



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1214335
OIL & GAS CONSERVATION DIVISION

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 # _____

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
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

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

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical 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

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

1214335

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

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

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 <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 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
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> 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 <i>(Amount and Kind of Material Used)</i>	Depth

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

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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Falcon Exploration, Inc.
Well Name	LEONARD KOEHN 1-25(NE)
Doc ID	1214335

All Electric Logs Run

MEL
BHCS
DIL
CNL/CDL



Cement Report

Customer <i>Falcon Exploration</i>	Lease No.	Date <i>4-17-14</i>
Lease <i>Leonard Koch</i>	Well # <i>1-25</i>	Service Receipt <i>4634</i>
Casing <i>4 1/2 DP</i>	Depth <i>1920'</i>	County <i>Gray</i>
Job Type <i>Z42 PTA</i>	Formation	Legal Description <i>25-27-30</i>
State <i>KS</i>		

Pipe Data		Perforating Data		Cement Data
Casing size	Tubing Size <i>4 1/2 D.P</i>	Shots/Ft		Lead
Depth	Depth <i>1920</i>	From	To	
Volume	Volume <i>2465</i>	From	To	
Max Press	Max Press <i>500</i>	From	To	
Well Connection	Annulus Vol. <i>_</i>	From	To	Tail in <i>16051k 60-40</i>
Plug Depth	Packer Depth <i>_</i>	From	To	<i>1.577-51k 102</i>
				<i>9.56d-51k 13.5#</i>

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>1900</i>					<i>Arrive On Location</i>
<i>2000</i>					<i>Safety Meeting - Mix Up</i>
<i>1200</i>		<i>500</i>	<i>1</i>	<i>1</i>	<i>Pressure Test</i>
<i>1205</i>		<i>300</i>	<i>13.3</i>	<i>4</i>	<i>Pump out @ 13.5# @ 1920'</i>
<i>1215</i>		<i>300</i>	<i>24</i>	<i>4</i>	<i>Displace</i>
<i>1240</i>		<i>200</i>	<i>10.6</i>	<i>4</i>	<i>Pump out @ 13.5# @ 850</i>
<i>1247</i>		<i>200</i>	<i>10</i>	<i>4</i>	<i>Displace</i>
<i>125</i>		<i>50</i>	<i>5.3</i>	<i>2</i>	<i>Pump out @ 13.5# @ 60'</i>
<i>130</i>		<i>50</i>	<i>2</i>	<i>2</i>	<i>Displace</i>
<i>200</i>		<i>50</i>	<i>13.3</i>	<i>3</i>	<i>Plug Rat + Marse Hole</i>
					<i>Cement To Surface</i>
					<i>Job Complete</i>
					<i>Thanks For Using Basic Energy Services</i>

Service Units	<i>78938</i>	<i>70857-19570</i>	<i>14354-19578</i>		
Driver Names	<i>Izzy</i>	<i>Sam</i>	<i>COAT</i>		

Eduro
Customer Representative

Tony Batt
Station Manager

Izzy Chavez
Cementer

Cement Report

Customer: Falcon Exploration		Lease No.:		Date: 4-7-14	
Lease: Leonard Koehn		Well #: E-25		Service Receipt: 05692	
Casing: 8 5/8" 24#		County: Gray		State: KS	
Job Type: 242-8 5/8" Surface		Formation:		Legal Description: 25-27-30	
Pipe Data			Perforating Data		
Casing size: 8 5/8" 24#	Tubing Size:		Shots/Ft:		Cement Data
Depth: 1896'	Depth:	From:	To:	Lead: 460 sk A-Cem	
Volume: 118 bbl Disp	Volume:	From:	To:		
Max Press: 2500#	Max Press:	From:	To:		Tail in: 150 sk Premium Plus
Well Connection: TD-1896'	Annulus Vol.:	From:	To:		
Plug Depth: 55-42'	Packer Depth:	From:	To:		
Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
9:00					on loc. - site assessment
9:15					Spot trucks - rig up
10:00					Start csg & float equip
3:00					csg on bitum, break circ
3:00					safety meeting - ISA
3:30					pressure test @ 2000#
3:35	300		20	4	pump 20 bbl stoploss
3:40	200		241	5	mix & pump 460 sk A-Cem @ 11.4# - 295 ft 3/sk
4:30	200		316	5	switch to tail 150 sk Prem. Plus @ 14.8# - 138 ft 3/sk
4:45	0		0	5	drop plug - disp csg
4:50	300		700	2	slow rate - rig out H ₂ O, mud pump finish disp
5:30	1000		118	0	float held, circ cut to surface
Service Units		34726	27462	14385-37724	3811-37725
Driver Names		A Olvera	E Muelera	P Samuel	D Cavada

Leon
Customer Representative

J Bennett
Station Manager

A Olvera
Cementer

DIAMOND TESTING

General Information Report

General Information

Company Name FALCON EXPLORATION, INC.
Contact JASON MITHELL
Well Name LEONARD KOEHN #1-25 (SE)
Unique Well ID DST #1, STOTLER, 3430-3510
Surface Location SEC 25-27S-30W, GRAY CO. KS.
Field WILDCAT
Well Type Vertical
Test Type CONVENTIONAL
Formation DST #1, STOTLER, 3430-3510
Well Fluid Type 02 Gas

Representative TIM VENTERS
Well Operator FALCON EXPLORATION, INC.
Report Date 2014/04/10
Prepared By TIM VENTERS
Qualified By DAVE WILLIAMS

Start Test Date 2014/04/09
Final Test Date 2014/04/10

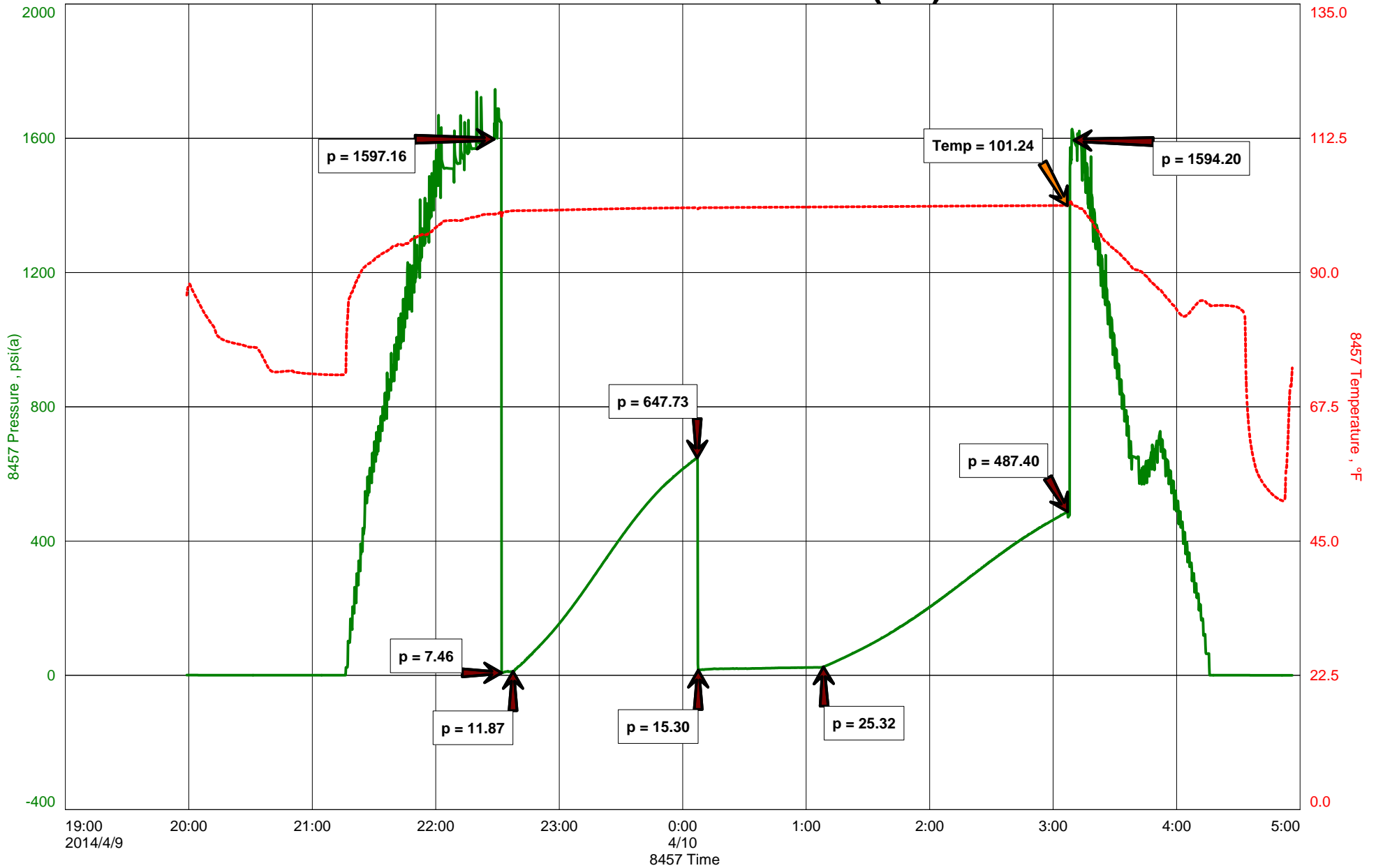
Start Test Time 19:59:00
Final Test Time 04:56:00

Test Recovery:

RECOVERED: 30' MUD

TOOL SAMPLE: 100% MUD

LEONARD KOEHN #1-25 (SE)





DIAMOND TESTING
 P.O. Box 157
HOISINGTON, KANSAS 67544
 (800) 542-7313

TIME ON: 19:59 4-9-14
 TIME OFF: 04:56 4-10-14

DRILL-STEM TEST TICKET
 FILE: LEONARDKOEHN1-25(NE)DST1

Company FALCON EXPLORATION, INC. Lease & Well No. LEONARD KOEHN #1-25 (NE)
 Contractor STERLING DRILLING COMPANY RIG #2 Charge to FALCON EXPLORATION, INC.
 Elevation 2771 KB Formation STOTLER Effective Pay _____ Ft. Ticket No. T331
 Date 4-9-14 Sec. 25 Twp. _____ 27 S Range _____ 30 W County GRAY State KANSAS
 Test Approved By DAVE WILLIAMS Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 1 Interval Tested from 3430 ft. to 3510 ft. Total Depth 3510 ft.

Packer Depth 3425 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Packer Depth 3430 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 3411 ft. Recorder Number 8457 Cap. 10,000 P.S.I.

Bottom Recorder Depth (Outside) 3507 ft. Recorder Number 11029 Cap. 5,025 P.S.I.

Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEMICAL Viscosity 48 Drill Collar Length 186 ft. I.D. 2 1/4 in.

Weight 8.9 Water Loss 9.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in

Chlorides 3,500 P.P.M. Drill Pipe Length 3211 ft. I.D. 3 1/2 in

Jars: Make STERLING Serial Number 2 Test Tool Length 33 ft. Tool Size 3 1/2-IF in

Did Well Flow? NO Reversed Out NO Anchor Length 16 ft. Size 4 1/2-FH in

Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. ^{64' DP IN ANCHOR} Surface Choke Size 1 in. Bottom Choke Size 5/8 in

Blow: 1st Open: WEAK 1/4 INCH BLOW, BUILDING TO 1 1/2 INCHES (NO BB)

2nd Open: GOOD 2 INCH BLOW, BUILDING TO 10 3/4 INCHES. (NO BB)

Recovered 30 ft. of MUD

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Remarks: _____

TOOL SAMPLE: 100% MUD

Time Set Packer(s) 10:31 PM ^{A.M.} P.M. Time Started Off Bottom 3:06 AM ^{A.M.} P.M. Maximum Temperature 101 deg.

Initial Hydrostatic Pressure..... (A) 1597 P.S.I.

Initial Flow Period..... Minutes 5 (B) 7 P.S.I. to (C) 12 P.S.I.

Initial Closed In Period..... Minutes 90 (D) 648 P.S.I.

Final Flow Period..... Minutes 60 (E) 15 P.S.I. to (F) 25 P.S.I.

Final Closed In Period..... Minutes 120 (G) 487 P.S.I.

Final Hydrostatic Pressure..... (H) 1594 P.S.I.

Price Job
Other Charges
Insurance
Total

Diamond Testing shall not be liable for damages of any kind to 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 statement or opinion concerning the result 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.

