



KANSAS CORPORATION COMMISSION 1119140
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 # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

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 #: _____

Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ 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: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

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

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1119140

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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 type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input 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

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 <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method:
 Flowing Pumping Gas Lift Other (Explain) _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input 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 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: _____ _____
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Form	ACO1 - Well Completion
Operator	Ponderosa Witching, LLC
Well Name	E & J Legacy Epp 3
Doc ID	1119140

All Electric Logs Run

DUAL INDUCTION
COMPENSATED DENSITY-NEUTRON
MICRORESISTIVITY
SONIC CEMENT BOND

Form	ACO1 - Well Completion
Operator	Ponderosa Witching, LLC
Well Name	E & J Legacy Epp 3
Doc ID	1119140

Tops

Name	Top	Datum
HEEBNER	3832'	-1868
IATAN	4001'	-2037
LANSING	4110'	-2046
PAWNEE	4437	-2473
CHEROKEE SHALE	4496'	-2532
MARQUOKETA	4523'	-2559
VIOLA	4596'	-2632
SIMPSON SHALE	4675'	-2711
ARBUCKLE	4771'	-2807



INVOICE

PO Box 93999
Southlake, TX 76092

Invoice Number: 132441

Invoice Date: Aug 21, 2012

Voice: (817) 546-7282

Page: 2

Fax: (817) 246-3361



Bill To:

Ponderosa Witching LLC
110 A Spring Creek
Waco, TX 76705

Customer ID	Well Name/# or Customer P.O.	Payment Terms	
Pond	EPPS #3	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-02	Medicine Lodge	Aug 21, 2012	9/20/12

Quantity	Item	Description	Unit Price	Amount
1.00	CEMENTER	David Felio		
1.00	CEMENTER	Darin Franklin		
1.00	EQUIP OPER	Eddie Piper		

ALL PRICES ARE NET, PAYABLE
30 DAYS FOLLOWING DATE OF
INVOICE. 1 1/2% CHARGED
THEREAFTER. IF ACCOUNT IS
CURRENT, TAKE DISCOUNT OF

\$ _____

ONLY IF PAID ON OR BEFORE

Sep 15, 2012

Subtotal	14,692.30
Sales Tax	750.88
Total Invoice Amount	15,443.18
Payment/Credit Applied	
TOTAL	15,443.18

9-4-12
12,504.72
1315

ALLIED OIL & GAS SERVICES, LLC

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

SERVICE POINT:
Medicine Lodge Ks

DATE <u>08-21-12</u>	SEC. <u>27</u>	TWP. <u>29s</u>	RANGE <u>15w</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <u>11:15 PM</u>
LEASE <u>EPPS</u>	WELL # <u>3</u>	LOCATION <u>Coats Ks - 10 130th, 14, 2s</u>			COUNTY <u>Prairie</u>	STATE <u>Ks</u>	
OLD OR NEW (Circle one) <u>NEW</u>			<u>1 1/4 e wts</u>				

CONTRACTOR Sterling 4
 TYPE OF JOB Production
 HOLE SIZE 7 7/8 T.D. 4850
 CASING SIZE 4 1/2 DEPTH 4782
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX 1100 MINIMUM ---
 MEAS. LINE SHOE JOINT 20.61
 CEMENT LEFT IN CSG. 21'
 PERFS.
 DISPLACEMENT 77 Bbls 2% KCL Water

OWNER Panderosa Witching

CEMENT
 AMOUNT ORDERED 50 sx 60/40 4% gel / f
175 sx class H + 10% logyp + 10% salt + 5* G/seal +
8% FL + 60 * 1/4 + Floceal - 500g / HSF & G/gal

COMMON _____ @ _____
 POZMIX _____ @ _____
 GEL _____ @ _____
 CHLORIDE _____ @ _____
 ASC _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 _____ @ _____
 HANDLING _____ @ _____
 MILEAGE _____ @ _____

EQUIPMENT
 PUMP TRUCK CEMENTER D. Felm
#558-555 HELPER D. Erickson
 BULK TRUCK
#364 DRIVER E. erie
 BULK TRUCK
 # DRIVER

REMARKS:
See Job Log
Bump Plug - Float Did Hold
THX ☺

CHARGE TO: Panderosa Witching
 STREET _____
 CITY _____ STATE _____ ZIP _____

TOTAL _____

SERVICE
 DEPTH OF JOB 4762
 PUMP TRUCK CHARGE _____
 EXTRA FOOTAGE _____ @ _____
 MILEAGE _____ @ _____
 MANIFOLD headport @ _____
 _____ @ _____
 _____ @ _____

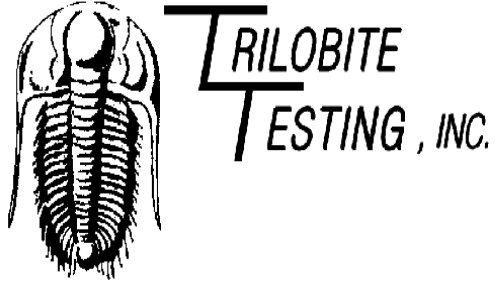
TOTAL _____

PLUG & FLOAT EQUIPMENT
1 - Guide Shoe @ _____
1 - AFU insert @ _____
10 - centralizer S @ _____
1 - TRP @ _____
 _____ @ _____

TOTAL _____

To: Allied Oil & Gas Services, 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"

4 1/2



DRILL STEM TEST REPORT

Prepared For: **Ponderosa Witching LLC**

110 A Spring Creek
Waco TX 76705

ATTN: Dave Williams

27-29s-15w Pratt,KS

E & J Legacy Epp #1

Start Date: 2012.08.19 @ 01:55:59

End Date: 2012.08.19 @ 08:45:14

Job Ticket #: 47597 DST #: 1

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

Printed: 2012.08.24 @ 10:43:55



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Ponderosa Witching LLC

E & J Legacy Epp #1

110 A Spring Creek
Waco TX 76705

27-29s-15w Pratt,KS

ATTN: Dave Williams

Job Ticket: 47597

DST#: 1

Test Start: 2012.08.19 @ 01:55:59

GENERAL INFORMATION:

Formation: **Maquoketa**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:02:14

Time Test Ended: 08:45:14

Test Type: Conventional Bottom Hole (Initial)

Tester: Gary Pevoteaux

Unit No: 56

Interval: 4485.00 ft (KB) To 4590.00 ft (KB) (TVD)

Reference Elevations: 1963.00 ft (KB)

Total Depth: 4590.00 ft (KB) (TVD)

1954.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8352 Outside

Press @ Run Depth: 25.54 psig @ 4486.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.19

End Date:

2012.08.19

Last Calib.:

2012.08.19

Start Time: 01:56:04

End Time:

08:45:13

Time On Btm:

2012.08.19 @ 04:01:14

Time Off Btm:

2012.08.19 @ 06:35:59

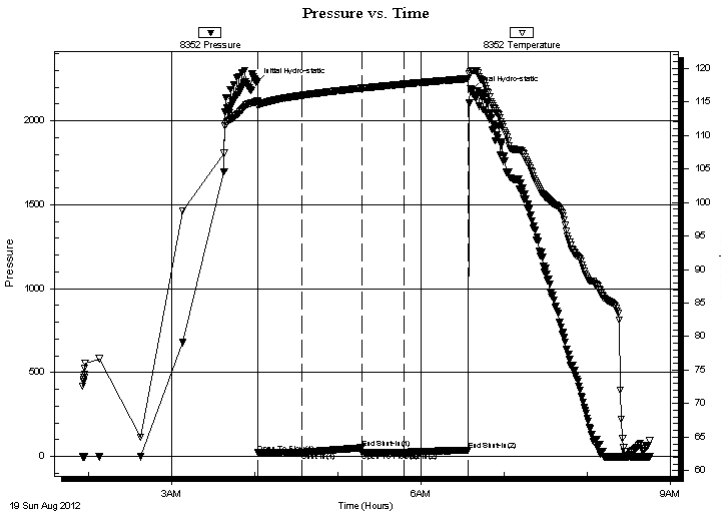
TEST COMMENT: IF:Weak blow . 1/4". Dead in 22 mins.

IS:No blow .

FF:No blow .

FS:No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2229.86	115.04	Initial Hydro-static
1	22.10	114.36	Open To Flow (1)
33	24.92	115.96	Shut-In(1)
76	51.76	117.04	End Shut-In(1)
77	25.05	117.03	Open To Flow (2)
107	25.54	117.64	Shut-In(2)
153	38.19	118.47	End Shut-In(2)
155	2182.91	119.59	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Drig.mud	0.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ponderosa Witching LLC

E & J Legacy Epp #1

110 A Spring Creek
Waco TX 76705

27-29s-15w Pratt,KS

ATTN: Dave Williams

Job Ticket: 47597

DST#: 1

Test Start: 2012.08.19 @ 01:55:59

Tool Information

Drill Pipe:	Length: 4270.00 ft	Diameter: 3.80 inches	Volume: 59.90 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 210.00 ft	Diameter: 2.25 inches	Volume: 1.03 bbl	Weight to Pull Loose: 86000.00 lb
			<u>Total Volume: 60.93 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	4485.00 ft			Final 78000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	105.00 ft			
Tool Length:	133.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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C.O. Sub	1.00			4458.00	
Shut in tool	5.00			4463.00	
HMV	5.00			4468.00	
Jars	5.00			4473.00	
Safety Joint	3.00			4476.00	
Packer	4.00			4480.00	28.00 Bottom Of Top Packer
Packer	5.00			4485.00	
Stubb	1.00			4486.00	
Recorder	0.00	8370	Inside	4486.00	
Recorder	0.00	8352	Outside	4486.00	
Perforations	5.00			4491.00	
Blank Spacing	94.00			4585.00	
Bullnose	5.00			4590.00	105.00 Bottom Packers & Anchor

Total Tool Length: 133.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ponderosa Witching LLC

E & J Legacy Epp #1

110 A Spring Creek
Waco TX 76705

27-29s-15w Pratt,KS

Job Ticket: 47597

DST#: 1

ATTN: Dave Williams

Test Start: 2012.08.19 @ 01:55:59

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 10.00 lb/gal

Cushion Length:

ft

Water Salinity:

7000 ppm

Viscosity: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.38 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Drig.mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

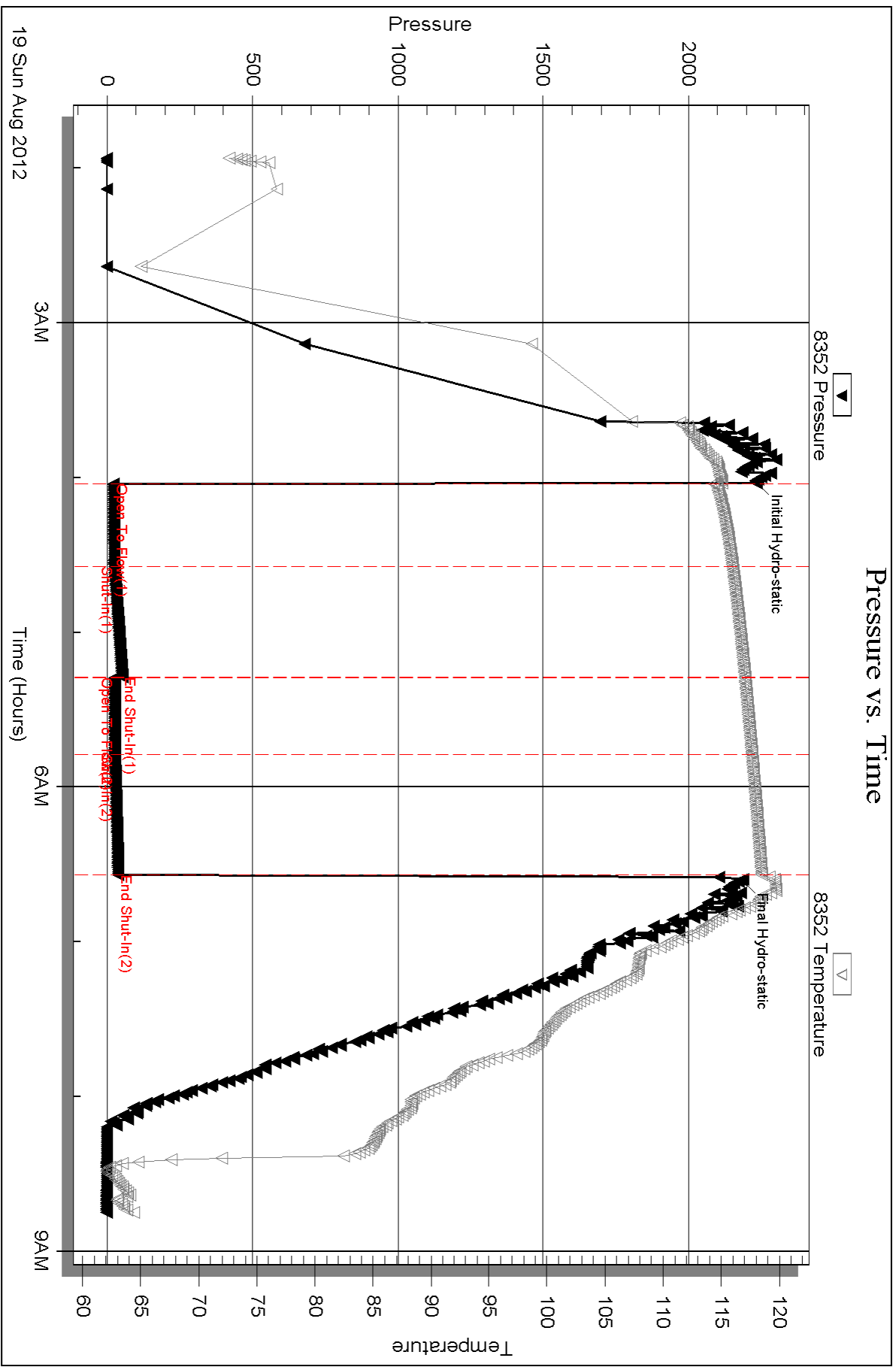
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:



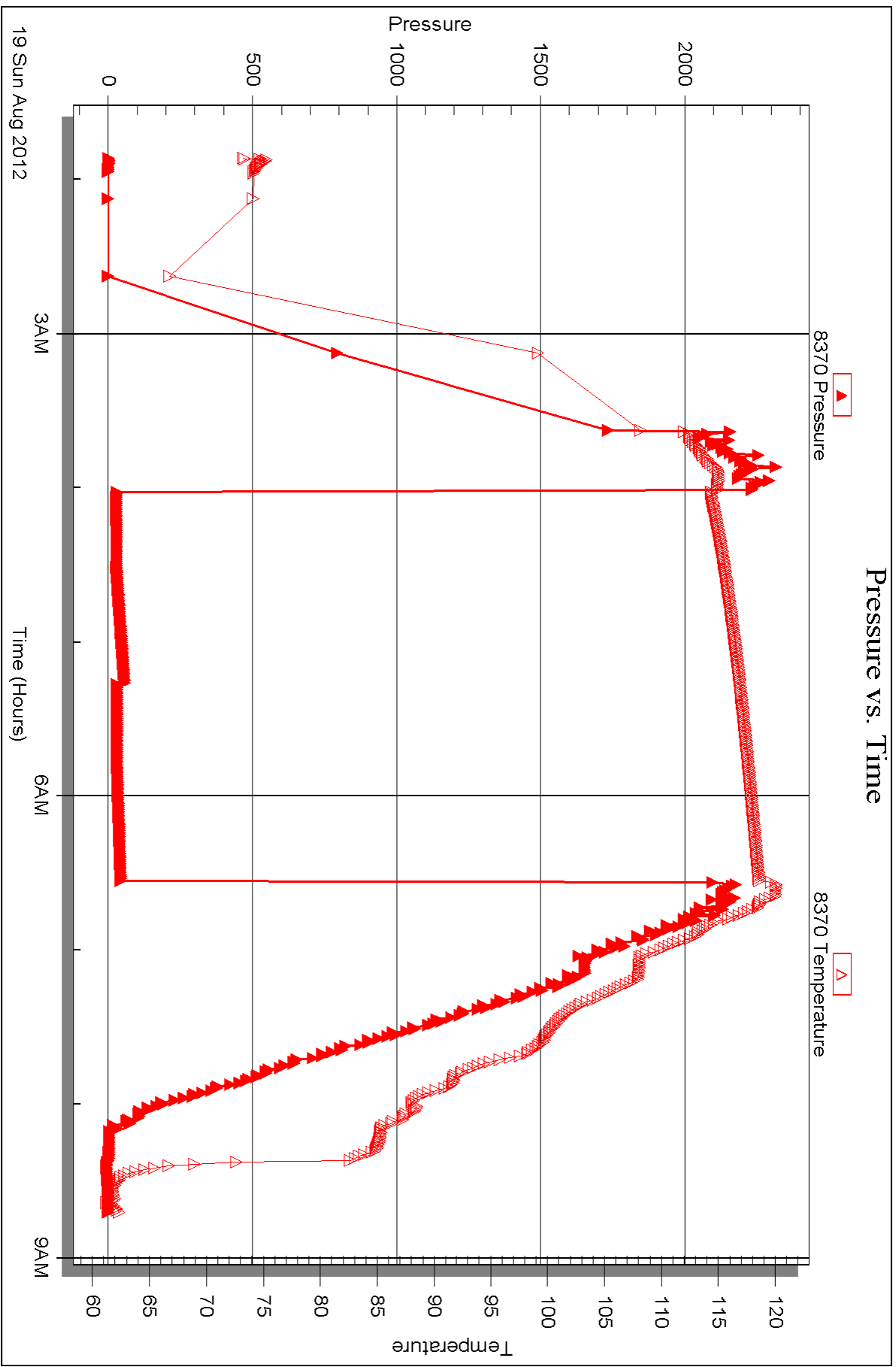
Serial #: 8370

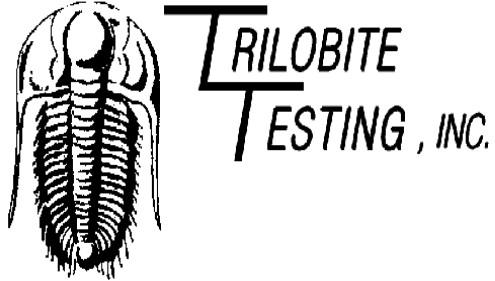
Inside

Ponderosa Wlching LLC

27-29s-15w Pratt, KS

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Ponderosa Witching LLC**

110 A Spring Creek
Waco TX 76705

ATTN: Dave Williams

27-29s-15w Pratt,KS

E & J Legacy Epp #1

Start Date: 2012.08.20 @ 00:38:11

End Date: 2012.08.20 @ 08:29:26

Job Ticket #: 47598 DST #: 2

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

Printed: 2012.08.24 @ 10:42:55

Ponderosa Witching LLC

E & J Legacy Epp #1

27-29s-15w Pratt,KS

DST # 2

Simpson Sd.

2012.08.20



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Ponderosa Witching LLC

E & J Legacy Epp #1

110 A Spring Creek
Waco TX 76705

27-29s-15w Pratt,KS

ATTN: Dave Williams

Job Ticket: 47598

DST#: 2

Test Start: 2012.08.20 @ 00:38:11

GENERAL INFORMATION:

Formation: **Simpson Sd.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:42:26

Time Test Ended: 08:29:26

Test Type: Conventional Bottom Hole (Reset)

Tester: Gary Pevoteaux

Unit No: 56

Interval: 4668.00 ft (KB) To 4721.00 ft (KB) (TVD)

Reference Elevations: 1963.00 ft (KB)

Total Depth: 4721.00 ft (KB) (TVD)

1954.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 9.00 ft

Serial #: 8352 Outside

Press @ RunDepth: 86.59 psig @ 4669.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.08.20

End Date:

2012.08.20

Last Calib.:

2012.08.20

Start Time: 00:38:16

End Time:

08:29:25

Time On Btm:

2012.08.20 @ 02:41:11

Time Off Btm:

2012.08.20 @ 05:59:26

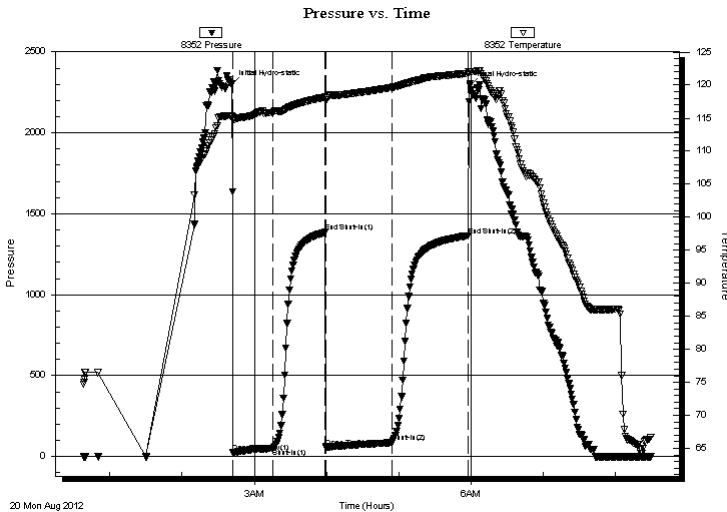
TEST COMMENT: IF:Weak blow . 1/2 - 2 1/2".

IS:No blow .

FF:Weak blow . 1/2 - 3".

FS:No blow .

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2300.74	115.39	Initial Hydro-static
2	24.12	114.80	Open To Flow (1)
35	51.75	115.91	Shut-In(1)
78	1385.07	118.17	End Shut-In(1)
79	56.55	117.76	Open To Flow (2)
133	86.59	119.64	Shut-In(2)
196	1364.74	121.78	End Shut-In(2)
199	2292.05	122.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
130.00	OCM 18%o 82%m	0.64
15.00	Clean oil	0.07
0.00	120 ft.of GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Ponderosa Witching LLC

E & J Legacy Epp #1

110 A Spring Creek
Waco TX 76705

27-29s-15w Pratt,KS

ATTN: Dave Williams

Job Ticket: 47598

DST#: 2

Test Start: 2012.08.20 @ 00:38:11

Tool Information

Drill Pipe:	Length: 4461.00 ft	Diameter: 3.80 inches	Volume: 62.58 bbl	Tool Weight: 2400.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 210.00 ft	Diameter: 2.25 inches	Volume: 1.03 bbl	Weight to Pull Loose: 91000.00 lb
			<u>Total Volume: 63.61 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	4668.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	53.00 ft			
Tool Length:	81.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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C.O. Sub	1.00			4641.00	
Shut in tool	5.00			4646.00	
HMV	5.00			4651.00	
Jars	5.00			4656.00	
Safety Joint	3.00			4659.00	
Packer	4.00			4663.00	28.00 Bottom Of Top Packer
Packer	5.00			4668.00	
Stubb	1.00			4669.00	
Recorder	0.00	8370	Inside	4669.00	
Recorder	0.00	8352	Outside	4669.00	
Perforations	7.00			4676.00	
Blank Spacing	32.00			4708.00	
Perforations	8.00			4716.00	
Bullnose	5.00			4721.00	53.00 Bottom Packers & Anchor

Total Tool Length: 81.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Ponderosa Witching LLC

E & J Legacy Epp #1

110 A Spring Creek
Waco TX 76705

27-29s-15w Pratt,KS

Job Ticket: 47598

DST#: 2

ATTN: Dave Williams

Test Start: 2012.08.20 @ 00:38:11

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31.3 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

7000 ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
130.00	OCM 18%o 82%m	0.639
15.00	Clean oil	0.074
0.00	120 ft.of GIP	0.000

