



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1202928
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: _____

1202928

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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: 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

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 <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Falcon Exploration, Inc.
Well Name	JAMES KOEHN 3-31(NW)
Doc ID	1202928

All Electric Logs Run

MEL
DIL
BHCS
CNL/CDL

Form	ACO1 - Well Completion
Operator	Falcon Exploration, Inc.
Well Name	JAMES KOEHN 3-31(NW)
Doc ID	1202928

Tops

Name	Top	Datum
STOTLER	3537	-699
TARKIO	3592	-754
LANSING	4252	-1414
CHEROKEE	4898	-2060
MOROW SH	5120	-2282
MORROW SS	5146	-2308
ST GEN	5286	-2448
ST LOUIS	5328	-2490



Cement Report

Customer <u>Falcon Exploration</u>		Lease No.		Date <u>2-5-14</u>	
Lease <u>James Koehn</u>		Well # <u>3-31</u>		Service Receipt	
Casing		Depth		County <u>Gray</u> State <u>KS</u>	
Job Type		Formation		Legal Description	
Pipe Data			Perforating Data		
Casing size <u>5 1/2 #15.5</u>		Tubing Size		Shots/Ft	
Depth <u>5514'</u>		Depth		From To	
Volume <u>130 bbl</u>		Volume		From To	
Max Press		Max Press		From To	
Well Connection		Annulus Vol.		From To	
Plug Depth <u>5459.27'</u>		Packer Depth		From To	
				Lead <u>100SX @ 11.4 PPG</u> <u>29. CC, 1/4 # Poly f/g Ke</u> <u>A-Cen - Blend</u> Tail in <u>140SX @ 14.8 PPG</u> <u>50. W-60, 10% Salt</u> <u>67. C-15, 1/4 # Detonator</u> <u>5 # Gilsomite -</u> <u>AA2 - Cement</u>	
Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
1400					On location - Rig up
1600					Safety Meeting
1908	2000				Pressure Test
1909	200		5	4	Pump Water Ahead
1912	200		12	4	Pump 500 gallons of Super Flush
1918	200		5	4	Pump Water behind
1922	200		9	4	Plug Mouse Hole
1930	200		6.5	4	Plug Rat Hole
1940	100		26	4	Pump 50 SX @ 11.4 PPG
1947	200		37.6	4	Pump 140 SX @ 14.8 PPG
2005					Drop Plug
2007	0		2	2	Start Displacement
2022	200		128	8	Shut Down - Switch over Big mud line
2039	700		128	2	Plug Landed - float Held
2042	0				Release Pressure - Float Held
2045					Shut Down - Rig Down
Service Units		<u>78940</u>	<u>38750</u> <u>19842</u>	<u>30464</u>	
Driver Names		<u>Ruben</u>	<u>Carlos</u>	<u>Santiago</u>	

Leon
Customer Representative

Jerry Bennett
Station Manager

Ruben Martinez
Cementer
Taylor Printing, Inc.

DIAMOND TESTING

General Information Report

General Information

Company Name FALCON EXPLORATION, INC.
Contact JASON MITCHELL
Well Name JAMES KOEHN #3-31 (NW)
Unique Well ID DST #1, MORROW, 5119-5170
Surface Location SEC 31-28S-30W, GRAY CO. KS.
Field LONG KNIFE
Well Type Vertical
Test Type CONVENTIONAL
Formation DST #1, MORROW, 5119-5170
Well Fluid Type 01 Oil

Representative TIM VENTERS
Well Operator FALCON EXPLORATION, INC.
Report Date 2014/02/01
Prepared By TIM VENTERS
Qualified By DAVE WILLIAMS

Start Test Date 2014/01/31
Final Test Date 2014/02/01

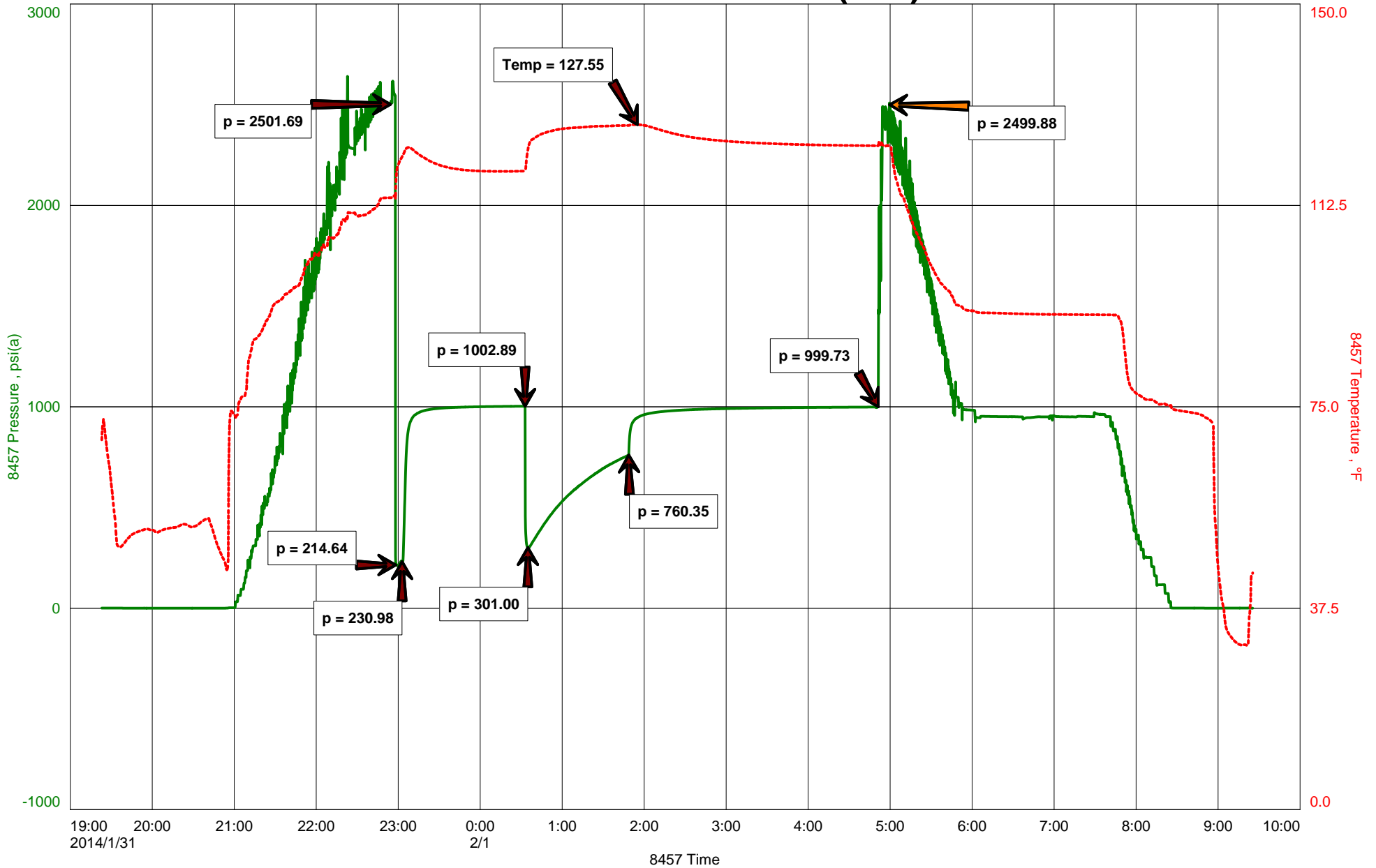
Start Test Time 19:23:00
Final Test Time 09:26:00

Test Recovery:

RECOVERED: 3165' GAS IN PIPE
600' GO, 21% GAS, 79% OIL, GRAVITY: 25
540' G,HMCO, 7% GAS, 58% OIL, 35% MUD
100' SOCM, 16% OIL, 84% MUD
670' G,SMCO, 15% GAS, 76% OIL, 9% MUD
1910' TOTAL FLUID

TOOL SAMPLE: 50% OIL, 50% MUD

JAMES KOEHN #3-31 (NW)





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

TIME ON: 19:23 1-31-14
 TIME OFF: 09:26 2-1-14

DRILL-STEM TEST TICKET
 FILE: JAMESKOEHN3-31NWDST1

Company FALCON EXPLORATION, INC. Lease & Well No. JAMES KOEHN #3-31 (NW)
 Contractor VAL ENERGY, INC. RIG #2 Charge to FALCON EXPLORATION, INC.
 Elevation 2838 KB Formation MORROW Effective Pay _____ Ft. Ticket No. T308
 Date 1-31-14 Sec. 31 Twp. 28 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 5119 ft. to 5170 ft. Total Depth 5170 ft.

Packer Depth 5114 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Packer Depth 5119 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 5100 ft. Recorder Number 8457 Cap. 10,000 P.S.I.

Bottom Recorder Depth (Outside) 5167 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 52 Drill Collar Length _____ ft. I.D. 2 1/4 in.

Weight 9.35 Water Loss 6.8 cc. Weight Pipe Length _____ ft. I.D. 2 7/8 in.

Chlorides 1,500 P.P.M. Drill Pipe Length 5086 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 YES Anchor Length 20 ft. Size 4 1/2-FH in.

Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. ^{31' DP IN ANCHOR} Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: STRONG 4 INCH BLOW, BUILDING, REACHING BOB 45 SEC. (BOB BB)

2nd Open: STRONG 6 INCH BLOW, BUILDING, REACHING BOB 1 MIN. (BOB BB)

Recovered 3165 ft. of GAS IN PIPD

Recovered 600 ft. of GO, 21% GAS, 79% OIL, GRAVITY: 25

Recovered 540 ft. of G,HMCO, 7% GAS, 58% OIL, 35% MUD

Recovered 100 ft. of SOCM, 16% OIL, 84% MUD

Recovered 670 ft. of G,SMCO, 15% GAS, 76% OIL, 9% MUD

Recovered 1910 ft. of TOTAL FLUID

Remarks: _____

TOOL SAMPLE: 50% OIL, 50% MUD

Time Set Packer(s) 10:57 PM ^{A.M.}/_{P.M.} Time Started Off Bottom 4:47 AM ^{A.M.}/_{P.M.} Maximum Temperature 128 deg.

Initial Hydrostatic Pressure..... (A) 2502 P.S.I.

Initial Flow Period..... Minutes 5 (B) 215 P.S.I. to (C) 231 P.S.I.

