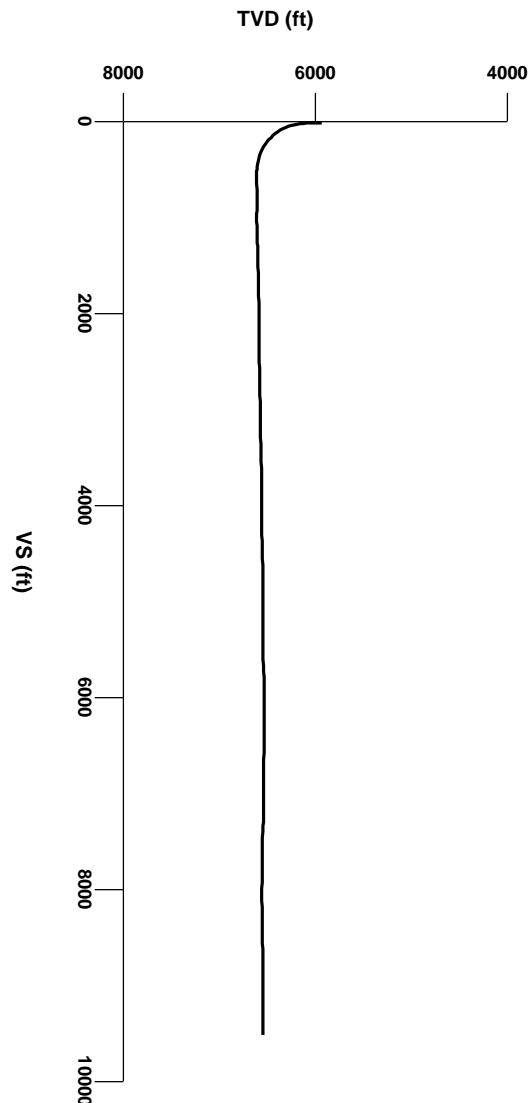




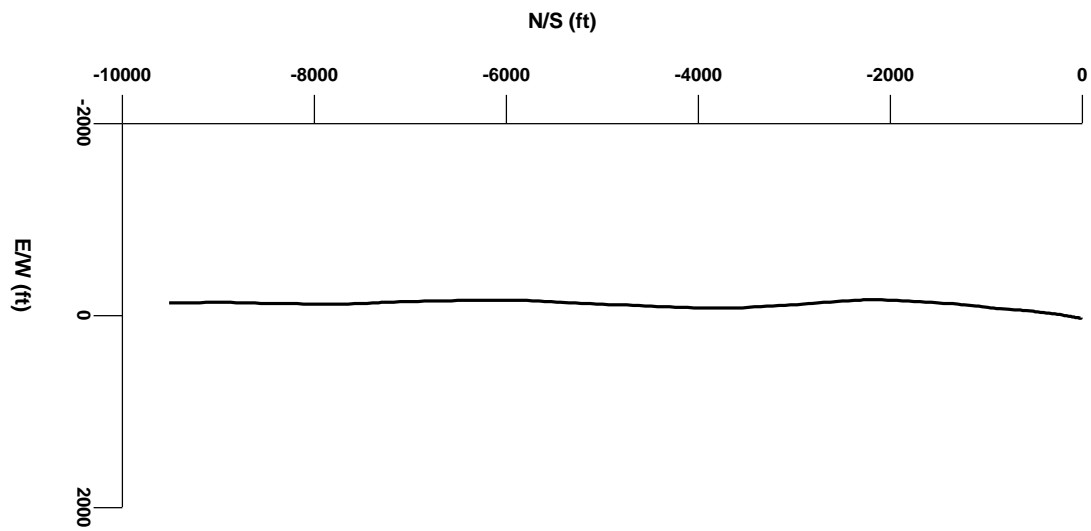
LOG created using Lplot VH Version 3.0, September 29, 2011, Copyright (C) 1999-2009 Pason Systems Corp.

OPERATOR: Continental Resources
WELL: Marconi 1-H
PRINT DATE: 9/29/2011 11:39:58 AM

LOCATION: Sections 1&12 7N 62W
COUNTY: Weld
STATE: Colorado

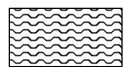
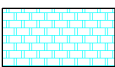



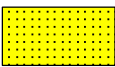
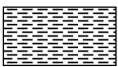


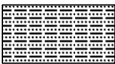


Survey Elevation








Survey Plan

LITHOLOGIES

	Bentonite		Chalk		Coal		Marl
	No Sample		Sandstone		Shale		Shaly Sandstone
	Siltstone		Silty Shale				

ENGINEERING SYMBOLS

	Casing		Casing		Connection Gas
	Midnight Depth		Off Bottom		

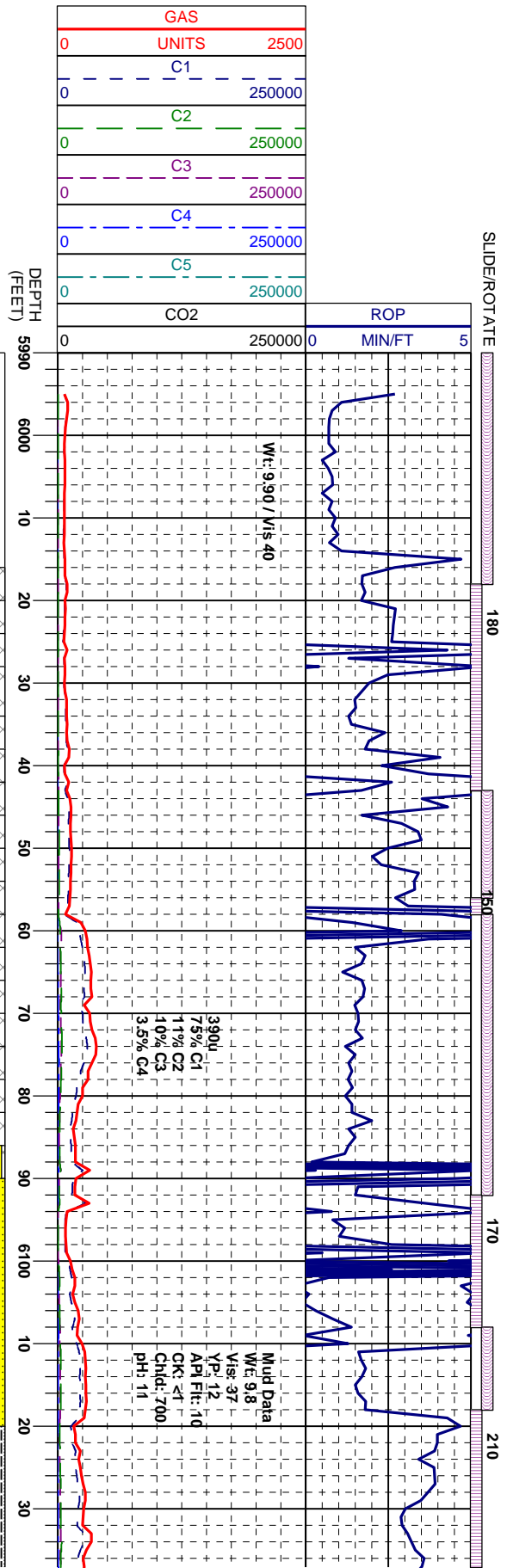
BAR SYMBOLS



Rotating



Sliding



CUTTINGS
LITHOLOGY

Gamma 52' Behind Bit

Survey 50' Behind Bit

CEMENT

CEMENT

CEMENT

CEMENT

CEMENT

CEMENT

CEMENT

CEMENT

CEMENT

CEMENT

MD 6,037'
Inc 1.48°
Azim 116.9°
TVD 6036.6'

MD 6,068'
Inc 2.13°
Azim 130.6°
TVD 6067.6'

MD 6,099'
Inc 3.28°
Azim 145.7°
TVD 6098.6'

MD 6,131'
Inc 5.49°
Azim 164.17°
TVD 6130.5'

Begin Directional Slide at MD 5995
Sidetrack Established W/O Time Drill

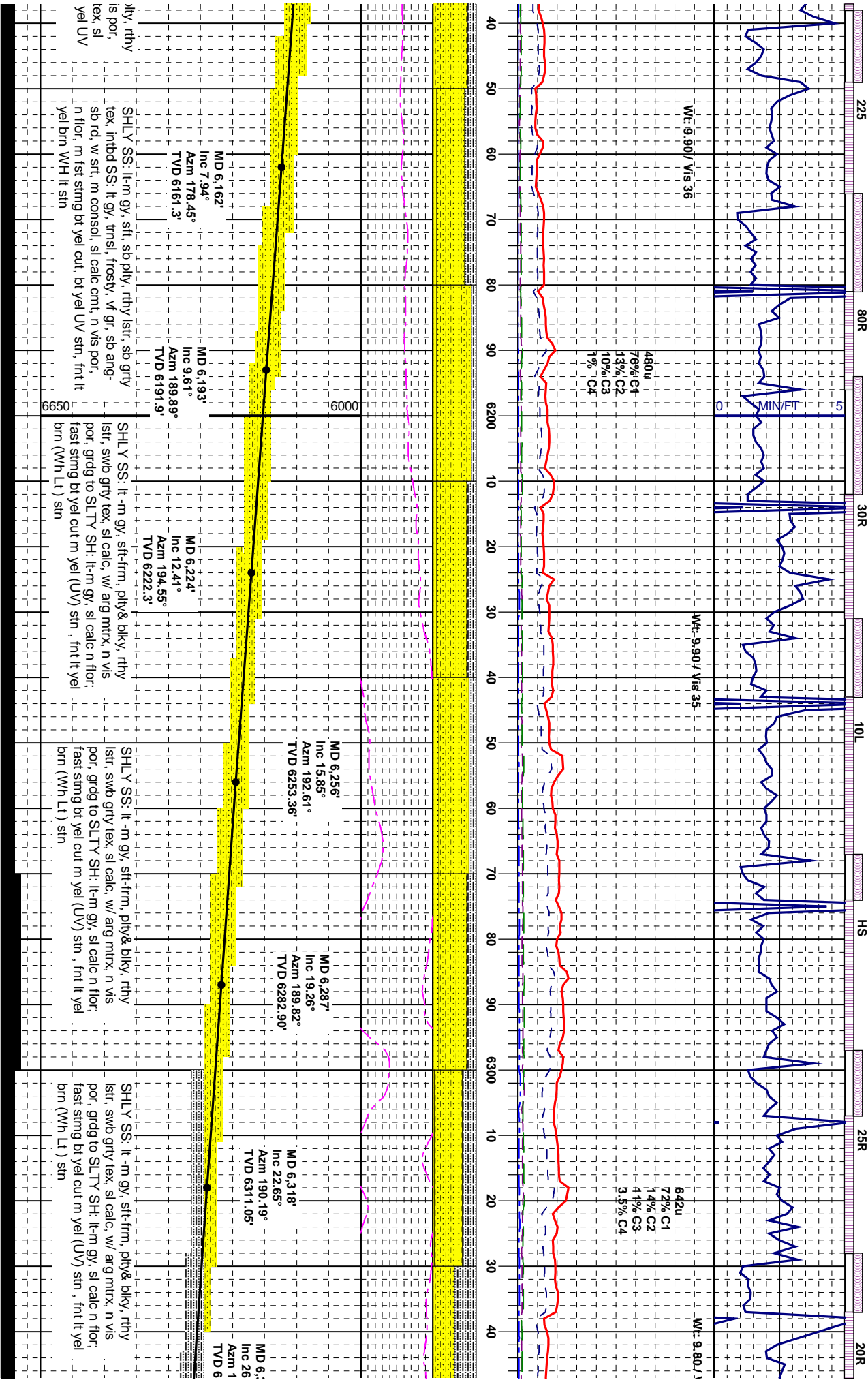
CEMENT: brown v nd, with SHLY SS. lt-mgy, sft-frm, sb blk& ply, rthy lstr, sb grvy tex, sl calc, arg mtr, n vis por n flor, m fst stmg bt yel cut, bt yel UV str, fnt lt yel brn WH lt str

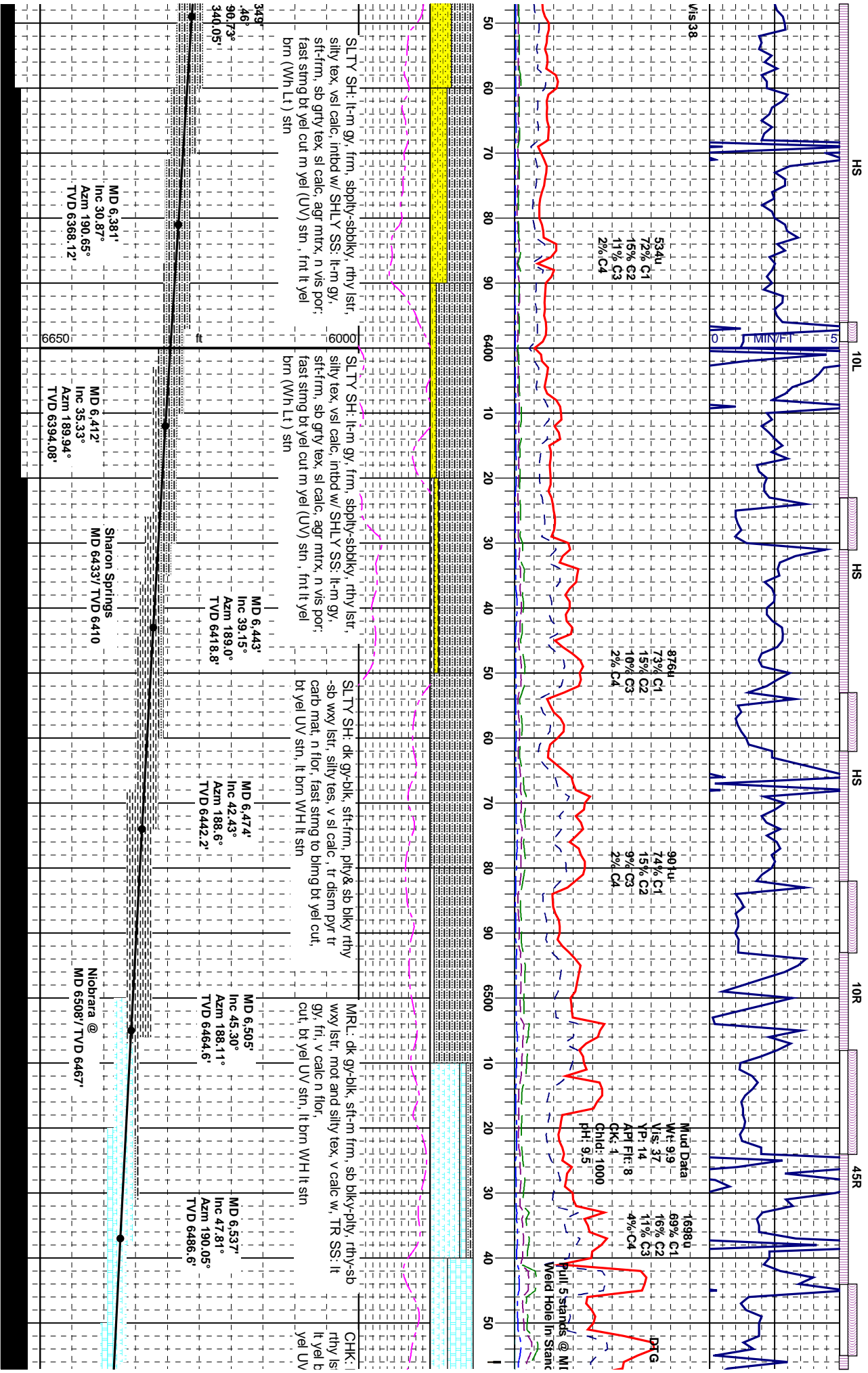
SHLY SS: lt-mgy, sft-frm, sb blk& f lstr, sb grvy tex, sl calc, arg mtr, n vi ooc SLTY SH: lt-m gy, sft, ply, silty l calc, n flor, m fst stmg bt yel cut, bt str, fnt lt yel brn WH lt str

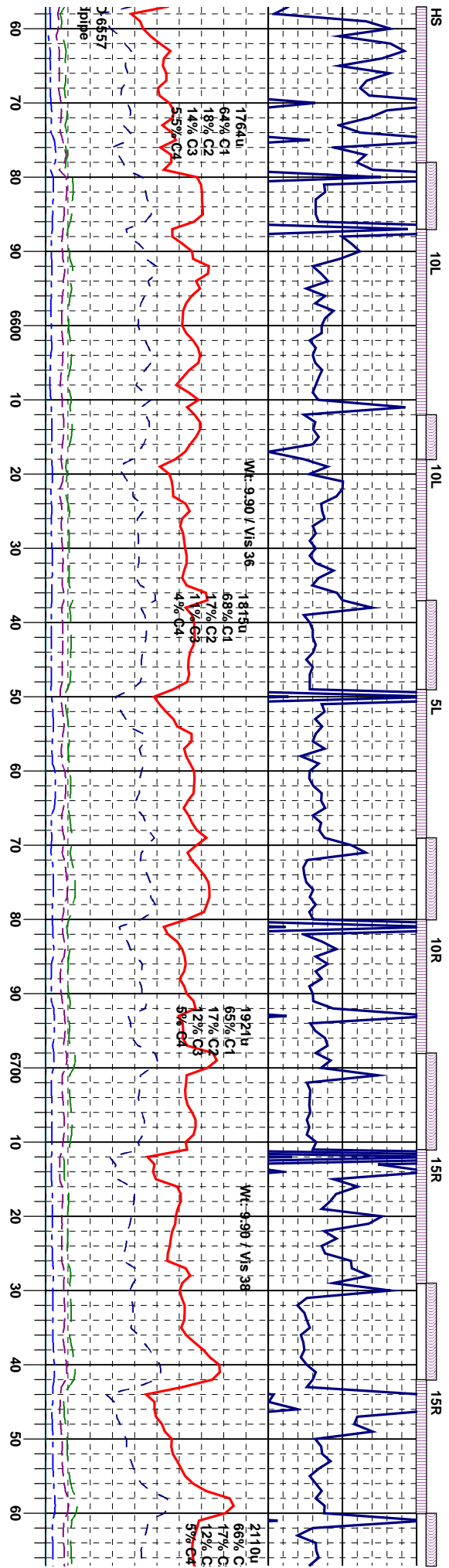
OIL SHOW

T F G

SAMPLE PHOTOS







It gy, crm, w/ m gy sply incl, sft & brit, If, chky to mot tex, v calc, occ fos, scat bl flur, fast stmg to blmg bt yel cut, bt / stn, lt brn WH lt sin

