Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1155123

Form ACO-1
August 2013
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 5003
Name: McCoy Petroleum Corporation
Address 1: 8080 E CENTRAL STE 300
Address 2:
City: WICHITA State: KS Zip: 67206 + 2366
Contact Person: Scott Hampel
Phone: (316) 636-2737
CONTRACTOR: License # 5142
Name: Sterling Drilling Company
Wellsite Geologist: David Williams
Purchaser: MVPurchasing

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
☐ Plug Back ☐ Conv. to GSW ☐ Conv. to Producer

☐ Commingled Permit #:
☐ Dual Completion Permit #:
☐ SWD Permit #:
☐ ENHR Permit #:
☐ GSW Permit #:

6/4/2013	6/12/2013	7/11/2013
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-097-21760-00-00
Spot Description: C SW SW
_ - _ - SW - SW Sec. 23 Twp. 30 S. R. 19 ☐ East ☑ West
660 Feet from ☐ North / ☑ South Line of Section
660 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Kiowa
Lease Name: HILL 'A' Well #: #3-23
Field Name: Alford
Producing Formation: Mississippian
Elevation: Ground: 2237 Kelly Bushing: 2241
Total Vertical Depth: 5200 Plug Back Total Depth: 5158
Amount of Surface Pipe Set and Cemented at: 635 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: 9800 ppm Fluid volume: 850 bbls
Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

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

☑ **Confidentiality Requested**
Date: 08/15/2013
☑ **Confidential Release Date:** 08/15/2015
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 08/16/2013

1155123

Operator Name: McCoy Petroleum Corporation Lease Name: HILL 'A' Well #: #3-23

Sec. 23 Twp. 30 S. R. 19 ☐ East ☑ West County: Kiowa

INSTRUCTIONS: Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Pioneer Energy Services: Dual Induction, Dual Compensated Density, Microresistivity, Sonic Cement Bond

☐ Log Formation (Top), Depth and Datum ☐ Sample

Name: See Attached Top: Datum:

CASING RECORD ☑ New ☐ 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	12.25	8.625	24	635	MDC	275	3%CC, 2%Gel, 1/2#/sx Celoflake
Production	7.875	5.5	15.5	5202	Q Pro-C McCoy Blend	150	10%Salt, 5#/sxGIls

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	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☐ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

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	Spergen B: 5096-5116, 5082-5086, 5063-5067'	AC: 1000gals, 15% MCA. REAC: 3000gals, 20% SGA, 120 ball sealers.	5116

TUBING RECORD: Size: 2.375 Set At: 5140 Packer At: Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 7/11/2013

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	82	69	1		

DISPOSITION OF GAS: ☐ Vented ☑ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION: ☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)* ☐ Other *(Specify)*

PRODUCTION INTERVAL: MIss: 5063-5116

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802

Kansas
Corporation Commission

Phone: 316-337-6200
Fax: 316-337-6211
http://kcc.ks.gov/

August 13, 2013

Scott Hampel
McCoy Petroleum Corporation
8080 E CENTRAL STE 300
WICHITA, KS 67206-2366

Re: ACO1
API 15-097-21760-00-00
HILL 'A' #3-23
SW/4 Sec.23-30S-19W
Kiowa County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Scott Hampel

ACO-1 Supplemental Data

SAMPLE TOPS
McCoy Petroleum
Hill 'A' #3-23
C SW SW
660'FSL & 660'FWL
Sec 23-30s-19w

KB: 2241’	Depth	Datum
LeCompton	4024	-1783
Queen Hill	4061	-1820
Heebner	4238	-1997
Brown Lime	4425	-2184
Lansing	4442	-2201
Lansing "B"	4464	-2223
Lansing "F"	4558	-2317
Kansas City "H"	4609	-2368
Kansas City "J"	4732	-2491
Stark	4774	-2533
Hushpuckney	4822	-2581
Pawnee	4948	-2707
Cherokee	4994	-2753
Mississippian	5056	-2815
Spergen	5094	-2853
Warsaw	5126	-2885
RTD	5200	-2959

LOG TOPS
McCoy Petroleum
Hill 'A' #3-23
CC SW SW
660'FSL & 660'FWL
Sec 23-30s-19w

KB: 2241’	Depth	Datum
LeCompton	4034	-1783
Queen Hill	4064	-1823
Heebner	4238	-1997
Brown Lime	4428	-2187
Lansing	4434	-2203
Lansing "B"	4468	-2227
Lansing "F"	4556	-2315
Kansas City "H"	4621	-2370
Kansas City "J"	4734	-2493
Stark	4776	-2535
Hushpuckney	4824	-2583
Pawnee	4952	-2711
Cherokee	4996	-2755
Mississippian	5062	-2821
Spergen	5096	-2855
Warsaw	5126	-2885
LTD	5203	-2962

QUALITY WELL SERVICE, INC.

5905

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

Heath's Cell 620-727-3410
Office / Fax 620-672-3663

Rich's Cell 620-727-3409
Brady's Cell 620-727-6964

Date	Sec.	Twp.	Range	County	State	On Location	Finish
6-5-13	23	30	19	Kiowa	Ks	6:30 PM	12:30

Lease H.11 "A" Well No. 3-23 Location Greensburg Ks 54 & 183 Jct.

Contractor Sterling Drlg #2

Type Job Surface

Hole Size 12¼ T.D. 640

Csg. 8⅝ 23# Depth 638

Tbg. Size Depth

Tool Depth

Cement Left in Csg. Shoe Joint 35.57

Meas Line Displace 38.6

Owner 10S to Rd T 3W to Rd 21 3S

To Quality Well Service, Inc. Ent to
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To McCoy Pet. (Op)

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 150 sx MDC 3% CC ½# CF.
125 sx 2% GEL 3% CC ½# CF.

EQUIPMENT

Pumptrk 3	No.	Brody
Bulktrk 7	No.	Mike
Bulktrk 10	No.	Derek
Pickup	No.	

JOB SERVICES & REMARKS

Rat Hole

Mouse Hole

Centralizers

Baskets Bottom 13 Jt = 33' +- Down

D/V or Port Collar

Ran 15 Jts 8⅝ 23# Csg
Set @ 638 1 Jt = 35.57 Baffle Plate

Hook up to csg Break Circ w/rig

Start Mix & Pump 150 sx MDC
11.5#/gal

Start Mix & Pump 125 sx Common
15#/gal

Shut down Release 8⅝ Wooden Plug

Disp 33.6 Bbls total

Close Valve on csg 500# 12:15

Good Circ thru Job

Circ Cmt to Pit

Thanks Todd Brody Mike & Derek

X Signature

Common	125
Poz. Mix (MDC)	150
Gel.	5
Calcium	10
Hulls	
Salt	
Flowseal	137.5#
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	290
Mileage	45
8⅝ **FLOAT EQUIPMENT**	
Guide Shoe	
Centralizer	
Baskets	1 EA
APU Inserts (Baffle)	1 EA
Float Shoe	
Latch Down	
	1 EA Wooden Plug
LMI	45
Pumptrk Charge	Surface
Mileage	45
Tax	
Discount	
Total Charge	

P/U 15sx Cmt Plug

Taylor Printing, Inc.

QUALITY WELL SERVICE, INC.

5906

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124

OFFICE 620-727-3410
Office / Fax 620-672-3663

Rich's Cell 620-727-3409
Brady's Cell 620-727-6964

Date	Sec.	Twp.	Range	County	State	On Location	Finish
6-12-13	23	30	19	Kiowa	Ks	4:15 PM	11:00 PM

Lease Hill A	Well No. 3-23	Location Greensburg Ks 54-183 Jct	
Contractor Sterling Drlg #2		Owner 10 S to T Rd 3 W to 21 Rd 3 1/2 S E into	
Type Job 5 1/2 Longstring		To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Hole Size 7 7/8	T.D. 5203		
Csg. 5 1/2	Depth 5200	Charge To McCoy Petroleum Corp	
Tbg. Size	Depth	Street	
Tool	Depth	City	State
Cement Left in Csg.	Shoe Joint 22.06	The above was done to satisfaction and supervision of owner agent or contractor.	
Meas Line	Displace 125 Bbl	Cement Amount Ordered 150 sx Q Pro C 10% Salt 5#/sx Gilsonite; 50 sx 60/40 4% Gel	

EQUIPMENT	No.		
Pumptrk 8	Mike		
Bulktrk 9	Derek		
Bulktrk			
Pickup			

Common	30 sx
Poz. Mix	20 sx
Gel.	4 sx
Calcium (Q Pro C)	150 sx
Hulls	
Salt	16
Flowseal	
Kol-Seal	750#
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	220
Mileage	

JOB SERVICES & REMARKS

Rat Hole 30 sx
Mouse Hole 20 sx
Centralizers 1-3-5-7
Baskets
D/V or Port Collar

Run 124 Jt's 5 1/2 15.5# Csg
Set @ 5200'
1 Jt = 22.06 LD Baffle & Float Shoe

Csg on Bottom Hook up to Csg
Break Circ & Rotate 1 Hr
Plug R-M Holes
Pump 12 Bbl Mud Flush
Pump 3 Bbl Spacer
Mix & Pump 150 sx Q Pro C 14.3#/gal
Shut down wash up tk & Clean Lines
Release L.D Plug
Disp 125 Bbl total
Lift PSI 750#
Plug down @ 10:30 PM 1500#
Release & Held

Thanks
Todd, Mike & Derek

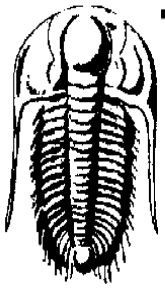
5 1/2 FLOAT EQUIPMENT

Guide Shoe	
Centralizer (Turbolizers)	4 EA
Baskets	
AFU Inserts (Rotate Head)	
Float Shoe	1 EA
Latch Down	1 EA
LMV	45
Pumptrk Charge	Longstring
Mileage	45
Tax	
Discount	
Total Charge	

Please call again

X Signature Dave [illegible]

Taylor Printing, Inc.