Total Length: 145.00 ft

Total Volume: 0.713 bbl

Num Fluid Samples: 0

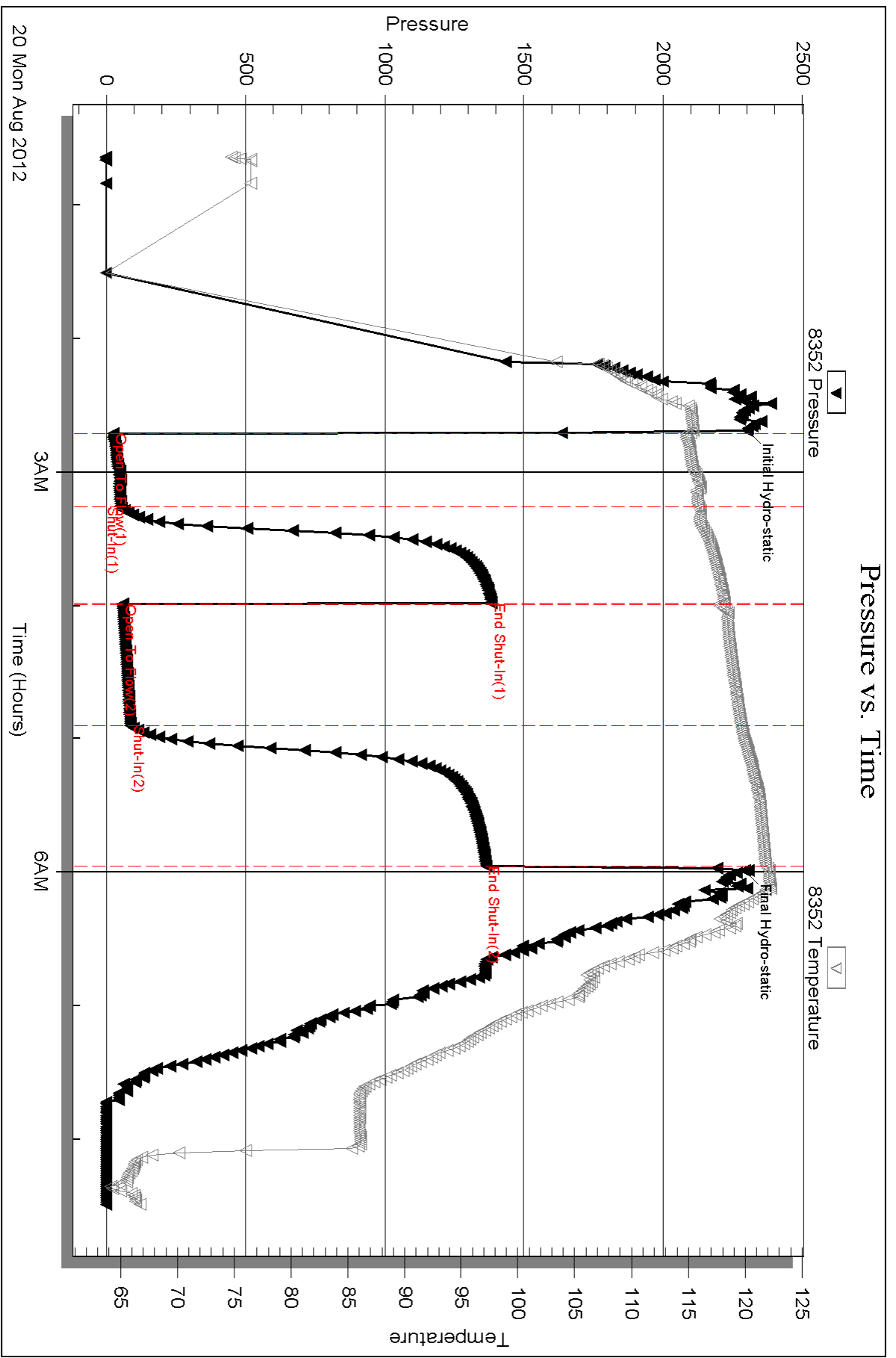
Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:



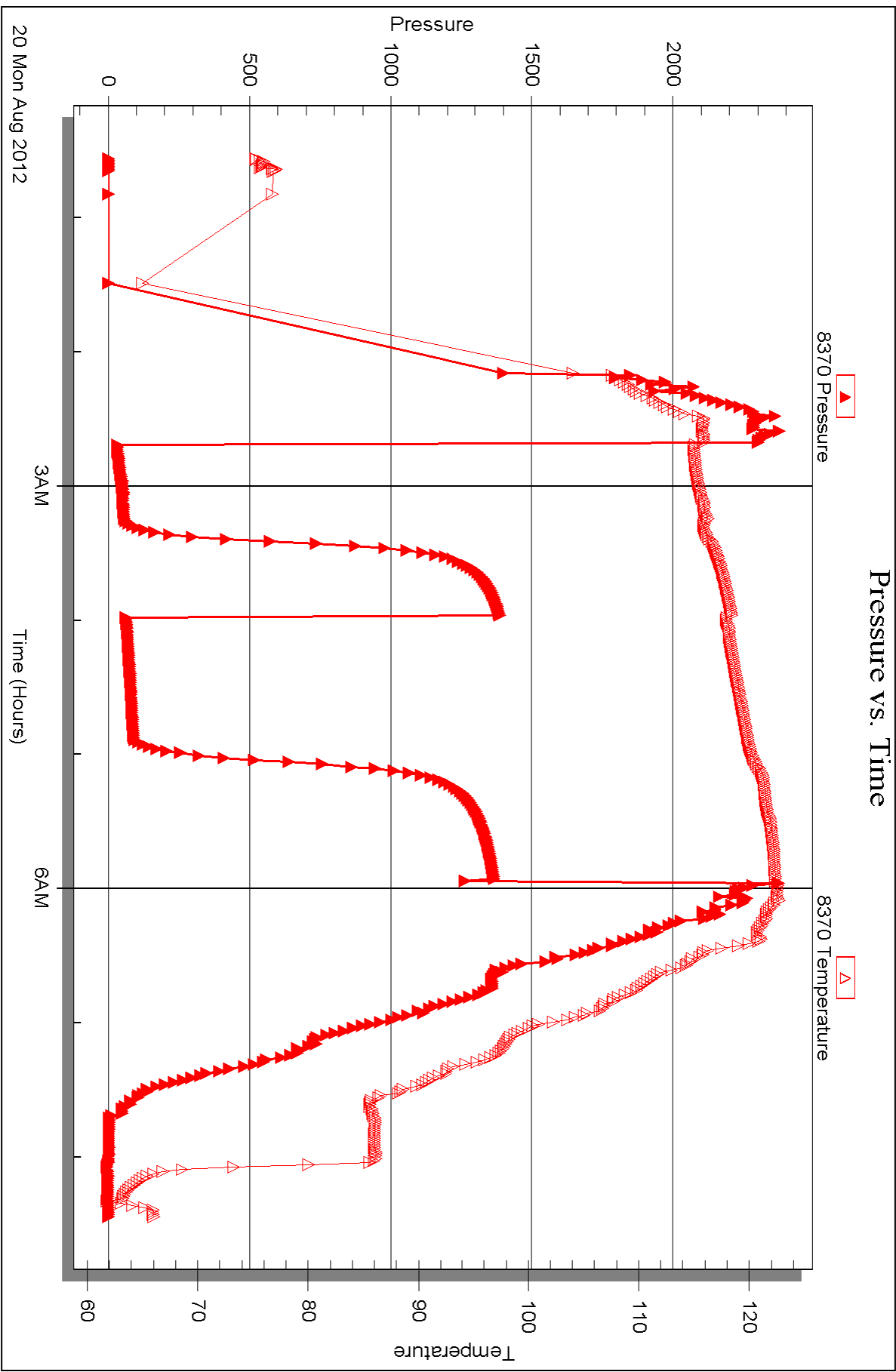
Serial #: 8370

Inside

Ponderosa Witching LLC

27-29s-15w Pratt, KS

DST Test Number: 2





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47597

4/10

Well Name & No. E & S LEGACY # EPP 3 Test No. 1 Date 8-19-12
 Company PONDEROSA WITCHING LLC Elevation 1963 KB 1954 GL
 Address 110 A SPRING CREEK, WACO TX. 76705
 Co. Rep / Geo. DAVE WILLIAMS Rig STERLING DRUG.
 Location: Sec. 27 Twp. 29^S Rge. 15^W Co. PRATT State Ks

Interval Tested 4485 - 4590' Zone Tested MAQUOKETA
 Anchor Length 105' Drill Pipe Run 4270' Mud Wt. 9.5
 Top Packer Depth 4480' Drill Collars Run 210' Vis 61
 Bottom Packer Depth 4485' Wt. Pipe Run 0 WL 10.4cc
 Total Depth 4590' Chlorides 7,000 ppm System LCM 1^{II}
 Blow Description IF: Weak blow. 1/4". Dead in 22 mins.
FSI: No blow.
FF: No blow. FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>S</u>	<u>Dry Mud</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total S Fluid BHT 118° Gravity N/A API RW N.C. @ — °F Chlorides 7,000 ppm

(A) Initial Hydrostatic 2230 Test 1250 T-On Location 0103
 (B) First Initial Flow 22 Jars 250 T-Started 0155
 (C) First Final Flow 25 Safety Joint 75 T-Open 0402
 (D) Initial Shut-In 52 Circ Sub T-Pulled 0633
 (E) Second Initial Flow 25 Hourly Standby T-Out 0845
 (F) Second Final Flow 26 Mileage (55) 85.25 Comments _____
 (G) Final Shut-In 38 Sampler _____
 (H) Final Hydrostatic 2183 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 30
 Final Shut-In 45

Sub Total 1660.25
 Total 1660.25
 MP/DST Disc't _____

Approved By Dave Williams Our Representative Cory Pivotaux

TriLOBITE Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47598

4/10

Well Name & No. EES LEGACY EXP II 3 Test No. 2 Date 8-20-12
 Company CONDOROSA WILCHING LLC Elevation 1963 KB 1954 GL
 Address 110 A SPRING CREEK, WACO TX. 76705
 Co. Rep / Geo. DAVE WILLIAMS Rig STERLING DRUG #4
 Location: Sec. 27 Twp. 29S Rge. 15W Co. PRATT State Ks.

Interval Tested 4668 - 4721' Zone Tested SIMPSON SD.
 Anchor Length 53' Drill Pipe Run 4461' Mud Wt. 9.4
 Top Packer Depth 4663' Drill Collars Run 210' Vis 51
 Bottom Packer Depth 4668' Wt. Pipe Run 0 WL 8.8cc
 Total Depth 4721' Chlorides 7,000 ppm System LCM 2#
 Blow Description IF: Water below. 1/2 - 2 1/2". FSI: No blow.

FF: Water below. 1/2 - 3". FSI: No blow.

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>Gas in pipe</u>				
<u>13</u>	<u>Clean oil</u>				
<u>130</u>	<u>OCM</u>		<u>18</u>		<u>82</u>

Rec Total 145 BHT 1220 Gravity 31.3 API RW N.C. @ - °F Chlorides 7,000 ppm

(A) Initial Hydrostatic 2301 Test 1250 T-On Location 0006
 (B) First Initial Flow 24 Jars 250 T-Started 0038
 (C) First Final Flow 52 Safety Joint 75 T-Open 0242
 (D) Initial Shut-In 1385 Circ Sub T-Pulled 0600
 (E) Second Initial Flow 57 Hourly Standby T-Out 0829
 (F) Second Final Flow 87 Mileage 55.5 85.25 Comments _____
 (G) Final Shut-In 1365 Sampler _____
 (H) Final Hydrostatic 2292 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 45
 Final Flow 60
 Final Shut-In 60

Sub Total 1660.25
 Total 1660.25
 MP/DST Disc _____

Approved By [Signature] Our Representative [Signature]

TriLOBite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



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

Well Name: E & J LEGACY EPP # 3
Location: AP. SE - SW - SW - SE SEC. 27 - T. 29 S. - R. 15 W.
License Number: A.P.I. # 15-051-22399-00-00
Spud Date: 8/20/2012
Surface Coordinates: SPOT: 285' FSL & 2305' FEL
Region: PRATT CO., KS
Drilling Completed:

Bottom Hole
Coordinates:
Ground Elevation (ft): 1955' K.B. Elevation (ft): 1964'
Logged Interval (ft): SURFACE To: 4833' Total Depth (ft): 4833'
Formation: ARBUCKLE
Type of Drilling Fluid: CHEMICAL MUD

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: PONDEROSA WITCHING, LLC
Address: 110 A SPRING CREEK
WACO, TEXAS 76705

GEOLOGIST

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

Casing & Deviation

Ran 9 Jts 8 5/8" (24#) Surface Casing Tallied @ 382' & set at 393'. Cemented w/ 225 sx CLASS A; 3% cc 2% Gel. Cement Did Circulate to Surface.

DEVIATION SURVEY'S TAKEN: @ 395' = 1/2 degree; @ 4590' = 3/4 degree; @ 4830' = degree.

DSTs

DST #1 4485'-4590'. Times: 30"-45"-30"-45". Blow: IF= Weak 1/4"; FF= No Blow". Recovery: 5' M.
Pressures: IH= 2230#; FH= 2183#; IF = 22-25#; FF = 25-26#; ISIP = 52#; FSIP =38#; Temp=118 degrees.

DST #2 4668'-4721'. Times: 30"-45"-60"-60". Blow: IF= Weak 1/2"Building/2.5"; FF= Weak 1/2" Building/3".
Recovery: 120'G.I.P.; 145' TF (15' CO;130'OCM (18% O& 83% M)). Pressures: IH= 2301#; FH= 2292#; IF = 24-52#; FF = 57-87#; ISIP =1385#; FSIP =1365#; Temp= 122 degrees. Oil Grv.= 31.3 degrees.