DIAMOND TESTING

General Information Report

General Information

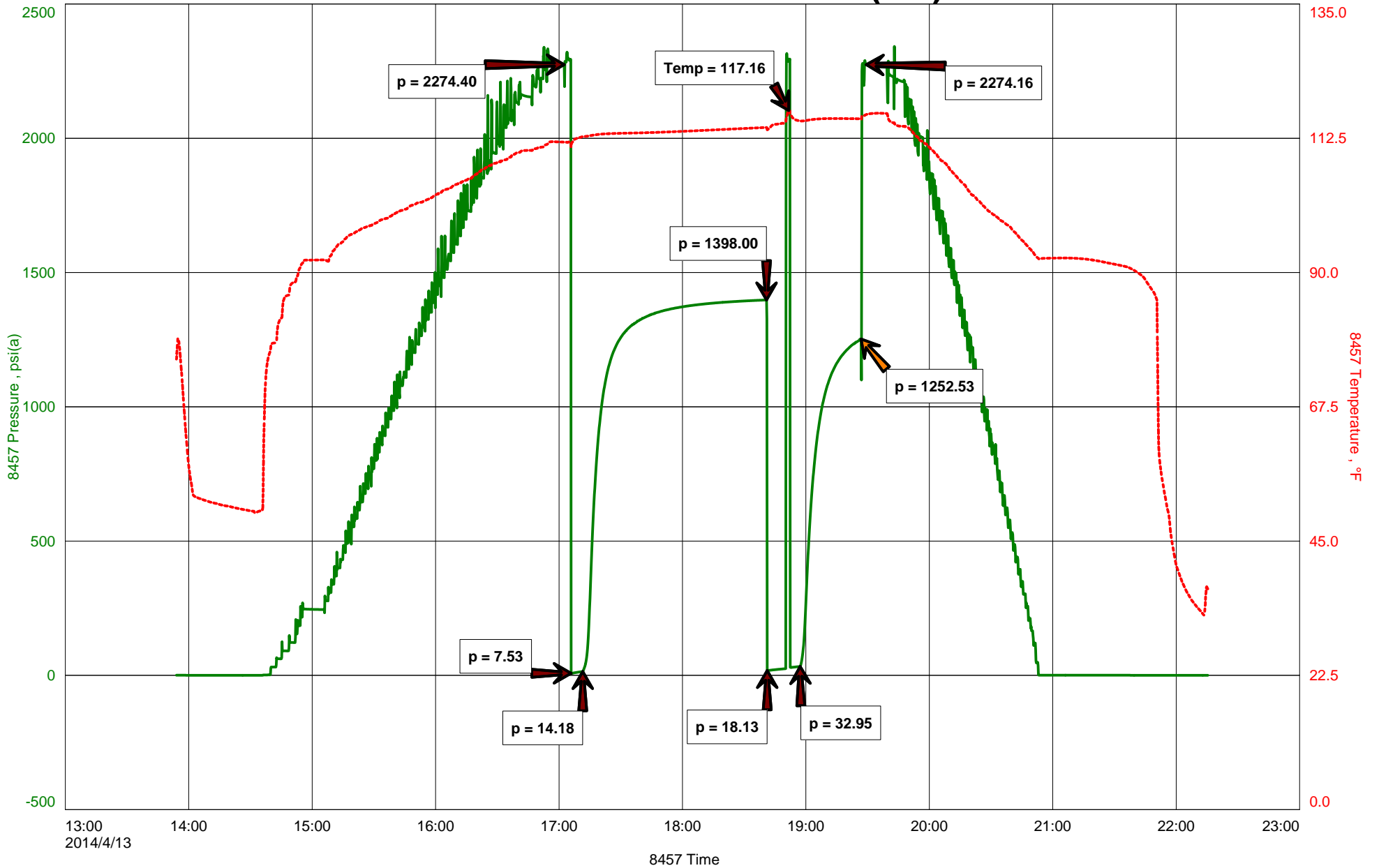
Company Name	FALCON EXPLORATION, INC.	Representative	TIM VENTERS
Contact	JASON MITCHELL	Well Operator	FALCON EXPLORATION, INC.
Well Name	LEONARD KOEHN #1-25 (NE)	Report Date	2014/04/13
Unique Well ID	DST #2, FT. SCT./PAWN., 4754-4805	Prepared By	TIM VENTERS
Surface Location	SEC 25-27S-30W, GRAY CO. KS.	Qualified By	DAVE WILLIAMS
Field	WILDCAT		
Well Type	Vertical		
Test Type	CONVENTIONAL		
Formation	DST #2, FT. SCT./PAWN., 4754-4805		
Well Fluid Type	01 Oil		
Start Test Date	2014/04/13	Start Test Time	13:54:00
Final Test Date	2014/04/13	Final Test Time	22:16:00

Test Recovery:

RECOVERED: 30' MUD

TOOL SAMPLE: 100% MUD

LEONARD KOEHN #1-25 (NE)





DIAMOND TESTING
 P.O. Box 157
HOISINGTON, KANSAS 67544
 (800) 542-7313

TIME ON: 13:54
 TIME OFF: 22:16

DRILL-STEM TEST TICKET
 FILE: LEONARDKOEHN1-25(NE)DST2

Company FALCON EXPLORATION, INC. Lease & Well No. LEONARD KOEHN #1-25 (NE)
 Contractor STERLING DRILLING COMPANY RIG #2 Charge to FALCON EXPLORATION, INC.
 Elevation 2771 KB Formation FT. SCOTT/PAWNEE Effective Pay _____ Ft. Ticket No. T332
 Date 4-13-14 Sec. 25 Twp. _____ 27 S Range _____ 30 W County GRAY State KANSAS
 Test Approved By DAVE WILLIAMS Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 2 Interval Tested from 4754 ft. to 4805 ft. Total Depth 4805 ft.
 Packer Depth 4749 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
 Packer Depth 4754 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4735 ft. Recorder Number 8457 Cap. 10,000 P.S.I.
 Bottom Recorder Depth (Outside) 4802 ft. Recorder Number 11029 Cap. 5,025 P.S.I.
 Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEMICAL Viscosity 48 Drill Collar Length 217 ft. I.D. 2 1/4 in.
 Weight 9.1 Water Loss 8.4 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
 Chlorides 1,900 P.P.M. Drill Pipe Length 4504 ft. I.D. 3 1/2 in.
 Jars: Make STERLING Serial Number 2 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.
 Did Well Flow? NO Reversed Out NO Anchor Length 19 ft. Size 4 1/2-FH in.
 Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. ^{32' DP IN ANCHOR} Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WEAK SURFACE BLOW BUILDING TO 1/2 INCH. (NO BB)
 2nd Open: NO BLOW THROUGHOUT PERIOD. (NO BB)

Recovered 30 ft. of MUD
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: WE FLUSHED TOOL 10 MIN. INTO FINAL FLOW PERIOD AND JUST GOT THE SURGE BLOW.
TOOL SAMPLE: 100% MUD

Time Set Packer(s) 5:05 PM A.M. P.M. Time Started Off Bottom 7:27 PM A.M. P.M. Maximum Temperature 117 deg.

Initial Hydrostatic Pressure..... (A) 2274 P.S.I.
 Initial Flow Period..... Minutes 5 (B) 8 P.S.I. to (C) 14 P.S.I.
 Initial Closed In Period..... Minutes 90 (D) 1392 P.S.I.
 Final Flow Period..... Minutes 17 (E) 18 P.S.I. to (F) 32 P.S.I.
 Final Closed In Period..... Minutes 30 (G) 1253 P.S.I.
 Final Hydrostatic Pressure..... (H) 2274 P.S.I.

Diamond Testing shall not be liable for damages of any kind to 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 statement or opinion concerning the result 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.

DIAMOND TESTING

General Information Report

General Information

Company Name FALCON EXPLORATION, INC.
Contact JASON MITCHELL
Well Name LEONARD KOEHN #1-25 (NE)
Unique Well ID DST #3, ST. LOU. (MISS.), 5102-5168
Surface Location SEC 25-27S-30W, GRAY CO. KS.
Field WILDCAT
Well Type Vertical
Test Type CONVENTIONAL
Formation DST #3, ST. LOU. (MISS.), 5102-5168
Well Fluid Type 01 Oil

Representative TIM VENTERS
Well Operator FALCON EXPLORATION, INC.
Report Date 2014/04/15
Prepared By TIM VENTERS
Qualified By DAVE WILLIAMS

Start Test Date 2014/04/14
Final Test Date 2014/04/15

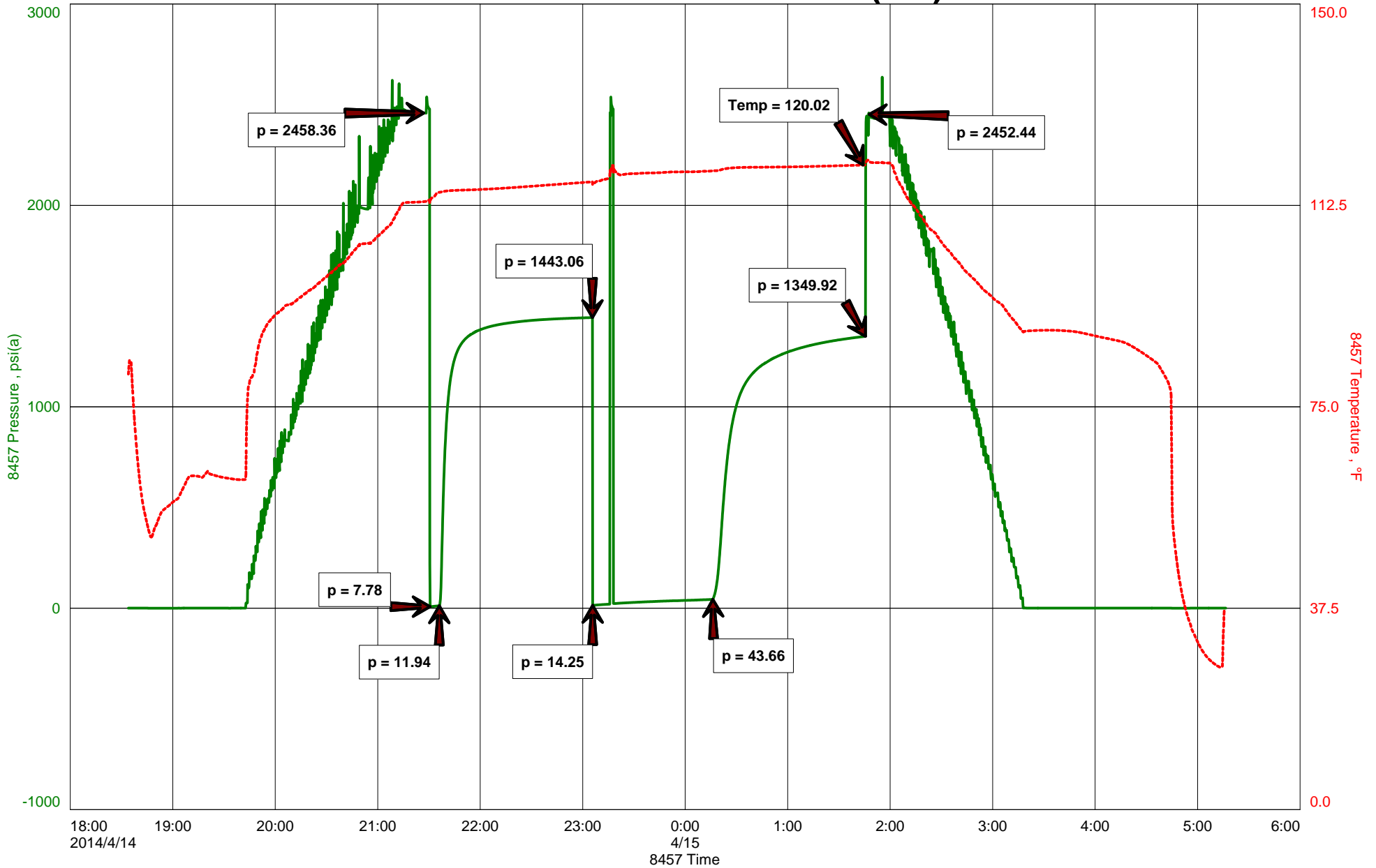
Start Test Time 18:34:00
Final Test Time 05:17:00

Test Recovery:

RECOVERED: 65' MUD

TOOL SAMPLE: 100% MUD

LEONARD KOEHN #1-25 (NE)





DIAMOND TESTING
 P.O. Box 157
 HOISINGTON, KANSAS 67544
 (800) 542-7313

TIME ON: 18:34 4-14-14
 TIME OFF: 05:17 4-15-14

DRILL-STEM TEST TICKET
 FILE: LEONARDKOEHN1-25(NE)DST3

Company FALCON EXPLORATION, INC. Lease & Well No. LEONARD KOEHN #1-25 (NE)
 Contractor STERLING DRILLING COMPANY RIG #2 Charge to FALCON EXPLORATION, INC.
 Elevation 2771 KB Formation ST. LOUIS (MISS.) Effective Pay _____ Ft. Ticket No. T333
 Date 4-14-14 Sec. 25 Twp. _____ 27 S Range _____ 30 W County GRAY State KANSAS
 Test Approved By DAVE WILLIAMS Diamond Representative TIMOTHY T. VENTERS

Formation Test No. 3 Interval Tested from 5102 ft. to 5168 ft. Total Depth 5168 ft.
 Packer Depth 5097 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
 Packer Depth 5102 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 5083 ft. Recorder Number 8457 Cap. 10,000 P.S.I.
 Bottom Recorder Depth (Outside) 5165 ft. Recorder Number 11029 Cap. 5,025 P.S.I.
 Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEMICAL Viscosity 44 Drill Collar Length 186 ft. I.D. 2 1/4 in.
 Weight 9.35 Water Loss 8.4 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
 Chlorides 2,400 P.P.M. Drill Pipe Length 4883 ft. I.D. 3 1/2 in.
 Jars: Make STERLING Serial Number 2 Test Tool Length 33 ft. Tool Size 3 1/2-IF in.
 Did Well Flow? NO Reversed Out NO Anchor Length 34 ft. Size 4 1/2-FH in.
 Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. ^{32' DP IN ANCHOR} Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WEAK SURFACE BLOW BUILDING TO 1/4 INCH. (NO BB)
 2nd Open: AFTER FLUSH (10 MIN.) WEAK SURFACE BLOW BUILDING TO 1/4 INCH. (NO BB)

Recovered <u>65 ft.</u> of <u>MUD</u>	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	
Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: _____	Insurance
TOOL SAMPLE: <u>100% MUD</u>	Total

Time Set Packer(s) 9:30 PM ^{A.M.}/_{P.M.} Time Started Off Bottom 1:45 AM ^{A.M.}/_{P.M.} Maximum Temperature 120 deg.