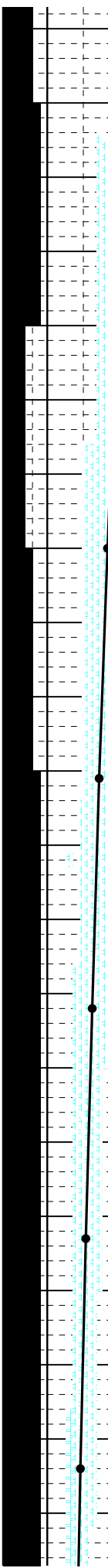
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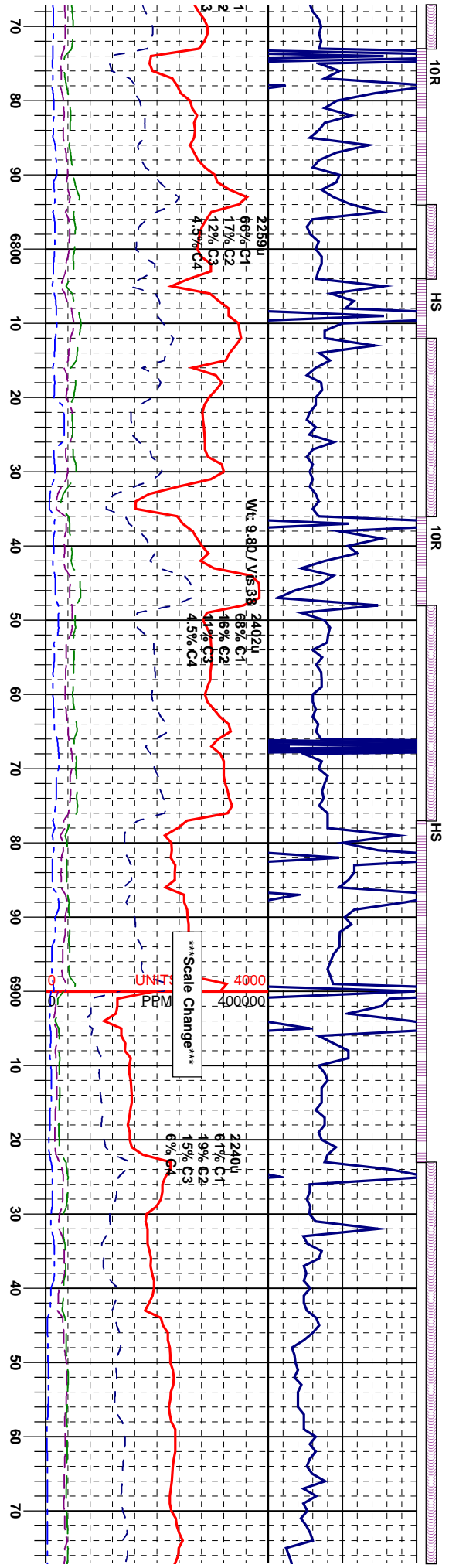
MRL: dk gy-blk, sft-m frm, sb blk-ply, rthy-sb wxy lstr, mot and silly tex, v calc, fast stmg to blmg bt yel cut, bt yel UV sin, lt brn WH lt sin

MRL: dk gy-blk, sft-m frm, sb blk-ply, rthy-sb wxy lstr, mot and silly tex, v calc w, fast stmg to blmg bt yel cut, bt yel UV sin, lt brn WH lt sin

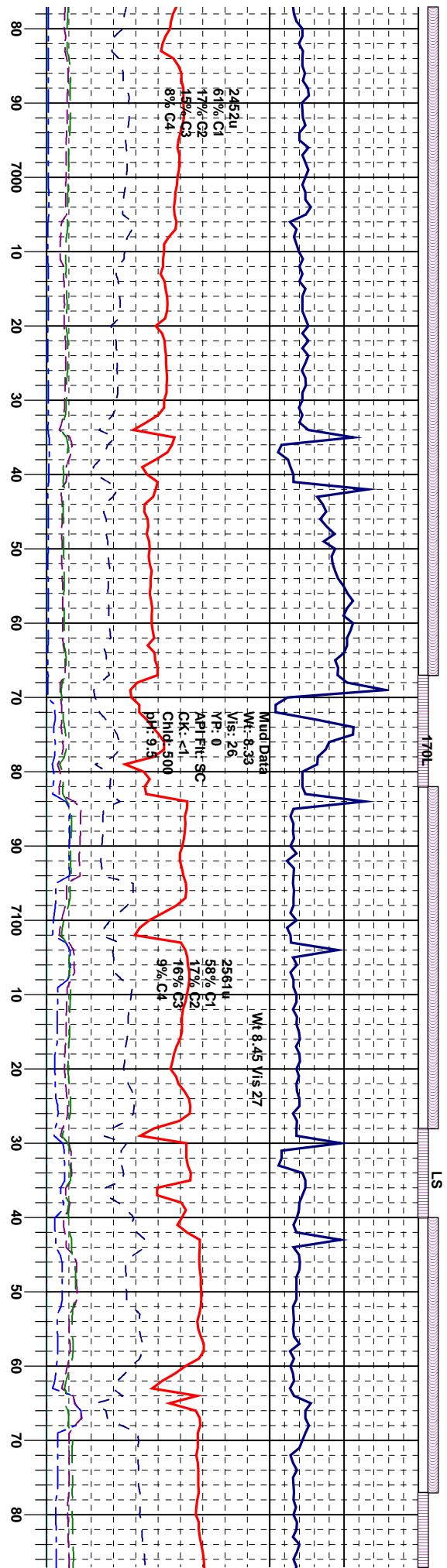
CHK: lt gy, crm, rthy lstr, chky to lt yel blu flur, occ cut, bt yel UV sin

MD 6,568' Inc 51.23° Azim 190.52° TVD 6506.7'	MD 6,599' Inc 55.26° Azim 189.08° TVD 6525.24'	MD 6,630' Inc 59.51° Azim 187.51° TVD 6541.95'	MD 6,661' Inc 63.35° Azim 186.41° TVD 6556.77'	MD 6,692' Inc 67.07° Azim 186.58° TVD 6569.77'	MD 6,723' Inc 70.50° Azim 187.04° TVD 6580.98'	MD 6,754' Inc 73.97° Azim 187.29° TVD 6590.44'
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w/ m gy spy incl, sft & brlt, mot tex, v calc, occ fos, scat		w/ m gy spy incl, sft & brlt, mot tex, v calc, occ fos, scat		w/ m gy spy incl, sft & brlt, mot tex, v calc, occ fos, scat		w/ m gy spy incl, sft & brlt, mot tex, v calc, occ fos, scat		w/ m gy spy incl, sft & brlt, mot tex, v calc, occ fos, scat	
pyr, fast sting to bling bt yel		pyr, fast sting to bling bt yel		pyr, fast sting to bling bt yel		pyr, fast sting to bling bt yel		pyr, fast sting to bling bt yel	
, it brn WH it sin		, it brn WH it sin		, it brn WH it sin		, it brn WH it sin		, it brn WH it sin	
CHK: it gy, crm, w/ m gy spy incl, sft & brlt, rthy lstr, chky to mot tex, v calc, occ fos, scat		CHK: it gy, crm, w/ m gy spy incl, sft & brlt, rthy lstr, chky to mot tex, v calc, occ fos, scat		CHK: it gy, crm, w/ m gy spy incl, sft & brlt, rthy lstr, chky to mot tex, v calc, occ fos, scat		CHK: it gy, crm, w/ m gy spy incl, sft & brlt, rthy lstr, chky to mot tex, v calc, occ fos, scat		CHK: it gy, crm, w/ m gy spy incl, sft & brlt, rthy lstr, chky to mot tex, v calc, occ fos, scat	
it yel blu flor, occ pyr, fast sting-flashing bt yel		it yel blu flor, occ pyr, fast sting-flashing bt yel		it yel blu flor, occ pyr, fast sting-flashing bt yel		it yel blu flor, occ pyr, fast sting-flashing bt yel		it yel blu flor, occ pyr, fast sting-flashing bt yel	
cut, bt yel UV sin, brn WH it sin		cut, bt yel UV sin, brn WH it sin		cut, bt yel UV sin, brn WH it sin		cut, bt yel UV sin, brn WH it sin		cut, bt yel UV sin, brn WH it sin	
MD 6,786'		MD 6,816'		MD 6,848'		MD 6,880'		MD 6,933'	
Inc 77.48°		Inc 79.66°		Inc 82.05°		Inc 84.7°		Inc 86.67°	
Azim 186.94°		Azim 186.94°		Azim 186.85°		Azim 186.57°		Azim 186.43°	
TVD 6598.33'		TVD 6604.28'		TVD 6609.4'		TVD 6613.05'		TVD 6614.03'	
Representing 14' Target		Representing 14' Target		Representing 14' Target		Representing 14' Target		Representing 14' Target	
1 Block= 5' TVD		1 Block= 5' TVD		1 Block= 5' TVD		1 Block= 5' TVD		1 Block= 5' TVD	
Enter Target		Enter Target		Enter Target		Enter Target		Enter Target	
MD 6831' /TVD 6607'		MD 6831' /TVD 6607'		MD 6831' /TVD 6607'		MD 6831' /TVD 6607'		MD 6831' /TVD 6607'	
From MD 6,943'		From MD 6,943'		From MD 6,943'		From MD 6,943'		From MD 6,943'	
SURVEY TOOL: 35' /GTB: 69.7' /ADR to bit: 49.7'		SURVEY TOOL: 35' /GTB: 69.7' /ADR to bit: 49.7'		SURVEY TOOL: 35' /GTB: 69.7' /ADR to bit: 49.7'		SURVEY TOOL: 35' /GTB: 69.7' /ADR to bit: 49.7'		SURVEY TOOL: 35' /GTB: 69.7' /ADR to bit: 49.7'	
7" Casing Set To 6943'		7" Casing Set To 6943'		7" Casing Set To 6943'		7" Casing Set To 6943'		7" Casing Set To 6943'	



fast sting bt yel cut,
w/ MRL: dk gy, frm-
b blk y, rthy lstr, mot
n.

MR.: m-dk gy, w./t gy, streaks, frm, brit, sb
-bkyt, rthy-sb wxy lstr, mot tex, v calc w/ org
mat, it yel gn flor, fast stimg bt yel cut, bt yel
-UV snh, brn wh lt str.

CHK: It-mgy, sft-m frm, brt, sb dlky, rthy str,
-mot and chky tex, v calc w fros, It yel gn flor, It
yel gn flor, fast stmg bt yel cut, bt yel UV str,
-brn wh It str.

Crnk. itingy, sit-in him, bing, so bing, ituy is a
mot and chky tex. v calc w fos, it yel gn flor,
fast strmg bt yel cut, bt yel UV strn, brn WH It
strn

CHK: it gy, w/ m gy streaks, stt-frm, br
biky, rhy-dull lstr, mot tex, v calc w/ abri
yel gn flor, fast simg bt yel cut, bt yel l
brn WH it stn

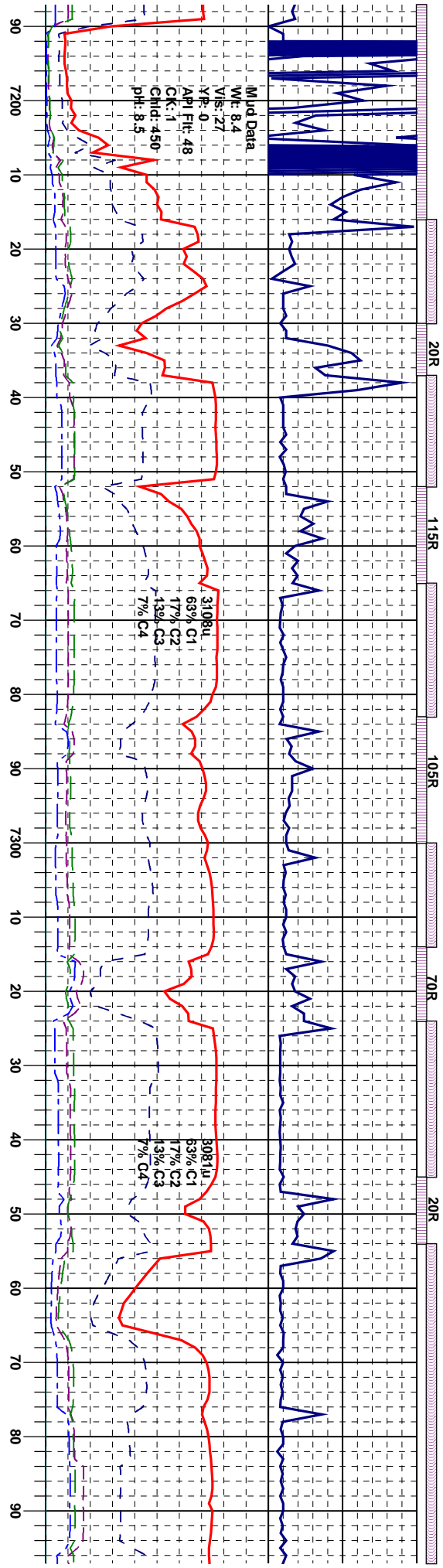
MD 7,002¹
Inc 91.79°
Azim 185.2°
TVD 6614.57

MD 7,032'
Inc 92.04°
Azim 185.01°
TVD 6613.57"

MD 7,093'
Inc 91.11°
Azm 184.87°
TVD 6611.9'

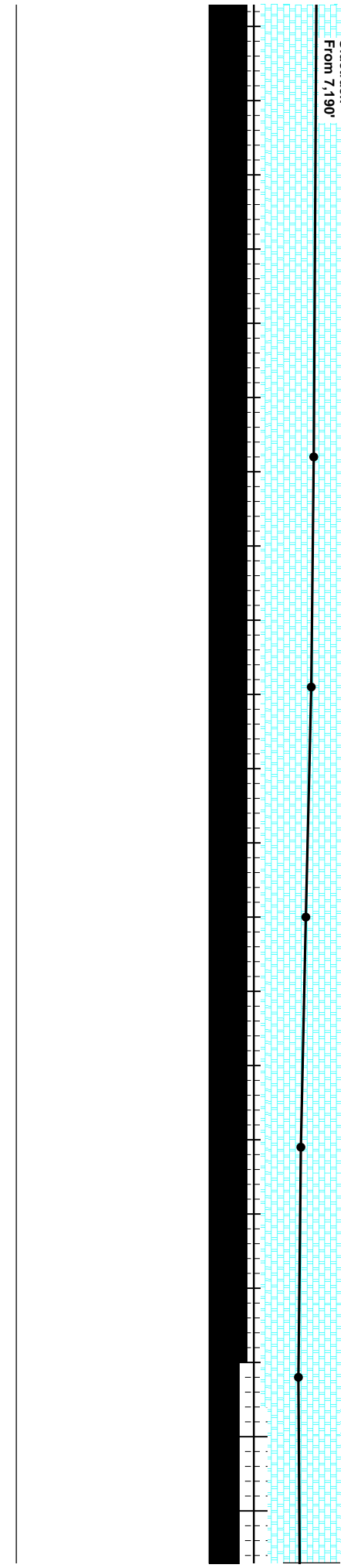
MD 7,155'
Inc 90.19°
Azm 184.55°
TVD 6611.2'

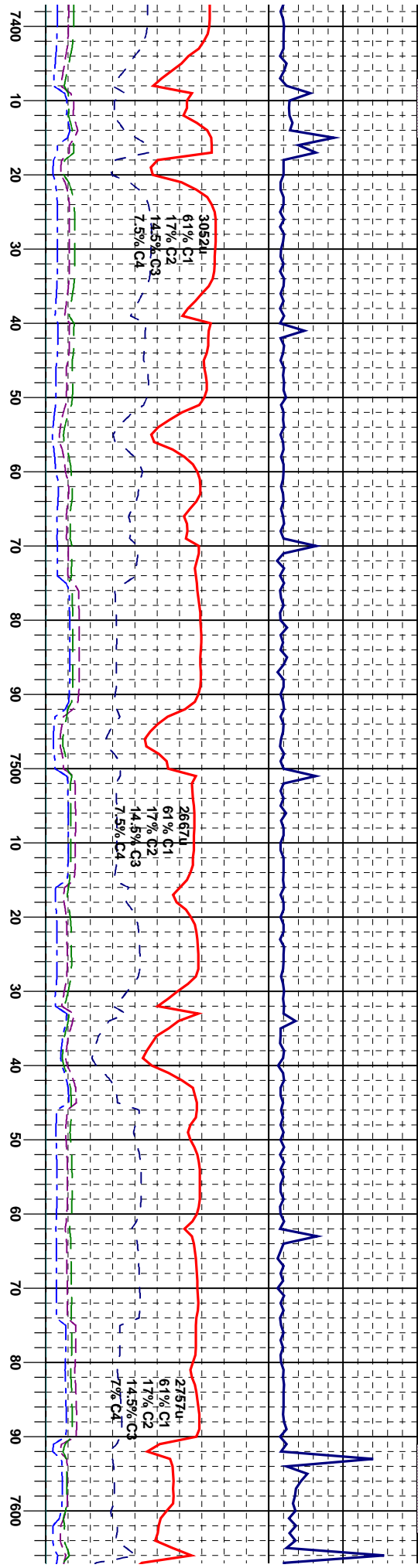
Tr



t, sb not it IV stn.		CHK: It gy. w/ m gy strks, sft, brit, sb blk, rthy lstr, mot & chky tex, v calc, tr sec calcie, & fos, abndt it yel gn flor, fast stmg to flashing bt yel cut, bt blu/yel UV stn, It brn Wh It sn	CHK: It gy. crm, tr wh, sft, brit, sb blk, rthy lstr, chky to silty tex, m-v calc, abndt it yel/gn flor, fast stmg to flashing bt yel cut, bt blu/yel UV stn, It brn Wh It sn	CHK: It gy. crm, tr wh, sft, brit, sb blk, rthy lstr, chky to silty tex, m-v calc, abndt it yel/gn flor, fast stmg to flashing bt yel cut, bt blu/yel UV stn, It brn Wh It sn	CHK: It gy. crm, gy brn, sft, brit, sb blk, rthy lstr, chky to silty tex, m-v calc, OCC MFL:m gy blk, frm, sb blk, rthy-grsy lstr, mot tex, v calc occ fos, scat It yel/gn flor, slower stmg bt yel cut, bt blu/yel UV stn, It brn Wh It sn
ough From 7,177'-7,190' me Drill From 7,190'-7218		MD 7,248' Inc 89.81° Azim 183.44° TVD 661.75'	MD 7,279' Inc 88.83° Azim 184.35° TVD 6612.13'	MD 7,310' Inc 88.45° Azim 186.41° TVD 6612.85'	MD 7,341' Inc 89.01° Azim 186.99° TVD 6613.6'
		MD 7,372' Inc 89.69° Azim 187.21° TVD 6613.9'			

