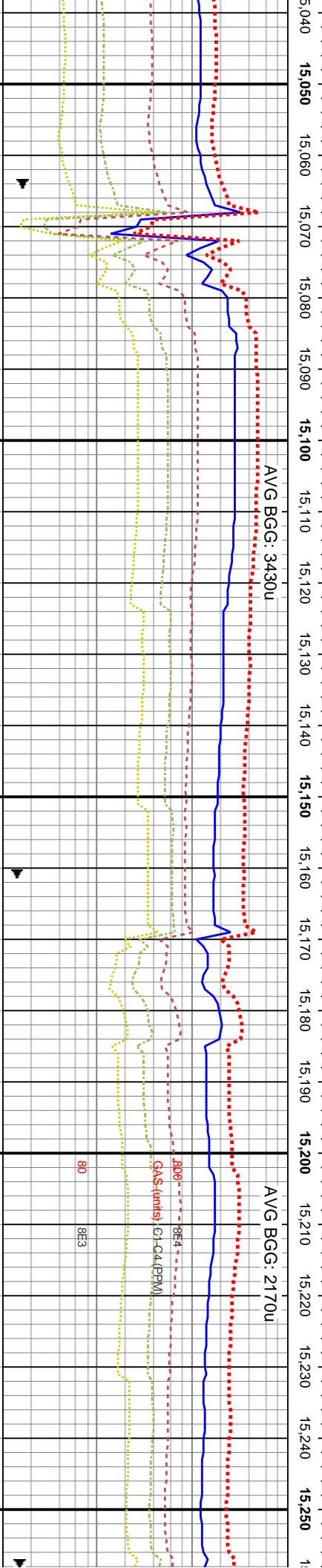
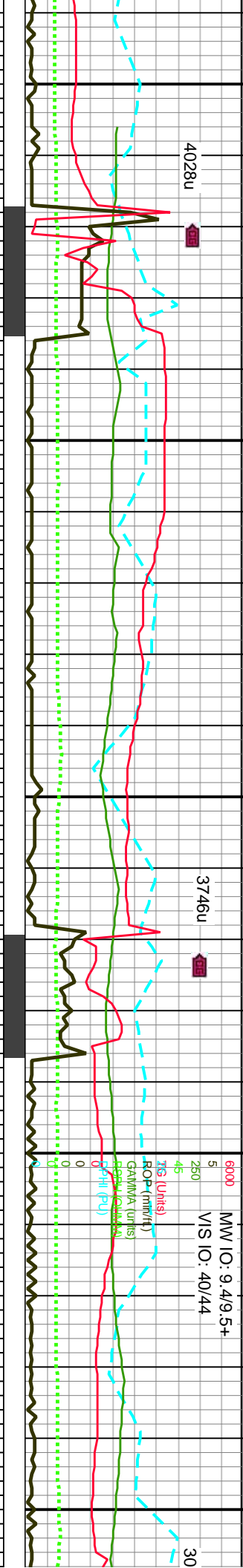
SS: pred med- lt gy brn, tr lt gy brn-
pred f- u f grnd, fri- frm, sb md- sb
cnt clus, tr uncongs grns, tr l med sb
grs, mod strd, calc cntd, sily- arg thru,
pyr, tr glauc, p- fr lt gn yel cut, p- fr yel
mt blk sh

14640-14700 SS: pred med- lt gy brn, tr lt gy brn-
amb, ip tmsl, pred f- u f grnd, fri- frm, sb md- sb
ang grs, pred cnt clus, tr uncongs grns, tr l med sb
ang tmsl qtz grs, mod strd, calc cntd, sily- arg
thru, tr intgr por, tr pyr, tr glauc, p- fr lt gn yel cut, p-
fr yel resd ring, tr amt blk sh

14700-14760 SS: pred med- lt gy brn, tr lt gy brn-
amb, ip tmsl, pred f- u f grnd, fri- frm, sb md- sb ang
grs, pred cnt clus, tr uncongs grns, tr l med sb ang
tmsl qtz grs, mod strd, calc cntd, sily- arg thru, tr
intgr por, tr pyr, tr glauc, p- fr lt gn yel cut, p- fr yel
resd ring, tr amt blk sh

14760-14820 90% SS 10% SH: pred med- lt gy brn, tr
gy brn- amb, ip tmsl, pred f- u f grnd, fri- frm, sb md- sb
ang grs, pred cnt clus, tr uncongs grns, tr l med sb ang
tmsl qtz grs, mod strd, calc cntd, sily- arg thru, tr intgr
por, tr pyr, tr glauc, p- fr lt gn yel cut, g yel resd ring, tr
amt blk sh



