



KANSAS CORPORATION COMMISSION 1065885
OIL & GAS CONSERVATION DIVISION

Form ACO-1
June 2009
Form Must Be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 33168
Name: Woolsey Operating Company, LLC
Address 1: 125 N MARKET STE 1000
Address 2: _____
City: WICHITA State: KS Zip: 67202 + 1729
Contact Person: DEAN PATTISSON
Phone: (316) 267-4379
CONTRACTOR: License # 33793
Name: H2 Drilling LLC
Wellsite Geologist: SCOTT ALBERG
Purchaser: PLAINS MARKETING / BLUESTEM GAS MARKETING

Designate Type of Completion:
 New Well Re-Entry Workover
 Oil WSW SWD SIOW
 Gas D&A ENHR SIGW
 OG GSW Temp. Abd.
 CM (Coal Bed Methane)
 Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:
Operator: _____
Well Name: _____
Original Comp. Date: _____ Original Total Depth: _____
 Deepening Re-perf. Conv. to ENHR Conv. to SWD
 Conv. to GSW
 Plug Back: _____ Plug Back Total Depth _____
 Commingled Permit #: _____
 Dual Completion Permit #: _____
 SWD Permit #: _____
 ENHR Permit #: _____
 GSW Permit #: _____
02/23/2011 03/06/2011 04/21/2011
Spud Date or Date Reached TD Completion Date or
Recompletion Date Recompletion Date

API No. 15 - 15-007-23660-00-00
Spot Description: _____
W2 SE SE SE Sec. 13 Twp. 34 S. R. 12 East West
330 Feet from North / South Line of Section
430 Feet from East / West Line of Section
Footages Calculated from Nearest Outside Section Corner:
 NE NW SE SW
County: Barber
Lease Name: HARBAUGH GU Well #: 2
Field Name: STRANATHAN
Producing Formation: MISSISSIPPIAN
Elevation: Ground: 1432 Kelly Bushing: 1441
Total Depth: 5240 Plug Back Total Depth: _____
Amount of Surface Pipe Set and Cemented at: 215 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set: _____ Feet
If Alternate II completion, cement circulated from: _____
feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)
Chloride content: 62000 ppm Fluid volume: 1000 bbls
Dewatering method used: Hauled to Disposal
Location of fluid disposal if hauled offsite:
Operator Name: WOOLSEY OPERATING COMPANY LLC
Lease Name: SWARTZ 2 SWD License #: 33168
Quarter NE Sec. 1 Twp. 34 S. R. 11 East West
County: BARBER Permit #: D-30567

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Letter of Confidentiality Received
Date: _____
 Confidential Release Date: _____
 Wireline Log Received
 Geologist Report Received
 UIC Distribution
ALT I II III Approved by: Deanne Garriss Date: 10/25/2011



1065885

Operator Name: Woolsey Operating Company, LLC Lease Name: HARBAUGH GU Well #: 2
 Sec. 13 Twp. 34 S. R. 12 East West County: Barber

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run: Compensated Density/Comp Neutron PE Dual Induction	<input checked="" type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Name</th> <th style="text-align: left;">Top</th> <th style="text-align: left;">Datum</th> </tr> </thead> <tbody> <tr> <td>CHASE</td> <td>1876</td> <td>-435</td> </tr> <tr> <td>ELGIN SD</td> <td>3553</td> <td>-2112</td> </tr> <tr> <td>DOUGLAS</td> <td>3783</td> <td>-2342</td> </tr> <tr> <td>HERTHA</td> <td>4471</td> <td>-3030</td> </tr> <tr> <td>MISSISSIPPIAN</td> <td>4680</td> <td>-3239</td> </tr> <tr> <td>VIOLA</td> <td>5029</td> <td>-3588</td> </tr> <tr> <td>SIMPSON</td> <td>5144</td> <td>-3703</td> </tr> </tbody> </table>	Name	Top	Datum	CHASE	1876	-435	ELGIN SD	3553	-2112	DOUGLAS	3783	-2342	HERTHA	4471	-3030	MISSISSIPPIAN	4680	-3239	VIOLA	5029	-3588	SIMPSON	5144	-3703
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CASING RECORD <input checked="" type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
SURFACE	14.75	10.75	28	215	CLASS A	215	2% gel, 3% cc
PRODUCTION	7.875	4.5	10.5	5137	60/40 POZMIX	50	4% gel, 1/4# Celoflake
PRODUCTION	7.875	4.5	10.5	5137	CLASS H	200	10% gel, 10% Gyramol, 60 Kolbeal, 1/4#

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
____ Perforate				
____ Protect Casing	-			
____ Plug Back TD				
____ Plug Off Zone	-			

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4	4668-4675 &	6450 GAL 10% MIRA	4668-4860 OA
2	4680-4736, 4762-4816 & 4850-4860	459,400 gal treated 2% KCl wtr, 136,900# 30/70 sd, 60,800# 16/30 sd & 17,500# 16/30 resin coated sd	4668-4860 OA

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
Date of First, Resumed Production, SWD or ENHR. 05/04/2011		Producing Method: <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain) _____
Estimated Production Per 24 Hours	Oil Bbls. 1	Gas Mcf 140
	Water Bbls. 68	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input checked="" type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: 4668-4860 OA
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ALLIED CEMENTING CO., LLC. 040653

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Med-Lodge #1

DATE <u>2-24-11</u>	SEC <u>13</u>	TWP <u>34s</u>	RANGE <u>12w</u>	CALLED OUT	ON LOCATION	JOB START <u>2:30pm</u>	JOB FINISH <u>3:30am</u>
LEASE <u>Horchbach</u>		WELL # <u>60 #2</u>		LOCATION <u>Med-Lodge #145, w info</u>		COUNTY <u>Baker</u>	STATE <u>KS</u>
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR H-2 Drilling

TYPE OF JOB Surface

HOLE SIZE 14 3/4 T.D. 212'

CASING SIZE 10 3/4 DEPTH 200

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 20'

PERFS.