Initial Hydrostatic Pressure..... (A) 2458 P.S.I.
 Initial Flow Period..... Minutes 5 (B) 8 P.S.I. to (C) 12 P.S.I.
 Initial Closed In Period..... Minutes 90 (D) 1443 P.S.I.
 Final Flow Period..... Minutes 70 (E) 14 P.S.I. to (F) 44 P.S.I.
 Final Closed In Period..... Minutes 90 (G) 1350 P.S.I.
 Final Hydrostatic Pressure..... (H) 2452 P.S.I.

Diamond Testing shall not be liable for damages of any kind to 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 statement or opinion concerning the result 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: LEONARD KOEHN # 1-25 (NE)
Location: SE-SW-NW-NE 1/4 of SEC. 25 - 27 S.-30 W.
License Number: A.P.I. #15-069-20,468-00-00
Spud Date: 04/05/2014
Surface Coordinates: 1261' FNL & 2128' FEL

Region: GRAY CO., KS.
Drilling Completed: 04/16/2014

**Bottom Hole
Coordinates:**
Ground Elevation (ft): 2760' **K.B. Elevation (ft):** 2771'
Logged Interval (ft): SURFACE To: 5442' **Total Depth (ft):** 5442'
Formation: MISSISSIPPIAN "SALEM (SPERGEN)"
Type of Drilling Fluid: CHEMICAL/POLYMER/GEL. & MUD DISPLACEMENT @ 2954'.
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Falcon Exploration, Inc.; KCC LIC. NO. # 5316
Address: 125 North Market Street, Ste. #1252
Wichita, Kansas 67202

GEOLOGIST

Name: David P. Williams, P. G.
Company: DW Energy, LLC (DWE)
Address: 312 North Broadview Street
Wichita, Kansas 67208

CASING & DEVIATION SURVEY'S

Surface Casing: Spud at 11:00 pm on 04/05/14. Drilled 12-1/4" to 1896'. Ran 44 joints of new 24#, 8-5/8" casing. Tallied 1873'. Set at 1890' KB . Welded straps on GS & bottom 3 joints, then tack welded all collars. Float insert in 1st collar. Cemented with 460 sks A-Con; 3% CC, 2% WCA; 1/4# PF. Tailed with 150 sks Class C, 2% CC; 1/4# PF. Cement did circulate to pit. Plug down at 5:30 pm on 04/08/14. Basic Energy Cementing ticket #05692. Centralizers (6) 2-8-16-27-36-39. Baskets (3) 126'-1448'-1660'.

Deviation Survey's: @ 1896' = 1 degree; @ 3510' = 3/4 degree; @ 4805' = 3/4 degree; @ 5440' = 1/2 degree.

Plugging Data: Received plugging orders 04/15/14 from (Nathan Willis). Heavy mud in hole. Bottom plug at 1920' with 50 sks. 2nd plug at 850' w/ 40 sks, top plug at 60' w/20 sks. Total of 110 sks of 60/40 POZ with 4% Gel in hole. Plugged RH w/30 sks, MH w/20 sks. Plugging complete at 1:15 am on 04/17/14. Basic Energy Services Cementing ticket #04634. Sterling reported to KCC (Michelle Pennington) on 04/17/14.

DSTs

~~DST #1~~ Interval: 3430'-3510'. Times: 5"-90"-60"-120".

Blow: IF= VSB Build/1.5"; FF= Weak Build/10.5".

Recovery: 30' Mud.

Pressures: IH=1597#; FH=1594#; IF=7-12#; FF=15-25#; ISIP= 648#; FSIP=487#; Temp.=101 degrees F..

~~DST # 2~~ Interval: 4754'- 4805". Times: 5"-90"-17"-30".

Blow: IF V. Weak Surface= 1/4" Inc. to 1/2". FF= No Blow-Flushed Tool (Had Good Surge) & No Blow.

Recovery: 30' M;

Pressures: IH= 2274#; FH=2274#; IF=8-14#; FF=18-33#; ISIP= 1398#; FSIP=1253#; Temp.=117 degrees F.

~~DST # 3~~ Interval: 5102'- 5168'. Times:5"-90"-70"-90".

Blow: IF=Weak Surface/1/4"; FF= No Blow-Flushed Tool/10" (Had Good Surge) & Weak Surface Blow/1/4".

Recovery: 65' M;

Pressures: IH=2458#; FH =2452#; IF=8-12#; FF=14-44#; ISIP=1443#; FSIP=1350#; Temp.=120 degrees F.


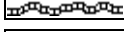
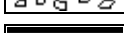












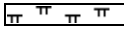


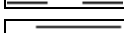

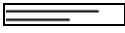


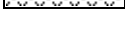
Comments

After review of all geologic samples as examined, structural correlation to offsetting prior drilled wells, combined with the fluid and pressures results from the drill stem test taken and electric log analysis, it was determined by all parties that this well appears to be non-commercial and should be plugged and abandoned.




































































Respectfully submitted,

David P. Williams, P.G

ROCK TYPES

 Anhy  Bent  Brec  Carb sh  Cht	 Clyst  Coal  Congl  Dol  Grn sh	 Gry shale  Gyp  Igne  Lmst  Meta	 Mrlst  Red shale  Salt  Shale  Shcol	 Shgy  Sltst  Ss  Till
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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  Grysh  Gyp  Ls  Mrst  Sltstrg  Ssstrg	TEXTURE  Boundst  Chalky  Cryxln  Earthy  Finexln  Grainst  Lithogr  Microxln  Mudst  Packst  Wackest
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OTHER SYMBOLS

- POROSITY**
 [E] Earthy
 [B] Fenest
 [F] Fracture
 [X] Inter
 [Z] Moldic
 [O] Organic
 [P] Pinpoint

- [V] Vuggy
SORTING
 [W] Well
 [M] Moderate
 [P] Poor

- ROUNDING**
 [R] Rounded
 [r] Subrnd
 [a] Subang
 [A] Angular

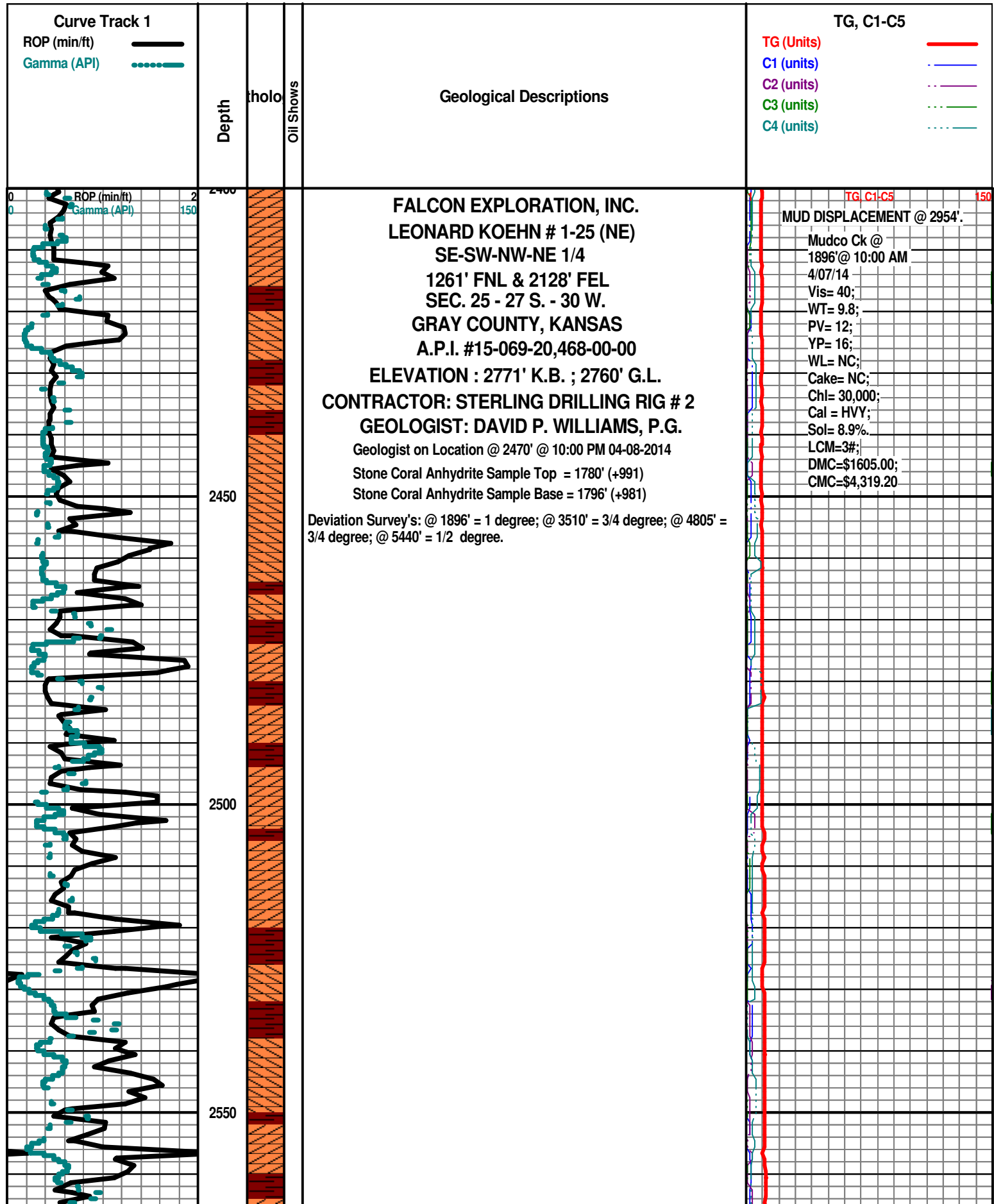
- [●] Even
 [◐] Spotted
 [◑] Ques
 [◒] Dead

[■] Dst_alt

- EVENT**
 [▽] Rft
 [▲] Sidewall

- OIL SHOW**
 [⊗] Gas show

- INTERVAL**
 [■] Core
 [■] Dst



START (KELLY DOWN) 31' SAMPLE EXAMINATION AT 2670".

Anhy/Gyp Gry Poor Sample Sh Red-Gry Soft-Fissil No Odor No Flor No Stn NS

2600

ROP (min/ft) 2
Gamma Ray 150

TG C1-C5 150

CHASE GROUP 2624' (+ 147)

Dolo Wht-Crm Fxln Fair-Med Sucrosic Por w/ Sm-Med Vug Leaching w/ Fair-Good Show Gas Faint Scatt Flor (Pale-Lt Grn) tr No Odor No Stn NS

GAS KICK = 38 UNITS.

2650

KRIDER 2654' (+ 121)

Dolo Wht-Crm Fxln Fair-Med Sucrosic Por w/ Sm-Med Vug Leaching w/ Fair-Good Show Gas Faint Scatt Flor (Pale-Lt Grn) tr No Odor No Stn NS

GAS KICK = 55 UNITS.

2700

WINFIELD 2708' (+63)

Dolo Wht-Crm Fxln Fair-Med Sucrosic Por w/ Sm-Med Vug Leaching w/ Fair-Good SG Scat Flor (Pale-Lt Grn) No Odor No Stn NS

GAS KICK = 64 UNITS.