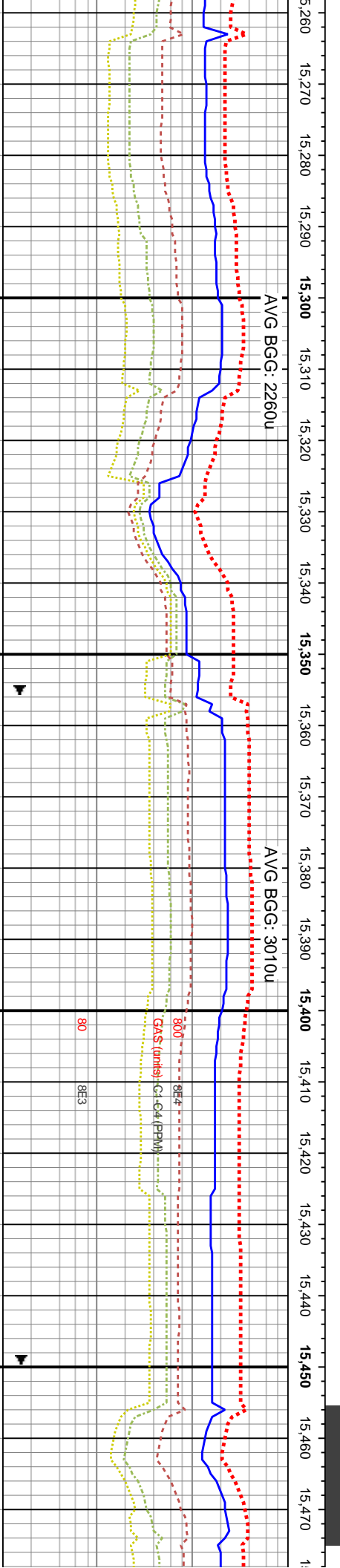
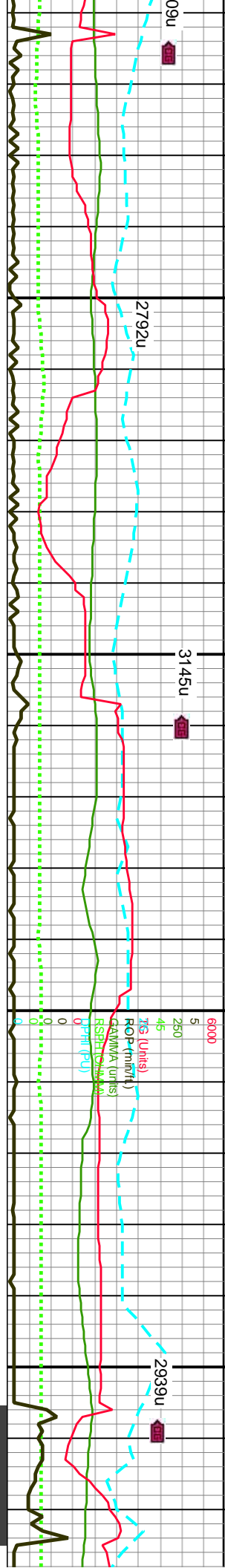


MD: 15,098'
TVD: 7,189.9'
Inclination: 90.8°
Azimuth: 271.32°
VS: 8,165.21'

MD: 15,194'
TVD: 7,189.69'
Inclination: 89.45°
Azimuth: 271.45°
VS: 8,260.24'

15060-15120 SS: pred med- lt gy brn, tr lt gy brn- amb, ip trnsl, pred f- u f grnd, fir- frm, sb rnd- sb ang grs, pred cnt clus, sme uncongs grns, tr l med sb ang trnsl qtz grs, mod strt, calc cntd, sily- arg thru, tr intgr por, tr pyr, tr glauc, p- fr lt gn yel cut, p- fr yel resdl ring, occ blk sh	15120-15180 SS: pred med- lt gy brn, occ trnsl, pred f- u f grnd, fir- frm, sb rnd- sb ang grs, pred cnt clus, occ uncongs grns, tr l med sb ang trnsl qtz grs, mod strt, calc cntd, sily- arg thru, tr intgr por, tr pyr, tr glauc, p- fr lt gn yel cut, p- fr yel resdl ring, occ blk sh	15180-15240 SS: pred med- lt gy brn, occ trnsl, pred f- u f grnd, fir- frm, sb rnd- sb ang grs, pred cnt clus, occ uncongs grns, tr l med sb ang trnsl qtz grs, mod strt, calc cntd, sily- arg thru, tr intgr por, tr pyr, tr glauc, p- fr lt gn yel cut, p- fr yel resdl ring, occ blk sh	15240-15300 SS: pred med- lt gy brn, occ trnsl, pred f- u f grnd, fir- frm, sb rnd- sb ang grs, pred cnt clus, occ uncongs grns, tr l med sb ang trnsl qtz grs, mod strt, calc cntd, sily- arg thru, tr intgr por, tr pyr, tr glauc, p- fr lt gn yel cut, p- fr yel resdl ring, occ blk sh
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MD: 15,290'
TVD: 7,189.92'
Inclination: 90.28 °
Azimuth: 271.26 °
VS: 8,355.26'

