

NOMAC SERVICES

GEO



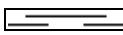

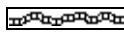

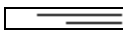

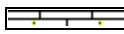
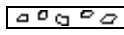

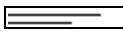
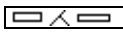
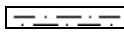
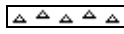



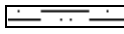
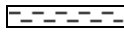





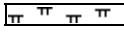
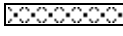




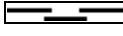
16217 N. May Ave.
Edmond, Oklahoma 73013








24/7 Ops Support 405.562.4149
fax 405.285.0478

APPS.NOMACSERVICES.COM

Customer Information	Well Information
<p>Operator: Chesapeake Energy Corp. 6100 N. Western Avenue Oklahoma City, OK 73118</p> <p>Geologist: Hayet Serradji Chesapeake Energy Corp.</p>	<p>Well Name: Danielson 25-34-8 1H Vertical</p> <p>Location: 25-34S-8W 300' FSL & 660' FEL</p> <p>County: Harper State: Kansas</p>
Mud Logging Details	
<p>Logger: Ashley Byerley April Stephens</p> <p>Log Interval: 4,288' to 4,910'</p> <p>Start Date: May 14, 2012</p> <p>Release Date: May 29, 2012</p>	<p>Drilling Rig: Trinidad 205</p> <p>Total Depth: 9,233'</p> <p>TD Date: May 27, 2012</p> <p>Formation: Mississippi Lime</p> <p>KB Elevation: 1,327'</p> <p>GR Elevation: 1,312'</p> <p>API Number: 15-077-21749</p>

ROCK TYPES

 Anhy	 Dol	 Shale	 lmywash	NO SMPL nosmpl
 Bent	 Gyp	 Shcol	 ogw	 Lsdetrit
 Brec	 Igne	 Shgy	 olmywash	 sltst
 Cht	 Lmst	 Sltst	 oshly gw	 sdy sh
 Clyst	 Meta	 Ss	 shly gw	 Cement
 Coal	 Mrlst	 Till	 sdygw	
 Congl	 Salt	 gw	 hvycrbsh	

Drill Depth v. Time	Survey Data	Depth	Lithology	Geological Descriptions	Total Gas, C1-C4
<p>ROP (Min/Ft) </p> <p>Gamma </p>		<p>Depth</p> <p>Porosity</p> <p>Fair Good</p>			<p>TG (1-8) </p> <p>C1 (units) </p> <p>C2 (units) </p> <p>C3 (units) </p> <p>C4 (units) </p>
<p>ROP (Min/Ft) 0 15</p> <p>Gamma 0 150</p>		4250		<p>CHESAPEAKE ENERGY CORP. DANIELSON 25-34-8 1H VERTICAL SEC 25-34S-8W 200' FSL & 660' FEL HARPER CO., KS TRINIDAD 205 LOGGERS: ASHLEY BYERLEY APRIL STEPHENS</p>	<p>TG, C1-C4 -50 450</p> <p>CONNECTIONS ARE MARKED WITH RED TRIANGLES</p> <p>GAS SCALE: -50 TO 450</p>
<p>SLIDE=RED ROTATE=WHITE</p> <p>ROP SCALE: 0 TO 15</p>					

GAMMA SCALE: 0 TO 150

WOB 7.3K
PP 873
RPM 0
SPM 0/88

MD 4306 TVD 4305.84
Az 218.3° Inc 2.3°
VS -0.15

MD 4339 TVD 4338.37
Az 12.6° Inc 8.5°
VS 11.48

12:01 AM
5/15/12

WOB 37.4K
PP 1161
RPM 0
SPM 0/101

MD 4371 TVD 4369.95
Az 15.6° Inc 10°
VS 16.43

Gamma

12:01 AM
5/16/12

MD 4403 TVD 4401.26
Az 17.7° Inc 13.8°
VS 22.71

MD 4435 TVD 4432.02
Az 16.9° Inc 18.1°
VS 31.06

WOB 28.0K
PP 1508
RPM 0
SPM 0/124

MD 4466 TVD 4461.1
Az 15.7° Inc 22.4°
VS 41.3

COMMENCED DRILLING AFTER
PILOT HOLE @ 12:00 PM ON
5/14/12 @ 4,288' MD W/BIT #8
8.75" FHI 28 VPS S/N PX2981 IN @
4.110' MD

