HORIZON
WELL LOGGING
GEO-STEERING

7136 South Yale Avenue, Suite 414
Tulsa, Oklahoma 74136-6378
phone 918.925.9739
fax 866.534.4559
WWW.HZMUD.COM

Customer Information

Operator: XTO Energy Inc.
810 Houston St.
Fort Worth, Texas 76102-6298

Geologist: Brian Henthorn
XTO Energy Inc.

Mud Logging Details

Logger: Coty Withorn &
Steven Candelaria
Log Interval: 2990' MD to 16240' MD
Start Date: March 7, 2014
Release Date: April 29, 2014

Well Information

Well Name: Goldenchild 6 State SWD #1

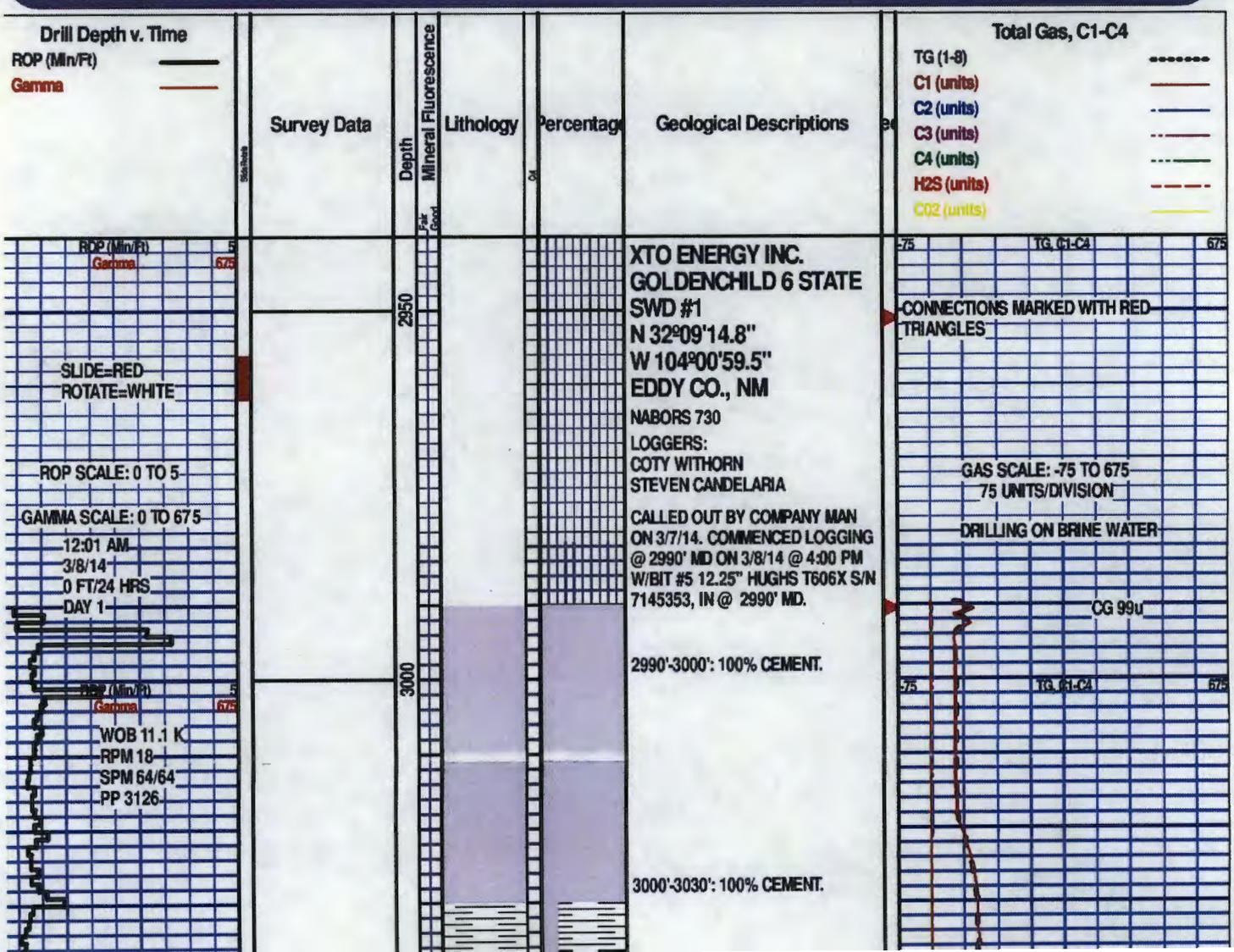
Location: 32º 09' 14.8" N Lat
104º 00' 59.5" W Long