WOB: 24K
ROT: 71
STKS: 86SPM
FMD: 15,385.703 GPM
TVD: 7,188.77'
Inclination: 91.11 °
Azimuth: 271.35 °
VS: 8,449.28'

MD: 15,
TVD: 7,
Inclination:
Azimuth
VS: 8,54

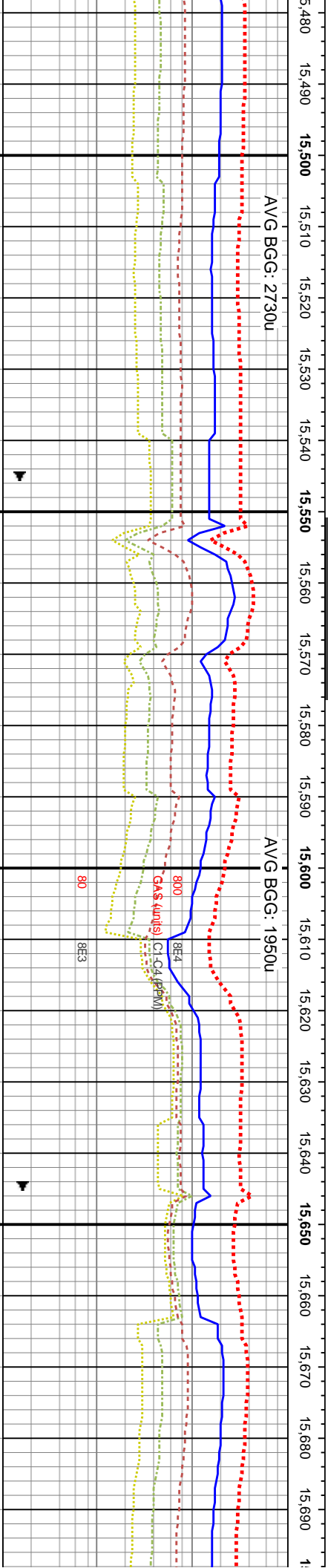
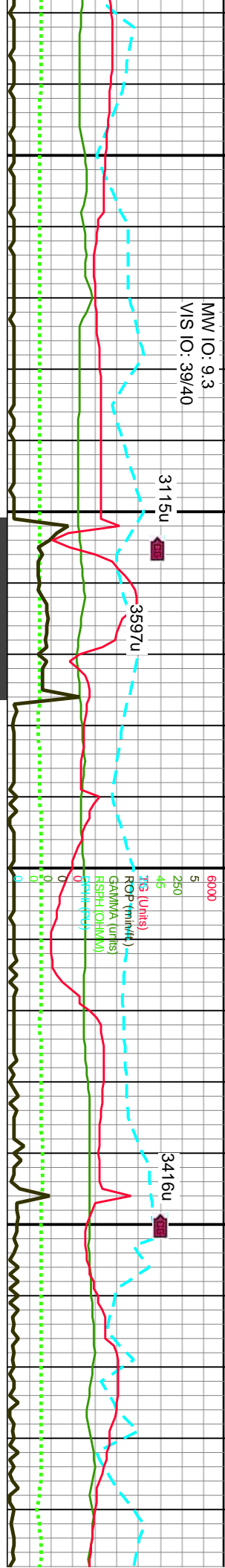
00 SS: pred med- lt gy brn, occ tmsl, grnd, fri- frm, sb rnd- sb ang grs, pred uncons grms, tr l med sb ang tmsl d strd, calc cmtd, sily- arg thru, tr pyr, tr glauc, p- fr lt gn yel cut, p- fr yel occ blk sh

15300-15360 SS: pred med- lt gy brn, occ tmsl, pred f- u f grnd, fri- frm, sb md- sb ang grs, pred cnt clus, occ uncons grms, tr l med sb ang tmsl qtz grs, mod strd, calc cmtd, sily- arg thru, tr intgr por, tr pyr, tr glauc, p- fr lt gn yel cut, p- fr yel resdl ring, occ blk sh

15360-15420 SS: pred med- lt gy brn, occ tmsl, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, pred cnt clus, occ uncons grms, tr l med sb ang tmsl qtz grs, mod strd, calc cmtd, sily- arg thru, tr intgr por, tr pyr, tr glauc, p- fr lt gn yel cut, p- fr yel resdl ring, occ blk sh

15420-15480 SS: pred med- lt gy brn, occ tmsl- lt gy, pred f- u f grnd, fri- frm, sb md- sb ang grs, pred cnt clus, tr uncons grms, tr l med sb ang tmsl qtz grs, mod strd, calc cmtd, sily- arg thru, tr intgr por, tr pyr, t glauc, p- fr lt gn yel cut, p- fr yel resdl ring, occ blk sh