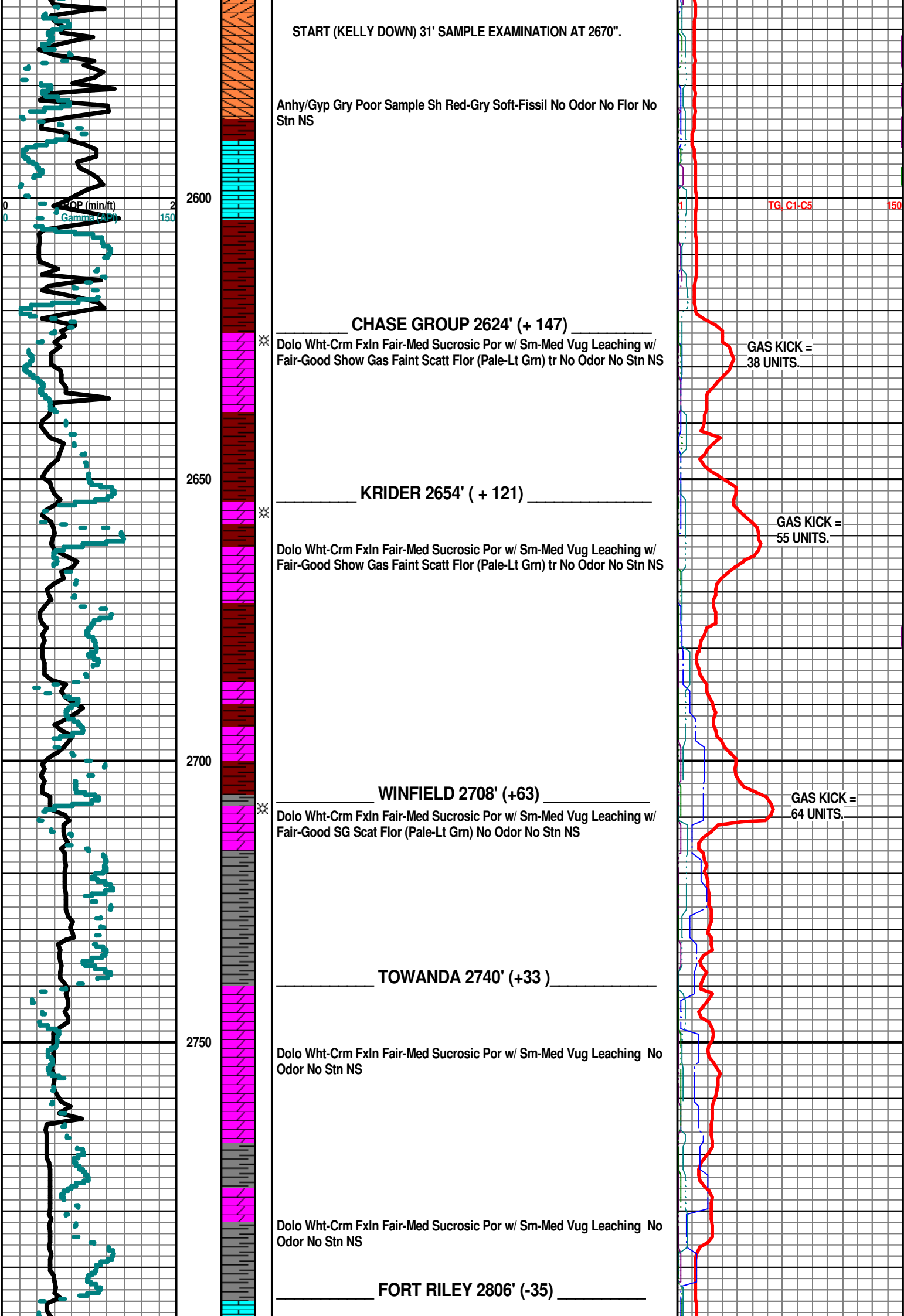
2750

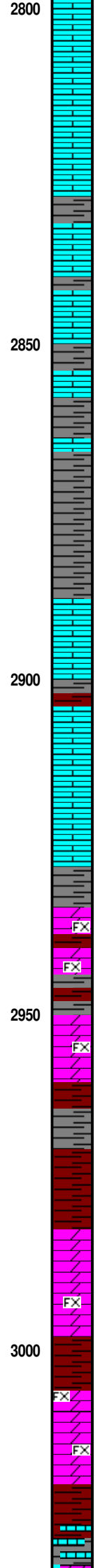
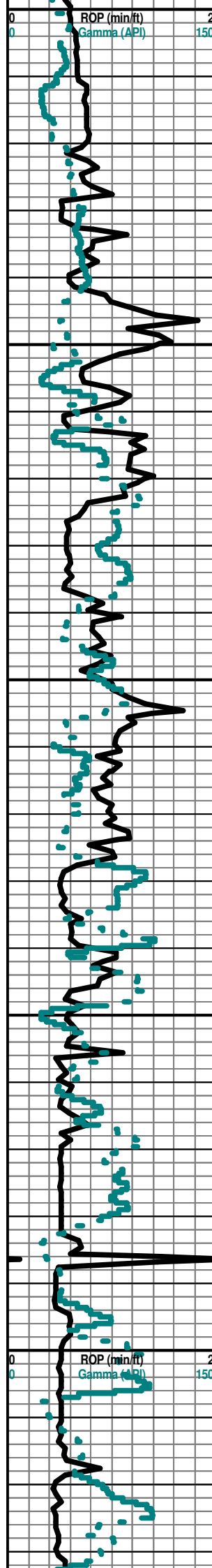
TOWANDA 2740' (+33)

Dolo Wht-Crm Fxln Fair-Med Sucrosic Por w/ Sm-Med Vug Leaching No Odor No Stn NS

Dolo Wht-Crm Fxln Fair-Med Sucrosic Por w/ Sm-Med Vug Leaching No Odor No Stn NS

FORT RILEY 2806' (-35)





Ls/Dolo Wht-Crm FxIn Fair-Med Sucrosic Por w/ Sm-Med Vug Leaching
No Odor No Stn NS

Ls/Dolo Wht-Crm FxIn Fair-Med Sucrosic Por w/ Sm-Med Vug Leaching
No Odor No Stn NS

Ls/Dolo Wht-Crm FxIn Fair-Med Sucrosic Por w/ Sm-Med Vug Leaching
No Odor No Stn NS

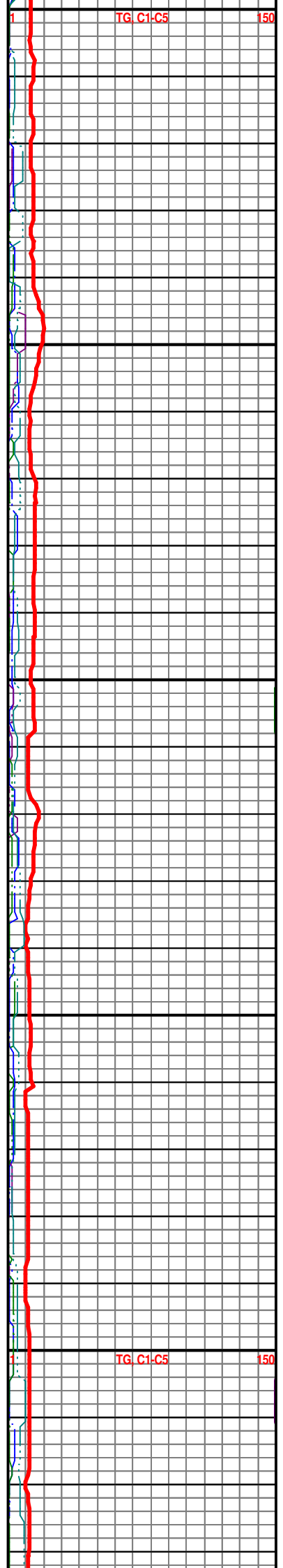
Dolo Wht-Crm FxIn Fair-Med Sucrosic Por w/ Sm-Med Vug Leaching No
Odor No Stn NS

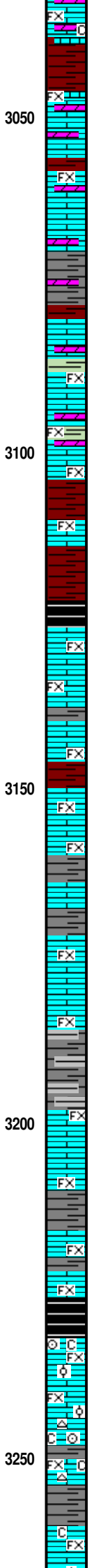
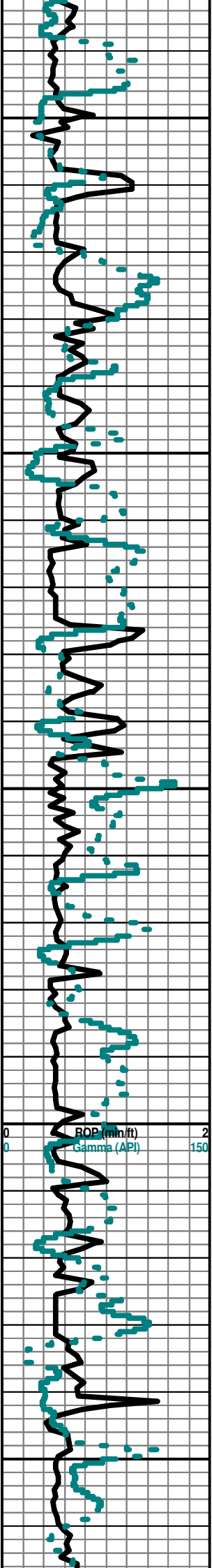
WREFORD 2982' (-211)

Dolo Wht-Crm FxIn Fair-Med Sucrosic Por w/ Sm-Med Vug Leaching No
Odor No Stn NS

BADER 3007' (-236)

COTTONWOOD 3032' (-261)





Ls Crm-Wht FxIn Dns Micrite Dolo Tan FxIn Dns Micrite Chalky Abd Sh
Red-Maroon No Odor No Stn No Flor NS

3050

Ls Crm-Wht FxIn Dns Micrite Dolo Tan FxIn Dns Micrite Chalky Abd Sh
Red-Maroon No Odor No Stn No Flor NS

Ls Crm-Wht FxIn Dns Micrite Dolo Tan FxIn Dns Micrite Chalky Abd Sh
Red-Maroon No Odor No Stn No Flor NS

3100

NEVA 3126' (- 355)

Ls Wht FxIn Tr Poor Gran IxIn Por Micrite Dns Sh Abd Red- Gry- Grn
Fissil No Odor No Stn No Flor NS

3150

RED EAGLE 3154' (- 383')

Ls Wht FxIn Tr Poor Gran IxIn Por Micrite Dns Sh Abd Red- Gry- Grn
Fissil No Odor No Stn No Flor NS

3200

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Chalk Abd Sh Blk
Carb-Red-Gry- Fissil Dec No Odor No Stn NS

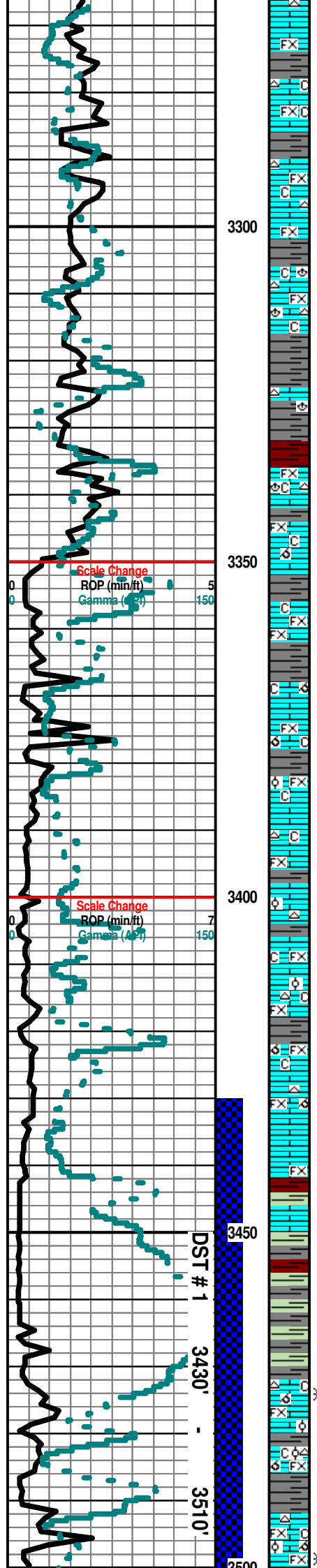
BASE COUNCIL GROVE 3196' (-425)

3250

Ls Wht-Crm-Gry FxIn Tr Poor IxIn-Igran Por Grad Tr Fair OOL Por
(w/Small OOids in pl) Poor-Fair Dissolu Poor-Fair Develop Cht Wht Op Vit
Shp Fos (Crin) Chalk Abd Sh Red-Gry-Grn Soft-Fissil Dec No Odor No Stn
NS

FORAKER 3282' (- 465)





Ls Wht-Crm-Tan Fxln Tr Poor Ixln Por Cht Wht-Peach Translu- Op Vit Shp Chalk Abd Sh Maroon (w/Pyr Includ)-Gry-Grn Soft-Fissil Dec No Odor No Stn NS

ADMIRE GROUP 3336' (- 565)

Ls Wht-Crm-Gry Fxln Tr Poor Ixln-Igran Por Cht Wht-Peach Translu- Op Vit Shp Fos (Brach) Chalk Sh Red-Gry-Grn Soft-Fissil No Odor No Stn NS

Ls Crm Fxln Poor OOM Por w/OOL in pl Poor-No Dissolu Poor Devel Mostly Chalky Cht GrySH Gry- Char Soft No Odor Sli Tr Min Flor AA No Stn NS

Ls Wht-Crm-Gry Fxln Tr Poor Ixln Dns Micrite grad Poor OOM Por (w/Small OOL in pl) Cht Wht-Peach-Amber Translu-Op Vit Shp Fos (Fuss) Chalk Sh Char-Gry-Grn Soft-Fissil No Odor ? Min Flor No Stn NS

START 20' SAMPLE EXAMINATION AT 3470'.