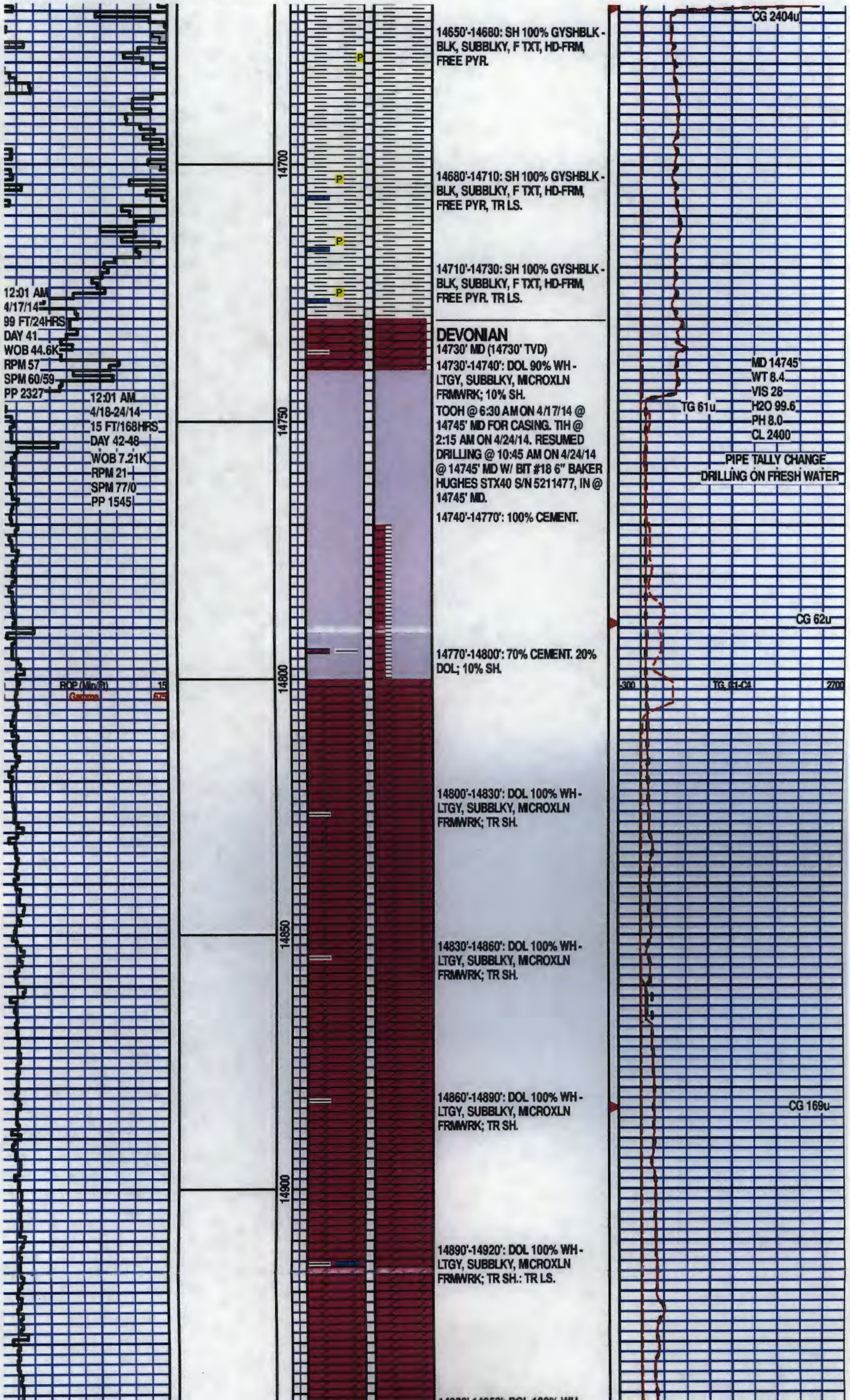
County: Eddy
State: New Mexico

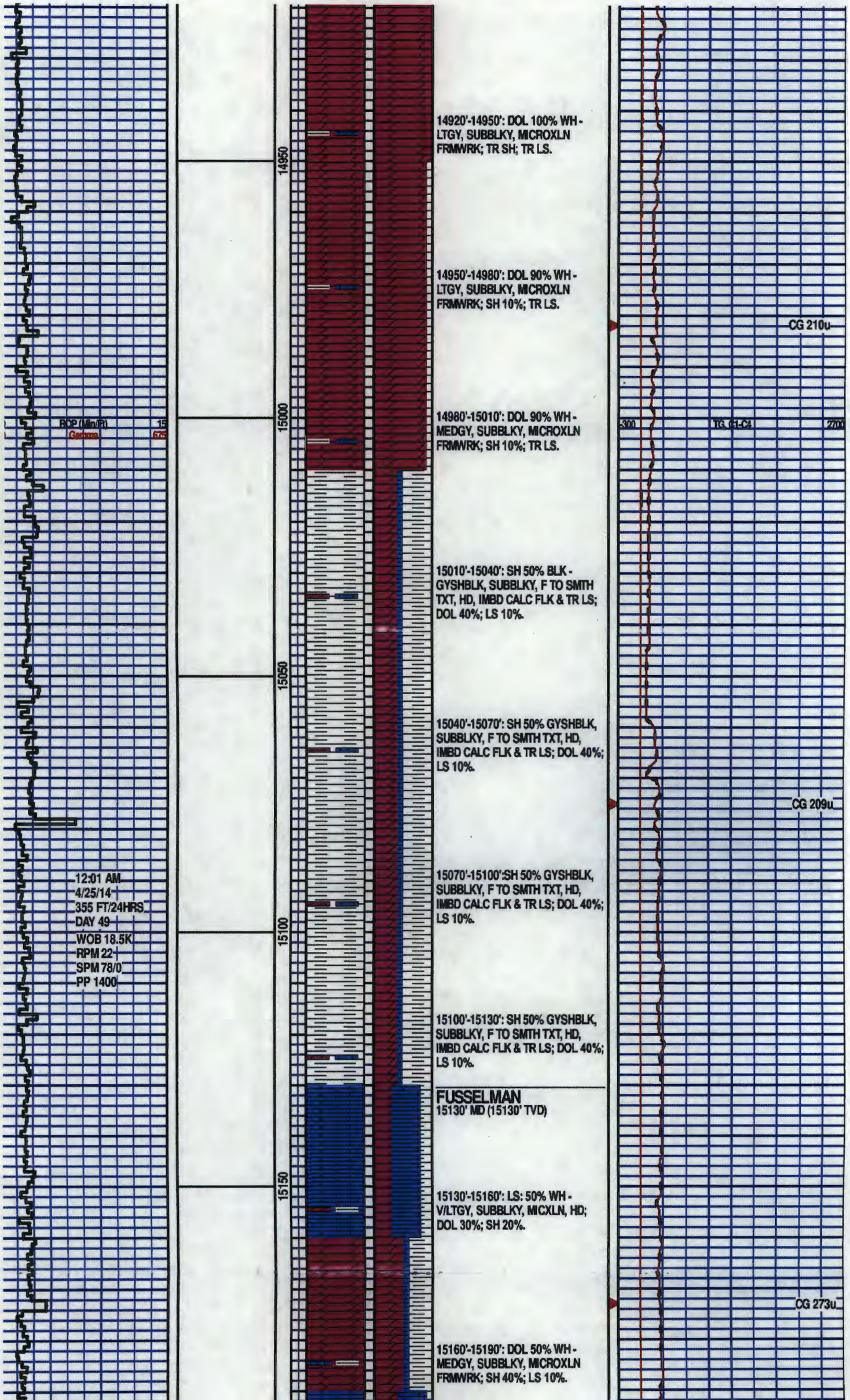
Drilling Rig: Nabors 730
Total Depth: 16240' MD
TD Date: April 28, 2014
Formation: Simpson
KB Elevation: 2956'
GR Elevation: 2931'
API Number: 30-015-41846-0000