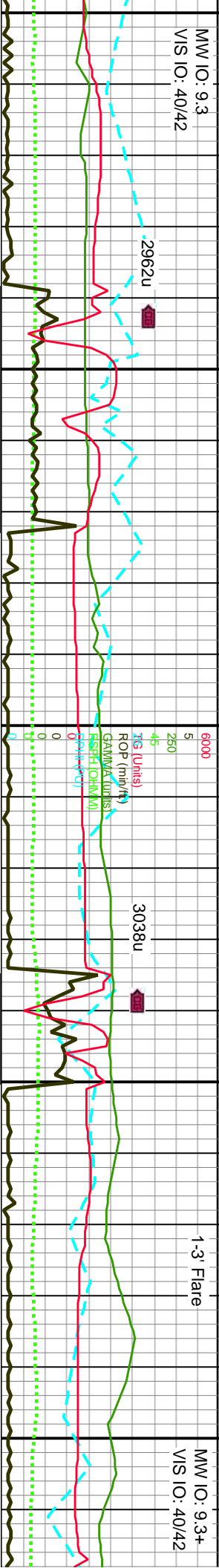




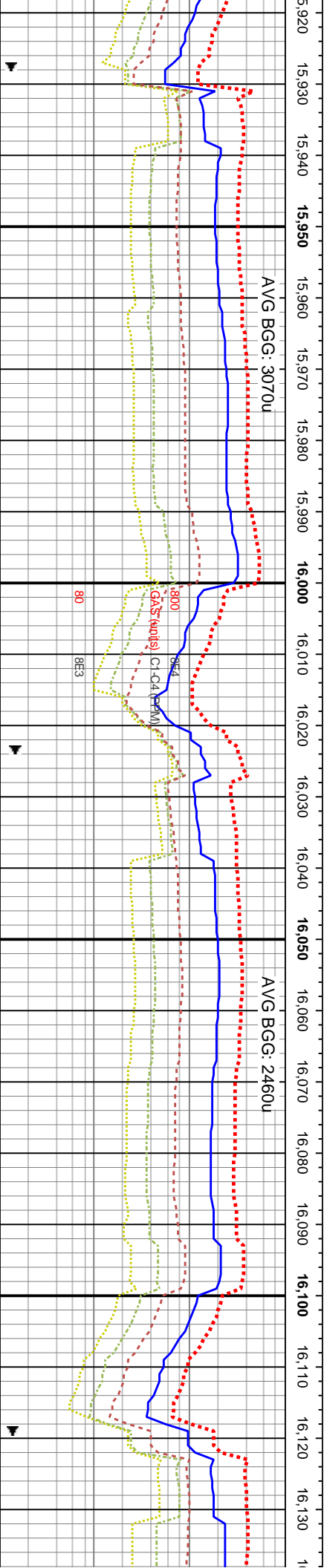
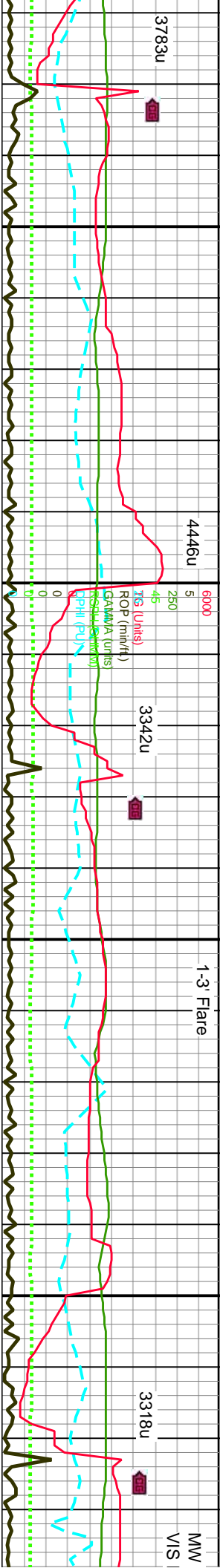
15480'-15540'	MD: 15,577' TVD: 7,187.71' Inclination: 89.07 ° Azimuth: 270.98 ° VS: 8,639.01'	WOB: 29K ROT: 70 STKS: 87SPM Pump Rate: 306 GPM	MD: 15,672' TVD: 7,188.38' Inclination: 90.12 ° Azimuth: 270.82 ° VS: 8,732.93'
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15480-15540 SS: pred med- lt gy brn, occ tmsl- lt gy, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, pred cmt clus, tr uncongs grns, tr l med sb ang tmsl qtz grs, mod strd, calc cmtld, silty- arg thru, tr intgr por, tr pyr, tr glauc, p- fr lt gn yel cut, p- fr yel resdl ring, occ blk sh	15540-15600 SS: pred med- lt gy brn, occ tmsl- lt gy, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, pred cmt clus, tr uncongs grns, tr l med sb ang tmsl qtz grs, mod strd, calc cmtld, silty- arg thru, tr intgr por, tr pyr, tr glauc, p- fr lt gn yel cut, p- fr yel resdl ring, occ blk sh	15600-15660 SS: pred med- lt gy brn, occ tmsl- lt gy, pred f- u f grnd, fri- frm, sb md- sb ang grs, pred cmt clus, tr uncongs grns, tr l med sb ang tmsl qtz grs, mod strd, calc cmtld, silty- arg thru, tr intgr por, tr pyr, tr glauc, p- fr lt gn yel cut, p- fr yel resdl ring, occ blk sh	15660-15720 SS: pred med- lt gy, pred f- u f grnd, fri- frm, sb md- sb ang grs, pred cmt clus, tr uncongs grns, tr l med sb ang tmsl qtz grs, mod strd, calc cmtld, silty- arg thru, tr intgr por, tr pyr, tr glauc, p- fr lt gn yel cut, p- fr yel resdl ring, occ blk sh
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15,700	15,710	15,720	15,730	15,740	15,750	15,760	15,770	15,780	15,790	15,800	15,810	15,820	15,830	15,840	15,850	15,860	15,870	15,880	15,890	15,900	15,910	1:					
AVG BGC: 2660u					AVG BGC: 2180u					AVG BGC: 2230u																	