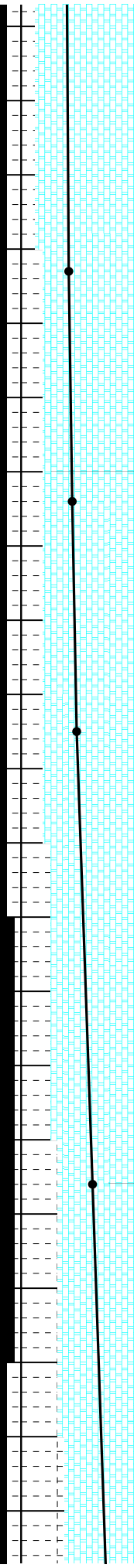
Sidetrack
From 7,190'

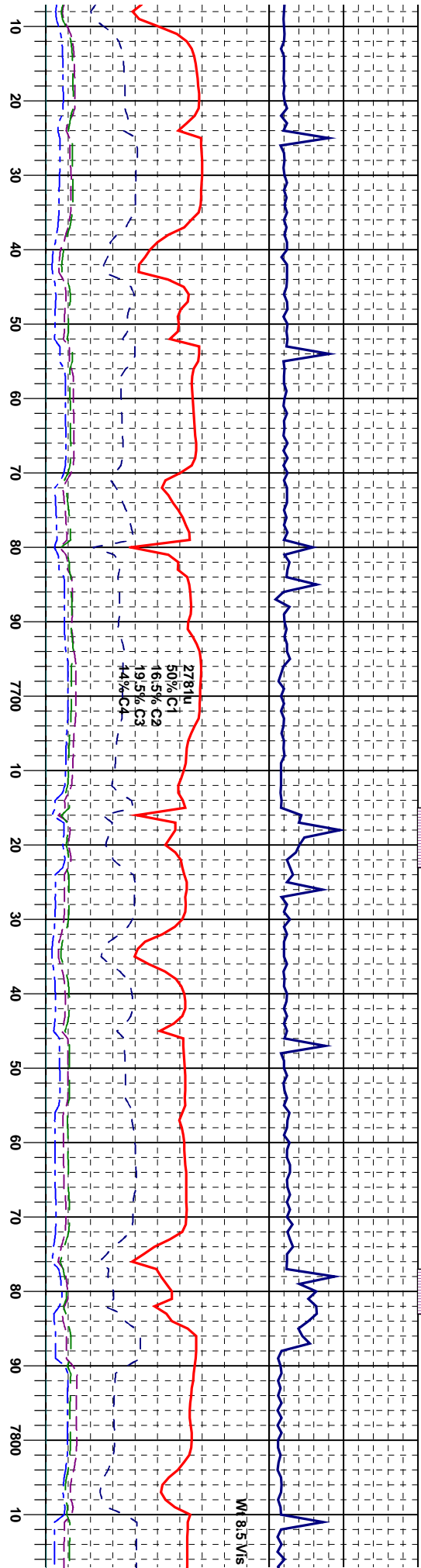




CHK: It gy, crm, gy brn, sft, brt, sb blk, rthy		CHK: It gy, crm, gy brn, sft, brt, sb blk, rthy		CHK: dk-m gy occ It gy, sft-frn, brt, sb blk,		CHK: dk-m gy occ It gy, sft-frn, brt, sb blk,	
-lstr, chky to silty tex, m-v calc, OCC MRL:m		-lstr, chky to silty tex, m-v calc, OCC MRL:m		w, dk gy strks, rthy lstr, mot tex, occ fos, sec		w, dk gy strks, rthy lstr, mot tex, occ fos, sec	
gy blk, frm, sb blk, rthy-grsy lstr, mot tex, v		gy blk, frm, sb blk, rthy-grsy lstr, mot tex, v		calcite, trace BENT, scat It yel gn flor,		calcite, trace BENT, scat It yel gn flor, string bt	
calc occ fos, scat It yel/gn flor, slower string bt		calc occ fos, scat It yel/gn flor, slower string bt		string bt yel cut, bt blu/yel UV sin, It brn Wh It		yel cut, bt blu/yel UV sin, It brn Wh It	
yel cut, bt blu/yel UV sin, It brn Wh It sin		yel cut, bt blu/yel UV sin, It brn Wh It sin		sin		sin	

MD 7,433'		MD 7,464'		MD 7,495'		MD 7,556'	
Inc 91.05°		Inc 90.93°		Inc 91.3°		Inc 92.78°	
Azim 186.84°		Azim 186.73°		Azim 186.55°		Azim 186.40°	
TVD 6613.5'		TVD 6612.9'		TVD 6612.4'		TVD 6610.20'	





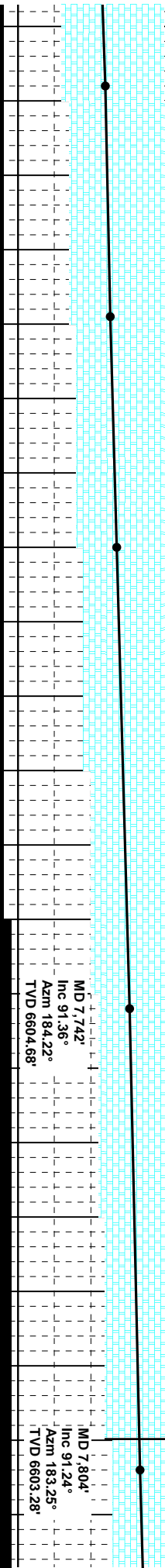
10 20 30 40 50 60 70 80 90 7700 10 20 30 40 50 60 70 80 90 7800 10

CHK: dk-m gy occ lt gy, sft-frm, brlt, sb blk, w. dk gy strks, rthy lstr, mot tex, occ fos, sec calcite, trace BENT, scat lt yel gn flr, slower string bt yel cut, bt bluyel UV str, lt brn wh lt sin

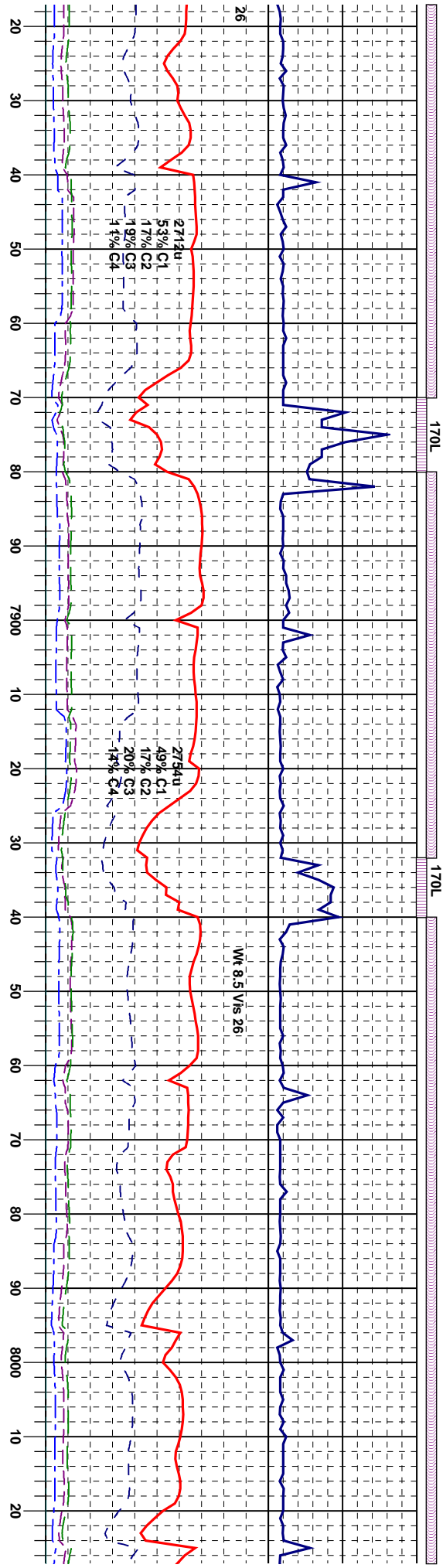
CHK: dk-m gy occ lt gy, sft-frm, brlt, sb blk, w. dk gy strks, rthy lstr, mot tex, occ fos, sec calcite, trace BENT, scat lt yel gn flr, slower string bt yel cut, bt bluyel UV str, lt brn wh lt sin

CHK: dk-m gy occ lt gy, sft-frm, brlt, sb blk, w. dk gy strks, rthy lstr, mot tex, occ fos, sec calcite, trace BENT, scat lt yel gn flr, slower string bt yel cut, bt bluyel UV str, lt brn wh lt sin

MD 7,618° Inc 92.17° Azim 184.80° TVD 6608.1'	MD 7,649° Inc 91.42° Azim 184.86° TVD 6607.4'	MD 7,680° Inc 91.91° Azim 184.63° TVD 6606.45'	MD 7,742° Inc 91.36° Azim 184.22° TVD 6604.68'	MD 7,804° Inc 91.24° Azim 183.25° TVD 6603.28'
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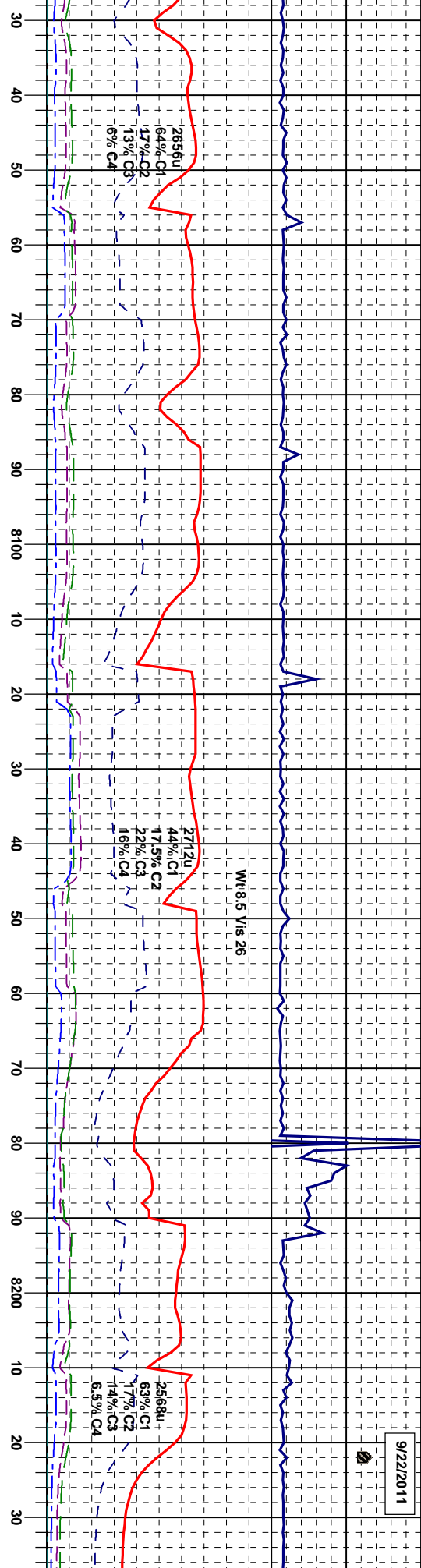
MD 7,618° Inc 92.17° Azim 184.80° TVD 6608.1'	MD 7,649° Inc 91.42° Azim 184.86° TVD 6607.4'	MD 7,680° Inc 91.91° Azim 184.63° TVD 6606.45'	MD 7,742° Inc 91.36° Azim 184.22° TVD 6604.68'	MD 7,804° Inc 91.24° Azim 183.25° TVD 6603.28'
--	--	---	---	---



n, gy brn, sft, brit, sb blk, rthy ly tex, m-v calc, inbnd w/ MRL: sb blk, rthy-grsy lstr, mot tex, v cat lt yel/gn flr, string bt yel cut, in, lt brn Wh lt sin	CHK: dk-m gy occ lt gy, sft-firm, brit, sb blk, w, dk gy strks, rthy lstr, mot tex, occ fos, sec calcite, trace BENT, scat lt yel gn flr, slower string bt yel cut, bt blu/yel UV sin, lt brn Wh lt sin	CHK: lt gy, crm, gy brn, sft, brit, sb blk, rthy lstr, chky to silty tex, m-v calc, OCC MRL:m gy blk, frm, sb blk, rthy-grsy lstr, mot tex, v calc occ fos, scat lt yel/gn flr, slower string bt yel cut, bt blu/yel UV sin, lt brn Wh lt sin	MRL: m gy, occ blk, sft, sb blk, rthy-sb grsy lstr, mot -sb grty tex, m-v calc, org mat, occ bent, sec calcite, slower string bt yel cut, bt blu/yel UV sin, lt brn Wh lt sin	MRL: m gy, occ blk, sft, lstr, mot -sb grty tex, m-v bent, sec calcite, slower s blu/yel UV sin, lt brn Wh
--	---	---	--	---

MD 7,835'					MD 7,897'					MD 7,959'					MD 8020'				
Inc 92.10°					Inc 91.42°					Inc 90.12°					Inc 90.43°				
Azim 183.65°					Azim 183.54°					Azim 183.32°					Azim 183.49°				
TVD 6602.37'					TVD 6600.47'					TVD 6599.63'					TVD 6599.34'				

9/22/2011



b blk, rthy-sb grsy	MR.L: m gy, occ blk, sft, sb blk, rthy-sb grsy
calc, org mat, occ	lsif, mot -sb grty tex, m-v calc, org mat, occ
sting bt yel cut, bt	bent, sec calcite, slower sting bt yel cut, bt
lt sin	blu/yel UV sin, lt brn Wh lt sin

Base of Target

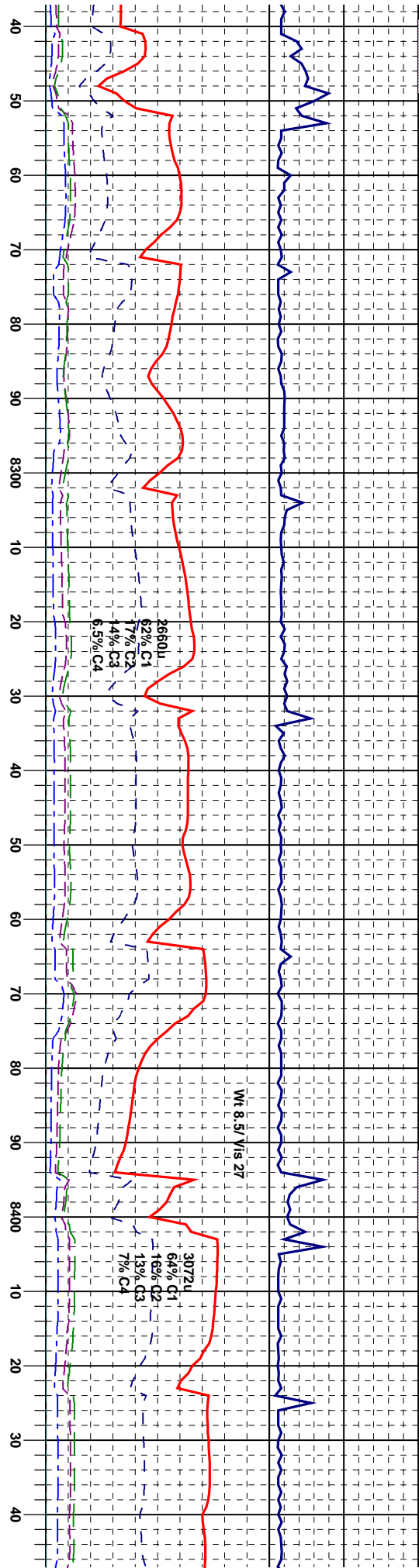
Base of Target

MD 8143'	Inc 92.84°	Azm 183.41°	TVD 6596.26'	MR.L: m gy, occ blk, sft, sb blk, rthy-sb grsy	lsif, mot -sb grty tex, m-v calc, org mat, occ	bent, sec calcite, slower sting bt yel cut, bt	blu/yel UV sin, lt brn Wh lt sin
MD 8082'	Inc 91.24°	Azm 183.36°	TVD 6598.44'	MR.L: m gy, occ blk, sft, sb blk, rthy-sb grsy	lsif, mot -sb grty tex, m-v calc, org mat, occ	bent, sec calcite, slower sting bt yel cut, bt	blu/yel UV sin, lt brn Wh lt sin

MD 8204'	Inc 91.67°	Azm 183.56°	TVD 6593.86'	MR.L: m gy, occ blk, sft, sb blk, rthy-sb grsy	lsif, mot -sb grty tex, m-v calc, org mat, occ	bent, sec calcite, slower sting bt yel c	blu/yel UV sin, lt brn Wh lt sin
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170L