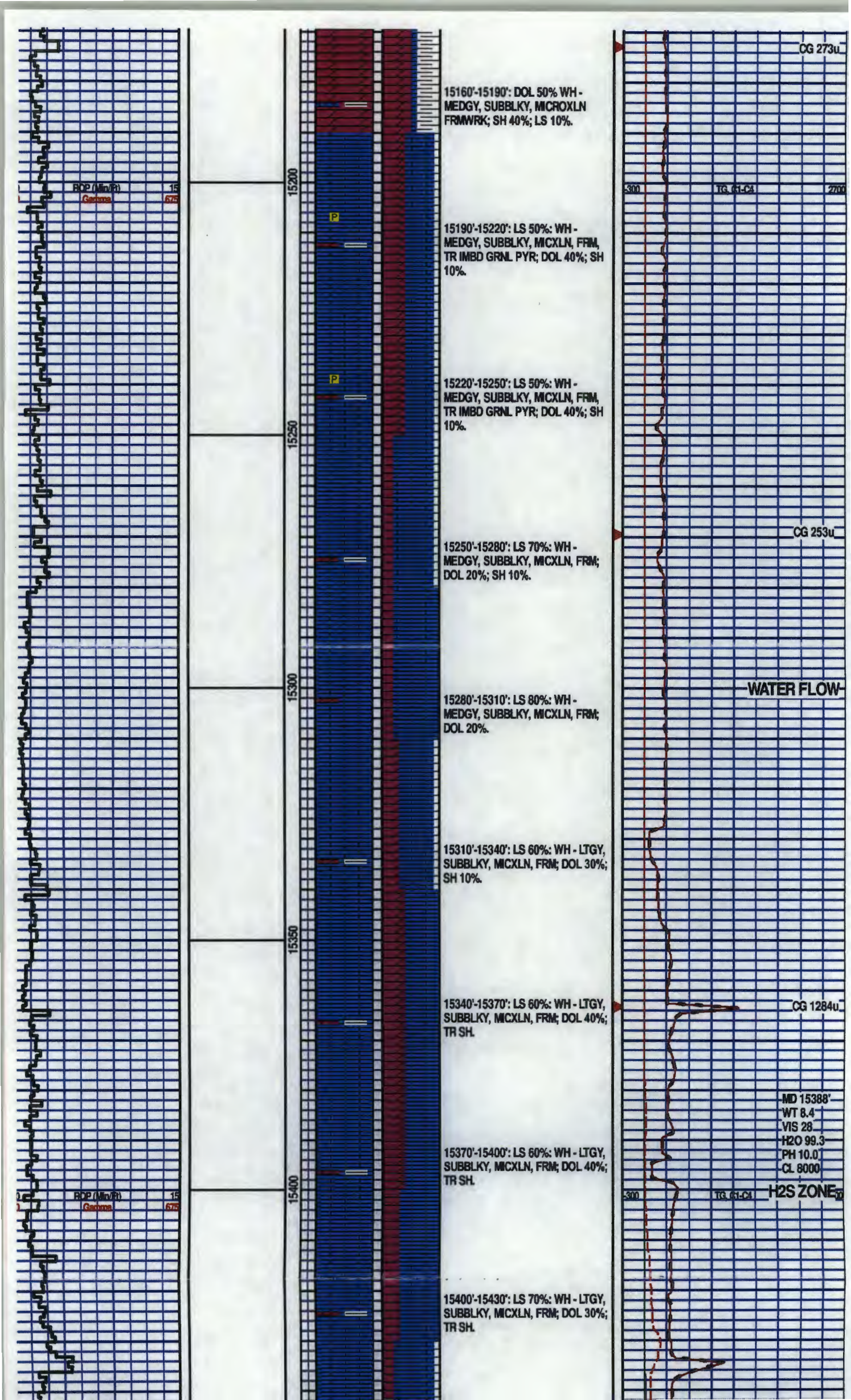
ROCK TYPES

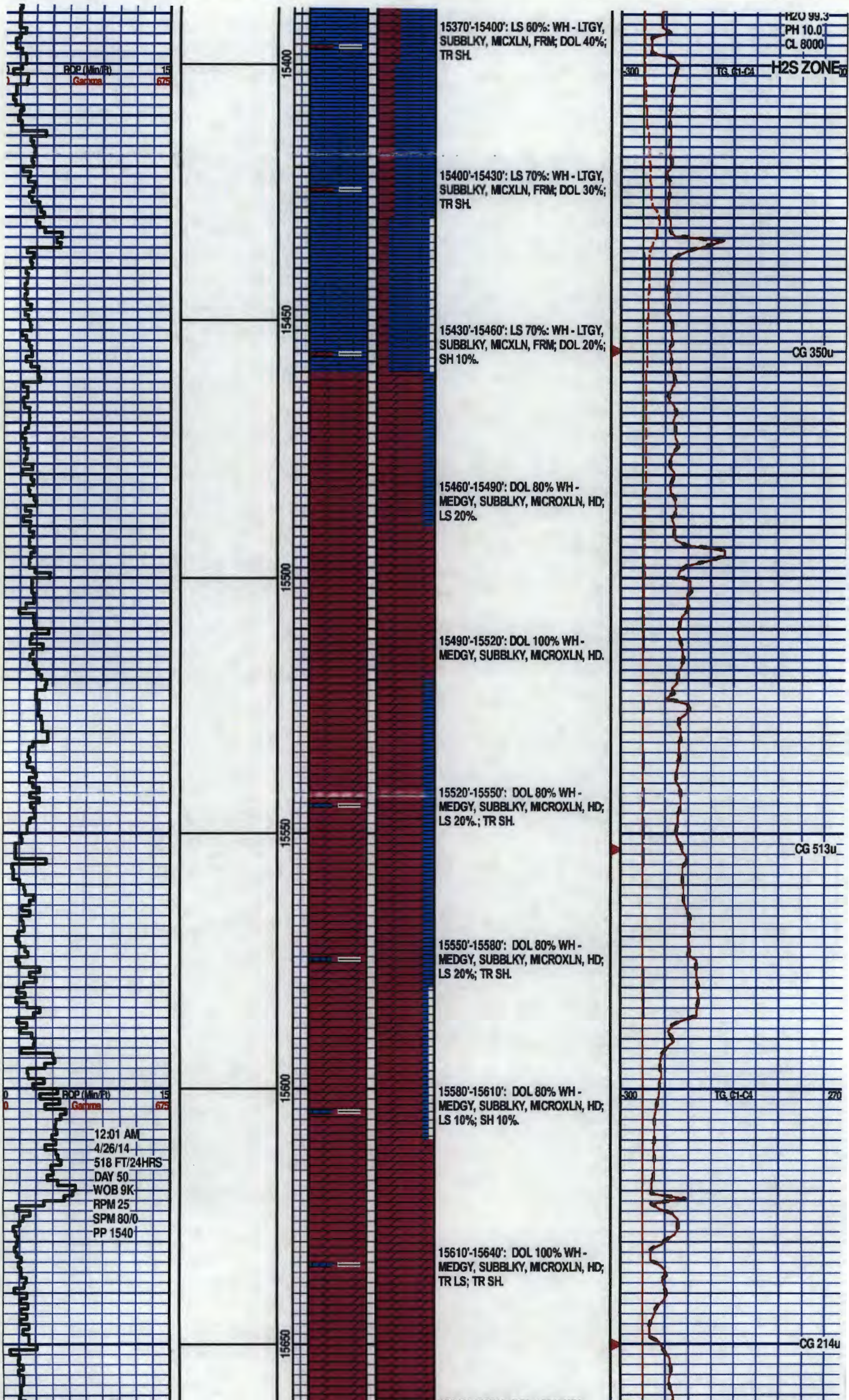
Anhy	Congl	Salt	Gw	Hvycrbsh
Bent	Dol	Shale	Lmywash	NO SMPL	Nosmpl
Brec	Gyp	Shcol	Ogw	Lsdetrit
Cht	Igne	Shgy	Olmywash	Sltst
Clyst	Lmst	Sltst	Oshly gw	Sdy sh
Cement	Meta	Ss	Shly gw
Coal	Mrlst	Till	Sdygw