WOB: 21.3K
ROT: 74
STKS: 86SPM
Pump Rate: 303 GPM

MD: 15,959'
TVD: 7,196.76'
Inclination: 88.03 °
Azimuth: 269.54 °
VS: 9.016.13'

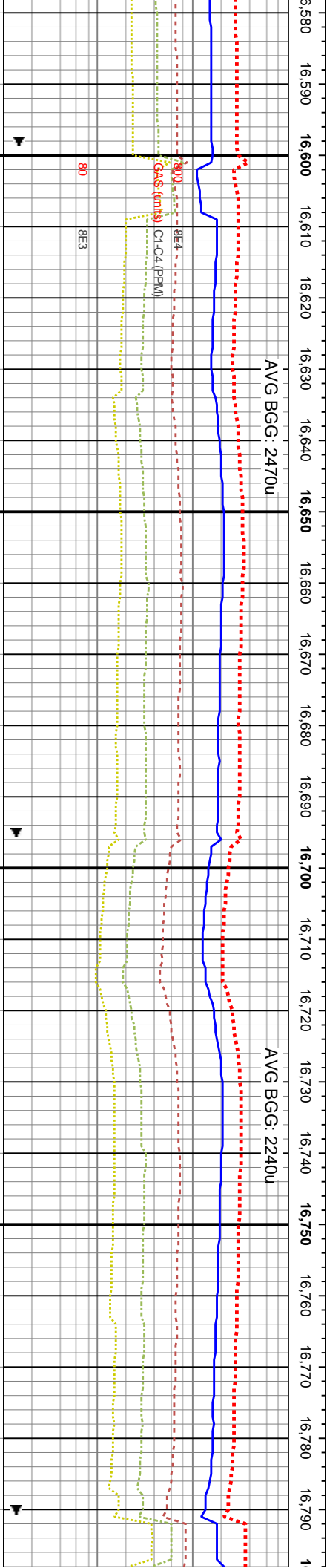
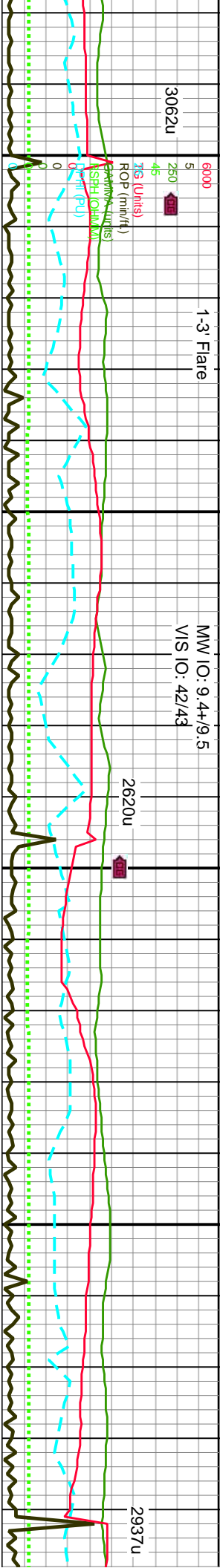
MD: 16,055'
TVD: 7,199.32'
Inclination: 88.92 °
Azimuth: 269.23 °
VS: 9.110.6'