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

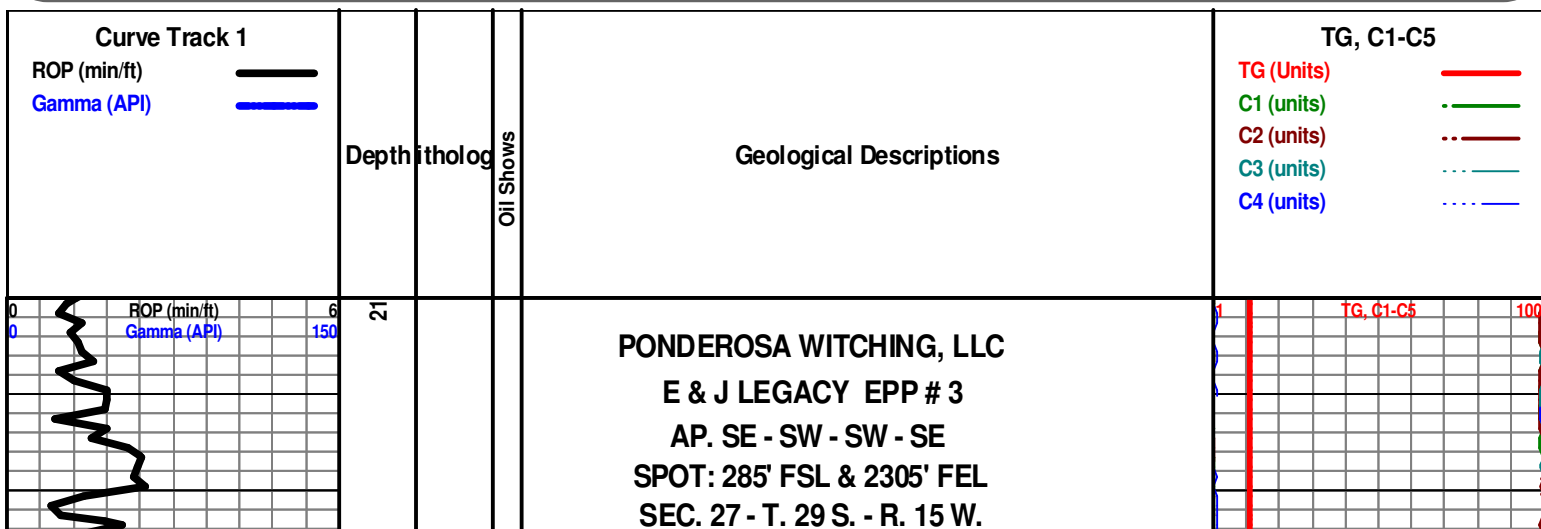
Anhy	Clyst	Gry shale	Mrlst	Shgy
Bent	Coal	Gyp	Red shale	Sltst
Brec	Congl	Igne	Salt	Ss
Carb sh	Dol	Lmst	Shale	Till
Cht	Grn sh	Meta	Shcol	

ACCESSORIES

MINERAL	Hvymin	Belm	Plant	TEXTURE
Anhy	Kaol	Bioclst	Strom	Boundst
Arggrn	Marl	Brach		Chalky
Arg	Minxl	Bryozoa	STRINGER	Cryxln
Bent	Nodule	Cephal	Anhy	Earthy
Bit	Phos	Coral	Arg	Finexln
Brecfrag	Pyr	Crin	Bent	Grainst
Calc	Salt	Echin	Coal	Lithogr
Carb	Sandy	Fish	Dol	Microxln
Chtdk	Silt	Foram	Gryslt	Mudst
Chtlt	Sil	Fossil	Grysh	Packst
Dol	Sulphur	Gastro	Gyp	Wackest
Feldspar		Oolite	Ls	
Ferrpel	FOSSIL	Ostra	Mrst	
Ferr	Algae	Pelec	Sltstrg	
Glau	Amph	Pellet	Ssstrg	
Gyp		Pisolite		

OTHER SYMBOLS

POROSITY	Vuggy	ROUNDING	Even	Core
Earthy		Rounded	Spotted	
Fenest	SORTING	Subrnd	Ques	EVENT
Fracture	Well	Subang	Dead	Rft
Inter	Moderate	Angular		Sidewall
Moldic	Poor		INTERVAL	
Organic		OIL SHOW	Dst	
Pinpoint		Gas show	Dst_alt	



PRATT COUNTY, KANSAS

CONTRACTOR: STERLING DRILLING - RIG # 4

GEOLOGISTS: BRIAN FISHER; MAC ARMSTRONG AND DAVID P. WILLIAMS

ELEVATIONS: 1955' G.L.; 1964' K.B.

A.P.I. # 15-051-22399-00-00

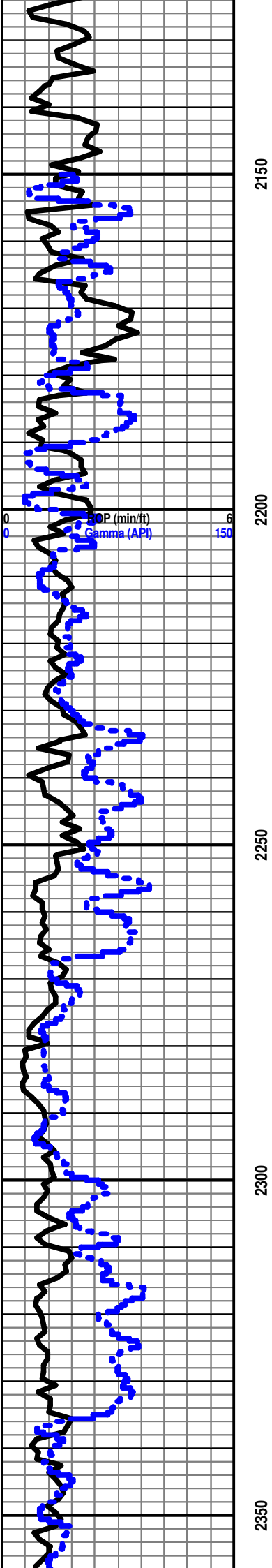
DEVIATION SURVEYS TAKEN: @ 395' = 1/2 degree; @ 4590' = 3/4 degree;
@ 4830' = degree.

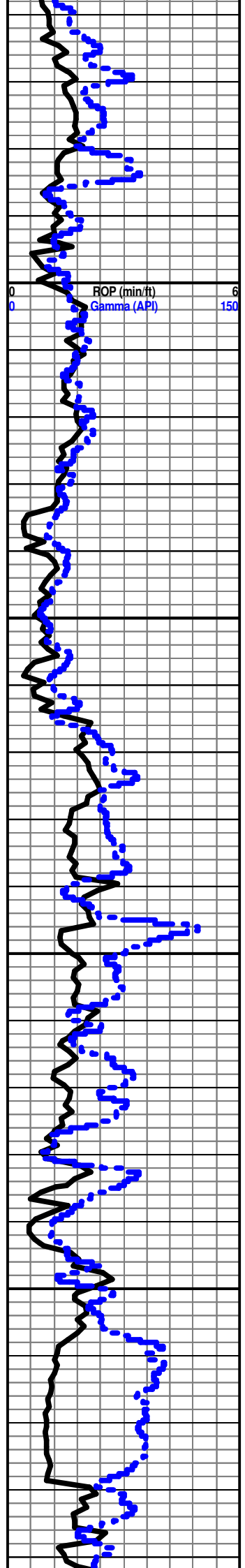
Shallow samples and drill time by Brian G. Fisher, start on 8-14-12.

Herington Ls. 2202 (-238) (0 - flat)

Winfield 2268 (-304) (+1)

Towanda 2338 (-374) (+2)



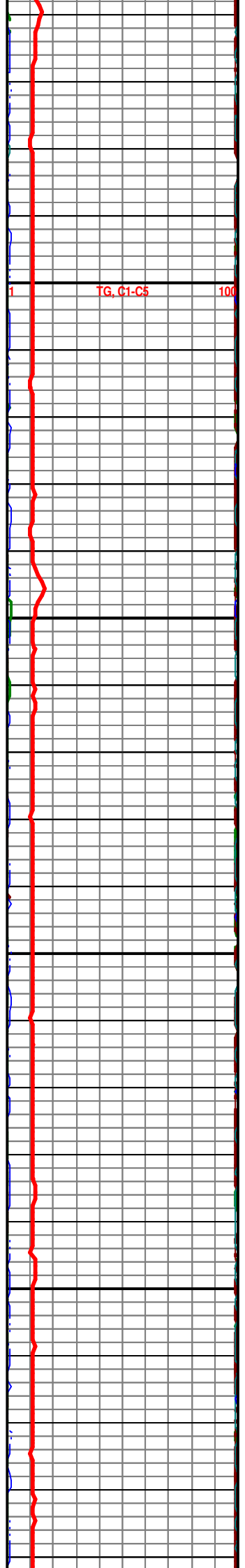


2400
2450
2500
2550

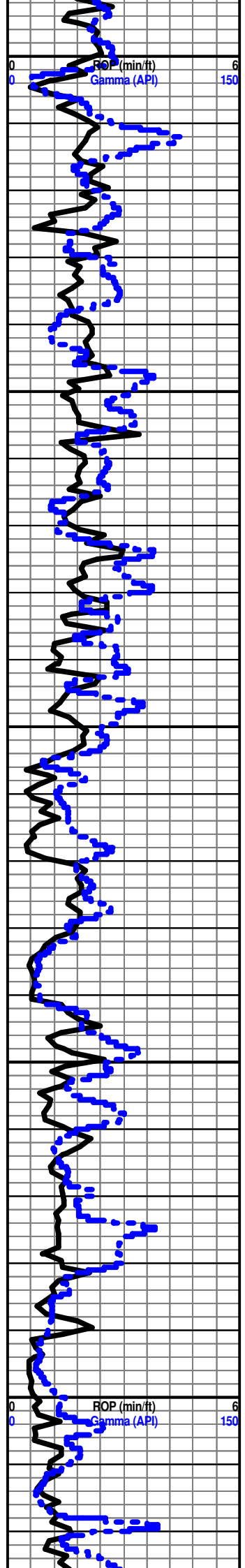
Fort Riley 2388 (-424) (+1)

Base of the Florence 2465 (-501) (+2)

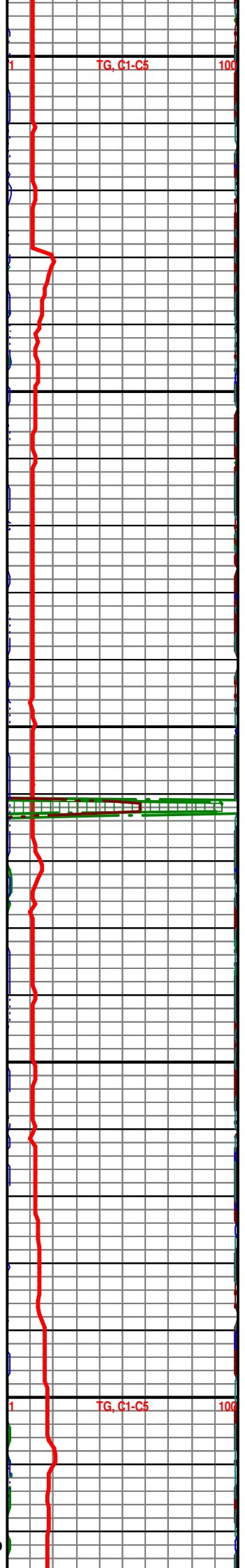
Council Grove 2557 (-593)



TG, C1-C5 100



2600
2650
2700
2750
2800



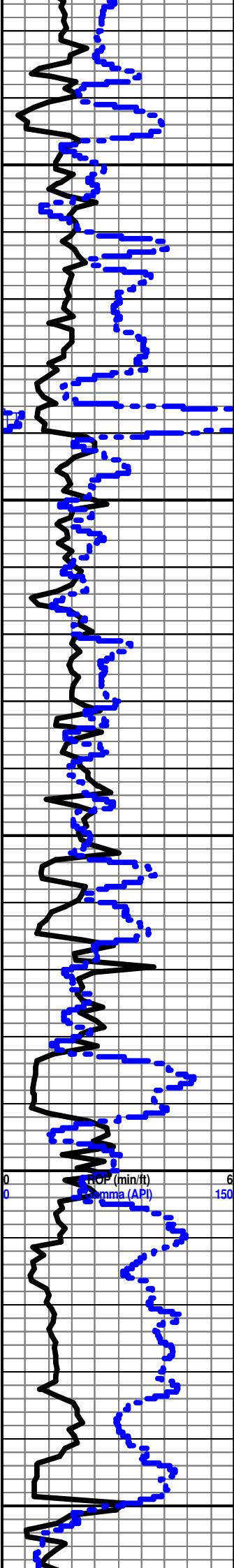
Cottonwood 2714 (-750) (+10)

Cottonwood Porosity Zone 2731 (-797)

Kelly down samples start at 2700', not mudded up yet. Mostly red, gray, also with dk grn sh, dk gray shales, with Ls off wh. no vis por., few large xls pyrite.