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **McCoy Petroleum Corporation**

8080 E Central Ste 300
Wichita, KS 67206

ATTN: Dave Williams

Hill A #3-23

23-30s-19w Kiowa

Start Date: 2013.06.11 @ 01:20:34
End Date: 2013.06.11 @ 10:35:49
Job Ticket #: 50980 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2013.06.12 @ 16:04:26

DRILL STEM TEST REPORT

McCoy Petroleum Corporation

8080 E Central Ste 300
Wichita, KS 67206

ATTN: Dave Williams

23-30s-19w Kiowa

Hill A #3-23

Job Ticket: 50980 **DST#: 1**

Test Start: 2013.06.11 @ 01:20:34

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:47:34
Time Test Ended: 10:35:49

Test Type: Conventional Bottom Hole (Initial)
Tester: Leal Cason
Unit No: 45

Interval: 5060.00 ft (KB) To 5120.00 ft (KB) (TVD)
Total Depth: 5120.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

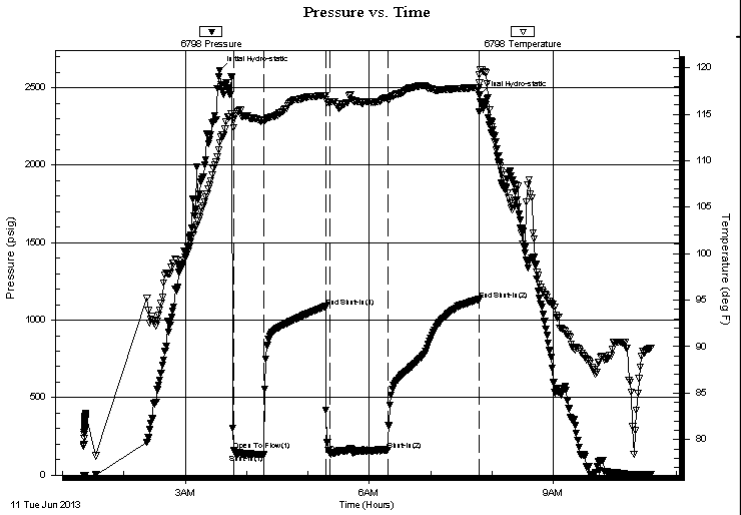
Reference Elevations: 2241.00 ft (KB)
2230.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 6798 **Inside**

Press@RunDepth: 159.98 psig @ 5061.00 ft (KB)
Start Date: 2013.06.11 End Date: 2013.06.11
Start Time: 01:20:35 End Time: 10:35:49

Capacity: 8000.00 psig
Last Calib.: 2013.06.11
Time On Btm: 2013.06.11 @ 03:33:49
Time Off Btm: 2013.06.11 @ 07:47:49

TEST COMMENT: IF: Strong Blow , BOB in 15 seconds, GTS in 8 minutes, Caught Sample & Gauged w ith Merla Gauge
ISI: No Blow Back
FF: Strong Blow , BOB & GTS immediate, Gauged w ith Merla
FSI: No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2612.37	111.95	Initial Hydro-static
14	159.19	113.53	Open To Flow (1)
43	132.30	114.29	Shut-In(1)
104	1088.16	116.97	End Shut-In(1)
108	142.20	116.30	Open To Flow (2)
164	159.98	116.70	Shut-In(2)
254	1133.61	117.84	End Shut-In(2)
254	2451.97	119.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
185.00	GSY OWCM 15%G 15%O 20%W 50%M	0.91
248.00	GSY WOCM 10%G 12%W 30%O 48%M	3.23
72.00	GOCM 10%G 2%O 88%M	1.01
0.00	GTS	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

McCoy Petroleum Corporation

8080 E Central Ste 300
Wichita, KS 67206

ATTN: Dave Williams

23-30s-19w Kiowa

Hill A #3-23

Job Ticket: 50980 **DST#: 1**

Test Start: 2013.06.11 @ 01:20:34

GENERAL INFORMATION:

Formation: **Mississippi**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 03:47:34
Time Test Ended: 10:35:49

Test Type: Conventional Bottom Hole (Initial)
Tester: Leal Cason
Unit No: 45

Interval: 5060.00 ft (KB) To 5120.00 ft (KB) (TVD)
Total Depth: 5120.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

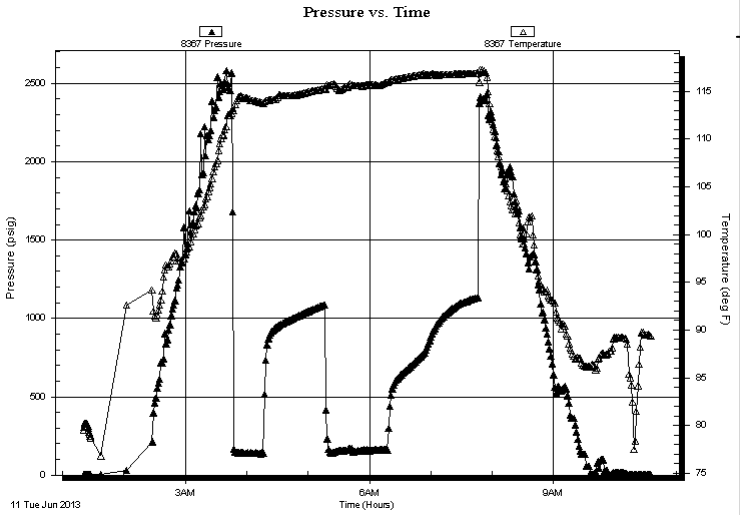
Reference Elevations: 2241.00 ft (KB)
2230.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8367 **Outside**

Press@RunDepth: psig @ 5061.00 ft (KB)
Start Date: 2013.06.11 End Date: 2013.06.11
Start Time: 01:20:28 End Time: 10:35:38

Capacity: 8000.00 psig
Last Calib.: 2013.06.11
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Strong Blow , BOB in 15 seconds, GTS in 8 minutes, Caught Sample & Gauged w ith Merla Gauge
ISI: No Blow Back
FF: Strong Blow , BOB & GTS immediate, Gauged w ith Merla
FSI: No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
185.00	GSY OWCM 15%G 15%O 20%W 50%M	0.91
248.00	GSY WOCM 10%G 12%W 30%O 48%M	3.23
72.00	GOCM 10%G 2%O 88%M	1.01
0.00	GTS	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

McCoy Petroleum Corporation

8080 E Central Ste 300
Wichita, KS 67206

ATTN: Dave Williams

23-30s-19w Kiowa

Hill A #3-23

Job Ticket: 50980 **DST#: 1**

Test Start: 2013.06.11 @ 01:20:34

Tool Information

Drill Pipe:	Length:	4845.00 ft	Diameter:	3.80 inches	Volume:	67.96 bbl	Tool Weight:		2100.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	212.00 ft	Diameter:	2.25 inches	Volume:	1.04 bbl	Weight to Pull Loose:		88000.00 lb
					Total Volume:	69.00 bbl	Tool Chased		ft
Drill Pipe Above KB:		24.00 ft					String Weight:	Initial	85000.00 lb
Depth to Top Packer:		5060.00 ft						Final	86000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		60.00 ft							
Tool Length:		87.00 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			5038.00		
Hydraulic tool	5.00			5043.00		
Jars	5.00			5048.00		
Safety Joint	2.00			5050.00		
Packer	5.00			5055.00	27.00	Bottom Of Top Packer
Packer	5.00			5060.00		
Stubb	1.00			5061.00		
Recorder	0.00	6798	Inside	5061.00		
Recorder	0.00	8367	Outside	5061.00		
Perforations	2.00			5063.00		
Change Over Sub	1.00			5064.00		
Drill Pipe	32.00			5096.00		
Change Over Sub	1.00			5097.00		
Perforations	20.00			5117.00		
Bullnose	3.00			5120.00	60.00	Bottom Packers & Anchor
Total Tool Length:	**87.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

McCoy Petroleum Corporation

8080 E Central Ste 300
Wichita, KS 67206

ATTN: Dave Williams

23-30s-19w Kiowa

Hill A #3-23

Job Ticket: 50980 **DST#: 1**

Test Start: 2013.06.11 @ 01:20:34

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	126000 ppm
Viscosity:	55.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	10.77 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	7600.00 ppm				
Filter Cake:	0.02 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
185.00	GSY OWCM 15%G 15%O 20%W 50%M	0.910
248.00	GSY WOCM 10%G 12%W 30%O 48%M	3.233
72.00	GOCM 10%G 2%O 88%M	1.010
0.00	GTS	0.000

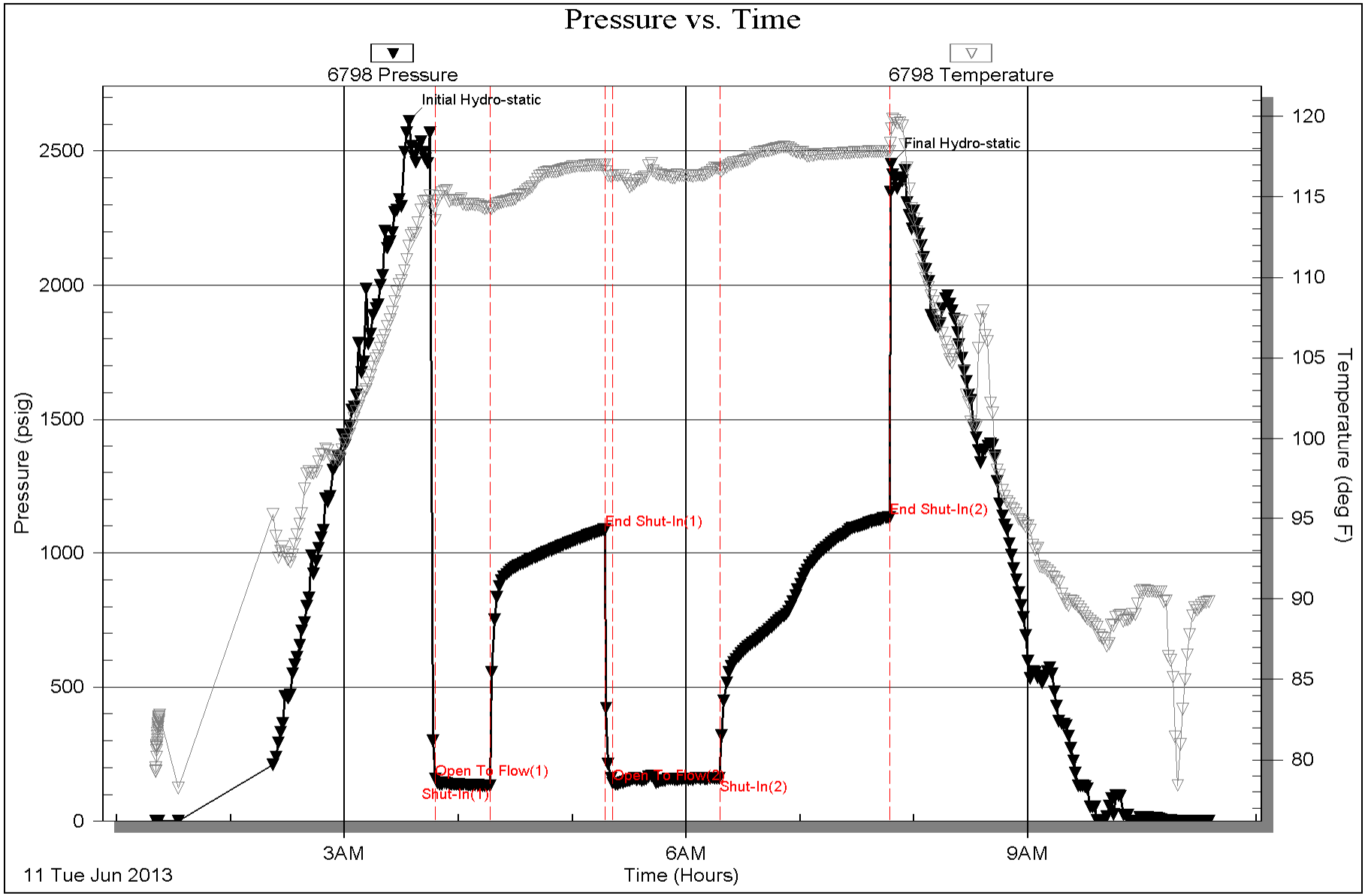
Total Length: 505.00 ft Total Volume: 5.153 bbl