SS: pred lt- med gy brn, occ lt gy- grnd, fir- frm, sb rnd- sb ang grs, / tr uncongs grns, tr l med sb ang trnsi calc cmtd, silty- arg thru, tr intgr glauc, p- fr lt gn yel cut, p- fr yel resdl	15960-16020 SS: pred med gy brn, occ lt gy- trnsi, pred f- u f grnd, fir- frm, sb rnd- sb ang grs, pred cmt clus, tr uncongs grns, tr l med sb ang trnsi qtz grs, mod srtf, calc cmtd, silty- arg thru, tr intgr por, sl pyrc, tr glauc, fr lt gn yel cut, p- fr yel resdl ring, occ blk sh	16020-16080 SS: pred lt- med gy brn, occ lt gy- trnsi, pred f- u f grnd, fir- frm, sb rnd- sb ang grs, pred cmt clus, tr uncongs grns, tr l med sb ang trnsi qtz grs, mod srtf, calc cmtd, silty- arg thru, tr intgr por, sl pyrc, tr glauc, fr lt gn yel cut, p- fr yel resdl ring, tr blk sh	16080-16140 SS: pred lt- med gy brn, occ lt gy- trnsi, pred f- u f grnd, fir- frm, sb rnd- sb ang grs, pred cmt clus, tr uncongs grns, tr l med sb ang trnsi qtz grs, mod srtf, calc cmtd, silty- arg thru, tr intgr por, sl pyrc, tr glauc, fr lt gn yel cut, p- fr yel resdl ring, tr blk sh
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TVD (ft)

8000

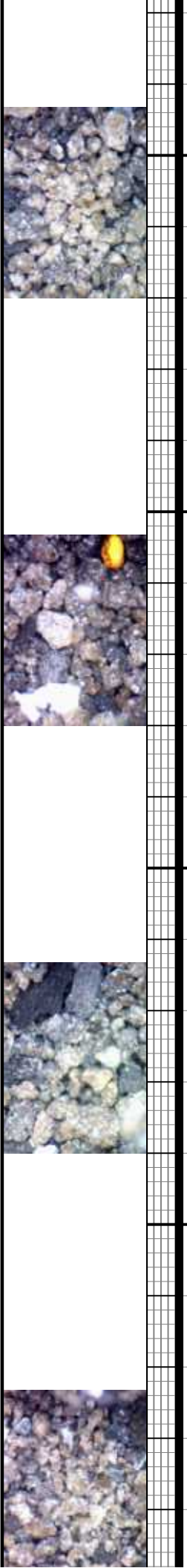


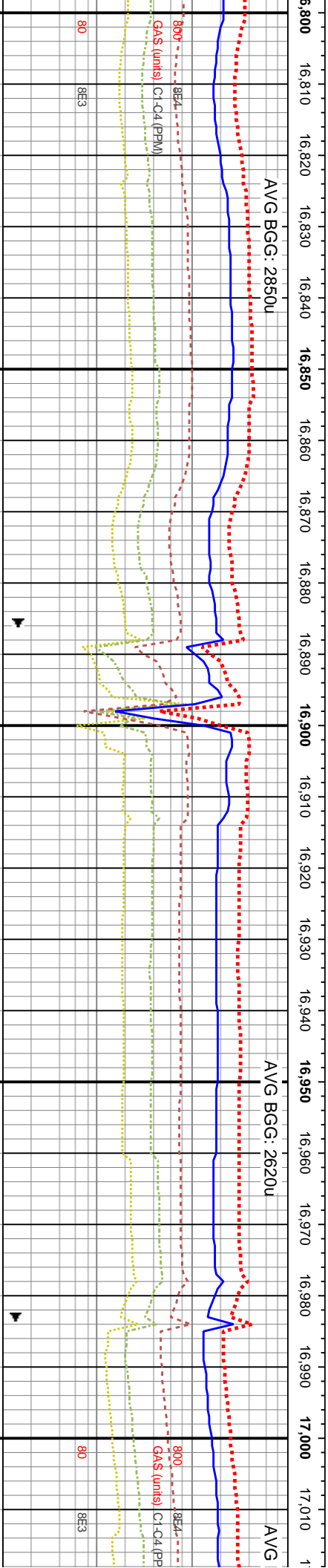
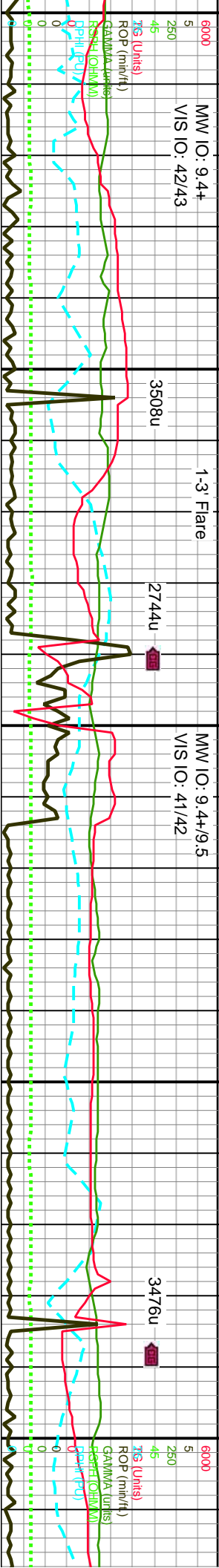