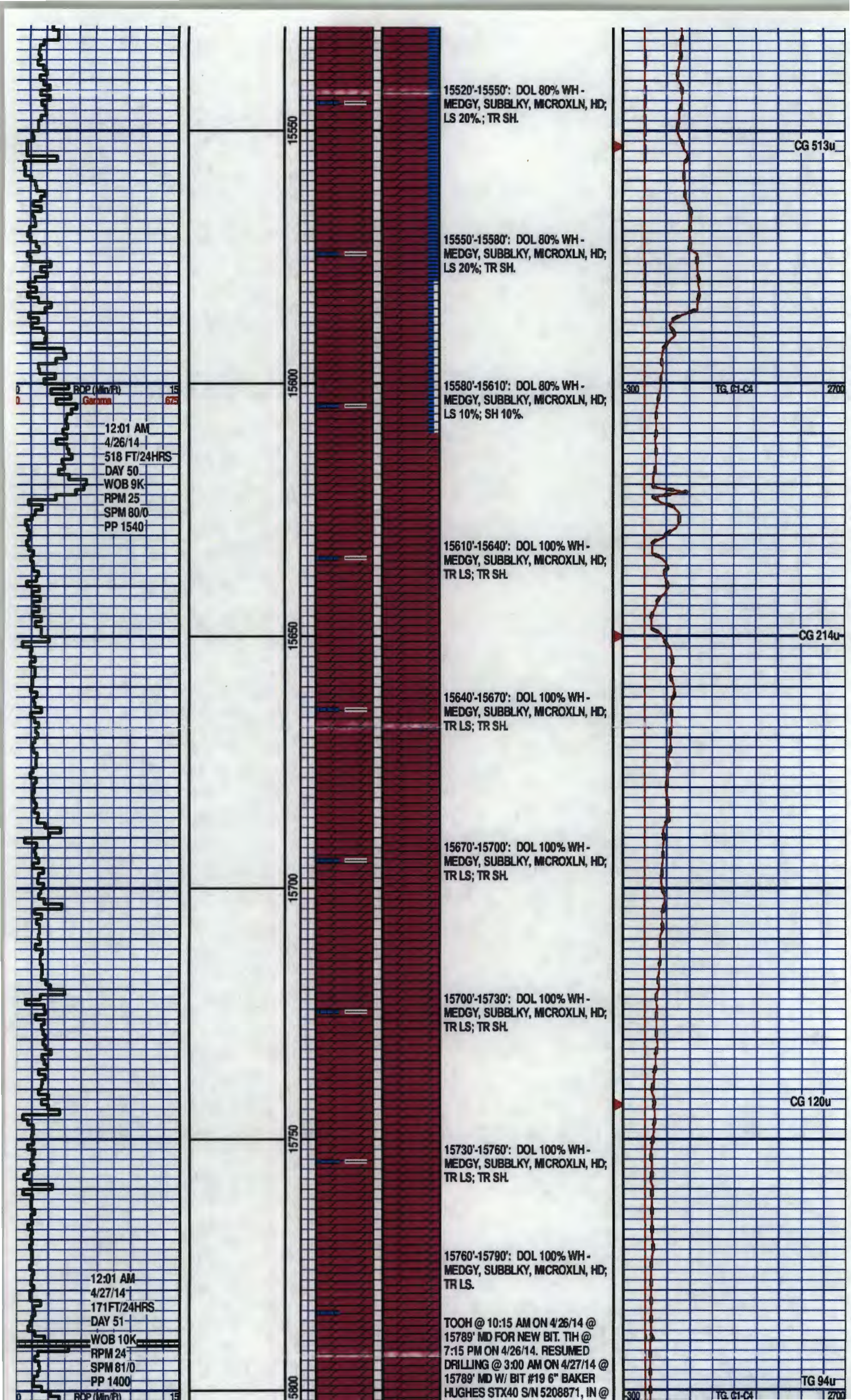


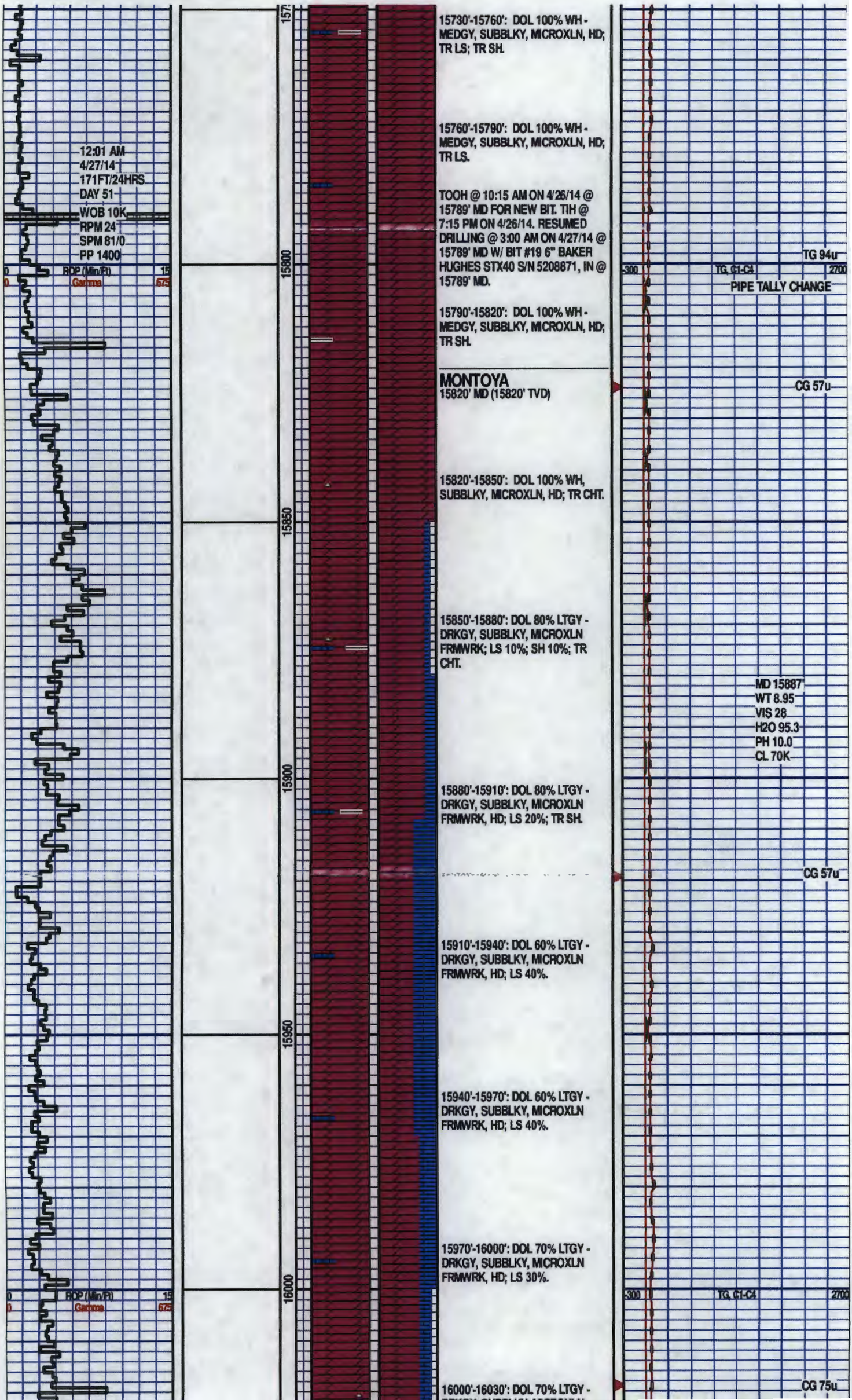

12:01 AM
4/17/14
99 FT/24HRS
DAY 41
WOB 44.6K
RPM 57
SPM 60/59
PP 2327
12:01 AM
4/18-24/14
15 FT/168HRS
DAY 42-48
WOB 7.21K
RPM 21
SPM 77/0
PP 1545
ROP (Min/ft)
Gamma
14700
14750
14800
14850
14900
14650'-14680': SH 100% GYSHBLK - BLK, SUBBLKY, F TXT, HD-FRM, FREE PYR.
14680'-14710': SH 100% GYSHBLK - BLK, SUBBLKY, F TXT, HD-FRM, FREE PYR, TR LS.
14710'-14730': SH 100% GYSHBLK - BLK, SUBBLKY, F TXT, HD-FRM, FREE PYR. TR LS.
DEVONIAN
14730' MD (14730' TVD)
14730'-14740': DOL 90% WH - LTGY, SUBBLKY, MICROXLN FRMWRK; 10% SH.
TOOH @ 6:30 AM ON 4/17/14 @ 14745' MD FOR CASING. TIH @ 2:15 AM ON 4/24/14. RESUMED DRILLING @ 10:45 AM ON 4/24/14 @ 14745' MD W/ BIT #18 6" BAKER HUGHES STX40 S/N 5211477, IN @ 14745' MD.
14740'-14770': 100% CEMENT.
14770'-14800': 70% CEMENT. 20% DOL; 10% SH.
14800'-14830': DOL 100% WH - LTGY, SUBBLKY, MICROXLN FRMWRK; TR SH.
14830'-14860': DOL 100% WH - LTGY, SUBBLKY, MICROXLN FRMWRK; TR SH.
14860'-14890': DOL 100% WH - LTGY, SUBBLKY, MICROXLN FRMWRK; TR SH.
14890'-14920': DOL 100% WH - LTGY, SUBBLKY, MICROXLN FRMWRK; TR SH.: TR LS.
CG 2404u
MD 14745'
WT 8.4
VIS 28
H2O 99.6
PH 8.0
CL 2400
TG 61u
PIPE TALLY CHANGE
DRILLING ON FRESH WATER
CG 62u
300
TG: C1-C4
2700
CG 169u