DISPLACEMENT 19 bbls H₂O

OWNER Wadsey operating

CEMENT

AMOUNT ORDERED 230 sk class A + 2' gdt + 37% cc

COMMON	<u>A</u>	<u>230 sk</u>	@ <u>15.45</u>	<u>3553.50</u>
POZMIX			@	
GEL		<u>5 sk</u>	@ <u>20.80</u>	<u>104.00</u>
CHLORIDE		<u>8 sk</u>	@ <u>58.20</u>	<u>465.60</u>
ASC			@	

EQUIPMENT

PUMP TRUCK CEMENTER Paul Thomsch

471/265 HELPER Jason Thomsch

BULK TRUCK

364 DRIVER Raymond R

BULK TRUCK

DRIVER

WELL FILE

Regulatory Correspondence
Orig Comp Workovers
Tests / Meters Operations

HANDLING	<u>243</u>	@ <u>2.40</u>	<u>583.20</u>
MILEAGE	<u>243-10/15</u>		<u>364.50</u>
TOTAL			<u>5070.80</u>

REMARKS:

gik circulation with R13

pump 3H₂O ahead

use 230 sk cement

Open 19 bbls H₂O shut in.

Cement did circulate.

SERVICE

DEPTH OF JOB	<u>200'</u>		
PUMP TRUCK CHARGE		@ <u>1018.00</u>	
EXTRA FOOTAGE		@	
MILEAGE	<u>15</u>	@ <u>7.00</u>	<u>105.00</u>
MANIFOLD		@	

CHARGE TO: Wadsey operating

STREET _____

CITY _____ STATE _____ ZIP _____

TOTAL 1123.00

PLUG & FLOAT EQUIPMENT

_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
TOTAL _____		

To Allied Cementing Co., LLC.

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any) _____

TOTAL CHARGES 1123.00

DISCOUNT _____ IF PAID IN 30 DAYS

PRINTED NAME MIKE THOMPSON

SIGNATURE Mike Thompson

ALLIED CEMENTING CO., LLC. 040041

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

VICE POINT:
Medicine Lodge, KS

Harbaugh

DATE <i>3-5-2011</i>	SEC. <i>13</i>	TWP. <i>34S</i>	RANGE <i>12W</i>	CALLED OUT <i>3:00 AM</i>	ON LOCATION <i>5:00 AM</i>	JOB START <i>9:00 AM</i>	JOB FINISH <i>10:00 AM</i>
LEASE <i>GO</i>	WELL # <i>2</i>	LOCATION <i>Medicine Lodge, KS</i>			COUNTY <i>Berhar</i>	STATE <i>KS</i>	
OLD OR NEW (Circle one) <input checked="" type="checkbox"/> NEW			<i>14 south W/into</i>				

CONTRACTOR <i>H2 #3</i>	OWNER <i>Woolsey Operating</i>
TYPE OF JOB <i>Production</i>	
HOLE SIZE <i>7 7/8</i>	T.D. <i>5240'</i>
CASING SIZE <i>4 1/2</i>	DEPTH <i>5138'</i>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT <i>42'</i>
CEMENT LEFT IN CSG.	
PERFS.	
DISPLACEMENT <i>8 1/2 bbls of 2% KCL water</i>	

CEMENT

AMOUNT ORDERED *75 sq 60' 40' 40' 60'*

200s Class # + 10% Gyp + 10% SSC +

6% Kalsol L, 8% Flocc + 4% Fluoresc

9915 Cicpro

COMMON <i>A</i>	<i>45 sx @ 15.45</i>	<i>695.25</i>
POZMIX	<i>30 sx @ 8.00</i>	<i>240.00</i>
GEL	<i>3 sx @ 20.80</i>	<i>62.40</i>
CHLORIDE	@	
ASC	@	
<i>H</i>	<i>200 sx @ 16.75</i>	<i>3350.00</i>
<i>Gyp seal</i>	<i>19 sx @ 29.20</i>	<i>554.80</i>
<i>Sblt</i>	<i>22 sx @ 12.00</i>	<i>264.00</i>
<i>Kalsol</i>	<i>1200 @ .89</i>	<i>1068.00</i>
<i>Fl-160</i>	<i>150.4 @ 13.30</i>	<i>2000.32</i>
<i>Floccal</i>	<i>50 @ 2.50</i>	<i>125.00</i>
<i>Clapro</i>	<i>8 Gal @ 31.25</i>	<i>250.00</i>

EQUIPMENT

PUMP TRUCK CEMENTER *Darin F*

414-302 HELPER *Ron G*

BULK TRUCK

363-290 DRIVER *Bobby W*

BULK TRUCK

DRIVER

WELL FILE

REGULATORY CORRESPONDENCE	HANDLING <i>348</i>	@ <i>2.40</i>	<i>835.20</i>
DRIG COMP WORKOVER	MILEAGE <i>348/10/15</i>		<i>522.00</i>
REMARKS <i>8 1/2 bbls of 2% KCL water</i>			TOTAL <i>9966.97</i>

Pipe on bottom brace eraction

mix 25% cement for 1st hole, mix 50%

SECUR cement, mix 100% 45.1 cement

Shut down, wash pump lines, Release

plug, start displacement, 1/2 hr pressure

at 4.5 bbls, slow rate to 3 bpm at

75 bbls, bump plus at 8 1/2 bbls

800-1500 PSI, flocc did hold

SERVICE

DEPTH OF JOB <i>5138'</i>	
PUMP TRUCK CHARGE	<i>2185.00</i>
EXTRA FOOTAGE	@
MILEAGE <i>15</i>	@ <i>7.00</i> <i>105.00</i>
MANIFOLD	@
<i>Harbaugh</i>	@ <i>100.00</i>

CHARGE TO: *Woolsey Operating*

STREET _____

CITY _____ STATE _____ ZIP _____

TOTAL *2390.00*

PLUG & FLOAT EQUIPMENT

4 1/2

<i>1-APV Flush shoe</i>	@	<i>214.20</i>
<i>1-4 inch plus</i>	@	<i>163.80</i>
<i>12-Triumph 200s</i>	@ <i>40.60</i>	<i>487.20</i>
<i>2-SECUR cement</i>	@ <i>23.94</i>	<i>478.80</i>

TOTAL *1344.00*

To Allied Cementing Co., LLC.