ROOT SHALE 3442' (-671')

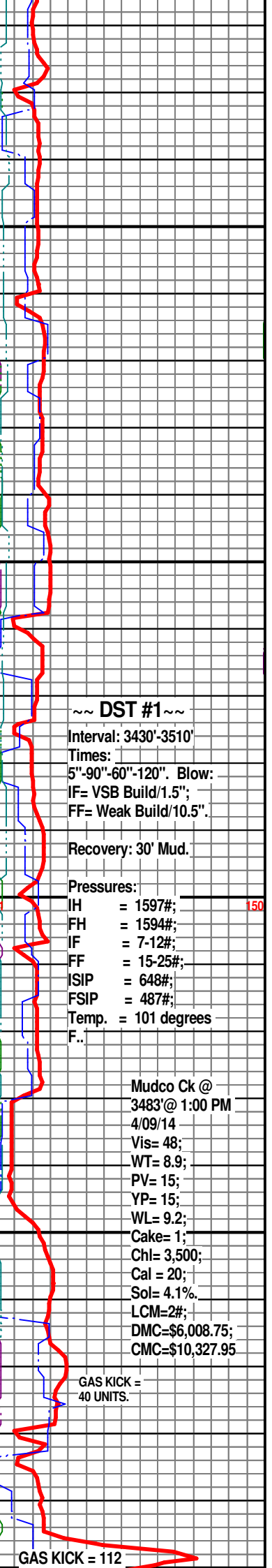
Sh Red- Gry-Char Abd Soft AA (Wash Red) Ls Crm AA Tr Poor OOM Por Poor Dis Poor Devel Chalk No Odor Sli Tr Min Flor AA No Stn NS

STOTLER 3474' (- 703)

Ls Crm Fxln Poor Ixln Por Micritic Grad Fair-Med OOM Por (w/Small OOids in pl) Fair Leaching Fair Develop Chalk Cht Wht Op Shp Vit Sh Tr Red-Char-Gry Soft-Fissil Tr Scatt ? Flor (> 20% of Tray) No Odor No Stn NS

30" CFS @ 3510' Ls Crm Fxln Poor Ixln Por Micritic Grad Fair-Med OOM Por (w/Small OOids in pl) Fair Leaching Fair Develop Fair Dissolu Poor Develop Chalk Scat Flor (Lt Grn > 30% of Tray) Sh Red-Char-Gry No Odor No Stn NS

60" CFS @ 3510' Ls Crm Fxln Poor Ixln Por Micritic Grad Fair-Med OOM



~ ~ DST #1 ~ ~
 Interval: 3430'-3510'
 Times:
 5"-90"-60"-120". Blow:
 IF= VSB Build/1.5";
 FF= Weak Build/10.5".

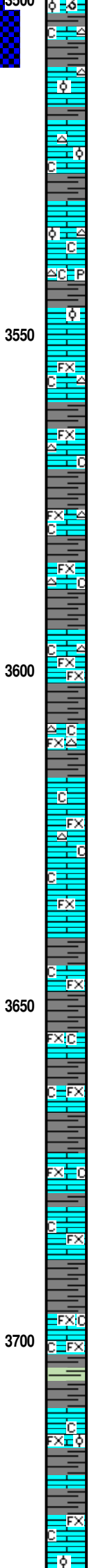
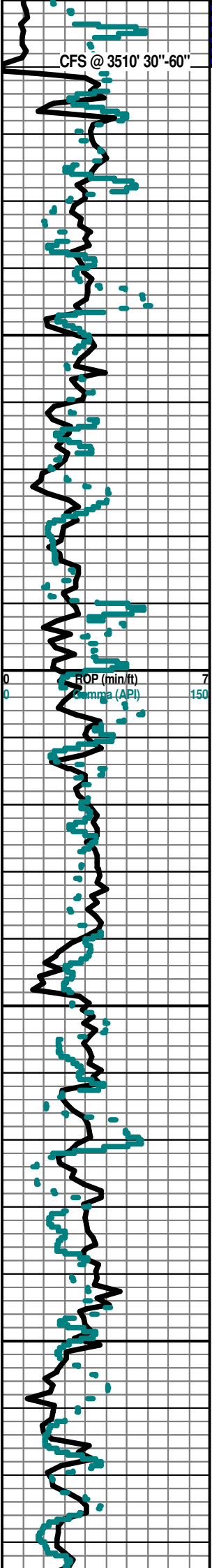
Recovery: 30' Mud.

Pressures:
 IH = 1597#;
 FH = 1594#;
 IF = 7-12#;
 FF = 15-25#;
 ISIP = 648#;
 FSIP = 487#;
 Temp. = 101 degrees
 F..

Mudco Ck @
 3483' @ 1:00 PM
 4/09/14
 Vis= 48;
 WT= 8.9;
 PV= 15;
 YP= 15;
 WL= 9.2;
 Cake= 1;
 Chl= 3,500;
 Cal = 20;
 Sol= 4.1%
 LCM=2#;
 DMC=\$6,008.75;
 CMC=\$10,327.95

GAS KICK = 40 UNITS.

GAS KICK = 112



Por (w/Small OOids in pl) Fair Leaching Fair Develop Chalk Cht Wht Op Shp Vit Sh Tr Red-Char-Gry Soft-Fissil Med Flor (> 60% of Tray) No Odor No Stn NS

START 20' WET SAMPLE EXAMPLE EXAMINATION @ 3540'

TARKIO 3516' (-745)

Ls Wht-Gry Fxln w/Fair Ixln Por Grad Fair Pin-Pt OOL Por ? Frac Por Chalk Wht Soft Sh Char-Gry-Aqua-Maroon Soft-Fissil ? Scat Min Flor No Odor NS

Ls Wht-Crm Fxln Dns Micrite Grad Poor Ixln Por (w/Small OOids in pl) Cht Wht-Gry Translu-Op Shp Vitl Chalk Pyr Mass Sh Char- Gry-Aqua-Maroon Fissil No Flor No Odor No Stn NS

Ls Wht-Crm Fxln Dns Micrite Grad Poor Ixln Por Cht Wht Op Shp Vitl Chalk Sh Char-Gry-Aqua-Maroon Fissil No Flor No Odor No Stn NS

Ls Wht-Crm Fxln Dns Micrite Cht Wht Op Shp Vitl Chalk Sh Char- Gry-Aqua-Maroon Fissil No Flor No Odor No Stn NS

Ls Wht-Crm-Gry Fxln Dns Micrite Cht Wht Op Shp Vitl Chalk Sh Char-Gry- Aqua-Maroon Fissil No Flor No Odor No Stn NS

Ls Wht-Crm-Gry Fxln Dns Micrite Cht Wht Op Shp Vitl Chalk Sh Char-Gry- Aqua-Maroon Fissil No Flor No Odor No Stn NS

Ls Wht-Gry Fxln Poor Ixln Micritic Por Chalk Wht Soft Sh Char- Gry Fissil ? Scat Min Flor (Lt Grn) No Odor NS

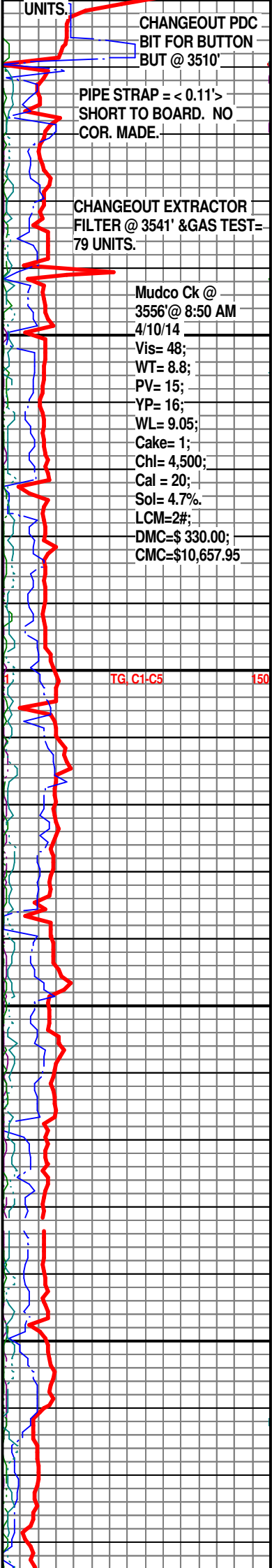
BERN 3654' (- 883)

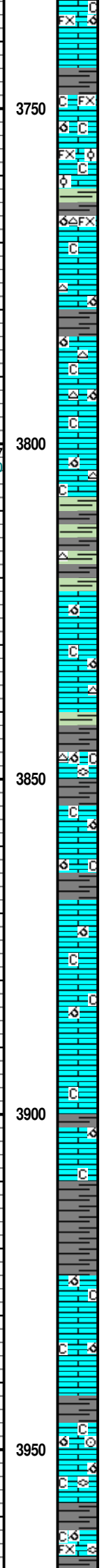
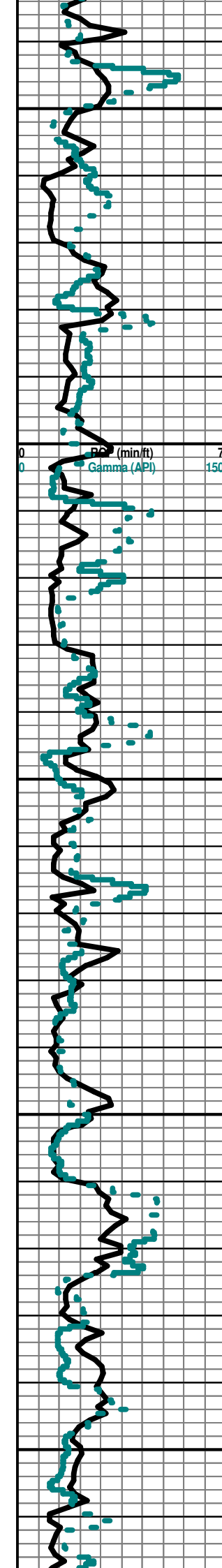
Ls Wht-Crm-Gry Fxln Tr/Poor Ixln Por Mostly Micritic Dsn Barren Cht Gry-Wht Transl-Op Shp Vit Chalk Sh Gry-Char Soft No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor Ixln Por Mostly Micritic Dsn Barren w/Tr Cht Wht Op Shp Vit Chalk Sh Char-Gry Soft No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Tr/Poor Ixln Por Mostly Micritic Dsn Barren Grad Poor Pin-Pt Ixln Por Chalk Cht Wht-Tan Transl-Op Shp Vit Sh Char-Red Soft No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor Ixln Por Mostly Micritic Dsn Barren Grad Poor





OOL/OOM Por Poor Dissolu Chalk Sh Char-Red Sort No Flor No Stn NS

TOPEKA 3748' (- 977)

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Grad Poor OOL/OOM Por Poor Dissolu Chalk Wht Soft Cht Wht Op Shp Vit Sh Gry-Grn Fissil Soft No Odor No Flor No Stn NS

Ls Crm-Wht-Gry FxIn Poor-Fair IxIn Por Dns Micritic (w/Fos (Fuss) Grad Fair OOM Por (w/Small OOL in p) Poor Dissolu Poor Develop Cht Gry Op Shp Vit Chalk V Abd Sh Char-Gry No Flor No Odor No Stn NS

Ls Crm-Wht-Gry FxIn Poor-Fair IxIn Por Dns Micritic (w/Fos (Fuss) Grad Fair OOM Por (w/Small OOL in p) Poor Dissolu Poor Develop Cht Gry Op Shp Vit Chalk V Abd Sh Char-Gry No Flor No Odor No Stn NS

Ls Crm-Wht-Gry FxIn Poor-Fair IxIn Por Dns Micritic (w/Fos (Fuss) Grad Fair OOM Por (w/Small OOL in p) Poor Dissolu Poor Develop Cht Gry Op Shp Vit Chalk V Abd Sh Char-Gry No Flor No Odor No Stn NS

Ls Wht FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por (w/Poor-Fair Dis Poor Devel) Chalk Sh Red-Grn-Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por (w/Poor-Fair Dis Poor Devel) Chalk Sh Red-Grn-Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

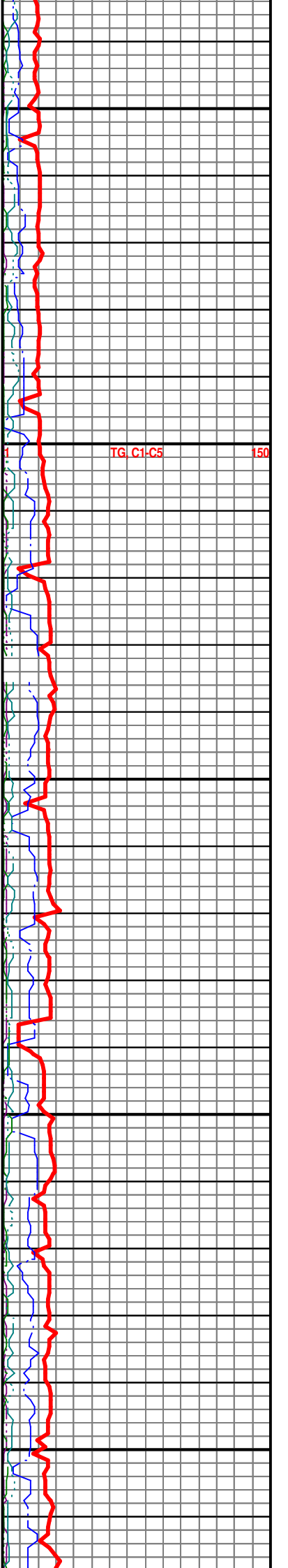
Ls Wht FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por (w/Poor-Fair Dis Poor Devel) Chalk Sh Red-Grn-Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

LeCOMPTON 3924' (- 1153)