Num Fluid Samples: 1 Num Gas Bombs: 0 Serial #:

Laboratory Name: Caraway Laboratory Location: Liberal, KS

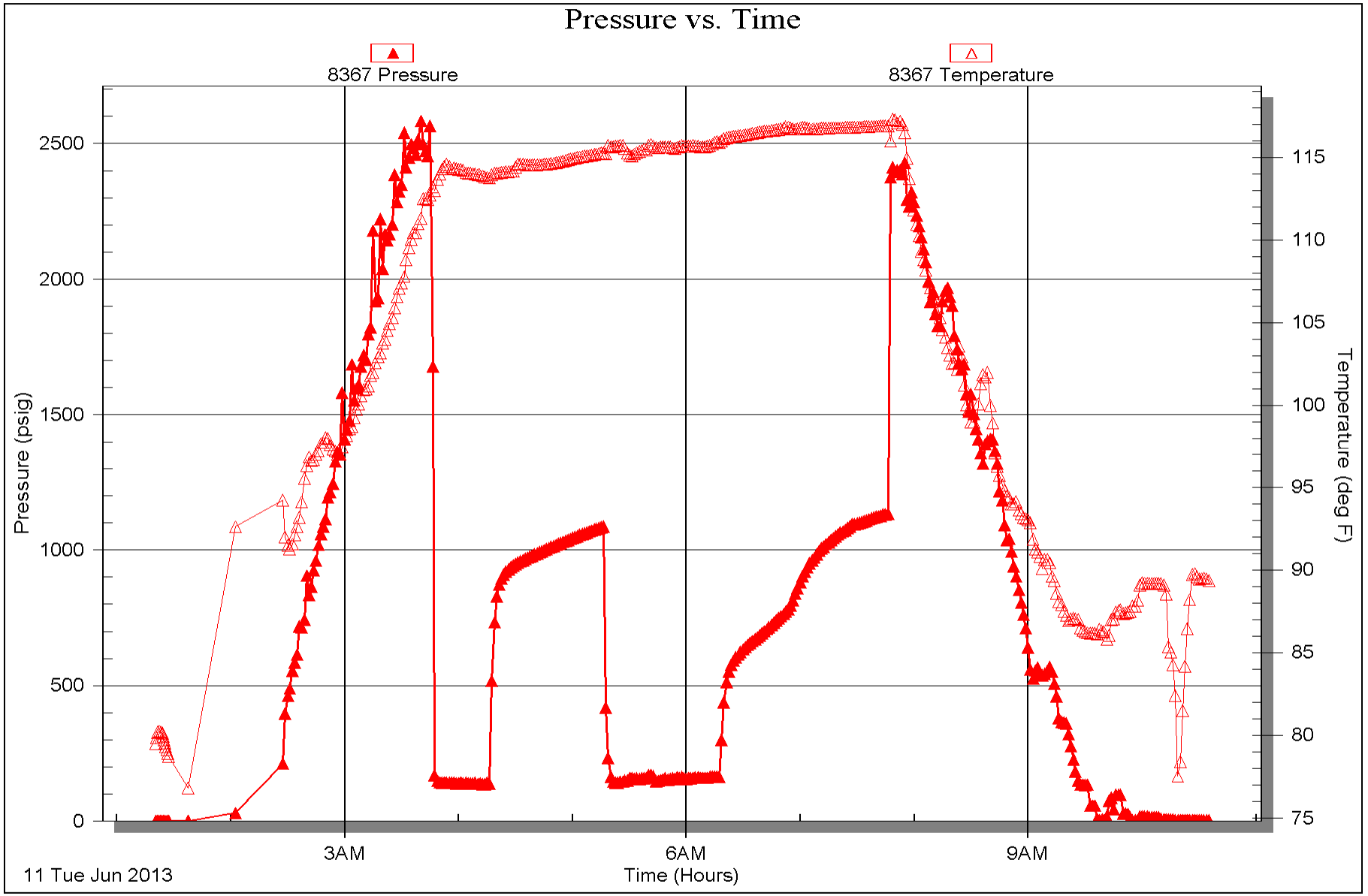
Recovery Comments: RW was .06 @ 78 degrees

Serial #: 6798 **Inside** McCoy Petroleum Corporation Hill A #3-23 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 50980 Printed: 2013.06.12 @ 16:04:28

Serial #: 8367 **Outside** McCoy Petroleum Corporation Hill A #3-23 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 50980 Printed: 2013.06.12 @ 16:04:29

4/10

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50980

Well Name & No. Hill A 3-23 Test No. 1 Date 06/11/13

Company McCoy Petroleum Corp Elevation 2241 KB 2230 GL

Address 8080 E Central Ste 300 Wichita, KS 67206

Co. Rep / Geo. Dave Williams Rig Sterling 2

Location: Sec. 23 Twp. 30S Rge. 19W Co. Kiowa State KS

Interval Tested 5060 – 5120 Zone Tested Mississippi

Anchor Length 60 Drill Pipe Run 4845 Mud Wt. 9.0

Top Packer Depth 5055 Drill Collars Run 212 Vis 55

Bottom Packer Depth 5060 Wt. Pipe Run 0 WL 10.8

Total Depth 5120 Chlorides 7600 ppm System LCM 1

Blow Description IF: Strong Blow, BOB in 15 sec, GTS in 8 min, Caught Sample & Gauged with Merla

ISI: NO Blow Back

FF: Strong Blow, BOB & GTS Immediate, Gauged with Merla

FSI: NO Blow Back

Rec 4552	Feet of GIP	%gas	%oil	%water	%mud	
Rec 72	Feet of GOCM	10 %gas	2 %oil	%water	88 %mud	
Rec 248	Feet of GSY WOCM	10 %gas	30 %oil	12 %water	48 %mud	
Rec 185	Feet of GSY OWCM	15 %gas	15 %oil	20 %water	50 %mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 505 BHT 119 Gravity N/C API RW .06 @ 78 °F Chlorides 126,000 ppm

(A) Initial Hydrostatic 2612	☑ Test 1350	T-On Location 00:00	
(B) First Initial Flow 159	☑ Jars 250	T-Started 01:20	
(C) First Final Flow 132	☑ Safety Joint 75	T-Open 03:47	
(D) Initial Shut-In 1088	☐ Circ Sub	T-Pulled 07:47	
(E) Second Initial Flow 142	☐ Hourly Standby	T-Out 10:35	
(F) Second Final Flow 160	☑ Mileage (110) 341	Comments loaded tools 6/11 19:00	
(G) Final Shut-In 1134	☐ Sampler		
(H) Final Hydrostatic 2452	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 30	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 60	☐ Extra Recorder	Sub Total 0	
Final Flow 60	☐ Day Standby	Total 2016	
Final Shut-In 90	☐ Accessibility	MP/DST Disc't	
	Sub Total 2016		

Approved By [signature] Our Representative [signature]

TRILOBITE TESTING INC.
P.O. Box 1733 • Hays, Kansas 67601

12/08

Gas Volume Report

McCoy Petroleum — Operator
Hill A 3-23 — Well Name and No.
1 — DST No.

GTS 8 minutes

Min.	~~Ins. of Water~~ PSIG	Orifice Size	CF/D
10	17	1/2	151.9
20	26	1/2	231.7
30	22	1/2	208.9

Min.	~~Ins. of Water~~ PSIG	Orifice Size	CF/D
10	20	1/2	197.5
20	18	1/2	186.1
30	16	1/2	174.7
40	13	1/2	157.6
50	12	1/2	151.9
60	12	1/2	151.9

Remarks:

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

Well Name:	**HILL "A" #3-23**		
Location:	**SW - SW of Sec. 23 - T. 30 S. - R. 19 W.**		
License Number:	**A.P.I. #15-097-21,760-00-00**	**Region:**	**KIOWA CO., KS.**
Spud Date:	**06/04/2013**	**Drilling Completed:**	**06/12/2013**
Surface Coordinates:	**660' FSL & 660' FWL**		
Bottom Hole Coordinates:			
Ground Elevation (ft):	**2230'**	**K.B. Elevation (ft):**	**2241'**
Logged Interval (ft):	**632' To: 5203'**	**Total Depth (ft):**	**5200'**
Formation:	**MISSISSIPPIAN**		
Type of Drilling Fluid:	**CHEMICAL/POLYMER/GEL**		

OPERATOR

Company: McCOY PETROLEUM CORPORATION KCC LIC. NO. # 5003
Address: 8080 E. CENTRAL, STE. 300
WICHITA, KANSAS 67206-2366

GEOLOGIST

Name: DAVID P. WILLIAMS, P.G.
Company: DW ENERGY, LLC
Address: 312 N. BROADVIEW STREET
WICHITA, KANSAS 67208

Casing & Deviation

Spud at 8:30 pm on 05/04/13. Drilled 12-1/4" hole to 640'. Ran 13 joints of new 24# 8-5/8" surface casing, Tallied 621', set at 635' KB. Welded straps on bottom 3 and top 2 joints. Tacked collars on remainder. Cemented with 150 sks MDC; 3% CC; 1/2# CF, tailed with 125 sks Common ; 2% Gel; 3% CC; 1/2# CF. Plug down at 12:15 pm 06/05/13. Quality Well Service ticket #5905 Cement did circulate.

Deviation Survey's Taken= @ 640' = 3/4 degree; @ 4465' = 3/4 degree; @ 5120' = 3/4 degree.

DSTs

~~ DST # 1 ~ 5060'-5120'. Times: 30"- 60"- 60"- 90";

Blow: IF=Strong/ BOB/15 Sec. & GTS @ 8" (See Gauge Report). Strong No Blow Back During ISIP. FF= Strong Blow BOB/ Instant. No Blow Back During FSIP.

Recovery: 4552' GIP: 505' TF: 72' GOCM (10% G;2% O;88% M); 248' GWOCM (10%G; 30%O; 12%W;48% M); 185' GOWCM (15%G;15%O;20% W;50% M);

Pressures: IH= 2612#; FH= 2452#; IF=159-132; FF=142-160#;
ISIP = 1088#; FSIP = 1134#; T.= 119 degrees. F.; Salt Water= 126,000 Ppm Chl.; RW= .06 @ 78 degrees F.
.
Gas Gauge IF= @ 10"= 151.9 Mcf; @ 20"= 231.7 Mcf; @ 30"= 208.9 Mcf;
Gas Gauge FF= @ 10"= 197.5 Mcf; @ 20"= 186.1 Mcf; @ 30"= 174.7 Mcf; @ 40"= 157.6 Mcf; @ 50"= 151.9 Mcf; @ 60"= 151.9 Mcf.