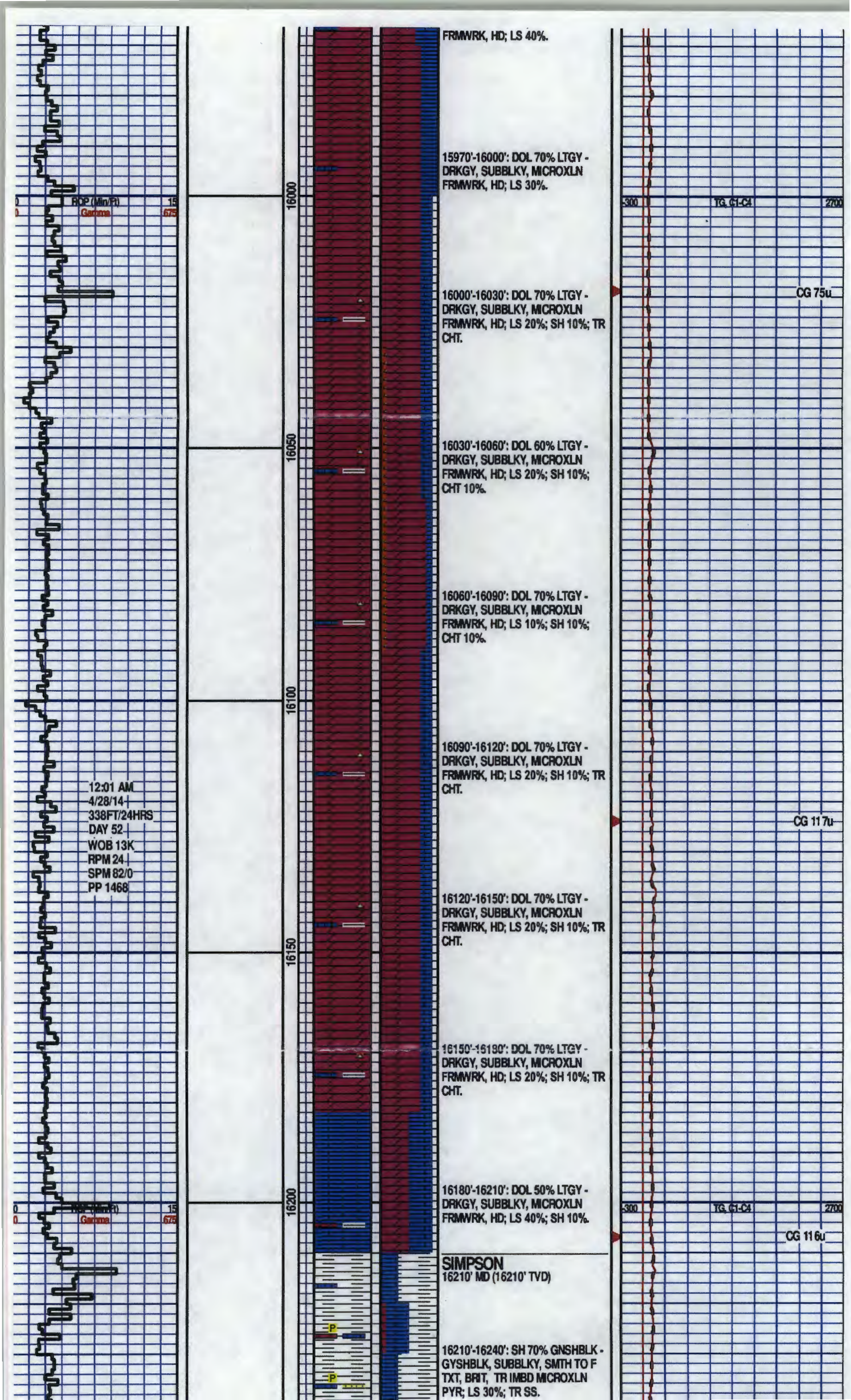

ROP (Min/Ft)
Gamma
14950
15000
15050
15100
15150
12:01 AM
4/25/14
355 FT/24HRS
DAY 49
WOB 18.5K
RPM 22
SPM 78/0
PP 1400
14920'-14950': DOL 100% WH - LTGY, SUBBLKY, MICROXLN FRMWRK; TR SH; TR LS.
14950'-14980': DOL 90% WH - LTGY, SUBBLKY, MICROXLN FRMWRK; SH 10%; TR LS.
14980'-15010': DOL 90% WH - MEDGY, SUBBLKY, MICROXLN FRMWRK; SH 10%; TR LS.
15010'-15040': SH 50% BLK - GYSHBLK, SUBBLKY, F TO SMTH TXT, HD, IMBD CALC FLK & TR LS; DOL 40%; LS 10%.
15040'-15070': SH 50% GYSHBLK, SUBBLKY, F TO SMTH TXT, HD, IMBD CALC FLK & TR LS; DOL 40%; LS 10%.
15070'-15100': SH 50% GYSHBLK, SUBBLKY, F TO SMTH TXT, HD, IMBD CALC FLK & TR LS; DOL 40%; LS 10%.
15100'-15130': SH 50% GYSHBLK, SUBBLKY, F TO SMTH TXT, HD, IMBD CALC FLK & TR LS; DOL 40%; LS 10%.
FUSSELMAN
15130' MD (15130' TVD)
15130'-15160': LS: 50% WH - V/LTGY, SUBBLKY, MICXLN, HD; DOL 30%; SH 20%.
15160'-15190': DOL 50% WH - MEDGY, SUBBLKY, MICROXLN FRMWRK; SH 40%; LS 10%.
CG 210u
CG 209u
CG 273u
300
TG C1-C4
2700