Initial Closed In Period..... Minutes 90 (D) 1003 P.S.I.

Final Flow Period..... Minutes 75 (E) 301 P.S.I. to (F) 760 P.S.I.

Final Closed In Period..... Minutes 180 (G) 1000 P.S.I.

Final Hydrostatic Pressure..... (H) 2500 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 JAMES KOEHN #3-31 (NW)
Unique Well ID DST #2, MOR.-CHESTER, 5180-5192
Surface Location SEC 31-28S-30W, GRAY CO. KS.
Field LONG KNIFE
Well Type Vertical
Test Type CONVENTIONAL
Formation DST #2, MOR.-CHESTER, 5180-5192
Well Fluid Type 01 Oil

Representative TIM VENTERS
Well Operator FALCON EXPLORATION, INC.
Report Date 2014/02/02
Prepared By TIM VENTERS
Qualified By DAVE WILLIAMS

Start Test Date 2014/02/01
Final Test Date 2014/02/02

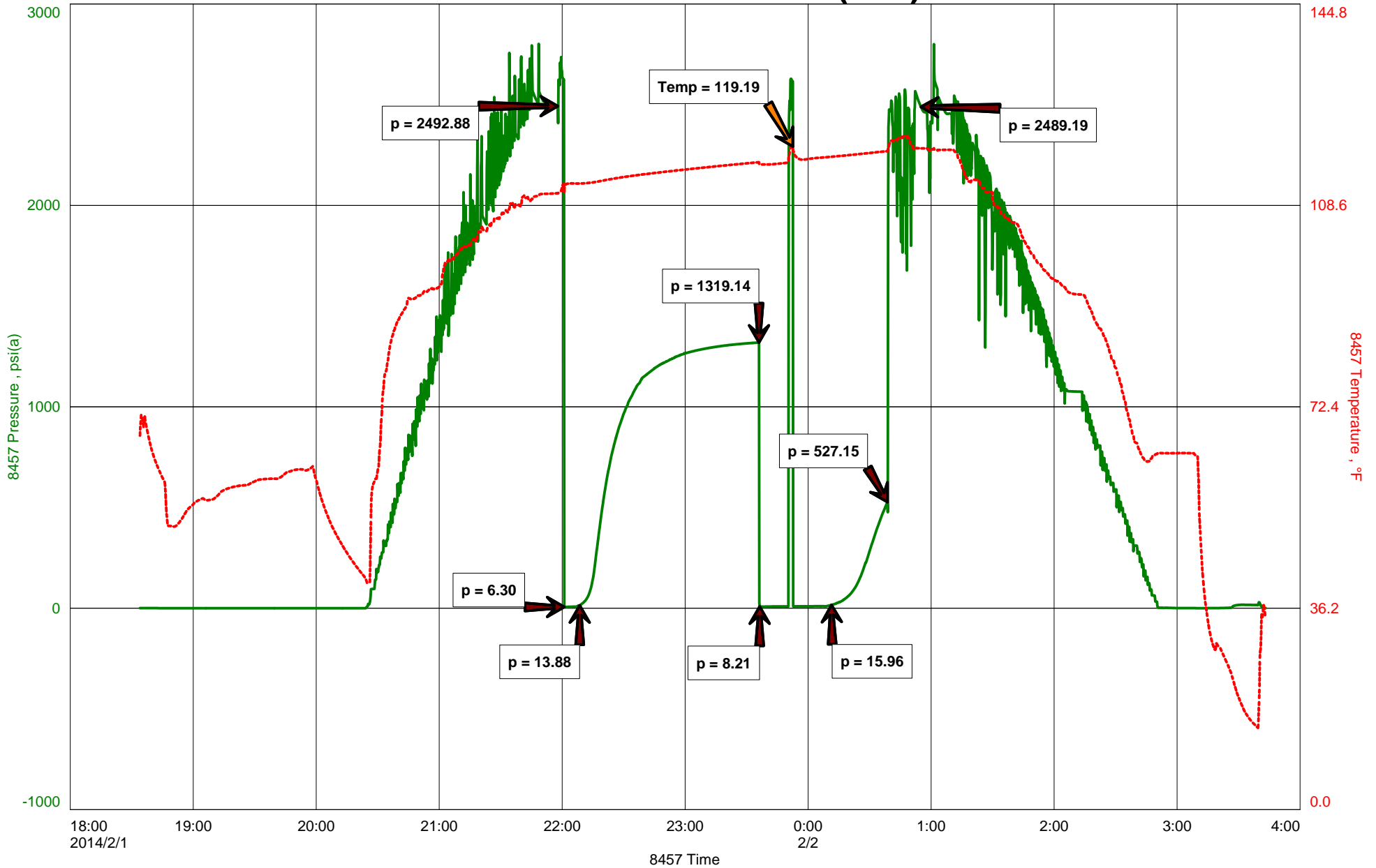
Start Test Time 18:34:00
Final Test Time 03:44:00

Test Recovery:

RECOVERED: 5' M W/TR. O, TRACE OIL, 100% MUD

TOOL SAMPLE: TRACE OIL, 100% MUD

JAMES KOEHN #3-31 (NW)





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

TIME ON: 18:34 2-1-14
 TIME OFF: 03:44 2-2-14

DRILL-STEM TEST TICKET
 FILE: JAMESKOEHN3-31NWDST1

Company FALCON EXPLORATION, INC. Lease & Well No. JAMES KOEHN #3-31 (NW)
 Contractor VAL ENERGY, INC. RIG #2 Charge to FALCON EXPLORATION, INC.
 Elevation 2838 KB Formation MORROW-CHESTER Effective Pay _____ Ft. Ticket No. T309
 Date 2-1-14 Sec. 31 Twp. _____ 28 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 5180 ft. to 5192 ft. Total Depth 5192 ft.
 Packer Depth 5175 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
 Packer Depth 5180 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 5161 ft. Recorder Number 8457 Cap. 10,000 P.S.I.
 Bottom Recorder Depth (Outside) 5189 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 49 Drill Collar Length _____ ft. I.D. 2 1/4 in.
 Weight 9.3 Water Loss 7.2 cc. Weight Pipe Length _____ ft. I.D. 2 7/8 in.
 Chlorides 2,700 P.P.M. Drill Pipe Length 5147 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 12 ft. Size 4 1/2-FH in.
 Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

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

Recovered 5 ft. of M W/TR. O, TRACE OIL, 100% MUD
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: WE FLUSHED TOOL 15 MIN. INTO FINAL FLOW AND GOT A BLOW LASING 15 SEC.
TOOL SAMPLE:TRACE OIL, 100% MUD

Time Set Packer(s) 10:00 PM A.M. P.M. Time Started Off Bottom 12:37 AM A.M. P.M. Maximum Temperature 119 deg.

Initial Hydrostatic Pressure..... (A) 2493 P.S.I.
 Initial Flow Period..... Minutes 5 (B) 6 P.S.I. to (C) 14 P.S.I.
 Initial Closed In Period..... Minutes 90 (D) 1319 P.S.I.
 Final Flow Period..... Minutes 32 (E) 8 P.S.I. to (F) 16 P.S.I.
 Final Closed In Period..... Minutes 30 (G) 527 P.S.I.
 Final Hydrostatic Pressure..... (H) 2489 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 JAMES KOEHN #31 (NW)
Unique Well ID DST #3, ST. LOUIS, 5384-5410
Surface Location SEC 31-28-30, GRAY CO. KS.
Field LONG KNIFE
Well Type Vertical
Test Type CONVENTIONAL
Formation DST #3, ST. LOUIS, 5384-5410
Well Fluid Type 01 Oil

Representative TIM VENTERS
Well Operator FALCON EXPLORATION, INC.
Report Date 2014/02/03
Prepared By TIM VENTERS
Qualified By DAVE WILLIAMS

Start Test Date 2014/02/03
Final Test Date 2014/02/03

Start Test Time 06:34:00
Final Test Time 21:24:00

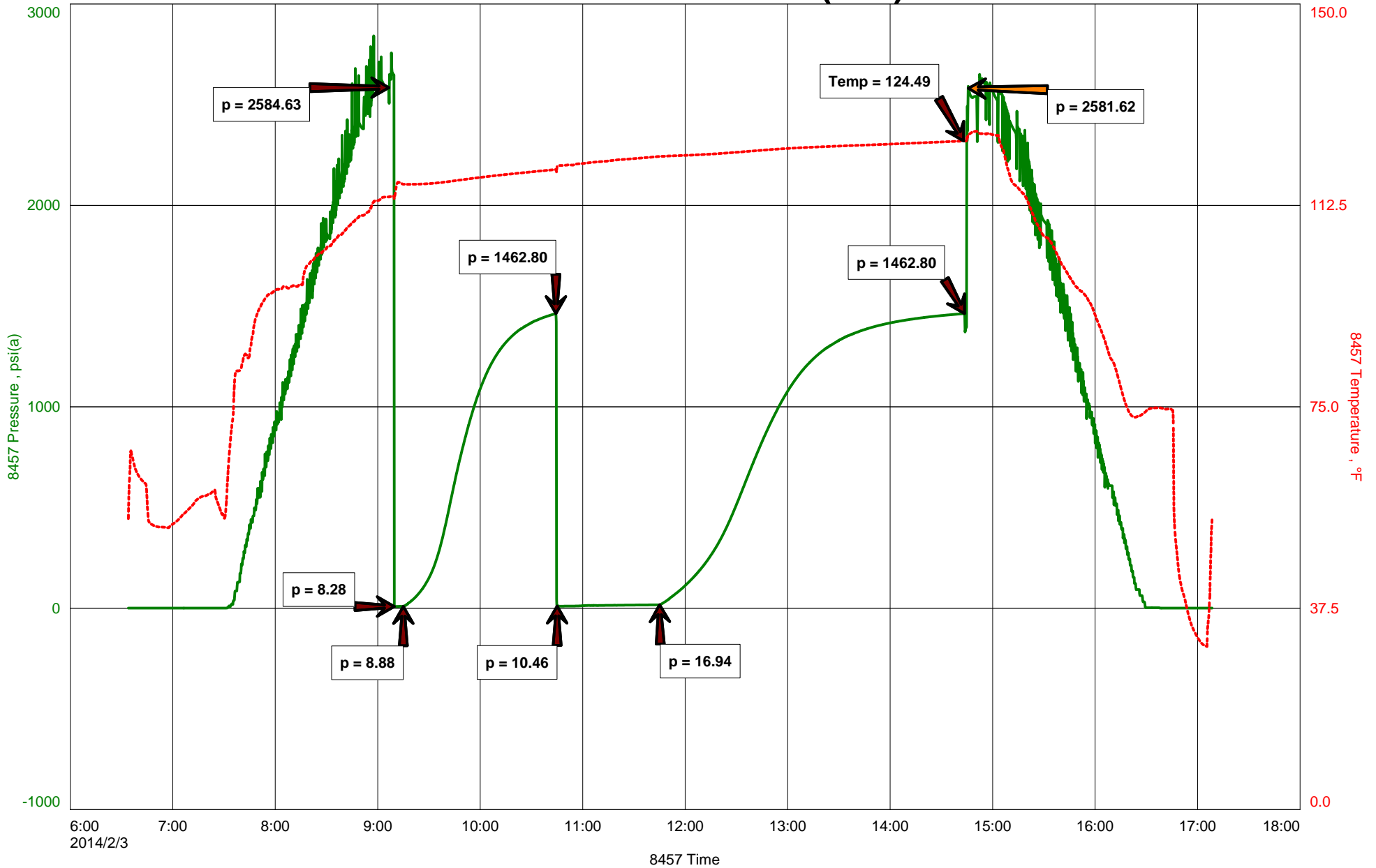
Test Recovery:

RECOVERED: 190' GAS IN PIPE
25' SOCM, 8% OIL, 92% MUD

TOOL SAMPLE: 25% OIL, 27% WATER, 48% MUD

CHLORIDES: 25,000 ppm
PH: 7.0
RW: .36 @ 61 deg.

JAMES KOEHN #31 (NW)





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

TIME ON: 06:34
 TIME OFF: 21:24

DRILL-STEM TEST TICKET
 FILE: JAMESKOEHN3-31NWDST3

Company FALCON EXPLORATION, INC. Lease & Well No. JAMES KOEHN #3-31 (NW)
 Contractor VAL ENERGY, INC. RIG #2 Charge to FALCON EXPLORATION, INC.
 Elevation 2838 KB Formation ST. LOUIS Effective Pay _____ Ft. Ticket No. T310
 Date 2-3-14 Sec. 31 Twp. 28 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 5384 ft. to 5410 ft. Total Depth 5410 ft.
 Packer Depth 5379 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
 Packer Depth 5384 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 5365 ft. Recorder Number 8457 Cap. 10,000 P.S.I.
 Bottom Recorder Depth (Outside) 5407 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 50 Drill Collar Length 0 ft. I.D. 2 1/4 in.
 Weight 9.35 Water Loss 7.6 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
 Chlorides 2,100 P.P.M. Drill Pipe Length 5351 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 26 ft. Size 4 1/2-FH in.
 Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WEAK 1/4 INCH BLOW BUILDING TO 1 INCH. (NO BB)
 2nd Open: GOOD 2 INCH BLOW, BUILDING, REACHING BOB 56 1/2 MIN. (NO BB)

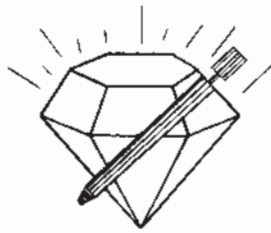
Recovered 190 ft. of GAS IN PIPE
 Recovered 25 ft. of SOCM, 8% OIL, 92% MUD
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Recovered _____ ft. of _____	CHLORIDES: 25,000 PPM	Price Job
Recovered _____ ft. of _____	PH: 7.0	Other Charges
Remarks: _____	RW: .36 @ 61 deg.	Insurance
TOOL SAMPLE: 25% OIL, 27% WATER, 48% MUD		Total

Time Set Packer(s) 1:24 PM A.M. P.M. Time Started Off Bottom 6:59 PM A.M. P.M. Maximum Temperature 124 deg.

Initial Hydrostatic Pressure..... (A) 2585 P.S.I.
 Initial Flow Period..... Minutes 5 (B) 8 P.S.I. to (C) 9 P.S.I.
 Initial Closed In Period..... Minutes 90 (D) 1463 P.S.I.
 Final Flow Period..... Minutes 60 (E) 10 P.S.I. to (F) 17 P.S.I.
 Final Closed In Period..... Minutes 180 (G) 1463 P.S.I.
 Final Hydrostatic Pressure..... (H) 2582 P.S.I.

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DIAMOND TESTING
 P. O. Box 157
HOISINGTON, KANSAS 67544
 (316) 653-7550
GAS VOLUME REPORT

Company FALCON EXPLORATION, INC. Lease & Well No. JAMES KOEHN #1-31 (NW)
 Date 1-31-14 Sec. 31 Twp. 28S Rge. 30W Location _____ County GRAY State KS
 Drilling Contractor VAL ENERGY, INC. RIG #2 Formation MORROW DST No. 1
 Remarks: GAS TO SURFACE 8 MIN. INTO FINAL FLOW PERIOD.

INITIAL FLOW IN. H2O

Time O'Clock	Orifice Size	Gauge	CF/D
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	

FINAL FLOW IN. H2O

Time O'Clock	Orifice Size	Gauge	CF/D
10	1/4 in.	7 in.	4,450
20	1/4 in.	12 in.	5,860
30	1/4 in.	11 in.	5,600
40	1/4 in.	11 in.	5,600
50	1/4 in.	12 in.	5,860
*60	1/4 in.	9 in.	5,050
70	1/4 in.	8 in.	4,760
75	1/4 in.	7 in.	4,450
	in.	in.	
	in.	in.	

* TOOK SAMPLE



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

Well Name: JAMES KOEHN #3-31 (NW)
Location: S2-S2-N2-NW 1/4 of SEC. 31 - 28 S. - 30 W
License Number: A.P.I. #15-069-20,459-00-00
Spud Date: 01/23/2014
Surface Coordinates: 1160' FNL & 1320' FWL

Region: GRAY CO., KS.
Drilling Completed: 2/05/2014

**Bottom Hole
Coordinates:**
Ground Elevation (ft): 2828' **K.B. Elevation (ft):** 2838'
Logged Interval (ft): SURFACE To: 5531' **Total Depth (ft):** 5531'
Formation: MISSISSIPPIAN "SALEM (SPERGEN)"
Type of Drilling Fluid: CHEMICAL/POLYMER/GEL. & MUD DISPLACEMENT @ 2900'.
Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Falcon Exploration, Inc.
Address: 125 North Market Street, Ste. #1252
Wichita, Kansas 67202

GEOLOGIST

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

Casing & Deviation Survey's

Spud 1/23/14. Drilled 12-1/4" surface hole with PDC bit. CTCH. Trip out to run 8-5/8" surface casing. Ran 44 jts new 24# 8 5/8" surface casing. Tally 1847'. Set at 1862' w/460 sx common, 2% gel, 3% CC,, 150 sx premium 2% gel. Plug down at 9:30 A.M. Cement did circulate.

Deviation Survey's: @ 1863' = 3/4 degree; @ 4923' = 7/8 degree; @ 5530' = 1/2 degree,

DSTs

~~DST # 1~~ Interval: 5119'-5170'. Times: 5"- 90"- 75"-150"; Blow: IF= Strong/ BOB/0.5". BOB Blow Back (ISIP).

FF= BOB/1". With GTS @ 8" into FF (See Gauge Report Below). BOB Blowback (FSIP).

Recovery: 3165' GIP: 1910' TF: 600' GO (21% G & 79% O); 540' GHMCO (7% G, 58% O & 35% M); 100' SOCM (16% O, 84% M); 670' GSMCO (15% G, 76% O & 9% M).

Pressures: IH=2502#; FH=2500#; IF=215-231#; FF=301-760#; ISIP=1003#; FSIP=1000#; T.=128 degrees F.. API Grv.=25 degrees F..

FF Gas Gauge: @ 10"=4.45 Mcf; @ 20"=5.83 Mcf; @ 30"=5.60 Mcf; @ 40"=5.86 Mcf; @ 50"=5.86 Mcf; @ 60"=5.05 Mcf; @ 70"= 4.76 Mcf; @ 75"=4.45 Mcf.

~~DST #2~~ Interval: 5180'-5192'. Times: 5"-90"-32"-30"; Blow: IF= Weak Surface Blow. No Blow Back (ISIP).. FF=Weak Surface Blow/Died in 15" (Flushed Tool Slight Surge & Died). No Blowback (FSIP).

Recovery: 5' M (w/Tr. O).

Pressures: IH= 2493#; FH= 2484#; IF=6-14#; FF=8-16#; ISIP= 1319#; FSIP=527#; T.=119 degrees F..

~~DST #3~~ Interval: 5384'-5410'. Times: 5"-90"-60"-180"; Blow: IF= Weak Surface Blow/1". No Blow Back (ISIP). FF=Weak Building To BOB/56.5". No Blowback (FSIP).

Recovery: 190' GIP; 25' SOCM (8% O & 92% M). Tool Spl: (25% O, 48% M & 27% Wtr). Chl.= 25,000 Ppm. PH=7.0. RW= 0.36 @ 61 degrees F..

Pressures: IH= 2585#; FH= 2582#; IF= 8-9#; FF=10-17#; ISIP = 1463#; FSIP=1463#; T.= 124 degrees F..


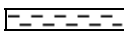

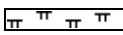
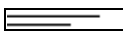
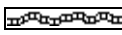




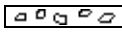
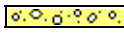

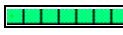




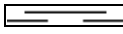

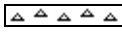


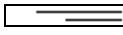
Comments

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 should be run in order to further evaluate this well.