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any) _____

TOTAL CHARGES ~~_____~~

DISCOUNT ~~_____~~ IF PAID IN 30 DAYS

PRINTED NAME *X MIRE THARP*

SIGNATURE *X Mire Tharp*

Thank you!!!



Woolsey Operating Company, LLC

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Harbaugh GU #2
Location: W/2 SE SE SE
License Number: API: 15-007-23660-00-00
Spud Date: February 23, 2011
Surface Coordinates: 330' FSL, 430' FEL Section 13-Twp 34 South - Rge 12 West
Rhodes South Pool
Bottom Hole Vertical Hole
Coordinates:
Ground Elevation (ft): 1432
Logged Interval (ft): 4000 To: 5240
Formation: McLish Shale
Type of Drilling Fluid: Chemical Mud, Displace at 3410'
Region: Barber County, Kansas
Drilling Completed: March 4, 2011
K.B. Elevation (ft): 1441
Total Depth (ft): 5240

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Woolsey Operating Company, LLC
Address: 125 N. Market, Suite 1000
Wichita, KS 67202

GEOLOGIST

Name: W. Scott Alberg
Company: Alberg Petroleum, LLC
Address: 609 Meadowlark Lane
Pratt, Kansas 67124

FORMATION TOPS

	SAMPLE TOPS	LOG TOPS
HUSHPUCKNEY SHALE	4461(-3020)	4464(-3023)
B/KC	4511(-3070)	4511(-3070)
PAWNEE	4603(-3162)	4615(-3174)
CHEROKEE GROUP	4647(-3206)	4654(-3213)
CHEROKEE SAND	4662(-3221)	4668(-3227)
MISSISSIPPIAN	4675(-3234)	4683(-3242)
KINDERHOOK SHALE	4915(-3474)	4915(-3474)
WOODFORD SHALE	4989(-3548)	4993(-3552)
MISNER SAND	5022(-3581)	5028(-3587)
VIOLA	5042(-3601)	5048(-3607)
SIMPSON GROUP	5147(-3706)	5145(-3704)
SIMPSON WILCOX	5160(-3719)	5166(-3725)
MCLISH SHALE	5196(-3755)	5202(-3761)
MCLISH SAND	NDE	NDE
RTD	5240(-3799)	
LTD		5245(-3804)

COMMENTS

Surface Casing: Set 5 joints 10 3/4" at 215' with 230 sxs Class A, 2% gel, 3% cc, plug down at 3:00 am on February 24, 2011. Cement did Circulate.

Production Casing: Ran 4 1/2" Casing

Deviation Surveys: 215' 3/4, 1535' 1, 2011 1, 2518' 1, 3026' 1, 3501' 1 1/4, 3819' 1, 4073' 2, 4168' 3/4, 4328' 1 1/2, 4487' 3/4, 4710' 3/4, 5240' 1 1/4

Contractor Bit Record: 1- 14 3/4" out at 215'.

2- 7 7/8" out at 4710'

3- 7 7/8" out at 5240'

Gas Detector: Woolsey Operating Company, Trailer #2

Mud System: Mud Co, Brad Bortz, Engineer

DSTs: Superior Testing Company

Logged by Superior Well Services

LTD 5245'

DSTs

DST #1 4617 to 4710', Times 30-60-60-120

IF Fair Blow built to 11 inches, no blow back

FF BOB in 3 minutes, no blow back

IHP 2341# FHP 2304#

IFP 90-190# FFP 163# -190#

ISIP 665# FSIP 912#

Recovery:

295' Drilling Mud

CREWS

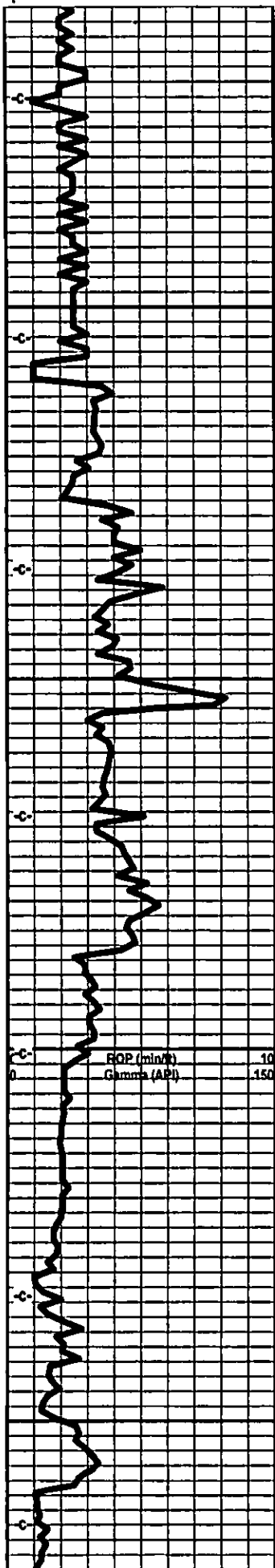
H2 Drilling Rig #3

Tool Pusher - Randy Smith

Drillers - Gary Axtell

Luis Marquez

Cain Charles

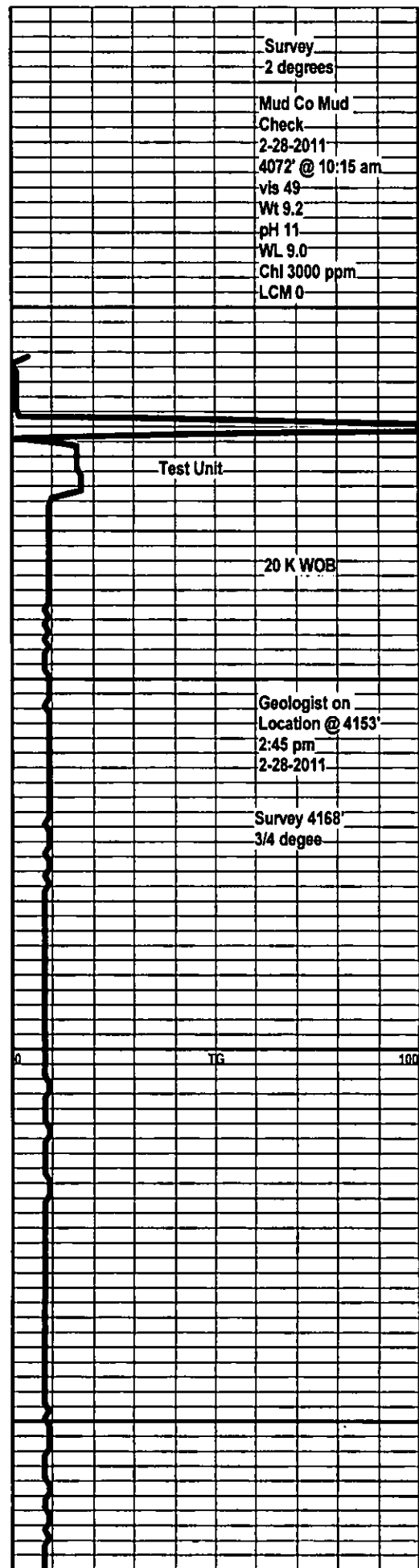


4100

4150

4200

4250



Test Unit

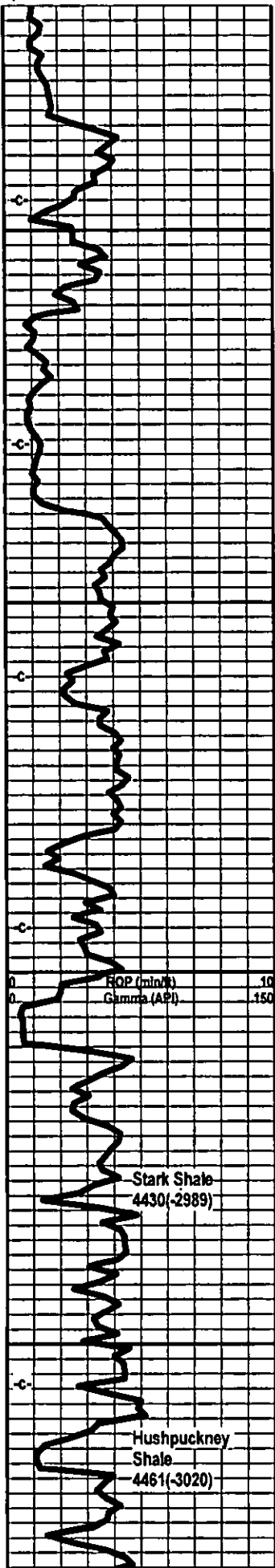
20 K WOB

Geologist on
Location @ 4153'
2:45 pm
2-28-2011

Survey 4168'
3/4 degree

TG

100



4300

4350

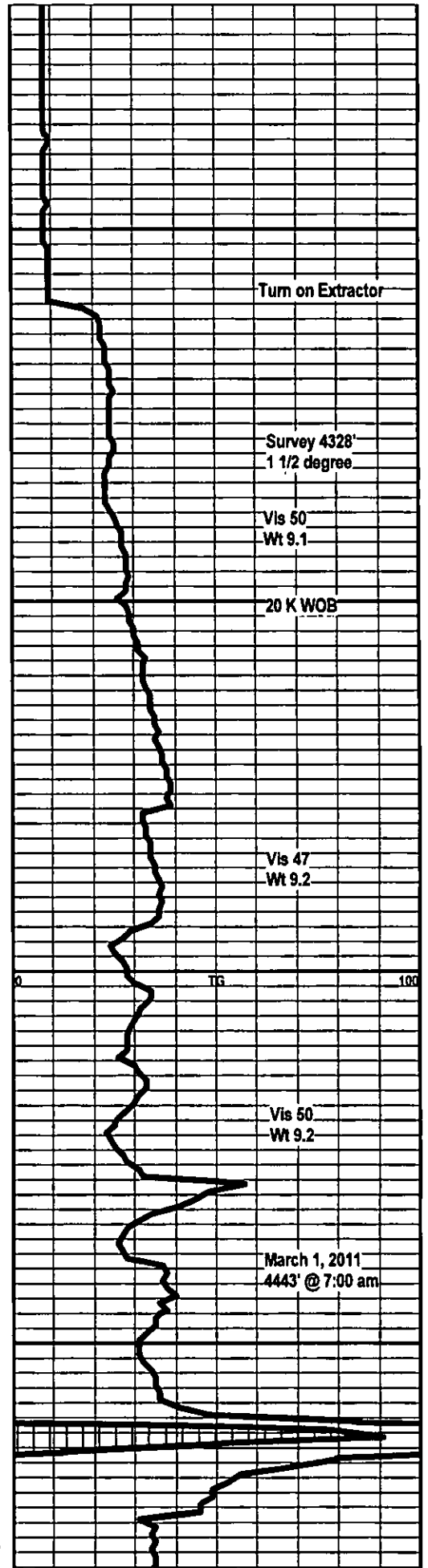
4400

4450



Shale, grey, black, carb, slight show gas.