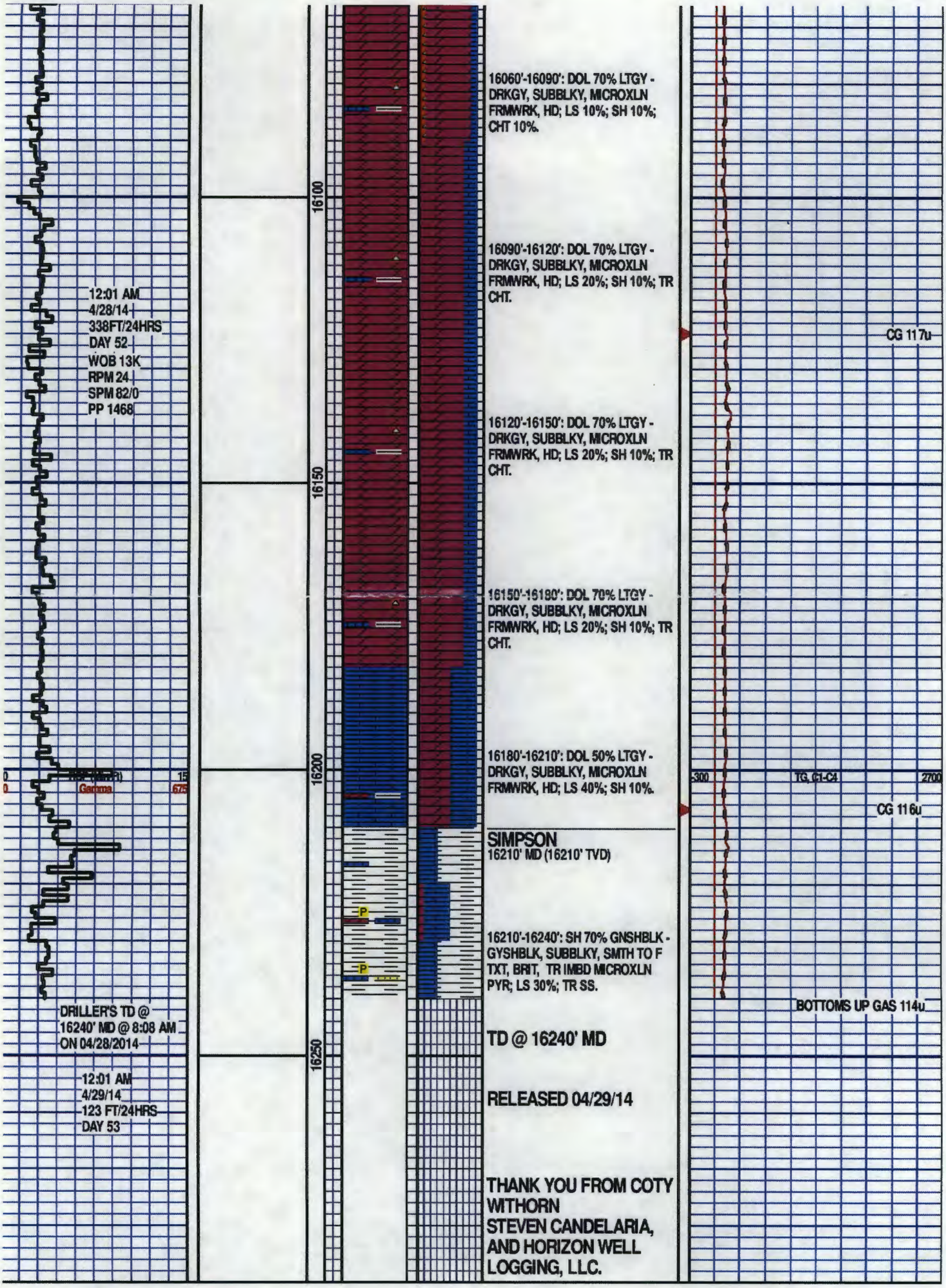

ROP (Min/Ft)
Gamma
15
675
15200
15250
15300
15350
15400
15160'-15190': DOL 50% WH - MEDGY, SUBBLKY, MICROXLN FRMWRK; SH 40%; LS 10%.
15190'-15220': LS 50%: WH - MEDGY, SUBBLKY, MICXLN, FRM, TR IMBD GRNL PYR; DOL 40%; SH 10%.
15220'-15250': LS 50%: WH - MEDGY, SUBBLKY, MICXLN, FRM, TR IMBD GRNL PYR; DOL 40%; SH 10%.
15250'-15280': LS 70%: WH - MEDGY, SUBBLKY, MICXLN, FRM; DOL 20%; SH 10%.
15280'-15310': LS 80%: WH - MEDGY, SUBBLKY, MICXLN, FRM; DOL 20%.
15310'-15340': LS 60%: WH - LTGY, SUBBLKY, MICXLN, FRM; DOL 30%; SH 10%.
15340'-15370': LS 60%: WH - LTGY, SUBBLKY, MICXLN, FRM; DOL 40%; TR SH.
15370'-15400': LS 60%: WH - LTGY, SUBBLKY, MICXLN, FRM; DOL 40%; TR SH.
15400'-15430': LS 70%: WH - LTGY, SUBBLKY, MICXLN, FRM; DOL 30%; TR SH.
CG 273u
300
TG C1-C4
2700
CG 253u
WATER FLOW
CG 1284u
MD 15388'
WT 8.4
VIS 28
H2O 99.3
PH 10.0
CL 8000
H2S ZONE


ROP (Min/Ft)
Gamma
15400
15450
15500
15550
15600
15650
15370'-15400': LS 60%: WH - LTGY, SUBBLKY, MICXLN, FRM; DOL 40%; TR SH.
15400'-15430': LS 70%: WH - LTGY, SUBBLKY, MICXLN, FRM; DOL 30%; TR SH.
15430'-15460': LS 70%: WH - LTGY, SUBBLKY, MICXLN, FRM; DOL 20%; SH 10%.
15460'-15490': DOL 80% WH - MEDGY, SUBBLKY, MICROXLN, HD; LS 20%.
15490'-15520': DOL 100% WH - MEDGY, SUBBLKY, MICROXLN, HD.
15520'-15550': DOL 80% WH - MEDGY, SUBBLKY, MICROXLN, HD; LS 20%.; TR SH.
15550'-15580': DOL 80% WH - MEDGY, SUBBLKY, MICROXLN, HD; LS 20%; TR SH.
15580'-15610': DOL 80% WH - MEDGY, SUBBLKY, MICROXLN, HD; LS 10%; SH 10%.
15610'-15640': DOL 100% WH - MEDGY, SUBBLKY, MICROXLN, HD; TR LS; TR SH.
H2O 99.3
PH 10.0
CL 8000
H2S ZONE
TG C1-C4
CG 350u
CG 513u
CG 214u
12:01 AM
4/26/14
518 FT/24HRS
DAY 50
WOB 9K
RPM 25
SPM 80/0
PP 1540