2800 Samples: all as above

2830 Sample -mixture of red, gray and dark gray shales, with Ls lt br, no vis por. No shows.



2850

Ls med gray to white, Lith, Sh. dlk red

2860' sample, Shales: dk gray, gray, red (sandy in part), trace sh med grn, Ls lt br to tan lith, no vis por.

2890' Sample: Ls off wh. to wh., fine to med xln, fair to excel inter gran por., no shows

Sh dk gray, Sh red

2900

2920 Sample: mainly Sh dk gray, dk gray gr, red shales, Pyrite xlns, with Sh bl carb

2950 Sample: Sh dk gray g, dk gray, red, Pyrite xlns, Some Ls wh to off wh, lith, no vis por.

2950

Note at 2965' had to replace Rotary Table, bearings went out at 5:00 pm on 8-14-12, Rig back in service at approx. 3:00 am, extra time taken to cut off shims off used table to make it fit. Rotary table taken from stacked Sterling rig #1 in yard from Pratt Ks.)

2980' - Sample not caught! Representing 2965' to 2980"

3000

Onaga Shale 3004 (-1040)(+1)

3010' Kelly down sample: Sh dk gray to med gray, Ls lt tan, frag in part with good to excell por, poss gilsonite dead oil stain or black shale -? in part, No odor, No Flour. Saw only piece of Ls with a very faint lt yellow min flour.

Samples 3020' to 3040' not caught. Switch to 20' foot samples.

Samples 3020' to 3040' not caught. Switch to 20' foot samples.

Wabaunsee Formation 3043 (-1079)(+6)

All as abv with trace Sh bl carb, very fiss.

3050

TG, C1-C5

100



Sh med gray, also lt gray, soft, sl pyritic in part, also with sml bl inclusions or fossils, trace Sh bl carb, and sh pale grn, Ls lt br lith, no vis por. Trace (Cav?) poss Dolo off wh, sl ghst foss or oolitic, no vis por, tite, No shows

All as abv, also with Slst off wh, vf grain, sub md to rnd tightly cemt with cal cmt, Indian Cave SS - ? No shows

Sh dk gray as abv, Slstt to vf SS, vf grain, Qtz gains, mica, cal cmt, well cmt, no vis por. No odor, No shows, Ls lt br lith, Also sh dk gray,

All as abv, Sh med gray with bl inclus, Ls med br lith, Ls off wh lith, trace Sh bl carb, very fiss. All no shows

All as abv, with increase of upper hole cuttings. as hole is cleaned.

Stotler Limestone 3168' (-1204) (+9)

Sh dk gray, Also some with fine layers of SS qtz, med xln, distinct xln facets, also amber colored, well cemt with non cal cmt, fair por No shows seen.

Ls med and Lt Br lith, no vis por, Sh dk gray

Ls med gray, frag no vis por, Sh dk gray, Ls med br lith.

Ls med br to dk br, frag with unk fossils, Sh dk gray, Sh med gray grn, sl sandy, Sh bk carb fissel.

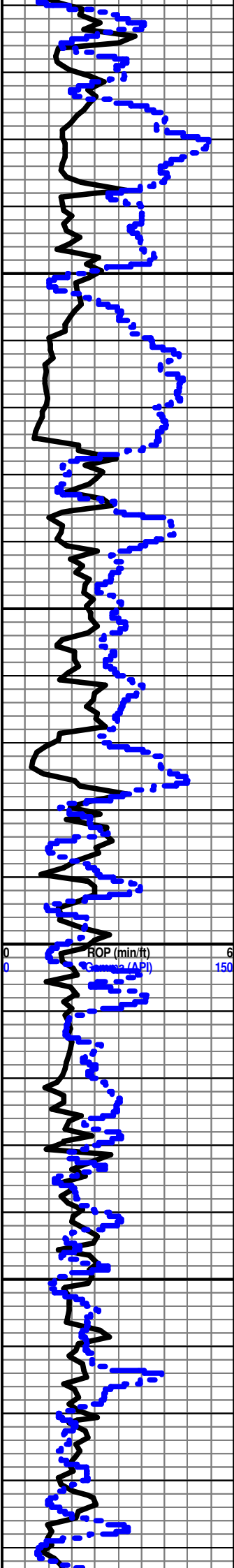
Ls med to lt br, foss, lith - to v poor porosity, Sh dk gray

Tarkio Ls. 3271 (-1312) (+9)

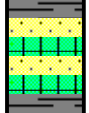
Ls med b, lith to med br, very frag, No vis por, Gray med gray,

Ls med br as adv,, Sh med gray, Ls med br lith, no vis por., trace sh bl to very dk gray, trace Sh bl carb very fissel, Ls med gray vfin, no vis por, trace Sh med gm, very plty

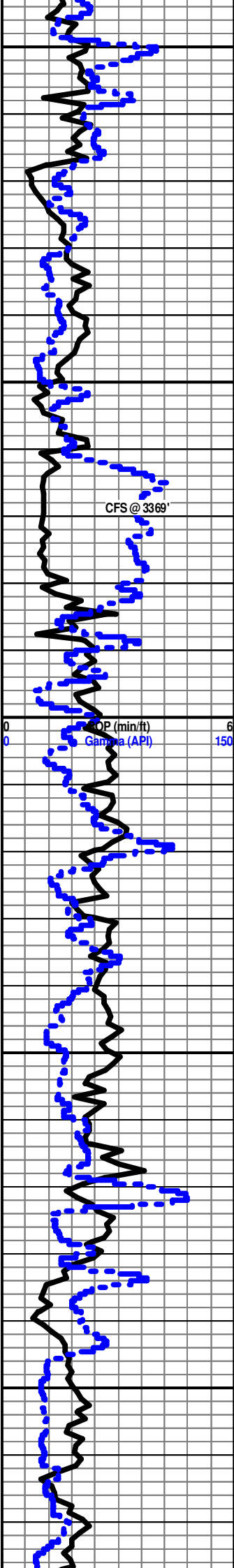
Ls off wh, med xln, trace poor por, No shows, also with sh med gray



3100
3150
3200
3250



TG, C1-C5 100



3300

Mainly Ls med br, lith to sl foss, No vis por, No shows, Ls tan lith no vis por, Trace Sh bl carb very pty, All no shows.

Ls as abv, increase in Sh bl carb as abv, Sh dk gray, No shows

×××
Ls med brt to dk br, lith to foss (unk), no vis por, Ls lt gray, foss, no vis por, Ls wh wh chlky no vis por, Sh dk gray, All no odor, No flour, No gas bubbles, No stain, trace few pieces with very pale yell min flour, Circulate at 3369'

20 min cir samp: All as abv. increase in Ls off wh, lith to fxlN, Saw one lrg quartz grain with trace bl stain, Also increase in Ls med br, lith to sl foss in part with no vis por. Trace of sh bl carb, Sample had No odor, No oil or gas flour, (few pieces have trace pale yell min flour), No gas bubbles, No cut on the Qtz grain, No other shows seen.

3350

40 min cir: all as abv (but no qtz grains seen) with mainly Ls off wh lith to vfxln, poss trace of inter gran por, No shows seen.

60 min all as abv, No shows. Elected not to Dst. Mud Vis 47, wt 8.8, 1# LCM

CFS @ 3369'

Howard Ls. 3383 (-1419) (+3)

Ls off wh lith, Ls lt br lith, to sl gran and foss, No vis por, Chalk off wh, no vis por, Sh med gray, Sml amt of Sh pale gm, All no shows

3400

Ls off wh lith, sl foss in part, No vis por, Ls lt brwn, vfxln no vis por, Sh med gray, trace slst Lt gray, vfg, well cmted, no vis por. Chalk off wh, no vis poi, All no shows

TG, C1-C5

100

Ls med br lith to frag no vis por, Ls dk br, lith, no vis por, Sh dk gray, All no shows

Ls med br lith to frag no vis por, Ls dk br, lith, no vis por, Sh dk gray, trace Sh bl carb, massive to pty, All no shows

3450

Ls med br lith to frag no vis por, Ls dk br, lith, no vis por, Sh dk gray, increase in Sh bl carb, massive to pty, All no shows

Topeka Ls 3468 (-1504) (+6)

Ls off wh., lith brittle - Cherty in part - no vis por, lots of Sh bl carb, massive to pty, All no shows, Vis 48, 9 Wt.

Topeka upper por zone 3482 (-1518) (+6)

Ls lt gray, lith, to vfxln, some pieces with large calcite xls on edges indicates excell vug por is present, few pieces have very faint yell cal min flour, Sh dk gray, massive, No shows, there was no real gas kick, just a very slight gas rise to 25 to 26 units.

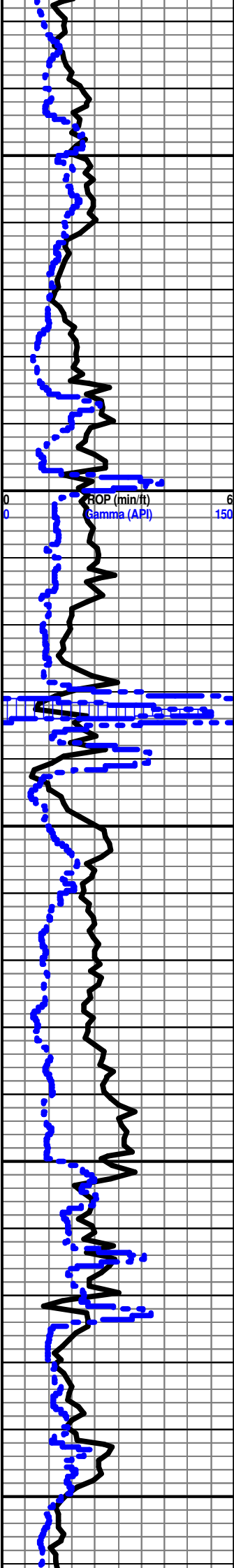
3500

Ls med gray to lt gray, lith to vfxln (re-xln-?), frag texture, no vis por seen, sml layers of sh bl carb, pty with lots of pyrite in part. Trace very faint yell min cal in a few samples, No shows seen.

Topeka 2nd por zone 3512 (-1548) (+2)

Sh lt bl to very dk gray, massive, fss in part, Ls med gray, vfxln to dnse also poss cherty in part, poss trace poor fracture po, Ls off wh, lith to vfxln, poor inter gran por, No shows seen

Sh lt bl to very dk gray to blk, massive, fss in part, Ls med gray, dnse to vfxln poss cherty in part, poss trace poor fracture por, Ls off wh, lith to vfxln, poor por, Chlk off white very



3550
3600
3650
3700
3750

soft, No shows seen, Vis 55, 9 wt

Ls off wh, wvfxln to rexln in texture, sl foss to frag in part, some are dnse lith, brittle to almost cherty in part, No vis por, Also chalk off wh with med cal xlns or grains embedded in rock matrix, poor to fair por in some, few with trace bl stain, (did not get a solvent cut) few pieces of Sh dk gray, massive, Sh bl carb very fiss. All No flour, No shows seen, back ground gas decrease slightly, thur this por zone

Ls off wh, med to fxln, some are rexln, few with poss trace black tarry stain, poor por seen, (No solvent cut), Chalk off wh soft, no vis por, Ls off wh lith no vis por, trace gray sh, No flour, No shows seen.

Ls off wh, med to fxln, some are rexln, more with poss trace black irrular stain or shale inclusions, (No solvent cut), poor por seen very chalky in part, Increase in Chalk off wh soft, Sample washes a little white in color, no vis por, Ls off wh lith no vis por, No flour, No shows seen.

Ls off wh, med to fxln, some with rexln matrix, some are frag with unk foss, some with poss trace black stain or shale inclusions, (No solvent cut as above), poor por seen very chalky in part, Increase in Chalk off wh soft, no vis por, Ls off wh lith no vis por, Sh bl carb, massive No flour, No shows seen.

Lower Dear Creek Ls Mkr 3598 (-1634) (+4)

Ls off wh, more dnse than abv, some are very frag, with unk foss, Ls off wh as before with partly chalky in texture, few with edges that have black irregular stain, (Samples have no solvent cut), Also Ls med br dnse, cherty, very foss, no vis por, Ls off wh rexln matrix, poss poor por, Sh bl very carb, very pity, Trace Sh dk gray, All sample has no Flour, No shows.

Mainly Ls off wh, vfxln to mxln poor to fair matrix por seen, Also chlky in part, with some pieces that have black stains or bl shale fragments, Ls off wh, translucent, very cherty in part, fossiliferous, dnse, no vis por seen, Also Ls med br, vfxln, no vis por, Also with Sh bl carb, massive, Note sample washes white, No shows seen.