Limestone, cream-tan, fxl, foss frags, slightly



Turn on Extractor

Survey 4328'
1 1/2 degree

Vis 50
Wt 9.1

20 K WOB

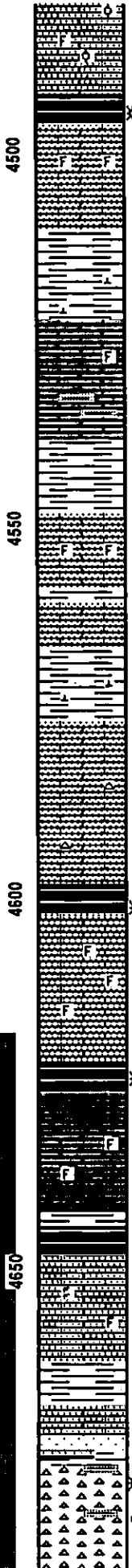
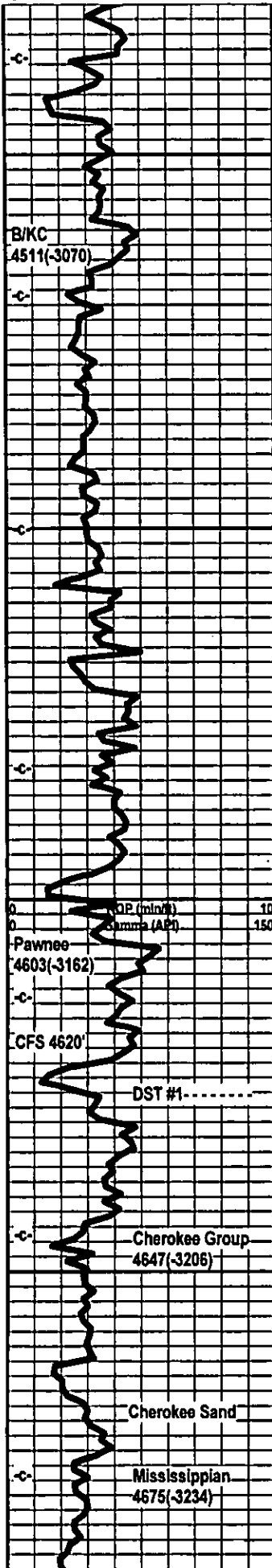
Vis 47
Wt 9.2

Vis 50
Wt 9.2

March 1, 2011
4443' @ 7:00 am

TG

100



chalky, sl ool.

Shale, grey-black, sl. carb.

Limestone, tan-white, fmxn, dense, trace of foss frags, trace of pyrite.

Shale, light grey, calcitic.

Limestone, cream-white, tan, fxln, slightly foss.

Limestone, tan-white, buff, fxln, dense, slightly chalky, trace foss., slightly shaley.

Shale, light grey

Limestone, cream-white, some tan-brown, xln, dense, slightly chalky, foss in part

Shale, grey, green.

Limestone, tan-white, xln, dense, slightly chalky.

Shale, grey, dark grey, grey-green, calcitic.

Limestone, cream-tan, fxln, partly dense, foss. in part, traces of tan cherts.

Limestone, tan, cream-white, fxln, foss. in part, trace chalky ls., trace tan chert.

Shale, grey-black, slightly carb.

Limestone, cream-white, xln, foss. trace of foss porosity, trace of pin point porosity, slightly chalky, very dull light fluor., no odor, no visible shows of oil or gas.

Shale, grey-black, carb.

Limestone, cream-white, buff, xln, trace foss, slightly chlaky.

Shale, dark grey, black

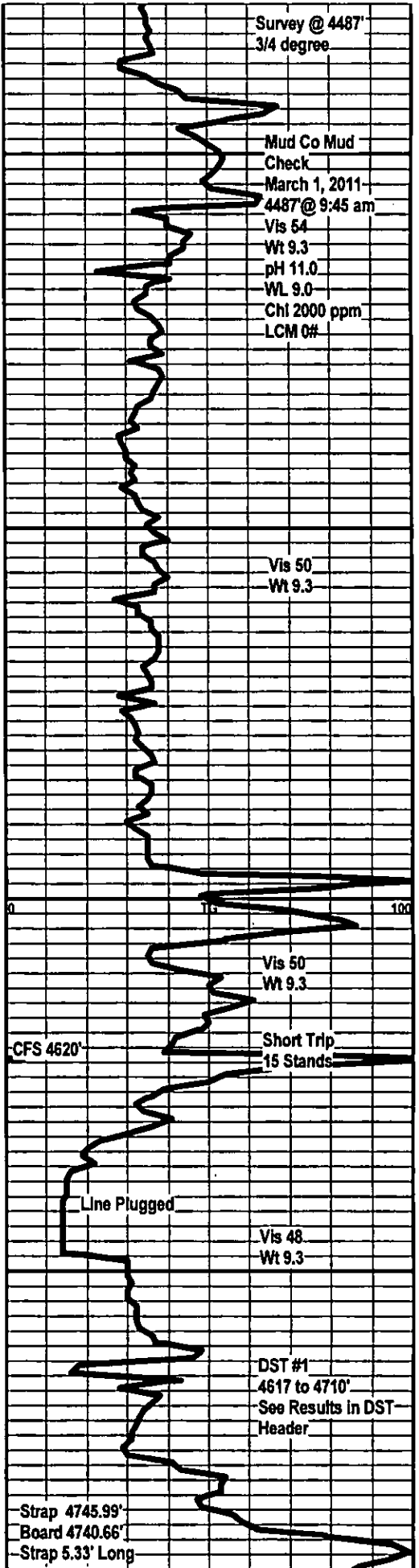
Limestone, tan-white, xln, slightly foss, shaley in part.

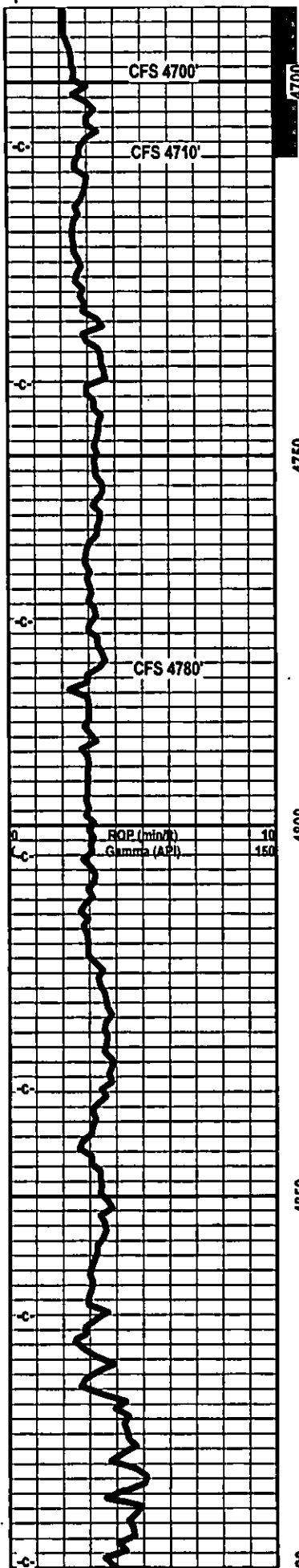
Shale, dark grey, trace black.

Limestone, cream-tan, xln, slightly foss.