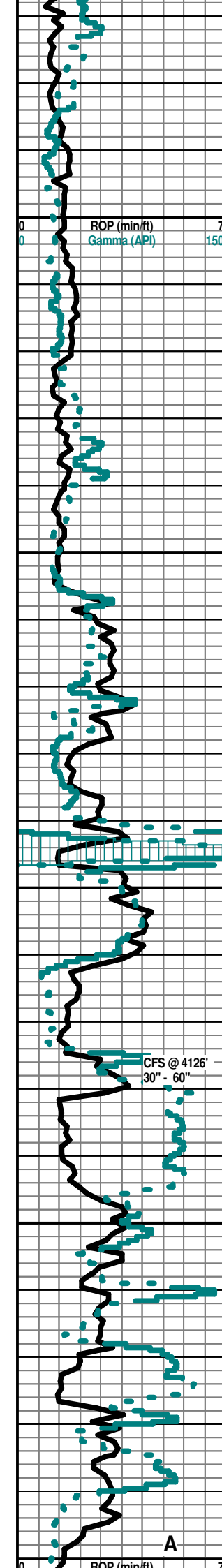
Ls Wht FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por (w/Poor-Fair Dis Poor Devel) Chalk Sh Red-Grn-Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry AA FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por (w/Poor-Fair Dissolu & Poor Develop) Fos (Crin) Chalk Sh Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry AA FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por (w/Poor-Fair Dissolu & Poor Develop) Fos (Crin) Chalk Sh Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS



TG C1-C5 150



Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry AA FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por (w/Poor-Fair Dissolu & Poor Develop) Fos (Crin) Chalk Sh Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por (w/Poor-Fair Dissolu & Poor Develop) Fos (Fuss) Chalk Sh Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por (w/Poor-Fair Dissolu Poor Develop) Fos (Fuss) Chalk Sh Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Gry FxIn Fair-Med IxIn Gran Por Grad Fair-Med OOM Por (w/Poor-Fair Dissolu Poor Develop) Fos (Fuss) Chalk Sh Char Fissil Scat ? Min Flor (Dull Wht-Grn) No Odor NS

Ls Wht-Crm-Gry FxIn Poor Gran IxIn Por Cht Wht-Gry Op Shp Vit Chalk Sh Char-Gry Soft Fissil No Odor No Stn No Flor NS

Ls Crm-Wht FxIn Gran Dec OOM Por Inc FxIn Gran Por Fair IxIn Por Abd Chalk Sh Gry Soft No Odor No Stn No Flor NS

HEEBNER 4090' (- 1319)

Sh Bk Carb Ls AA Cht Drk Gry Op Shp Vit Chalk Abd No Odor No Stn No Flor NS

30" CFS @ 4126' Ls Wht-Crm FxIn-MicroIxIn Grad Poor IxIn Por Cht Wht (w/Wht Includ) Chalk Abd Sh Blk Carb-Char-Gry Fissil No Flor No Odor NS

TORONTO 4111' (-1340')

60" CFS @ 4126' Ls Wht-Crm FxIn-MicroIxIn Grad Poor IxIn Por Cht Wht (w/Wht Includ) Chalk Abd Sh Blk Carb-Char-Gry Fissil No Flor No Odor NS

DOUGLAS 4124' (- 1353)

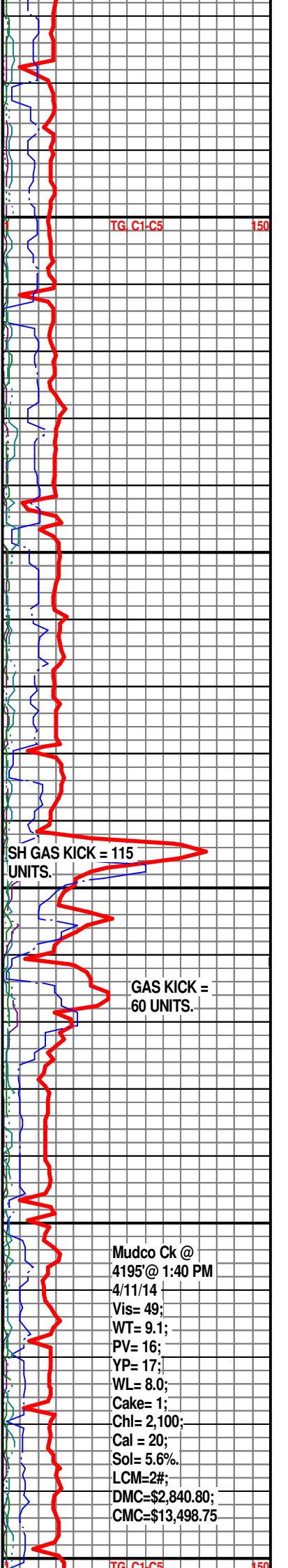
Sh Char-Gry-Blk Carb Fissil Abd Ls Crm-Lt Gry FxIn Poor IxIn Por Grad Poor OOM Por (w/Small OOids in pl) Cht Wht Op Shp Vit Chalky No Odor No Flor No Stn NS

Ls Crm-Lt Gry FxIn Poor IxIn Por Grad Poor OOM Por (w/Small OOids in pl) Cht Wht Op Shp Vit Chalky Pyr Mass Sh Char-Gry- Blk Carb Fissil No Odor No Flor No Stn NS

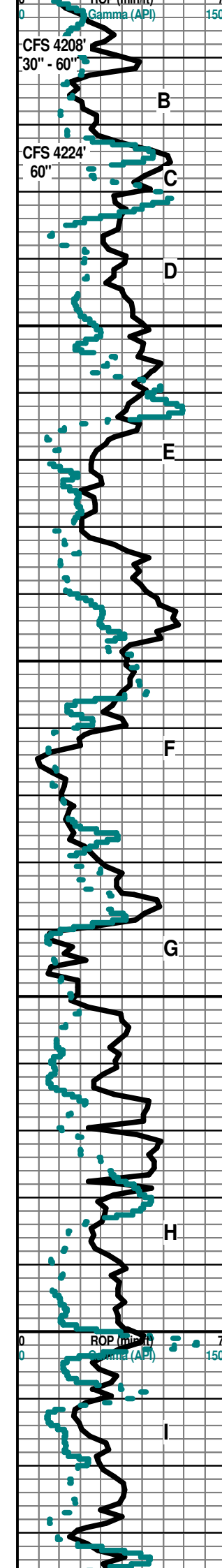
IATAN 4177' (- 1406)

LANSING 4190' (- 1419)

30" CFS @ 4208' Ls Wht MicroIxIn Dns Micrite Grad VFxIn Poor IxIn Por Cht Wht-Lt Gry Translu-Op Shp Vit Fos (Crin) Sh Char-Gry-Aqua Tr Fissil No Odor Sli ? Min Flor (> 30% of Tray) No Stn NS



Mudco Ck @
4195' @ 1:40 PM
4/11/14
Vis= 49;
WT= 9.1;
PV= 16;
YP= 17;
WL= 8.0;
Cake= 1;
Chl= 2,100;
Cal = 20;
Sol= 5.6%.
LCM=2#;
DMC=\$2,840.80;
CMC=\$13,498.75



60" CFS @ 4208' Ls Wht Microxln-Fxln Dns Micrite Grad Fxln-Lt Brn Poor
 Ixln Por Grad Poor OOM Por (w/Small OOids in pl) Cht Wht-Lt Gry
 Translu-Op Shp Vit Chalky Sh Char-Gry-Aqua Tr Fissil No Odor Sli ? Min
 Flor (> 50% of Tray) No Stn NS

60" CFS @ 4224' Ls Wht Microxln-Fxln Dns Micrite Grad Fxln-Lt Brn Poor
 Ixln Por Grad Poor OOM Por (w/Small OOids in pl) Cht Wht-Lt Gry
 Translu-Op Shp Vit Chalky Sh Char-Gry-Aqua Tr Fissil No Odor Sli ? Min
 Flor (> 60% of Tray) No Stn NS

Ls AA Crm Wht Fxln Por Poor Ixln Por Cht AA Chalk AA No Odor No Stn
 Sli ? Min Flor (< 20% of Tray) NS

Ls AA Crm Wht Fxln Por Poor Ixln Por Cht AA Chalk AA No Odor No Stn
 Sli ? Min Flor (< 20% of Tray) NS

Ls AA Crm Wht Fxln Por Poor Ixln Por Cht AA Chalk AA No Odor No Stn
 Sli ? Min Flor (< 20% of Tray) NS

Ls Crm Fxln Dns Micrite Grad Fair OOM Por Poor Vug Leaching Dissolu
 Poor Develop Poor InterOOM Por Chalky Abd No Odor Sli ? Min Flor No
 Stn NS

Ls Crm-Tan Fxln Good OOM Por Fair Good Vug Leaching Disslou Poor
 Develop Poor InterOOM Por Chalky V Abd Scat ? Min Stn (Lt Grn) No
 Odor No Stn NS

Ls Crm Dns Fxln Micrite Poor Ixln to no Vis Por Chalky AA Tr OOM Por
 AA No Odor No Stn Scat ? Min Flor NS

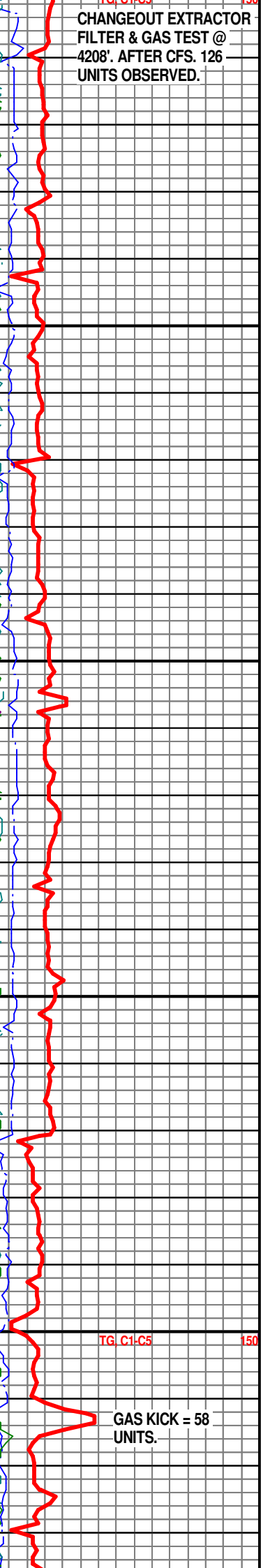
Sh Gry-Grn-Maroon Soft-Fissil Ls Crm-Gry Fxln Dns Micrite Poor Ixln Por
 Grad Poor OOM Por AA Cht Wht Op Shp Vit Chalk No Odor No Stn No
 Flor NS

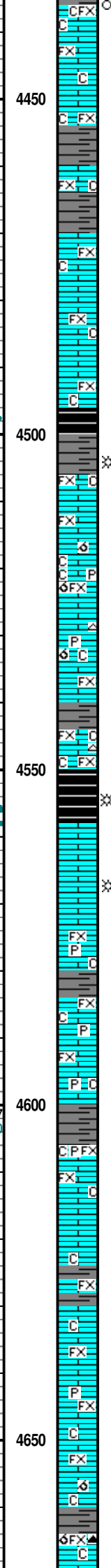
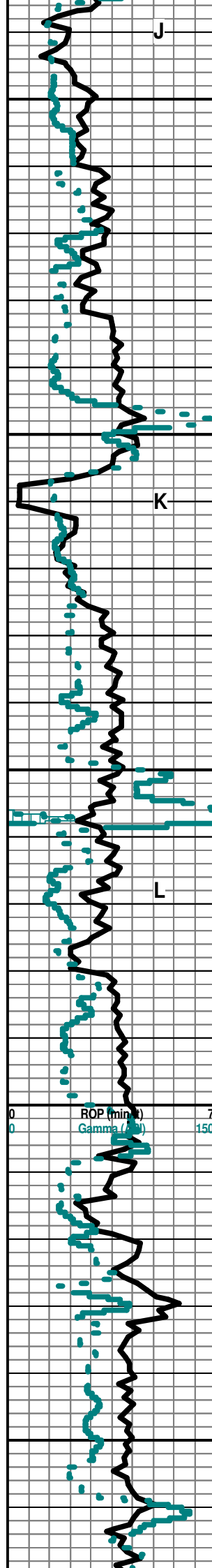
Ls Wht-Crm-Gry Fxln Dns Micrite Poor Ixln Por Cht Wht Op Shp Vit Chalk
 Sh Gry-Grn-Maroon Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry Fxln Dns Micrite Poor Ixln Por Cht Wht-Lt Gry (w/Small
 Wht OOid Inclus) Op Shp Vit Chalk Sh Gry-Grn-Maroon Soft-Fissil No
 Odor No Stn No Flor NS

Chalk Wht V Abd "Gummy" Ls Crm-Tan Fxln Poor Ixln Por Grad Dns
 Micrite (w/Pyr Inclus) Grad VFXln Tan (w/Drk Blk ?Gillsonitic Residue (w/
 VSSG (1 Pc) Cht AA Med-Good Odor Good Flor in Chalk Sh
 Char-Gry-Maroon AA ? Min Flor (In Chalk) ? Show

Chalk Wht V Abd "Gummy" AA Ls Crm-Tan Fxln Poor Ixln Por Grad Dns
 Micrite (w/Pyr Inclus) Cht AA Med-Good Odor Good Flor in Chalk Sh





Char-Gry-Maroon AA ? Min Flor (in Chalk) ? Show

Ls Crm Fxkn Dns Micrite Chalky Barren Chalk Abd No Odor Scatt ? Min Flor (in Chalk) No Odor No Stn NS