Le Compton Ls 3637 (-1673) (+8)

Ls off wh to very lt gray, rexln, also with poor to fair fracture por in part, Ls med grain to fxln, poor matrix por, Ls off wh, soft chlky texture with bl stain, (No solvent cut), Sh bl carb, Note sample washes white, No shows seen

Ls off wh, vfxln to chlky texture, also rexln, also frag, sl foss, no vis por, Sh bl carb, Sh dk gray, No shows seen

Ls very lt br, vfxln to med xln, poor matrix por, few pieces with excellent fracture porosity, also chlky in part, rexln foss in part, few with dk bl irr stain (has no solvent cut) Also Ls lt br, rexln med xln, also frag in part, trace inter gran por, Sh bl carb pity, All No sample odor, No shows.

Note part of the tubing was changed out, filter, and tubing from the filter to the Glycol jar at 9:30 am, 8-16-12, so the glycol jar would bubble better, got an immediate increase in amount of background gas to 37 units from 18 units. at 3687 - Also zero to 10 units, new back ground 25 units

Ls very lt br, vfxln, rexln, frag foss in part poss poor matrix por, Ls chlky with bl stains (has no solvent cut) Sh bl carb, pity, No sample odor No shows,

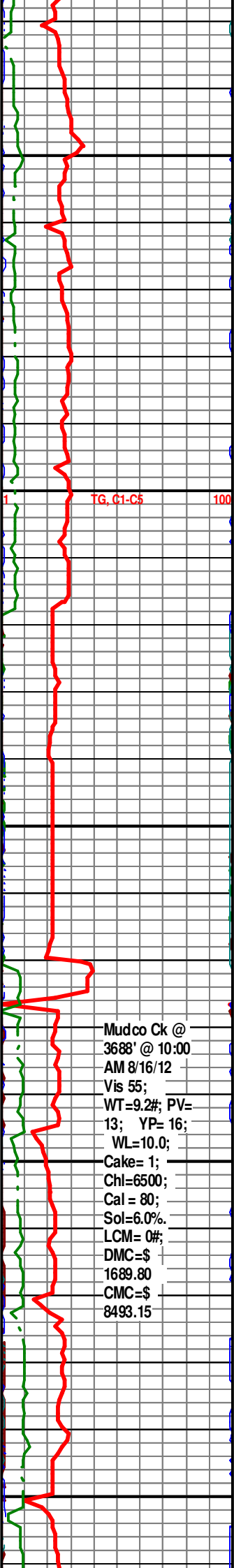
Ls very lt br, lith to re xln, sl foss in part, no vis matrix por, few pieces have excelent fracture por, Sh bl carb pity, Ls very chlky soft, with bl tarry stain in part, (stain has no solvent cut) Trace sh very dk green, Note sample washes white, No odor, No shows

Ls very lt br, lith to re xln, sl foss in part, no vis matrix por, few pieces have excelent fracture por, Ls very chlky soft, with bl tarry stain in part, (stain has no solvent cut) Note sample washes white, No odor, No shows

As above, Ls very lt br, lith to re xln, sl foss in part, no vis matrix por, few pieces have excelent fracture por, increase in Ls very chlky soft, with bl tarry stain in part, (stain has no solvent cut) , increase in Sh dk gray Note sample washes white, No odor, No shows

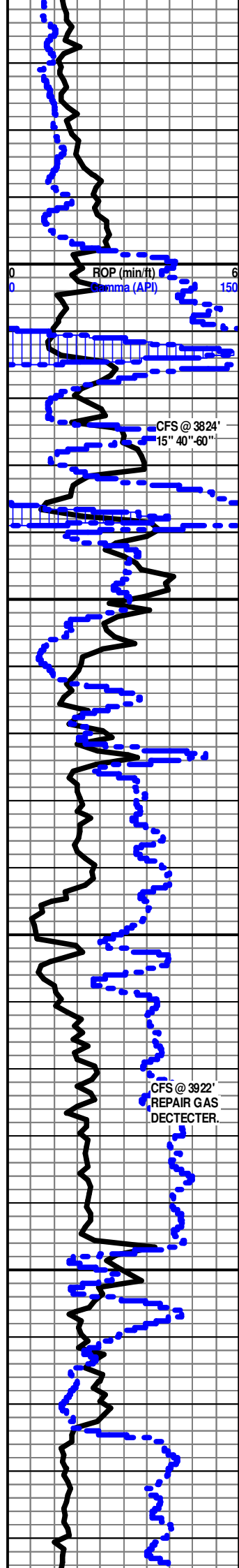
As above with Ls med br, Lith no vis por, No Shows in sample

As anv with increas in Ls med br, very frag, very foss, poor inter gran por No shows in sample



TG, C1-C5 100

Mudco Ck @
3688' @ 10:00
AM 8/16/12
Vis 55;
WT=9.2#; PV=
13; YP= 16;
WL=10.0;
Cake= 1;
Chl=6500;
Cal = 80;
Sol=6.0%.
LCM= 0#;
DMC=\$
1689.80
CMC=\$
8493.15



3800
3850
3900
3950



Sample
Ls off wh, vf xln, re xln, grading to med xln, Ls very lt br to tan, med xln, re xlm foss, no vis por, Sh bl carb, Ls off wh chiky, No shows
Ls off wh, vf xln, re xln, grading to med xln, poor to fair inter gran po, few samples have bl stain (No solvent cut) Ls very lt br to tan, med xln, re xlm foss, no vis por, Sh bl carb, Ls off wh chiky, A few Chalky Ls pieces have a bright wh flour- 2 pieces in total sample, (No solvent cut), Sh dark gray, Trace Sh bl carb, No sample odor, No other shows
Ls off wh, vf xln, re xln, some med xln, poor to fair inter gran por, few samples have bl stain (No solvent cut) Ls very lt br to tan, med xln, re xlm foss, fair to poor vis por, Sh bl carb, Ls off wh chiky, Trace Sh dark gray, No sample odor, No other shows

At 3813' Change vel depth to 147.52, Change Total gas scale to 0 - 100
Queenhill Sh. 3806 (-1842) (+7)
Circulate at 3824' to evaluate large gas kick, Derrick Hand reported petroleum odor in sample, No odor from sample cup in Geol Shack (also checked by driller)

Sample caught at 3820': Ls lt br to tan, f to med xln, poor to good inter gran por,, few pieces med to lge xln, with fair to med por intergran por, few pieces, Some pieces are part chiky, with black stain, few pieces may be rexin oolitic rocks with no vis por, Very few have a very faint very pale yell min flour, No other sample flour, No Solvent oil cut in any of the samples.
15 min cir Sample: increase in Ls off wh, med xln poor xln No shows seen, Also increase in Sh bl Carb, few pieces are bleeding small gas bubbles under the microscope. No other sample shows
40 & 60 min All as above, also increase in Ls med br lith, No vis por, also with Sh bl carb, sl bleeding gas, No other sample shows, Called Dave Williams reviewed report and went back to drilling. Rig down for pump repair and went back to drilling.

Heebner 3832 (-1868) (+5)
3830 Sample: Ls med br, lith to fxl, also as well cmted oolitic in part, some are fossil in part not much vis porosity, Sh bl carb, massive, Also trace sh dk gray, with layer of Sh bl attached to same rock. No shows

Ls off wh vfxln, to med xln, fair por, with trace pyrite min, few pieces with a lt br stain, Sh bl carb, Sh dk gray, Saw a few large single qtz grains, No Shows
Ls med br to dk br, med xln, dnse, foss, some gran, poor vis por. Sh bl carb, Ls off wh as abv, No Shows.

LS med br to lt br, poor por, Ls off wh, vf xln to fxl, Ls med dk br, Lith no vis por, Sh bl carb, Sh dk gray, No shows.
All as abv also with few large qtz grains and Sh dk gray shale, No Shows
Mainly Ls off wh lith, No vis por, No Shows

Ls off wh as abv, Also trace SS vfg, well cemented with calcite cmt, poorly sorted no vis por, No shows
Ls off wh, vfxln, Sh dk gray, Sh bl carb, trace SS as abv

As abv, Ls off wh, vfxln, increase in Sh dk gray, Sh bl carb, trace SS as abv
Mainly SS or Slst, lt gray, well calcite cmted, v fg, rnd to sub rounded, poor sorted Qtz gains, verty "dirty" looking also has unk plant carbon fossils, also breaks along layers of bl (biotite) mica minerals, Sh dk gray. sandy with pyrite, Trace Sh bl carb, All no shows

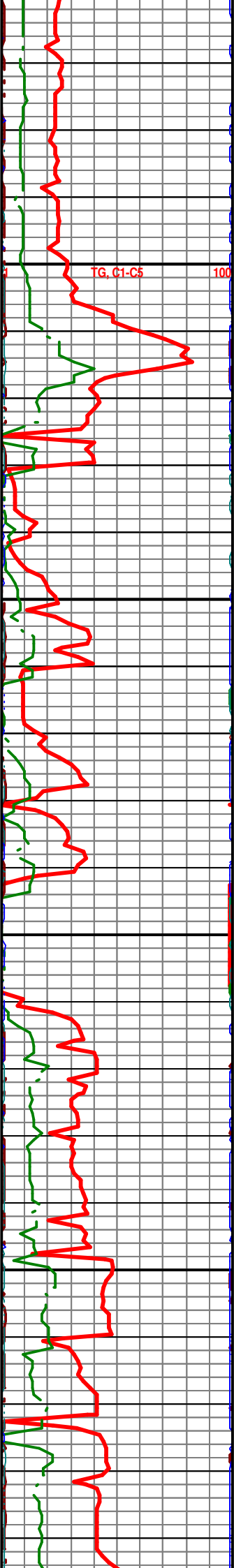
Circulate at 3922' to repair gas dectector line, back to drilling at 8:22 pm.
all as abv Ss as abv, with trace Sh black carb, Ls med br lith, no vis por, No Shows
All as abv.

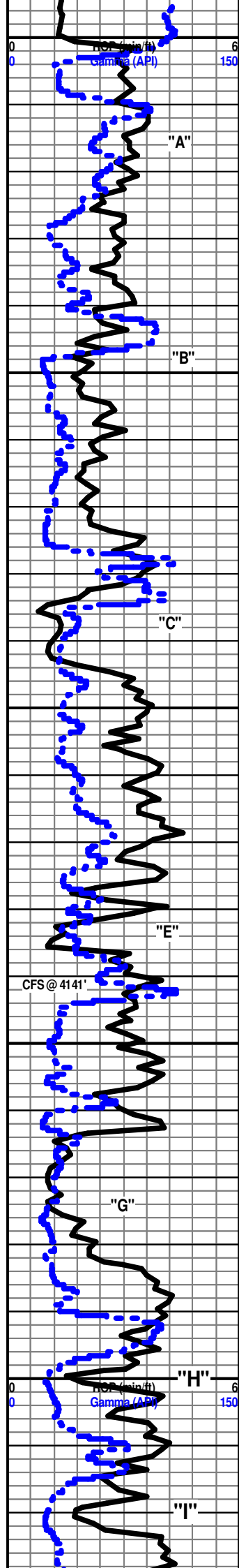
Mainly SS or Slst, lt gray, well calcite cmted, v fg, rnd to sub rounded, poor sorted Qtz gains, verty "dirty" looking also has unk plant carbon fossils, also breaks along layers of bl (biotite) mica minerals, increase in Sh dk gray. sandy, evidence of larger more coarse Ss present, subrounded grains probably weakly cemented, Trace Sh bl carb, All no shows.

Large Qtz Ss grains absent in sample, decrease in Ss vfg as abv increase in Sh med gray sl sandy,

Douglas Ss or Siltstone 3972 (-2008)
Mainly Ss or Slst, lt gray, well calcite cmted, v fg to med grain, rnd to sub rounded, poor sorted Qtz gains, verty "dirty" looking also has unk plant carbon fossils or dark minerals, prob (biotite) mica minerals, Several pieces have very lt yellow cal min Flour, Also saw possible sm l gas bubbles, (Had No Solvent Oil Cut), Sh dk gray. very sandy, Slst lt gray to br, with micro convoluted bedding, poorly sorted grains, well cmted, clay like, Trace Sh bl carb, No Odor, Therefore All no shows.

TG, C1-C5 100





4000
4050
4100
4150
4200

IATAN (BROWN LIME 4001' (2037))

Ls off white to light br, lith no vis por, Also Ls dk br, fine to med grain, poorly sorted cal grains, sl foss, poor to no inter gran por, also with clear med size embedded round qtz grains. Sh dk grav. All no shows.