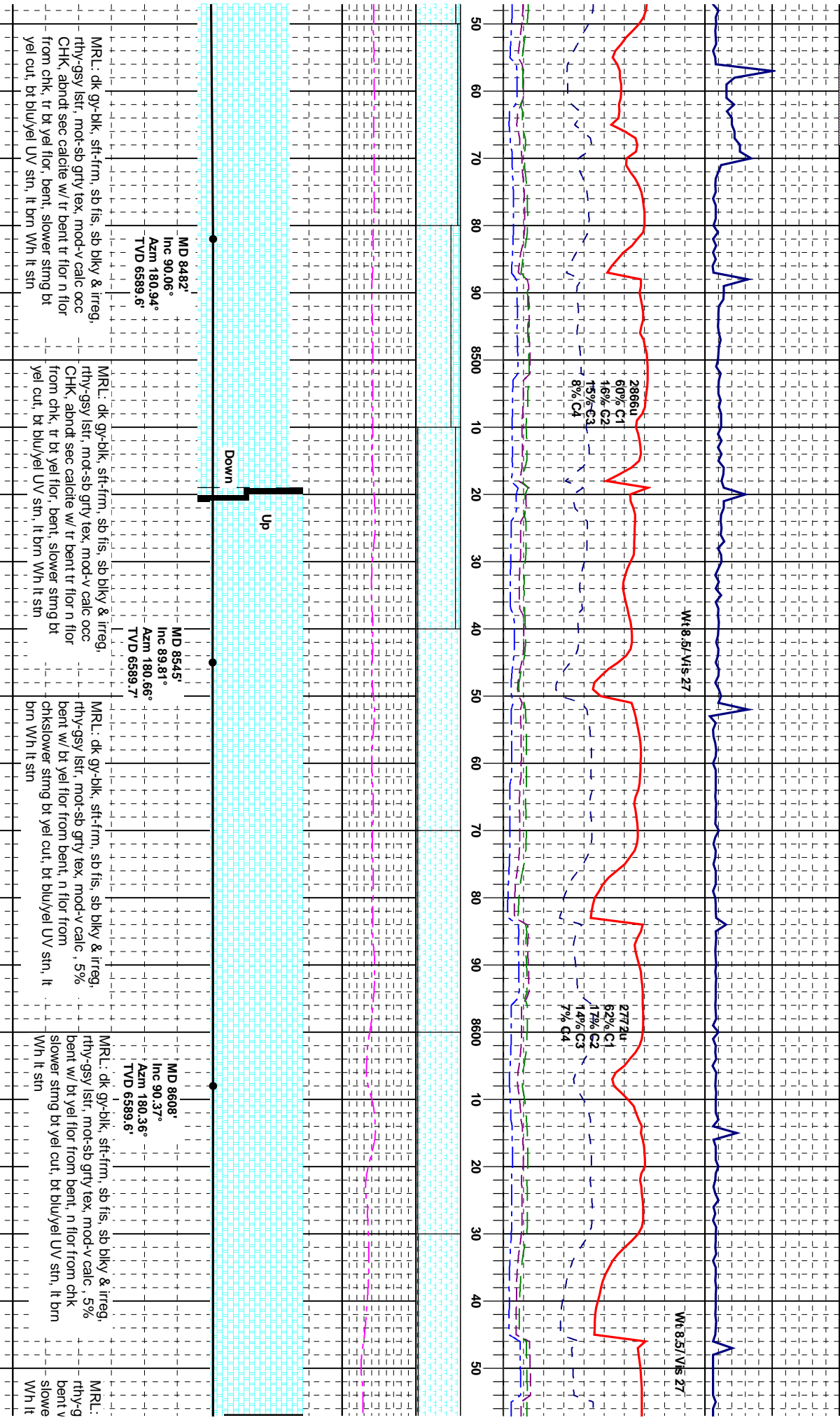
150L



Base of Target

Base of Target

MD 8265'	Inc 90.68°	MD 8326'	Inc 90.80°	MD 8356'	Inc 91.17°	MD 8419'	Inc 90.93°
Azm 183.10°		Azm 182.61°		Azm 182.71°		Azm 181.48°	
TVD 6592.61'		TVD 6591.82'		TVD 6591.30'		TVD 6590.15'	
MRL: m gy, occ blk, sft, sb blk, rthy-sb grsy		MRL: m gy, occ blk, sft, sb blk, rthy-sb grsy		MRL: m gy, occ blk, sft, sb blk, rthy-sb grsy		MRL: m gy, occ blk, sft, sb blk, rthy-sb grsy	
-lst, mot -sb grty tex, m-v calc, org mat, occ		-lst, mot -sb grty tex, m-v calc, org mat, occ		-lst, mot -sb grty tex, m-v calc, org mat, occ		-lst, mot -sb grty tex, m-v calc, org mat, occ	
bent, sec calcite, n flor from chk, tr bt yel flor,		bent, sec calcite, n flor from chk, tr bt yel flor,		bent, sec calcite, n flor from chk, tr bt yel flor,		bent, sec calcite, n flor from chk, tr bt yel flor,	
bent, slower stmg bt yel cut, bt blu/yel UV sin,		bent, slower stmg bt yel cut, bt blu/yel UV sin,		bent, slower stmg bt yel cut, bt blu/yel UV sin,		bent, slower stmg bt yel cut, bt blu/yel UV sin,	
It brn Wh It sin		It brn Wh It sin		It brn Wh It sin		It brn Wh It sin	



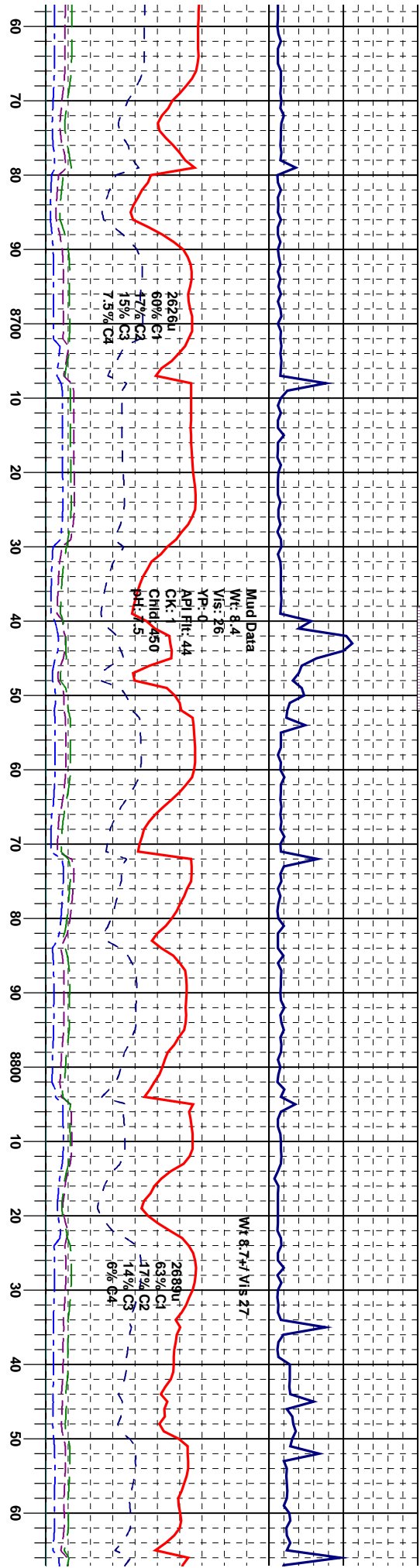
MR.L.: dk gy-blk, sft-frn, sb fis, sb blk & irreg, rthy-gsy istr, mot-sb grty tex, mod-v calc occ CHK, abndt sec calcite w/ tr bent tr flor n flor from chk, tr bt yel flor, bent, slower stimg bt yel cut, bt blu/yel UV stn, lt brn Wh lt sin

MR.L.: dk gy-blk, sft-frn, sb fis, sb blk & irreg, rthy-gsy istr, mot-sb grty tex, mod-v calc occ CHK, abndt sec calcite w/ tr bent tr flor n flor from chk, tr bt yel flor, bent, slower stimg bt yel cut, bt blu/yel UV stn, lt brn Wh lt sin

MR.L.: dk gy-blk, sft-frn, sb fis, sb blk & irreg, rthy-gsy istr, mot-sb grty tex, mod-v calc, 5% bent w/ bt yel flor from bent, n flor from chkslower stimg bt yel cut, bt blu/yel UV stn, lt brn Wh lt sin

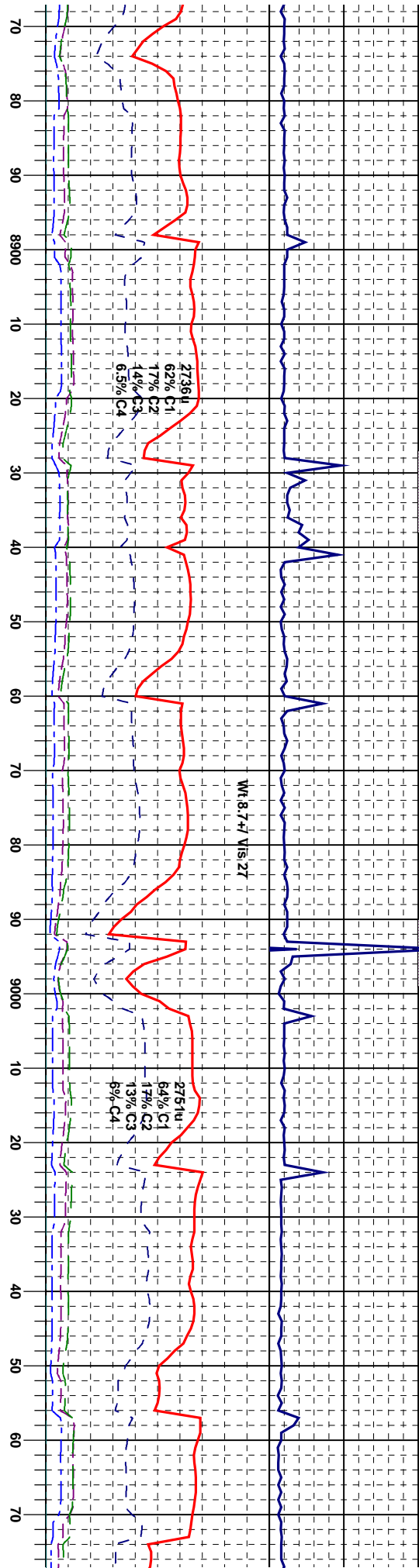
MR.L.: dk gy-blk, sft-frn, sb fis, sb blk & irreg, rthy-gsy istr, mot-sb grty tex, mod-v calc, 5% bent w/ bt yel flor from bent, n flor from chk slower stimg bt yel cut, bt blu/yel UV stn, lt brn Wh lt sin

MR.L.: bent v slowe Wh lt



MD 867.1° Inc 89.57° Azim 177.09° TVD 6589.6'	MD 8703° Inc 89.63° Azim 176.28° TVD 6589.8'	MD 8735° Inc 90.0° Azim 176.27° TVD 6589.9'	MD 8766° Inc 90.56° Azim 177.39° TVD 6589.8'	MD 8829° Inc 90.93° Azim 176.32° TVD 6588.97'
dk gy-blk, sft-frm, sb fis, sb blkly & irreg, sy lstr, mot-sb grty tex, mod-v calc, 5% w/ bt yel flr from bent n flr from chk r sting bt yel cut, bt blu/yel UV stn, lt brn	MRL: dk gy-blk, sft-frm, sb fis, sb blkly & irreg, rthy-gsy lstr, mot-sb grty tex, mod-v calc, 5% bent w/ bt yel flr from bent n flr from chkslower sting bt yel cut, bt blu/yel UV stn, lt brn Wh lt stn	MRL: dk gy-blk, sft-frm, sb fis, sb blkly & irreg, rthy-gsy lstr, mot-sb grty tex, mod-v calc, 5% bent w/ bt yel flr from bent n flr from chkslower sting bt yel cut, bt blu/yel UV stn, lt brn Wh lt stn	MRL: dk gy-blk, sft-frm, sb fis, sb blkly & irreg, rthy-gsy lstr, mot-sb grty tex, mod-v calc, 5% bent w/ bt yel flr from bent n flr from chk slower sting bt yel cut, bt blu/yel UV stn, lt brn Wh lt stn	MRL: dk gy-blk, sft-frm, sb fis, sb blkly & irreg, rthy-gsy lstr, mot-sb grty tex, mod-v calc, sec calcite, 5% bent w/ bt yel flr from bent n flr from chkslower sting bt yel cut, bt blu/yel UV stn, lt brn Wh lt stn

TR CHK: m gy, tex, m-v calc, int sb fis, rthy-gsy li scat bt yel flr fr slower sting bt y Wh lt stn



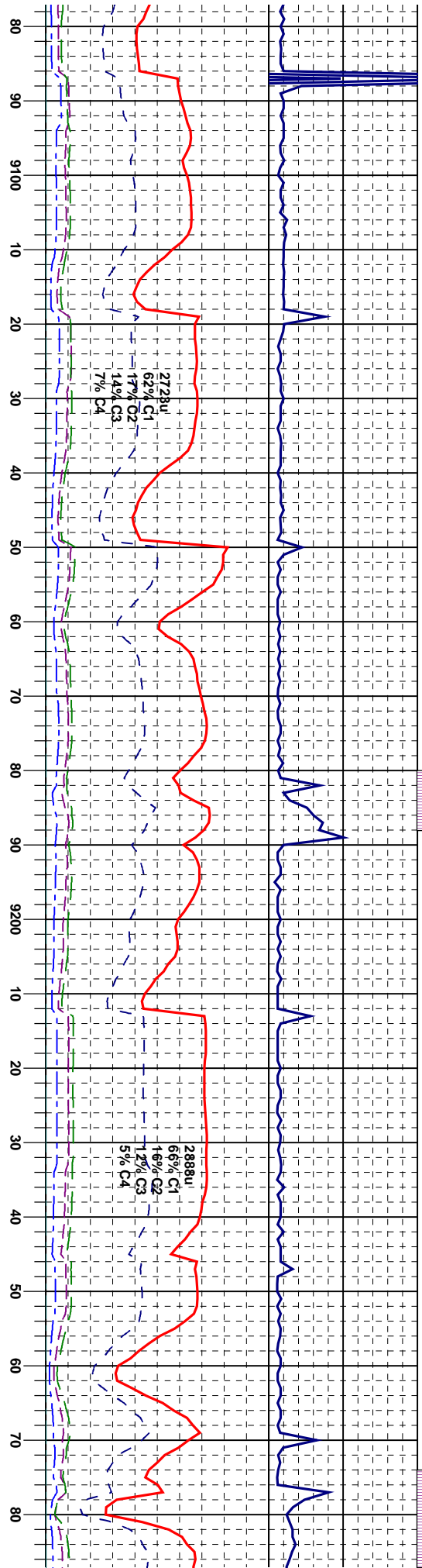
MD 8892'
Inc 91.85°
Az 175.49°
TVD 6587.44'

MD 8955'
Inc 91.55°
Az 176.3°
TVD 6585.57'

MD 9018'
Inc 90.06°
Az 176.18°
TVD 6584.69'

Base Of Target

sft, sb blkly, rthy istr, silty-chky	CHK: m gy, sft, sb blkly, rthy istr, silty-chky	MRL: dk gy-blk, sft-frn, sb fls, sb blkly & irreg, rthy-gsy istr, mot-sb grty tex, mod-v calc occ	MRL: m-dk gy, blk, sft, sb blkly-irreg, rthy-sb grsy istr, mot-sb grty tex, org mat, m-v calc, sact BENT w/ pyr, bt yel flr from bent, slower string bt yel cut, bt blu/yel UV sin, lt brn Wh it stn
ibnd w/ MRL: m-dk gy, blk, sft,	tex, m-v calc, inbnd w/ MRL: m-dk gy, blk, sft,	from chk, tr bt yel flr, bent, slower string bt	MRL: m-dk gy, blk, sft, sb
sft, mot-sb grty tex, v calc,	sb fls, rthy-gsy istr, mot-sb grty tex, v calc,	CHK: about sec calcite w/ tr bent tr flr n flr	grsy istr, mot-sb grty tex, sact BENT w/ pyr, bt yel flr from bent, slower string bt yel cut, bt blu/yel UV sin, lt brn Wh it stn
om BENT, occ sec calcite,	scat bt yel flr from BENT, occ sec calcite,	CHK: about sec calcite w/ tr bent tr flr n flr	MRL: m-dk gy, blk, sft, sb
rel cut, bt blu/yel UV sin, lt brn	slower string bt yel cut, bt blu/yel UV sin, lt brn	from chk, tr bt yel flr, bent, slower string bt	grsy istr, mot-sb grty tex, sact BENT w/ pyr, bt yel flr from bent, slower string bt yel cut, bt blu/yel UV sin, lt brn Wh it stn



9082'
90.31°
n 175,90°
D 6584.48'

Base Of Target

MD 9145'
Inc 90.31°
Azim 176.14°
TVD 6584.14'

MD 9208'
Inc 91.54°
Azim 174.78°
TVD 6583.13'

MD 9239'
Inc 92.78°
Azim 174.86°
TVD 6581.9'

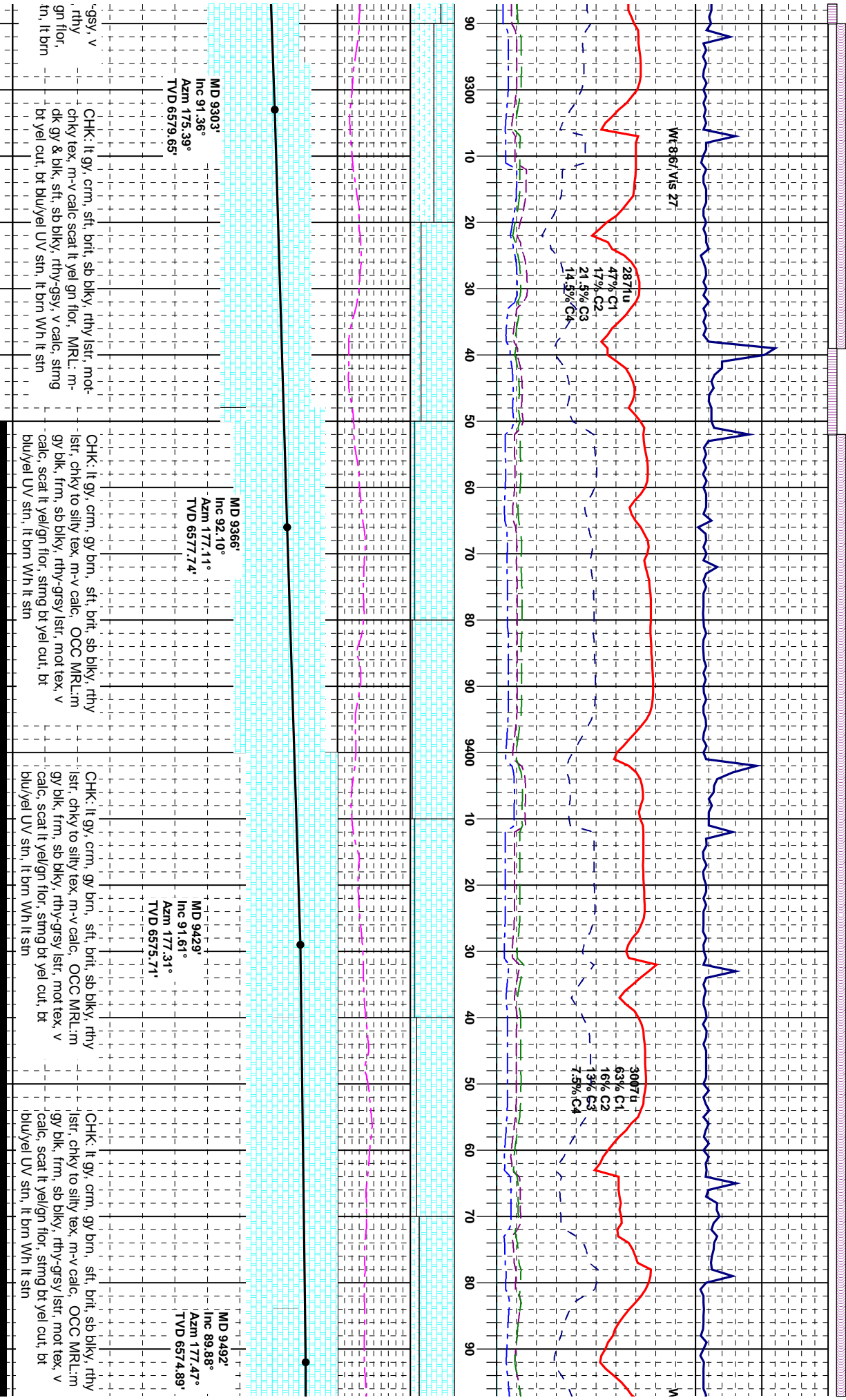
blk-y-ieg, rthy-sb
org mat, m-v calc,
cr from bent, slower
JV str, lt brn Wh lt