HOGSHOOTER

4,289' MD 4,289' TVD (-2,962' SS)

60% SH; LT GRY TO DK GRY,
EARTHY TXT, SOFT TO FIRM, CALC
NODULES, NO VIS FRACT, MINOR
CALC, BLKY TO PLATY, NO ODOR,
NO BUBBLING: 0, 40% LS; CRM TO
LT GRY, MED XLN, BRITTLE TO
HARD, POOR PP POR, YLW FLUOR,
NO STRM CUT, NO CUT AFTER
CRUSH, NO VIS STAIN

50% SH; LT GRY TO DK GRY,
EARTHY TXT, SOFT TO FIRM, CALC
NODULES, NO VIS FRACT, MINOR
CALC, BLKY TO PLATY, NO ODOR,
NO BUBBLING: 0, 50% LS; CRM TO
LT GRY, MED XLN, BRITTLE TO
HARD, POOR PP POR, YLW FLUOR,
NO STRM CUT, NO CUT AFTER
CRUSH, NO VIS STAIN

TOOH @ 4:00 AM ON 5/15/12 @
4,383' MD TO CHANGE MWD
TOOLS

TIH @ 1:00 PM ON 5/15/12

COMMENCED DRILLING @ 5:00 PM
ON 5/15/12 W/ BIT #9 8.75" SMITH
FHI28 S/N PX2092 IN @ 4,383' MD

60% SH; LT GRY TO DK GRY,
EARTHY TXT, SOFT TO FIRM, CALC
NODULES, NO VIS FRACT, MINOR
CALC, BLKY TO PLATY, NO ODOR,
NO BUBBLING: 0, 40% LS; CRM TO
LT GRY, MED XLN, BRITTLE TO
HARD, POOR PP POR, YLW FLUOR,
NO STRM CUT, NO CUT AFTER
CRUSH, NO VIS STAIN

OSWEGO
4,455' MD 4,451' TVD (-3,124' SS)
60% LS; CRM TO LT GRY, MED XLN,
BRITTLE TO HARD, POOR PP POR,
YLW FLUOR, NO STRM CUT, NO
CUT AFTER CRUSH, NO VIS STAIN,
40% SH; LT GRY TO DK GRY,
EARTHY TXT, SOFT TO FIRM, CALC
NODULES, NO VIS FRACT, MINOR
CALC, BLKY TO PLATY, NO ODOR,
NO BUBBLING: 0

DRILLING ON WATER BASED MUD

TRIP GAS 194u

CG 118u

DEPTH 4,383'