Ls Crm Fxkn Dns Micrite Chalky Barren Chalk Abd No Odor Scatt ? Min Flor (in Chalk) No Odor No Stn NS

Ls Crm Fxkn Dns Micrite Chalky Barren Chalk Abd No Odor Scatt ? Min Flor (in Chalk) No Odor No Stn NS

STARK SHALE 4496' (- 1725)

KANSAS CITY "SWOPE" (K) 4506' (- 1735)

Sh Blk Carb-Gry-Aqua-Maroon Fissil Ls Wht-Crm-Tan Fxln Poor Ixln Por Grad Poor OOM Por Poor Dissolu Poor InterOOM Por Cht Wht-Lt Gry Translu-Op Shp Vit Chalky No Flor No Stn No Odor NS

Ls Wht-Crm-Tan Fxln (w/Good OOM Por Fair InterOOM Por Med-Good Leaching Med-Good Develop Barren Cht Wht-Lt Gry Translu-Op Shp Vit Chalky Sh Blk Carb-Gry-Aqua-Maroon Fissil No Odor No Flor No Stn NS

HUSHPUCKNEY 4550' (- 1779)

Sh Blk Carb Fissi -Gry Soft "Gummy" Abd Ls AA Dns Fxln Micrite Tr Cht Gry AA Chalky No Flour No Stn No Odor NS

KANSAS CITY "HERTHA (L)" 4558' (- 1787)

Ls Crm-Gry Fxln Micrite Grad Poor OOM por (w/Fair-Poor Vug Leaching (w/Pyr Inclus) Chalky No Flor No Stn No Odor NS

Ls Crm-Gry Fxln Micrite Grad Poor OOM por (w/Fair-Poor Vug Leaching (w/Pyr Inclus) Chalky No Flor No Stn No Odor NS

Sh Char-Gry V Abd Fissil Ls Crm Wht Fxln Dns Dec Chalky No Odor No Flor No Stn NS

Ls Crm-Gry Fxln Micrite Grad Poor OOM por (w/Fair-Poor Vug Leaching (w/Pyr Inclus) Chalky No Flor No Stn No Odor NS

Ls Wht Fxln Dns Micrite Grad Fxln w/ Poor Pin-Pt Por Tr Sli Vug Leaching Grad OOM Por Cht Drk Gry Op Shp Vit Sh Char Gry Fissil AA No Odor No HC Stn ? Min. Flour Chalky NS

Mudco Ck @
4496' @ 8:40 PM
4/12/14
Vis= 45;
WT= 9.35;
PV= 14;
YP= 15;
WL= 9.2;
Cake= 1;
Chl= 4,200;
Cal = 20;
Sol= 6.9%.
LCM=2#;
DMC=\$ 1,082.15;
CMC=\$14,580.90

SH GAS KICK
= 50 UNITS.

SH GAS KICK
= 47 UNITS.

TG, C1-C5 150

MARMATON 4674' (- 1903)

Ls Wht Fxln Dns Micrite Grad Fxln w/ Poor Pin-Pt Por Tr Sli Vug Leaching Grad OOM Por Cht Drk Gry Op Shp Vit Sh Char Gry Fissil AA No Odor No HC Stn ? Min. Flour Chalky NS

Ls Wht Fxln Dns Micrite Grad Fxln w/ Poor Pin-Pt Por Tr Sli Vug Leaching Grad OOM Por Cht Drk Gry Op Shp Vit Sh Char Gry Fissil AA No Odor No HC Stn ? Min. Flour Chalky NS

Ls Wht Fxln Dns Micrite Grad Fxln w/ Poor Pin-Pt Por Tr Sli Vug Leaching Grad OOM Por Cht Drk Gry Op Shp Vit Sh Char Gry Fissil AA No Odor No HC Stn ? Min. Flour Chalky NS

Ls Tan-Lt Brn Microxln Dns Micrite Barren Cht Wht-Tan Op Shp Vit Fos (Crin Abd, Pelec) Chalky Sh Blk Carb-Char-Drab Grn Fissil No Odor No Stn No Flor NS

PAWNEE 4760' (- 1989)

Ls Crm-Tan-Lt Gry Fxln Dns Micrite Grad Poor Pin-Pt Ixln Por Barren Grad Poor OOL Por (w/OOL in pl) Poor Dissolu Poor Leaching Cht Wht-Lt Tan-Lt Gry Op Shp Vit Chalky Sh Blk Carb-Char-Drab Grn Fissil No Odor No Stn No Flor NS

30" CFS @ 4805' Ls Crm-Tan Fxln Dns Micrite Grad Poor Pin-Pt Ixln Por Barren Cht Wht-Lt Tan Op Shp Vit Fos (Fuss) Chalky Sh Blk Carb-Char-Drab Grn Fissil No Odor No Stn No Flor NS

FORT SCOTT 4788' (- 2017)

60" CFS @ 4805' Ls Crm-Tan Fxln Dns Micrite Grad Poor Pin-Pt Ixln Por Barren Cht Wht-Lt Tan Op Shp Vit Fos (Fuss) Chalky Sh Blk Carb-Char-Drab Grn Fissil No Odor No Stn No Flor NS
 NS" CFS @ 4805' Ls Crm-Tan Fxln Dns Micrite Grad Poor Pin-Pt Ixln Por Barren Cht Wht-Lt Tan Op Shp Vit Fos (Fuss) Chalky Sh Blk Carb-Char-Drab Grn Fissil No Odor No Stn No Flor NS

CHEROKEE 4802' (- 2031)

Ls Wht Fxln Dns Micrite Barren Cht Wht Op Shp Vit Fos (Bry) Chalk Sh Blk Carb-Char-Drab Grn Fissil No Odor No Flor No Stn NS

Sh Blk Carb-Char-Drab Grn Fissil Ls Wht Fxln Dns Micrite Barren Cht Wht Op Shp Vit Chalk No Odor No Flor No Stn NS

Ls Wht-Crm-Tan Microxln- Fxln Dns Micrite Barren Cht Wht Op Shp Vit Fos (Crin, Brach) Chalk Sh Blk Carb-Char-Drab Grn Fissil No Odor No Flor No Stn NS

Sh Blk Carb-Char-Drab Grn Fissil Ls Gry-Tan Fxln Dns Micrite Barren Chalk No Odor No Flor No Stn NS

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

~DST # 2~

Interval: 4754'- 4805"
 Times: 5"-90"-17"-30"
 Blow: IF V. Weak Surface= 1/4" Inc./ 1/2"; FF= No
 Blow-Flushed Tool (Had Good Surge) & No Blow.
 Recovery: 30' M;
 Pressures:
 IH = 2274#;
 FH = 2274#;
 IF = 8-14#;
 FF = 18-33#;
 ISIP = 1398#;
 FSIP = 1253#;
 Temp. = 117 degrees F.

SH GAS KICK = 66 UNITS

GAS KICK = 62 UNITS

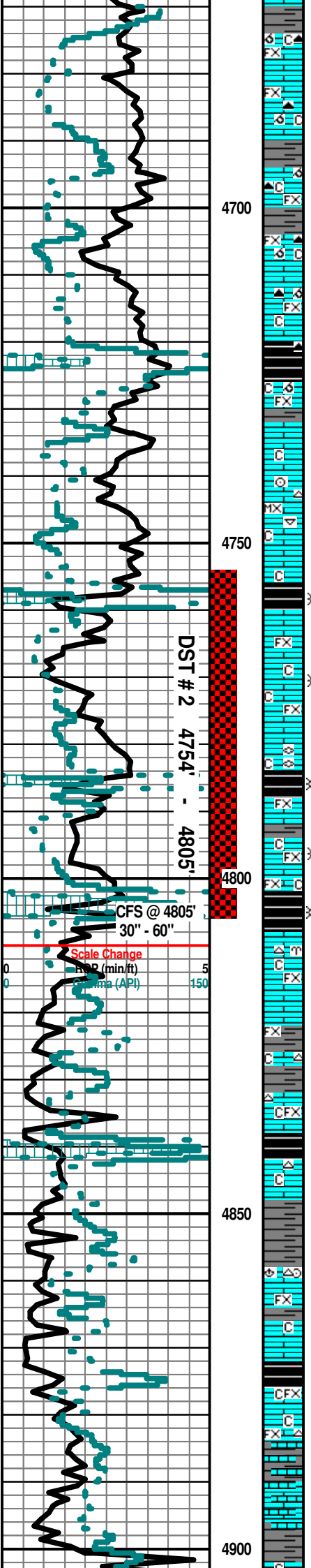
SH GAS KICK = 121 UNITS

GAS KICK = 75 UNITS

SH GAS KICK = 106 UNITS

Mudco Ck @ 4805' @ 10:25 AM 4/13/14
 Vis= 48;
 WT= 9.1;
 PV= 15;
 YP= 15;
 WL= 8.4;
 Cake= 1;
 Chl= 1,900;
 Cal = 20;
 Sol= 5.6%.
 LCM= 2#;
 DMC=\$ 2,540.85;
 CMC=\$17,121.75

GAS KICK = 48 UNITS.



DST # 2 4754' - 4805'

CFS @ 4805' 30" - 60"

Scale Change

5
150

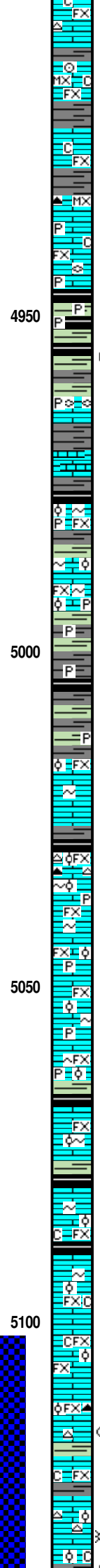
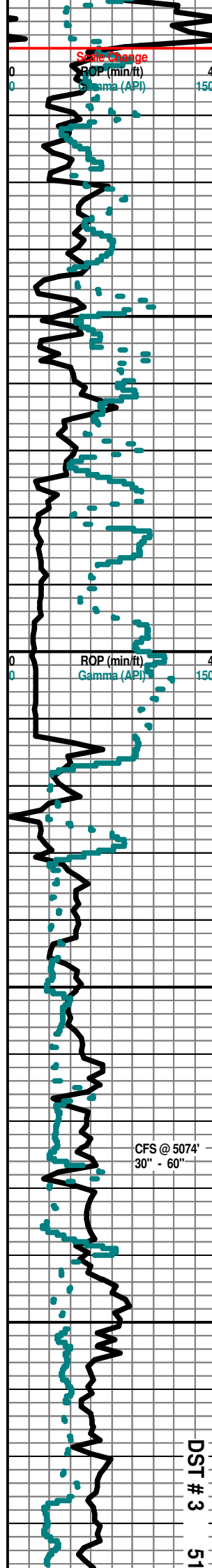
4900

4850

4800

4750

4700



Ls Wht-Crm-Tan MicroXln-Fxln Dns Micrite Barren Cht Wht Op Shp Vit Fos (Crin) Chalk Sh Blk Carb-Char-Drab Grn Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Tan MicroXln Dns Micrite Barren Cht Amber-Tan Translu Shp Vit Chalk Sh Blk Carb-Char (w/Pyr Includ) Fissil No Odor No Flor No Stn NS

MORROW SHALE 4946' (- 2175)

Sh Blk Carb-Char (w/Pyr Includ) Fissil Ls Crm-Tan MicroXln Dns Micrite Barren Cht Amber Translu Shp Vit Fos (Fuss-w/Drk Blk Gillsonitic Stn) Chalk No Odor No Flor No Stn NS

Ls Tan Fxln Dns Micrite AA Grad Wht Poor IGran Por "Sandy Gran Por" VFgrn (w/Glacu Includ) Pyr Mass Sh Blk Carb (w/Pyr Includ) -Aqua Fissil No Odor No Flor No Stn No Odor NS

Ls Wht Poor IGran Por "Sandy Gran Por" VFgrn (w/Glacu Includ) Grad Crm-Tan Fxln Dns Micrite AA Pyr Mass Sh Blk Carb (w/Pyr Includ)-Aqua Fissil No Odor No Flor No Stn No Odor NS

MISSISSIPPIAN "Ste. GEN" 5017' (- 2246)

30" CFS @ 5074' Ls Wht Poor IGran Por "Sandy Gran Por" VFgrn (w/Glacu Includ) Grad Crm-Tan Fxln Dns Micrite AA Cht Amber- Tan AA Translu-Op Shp Vit Sh Blk Carb (w/Pyr Includ) -Aqua- Olive-Maroon Soft-Fissil No Odor No Flor No Stn No Odor NS

60" CFS @ 5074' Ls Wht Poor IGran Por "Sandy Gran Por" VFgrn (w/Glacu Includ) Grad Crm-Tan Fxln Dns Micrite AA Sh Blk Carb (w/Pyr Includ) -Aqua- Olive-Maroon Soft-Fissil No Odor No Flor No Stn No Odor NS

MISSISSIPPIAN "ST. LOUIS 5080' (- 2309)

Ls Wht Fxln Poor IGran Por "Sandy Gran Por" VFgrn Poor OOL Por (w/Small OOids in pl) & Glacu Includ) No Dissolu Poor InterOOL Por (Lt CaCO3 Matrix) Chalk Sh Blk-Char-Aqua-Purple Fissil No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Poor IGran Por "Sandy Gran Por" VFgrn (w/Glacu Includ) Poor Fair OOL Por (w/Small OOids in pl) Cht Wht-Org Op Shp Vit Sh Char-Gry-Maroon ? Sli Odor Sli (Dull Wht) Flor NS