Shale, grey-green, trace few sand clusters, with slight staining, ques., show gas bubbles, friable, fn grained.

Chert, off-white, tan-white, slightly weathered, trace pin point porosity, some scattered light brown staining, shaley in part. dull fluor. very





slight show oil.

Chert, off-white to tan-white, increased weathering, light brown staining, very slight show oil, dull fluor.

Dolo. grey-brown, very cherty, some weathered with light brown staining, fresh, sharp, dark grey shales.

Dolo, grey-white, abundant weathered cherts, light brown staining on cherts, traces of pin point porosity, no odor, dull fluor, some grey splintery shales.

Dolo, grey-white, weathered cherts, some sharp cherts, light brown staining on weathered cherts, traces of pin point porosity, increasing amounts of grey-green splintery shales, no odor, very dull fluor.

Dolo, grey-white, xln, traces of weathered cherts, very slight light brown staining, no odor, grey splintery shales.

Dolo, grey, light grey, xln, trace of chert, increasing shales, no odor, no visible shows.

Dolo, grey, light grey, abundant grey and tan-grey shales, still a very slight trace of weathered chert, no visible shows.

Dolo, light grey, grey, xln, traces of fresh chert, traces of weathered chert, some very slight light brown staining, grey shales.

Dolo, light grey, xln, traces of fresh chert, grey splintery shales.

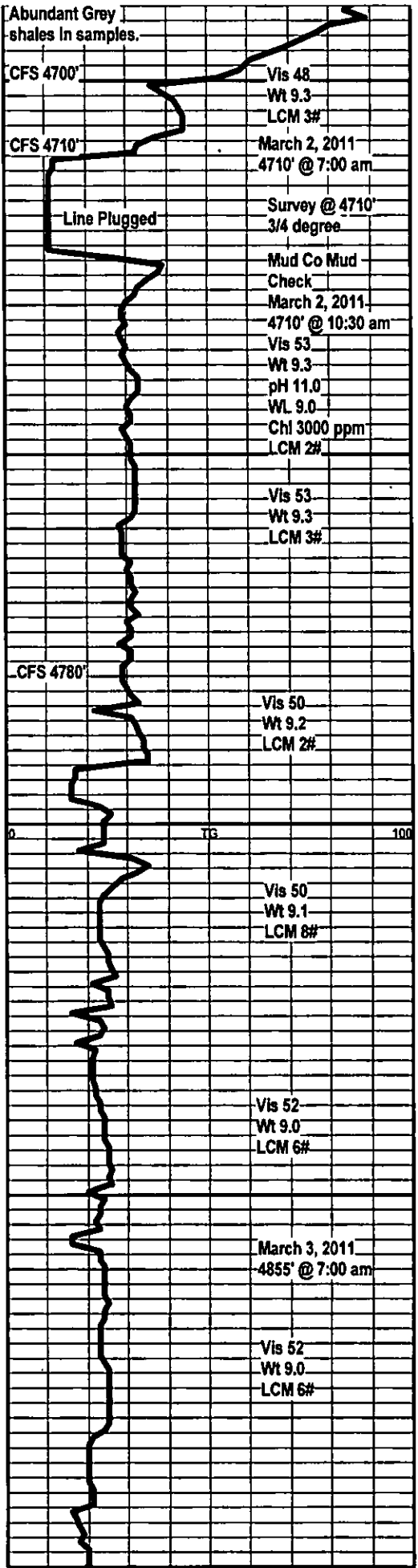
Dolo, grey to light grey, some tan-grey, xln, light grey shales.

Dolo, tan-grey, xln, light grey shales.

Dolo, tan-grey, xln, grey silty shales.

Dolo, tan-white, light grey, xln, grey-green silty splintery shales.

Limestone, cream-white, xln, trace gil, off-white sharp cherts.



Abundant Grey shales in samples.

CFS 4700' Vis 48
Wt 9.3
LCM 3#

CFS 4710' March 2, 2011
4710' @ 7:00 am
Survey @ 4710'
3/4 degree
Mud Co Mud
Check
March 2, 2011
4710' @ 10:30 am
Vis 53
Wt 9.3
pH 11.0
WL 9.0
Chl 3000 ppm
LCM 2#

Line Plugged

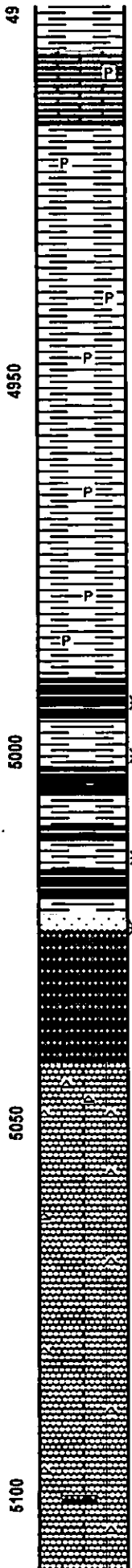
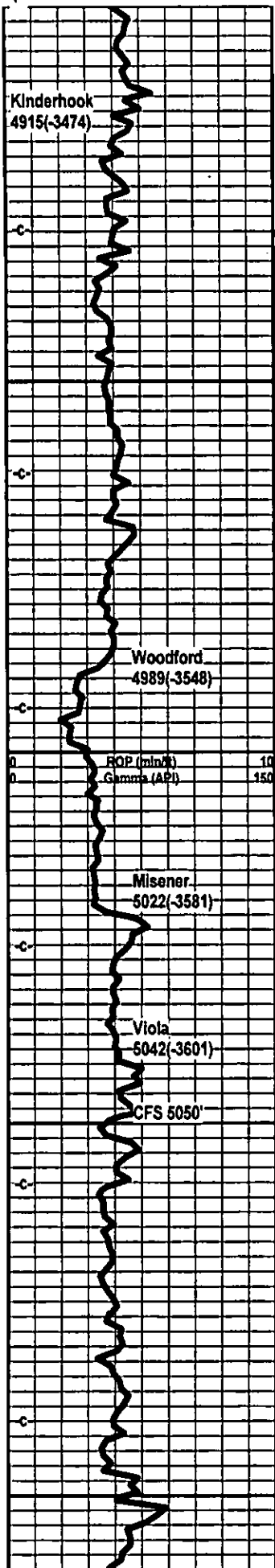
CFS 4780' Vis 53
Wt 9.3
LCM 3#

CFS 4780' Vis 50
Wt 9.2
LCM 2#

CFS 4780' Vis 50
Wt 9.1
LCM 8#

CFS 4850' Vis 52
Wt 9.0
LCM 6#

March 3, 2011
4855' @ 7:00 am
Vis 52
Wt 9.0
LCM 6#



Shale, green-grey, firm.