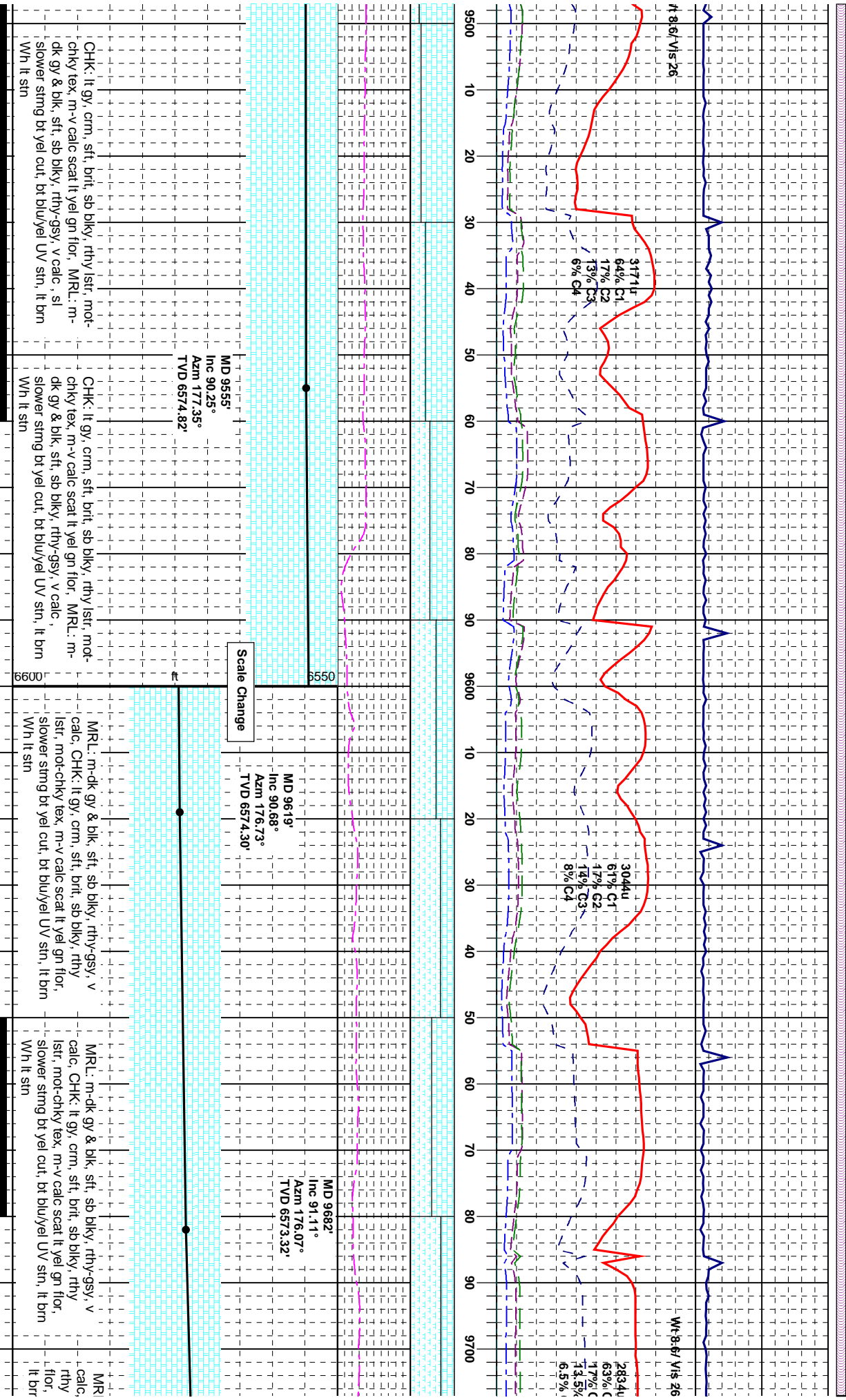
MRL: blk-dk gy, sft, sb blk y & ieg, rthy-sb
- grsy lsir, mot-sb grty tex, m-v calc, BENT,
scat br yel flor from bent, slower string bt yel
- cut, bt blu/yel UV sin, lt brn Wh lt sin

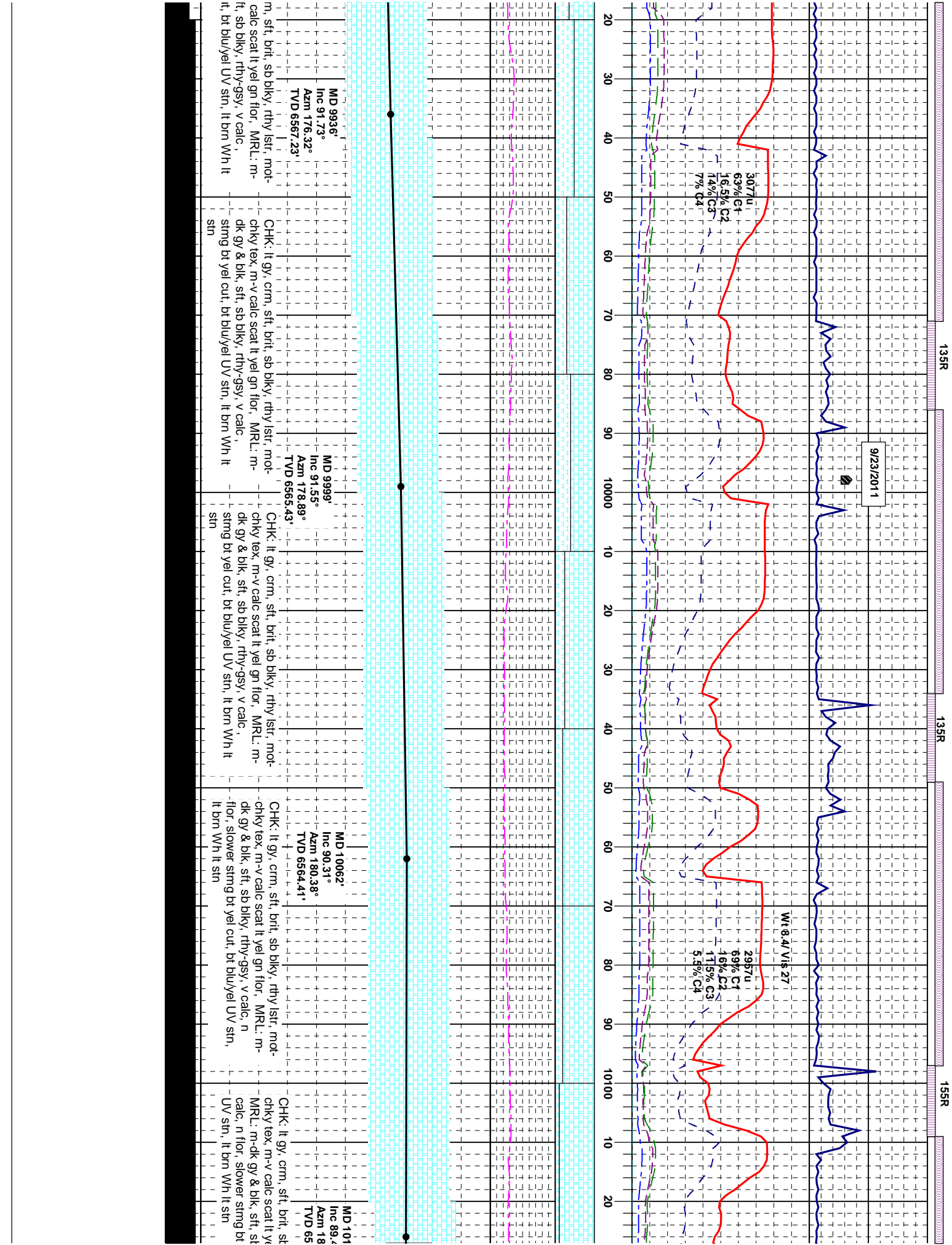
CHK: lt gy, crm, sft, brit, sb blk y, rthy lsir, mot-
- chky tex, m-v calc scat lt yel gn flor, MRL: m-
dk gy & blk, sft, sb blk y, rthy-gsy, v calc, string
- bt yel cut, bt blu/yel UV sin, lt brn Wh lt sin

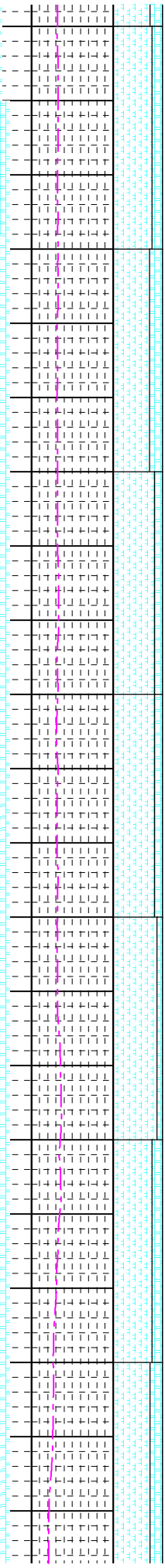
CHK: lt gy, crm, sft, brit, sb blk y, rthy lsir, mot-
- chky tex, m-v calc scat lt yel gn flor, MRL: m-
dk gy & blk, sft, sb blk y, rthy-gsy, v calc,
- slower string bt yel cut, bt blu/yel UV sin, lt brn
Wh lt sin

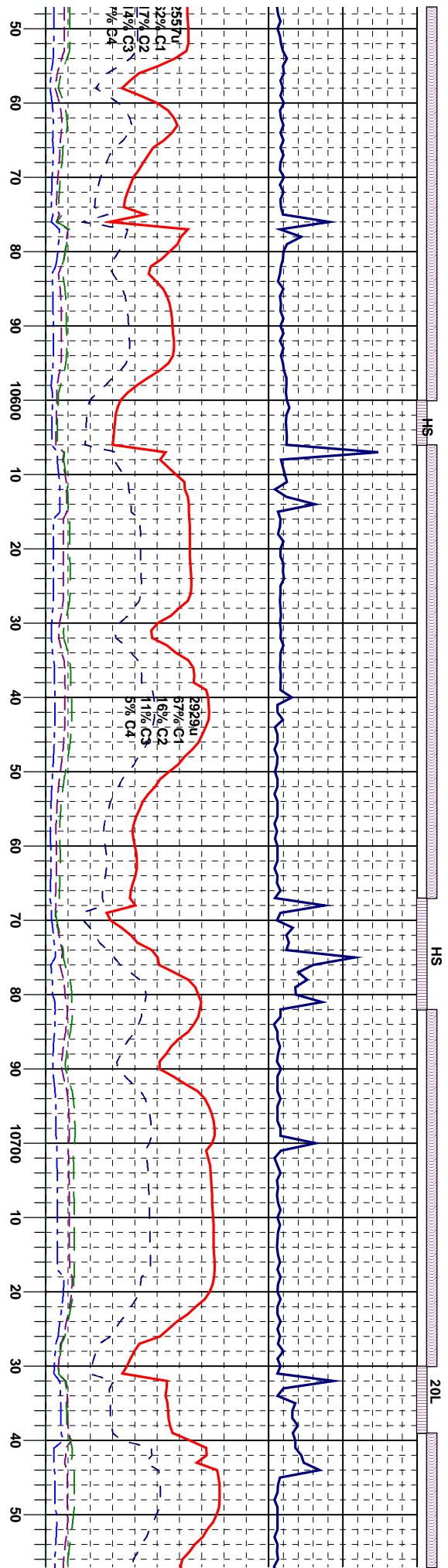
MRL: m-dk gy & blk, sft, sb blk y, rthy
- calc, CHK: lt gy, crm, sft, brit, sb blk y,
lsir, mot-chky tex, m-v calc scat lt yel
- slower string bt yel cut, bt blu/yel UV s
Wh lt sin

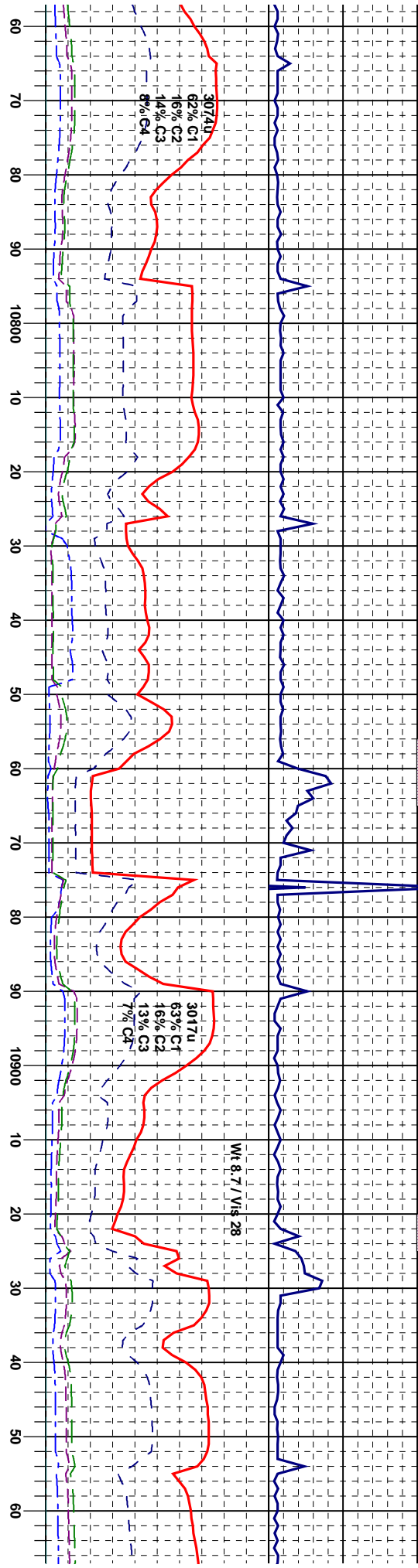






[illegible]

[illegible]



l-m gy, w. dk gy strks, sft & brt, sb
hly lstr, mot-chky tex, m-v calc v lt yel
, faster stmg/blng bt yel cut, bt yel UV
crn WH lt stn

CHK: lt gy, tr crm, sft, brt, sb blk& ply, rthy
lstr, silty-chky tex, w/ m gy strks, v calc scat lt
yel gn flr, faster stmg/blng bt yel cut, bt yel
UV stn, lt brn WH lt stn

CHK: lt gy, tr crm, sft, brt, sb blk& ply, rthy
lstr, silty-chky tex, w/ m gy strks, v calc scat lt
yel gn flr, faster stmg/blng bt yel cut, bt yel
UV stn, lt brn WH lt stn

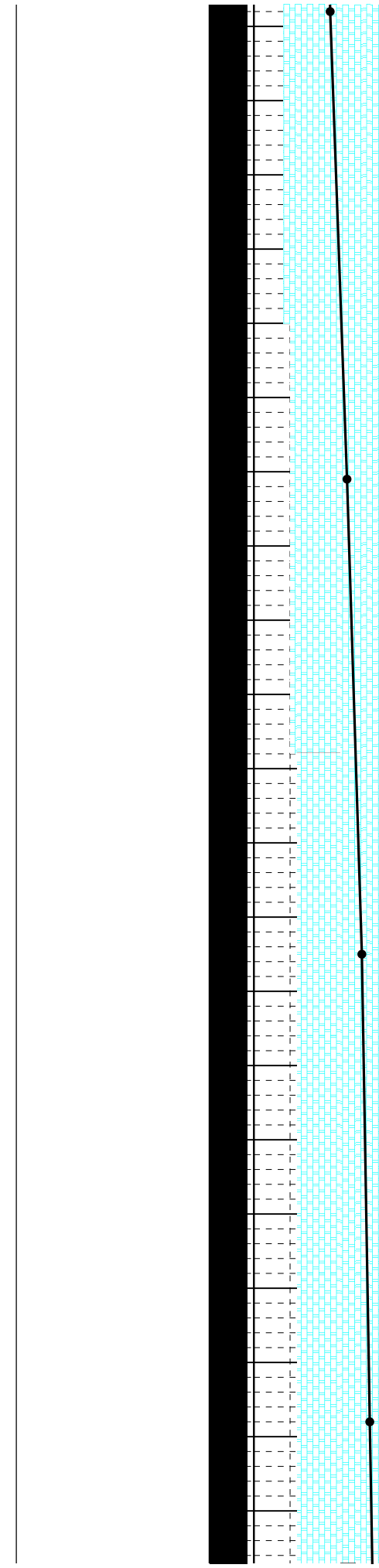
CHK: lt gy, tr crm, sft, brt, sb blk& ply, rthy
lstr, silty-chky tex, w/ m gy strks, v calc, faster
stmg/blng bt yel cut, bt yel UV stn, lt brn WH
lt stn