WT 9

VIS 55

YP 17

FIL 8

OIL 0

SOL 5

CK 2/0

PV 15

GELS 12/24

CL 7000

H2O 95

CAL 200

LCM 0

PH 10.5

TRIP GAS 72u

PG 100u

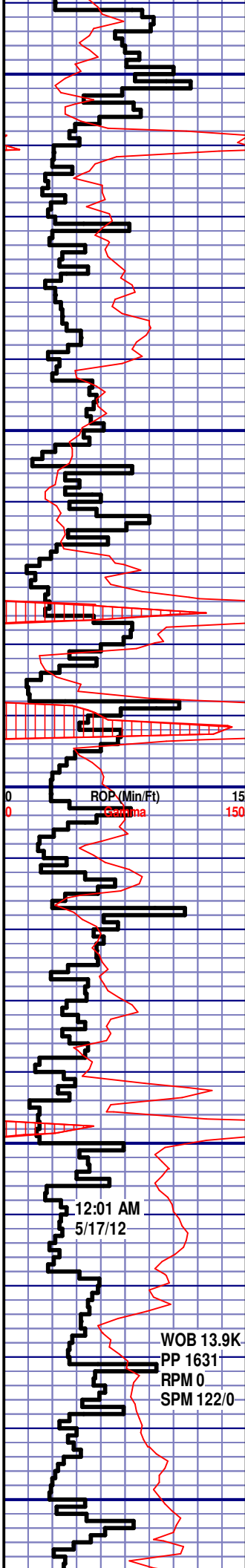
Scale Change

TG, C1-C4

CG 78u

ABO ADDED TO MUD

PG 1496u



MD 4498 TVD 4490.16
Az 13.6° Inc 27°
VS 54.17

MD 4530 TVD 4518.13
Az 12.4° Inc 31.1°
VS 69.24

MD 4562 TVD 4544.9
Az 10.8° Inc 35.3°
VS 86.33

MD 4593 TVD 4569.57
Az 9.3° Inc 39.2°
VS 104.74

MD 4625 TVD 4593.7
Az 7.7° Inc 42.9°
VS 125.45

MD 4657 TVD 4616.52
Az 6.6° Inc 46.1°
VS 147.65

WOB 13.9K
PP 1631
RPM 0
SPM 122/0

MD 4689 TVD 4638.1
Az 5.2° Inc 49.1°
VS 171.10

4500
4550
4600
4650
4700



60% LS; CRM TO OFF WH TO LT GRY, MED XLN, BRITTLE TO HARD, POOR PP POR, YLW FLUOR, NO STRM CUT, NO CUT AFTER CRUSH, NO VIS STAIN, 40% SH; LT GRY TO DK GRY, EARTHY TXT, SOFT TO FIRM, CALC NODULES, NO VIS FRACT, MINOR CALC, BLKY TO PLATY, NO ODOR, NO BUBBLING: 0

60% LS; CRM TO OFF WH TO LT GRY, MED XLN, BRITTLE TO HARD, POOR PP POR, YLW FLUOR, NO STRM CUT, NO CUT AFTER CRUSH, NO VIS STAIN, 40% SH; LT GRY TO DK GRY, EARTHY TXT, SOFT TO FIRM, CALC NODULES, NO VIS FRACT, MINOR CALC, BLKY TO PLATY, CARB, NO ODOR, NO BUBBLING: 0

60% LS; OFF WH TO CRM, MED TO FINE XLN, CHALKY, HARD, POOR PP POR, YLW FLUOR, NO STRM CUT, NO CUT AFTER CRUSH, NO VIS STAIN, 40% SH; BLK TO DK GRY, MED TXT, SOFT TO FIRM, MINOR CALC, BLKY TO PLATY, CARB, NO BUBBLING: 0

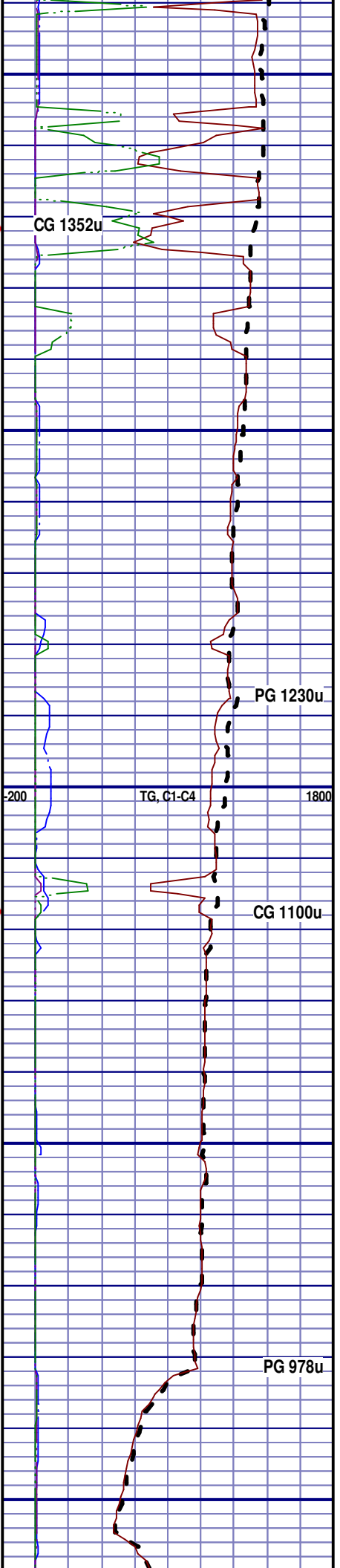
CHEROKEE
4,592' MD 4,569' TVD (-3,242' SS)

70% LS; OFF WH TO CRM, MED TO FINE XLN, CHALKY, HARD, POOR PP POR, YLW FLUOR, NO STRM CUT, NO CUT AFTER CRUSH, NO VIS STAIN, 30% SH; BLK TO DK GRY, MED TXT, SOFT TO FIRM, MINOR CALC, BLKY TO PLATY, CARB, NO BUBBLING: 0

70% LS; OFF WH TO CRM, MED TO FINE XLN, CHALKY, HARD, POOR PP POR, YLW FLUOR, NO STRM CUT, NO CUT AFTER CRUSH, NO VIS STAIN, 30% SH; BLK TO DK GRY, MED TXT, SOFT TO FIRM, MINOR CALC, BLKY TO PLATY, CARB, NO BUBBLING: 0