Respectfully submitted,

David P. Williams, P.G

ROCK TYPES

	Anhy		Clyst		Gry sh		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**
- Anhy
 - Arggrn
 - Arg
 - Bent
 - Bit
 - Breclfrag
 - 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

OTHER SYMBOLS

- POROSITY**
- Earthy
 - Fenest
 - Fracture
 - Inter
 - Moldic
 - Organic
 - Pinpoint

- Vuggy
- SORTING**
- Well
 - Moderate
 - Poor

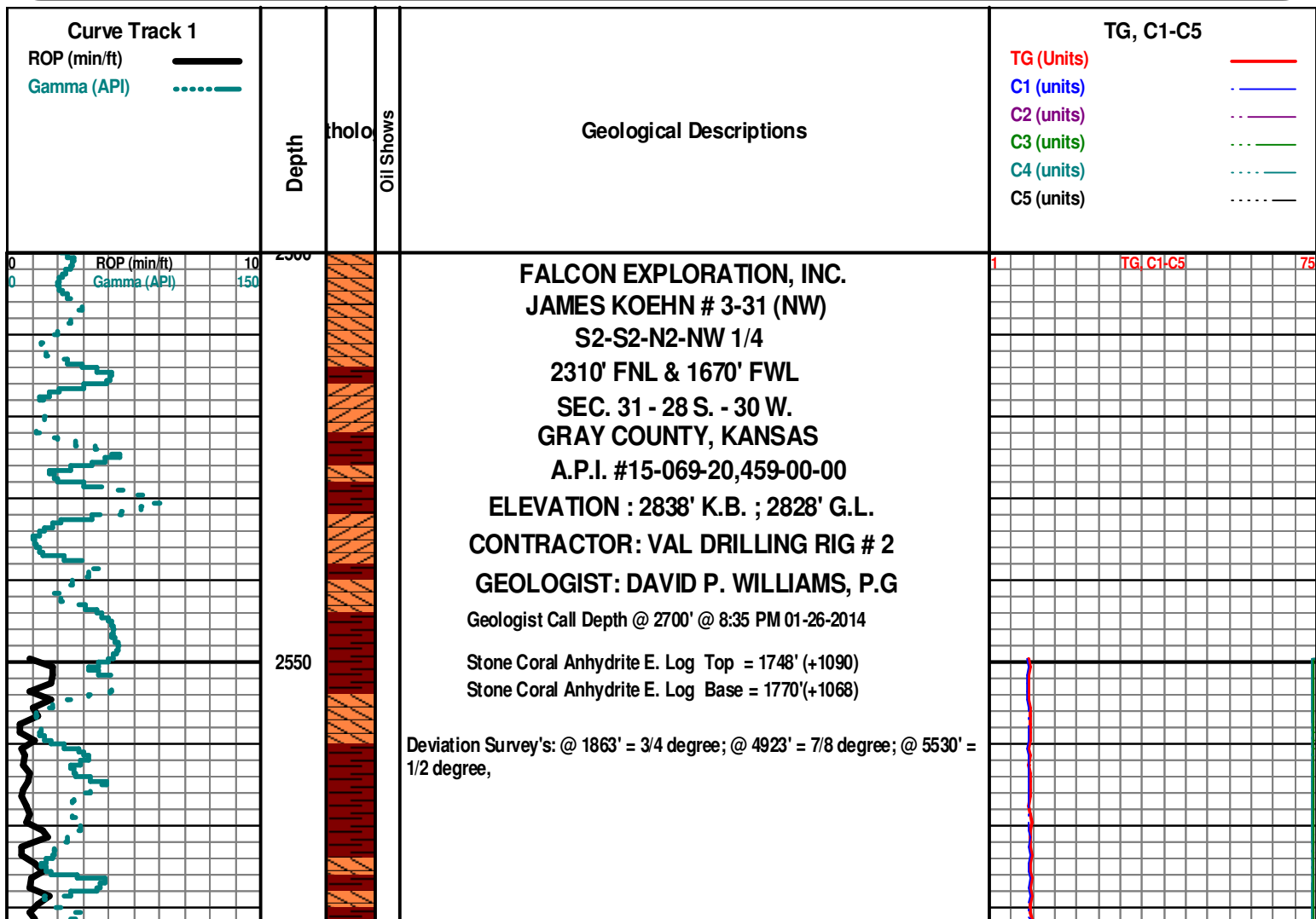
- ROUNDING**
- Rounded
 - Subrnd
 - Subang
 - Angular

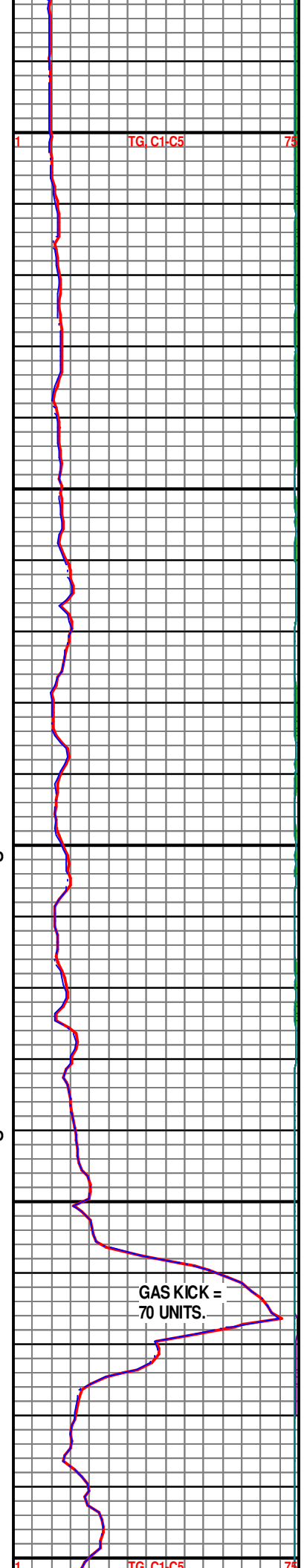
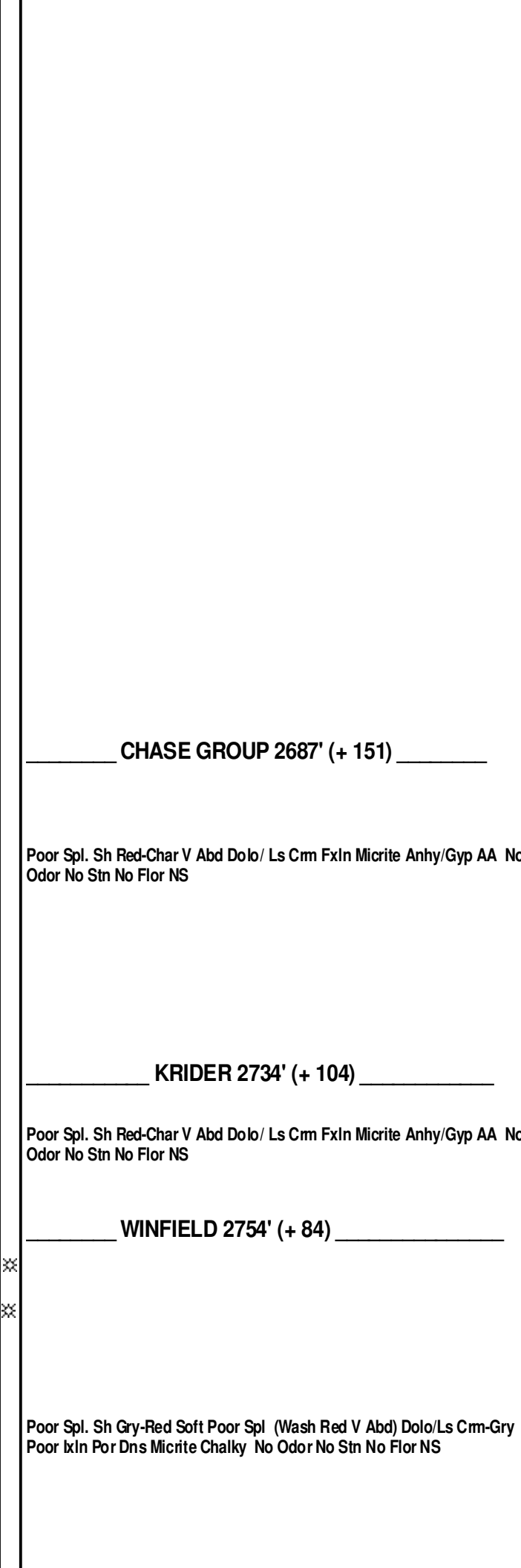
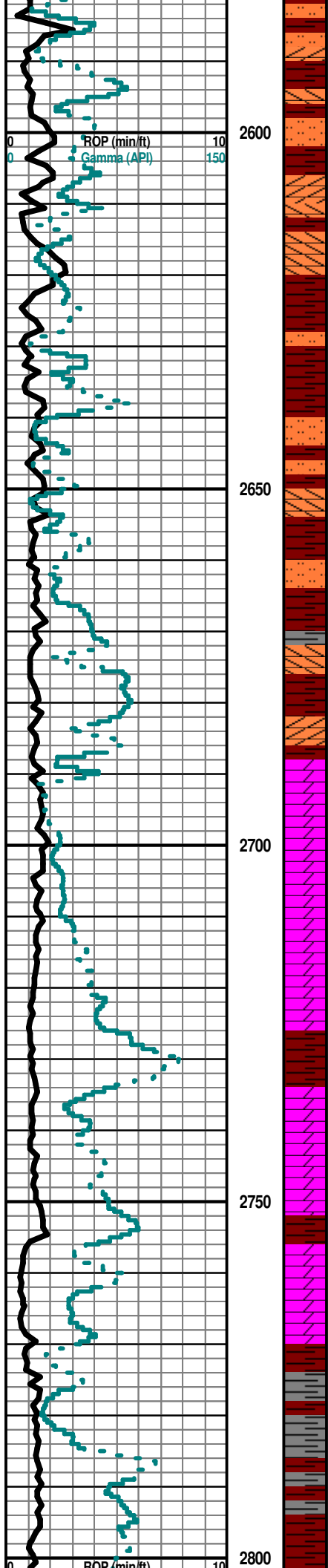
- Even
- Spotted
- Ques
- Dead

- Core
- EVENT**
- Rft
 - Sidewall

- OIL SHOW**
- Gas show

- INTERVAL**
- Dst
 - Dst_alt





TOWANDA 2808' (+ 30)

Poor Spl. Sh Gry-Red Soft Poor Spl (Wash Red V Abd) Dolo/Ls Crm-Gry
Poor Ixln Por Dns Micrite Chalky No Odor No Stn No Flor NS

FORT RILEY 2846' (- 8)

Poor Spl. Sh Gry-Red Soft Poor Spl (Wash Red V Abd) Ls Crm-Gry Poor
Ixln Por Dns Micrite Chalky No Odor No Stn No Flor NS