Limestone, cream-white, xln, cherty in part, chalky, trace of foss.

Shale, dk grey, silty, trace of pyrite.

Shale, grey, dk grey, silty, traces of pyrite.

Shale, grey, dk grey, pyritic.

Shale, grey-black, carb, slight show gas bubbles.

Shale, dark grey, black, slightly carb.

Shale, dark grey, black.

Sandstone, grey to clear, dirty, sa to sr fair sorting, well cemented, no odor, dull scattered fluor. in part, slight show of gas bubbles, light show scummy oil.

Dolo, tan-grey, some lt brownish-red, xln, silty, few imbedded sand grains.

Dolo, light grey, xln, fine grained, some soft.

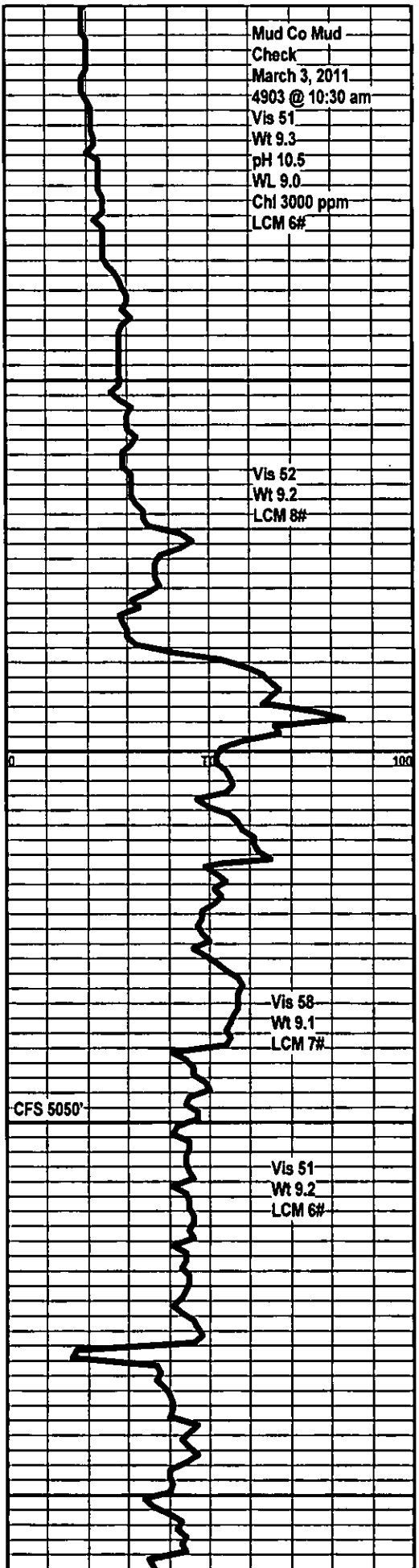
Limestone, cream-white, xln, slightly succ. texture in part, slightly dolo, off-white foss. cherts, very slight fluor., no odor, no shows.

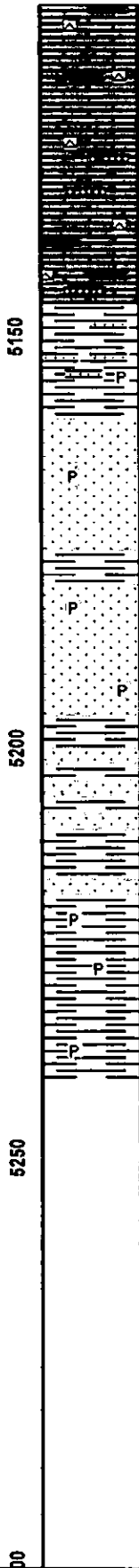
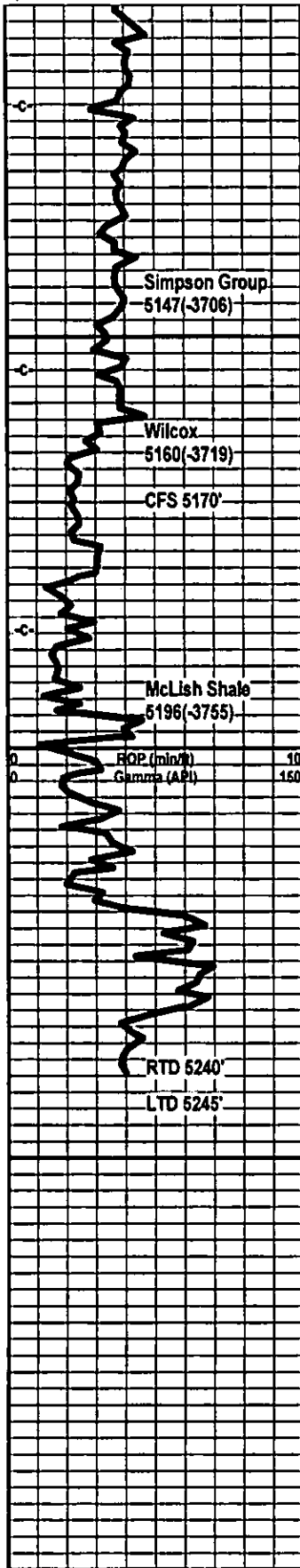
Limestone, cream, tan-white, xln, dense, slightly succ. in texture, traces of chalky ls, some tan cherts.

Limestone, tan-white, fxln, cherty in part, slightly chalky.

Limestone, tan-white, cream, xln, dense, slightly chalky, traces of dark green firm shales, slightly dolomitic in part, tan cherts, sharp.

Limestone tan-white vin dolomitic granular





texture, dark green firm shales, tan cherts.