B: 8.3K T: 73 SS: 87SPM Pump Rate: 304 GPM	6500	MD: 16,630' TVD: 7,204' Inclination: 89.85 ° Azimuth: 270.51 ° VS: 9.677.07'
TVD (ft)		
16620-16680 SS: pred med gy- gy brn, occ lt gy- lt gy brn, ip trnsl- clr, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, pred cnt clus, tr uncons grms, tr l med sb ang trnsl qtz grs, mod strd, calc cntd, slty- arg thru, tr intgr por, pyrc, tr glauc, fr lt gn yel cut, p- fr resd ring, tr blk sh		
16680-16740 SS: pred med gy- gy brn, sme lt gy- lt gy brn, ip trnsl- clr, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, pred cnt clus, tr uncons grms, tr l med sb ang trnsl qtz grs, mod strd, calc cntd, slty- arg thru, tr intgr por, pyrc, tr glauc, fr lt gn yel cut, p- fr yel resd ring, tr blk sh		
16740-16800 SS: pred lt- med gy brn, sme lt- med gy, ip trnsl- clr, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, cnt clus, sme uncons grms, tr l med sb ang trnsl qtz grs, mod strd, calc cntd, slty- arg thru, tr intgr por, pyrc, tr glauc, fr lt gn yel cut, p- fr yel resd ring, tr blk sh		

WOB: 16.1K
ROT: 73
STKS: 84SPM
Pump Rate: 294 GPM

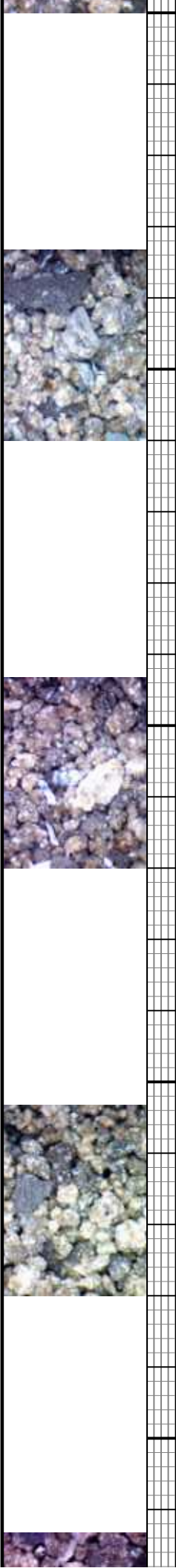
SS: pred med gy- gy brn, occ lt gy- lt gy brn, ip trnsl- clr, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, pred cnt clus, tr uncons grms, tr l med sb ang trnsl qtz grs, mod strd, calc cntd, slty- arg thru, tr intgr por, pyrc, tr glauc, fr lt gn yel cut, p- fr resd ring, tr blk sh	8000
TVD (ft)	

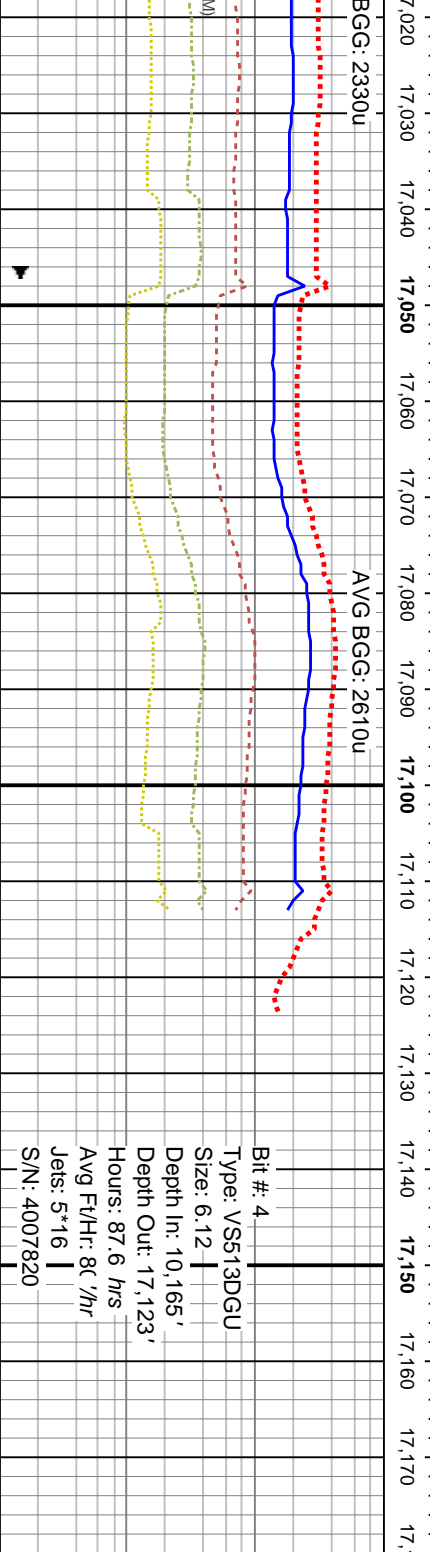
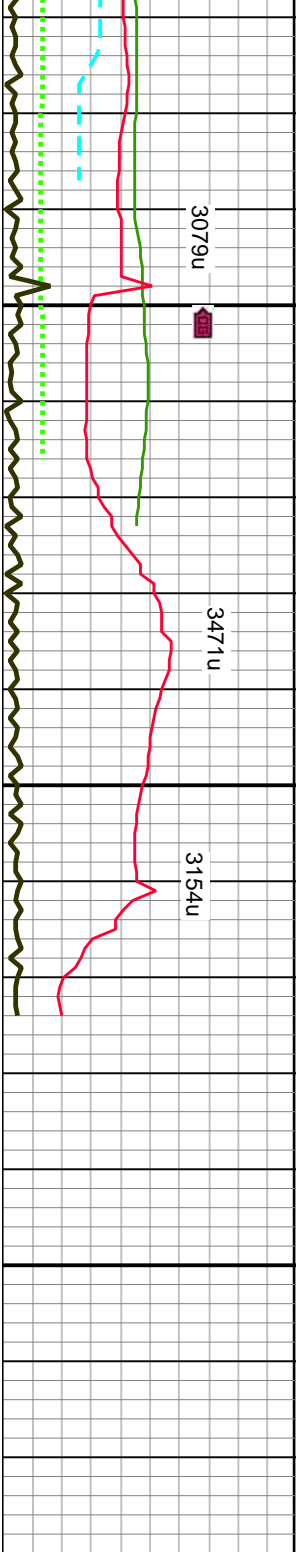