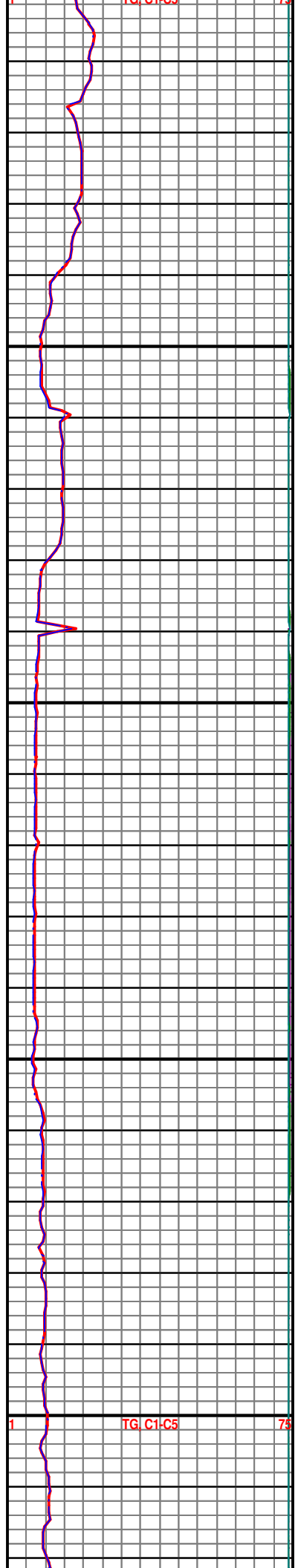
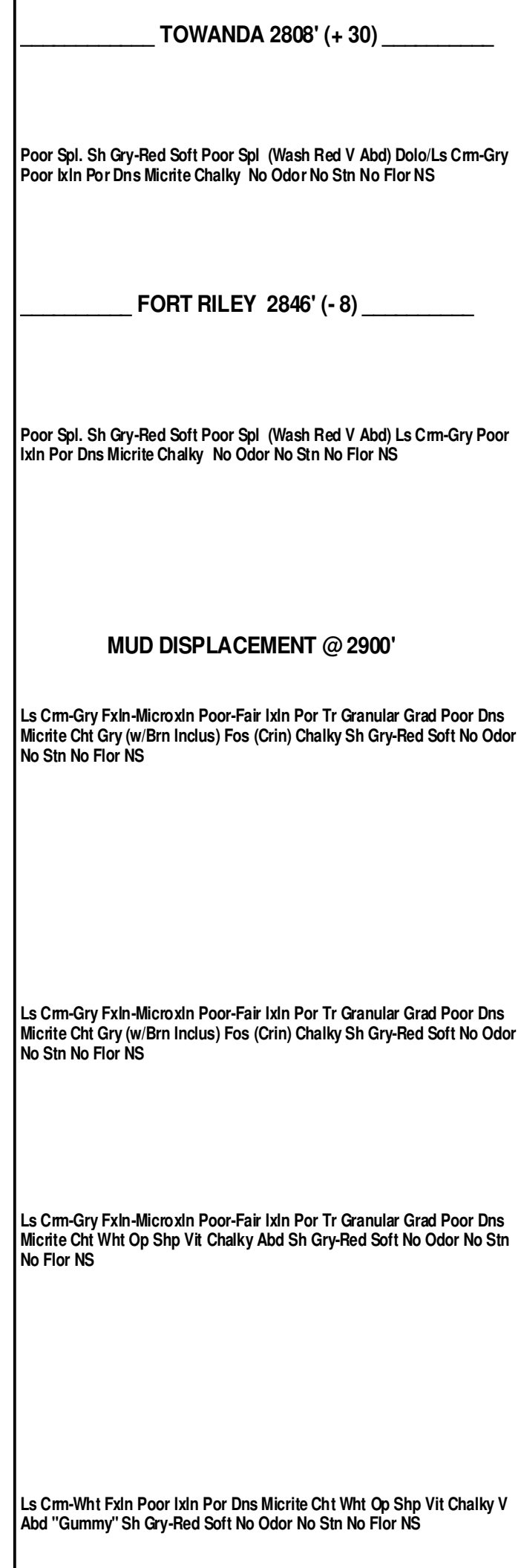
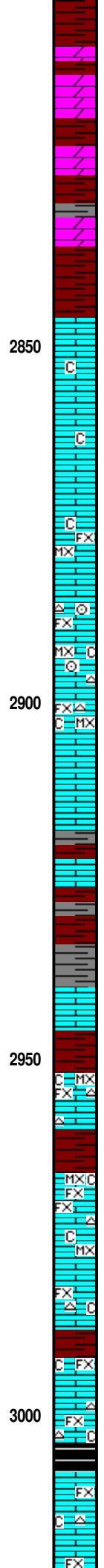
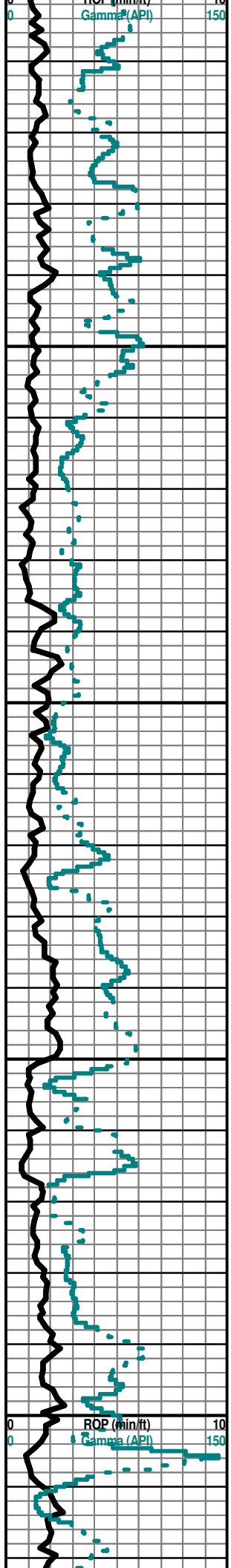
MUD DISPLACEMENT @ 2900'

Ls Crm-Gry Fxln-Microxn Poor-Fair Ixln Por Tr Granular Grad Poor Dns
Micrite Cht Gry (w/Brn Incls) Fos (Crin) Chalky Sh Gry-Red Soft No Odor
No Stn No Flor NS

Ls Crm-Gry Fxln-Microxn Poor-Fair Ixln Por Tr Granular Grad Poor Dns
Micrite Cht Gry (w/Brn Incls) Fos (Crin) Chalky Sh Gry-Red Soft No Odor
No Stn No Flor NS

Ls Crm-Gry Fxln-Microxn Poor-Fair Ixln Por Tr Granular Grad Poor Dns
Micrite Cht Wht Op Shp Vit Chalky Abd Sh Gry-Red Soft No Odor No Stn
No Flor NS

Ls Crm-Wht Fxln Poor Ixln Por Dns Micrite Cht Wht Op Shp Vit Chalky V
Abd "Gummy" Sh Gry-Red Soft No Odor No Stn No Flor NS



3050

Ls Crm-Wht FxIn Poor IxIn Por Dns Micrite Cht Wht Op Shp Vit Chalky
Dec Sh Gry-Red Soft No Odor No Stn No Flor NS

3100

Ls Crm-Wht-Gry FxIn Poor IxIn Por Dns Micrite Chalky Dec Sh Gry- Red-
Maroon Soft No Odor No Stn No Flor NS

COTTONWOOD 3136' (-298)

3150

Ls Crm-Wht-Gry FxIn Poor IxIn Por Dns Micrite Cht Gry Op Shp Vit Chalky
Sh Gry-Red-Maroon Soft No Odor No Stn No Flor NS

3200

Ls Crm-Wht-Gry FxIn Poor IxIn Por Dns Micrite Cht Gry Op Shp Vit Chalky
Sh Gry-Red-Maroon Soft (Wash Red) No Odor No Stn No Flor NS

NEVA 3184' (- 346)

Ls Wht-Crm-Gry FxIn Poor Pin-Pt IxIn Por Chalky Sh Red-Maroon -Gry
Soft-Fissil No Odor No Flor No Stn NS

Mudco Ck @
3157' @ 6:50 AM
1/27/14
Vis= 52;
WT= 8.8;
PV= 16;
YP= 17;
WL= 8.8;
Cake= 1;
Chl= 2200;
Cal= 20;
Sol= 6.3%
LCM= 1.5#;
DMC=\$1,772.05;
CMC=\$6,687.95

TG, C1-C5

75

ROP (min/ft) 10
Gamma (API) 150

3250

Ls Wht-Crm-Gry FxIn Poor Pin-Pt IxIn Por Chalky Sh Red-Maroon -Gry
Soft-Fissil No Odor No Flor No Stn NS

3300

Ls Wht-Crm-Gry FxIn Poor Pin-Pt IxIn Por Cht Wht (w/Fos (Spic Inlus)
Chalky Sh Red-Maroon-Gry Soft-Fissil No Odor No Flor No Stn NS

3350

Ls Wht-Crm-Gry FxIn Poor IxIn Por Dns Micrite Cht Wht Transp-Op Shp
Vit Chalk Sh Char-Gry-Red-Maroon-Lt Grn Soft-Fissil No Odor No Stn No
Flor NS

3400

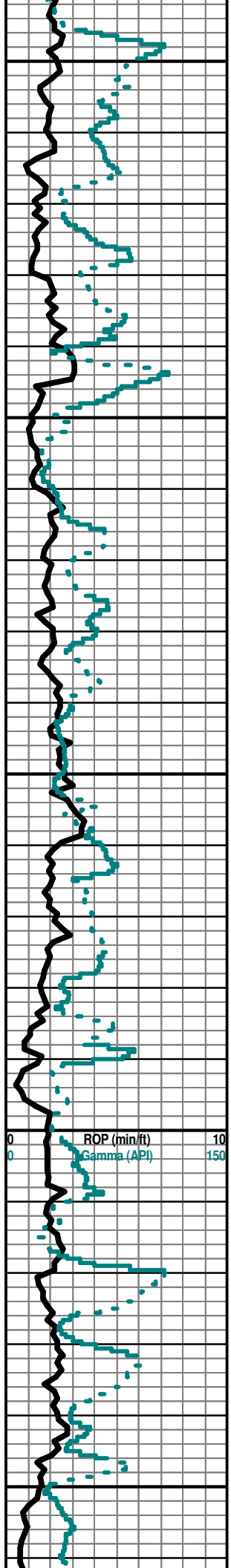
Ls Wht-Crm-Gry FxIn Poor IxIn Por Dns Micrite Cht Wht-Clear Transp-Op
Shp Vit Chalk Sh Char-Gry-Red-Maroon-Lt Grn Soft-Fissil No Odor No Stn
No Flor NS