30" CFS @ 5168' Ls Wht-Crm Fxln Poor IGran Por "Sandy Gran Por" VFgrn Poor OOL Por (w/Small OOids in pl w/Pyr Includ & w/SSG in Wtr Under Heat) Sli Gillsonitic "Dead" Stn (Tr Only) Cht Wht On Shp Vit Sh

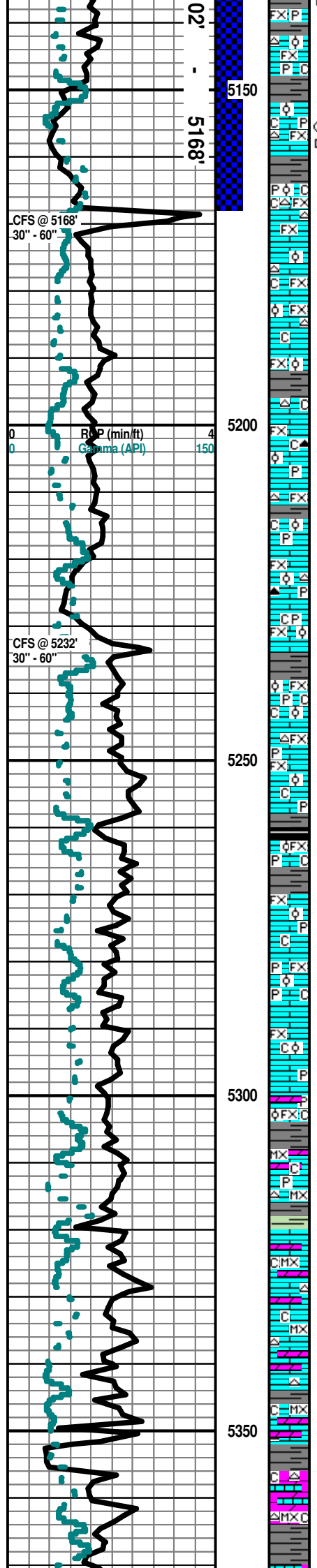
TG.C1.C5 150

Mudco Ck @
5088' @ 10:25 AM
4/14/14
Vis= 44;
WT= 9.35;
PV= 13;
YP= 14;
WL= 8.4;
Cake= 1;
Chl= 2,400;
Cal = 20;
Sol= 7.0%
LCM=1.5#;
DMC=\$ 580.60;
CMC=\$17,702.35

~DST # 3~
Interval: 5102' - 5168'.
Times: 5"-90"-70"-90".
Blow: IF=Weak Surface/
1/4". FF= No Blow-Flushed
Tool/10" (Had Good Surge)
& Weak Surface Blow/1/4".
Recovery: 65' M;
Pressures:

IH = 2458#;
FH = 2452#;
IF = 8-12#;
FF = 11-14#;

DST # 3 51'



Char-Gry-Maroon ? Sli Odor Sli (Dull Wht) Flor No Stn SSG

60" CFS @ 5168' Ls Wht-Crm Fxln Poor IGran Por "Sandy Gran Por" VFgrn Poor OOL Por (w/Small OOids in pl w/Pyr Inclus) Sli Gillsonitic "Dead" Stn (Tr Only) Cht Wht Op Shp Vit Sh Char-Gry ? Sli Odor Sli (Dull Wht) Flor ? SSG

(Trip Debris) Ls Wht-Crm-Lt Gry Fxln Fair InterOOL (IGranular) Por (w/Small-Med OOids in pl) Friable Barren Cht Wht Translu-Op Shp Vit Chalk Sh-Blk Carb-Aqua-Drab Grn-Maroon-Purple Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Lt Gry Fxln Fair InterOOL (IGranular) Por (w/Small-Med OOids in pl) Friable Barren Cht Wht Translu-Op Shp Vit Chalk Sh-Blk Carb-Aqua-Drab Grn-Maroon Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Lt Gry Fxln Fair InterOOL (IGranular) Por (w/Small-Med OOids in pl) Friable Barren Cht Wht Translu-Op Shp Vit Chalk Sh-Blk Carb-Aqua-Drab Grn-Maroon Soft-Fissil No Odor No Flor No Stn NS

30" CFS @ 5232' Ls Wht-Crm-Lt Gry Fxln Fair-Med InterOOL (IGranular) Por (w/Small-Med OOids in pl) Friable Barren (w/Tr Pyr Inclus) Cht Lt Org (w/Blk Inclus) Translu Shp Vit Chalk Sh-Blk Carb-Aqua-Drab Grn-Maroon Soft-Fissil No Odor No Flor No Stn NS

60" CFS @ 5232' Ls Wht-Crm-Lt Gry Fxln Fair InterOOL (IGranular) Por (w/Small OOids in pl) Friable Barren (w/Tr Pyr Inclus) Cht Wht-Lt Gry-Lt Org (w/Blk Inclus) Translu Shp Vit Chalk Sh-Blk Carb-Aqua-Drab Grn-Maroon- Purple Soft-Fissil No Odor No Flor No Stn NS

75" CFS @ 5232' Ls Wht-Crm-Lt Gry Fxln Fair InterOOL (IGranular) Por (w/Small OOids in pl) Friable Barren (w/Tr Pyr Inclus) Cht Wht-Lt Gry-Lt Org (w/Blk Inclus) Translu Shp Vit Chalk Sh-Blk Carb-Aqua-Drab Grn-Maroon- Purple Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Lt Gry Fxln Fair-Med InterOOL (IGranular) Por (w/Small-Med-Lg OOids in pl) Friable Barren (w/Tr Pyr Inclus) (Only 2 Pcs w/Lg OOids) Poor Dissolu Poor Leaching Cht Wht Op Shp Vit Chalk Sh-Blk Carb-Aqua-Drab Grn-Maroon Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Lt Gry Fxln Fair-Med InterOOL (IGranular) Por (w/Small OOids in pl) Friable Barren (w/Tr Pyr Inclus) Cht Wht Op Shp Vit Chalk Sh-Blk Carb-Aqua-Drab Grn-Maroon Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Lt Gry Fxln Fair-Med InterOOL (IGranular) Por (w/Small OOids in pl) Friable Barren (w/Tr Pyr Inclus) Cht Wht Op Shp Vit Chalk Sh-Blk Carb-Aqua-Drab Grn-Maroon Soft-Fissil No Odor No Flor No Stn NS

Ls/Dolo Wht-Crm-Gry Fxln-Microxln Poor InterOOL (IGranular) Por (w/Small OOids in pl) Friable Barren (w/Tr Pyr Inclus) Cht Wht Op Shp Vit Chalk Sh-Blk Carb-Aqua-Drab Grn-Maroon Soft-Fissil No Odor No Flor No Stn NS

Ls/Dolo Crm-Tan Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

Ls/Dolo Crm-Tan Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

MISSISSIPPIAN SALEM 5356' (- 2585)

Dolo/Ls Crm-Tan-Gry Microxln Micritic Cht Wht Op Shp Vit Chalky Sh Char-Aqua Fissil No Odor No Flor Noi Stn NS

FF = 14-44#;
 ISIP = 1443#;
 FSIP = 1350#;
 Temp. = 120 degrees F.

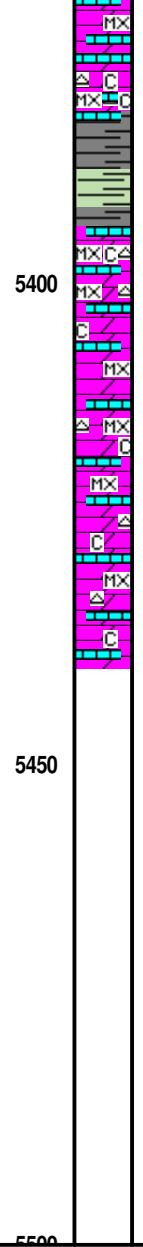
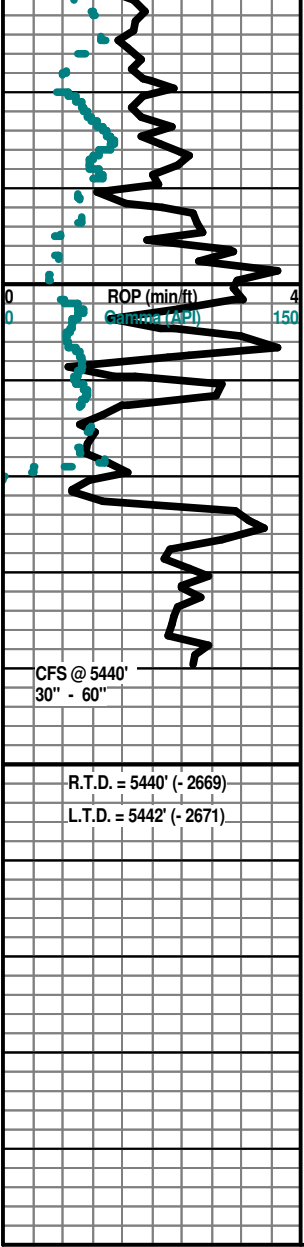
Mudco Ck @
 5168' @ 8:45 AM
 4/15/14
 Vis= 50;
 WT= 9.15;
 PV= 16;
 YP= 18;
 WL= 7.6;
 Cake= 1;
 Chl= 4,600;
 Cal = 20;
 Sol= 5.4%
 LCM= 2#;
 DMC=\$ 1,163.65;
 CMC=\$18,866.00

TG, C1-C5 150

GAS KICK= 29 UNITS.
 BKGD GAS= 25 UNITS.

CHANGEOUT EXTRACTOR
 FILTER AT 5252' (5237' LAG
 DEPTH & GAS TEST = 44
 UNITS OBSERVED.

Mudco Ck @
 5440' @ 8:50 AM
 4/16/14
 Vis= 55;
 WT= 9.2;



Dolo/Ls Crm-Tan-Gry MicroxIn Micritic Cht Wht Op Shp Vit Chalky Sh
Char-Aqua Fissil No Odor No Flor Noi Stn NS

Dolo/Ls Crm-Tan-Gry MicroxIn Micritic Cht Wht Op Shp Vit Chalky Sh
Char-Aqua-Drab Grn-Grn-Maroon Fissil No Odor No Flor Noi Stn NS

30" CFS @ 5440' Dolo/Ls Crm-Tan-Gry MicroxIn Micritic Cht Wht Op Shp
Vit Chalky Sh Char-Aqua-Drab Grn-Grn-Maroon Fissil No Odor No Flor
Noi Stn NS

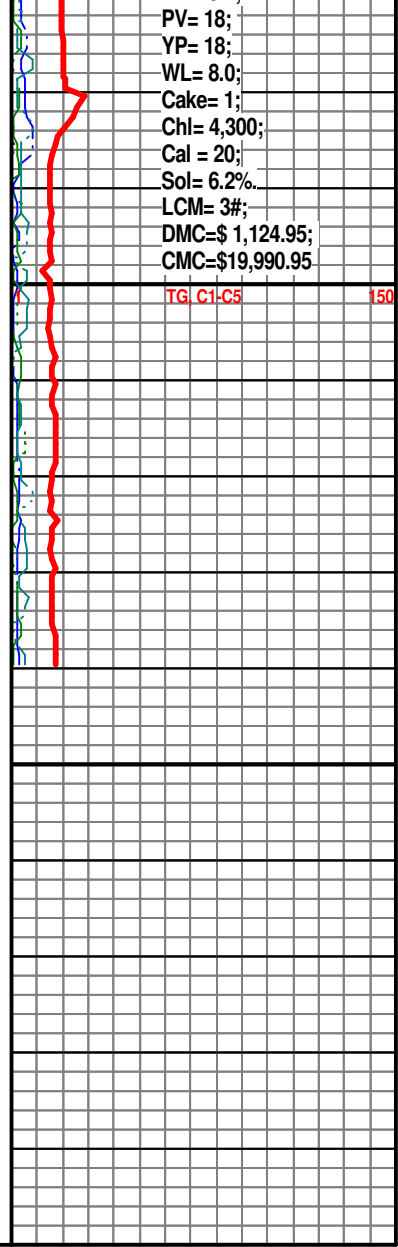
60" CFS @ 5440' Dolo/Ls Crm-Tan-Gry MicroxIn Micritic Cht Wht Op Shp
Vit Chalky Sh Char-Aqua-Drab Grn-Grn-Maroon Fissil No Odor No Flor
Noi Stn NS

Electric Logs Run: By Pioneer Logging:
Dual Induction; Compensated Density-Neutron; Sonic;
Microresistivity & Cased Hole Gamma Ray-Nutron Logs.

Geologist left Location @ 3:00 P.M. on 4/16/2014

PV= 18;
YP= 18;
WL= 8.0;
Cake= 1;
ChI= 4,300;
Cal = 20;
Sol= 6.2%
LCM= 3#;
DMC=\$ 1,124.95;
CMC=\$19,990.95

TG.C1-C5 150



ROP (min/ft) 4
Gamma (API) 150

CFS @ 5440'
30" - 60"

R.T.D. = 5440' (- 2669)
L.T.D. = 5442' (- 2671)

5400

5450

5500