60% SH; LT GRY TO DK GRY TO BLK TO RED, MED TXT, CALC NODULES, SOFT TO FIRM, MINOR CALC, BLKY TO PLATY, CARB, NO BUBBLING: 0, 40% LS; OFF WH TO CRM, MED TO FINE XLN, CHALKY, HARD, POOR PP POR, YLW FLUOR, NO STRM CUT, NO CUT AFTER CRUSH, NO VIS STAIN

50% SH; LT GRY TO DK GRY TO BLK MED TXT CALC NODULES



CG 1352u

PG 1230u

-200 TG, C1-C4 1800

CG 1100u

PG 978u

MD 4720 TVD 4657.73
Az 4.4° Inc 52.3°
VS194.96

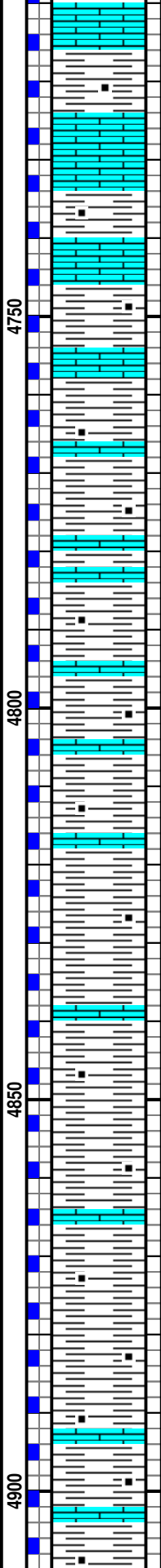
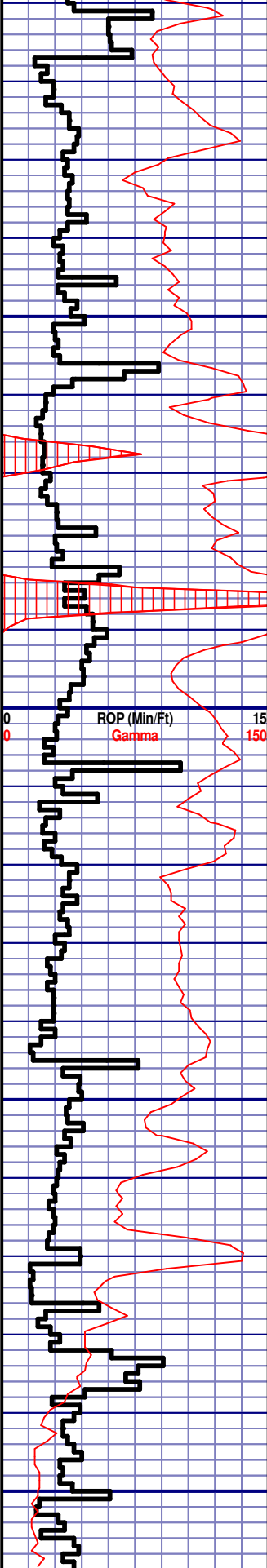
MD 4752 TVD 4676.51
Az 3.7° Inc 55.8°
VS220.76

MD 4784 TVD 4693.61
Az 2.9° Inc 59.6°
VS247.72

MD 4815 TVD 4708.47
Az 2° Inc 63.1°
VS274.87

MD 4847 TVD 4722.15
Az 1° Inc 66.3°
VS303.77

MD 4878 TVD 4733.76
Az 359.2° Inc 69.7°
VS332.50



SOFT TO FIRM, BLKY TO PLATY,
CARB, NO BUBBLING: 0, 50% LS;
OFF WH TO CRM, MED TO FINE
XLN, CHALKY, HARD, POOR PP
POR, YLW FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH, NO VIS
STAIN

65% SH; LT GRY TO DK GRY TO
BLK, MED TXT, CALC NODULES,
SOFT TO FIRM, BLKY TO PLATY,
CARB, NO BUBBLING: 0, 35% LS;
OFF WH TO CRM, MED TO FINE
XLN, CHALKY, HARD, POOR PP
POR, YLW FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH, NO VIS
STAIN

65% SH; LT GRY TO DK GRY TO
BLK, MED TXT, CALC NODULES,
SOFT TO FIRM, BLKY TO PLATY,
CARB, NO BUBBLING: 0, 35% LS;
OFF WH TO CRM, MED TO FINE
XLN, CHALKY, HARD, POOR PP
POR, YLW FLUOR, NO STRM CUT,
NO CUT AFTER CRUSH, NO VIS
STAIN