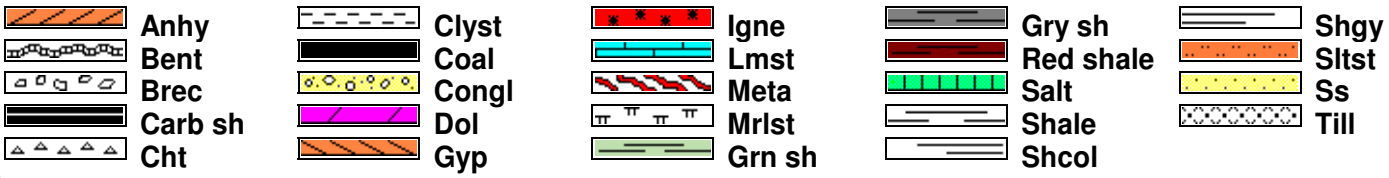
Comments

After review of all geologic samples as examined, combined with the fluid and pressures results from all drill stem tests taken and analysis from the electric logs run, it was determined by all parties that production casing be run in order to further evaluate this well.

Respectfully submitted,

David P. Williams, P.G

ROCK TYPES



ACCESSORIES

MINERAL
- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

FOSSIL
- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Fuss
- Gastro
- Oolite
- Oomold
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

STRINGER
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg

TEXTURE
- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY
- E Earthy
- F Fenest
- F Fracture
- I Inter
- M Moldic
- O Organic
- P Pinpoint
- V Vuggy