ROP (Min/Ft)
Gamma
12:01 AM
4/26/14
518 FT/24HRS
DAY 50
WOB 9K
RPM 25
SPM 80/0
PP 1540
12:01 AM
4/27/14
171FT/24HRS
DAY 51
WOB 10K
RPM 24
SPM 81/0
PP 1400
15550
15600
15650
15700
15750
15800
15520'-15550': DOL 80% WH - MEDGY, SUBBLKY, MICROXLN, HD; LS 20%.; TR SH.
15550'-15580': DOL 80% WH - MEDGY, SUBBLKY, MICROXLN, HD; LS 20%; TR SH.
15580'-15610': DOL 80% WH - MEDGY, SUBBLKY, MICROXLN, HD; LS 10%; SH 10%.
15610'-15640': DOL 100% WH - MEDGY, SUBBLKY, MICROXLN, HD; TR LS; TR SH.
15640'-15670': DOL 100% WH - MEDGY, SUBBLKY, MICROXLN, HD; TR LS; TR SH.
15670'-15700': DOL 100% WH - MEDGY, SUBBLKY, MICROXLN, HD; TR LS; TR SH.
15700'-15730': DOL 100% WH - MEDGY, SUBBLKY, MICROXLN, HD; TR LS; TR SH.
15730'-15760': DOL 100% WH - MEDGY, SUBBLKY, MICROXLN, HD; TR LS; TR SH.
15760'-15790': DOL 100% WH - MEDGY, SUBBLKY, MICROXLN, HD; TR LS.
TOOH @ 10:15 AM ON 4/26/14 @ 15789' MD FOR NEW BIT. TIH @ 7:15 PM ON 4/26/14. RESUMED DRILLING @ 3:00 AM ON 4/27/14 @ 15789' MD W/ BIT #19 6" BAKER HUGHES STX40 S/N 5208871, IN @
CG 513u
CG 214u
CG 120u
TG 94u
300
TG, C1-C4
2700


12:01 AM
4/27/14
171FT/24HRS
DAY 51
WOB 10K
RPM 24
SPM 81/0
PP 1400
ROP (Min/Ft)
Gamma
15730'-15760': DOL 100% WH - MEDGY, SUBBLKY, MICROXLN, HD; TR LS; TR SH.
15760'-15790': DOL 100% WH - MEDGY, SUBBLKY, MICROXLN, HD; TR LS.
TOOH @ 10:15 AM ON 4/26/14 @ 15789' MD FOR NEW BIT. TIH @ 7:15 PM ON 4/26/14. RESUMED DRILLING @ 3:00 AM ON 4/27/14 @ 15789' MD W/ BIT #19 6" BAKER HUGHES STX40 S/N 5208871, IN @ 15789' MD.
15790'-15820': DOL 100% WH - MEDGY, SUBBLKY, MICROXLN, HD; TR SH.
MONTOYA
15820' MD (15820' TVD)
15820'-15850': DOL 100% WH, SUBBLKY, MICROXLN, HD; TR CHT.
15850'-15880': DOL 80% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK; LS 10%; SH 10%; TR CHT.
15880'-15910': DOL 80% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 20%; TR SH.
15910'-15940': DOL 60% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 40%.
15940'-15970': DOL 60% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 40%.
15970'-16000': DOL 70% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 30%.
16000'-16030': DOL 70% LTGY -
15800
15850
15900
15950
16000
TG 94u
TG, C1-C4
PIPE TALLY CHANGE
CG 57u
MD 15887'
WT 8.95
VIS 28
H2O 95.3
PH 10.0
CL 70K
CG 57u
CG 75u


ROP (Min/Ft)
Gamma
12:01 AM
4/28/14
338FT/24HRS
DAY 52
WOB 13K
RPM 24
SPM 82/0
PP 1468
16000
16050
16100
16150
16200
FRMWRK, HD; LS 40%.
15970'-16000': DOL 70% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 30%.
16000'-16030': DOL 70% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 20%; SH 10%; TR CHT.
16030'-16060': DOL 60% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 20%; SH 10%; CHT 10%.
16060'-16090': DOL 70% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 10%; SH 10%; CHT 10%.
16090'-16120': DOL 70% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 20%; SH 10%; TR CHT.
16120'-16150': DOL 70% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 20%; SH 10%; TR CHT.
16150'-16180': DOL 70% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 20%; SH 10%; TR CHT.
16180'-16210': DOL 50% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 40%; SH 10%.
SIMPSON
16210' MD (16210' TVD)
16210'-16240': SH 70% GNSHBLK - GYSHBLK, SUBBLKY, SMTH TO F TXT, BRIT, TR IMBD MICROXLN PYR; LS 30%; TR SS.
TG, C1-C4
-300
2700
CG 75u
CG 117u
CG 116u


12:01 AM
4/28/14
338FT/24HRS
DAY 52
WOB 13K
RPM 24
SPM 82/0
PP 1468
Gamma
DRILLER'S TD @
16240' MD @ 8:08 AM
ON 04/28/2014
12:01 AM
4/29/14
123 FT/24HRS
DAY 53
16100
16150
16200
16250
16060'-16090': DOL 70% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 10%; SH 10%; CHT 10%.
16090'-16120': DOL 70% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 20%; SH 10%; TR CHT.
16120'-16150': DOL 70% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 20%; SH 10%; TR CHT.
16150'-16180': DOL 70% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 20%; SH 10%; TR CHT.
16180'-16210': DOL 50% LTGY - DRKGY, SUBBLKY, MICROXLN FRMWRK, HD; LS 40%; SH 10%.
SIMPSON
16210' MD (16210' TVD)
16210'-16240': SH 70% GNSHBLK - GYSHBLK, SUBBLKY, SMTH TO F TXT, BRIT, TR IMBD MICROXLN PYR; LS 30%; TR SS.
TD @ 16240' MD
RELEASED 04/29/14
THANK YOU FROM COTY WITHORN
STEVEN CANDELARIA,
AND HORIZON WELL LOGGING, LLC.
CG 117u
CG 116u
BOTTOMS UP GAS 114u
TG, C1-C4
300
2700