LANSING 4110' (- 2046)

4020 Sample: Conn at 4022', Lots of fine grained Ss cavings from abv, Sh dk gray, Ls dk br, granular, very foss, crinoid stems, rexin, Poor to good inter gran por seen and Ls med br, very foss, rexin, poor inter gran por seen, No Flour, No Shows

Ls med br to dk br, Lith matrix, very foss, crin, forms, re xln, very gran, fair inter gran por, Ls Lt gray Lith, no vis por, Sh dk gray sandy, Ss cavings from abv, No Shows

Ls dk br, lith matrix, very oolitic, also foss, poor to fair vis por, Ls med br, gran well cmted, poor inter gran por, Sh dk gray

Ls med br lith, gran in part, poor inter gran por, Sh dk gray, Sh bl carb, Ls lt br, lith sl chlky in part, No shows

Lansing B 4043 (-2079) (+3)

LS med br, med xln, and lith, no vis por to trace poor por, , Sh bl carb, No shows

Circulate for samples at 4060', back to drilling at 3:36 am
15 min sample: peak gas kick at 70.2, Ls med br, very gran med grain, foss in part, poor inter gran por, No odor, stain or free oil seen in rocks, saw trace gas bubbles, Tried to get a solvent cut several times, No shows except trace of gas bubbles.

40 min Sample: Has distict pet odor, Ls med br, foss, gran, poor inter gran por, LS med xln good inter gran por, Chert trans luc, extem oolitic, trace gas bubles, No other shows noted.

60 min Sample: Odor as abv, Ls med br as abv, Ls off wh, No other shows noted

Sample at 4070 LS off with free ooiite gains in chlky like matrix, No Shows

4080' Sample: Ls med br, lith to med xln, no vis por, Sh bl carb, Ls off wh med xln, gran chlky nno vis por,

Lansing C Zone 4082 (-2118), (+7)

Ls med br, very oolitic, in a Lith matrix, No vis por, Ls of wh, soft with dk rexin oolites floating in matrix, No vis por, Chert transluc, with dk oolites, No vis por, Sh dk gray

Ls dk br very oolitic, No show, lots of Sh dk gray, Sh bl carb,

4110' Sample: Ls off wh , f to med xln, poor to fair por, sh bl carb, Saw 1 piece of Ls off white, chlky with a possible stain (Got no solvent cut), No shows

4110' Sample: Ls off wh , f to med xln, poor to fair por, sh bl carb, Saw 1 piece of Ls off white, chlky with a possible stain (Got no solvent cut), No shows

4120' Sample: Ls Ls off wh vfxln re xln, No por, Sh dk gray, Ls med to dk br, lith No por to trace of xln por, also chlky in part, No shows

4130' Sample Ls off wh, med xln rexin, one sample shows micro bedded layer with Sh dk gray, poor to fair inter gran por, No Shows

Lan E at 4131 (-2167) (+4)

Ls off wh, med xln, lith in part also with med Cal min xlns in part, indicating excell vug por,, Ls dk br dnse, sl oolitic well cry, No vis por, All No Shows

Circulate at 4141' for Sample evaluation: of E zone.

20 min cir Sample: Ls med br to lt br, lith in part, trace of excell vug por, Ls med lt br, med xln with fair inter gran por, Ls off wh, fxl poor por, Sh bl carb, No shows, Poss very lt odor.

40 min: Lots of cavings, Ls med br, med xln, rexin, poor inter gran por, No Shows

60 min as abv with increase in cavings, back to drilling at 8:36 am

4150' Sample: Ls dl br, lith to vfxln, trace of excel fracture por, Ls off wh, med xln, poor to excell inter gran por, also sl chlky, Sh dk br, No shows

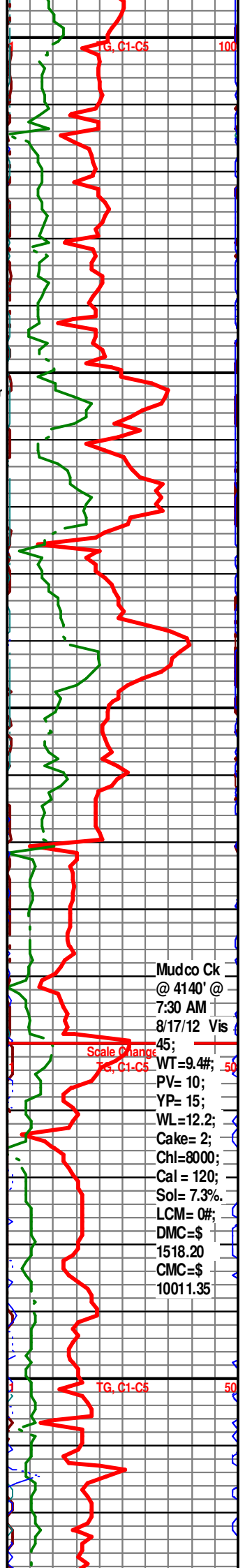
4160' Sample: Ls off wh, fxl, poor inter gran por, LS dk br lith, no vis por, Sh dk gray , No shows.

Lansing G porosity Zone 4163 (-2199) (+2)

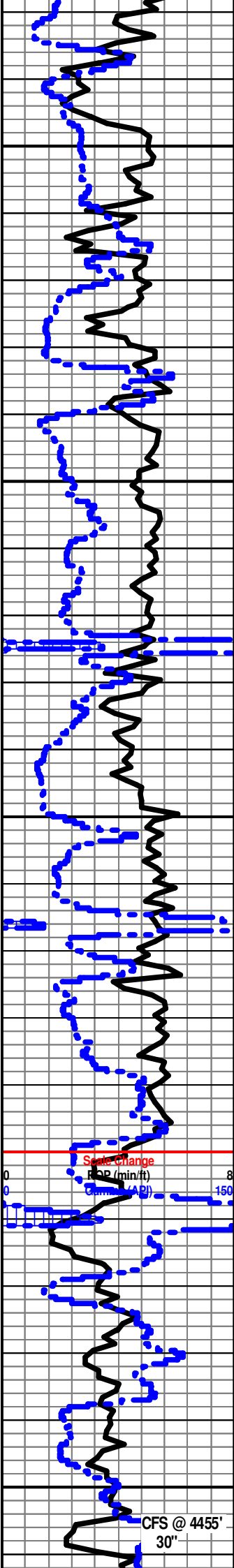
Sample: (20 '), Sample catcher was not catching 10' foot samples as instructed, Ls dk br, gran, frag, re xln oolitic no vis por, Sh dk gray, Ls off wh, med xln, poor inter gran por, Sh bl carb., No shows

4190' Sample: Ls off wh, foss, med grain, poor inter gran por, frag and chlky in part, Sh dk gray, Sh bl carb, very fiss, Ls very lt br, very fg, rexin No por, All no shows,

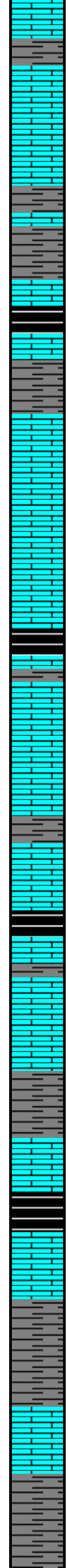
4200' Sample: Mainly sh dk gray, Sh bl carb, Ls med br gran, no vis por, No shows



Mudco Ck
@ 4140' @
7:30 AM
8/17/12 Vis
45;
WT=9.4#;
PV= 10;
YP= 15;
WL=12.2;
Cake= 2;
Chl=8000;
Cal = 120;
Sol= 7.3%
LCM= 0#;
DMC=\$
1518.20
CMC=\$
10011.35



4250
4300
4350
4400
4450



 KANSAS CITY "SWOPE" (K) 4278' (- 2314)

@ 4230' Geologist Mac Armstrong On Loc Replaced Brian Fisher

Sh Gry-Drk Gry
Ls Cm FxIn Dns Grad Lt Tan MxIn Sli Chky NS
Ls Cm-Lt Tan MxIn Dns No Por

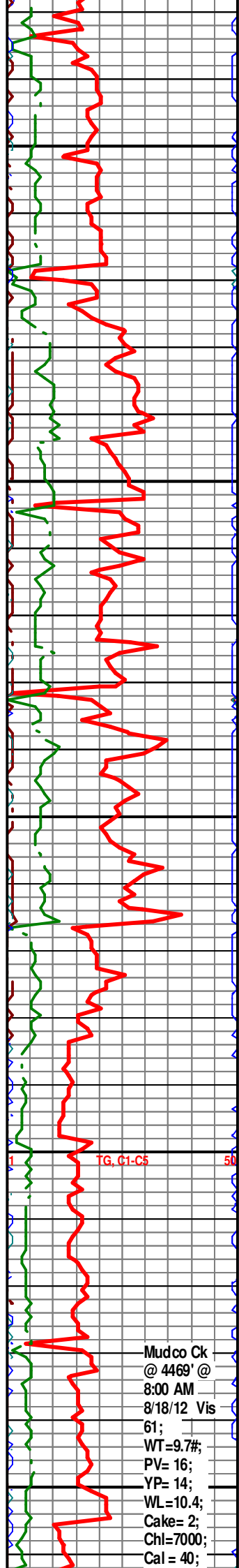
 KANSAS CITY "HERTHA" (L) 4364' (- 2400)

Sh Gry-Drk Gry
Ls Cm-Tan MxIn Dns No Por
Ls Cm-Tan FxIn Dns Sli Fos (Bry) No Por
Sh Gry-Drk Gry
Ls Cm-Lt Tan FxIn Dns Grad FxIn-MxIn Sli Chky No Por
Ls Cm FxIn Dns Sli Chky No Por
Ls AA
Ls Cm-Lt Tan FxIn-MxIn Sli Chky Sli Fos No Por

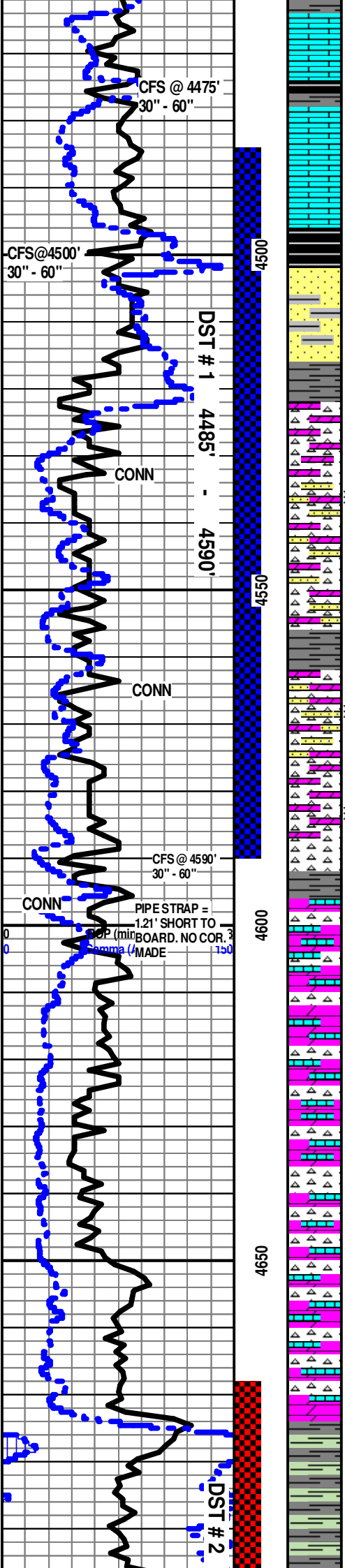
 PAWNEE 4434' (- 2470)

30" CFS @ 4455'

 FORT SCOTT 4460' (- 2496)



Mudco Ck
@ 4469' @
8:00 AM
8/18/12 Vis
61;
WT=9.7#;
PV= 16;
YP= 14;
WL=10.4;
Cake= 2;
ChI=7000;
Cal = 40;



CHEROKEE SHALE 4496' (- 2532)

CHEROKEE SAND 4502' (2538)

MARQUOKETA 4523' (- 2559)

Geologist David P. Williams Replaced Mac Armstrong @ 4554' 8-18-12.