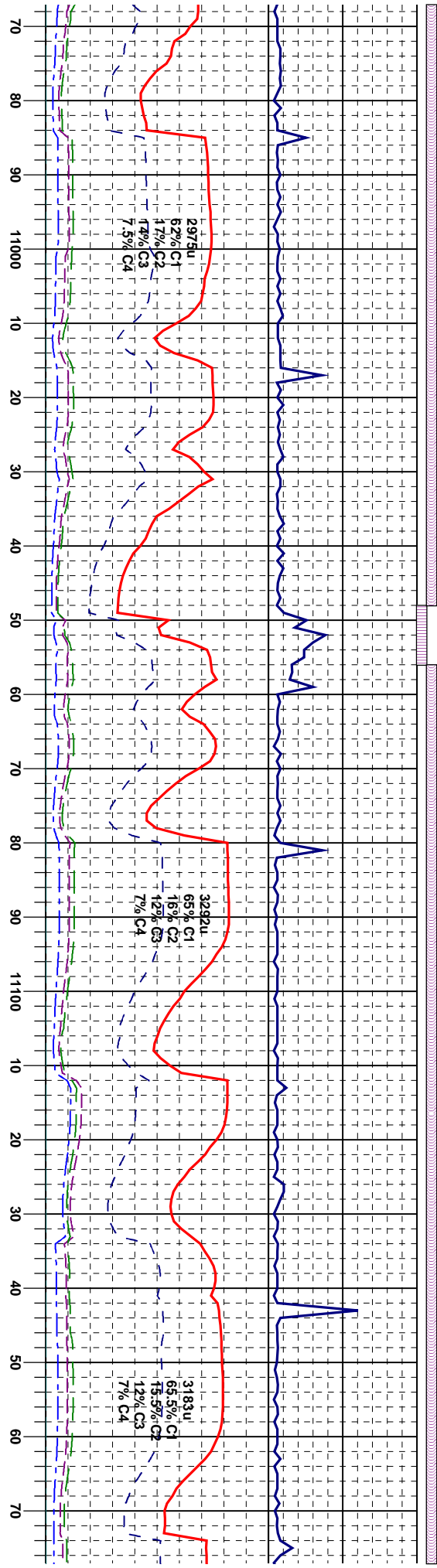
CHK: lt gy, tr crm, sft, brt, sb blk& ply, rthy
lstr, silty-chky tex, w/ m gy strks, v calc, faster
stmg/blng bt yel cut, bt yel UV stn, lt brn WH
lt stn

0738'	1.78°	MD 10821'	Inc 92.54°	Azm 182.19°	TVD 6557.2'
182.52'					
6559.5'					

0738'	1.78°	MD 10885'	Inc 91.11°	Azm 183.02°	TVD 6555.15'
182.52'					
6559.5'					

0738'	1.78°	MD 10948'	Inc 90.80°	Azm 182.53°	TVD 6554.09'
182.52'					
6559.5'					





CHK: It gy, tr crm, sft, brt, sb blk& ply, rthy
lsr, silty-chky tex, w/ m gy strks, v calc, MRL:
dk gy-blk, frm-sft, sb blk, rthy-gsy lstr, mot-
sbgtry tex, tr scat lt yel gn flor, faster
stmg/blmg bt yel cut, bt yel UV sin, lt brn WH
lt sin

CHK: It gy, tr crm, sft, brt, sb blk& ply, rthy
lsr, silty-chky tex, w/ m gy strks, v calc, occ
MRL: dk gy-blk, frm-sft, sb blk, rthy-gsy lstr,
mot-sbgtry tex, lt yel gn flor, fast blmg bt yel
cut, bt yel UV sin, lt brn WH lt sin

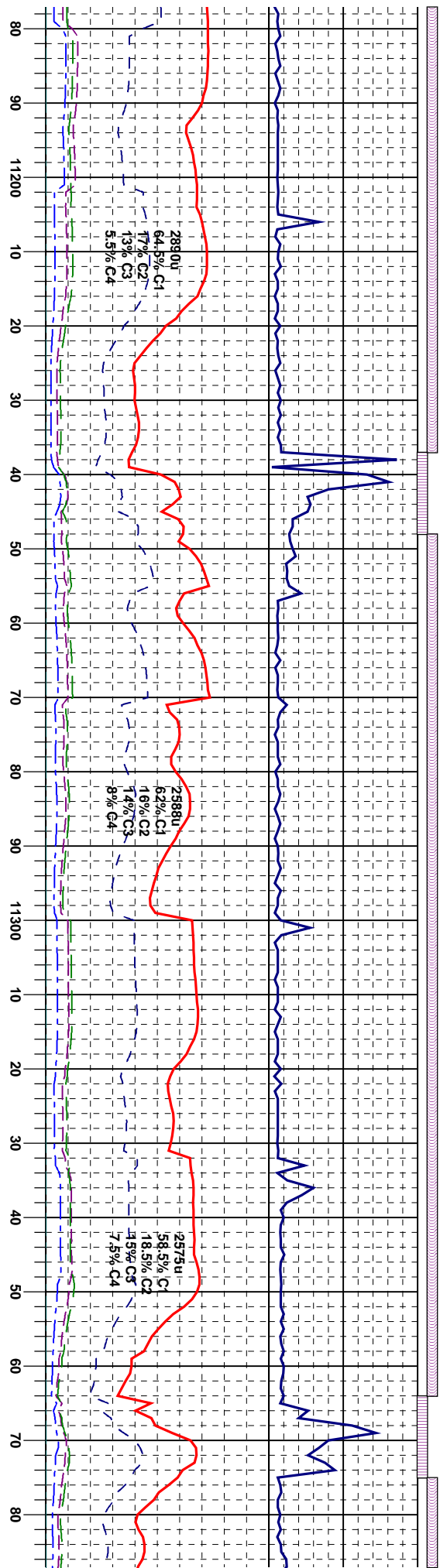
CHK: It gy, tr crm, sft, brt, sb blk& ply, rthy
lsr, silty-chky tex, w/ m gy strks, v calc, lt yel
gn flor, fast blmg bt yel cut, bt yel UV sin, lt
brn WH lt sin

CHK: It gy, tr crm, sft, brt, sb blk& ply, rthy
lsr, silty-chky tex, w/ m g
MRL: dk gy-blk, frm-sft, s
mot-sbgtry tex, lt yel gn fl
bt yel cut, bt yel UV sin, lt

MD 11012°
Inc 91.30°
Azim 182.19°
TVD 6552.91'

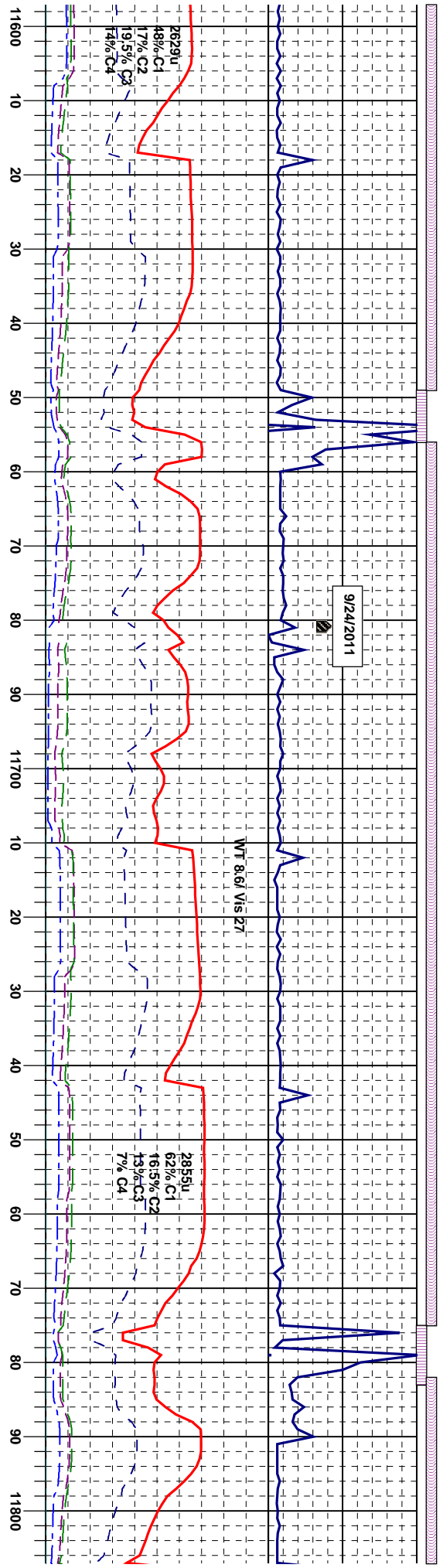
MD 11075°
Inc 90.37°
Azim 182.34°
TVD 6552.00'

MD 11138°
Inc 90.62°
Azim 182.06°
TVD 6551.45'

[illegible]

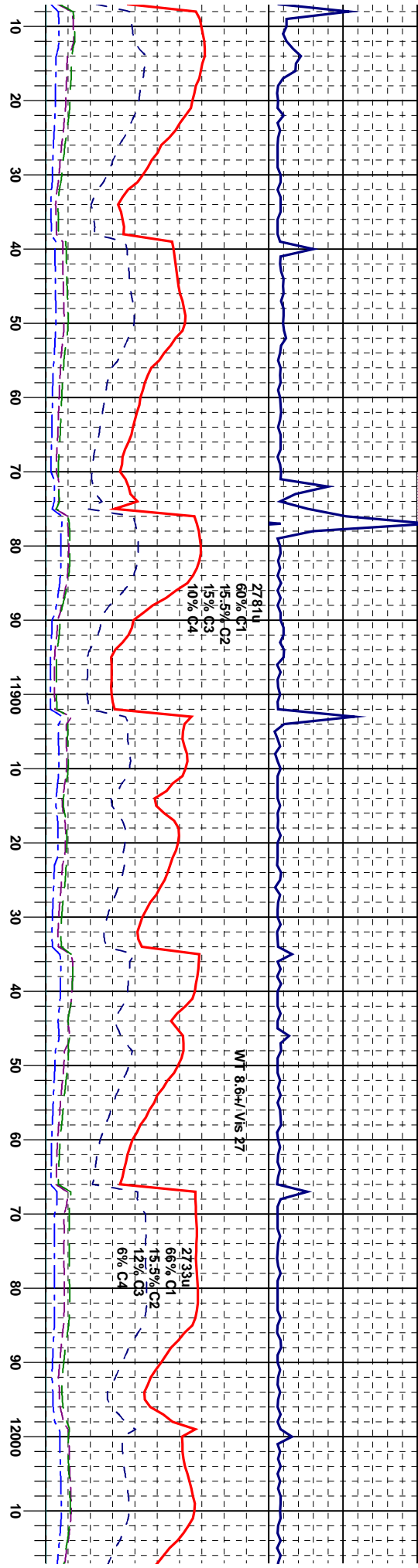
MD	Inc	Azm	TVD	MD	Inc	Azm	TVD	MD	Inc	Azm	TVD
11,201'	92.54°	181.81°	6549.72'	11,265'	90.12°	181.88°	6548.24'	11,328'	90.74°	181.58°	6547.76'





CHK: It gybrn, tr crm, sft, brt, sb blk&y& ply, rthy lstr, silty-chky tex, w/ m gy strks, v calc, tr scat lt yel gn flor, sact BENT w/ pyr, bt yel flor from bent, fast simgblng bt yel cut, bt yel UV sin, lt brn WH lt sin	CHK: It gybrn, tr crm, sft, brt, sb blk&y& ply, rthy lstr, silty-chky tex, w/ m gy strks, v calc, tr scat lt yel gn flor, sact BENT w/ pyr, bt yel flor from bent, string bt yel cut, bt yel UV sin, lt brn WH lt sin	CHK: It gybrn, tr crm, sft, brt, sb blk&y& ply, rthy lstr, silty-chky tex, w/ m gy strks, v calc, tr scat lt yel gn flor, sact BENT w/ pyr, bt yel flor from bent, string bt yel cut, bt yel UV sin, lt brn WH lt sin	CHK: It gybrn, tr crm, sft, brt, sb blk&y& ply, rthy lstr, silty-chky tex, w/ m gy strks, v calc, tr scat lt yel gn flor, sact BENT w/ pyr, bt yel flor from bent, fast simgblng bt yel cut, bt yel UV sin, lt brn WH lt sin	CHK: It gybrn, tr crm, sft, brt, sb blk&y& ply, rthy lstr, silty-chky tex, w/ m gy strks, v calc, tr scat lt yel gn flor, sact BENT w/ pyr, bt yel flor from bent, fast simgblng bt yel cut, bt yel UV sin, lt brn WH lt sin
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MD 11,613' Inc 89.88° Azim 182.12° TVD 6548.27'	MD 11,676' Inc 89.57° Azim 182.79° TVD 6548.57'	MD 11,739' Inc 90.49° Azim 182.64° TVD 6548.54'
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It gy, crm, sft, brt, sb blk& ply, str, silty-chky tex, w/ m gy strks, v calc. It yel gn flr, sect BENT w/ pyr, bt yel flr bent, stmg bt yel cut, bt yel UV sn, It

MR.L: m-dk gy, blk, frm-sft, sb blk, rthy-gsy lstr, mor-sb grty tex, v calc w/ org mat, intd CHK: It gy, crm, sft, sb blk, rty, chky tex, v calc scat bent, fast stmg/blmg bt yel cut, bt yel UV sn, It brn WH It sn

CHK: It gy, crm, dk gy strk, stfm frm & brt, rthy lstr, chky tex, sb blk, v calc Mri: blk sb grty scat occ org chk flr, abndt bt yel bent flr, fast stmg/blmg bt yel cut, bt yel UV sn, It brn WH It sn

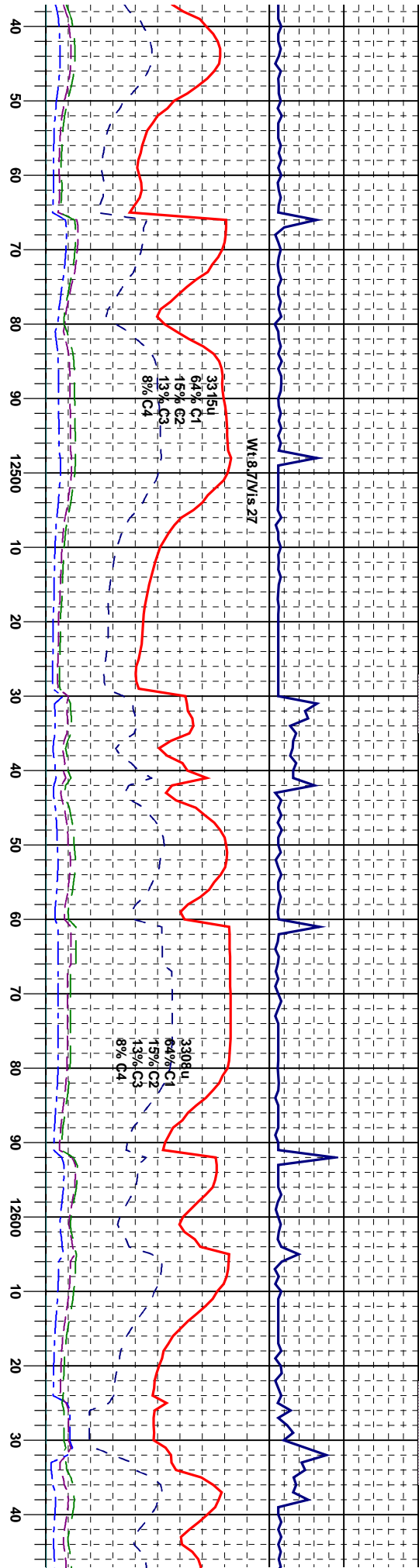
CHK: It gy, crm, dk gy strk, stfm frm & brt, rthy lstr, chky tex, sb blk, v calc Mri: blk sb grty scat occ org chk flr, less bt yel bent flr, <5%, fast stmg/blmg bt yel cut, bt yel UV sn, It brn WH It sn

CHK: It gy, crm, rthy lstr, chky te grty scat occ or fast stmg/blmg WH It sn

MD 11,834'	Inc 89.44°	Azm 183.59°	TVD 6548.59'	MD 11,866'	Inc 89.94°	Azm 183.07°	TVD 6548.8'	MD 11,930'	Inc 90.06°	Azm 182.89°	TVD 6548.8'	MD 11,993'	Inc 91.73°	Azm 182.79°	TVD 6547.8'
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170R

160R



so blk, 1 flor, m wh lt	CHK: wt, lt gy, clean, sft& brit, ply& sb blk, rthy lstr, spy & chly tex, v calc lt yel gn flor, MRL: dk gy-blk, frm, brit, sb grty & mot, org mat, n flor, fast- m sting bt yel cut, bt yel UV str, brn wh lt stn	CHK: wt, lt gy, clean, sft& brit, ply& sb blk, rthy lstr, spy & chly tex, v calc lt yel gn flor, MRL: dk gy-blk, frm, brit, sb grty & mot, org mat, n flor, fast- m sting bt yel cut, bt yel UV str, brn wh lt stn	CHK: wt, lt gy, clean, sft& brit, ply& sb blk, rthy lstr, spy & chly tex, v calc lt yel gn flor, MRL: dk gy-blk, frm, brit, sb grty & mot, org mat, n flor, fast- m sting bt yel cut, bt yel UV str, brn wh lt stn	CHK: wt, lt gy, clean, sft& brit, ply& sb blk, rthy lstr, spy & chly tex, v calc lt yel gn flor, MRL: dk gy-blk, frm, brit, sb grty & mot, org mat, n flor, fast- m sting bt yel cut, bt yel UV str, brn wh lt stn
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MD 12,492'
Inc 91.3°
Az 1798.96°
TVD 6535.7'