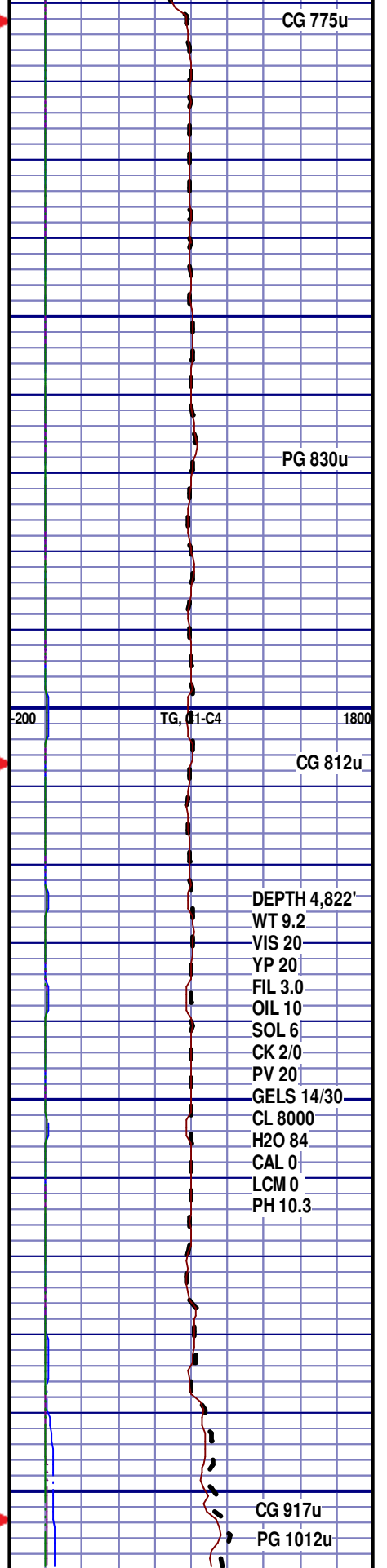
80% SH; LT GRY TO DK GRY TO
RED, MED TXT, CALC NODULES,
SOFT TO FIRM, MINOR CALC, BLKY
TO PLATY, CARB, NO BUBBLING: 0,
20% LS; OFF WH TO CRM, MED TO
FINE XLN, CHALKY, HARD, POOR
PP POR, YLW FLUOR, NO STRM
CUT, NO CUT AFTER CRUSH, NO
VIS STAIN

95% SH; LT GRY TO DK GRY TO
RED, MED TXT, CALC NODULES,
SOFT TO FIRM, MINOR CALC, BLKY
TO PLATY, CARB, NO BUBBLING: 0,
5% LS; OFF WH TO CRM, MED TO
FINE XLN, CHALKY, HARD, POOR
PP POR, YLW FLUOR, NO STRM
CUT, NO CUT AFTER CRUSH, NO
VIS STAIN

95% SH; LT GRY TO DK GRY TO
RED, MED TXT, CALC NODULES,
SOFT TO FIRM, MINOR CALC, BLKY
TO PLATY, CARB, NO BUBBLING: 0,
5% LS; OFF WH TO CRM, MED TO
FINE XLN, CHALKY, HARD, POOR
PP POR, YLW FLUOR, NO STRM
CUT, NO CUT AFTER CRUSH, NO
VIS STAIN

70% SH; LT GRY TO DK GRY TO
BLK TO RED, MED TXT, CALC
NODULES, SOFT TO FIRM, MINOR
CALC, BLKY TO PLATY, CARB, NO
BUBBLING: 0, 30% LS; OFF WH TO
CRM, MED TO FINE XLN, CHALKY,
HARD, POOR PP POR, YLW FLUOR,
NO STRM CUT, NO CUT AFTER
CRUSH, NO VIS STAIN

END OF VERTICAL LOG @ 4,910'
MD ON 5/17/12 CONTINUED ON
THE HORIZONTAL LOG



CG 775u

PG 830u

CG 812u

DEPTH 4,822'
WT 9.2
VIS 20
YP 20
FIL 3.0
OIL 10
SOL 6
CK 2/0
PV 20
GELS 14/30
CL 8000
H2O 84
CAL 0
LCM 0
PH 10.3

CG 917u

PG 1012u