30" CFS @ 4590' Dolo Wht Fxkb Grad Gran Sucrosic Poor lXln Por Cht Wht Trip w/ Hvy Gilsonitic Stn (15% of Tray) w/Poor -Fair Frac Por Qtz Ss Brn-Wht FGm Poor Sort (w/Cht Includ) Ang-Sub Ang Grn Sh Char Gry-Grn Fissil Faint Odor SSG

60" CFS @ 4590' Dolo Wht Fxkb Grad Gran Sucrosic Poor lXln Por Cht Wht Trip w/ Hvy Gilsonitic Stn (15% of Tray) w/Poor -Fair Frac Por Qtz Ss Brn-Wht FGm Poor Sort (w/Cht Includ) Ang-Sub Ang Grn Sh Char Gry-Grn Fissil Faint Odor SSG

VIOLA 4596' (- 2632)

Cht Bone Wht-Gry Op Vit Shp (w/Tr scatt Brn Stn AA) Dolo Wht-Crm Fxln Poor lXln Sucrosic Por Barren Grad Ls Wht-Crm Fxln-Microxln Dns Micrite Barren Chalk Wht Soft (Abd) Sh Char-Aqua Fissil ? Faint Odor No Flor Tr ? Scatt Stn NS

Cht Bone Wht-Gry Op Vit Shp (w/Tr scatt Brn Stn AA) Dolo Wht-Crm Fxln Poor lXln Sucrosic Por Barren Grad Ls Wht-Crm Fxln-Microxln Dns Micrite Barren Chalk Wht Soft (Abd) Sh Char-Aqua Fissil ? Faint Odor No Flor Tr ? Scatt Stn NS

Cht Bone Wht Op Vit Shp (w/Tr scatt Brn Stn AA) Dolo Wht Fxln Poor lXln Sucrosic Por Barren Grad Ls Wht-Crm Fxln-Microxln Dns Micrite Barren Chalk Wht Soft (Abd) Sh Char-Aqua Fissil ? Faint Odor No Flor Tr ? Scatt Stn NS

Cht Bone Wht Op Vit Shp (w/Tr scatt Brn Stn AA) Dolo Wht Fxln Poor lXln Sucrosic Por Barren Grad Ls Wht-Crm Fxln-Microxln Dns Micrite Barren Chalk Wht Soft (Abd) Sh Char-Aqua Fissil ? Faint Odor No Flor Tr ? Scatt (4 Pcs) Stn NS

Cht Bone Wht Op Vit Shp (w/Tr scatt Brn Stn AA) Dolo Wht Fxln Poor lXln Sucrosic Por Barren Grad Ls Wht-Crm Fxln-Microxln Dns Micrite Barren Chalk Wht Soft (Abd) Sh Char-Aqua Fissil ? Faint Odor No Flor Tr Scatt Stn NS

Cht Bone Wht Op Vit Shp (w/Tr scatt Brn Stn AA) Dolo Wht Fxln Poor lXln Sucrosic Por Barren Grad Ls Wht-Crm Fxln-Microxln Dns Micrite Barren Chalk Wht Soft (Abd) Sh Char-Aqua Fissil Inc ? Faint Odor No Flor Tr Scatt Stn NS

SIMPSON SHALE 4675' (- 2711)

Sh Char-Gry-Drab Grn-Aqua Fissil Cht Bone Wht Op Vit Shp (w/Tr scatt Brn Stn AA) Dolo Wht Fxln Poor lXln Sucrosic Por Barren AA Grad Ls Wht-Crm Fxln-Microxln Dns Micrite Barren AA Chalk Wht Soft No Odor No Flor Tr Scatt Stn AA NS

Sh Char-Gry-Drab Grn-Aqua (Inc) Fissil Cht Bone Wht Op Vit Shp (w/Tr scatt Brn Stn AA) Dolo Wht Fxln Poor lXln Sucrosic Por Barren AA Grad Ls Wht-Crm Fxln-Microxln Dns Micrite Barren AA Chalk Wht Soft No Odor No Flor Tr Scatt Stn AA NS

Sol= 9.4%
LCM= 0#;
DMC=\$
2529.65
CMC=\$
12540.65

DST #1 4485'-4590'

Times:
30"-45"-30"-45"
Blow: IF= Weak
1/4"; FF=No Blow"
Recovery: 5' M.
Pressures: IH=
2230#; FH=
2183#; IF =
22-25#;
FF = 25-26#
ISIP = 52#; FSIP
= 38#; Temp= 118
degrees

GAS KICK =
26 UNIT

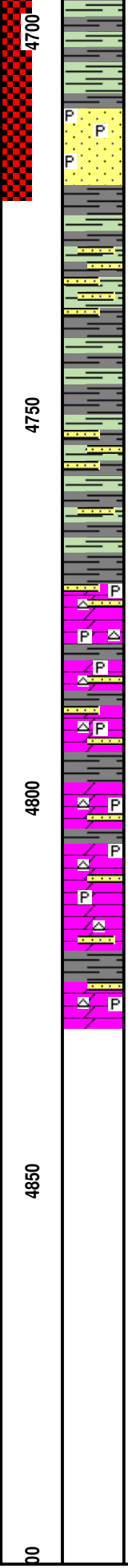
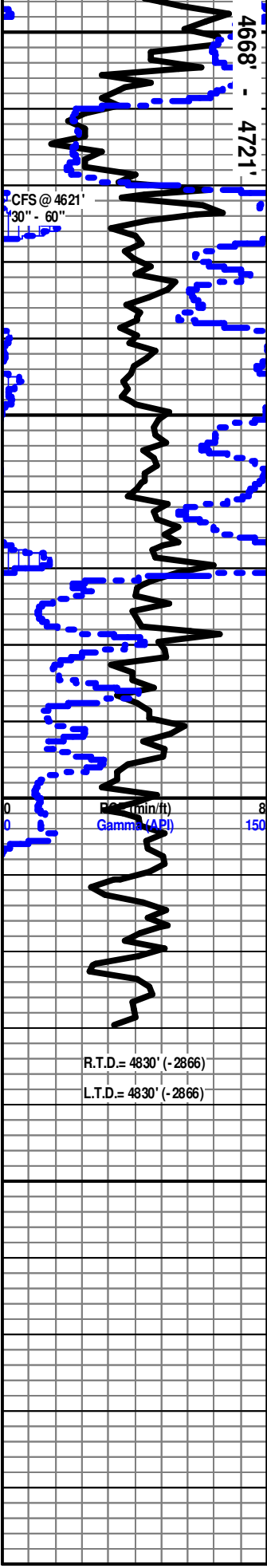
Mudco Ck
@ 4590' @
7:45 AM
8/19/12 Vis
50;
WT=9.5#;
PV= 18;
YP= 18;
WL= 8.8;
Cake= 1;
Chl=7000;
Cal = 40;
Sol= 8.1%.
LCM= 2#;
DMC=\$
1512.10
CMC=\$
14052.75

TG, C1-C2

Mudco Ck
@ 4721' @
9:45 AM
8/20/12
Vis 64;
WT=9.5#;
PV= 20;
YP= 22;
WL= 10.8;
Cake= 2;
Chl=7000;
Cal = 160;
Sol= 8.0%.
LCM= 2#;
DMC=\$
1125.85
CMC=\$
15178.60

DST #2 4668'-4721'

Times:
30"-45"-60"-60"
Blow: IF= Weak
1/2" Building/2.5";
FF= Weak 1/2"
Building/3".
Recovery:
120'G.I.P.; 145' TF:
(15' CO; 130' OCM
(18% O & 83% M)).
Pressures: IH=



Sh Char-Gry-Drab Grn-Aqua (Inc) Fissil Cht Bone Wht Op Vit Shp (w/Tr scatt Brn Stn AA)
 Dolo Wht Fxln Poor lxn Sucrosic Por Barren AA Grad Ls Wht-Crm Fxln-Microxln Dns
 Micrite Barren AA Chalk Wht Soft No Odor No Flor Tr Scatt Stn AA NS

SIMPSON SAND 4710' (- 2748')

30" CFS @ 4621' Qtz Ss Wht-Frosted-Clear Med Ang/Sub Ang Friable Clusters Fair-Med
 IGran Por Fair Sort w/ SSG/SSO (Both Gas & Oil Do Not Flor) Tr (Few Pcs) Fair
 Carb/Gillsonitic Residue Fair CaCo3 Matrix Cmt No Odor Sil-Fair SG/SO

60" CFS @ 4621' Qtz Ss Wht-Frosted-Clear Lg-Med Ang/Sub Ang Friable Clusters Fair-Med
 IGran Por (w/Pyr Inclus) Med-Well Sort w/Inc Fair-Med SG/SO (Both Gas & Oil Do Not Flor)
 SG & SO (Drk-Med Brn) w/FO (In Tray Under Wtr w/Heat) Med-Hvy Carb/Gillsonitic Residue
 Poor CaCo3 Matrix Cmt No Odor Med-Good SG/SO

Sh Aqua (V Abd)-Char-Red ? Sluff Fissil Qtz SS AA Clusters Grad Small Grns Well Rd Well
 Sort w/SG/SO AA Tr Cht Wht AA Ls.Dolo AA No Odor No Stn No Flor NS

Sh Aqua (V Abd)-Char-Red ? Sluff Fissil Qtz SS AA Clusters Grad Small Grns Well Rd Well
 Sort w/SG/SO AA Tr Cht Wht AA Ls.Dolo AA No Odor No Stn No Flor NS

Sh Aqua (V Abd)-Char-Red ? Sluff Fissil Qtz SS AA Clusters Grad Small Grns Well Rd Well
 Sort (w/Pyr Inclus) AA Tr Cht Wht AA Ls.Dolo AA No Odor No Stn No Flor NS

Sh Aqua (V Abd)-Char-Red ? Sluff Fissil Qtz SS AA Clusters Grad Small Grns Well Rd Well
 Sort (w/Pyr Inclus) AA Tr Cht Wht AA Ls.Dolo AA Pyr Mass No Odor No Stn No Flor NS

ARBUCKLE 4771' (- 2807)

Dolo Crn-Tan FnlN-Microxln Micritic Grad Poor lxn Sucrosic Por Barren
 Cht AA Qtz Ss AA (w/Pyr Inclus) Sh AA No Odor No Stn No Flor NS

Dolo Crn-Tan FnlN-Microxln Micritic Grad Poor lxn Sucrosic Por Barren
 (w/Pyr Inclus) Cht AA Qtz Ss AA (w/Pyr Inclus) Sh AA No Odor No Stn No Flor NS

Dolo Crn-Tan FnlN-Microxln Micritic Grad Poor lxn Sucrosic Por Barren
 (w/Pyr Inclus) Cht Wht Op Shp Vit Inc Tr/Qtz Ss Wht FGrn Barren Sh AA
 No Odor No Stn No Flor NS

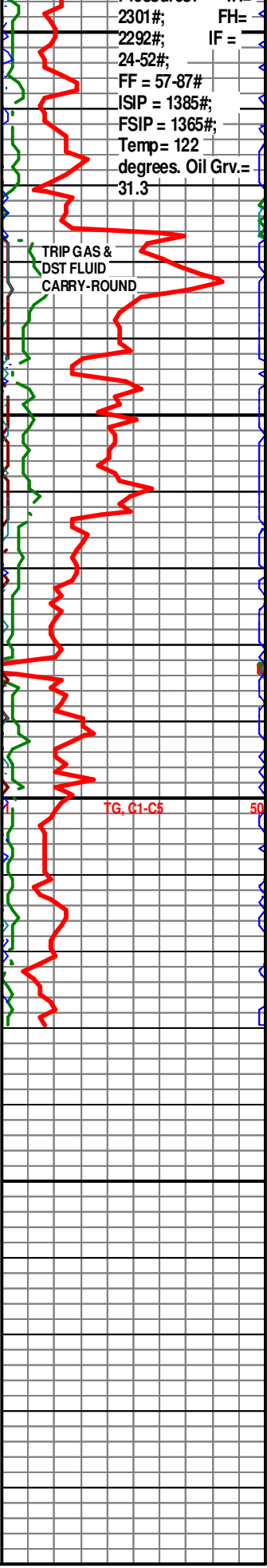
Dolo Crn-Tan FnlN-Microxln Micritic Grad Poor lxn Sucrosic Por Barren
 (w/Pyr Inclus) Cht Wht Op Shp Vit Inc Tr/Qtz Ss Wht FGrn Barren Sh AA
 No Odor No Stn No Flor NS

30" CFS @ 4830' Dolo Crn-Tan FnlN-Microxln Micritic Grad Poor lxn
 Sucrosic Por Barren (w/Pyr Inclus) Cht Wht Op Shp Vit Inc Tr/Qtz Ss Wht
 FGrn Barren Sh AA No Odor No Stn No Flor NS

60" & 75" CFS @ 4830' Dolo Crn-Tan FnlN-Microxln Micritic Grad Poor lxn
 Sucrosic Por Barren (w/Pyr Inclus) Cht Wht Op Shp Vit Inc Tr/Qtz Ss Wht
 FGrn Barren Sh AA No Odor No Stn No Flor NS

Electric Logs Run: By Logtech Logging

Dual Induction; Compensated Density-Neutron; Microresistivity & Sonic
 Logs were Run.



2301#; FH=
 2292#; IF =
 24-52#;
 FF = 57-87#
 ISIP = 1385#;
 FSIP = 1365#;
 Temp = 122
 degrees. Oil Grv. =
 31.3