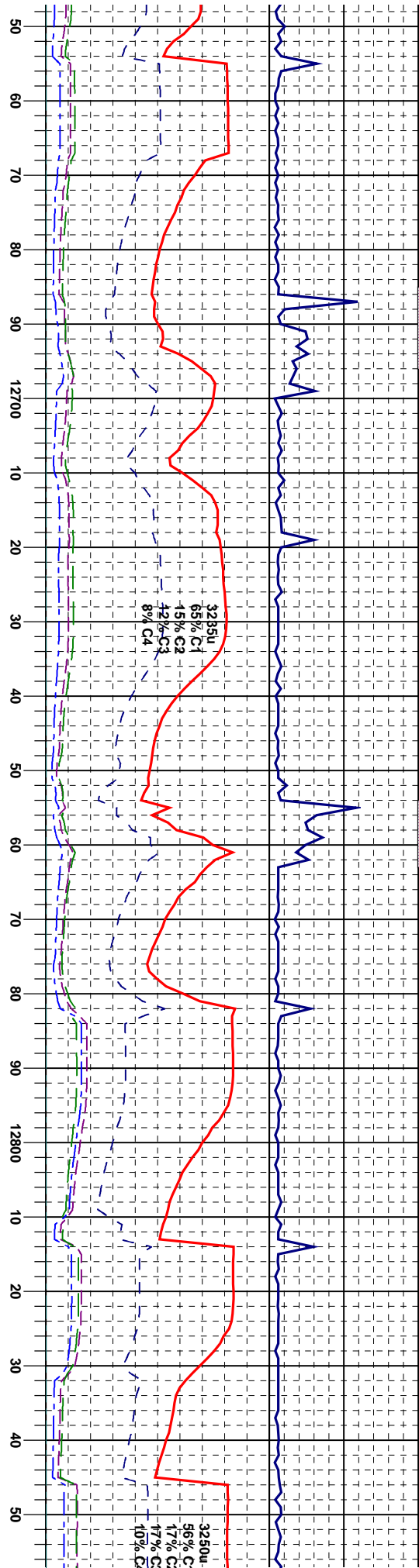
MD 12,555'
Inc 90.0°
Az 179.67°
TVD 6535.03'

MD 12,587'
Inc 91.7°
Az 179.93°
TVD 6534.7'

MD 12,587'
Inc 91.7°
Az 179.93°
TVD 6534.7'

4SR

14SR



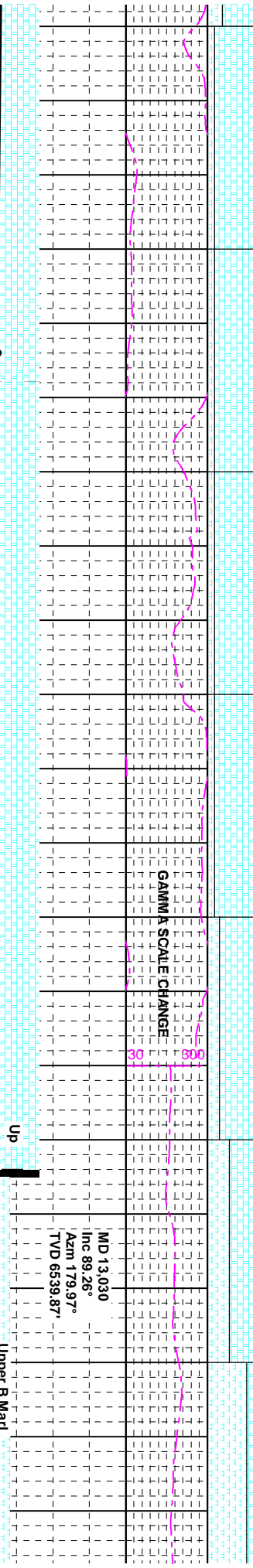
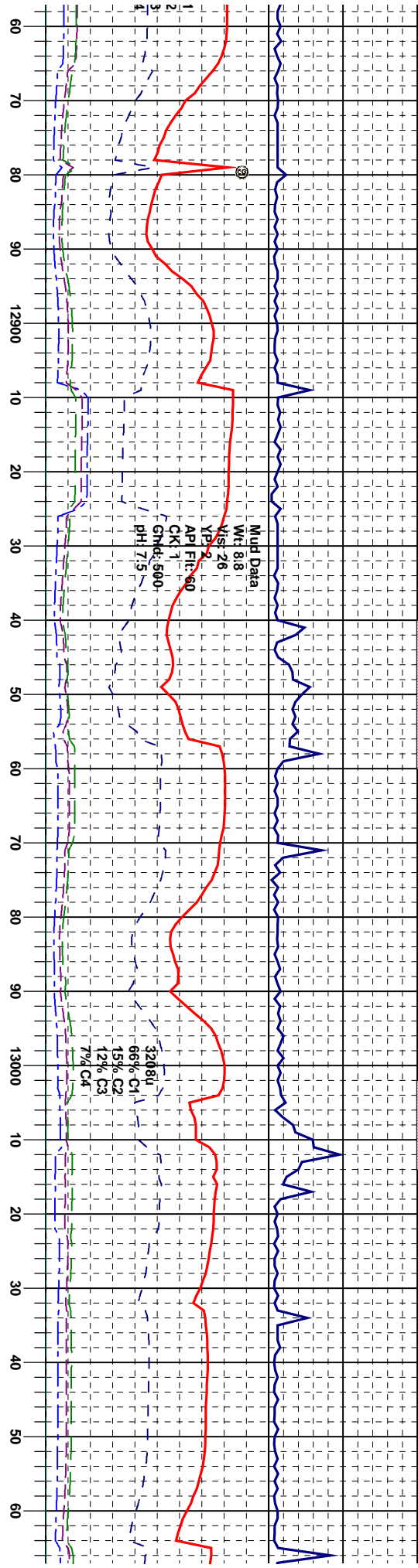
CHK: wt, lt gy, clean, stf& brit, ply& sb blk, rthy lstr, spy & chky tex, v calc lt yel gn flr, MRL: dk gy-blk, frm, brit, sb grty & mot, org mat, n flr, fast- m string bt yel cut, bt yel UV sin, brn wh lt sin	CHK: wt, lt gy, clean, stf& brit, ply& sb blk, rthy lstr, spy & chky tex, v calc lt yel gn flr, MRL: dk gy-blk, frm, brit, sb grty & mot, org mat, n flr, fast- m string bt yel cut, bt yel UV sin, brn wh lt sin
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MD 12,650' Inc 90.37° m 180.16° D 6533.8'	MD 12,713' Inc 89.32° Azim 179.07° TVD 6534.0'	MD 12,777' Inc 88.27° Azim 179.24° TVD 6535.4'	MD 12,840' Inc 88.83° Azim 178.59° TVD 6536.9'
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CHK: wt, lt gy, clean, stf& brit, ply& sb blk, rthy lstr, spy & chky tex, v calc lt yel gn flr, MRL: dk gy-blk, frm, brit, sb grty & mot, org mat, n flr	CHK: lt-m gy, frm-stf, brit, sb blk & ply, rthy spy tex, v calc abndt lt yel gn chky flr, MRL: m-dk gy, blk, sb grty, fast string bt yel cut, bt yel UV sin, lt brn WH lt sin.
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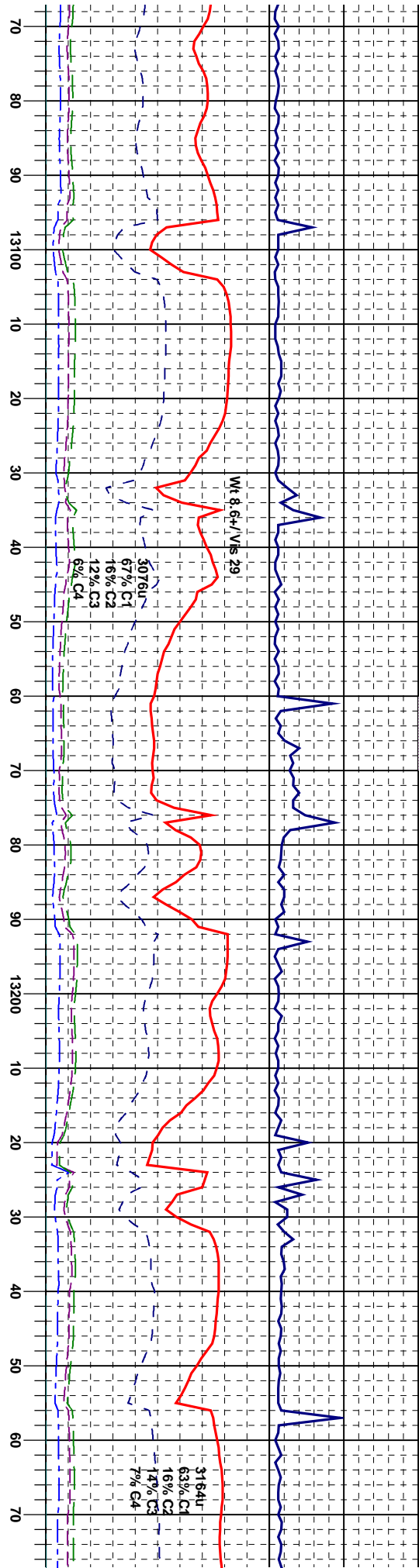
155R

50R



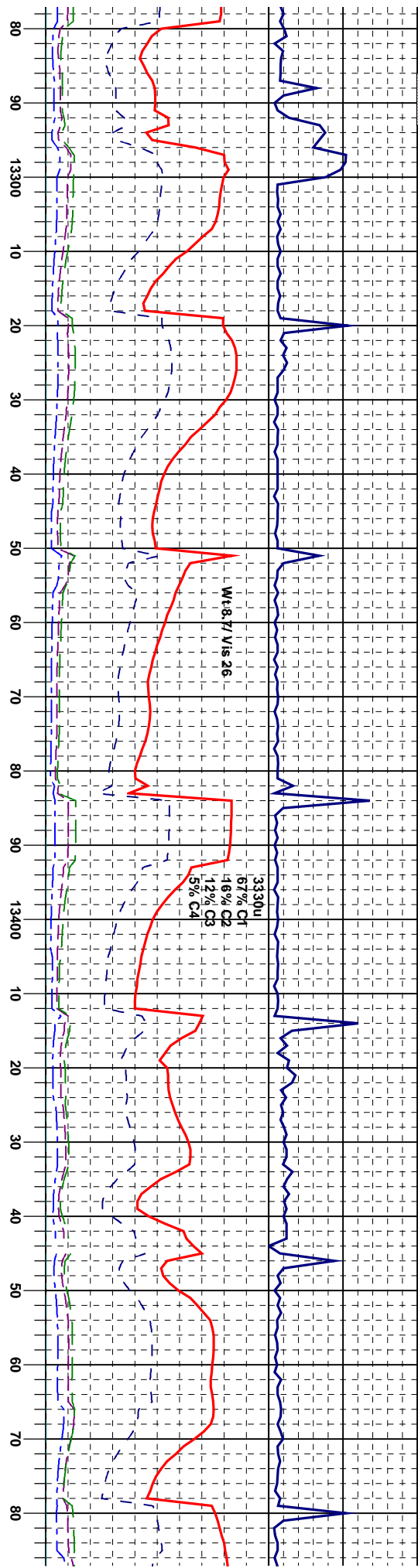
MD 12.904 Inc 89.88° Azim 177.91° TVD 6537.7'		MD 12.967 Inc 88.45° Azim 178.06° TVD 6538.61'		MD 13.030 Inc 89.26° Azim 179.97° TVD 6539.87'	
CHK: It-m gy, frm-sft, brit, sb blkly & plty, rthy spty tex, v calc abndt It yel gn chk flor. MRL: m-dk gy, blk, sb grty, fast stmg bt yel cut, bt yel UV stn, It brn WH It stn.		CHK: It-m gy, frm-sft, brit, sb blkly & plty, rthy spty tex, v calc abndt It yel gn chk flor. MRL: m-dk gy, blk, sb grty, fast stmg bt yel cut, bt yel UV stn, It brn WH It stn.		MRL: m-dk gy, blk, sft, sub blkly, earthy lustre gr-sily tex, m-v calc CHK: It-m gy, frm-sft, brit, abndt It yel gn chk flor, slower stmg bt yel cut, bt yel UV stn, It brn WH It stn.	

MD 12.904 Inc 89.88° Azim 177.91° TVD 6537.7'		MD 12.967 Inc 88.45° Azim 178.06° TVD 6538.61'		MD 13.030 Inc 89.26° Azim 179.97° TVD 6539.87'	
CHK: It-m gy, frm-sft, brit, sb blkly & plty, rthy spty tex, v calc abndt It yel gn chk flor. MRL: m-dk gy, blk, sb grty, fast stmg bt yel cut, bt yel UV stn, It brn WH It stn.		CHK: It-m gy, frm-sft, brit, sb blkly & plty, rthy spty tex, v calc abndt It yel gn chk flor. MRL: m-dk gy, blk, sb grty, fast stmg bt yel cut, bt yel UV stn, It brn WH It stn.		MRL: m-dk gy, blk, sft, sub blkly, earthy lustre gr-sily tex, m-v calc CHK: It-m gy, frm-sft, brit, abndt It yel gn chk flor, slower stmg bt yel cut, bt yel UV stn, It brn WH It stn.	



MD 13,093 Inc 89.63° Azim 178.67° TVD 6540.48'	MD 13,125 Inc 89.57° Azim 178.20° TVD 6540.71'	MD 13,188 Inc 89.88° Azim 179.97° TVD 6541.01'	MD 13,251 Inc 90.31° Azim 178.99° TVD 6540.91'
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blk, sft, sub blk, earthy lustre calic CHK: lt-m gy, frm-sft, brit, chk flor, slower stimg bt yel cut, t brn WH lt stn.	MRL: m-dk gy, blk, sft, sub blk, earthy lustre gf-sily tex, m-v calic CHK: lt-m gy, frm-sft, brit, abndt lt yel gn chk flor, slower stimg bt yel cut, bt yel UV stn, lt brn WH lt stn.	MRL: m-dk gy, blk, sft, sub blk, earthy lustre gf-sily tex, m-v calic CHK: lt-m gy, frm-sft, brit, abndt lt yel gn chk flor, slower stimg bt yel cut, bt yel UV stn, lt brn WH lt stn.	MRL: m-dk gy, blk, sft, sub blk, earthy lustre gf-sily tex, m-v calic CHK: lt-m gy, frm-sft, brit, abndt lt yel gn chk flor, slower stimg bt yel cut, bt yel UV stn, lt brn WH lt stn.	CHK: lt-m gy, frm-sft, brit sily tex, v calic abndt lt ye m-dk gy, blk, sb grty, fast yel UV stn, lt brn WH lt s
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MD 13,315'
Inc 89.20°
Azim 179.37°
TVD 6541.19'

CHK: It-m gy, frm-sft, brit, sb blkly & plity, rth
spty tex, v calc abndt It yel gn chk flor, MRL:
m-dk gy, blk, sb grfy, fast stmg bt yel cut, bt
yel UV stn, It brn WH It stn.

CHK: It-m gy, frm-sft, brit, sb blkly & plly, rt
spty tex, v calc abndt It yel gn chk flor, MRL:
m-dk gy, blk, sb grty, fast stmg bt yel cut, bt
yel UV stn, It brn WH It sln.

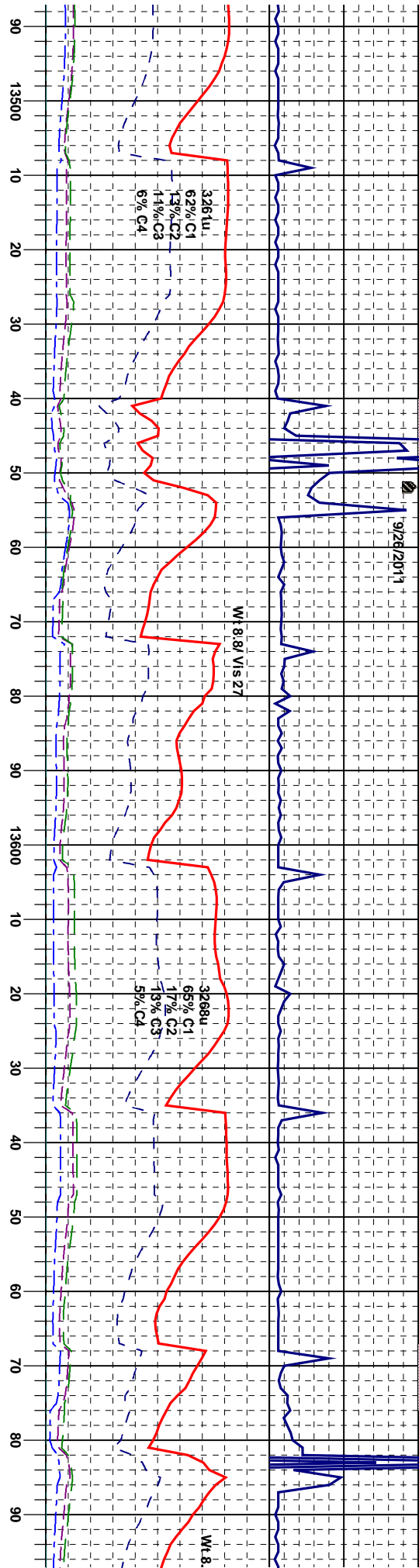
MR.L. m-dk gy, blk, sft, sub blkly, ean
gt-sfty tex, m-v calic CHK: lt-m gy, frr
abndt lt yel gn chk flr, slower stmg t
tbt yel UV stn, lt brn WH lt stn.

1. sb blyky & pily, rthy	1. ---CHK: It-m-gy, frm-sft, brt, sb blyky & pily, rthy
2. sb gn chik flor, MRL:	2. ---spy tex, v calic abndt It yel gn chik flor, MRL:
3. simng bt yel cut, bt	3. ---m-dk gy, blk, sb gtry, fast simng bt yel cut, bt
tn.	tn. yel UV sin, it brn WH It sin.

-CHK: It-m gy, frm-sft, brit, sb blkly & pflty, rthy
spty tex, v calic abndt It yel gn chk flor, MR.:
-m-dk gy, blk, sb gfty, fast stmg bt yel cut, bt
yel UV sin, It brn WH It str.