6500	MD: 16,822' TVD: 7,203.01' Inclination: 90.83 ° Azimuth: 268.88 ° VS: 9,866.23'	MD: 16,918' TVD: 7,203.02' Inclination: 89.26 ° Azimuth: 270.82 ° VS: 9,960.83'	MD: 16,982' TVD: 7,203.65' Inclination: 89.6 ° Azimuth: 270.12 ° VS: 10,024.03'
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TVD (ft)	16800-16860 SS: pred lt- med gy brn, sme lt- med gy, ip tmsl, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, cnt clus, sme uncongs grms, tr l med sb ang tmsl qtz grs, mod strd, calc cmtd, sily- arg thru, tr intgr por, sme pyr, tr glauc, fr lt gn yel cut, p- fr yel resdl ring, tr blk sh	16860-16920 SS: pried med- lt gy brn, sme lt- med gy, ip tmsl, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, cnt clus, sme uncongs grms, tr l med sb ang tmsl qtz grs, mod strd, calc cmtd, sily- arg thru, tr intgr por, sme pyr, tr glauc, fr lt gn yel cut, p- fr yel resdl ring, tr blk sh	16920-16980 SS: pried med- lt gy brn, sme lt- med gy, ip tmsl, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, cnt clus, tr uncongs grms, rr l med sb ang tmsl qtz grs, mod strd, calc cmtd, sily- arg thru, tr intgr por, sme pyr, tr glauc, fr lt gn yel cut, p- fr yel resdl ring, tr blk sh	16980-17040 SS: pried mec med gy, ip tmsl, pred f- u f grnd, fri- frm, sb rnd- sb ang grs, cnt clus, tr uncongs grms, rr l med sb ang tmsl qtz grs, mod strd, calc cmtd, sily- arg thru, tr intgr por, sme pyr, tr glauc, fr lt gn yel cut, p- fr yel resdl ring, tr blk sh
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Bit #: 4
Type: VS613DGU
Size: 6.12"
Depth In: 10.165'
Depth Out: 17.123'
Hours: 87.6 hrs
Avg Ft/Hr: 80'/hr
Jets: 5*16"
S/N: 4007820

Projected

MD: 17,058'
TVD: 7,203.77'
Inclination: 90.22°
Azimuth: 269.45°
VS: 10,098.94'

MD: 17,123'
TVD: 7,203.52'
Inclination: 90.22°
Azimuth: 269.45°

TD Reached
on 11-29-14
@ 0740hrs

lt gy brn, sme lt-
gnd, fri- frm, sb
uncons grs, r l
od strd, calc cmtd,
ne pyr, tr glauc, fr lt
g, tr blk sh

17040-17123 SS: pred med- lt gy brn, sme lt- med gy, ip
tnsl, pred f- u f gnd, fri- frm, sb md- sb ang grs, cmt clus, tr
uncons grs, r l med sb ang tnsl qtz grs, mod strd, calc
cmtd, sily- arg thru, tr intgr por, sme pyr, tr glauc, fr lt gn yel
cut, p- fr yel resdl ring, tr blk sh