3450

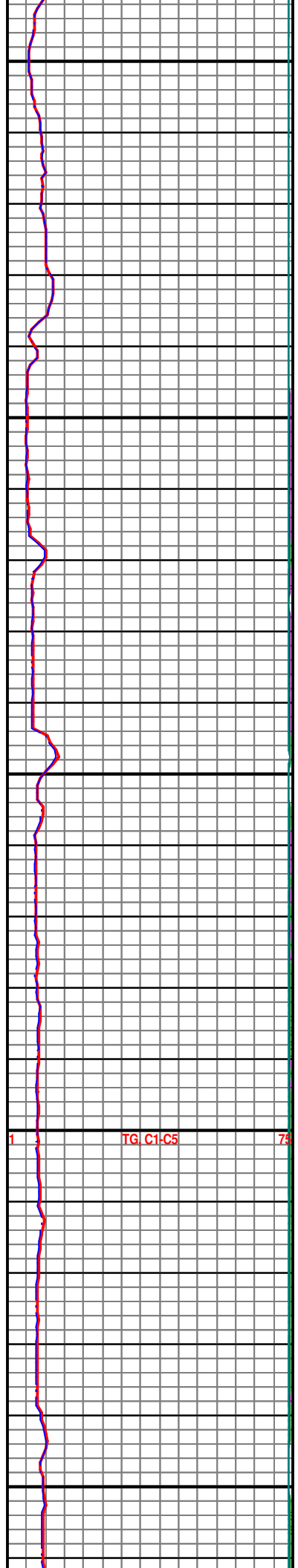
Ls Wht-Crm-Gry FxIn Grad Pin-Pt Por Fair-Med IxIn Por Grad Poor OOM
Por Poor Dissolu Poor Leaching Cht Gry Op Shp Vit Fos (Fuss) Chalky Sh
Char-Gry Fissil No Odor No Stn No Flor NS

FORAKER 3296' (- 458)

FALL CITY 3426' (- 588)



ROP (min/ft) 10
Gamma (API) 150



TG, C1-C5

3500

LS Crm-Gry FxIn IxIn Por Micritic Dsn No Vis Por Barren Sh Grn-Red Soft Fossil Dec Fos (Brach, Fuss) Chalk Wht Abd No Odor No Flor No Stn Fair ? Min Flor (Lt Grn) NS

ROOT SHALE 3518' (- 680)

3550

LS Wht-Crm-Gry MicroxIn-FxIn IxIn Por Micritic Dsn Barren Grad Tr/Fair OOM Por w/OOL (Small) in pl Fair InterOOM/OOL Por Fair Leaching Fair Disolu Sh Grn-Red Soft Fos (Brach) Chalk Wht Abd No Odor Med-Good Flor No Stn NS

STOTLER 3538' (- 700)

3600

LS Wht-Crm-Gry MicroxIn-FxIn IxIn Por Micritic Dsn Barren Grad Tr/Fair OOM Por w/OOL (Small) in pl Fair InterOOM/OOL Por Fair Leaching Fair Disolu Sh Grn-Red Soft Fos (Brach) Chalk Wht Abd No Odor Med-Good Flor No Stn NS

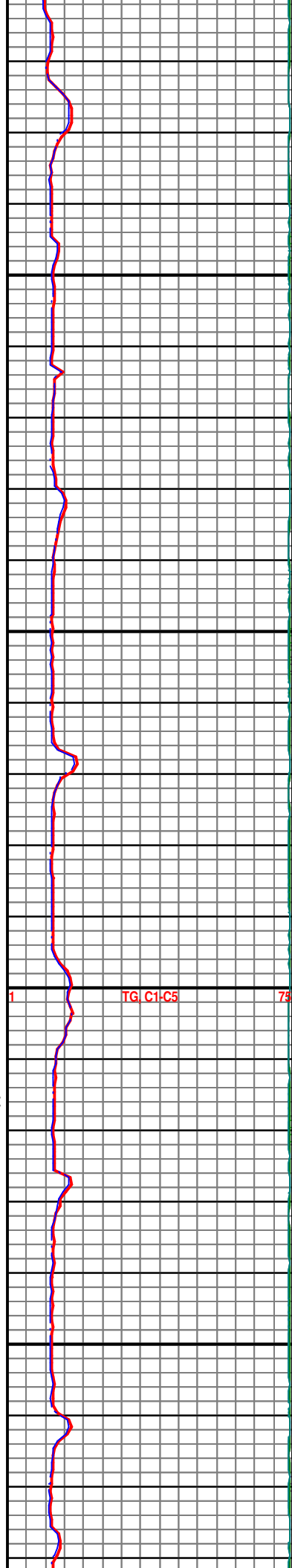
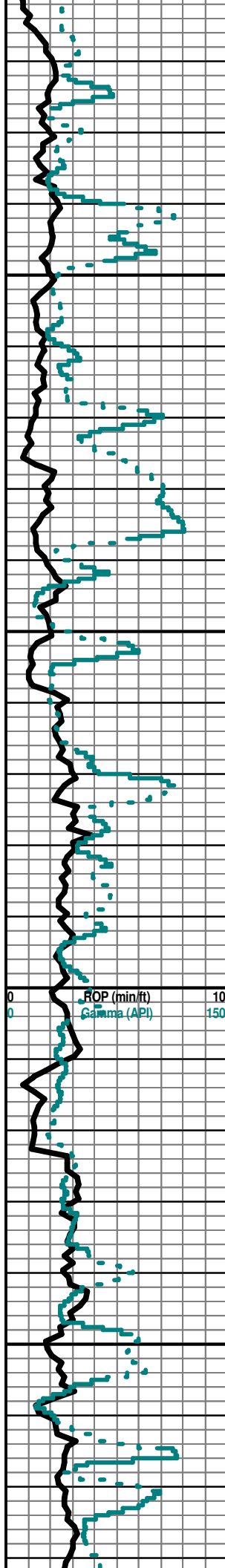
TARKIO 3598' (- 760)

3650

LS Wht-Crm FxIn IxIn Por Grad Fair OOM Porw/OOL in pl w/Fair-Med InterOOM Por Poor Leaching Poor Disolu Sh Grn-Red-Char Soft Fossil Cht Wht Op Shp Vit Chalk Wht Soft No Odor No Stn Med Flor (Lt Grn-Lt Wht-25% of Spl) Dec NS

LS Wht-Gry MicroxIn-FxIn IxIn Por Micritic Dsn Barren Chalk Wht Abd Cht Gry Op-Shp-Vit Sh Gry-Char-Brn Soft No Odor ? Med Min Flor Dec No Stn NS

BERN 3624' (- 786)



3700

Ls Wht-Crm-Gry FxIn Tr/Poor IxIn Por Mostly Micritic AA Dsn Barren Chalk Wht V Abd Cht-Wht-Tan Op Shp Vit Sh Gry-Char Soft No Odor No Flor No Stn NS

3750

Ls Wht-Crm FxIn Tr/Poor IxIn Por Mostly Micritic AA Dsn Barren Chalk Wht Abd Fos (Fuss Sh Tr/ Char-Red Soft No Odor No Flor No Stn NS

3800

Ls Wht-Crm-Gry FxIn Poor IxIn Por Mostly Micritic Dsn Barren Chalk Wht Abd Cht Wht Op Shp Vit Sh Blk Carb-Char-Grn Fissil Soft No Odor No Flor No Stn NS

TOPEKA 3808' (- 970)

3850

Ls Wht-Crm-Gry FxIn Poor IxIn Por Mostly Micritic Dsn Barren Chalk Wht Abd Cht Wht-Gry Op Shp Vit Fos (Fuss) Sh Blk Carb-Char Fissil Soft No Odor No Flor No Stn NS

3900

Ls Wht-Crm-Gry FxIn Poor IxIn Por Mostly Micritic Dsn Barren Chalk Wht Abd Sh Char Fissil No Odor No Flor No Stn NS

ROP (min/ft)
10
150

TG, C1-C5 79

Mudco Ck @
3799' @ 8:25 AM
1/28/14
Vis= 49;
WT= 9.25;
PV= 15;
YP= 16;
WL= 9.2;
Cake= 1;
Chl= 2100;
Cal= 40;
Sol= 6.3%
LCM= 1.5#;
DMC=\$ 713.30;
CMC=\$ 7,401.30

Ls Wht-Crm FxIn Poor IxIn Por Mostly Micritic Dsn Barren Chalk Wht V
Abd Cht Drk-Gry Transl-Op Shp Vit Fos (Fuss) Sh Char- Grn Fissil Soft
No Odor No Flor No Stn NS

Ls Wht-Gry FxIn Poor IxIn Por Mostly Micritic Dsn Barren Chalk Wht V
Abd Cht Tan- Drk Gry Transl-Op Shp Vit Sh Char-Grn Fissil Soft No Odor
No Flor No Stn NS

START 10' SAMPLE EXAMINATION @ 4000'

Ls Wht-Crm-Gry FxIn Poor IxIn Por Mostly Micritic Dsn Barren Cht
Wht-Gry Op Vit Shp Chalk Wht Abd Sh Char-Grn Fissil Soft No Odor No
Flor No Stn NS

Sh Char-Grn Fissil Ls Wht-Crm-Gry FxIn Poor IxIn Por Mostly Micritic Dsn Barren Cht
Wht-Gry Op Vit Shp Chalk Wht Abd Soft No Odor No Flor No Stn NS

Ls Wht-Crm-Gry FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Chalk V Abd Fos (Fuss) Sh
Gry-Char Soft-Fissil No Odor No Flor No Stn NS

LeCOMPTON 4008' (- 1170)

Ls Wht-Crm-Gry FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Chalk V Abd
Fos (Fuss) Sh Gry-Char Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Gry FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Chalk V Abd
Fos (Fuss) Sh Gry-Char Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Gry FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Chalk V Abd
Fos (Fuss) Sh Gry-Char Soft-Fissil No Odor No Flor No Stn NS

Sh Gry-Char Soft-Fissil Ls Wht-Crm-Gry FxIn Dns Micrite Grad Poor
Pin-Pt IxIn Por Chalk V Abd Fos (Fuss) No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Cht Wht- Gry - Drk Blk Op Shp Vit
Chalk Abd Fos (Fuss) Sh Blk Carb-Gry-Char Soft-Fissil No Odor No Flor No Stn NS