Limestone, tan-white, xln, dolomitic, tan cherts, some pale green firm shale.

Shale, pale green, traces of pyrite, sand stringers.

Sandstone, grey, clear to frosted quartz grains, SA to SR, friable in part, some well cemented, well sorted, traces of pyrite, some interbedded soft pale green shales, questionable it staining, no visible shows, loose grains in tray.

Shale, dark green, firm, traces of pyrite.

Sandstone, clear to white, trace of dirty grey, sa to sr qtz grains, fair sorting, well cemented, some friable, trace pyrite inclusions, glauc., no visible shows.

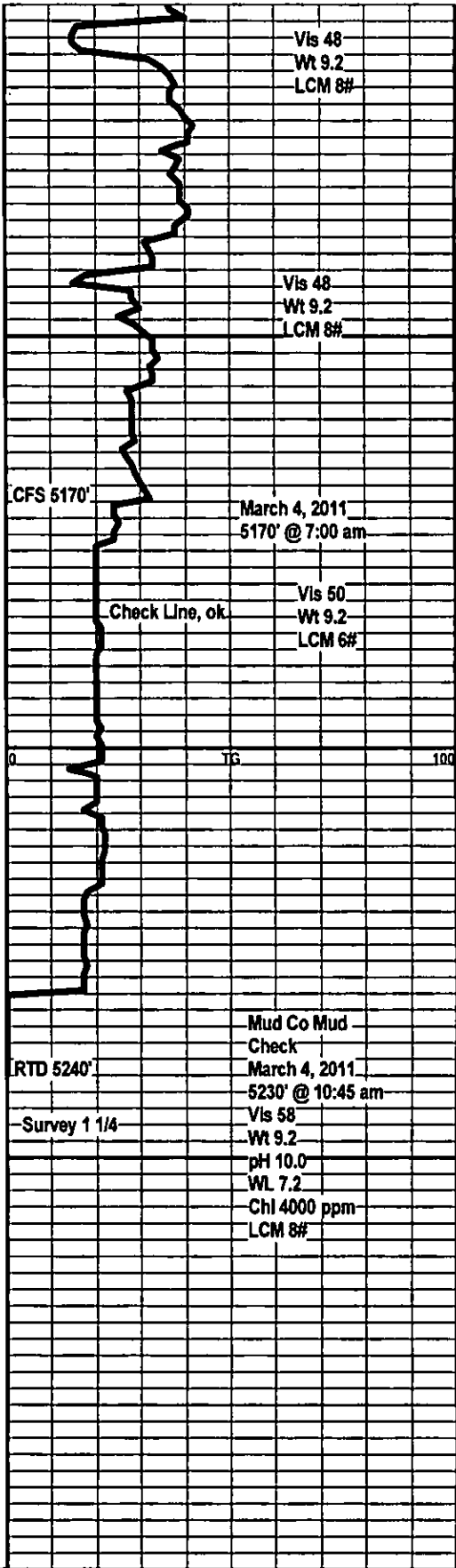
Shale, green, dark green, firm.

Sandstone, clear to white qtz grains, fair sorting, interbedded shale stringers, no visible shows.

Shale, green, dark green, firm.

Sandstone, clear to grey-white qtz grains, friable in part, some well cemented, fair sorting, gil, glauc., shaley in part, no visible shows.

Shale, green, dark green, firm, traces of pyrite.



Vis 48
Wt 9.2
LCM 8#

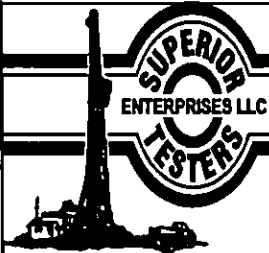
Vis 48
Wt 9.2
LCM 8#

March 4, 2011
5170' @ 7:00 am

Vis 50
Wt 9.2
LCM 8#

Check Line, ok.

Mud Co Mud
Check
March 4, 2011
5230' @ 10:45 am
Vis 58
Wt 9.2
pH 10.0
WL 7.2
Chl 4000 ppm
LCM 8#



DRILL STEM TEST REPORT

TOOL DIAGRAM

Woolsey Operating Company
 125 North Market Suite 100
 Wichita Kansas 67202+1729
 ATTN: Scott Alberg

Harbaugh GU #2
 13/34S/12W Barber
 Job Ticket: 15661 DST#: 1
 Test Start: 2011.03.02 @ 07:50:00

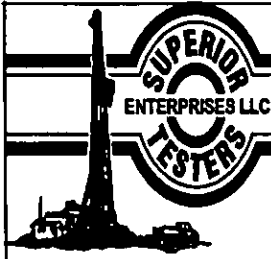
Tool Information

Drill Pipe:	Length: 4333.00 ft	Diameter: 3.80 inches	Volume: 60.78 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 285.44 ft	Diameter: 2.25 inches	Volume: 1.40 bbl	Weight to Pull Loose: 7000.00 lb
			<u>Total Volume: 62.18 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	29.44 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	4617.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	93.44 ft			
Tool Length:	121.44 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			4594.00	
Hydraulic Tool	5.00			4599.00	
Jars	6.00			4605.00	
Safety Joint	2.00			4607.00	
Packer	5.00			4612.00	28.00 Bottom Of Top Packer
Packer	5.00			4617.00	
Perforations	5.00			4622.00	
Change Over Sub	0.75			4622.75	
Drill Pipe	63.94			4686.69	
Change Over Sub	0.75			4687.44	
Perforations	18.00			4705.44	
Recorder	1.00	8405	Inside	4706.44	
Recorder	1.00	8400	Outside	4707.44	
Bull Plug	3.00			4710.44	93.44 Bottom Packers & Anchor

Total Tool Length: 121.44



DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Company
 125 North Market Suite 100
 Wichita Kansas 67202+1729
 ATTN: Scott Alberg

Harbaugh GU #2
 13/34S/12W Barber
 Job Ticket: 15661 DST#: 1
 Test Start: 2011.03.02 @ 07:50:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil APt:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 54.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.00 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 2000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
295.00	Mud 100%	1.538

Total Length: 295.00 ft Total Volume: 1.538 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