SORTING
- W Well
- M Moderate
- P Poor

ROUNDING
- R Rounded
- r Subrnd
- a Subang
- A Angular

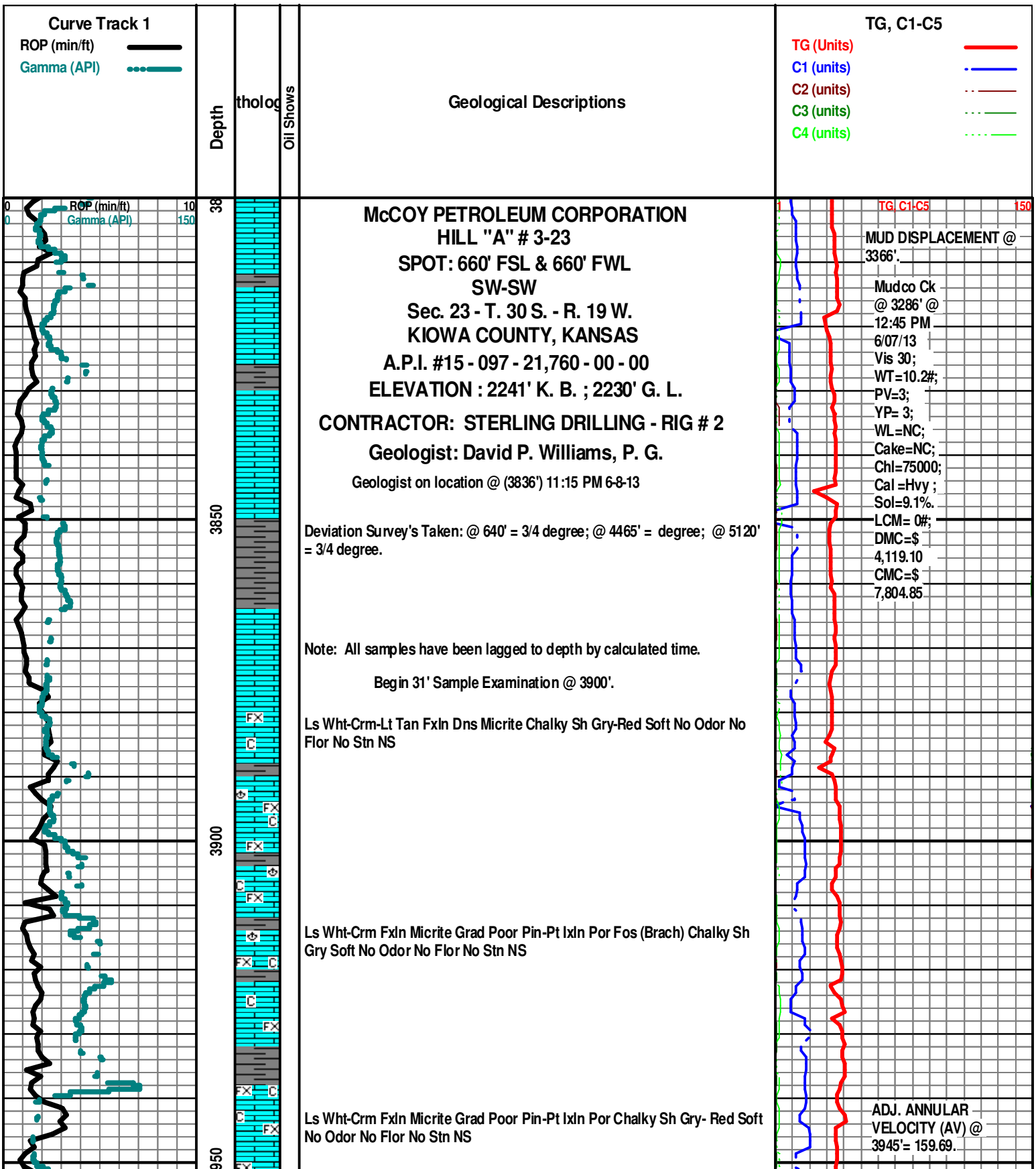
OIL SHOW
- Gas show

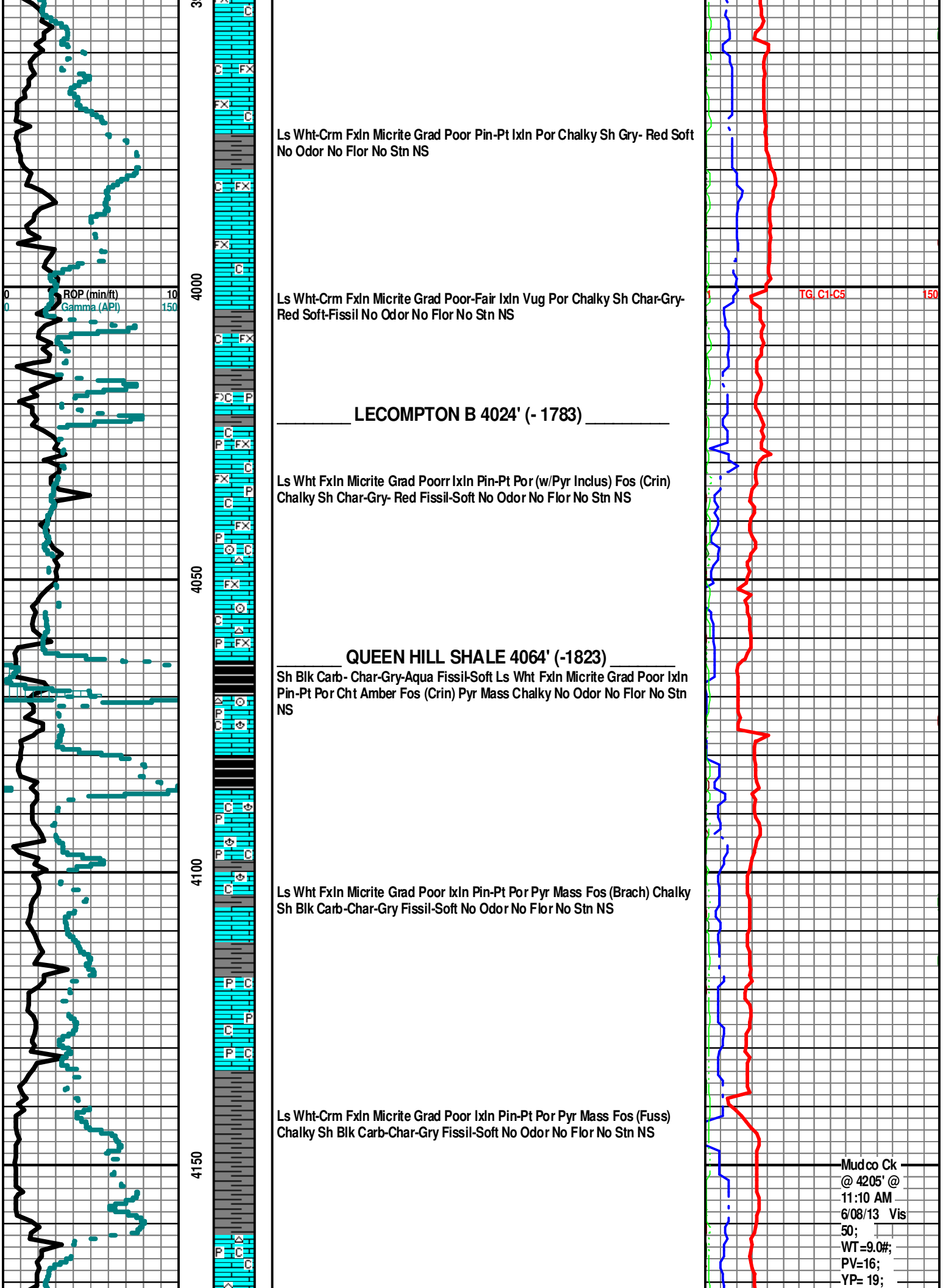
ROUNDING
- Even
- Spotted
- Ques
- Dead

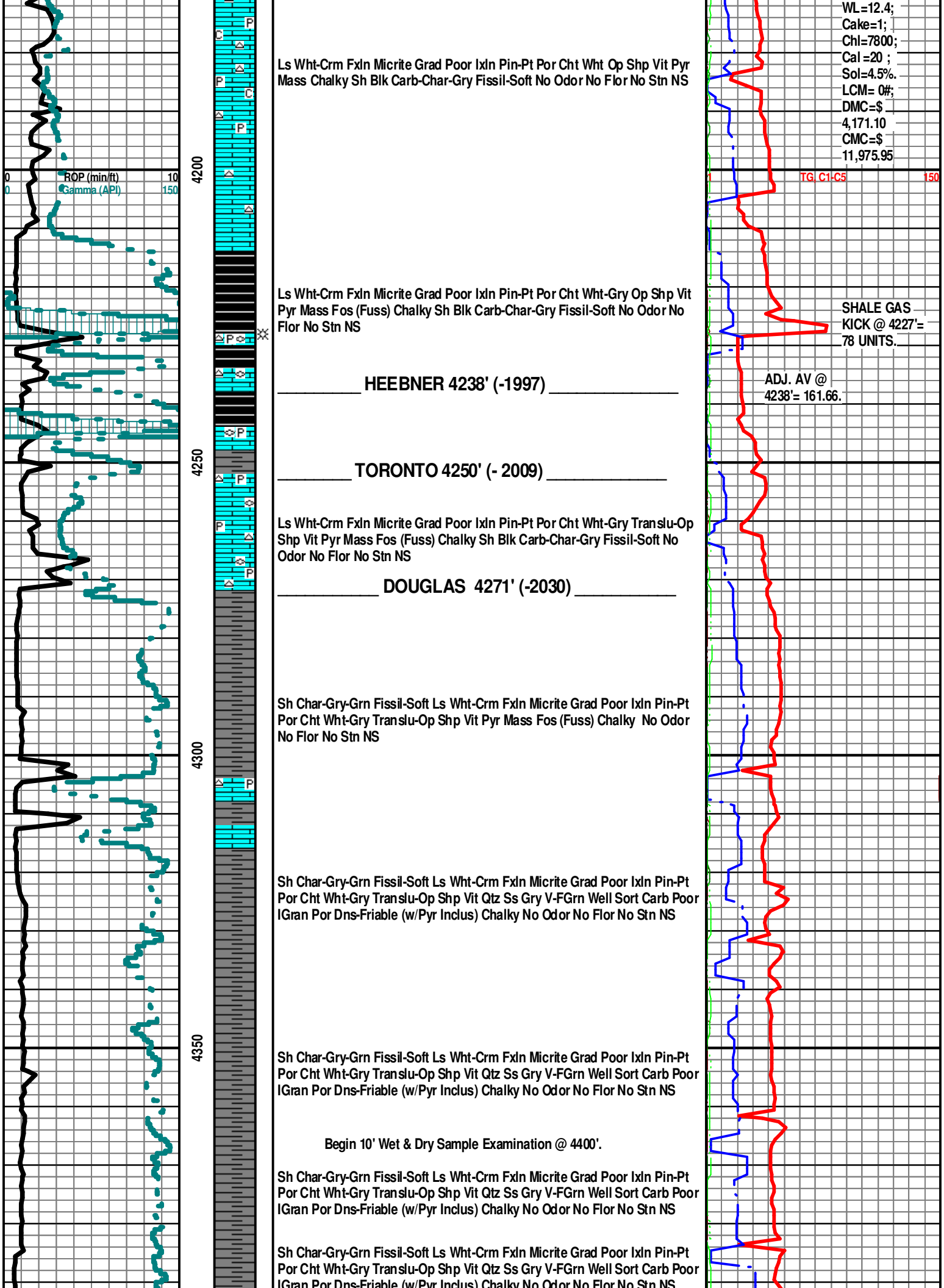
INTERVAL
- Dst
- Dst_alt

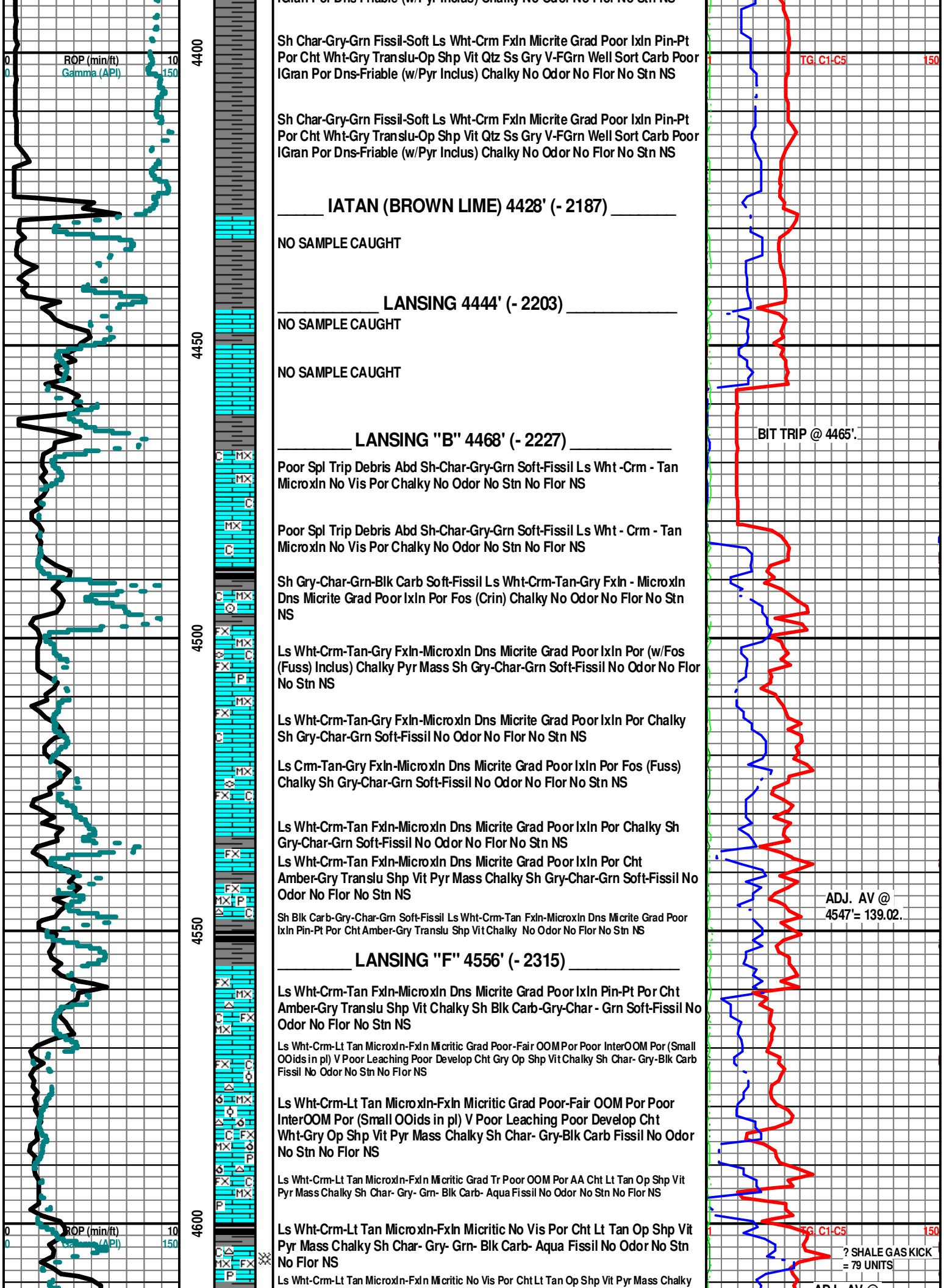
Core

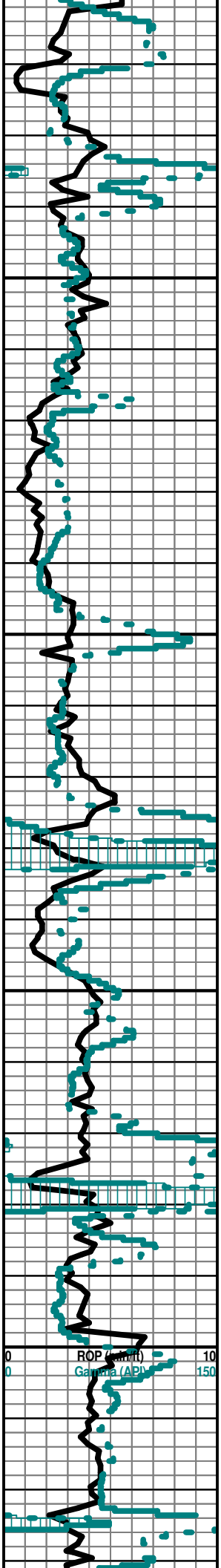
EVENT
- Rft
- Sidewall




0
ROP (min/ft)
10
0
Gamma (API)
150
4000
4050
4100
4150
TG, C1-C5
150
Ls Wht-Crm Fxln Micrite Grad Poor Pin-Pt Ixln Por Chalky Sh Gry- Red Soft No Odor No Flor No Stn NS
Ls Wht-Crm Fxln Micrite Grad Poor-Fair Ixln Vug Por Chalky Sh Char-Gry- Red Soft-Fissil No Odor No Flor No Stn NS
_____ LECOMPTON B 4024' (- 1783) _____
Ls Wht Fxln Micrite Grad Poorr Ixln Pin-Pt Por (w/Pyr Inclus) Fos (Crin) Chalky Sh Char-Gry- Red Fissil-Soft No Odor No Flor No Stn NS
_____ QUEEN HILL SHALE 4064' (-1823) _____
Sh Blk Carb- Char-Gry-Aqua Fissil-Soft Ls Wht Fxln Micrite Grad Poor Ixln Pin-Pt Por Cht Amber Fos (Crin) Pyr Mass Chalky No Odor No Flor No Stn NS
Ls Wht Fxln Micrite Grad Poor Ixln Pin-Pt Por Pyr Mass Fos (Brach) Chalky Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Flor No Stn NS
Ls Wht-Crm Fxln Micrite Grad Poor Ixln Pin-Pt Por Pyr Mass Fos (Fuss) Chalky Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Flor No Stn NS
Mudco Ck @ 4205' @ 11:10 AM 6/08/13 Vis 50; WT=9.0#; PV=16; YP= 19;


0
ROP (min/ft)
10
0
Gamma (API)
150
4200
4250
4300
4350
Ls Wht-Crm Fxln Micrite Grad Poor Ixln Pin-Pt Por Cht Wht Op Shp Vit Pyr Mass Chalky Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Flor No Stn NS
WL=12.4;
Cake=1;
Chl=7800;
Cal =20 ;
Sol=4.5%.
LCM= 0#;
DMC=$
4,171.10
CMC=$
11,975.95
1
TG, C1-C5
150
Ls Wht-Crm Fxln Micrite Grad Poor Ixln Pin-Pt Por Cht Wht-Gry Op Shp Vit Pyr Mass Fos (Fuss) Chalky Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Flor No Stn NS
SHALE GAS KICK @ 4227'= 78 UNITS.
HEEBNER 4238' (-1997)
ADJ. AV @ 4238'= 161.66.
TORONTO 4250' (- 2009)
Ls Wht-Crm Fxln Micrite Grad Poor Ixln Pin-Pt Por Cht Wht-Gry Translu-Op Shp Vit Pyr Mass Fos (Fuss) Chalky Sh Blk Carb-Char-Gry Fissil-Soft No Odor No Flor No Stn NS
DOUGLAS 4271' (-2030)
Sh Char-Gry-Grn Fissil-Soft Ls Wht-Crm Fxln Micrite Grad Poor Ixln Pin-Pt Por Cht Wht-Gry Translu-Op Shp Vit Pyr Mass Fos (Fuss) Chalky No Odor No Flor No Stn NS
Sh Char-Gry-Grn Fissil-Soft Ls Wht-Crm Fxln Micrite Grad Poor Ixln Pin-Pt Por Cht Wht-Gry Translu-Op Shp Vit Qtz Ss Gry V-FGrn Well Sort Carb Poor IGran Por Dns-Friable (w/Pyr Inclus) Chalky No Odor No Flor No Stn NS
Sh Char-Gry-Grn Fissil-Soft Ls Wht-Crm Fxln Micrite Grad Poor Ixln Pin-Pt Por Cht Wht-Gry Translu-Op Shp Vit Qtz Ss Gry V-FGrn Well Sort Carb Poor IGran Por Dns-Friable (w/Pyr Inclus) Chalky No Odor No Flor No Stn NS
Begin 10' Wet & Dry Sample Examination @ 4400'.
Sh Char-Gry-Grn Fissil-Soft Ls Wht-Crm Fxln Micrite Grad Poor Ixln Pin-Pt Por Cht Wht-Gry Translu-Op Shp Vit Qtz Ss Gry V-FGrn Well Sort Carb Poor IGran Por Dns-Friable (w/Pyr Inclus) Chalky No Odor No Flor No Stn NS
Sh Char-Gry-Grn Fissil-Soft Ls Wht-Crm Fxln Micrite Grad Poor Ixln Pin-Pt Por Cht Wht-Gry Translu-Op Shp Vit Qtz Ss Gry V-FGrn Well Sort Carb Poor IGran Por Dns-Friable (w/Pyr Inclus) Chalky No Odor No Flor No Stn NS