**QUEEN HILL 4068' (- 1230)
OREAD 4072' (- 1234)**

Ls Wht-Crm FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Cht Wht- Gry - Drk Blk Op Shp Vit
Chalk Abd Fos (Fuss) Sh Blk Carb- Gry- Char Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Cht Wht- Gry - Drk Blk Op Shp Vit
Chalk Abd Fos (Fuss) Sh Blk Carb-Gry-Char Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Cht Wht- Gry - Drk Blk Op Shp Vit
Chalk Abd Fos (Fuss) Sh Blk Carb-Gry-Char Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Cht Wht- Gry - Drk Blk Op Shp Vit
Chalk Abd Fos (Fuss) Sh Blk Carb-Gry-Char Soft-Fissil No Odor No Flor No Stn NS

PLATTSMOUTH 4118' (- 1288)

3950

4000

4050

4100

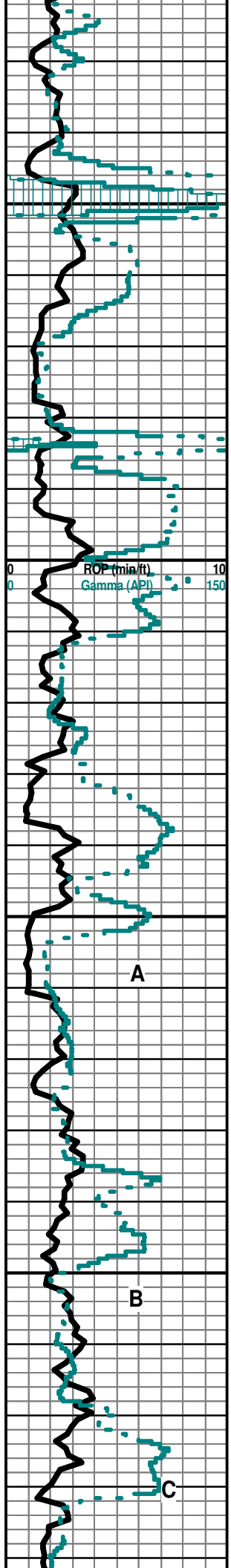
ROP (min/ft)
Gamma (API)

10

150

TG, C1-C5

75



4150

4200

4250

4300

Ls Wht-Crm-Gry FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Chalk Sh Blk Carb-Gry-Char-Lt Grn Soft-Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Gry FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Chalk Sh Blk Carb-Gry-Char-Lt Grn Soft-Fissil No Odor No Flor No Stn NS

HEEBNER 4146 (- 1308)

Sh Blk Carb (w/GSG) - Gry-Char-Lt Grn Soft-Fissil Ls Wht- Crm- Gry FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Chalk No Odor No Flor No Stn GSG in Blk Sh

Ls Wht-Crm-Gry FxIn Dns Micrite Grad Poor Pin-Pt IxIn Por Chalk Sh Blk Carb- Gry-Char-Lt Grn Soft-Fissil No Odor No Flor No Stn GSG in Blk Sh

TORONTO 4166' (- 1328)

Ls Wht-Crm FxIn Dns Micrite Poor IxIn Por Chalk Wht Soft Cht Wht Transl-Op Shp Vit Sh Char-Drab Grn Fissil No Odor No Stn No Flor Ns

Ls Crm FxIn Dns Micrite Poor IxIn Por Chalk Wht Soft Cht Wht Transl-Op Shp Vit Sh Blk Carb-Char-Grn Fissil F-G SG No Odor No Stn No Flor F-MSG (in Sh Blk Carb AA)

DOUGLAS 4182' (- 1344)

Sh Blk Carb-Drab Grn-Aqua-Gry Soft-Fissil Ls Wht-Crm FxIn Dns Micrite Poor IxIn Por Chalk Wht Soft Cht Wht Transl-Op Shp Vit Sh Blk Carb-Char-Grn Fissil No Odor No Stn No Flor NS

Sh Char-Drab Grn-Aqua-Gry Soft-Fissil Ls Crm FxIn Dns Micrite Poor IxIn Por Chalk Wht Soft Cht Wht Transl-Op Shp Vit Sh Blk Carb-Char-Grn Fissil No Odor No Stn No Flor NS

Ls Crm-Gry MicroxIn-FxIn Dns Micrite Poor IxIn Por Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn No Flor NS

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

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

IATAN (BROWN LIME) 4244' (- 1406)

Ls Crm-Tan-Gry FxIn-MicroxIn Dns Micrite Poor IxIn Por Chalk Wht Soft Sh Aqua-Char-Gry/Grn-Maroon Soft-Fissil No Odor No Stn No Flor NS

LANSING 4252' (- 1414)

Ls Wht-Crm MicroxIn-FxIn Micritic Fair ? Min Stn Flor (Lt Grn-Wht of Spl through Tray 40%) Cht Wht Op Shp Vit V Chalk Wht Soft Sh Char-Gry-Grn Fissil No Odor NS

Ls Crm-Gry MicroxIn-FxIn Poor IxIn Micritic Por Grad Poor OOL Poor InterOOL Por (w/Small OOids in pl) Poor Leaching Por Poor Develop Barren Chalk Soft Sh Char-Gry-Maroon Fissil No Odor No Stn ? Sli Min Flor Dec NS

Ls Crm-Gry MicroxIn-FxIn Poor IxIn Pin-Pt IxIn Por Grad Micritic Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor NS

Sh Char-Gry Fissil Ls Crm-Gry MicroxIn-FxIn Micrite Poor IxIn Por Cht Wht Op Shp Vit Chalk Wht Soft No Odor No Stn ? Sli Min Flor Dec NS

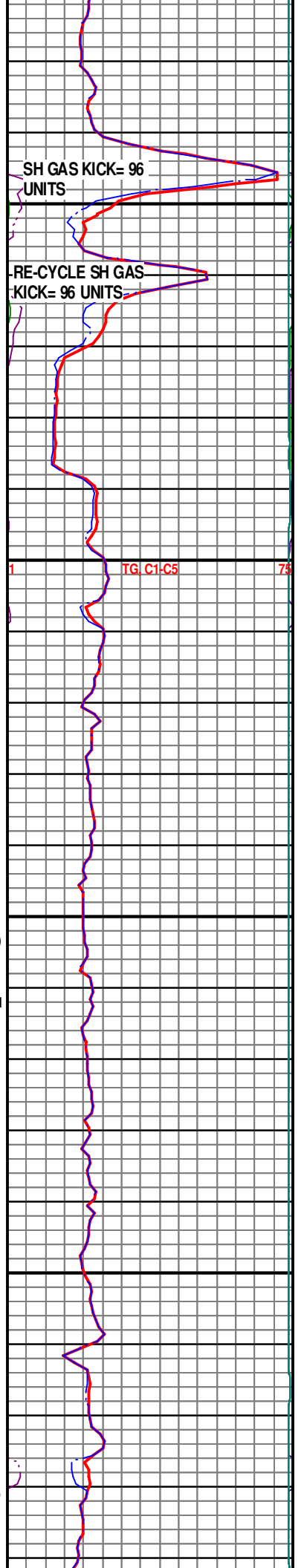
Ls Crm-Tan MicroxIn-FxIn Poor IxIn Por Grad Micritic Cht Wht Op Shp Vit Fos (Crin) Chalk Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor Dec NS

Ls Crm-Gry MicroxIn-FxIn Poor IxIn Por Grad Micritic Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor Dec NS

Ls Crm-Gry MicroxIn-FxIn Poor IxIn Por Grad Micritic Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor Dec NS

Sh Char-Gry-Maroon Fissil Ls Crm-Gry MicroxIn-FxIn Poor IxIn Por Grad Micritic Cht Wht Op Shp Vit Chalk No Odor No Stn ? Sli Min Flor Dec NS

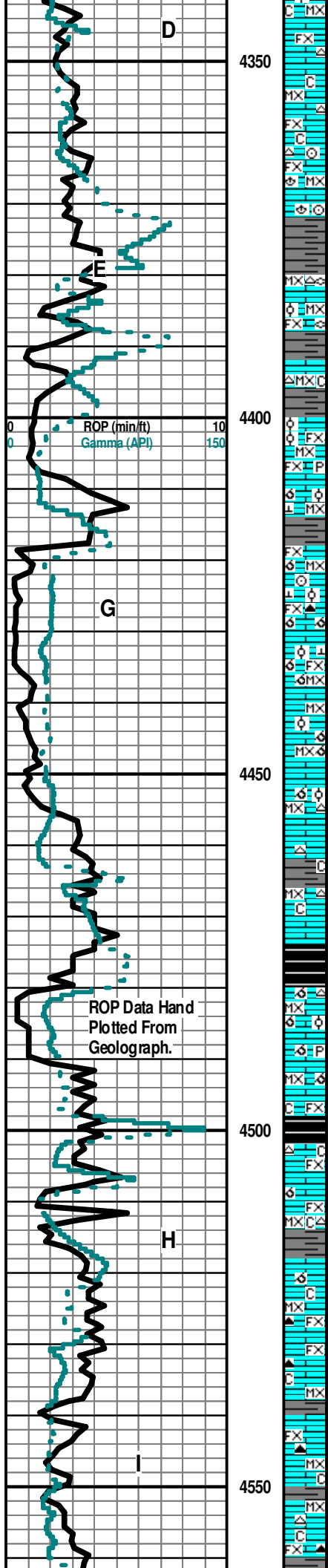
Ls Wht-Crm MicroxIn-FxIn Poor IxIn Por Grad Micritic Cht Wht Op Vis Shp Chalk Sh Char-Gry-Grn-Red Fissil No Odor No Stn ? V Sli Min Flor NS



SH GAS KICK= 96 UNITS

RE-CYCLE SH GAS KICK= 96 UNITS

TG, C1-C5, 75



Ls Wht-Crm Microxln-Fxln Poor Ixln Por Grad Grad 11/Poor OOL Por Poor
 InterOOL Por w/ Small Ooids in pl Chalk Wht Soft V Abd Sh
 Char-Gry/Grn-Red Fissil No Odor No Stn Sli Flor (Lt Grn) NS

Ls Crm-Gry Microxln-Fxln Poor Ixln Por Grad Micritic Cht Tan- Gry Op
 Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor
 Sh Char-Gry Fissil No Odor No Stn ? Sli Min NS