MD 13,378'
Inc 89.32°
Azm 179.02°
TVD 6542.00

MD 13,441'
Inc 89.75°
Azim 178.28°
TVD 6542.51



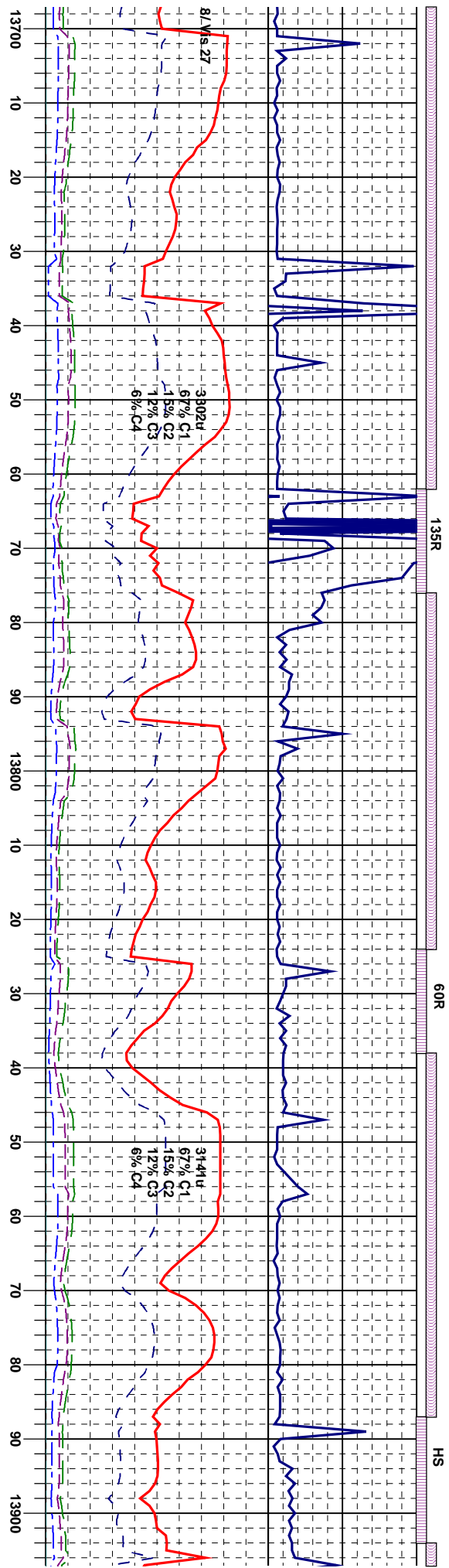
thylustre
-sft, brit,
-t yel cut,
MRL: m-dk gy, blk, sft, sub biky, earthy lustre
-gf-sily tex, m-v calc CHK: lt-m gy, frm-sft, brit,
-abtnd lt yel gn chk flr, slower sting bt yel cut,
-bt yel UV sn, lt brn WH lt sn.

MRL: m-dk gy, blk, sft, sub biky, earthy lustre
-gf-sily tex, m-v calc CHK: lt-m gy, frm-sft, brit,
-abtnd lt yel gn chk flr, slower sting bt yel cut,
-bt yel UV sn, lt brn WH lt sn.

MRL: m-dk gy, blk, sft, sub biky, earthy lustre
-gf-sily tex, m-v calc CHK: lt-m gy, frm-sft, brit,
-abtnd lt yel gn chk flr, slower sting bt yel cut,
-bt yel UV sn, lt brn WH lt sn.

MRL: lt-m gy, occ dk gy & blk, sft, sb biky &
-ireg, earthy -dull luster, sily to arg tex, m
-calc, rr CHK: lt gy, sft, v calc, tr lt yel chk for,
-occ bt yel bent flr, slower sting bt yel cut, bt
-yel UV sn, lt brn WH lt sn.

MD 13.505'	Inc 90.06°	Azm 177.75°	TVD 6542.91'
MD 13.568'	Inc 88.95°	Azm 177.74°	TVD 6543.16'
MD 13.632'	Inc 89.32°	Azm 177.34°	TVD 6544.12'
MD 13.694'	Inc 88.08°	Azm 176.4	TVD 6545



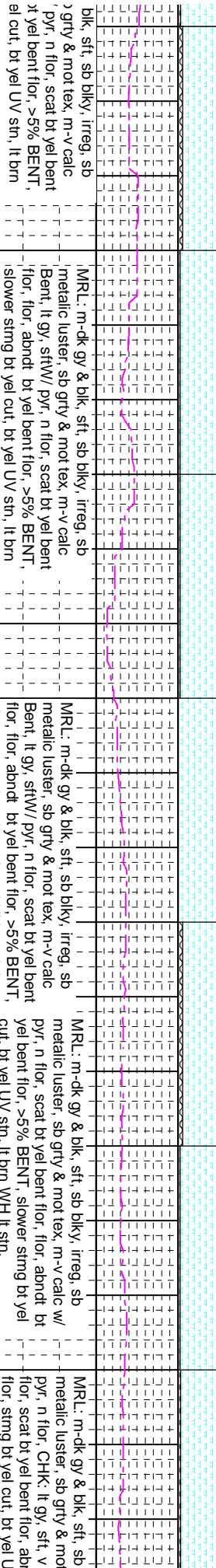
MRL: lt-m gy, occ dk gy & blk, sft, sb blkly & irreg, earthy -dull luster, silty to arg tex, m calc, rr CHK: lt gy, sft, v calc, tr lt yel chk flor, occ bt yel bent flor, slower stmg bt yel cut, bt yel UV stn, lt brn WH lt stn.

MRL: It-m gy, occ dk gy & blk, sft, sb blkly & irreg, earthy -dull luster, silty to arg tex, m calc, rr CHK: It gy, sft, v calc, tr It yel chk flor, occ bt yel bent flor, slower stmg bt yel cut, bt yel UV sin, lt brn WH It strn.

MRL: It-m gy, occ dk gy & blk, sft, sb blkx & iieg, earthy -dull luster, silty to arg tex, m calc, r CHK: It gy, sft, v calc, tr lt yel chk flr, abndt bt yel bent flr, >5% BENT, slower simng bt yel cut, bt yel UV stn, lt brn WH It sim

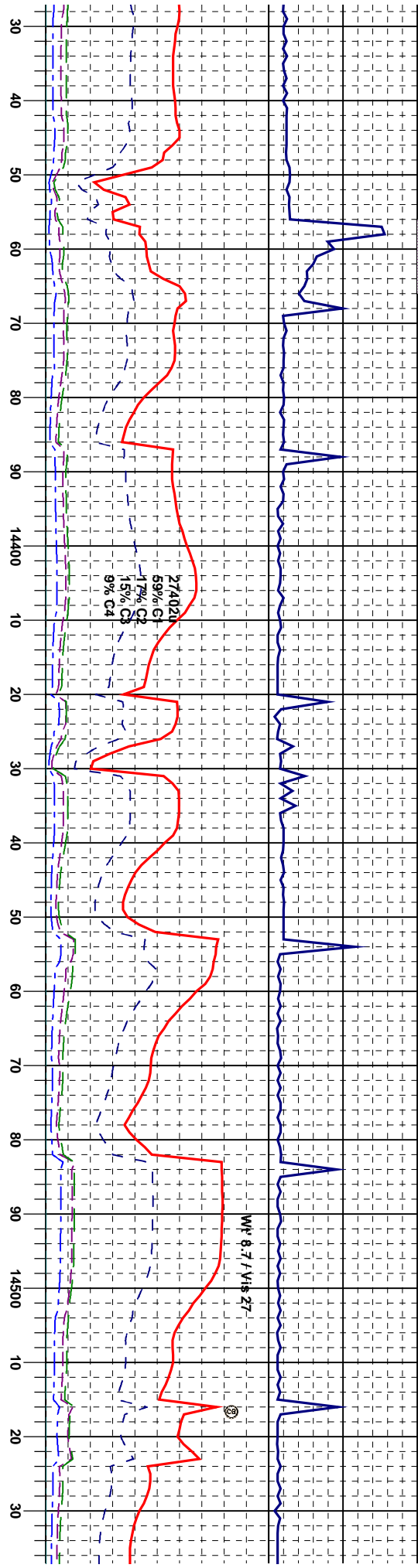
MR.: 1-1 m gy, occ dk gy & blk, sft, sb blkly & irng, earthy-dull luster, silty to arg tex, m calc, rr CHK: lt gy, sft, v calc, tr lt yel chk flr, abndt bt yel bent flr, >5% BENT, slower stmg bt yel cut, bt yel UV sm, lt brn WH lt sm.

MR
met
Ber
flor,
slow
WH

[illegible]

Top Of Target

<<<<<<<<Top Of Target>>>>>>>>>>



oilky, irreg, sb	CHK: lt gy, sft, v calc, tr lt yel chk flor, scat bt	CHK: lt-m gy, sft-m frm, brt, sb blk y & ply,	MRL: m-dk gy, occ blk, frm, brt, sb blk y, rthy -	MRL: m-dk gy & blk, sft-frm, brt, sb l
tex, m-v calc w/	yel bent flr, abndt bt yel bent flr, w/ MRL:	rthy lst, silty & mot tex, v calc w/ occ scat lt	sb gsy lst, mot tex, v calc w/ org mat, CHK: lt	met lst, mot & sb gty tex, CHK: m gy
calc, tr lt yel chk	m-dk gy & blk, sft, sb blk y, irreg, sb metallic	yel chk flr, fast stmg bt el cut, bt yel read UV	-m gy, brt, v calc w/ occ scat lt yel flr, fast	frm-sft, brt, v calc, v dul yel chk flr, s
id bt yel bent	-luster, sb gty & mot tex, m-v calc w/ pyr, fast	-sin, lt brn wh lt sin	-stmg bt el cut, bt yel read UV sin, lt brn wh lt	-yel bent flr, fast stmg bt el cut, bt ye
V sin, lt brn WH lt	-sin		sin	UV sin, lt brn wh lt sin

MD 14,384'	MD 14,447'	MD 14,511'
Inc 89.20°	Inc 90.06°	Inc 90.74°
Azm 181.02°	Azm 181.19°	Azm 181.28°
TVD 6559.95'	TVD 6560.36'	TVD 6559.9'

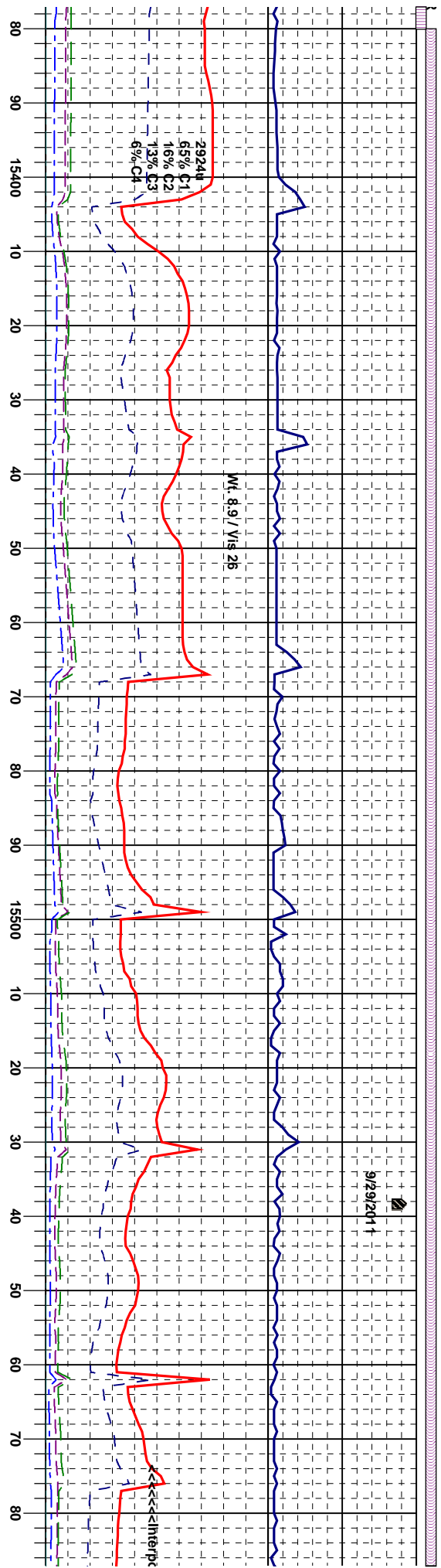
49328	C1	57%
14%	C2	
17%	C3	
11%	C4	

<<<<<Interpolated gas Data>>>>>>>>>>

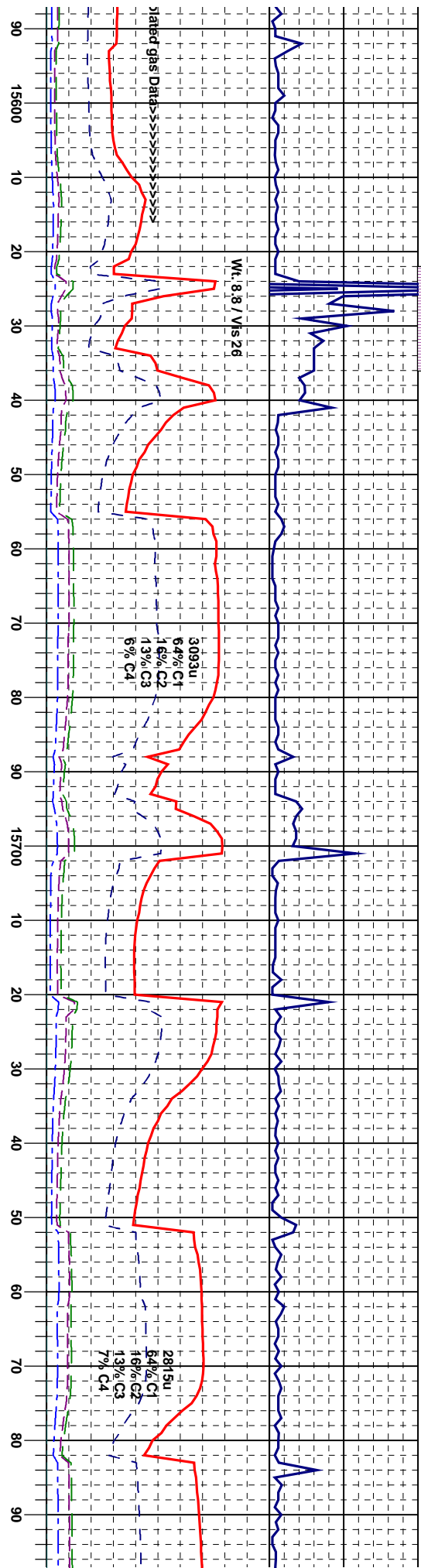
wh & crm, sft-brit, sb ply, rthy	CHK: it-m gy, wh & crm, sft-brit, sb ply, rthy	CHK: it-m gy, wh & crm, sft-brit, sb ply, rthy	CHK: it-m gy, wh & crm, sft-brit, sb ply, rthy
y tex, w/ occ MRL: m-dk gy &	lsr, mot & chiky tex, w/ MRL: m-dk gy & blk,	lsr, mot & chiky tex, w/ MRL: m-dk gy & blk,	lsr, mot & chiky tex, w/ MRL: m-dk gy & blk,
/, sb gtry -mot tex, abndt it yel	sft, sb gtry, sb gtry -mot tex, abndt it yel	sft, sb gtry, sb gtry -mot tex, abndt it yel	sft, sb gtry, sb gtry -mot tex, abndt it yel
g, blngbng bt yel cut, bt yel read	flor, fast smgblng bt yel cut, bt yel read UV	flor, fast smgblng bt yel cut, bt yel read UV	flor, fast smgblng bt yel cut, bt yel read UV
stn	stn, it brn wh it stn	stn, it brn wh it stn	stn, it brn wh it stn

MD 15.208°	MD 15.269°	MD 15.335°
Inc 90.43°	Inc 90.68°	Inc 91.42°
Azm 181.23°	Azm 180.38°	Azm 179.82°
TVD 6551.64'	TVD 6551.05'	TVD 6549.82'

<<<<<<<Top Of Target>>>>>>>>>>>>

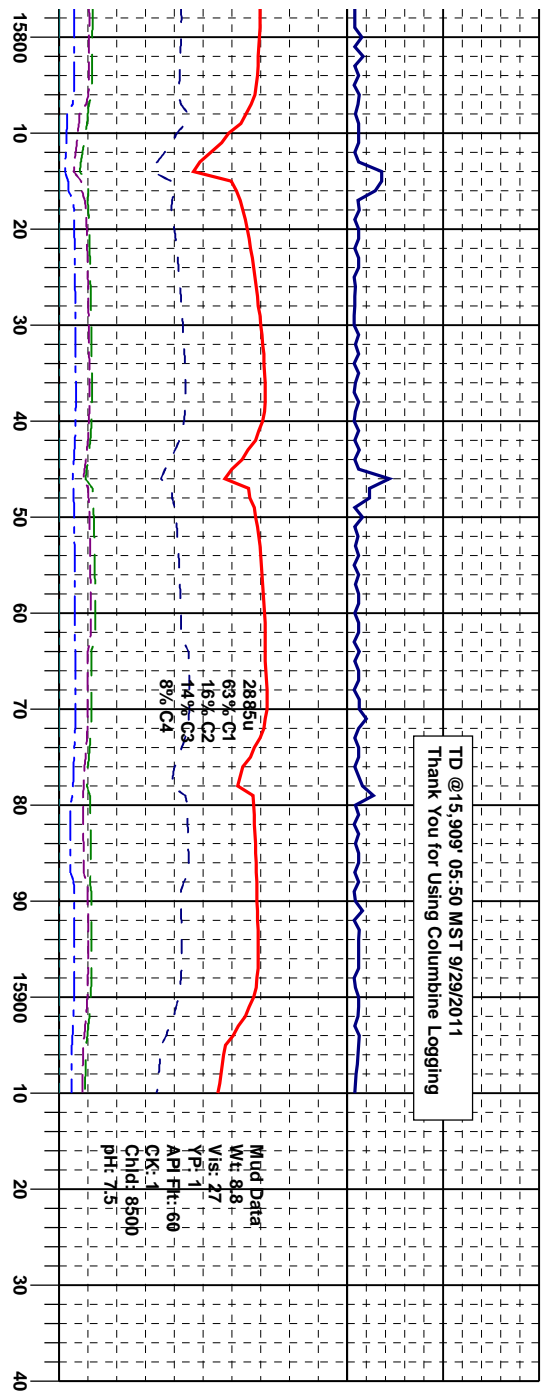
[illegible]

<<<Top Of Target>>>>>>>>>>>>

[illegible]

<<<<<<<<<Top Of Target>>>>>>>>>>>>

<<<<<<<Top Of Targets>>>>>>>



read UV strn. It brn wh it strn

MRI: m-ck gy, blk, sft-trm, sb pty & biky, rhy
 -gsy lstr, mot & sb grty tex, m-v calc intbd w/
 CHK: ltrm gy & gy brmm, sft, brit, occ scat it
 -yel flor, fast strng br yel cut, br yel UV strn it
 brn wh lt strn.

MD 15,874'
Inc 91.17°
Azim 177.89°
TYD 6548.46'

SLP to Bit
MD 15,909'
Inc 91.17°
Azim 177.89°
TVD 6547.7'

<<<<<<<Top Of Targets>>>>>>>