0
ROP (min/ft)
10
0
Gamma (API)
150
4400
4450
4500
4550
4600
1
TG, C1-C5
150
Sh Char-Gry-Grn Fissil-Soft Ls Wht-Crm Fxln Micrite Grad Poor Ixln Pin-Pt Por Cht Wht-Gry Translu-Op Shp Vit Qtz Ss Gry V-FGrn Well Sort Carb Poor IGran Por Dns-Friable (w/Pyr Inclus) Chalky No Odor No Flor No Stn NS
Sh Char-Gry-Grn Fissil-Soft Ls Wht-Crm Fxln Micrite Grad Poor Ixln Pin-Pt Por Cht Wht-Gry Translu-Op Shp Vit Qtz Ss Gry V-FGrn Well Sort Carb Poor IGran Por Dns-Friable (w/Pyr Inclus) Chalky No Odor No Flor No Stn NS
_____ IATAN (BROWN LIME) 4428' (- 2187) _____
NO SAMPLE CAUGHT
_____ LANSING 4444' (- 2203) _____
NO SAMPLE CAUGHT
NO SAMPLE CAUGHT
BIT TRIP @ 4465'.
_____ LANSING "B" 4468' (- 2227) _____
Poor Spl Trip Debris Abd Sh-Char-Gry-Grn Soft-Fissil Ls Wht -Crm - Tan Microxln No Vis Por Chalky No Odor No Stn No Flor NS
Poor Spl Trip Debris Abd Sh-Char-Gry-Grn Soft-Fissil Ls Wht - Crm - Tan Microxln No Vis Por Chalky No Odor No Stn No Flor NS
Sh Gry-Char-Grn-Blk Carb Soft-Fissil Ls Wht-Crm-Tan-Gry Fxln - Microxln Dns Micrite Grad Poor Ixln Por Fos (Crin) Chalky No Odor No Flor No Stn NS
Ls Wht-Crm-Tan-Gry Fxln-Microxln Dns Micrite Grad Poor Ixln Por (w/Fos (Fuss) Inclus) Chalky Pyr Mass Sh Gry-Char-Grn Soft-Fissil No Odor No Flor No Stn NS
Ls Wht-Crm-Tan-Gry Fxln-Microxln Dns Micrite Grad Poor Ixln Por Chalky Sh Gry-Char-Grn Soft-Fissil No Odor No Flor No Stn NS
Ls Crm-Tan-Gry Fxln-Microxln Dns Micrite Grad Poor Ixln Por Fos (Fuss) Chalky Sh Gry-Char-Grn Soft-Fissil No Odor No Flor No Stn NS
Ls Wht-Crm-Tan Fxln-Microxln Dns Micrite Grad Poor Ixln Por Chalky Sh Gry-Char-Grn Soft-Fissil No Odor No Flor No Stn NS
Ls Wht-Crm-Tan Fxln-Microxln Dns Micrite Grad Poor Ixln Por Cht Amber-Gry Translu Shp Vit Pyr Mass Chalky Sh Gry-Char-Grn Soft-Fissil No Odor No Flor No Stn NS
ADJ. AV @ 4547'= 139.02.
Sh Blk Carb-Gry-Char-Grn Soft-Fissil Ls Wht-Crm-Tan Fxln-Microxln Dns Micrite Grad Poor Ixln Pin-Pt Por Cht Amber-Gry Translu Shp Vit Chalky No Odor No Flor No Stn NS
_____ LANSING "F" 4556' (- 2315) _____
Ls Wht-Crm-Tan Fxln-Microxln Dns Micrite Grad Poor Ixln Pin-Pt Por Cht Amber-Gry Translu Shp Vit Chalky Sh Blk Carb-Gry-Char - Grn Soft-Fissil No Odor No Flor No Stn NS
Ls Wht-Crm-Lt Tan Microxln-Fxln Micritic Grad Poor-Fair OOM Por Poor InterOOM Por (Small OOids in pl) V Poor Leaching Poor Develop Cht Gry Op Shp Vit Chalky Sh Char- Gry-Blk Carb Fissil No Odor No Stn No Flor NS
Ls Wht-Crm-Lt Tan Microxln-Fxln Micritic Grad Poor-Fair OOM Por Poor InterOOM Por (Small OOids in pl) V Poor Leaching Poor Develop Cht Wht-Gry Op Shp Vit Pyr Mass Chalky Sh Char- Gry-Blk Carb Fissil No Odor No Stn No Flor NS
Ls Wht-Crm-Lt Tan Microxln-Fxln Micritic Grad Tr Poor OOM Por AA Cht Lt Tan Op Shp Vit Pyr Mass Chalky Sh Char- Gry- Grn- Blk Carb- Aqua Fissil No Odor No Stn No Flor NS
Ls Wht-Crm-Lt Tan Microxln-Fxln Micritic No Vis Por Cht Lt Tan Op Shp Vit Pyr Mass Chalky Sh Char- Gry- Grn- Blk Carb- Aqua Fissil No Odor No Stn No Flor NS
? SHALE GAS KICK = 79 UNITS
Ls Wht-Crm-Lt Tan Microxln-Fxln Micritic No Vis Por Cht Lt Tan Op Shp Vit Pyr Mass Chalky



Sh Char- Gry- Grn- Blk Carb- Aqua Fissil No Odor No Stn No Flor NS

_____ KANSAS CITY "H" DRUM 4621' (-2370) _____

Ls Wht-Crm-Lt Tan MicroxIn-FxIn Micritic (w/Pry Inclus) Grad Fair-Med OOM Por Poor- Fair InterOOM Por (Tr/OOL (Small OOids in pl) V Poor-Fair Leaching (Tr Fair Vug) Poor Develop Cht Wht Op Shp Vit Chalky Sh Char- Gry (w/Pyr Inclus)-Grn Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Tan MicroxIn-FxIn Micritic (w/Pry Inclus) Grad Fair-Med OOM Por Poor- Fair InterOOM Por (Tr/OOL (Small OOids in pl) V Poor-Fair Leaching (Tr Fair Vug) Poor Develop Pyr Mass Chalky Sh Blk Carb-Char- Gry- Grn Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Tan MicroxIn-FxIn Micritic Fair OOM Por Poor- Fair InterOOM Por Poor-Fair Leaching Poor Develop Dec Chalky Sh Blk Carb- Char- Gry- Grn- AquaFissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Tan MicroxIn-FxIn Mostly Micrite Tr Fair OOM Por Poor- Fair InterOOM Por Poor-Fair Leaching Poor Develop Dec AA Chalky Sh Blk Carb -Char -Gry (w/Pyr Inclus)-Grn-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Lt Tan MicroxIn-FxIn Mostly Micrite Tr Poor OOM Por AA Cht- Amber-Lt Brn Op Shp Vit Chalky Pyr Mass Sh Char-Gry Fissil No Odor No Stn No Flor NS

Sh Char-Gry Fissil Ls Wht-Crm-Lt Tan MicroxIn-FxIn Mostly Micrite Grad Fair OOM Por Poor-Fair InterOOM Por Poor-Fair Leaching Poor Develop Cht Wht Op Shp Vit Chalky No Odor No Stn No Flor NS

Sh Char-Gry (w/Pyr Inclus)-Aqua Fissil Ls Wht-Crm-Lt Tan MicroxIn-FxIn Mostly Micrite Grad Fair OOM Por Poor- Fair InterOOM Por Poor-Fair Leaching Poor Develop Cht Wht Op Shp Vit Chalky No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry (w/Pyr Inclus) Fissil Ls Wht-Crm-Lt Tan MicroxIn-FxIn Mostly Micrite Grad Fair OOM Por Poor- Fair InterOOM Por Poor-Fair Leaching Poor Develop Chalky No Odor No Stn No Flor NS

Sh Char-Gry (w/Pyr Inclus)-Blk Carb Fissil Ls Wht-Crm-Lt Tan MicroxIn-FxIn Mostly Micrite Grad Tr Fair OOM Por Poor InterOOM Por Poor Leaching Poor Develop Dec Cht Wht Op Shp Vit Chalky No Odor No Stn No Flor NS

Ls Crm-Lt Tan-Wht MicroxIn-FxIn Mostly Micrite Tr Poor OOM Por AA Cht- Wht Op Shp Vit Chalky Pyr Mass Sh Char-Gry Fissil No Odor No Stn No Flor NS

Ls Crm-Lt Tan-Wht MicroxIn-FxIn Mostly Micrite Poor OOM Por AA (Tr Only) Cht- Wht Op Shp Vit Chalky Sh Blk Carb (w/Pyr Inclus) Char-Gry (w/Pyr Inclus) Fissil No Odor No Stn No Flor NS

___ KANSAS CITY "J" DENNNIS 4734' (- 2493) ____

Ls Lt Tan-Wht VFxIn Mostly Micrite Poor OOM Por Grad Poor OOM Por Poor InterOOM Por Poor Leaching Poor Develop Chalky Sh Blk Carb (w/Pyr Inclus) Char-Gry (w/Pyr Inclus) Fissil No Odor No Stn No Flor NS

Ls Lt Tan-Wht VFxIn Mostly Micrite Poor OOM Por Grad Poor OOM Por Poor InterOOM Por Poor Leaching Poor Develop Grad Pin-Pt IxIn Por Cht Gry Op Shp Vit Chalky Sh Blk Carb (w/Pyr Inclus) Char-Gry (w/Pyr Inclus) Fissil No Odor No Stn No Flor NS

Ls Lt Tan-Wht VFxIn Mostly Micrite Poor OOM Por Grad Poor OOM Por Poor InterOOM Por Poor Leaching Poor Develop Grad Pin-Pt IxIn Por Cht Gry Op Shp Vit Chalky Sh Blk Carb (w/Pyr Inclus) Char-Gry (w/Pyr Inclus) Fissil No Odor No Stn No Flor NS

Ls Lt Tan-Wht FxIn Mostly Micrite Grad Por Pin-Pt IxIn Por Cht Gry Op Shp Vit Chalky Sh Blk Carb-Char-Gry-Aqua Fissil No Odor No Stn No Flor NS

_____ STARK SHALE 4776' (- 2535) _____

____ KANSAS CITY "K" SWOPE 4780' (-2539) ____

Sh Blk Carb-Char-Gry Fissil Ls Lt Tan-Wht FxIn Mostly Micrite Grad Fair Pin-Pt IxIn Por (2 Pcs) No Vis Por Chalky No Odor No Stn No Flor NS

Ls Lt Tan-Wht FxIn Mostly Micrite Grad Fair Pin-Pt IxIn Por Inc No Vis Por Chalky Sh Blk Carb-Char-Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Lt Tan-Wht FxIn Mostly Micrite Dns Grad Fair Pin-Pt IxIn Por Cht Gry-Wht Op Shp Vit Chalky Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS

Ls Lt Tan-Wht FxIn Mostly Micrite Dns Grad Fair Pin-Pt IxIn Por Chalk Sh Char - Gry- Fissil No Odor No Stn No Flor NS

Ls Lt Tan-Wht-Gry FxIn Mostly Micrite Dns Grad Fair Pin-Pt IxIn Por Chalk Fos (Brach) Pyr Mass Sh Char-Gry-Blk Carb Fissil No Odor No Stn No Flor NS

_____ HUSHPUCKNEY 4824' (- 2583) _____

Ls Wht-Gry-Lt Tan FxIn Mostly Micrite Dns Grad Poor Pin-Pt IxIn Por (3 Pcs) Chalk Fos (Brach) Sh Char-Gry-Blk Carb-Aqua Fissil No Odor No Stn No Flor NS

ADJ. AV @ 4616'= 138.96.

@ 4624' Change Out Extractor Filter & Gas Test=115 Units.

Mudco Ck @ 4739' @ 2:10 pM 6/09/13 Vis 61; WT=9.4#; PV=19; YP= 21; WL=10.8; Cake=1; Chl=7600; Cal =20 ; Sol=7.4%. LCM= 1#; DMC=$ 574.25 CMC=$ 12,550.20

SHALE GAS KICK = 106 UNITS

SHALE GAS KICK = 92 UNITS

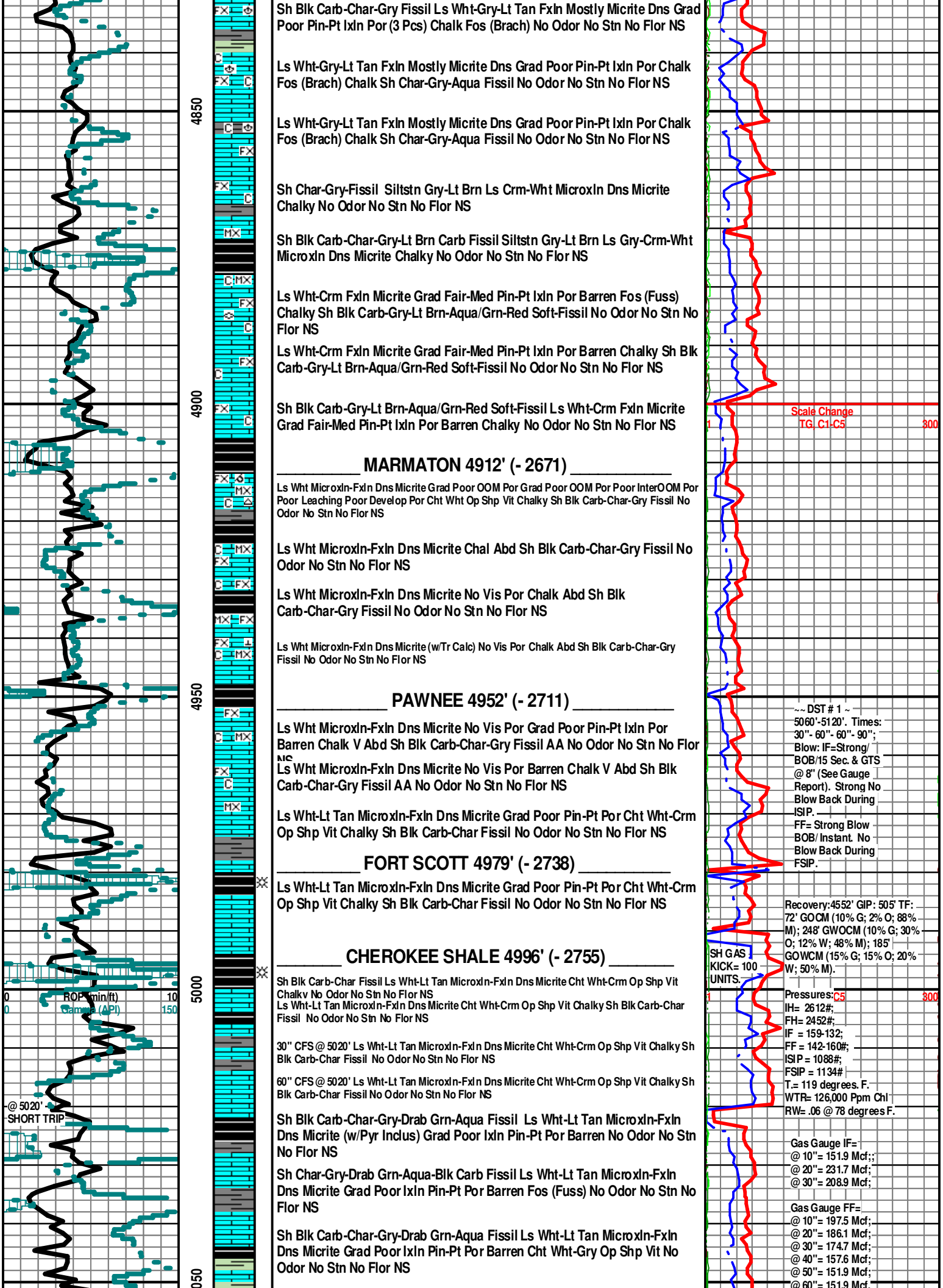
@ 4760' Hole Depth Rezero TookeDAQ in Geotrailer. Bkgd Gas Set = 12 Units.

ADJ. AV @ 4761' HOLE DEPTH'= 133.90.

SHALE GAS KICK = 106 UNITS.

TG, C1-C5

150



Sh Blk Carb-Char-Gry Fissil Ls Wht-Gry-Lt Tan Fxln Mostly Micrite Dns Grad Poor Pin-Pt Ixln Por (3 Pcs) Chalk Fos (Brach) No Odor No Stn No Flor NS

Ls Wht-Gry-Lt Tan Fxln Mostly Micrite Dns Grad Poor Pin-Pt Ixln Por Chalk Fos (Brach) Chalk Sh Char-Gry-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Gry-Lt Tan Fxln Mostly Micrite Dns Grad Poor Pin-Pt Ixln Por Chalk Fos (Brach) Chalk Sh Char-Gry-Aqua Fissil No Odor No Stn No Flor NS

Sh Char-Gry-Fissil Siltstn Gry-Lt Brn Ls Crm-Wht Microxln Dns Micrite Chalky No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Lt Brn Carb Fissil Siltstn Gry-Lt Brn Ls Gry-Crm-Wht Microxln Dns Micrite Chalky No Odor No Stn No Flor NS

Ls Wht-Crm Fxln Micrite Grad Fair-Med Pin-Pt Ixln Por Barren Fos (Fuss) Chalky Sh Blk Carb-Gry-Lt Brn-Aqua/Grn-Red Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm Fxln Micrite Grad Fair-Med Pin-Pt Ixln Por Barren Chalky Sh Blk Carb-Gry-Lt Brn-Aqua/Grn-Red Soft-Fissil No Odor No Stn No Flor NS

Sh Blk Carb-Gry-Lt Brn-Aqua/Grn-Red Soft-Fissil Ls Wht-Crm Fxln Micrite Grad Fair-Med Pin-Pt Ixln Por Barren Chalky No Odor No Stn No Flor NS

_____ MARMATON 4912' (- 2671) _____

Ls Wht Microxln-Fxln Dns Micrite Grad Poor OOM Por Grad Poor OOM Por Poor InterOOM Por Poor Leaching Poor Develop Por Cht Wht Op Shp Vit Chalky Sh Blk Carb-Char-Gry Fissil No Odor No Stn No Flor NS

Ls Wht Microxln-Fxln Dns Micrite Chal Abd Sh Blk Carb-Char-Gry Fissil No Odor No Stn No Flor NS

Ls Wht Microxln-Fxln Dns Micrite No Vis Por Chalk Abd Sh Blk Carb-Char-Gry Fissil No Odor No Stn No Flor NS

Ls Wht Microxln-Fxln Dns Micrite (w/Tr Calc) No Vis Por Chalk Abd Sh Blk Carb-Char-Gry Fissil No Odor No Stn No Flor NS

_____ PAWNEE 4952' (- 2711) _____

Ls Wht Microxln-Fxln Dns Micrite No Vis Por Grad Poor Pin-Pt Ixln Por Barren Chalk V Abd Sh Blk Carb-Char-Gry Fissil AA No Odor No Stn No Flor NS

Ls Wht Microxln-Fxln Dns Micrite No Vis Por Barren Chalk V Abd Sh Blk Carb-Char-Gry Fissil AA No Odor No Stn No Flor NS

Ls Wht-Lt Tan Microxln-Fxln Dns Micrite Grad Poor Pin-Pt Por Cht Wht-Crm Op Shp Vit Chalky Sh Blk Carb-Char Fissil No Odor No Stn No Flor NS

_____ FORT SCOTT 4979' (- 2738) _____

Ls Wht-Lt Tan Microxln-Fxln Dns Micrite Grad Poor Pin-Pt Por Cht Wht-Crm Op Shp Vit Chalky Sh Blk Carb-Char Fissil No Odor No Stn No Flor NS

_____ CHEROKEE SHALE 4996' (- 2755) _____

Sh Blk Carb-Char Fissil Ls Wht-Lt Tan Microxln-Fxln Dns Micrite Cht Wht-Crm Op Shp Vit Chalky No Odor No Stn No Flor NS
Ls Wht-Lt Tan Microxln-Fxln Dns Micrite Cht Wht-Crm Op Shp Vit Chalky Sh Blk Carb-Char Fissil No Odor No Stn No Flor NS

30" CFS @ 5020' Ls Wht-Lt Tan Microxln-Fxln Dns Micrite Cht Wht-Crm Op Shp Vit Chalky Sh Blk Carb-Char Fissil No Odor No Stn No Flor NS

60" CFS @ 5020' Ls Wht-Lt Tan Microxln-Fxln Dns Micrite Cht Wht-Crm Op Shp Vit Chalky Sh Blk Carb-Char Fissil No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Fissil Ls Wht-Lt Tan Microxln-Fxln Dns Micrite (w/Pyr Inclus) Grad Poor Ixln Pin-Pt Por Barren No Odor No Stn No Flor NS

Sh Char-Gry-Drab Grn-Aqua-Blk Carb Fissil Ls Wht-Lt Tan Microxln-Fxln Dns Micrite Grad Poor Ixln Pin-Pt Por Barren Fos (Fuss) No Odor No Stn No Flor NS

Sh Blk Carb-Char-Gry-Drab Grn-Aqua Fissil Ls Wht-Lt Tan Microxln-Fxln Dns Micrite Grad Poor Ixln Pin-Pt Por Barren Cht Wht-Gry Op Shp Vit No Odor No Stn No Flor NS

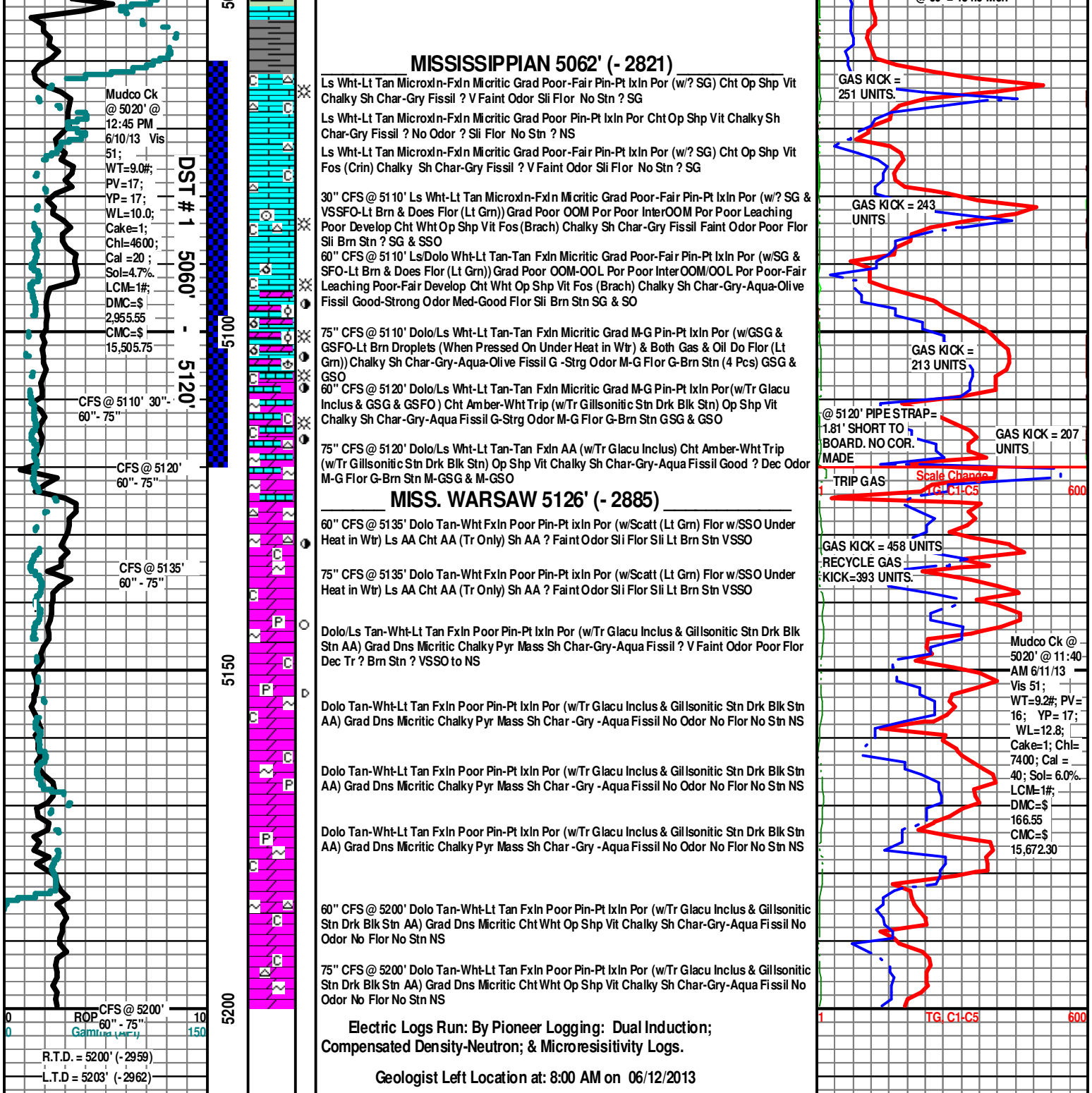
~~ DST # 1 ~
5060'-5120'. Times: 30"- 60"- 60"- 90"; Blow: IF=Strong/ BOB/15 Sec. & GTS @ 8" (See Gauge Report). Strong No Blow Back During ISIP.
FF= Strong Blow BOB/ Instant. No Blow Back During FSIP.

Recovery:4552' GIP: 505' TF: 72' GOCM (10% G; 2% O; 88% M); 248' GWOCM (10% G; 30% O; 12% W; 48% M); 185' GOWCM (15% G; 15% O; 20% W; 50% M).

Pressures:
IH= 2612#;
FH= 2452#;
IF = 159-132;
FF = 142-160#;
ISIP = 1088#;
FSIP = 1134#
T.= 119 degrees. F.
WTR= 126,000 Ppm Chl
RW= .06 @ 78 degrees F.

Gas Gauge IF=
@ 10"= 151.9 Mcf;;
@ 20"= 231.7 Mcf;
@ 30"= 208.9 Mcf;

Gas Gauge FF=
@ 10"= 197.5 Mcf;
@ 20"= 186.1 Mcf;
@ 30"= 174.7 Mcf;
@ 40"= 157.6 Mcf;
@ 50"= 151.9 Mcf;
@ 60"= 151.9 Mcf.



MISSISSIPPIAN 5062' (- 2821)

Ls Wht-Lt Tan Microxln-Fxln Micritic Grad Poor-Fair Pin-Pt Ixln Por (w/? SG) Cht Op Shp Vit Chalky Sh Char-Gry Fissil ? V Faint Odor Sli Flor No Stn ? SG

Ls Wht-Lt Tan Microxln-Fxln Micritic Grad Poor Pin-Pt Ixln Por Cht Op Shp Vit Chalky Sh Char-Gry Fissil ? No Odor ? Sli Flor No Stn ? NS

Ls Wht-Lt Tan Microxln-Fxln Micritic Grad Poor-Fair Pin-Pt Ixln Por (w/? SG) Cht Op Shp Vit Fos (Crin) Chalky Sh Char-Gry Fissil ? V Faint Odor Sli Flor No Stn ? SG

30" CFS @ 5110' Ls Wht-Lt Tan Microxln-Fxln Micritic Grad Poor-Fair Pin-Pt Ixln Por (w/? SG & VSSFO-Lt Brn & Does Flor (Lt Grn)) Grad Poor OOM Por Poor InterOOM Por Poor Leaching Poor Develop Cht Wht Op Shp Vit Fos (Brach) Chalky Sh Char-Gry Fissil Faint Odor Poor Flor Sli Brn Stn ? SG & SSO

60" CFS @ 5110' Ls/Dolo Wht-Lt Tan-Tan Fxln Micritic Grad Poor-Fair Pin-Pt Ixln Por (w/SG & SFO-Lt Brn & Does Flor (Lt Grn)) Grad Poor OOM-OOL Por Poor Inter OOM/OOL Por Poor-Fair Leaching Poor-Fair Develop Cht Wht Op Shp Vit Fos (Brach) Chalky Sh Char-Gry-Aqua-Olive Fissil Good-Strong Odor Med-Good Flor Sli Brn Stn SG & SO

75" CFS @ 5110' Dolo/Ls Wht-Lt Tan-Tan Fxln Micritic Grad M-G Pin-Pt Ixln Por (w/GSG & GSFO-Lt Brn Droplets (When Pressed On Under Heat in Wtr) & Both Gas & Oil Do Flor (Lt Grn)) Chalky Sh Char-Gry-Aqua-Olive Fissil G -Strg Odor M-G Flor G-Brn Stn (4 Pcs) GSG & GSO

60" CFS @ 5120' Dolo/Ls Wht-Lt Tan-Tan Fxln Micritic Grad M-G Pin-Pt Ixln Por (w/Tr Glacu Inclus & GSG & GSFO) Cht Amber-Wht Trip (w/Tr Gillsonitic Stn Drk Blk Stn) Op Shp Vit Chalky Sh Char-Gry-Aqua Fissil G-Strg Odor M-G Flor G-Brn Stn GSG & GSO

75" CFS @ 5120' Dolo/Ls Wht-Lt Tan-Tan Fxln AA (w/Tr Glacu Inclus) Cht Amber-Wht Trip (w/Tr Gillsonitic Stn Drk Blk Stn) Op Shp Vit Chalky Sh Char-Gry-Aqua Fissil Good ? Dec Odor M-G Flor G-Brn Stn M-GSG & M-GSO

MISS. WARSAW 5126' (- 2885)

60" CFS @ 5135' Dolo Tan-Wht Fxln Poor Pin-Pt ixln Por (w/Scatt (Lt Grn) Flor w/SSO Under Heat in Wtr) Ls AA Cht AA (Tr Only) Sh AA ? Faint Odor Sli Flor Sli Lt Brn Stn VSSO

75" CFS @ 5135' Dolo Tan-Wht Fxln Poor Pin-Pt ixln Por (w/Scatt (Lt Grn) Flor w/SSO Under Heat in Wtr) Ls AA Cht AA (Tr Only) Sh AA ? Faint Odor Sli Flor Sli Lt Brn Stn VSSO

Dolo/Ls Tan-Wht-Lt Tan Fxln Poor Pin-Pt Ixln Por (w/Tr Glacu Inclus & Gillsonitic Stn Drk Blk Stn AA) Grad Dns Micritic Chalky Pyr Mass Sh Char-Gry-Aqua Fissil ? V Faint Odor Poor Flor Dec Tr ? Brn Stn ? VSSO to NS

Dolo Tan-Wht-Lt Tan Fxln Poor Pin-Pt Ixln Por (w/Tr Glacu Inclus & Gillsonitic Stn Drk Blk Stn AA) Grad Dns Micritic Chalky Pyr Mass Sh Char -Gry -Aqua Fissil No Odor No Flor No Stn NS

Dolo Tan-Wht-Lt Tan Fxln Poor Pin-Pt Ixln Por (w/Tr Glacu Inclus & Gillsonitic Stn Drk Blk Stn AA) Grad Dns Micritic Chalky Pyr Mass Sh Char -Gry -Aqua Fissil No Odor No Flor No Stn NS

Dolo Tan-Wht-Lt Tan Fxln Poor Pin-Pt Ixln Por (w/Tr Glacu Inclus & Gillsonitic Stn Drk Blk Stn AA) Grad Dns Micritic Chalky Pyr Mass Sh Char -Gry -Aqua Fissil No Odor No Flor No Stn NS

60" CFS @ 5200' Dolo Tan-Wht-Lt Tan Fxln Poor Pin-Pt Ixln Por (w/Tr Glacu Inclus & Gillsonitic Stn Drk Blk Stn AA) Grad Dns Micritic Cht Wht Op Shp Vit Chalky Sh Char-Gry-Aqua Fissil No Odor No Flor No Stn NS

75" CFS @ 5200' Dolo Tan-Wht-Lt Tan Fxln Poor Pin-Pt Ixln Por (w/Tr Glacu Inclus & Gillsonitic Stn Drk Blk Stn AA) Grad Dns Micritic Cht Wht Op Shp Vit Chalky Sh Char-Gry-Aqua Fissil No Odor No Flor No Stn NS

Electric Logs Run: By Pioneer Logging: Dual Induction; Compensated Density-Neutron; & Microresisitivity Logs.

Geologist Left Location at: 8:00 AM on 06/12/2013