Ls Wht-Crm-Gry Microxln-Fxln Poor Ixln Por Micritic Cht Wht-Gry Banded
 Op Shp Vit Chalk Wht Soft Fos (Brach, Crin) Sh Blk Carb-Char-Gry Fissil
 No Odor No Stn ? Sli Min Flor NS

Ls Wht-Crm-Gry Microxln-Fxln Poor Ixln Por Micritic Cht Wht-Gry Banded Op Shp Vit Chalk
 Wht Soft Fos (Brach, Crin) Sh Blk Carb-Char-Gry Fissil No Odor No Stn ? Sli Min Flor NS

Ls Wht-Crm Microxln-Fxln Poor Ixln Por Grad Micritic Cht Wht (w/Fos (Fuss) Includ) Op Shp
 Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor NS

Chalk Wht Abd Ls Crm-Gry Microxln-Fxln Dns Micrite Poor Ixln Por Grad Poor OOM Por
 Poor InterOOM Poor Leaching Poor Develop Cht Wht-Gry Op Shp Vit Sh Char-Gry Fissil No
 Odor No Stn Tr ? Min Flor NS

Ls Wht-Crm-Gry Microxln Poor Ixln Por Micritic (w/Pyr Includ) Grad OOL Por (w/Small-Med
 Ooids - w/Ctr's Fill w/ ? Drk-Gry Calcite Includ in pl) Poor Inter-OOM/OOL Por Poor Develop
 Poor Leaching Cht Wht Op Shp Vit Sh Char-Gry-Maroon Fissil No Odor No Flor No Stn NS

No Sample Caught

Ls Crm-Tan Good (Grad Sli Vug) OOM Por (w/Small-Med Ooids w/Ctr's Fill w/? Drk-Gry
 Calcite? Includ in pl) Good Inter-OOM/OOL Por Goodr Develop Good Leaching Cht Drk Blk
 Op Shp Vit Fos (Crin) Sh Char-Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Tan Good Vug OOM Por (w/Med-Lg Ooids w/Ctr's Fill w/? Drk-Gry Calcite? Includ in
 pl) Good Inter-OOM/OOL Por Good Develop Good Leaching Cht Gry-Drk Gry Op Shp Vit Sh
 Char-Gry Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Tan OOM Por w/OOL (Small-Med Ooids w/Ctr's Fill w/? Drk-Gry Calcite? Includ
 in pl) Poor Inter-OOM/OOL Por Poor Develop Poor Leaching (w/Pyr Includ) Cht Wht Op Shp
 Vit Sh Char-Gry Fissil No Odor No Flor No Stn NS

Ls Wht-Crm-Tan OOM Por w/OOL (Small-Med Ooids w/Ctr's Fill w/? Drk-Gry Calcite? Includ
 in pl) Poor Inter-OOM/OOL Por Poor Develop Poor Leaching Grad Dns Micrite Barren Cht
 Tan Op Shp Vit Sh Char-Gry Fissil No Odor No Flor No Stn NS

Ls Gry-Crm Microxln-Fxln Poor Ixln Por Grad Micritic Cht Wht-Gry Op Shp Vit Chalk Wht
 Soft Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

Sh Char-Gry Fissil Ls Gry-Crm Microxln-Fxln Poor Ixln Por Grad Micritic Cht Wht- Gry Op
 Shp Vit Chalk Wht Soft No Odor No Stn Tr ? Min Flor NS

MUNCIE CREEK 4474' (- 1636)

Ls Crm-Tan Good Vug OOM Por (w/Tr Small-Med Ooids w/Ctr's Fill
 w/Drk-Gry Calcite Includ in pl) Mostly Poor InterOOM Por Good Develop
 Good Leaching Grad Micrite (w/Pyr Includ) Cht Wht Op Shp Vit Chalk Sh
 Blk Carb-Char-Gry-Maroon Fissil No Odor No Flor No Stn NS

Ls Tan-Crm Microxln-Fxln Good Vug OOM Por Grad Micrite Barren Poor
 Ixln Por Chalk Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

Sh Blk Carb-Char-Gry Fissil Ls Gry-Crm Microxln-Fxln Poor Ixln Por Grad
 Micritic Cht Wht- Gry Op Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No
 Odor No Stn Tr ? Min Flor NS

Sh Blk Carb-Char-Gry Fissil Ls Gry-Crm Microxln-Fxln Poor Ixln Por Grad
 Micritic Cht Wht- Gry Op Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No
 Odor No Stn Tr ? Min Flor NS

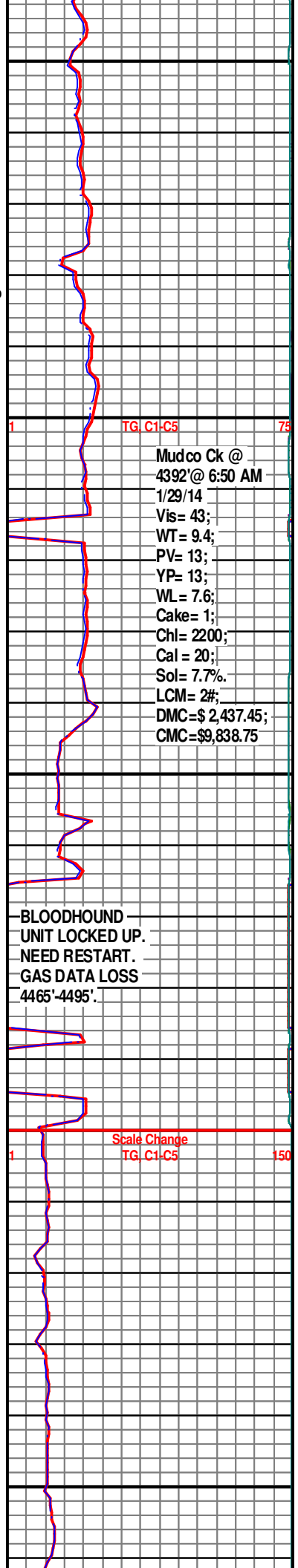
Ls Crm-Gry Microxln-Fxln Good Vug OOM Por (Tr Only) Grad Micrite
 Barren Poor Ixln Por Cht Gry- Drk Gry Op Shp Vit Chalk Sh Char-Gry
 Fissil No Odor No Stn Tr ? Min Flor NS

Ls Gry-Crm Microxln-Fxln Poor Ixln Por Grad Micritic Cht Gry-Drk Gry Op
 Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor
 NS

Ls Gry-Crm Microxln-Fxln Poor Ixln Por Grad Micritic Cht Gry-Drk Gry Op
 Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor
 NS

Ls Gry-Crm Microxln-Fxln Poor Ixln Por Grad Micritic Cht Gry-Drk Gry Op
 Shp Vit Chalk Wht Soft Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor
 NS

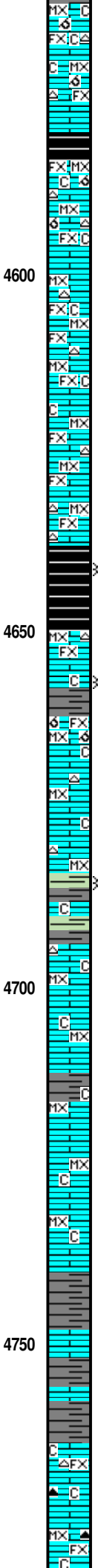
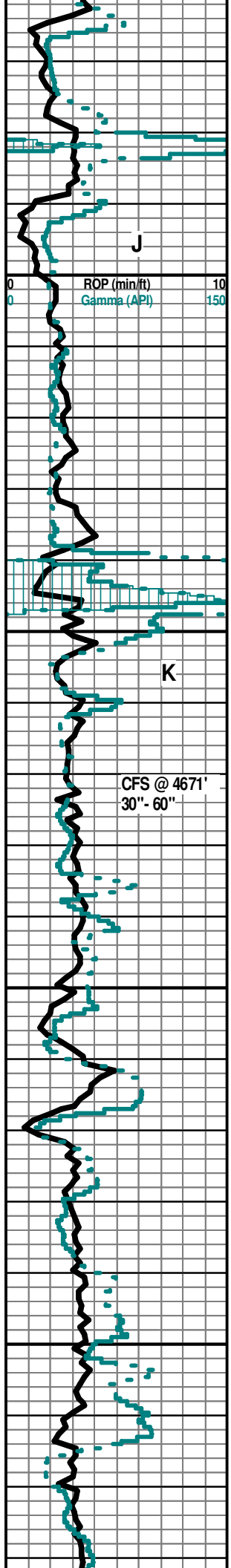
Ls Crm-Tan Good Vug OOM Por Mostly Med Good InterOOM Por Good Develop Good



Mudco Ck @
 4392' @ 6:50 AM
 1/29/14
 Vis= 43;
 WT= 9.4;
 PV= 13;
 YP= 13;
 WL= 7.6;
 Cake= 1;
 Chl= 2200;
 Cal= 20;
 Sol= 7.7%.
 LCM= 2#;
 DMC=\$ 2,437.45;
 CMC=\$9,838.75

BLOODHOUND
 UNIT LOCKED UP.
 NEED RESTART.
 GAS DATA LOSS
 4465'-4495'.

Scale Change
 TG, C1, C5



Ls Cht-Tan Microxln-Fxn Dns Micrite Grad Tr Poor Ixln Por Poor Leaching Grad Micrite Cht Gry Op Shp Vit Chalk V Abd Sh Char-Gry Fissil No Odor No Flor No Stn NS

Chalk Wht Abd Ls Crm-Gry Microxln-Fxn Dns Micrite Poor Ixln Por Grad Poor OOM Por Poor InterOOM Poor Leaching Poor Develop Cht Lt Gry Op Shp Vit Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

Ls Crm-Gry Microxln-Fxn Dns Micrite Grad Tr Poor Ixln Por Poor InterOOM Por Poor Leaching Poor Develop Cht Lt Gry Op Shp Vit Chalk Sh Char-Gry-Blk Carb Fissil No Odor No Stn Tr ? Min Flor NS

Ls Crm-Tan Microxln-Fxn Dns Micrite Grad Tr Poor Ixln Por Poor InterOOM Por Poor Leaching Poor Develop Cht Lt Gry Op Shp Vit Chalk Sh Char- Gry- Blk Carb Fissil No Odor No Stn Tr ? Min Flor NS

Ls Crm-Tan Microxln-Fxn Dns Micrite Cht Lt Gry Op Shp Vit Chalk Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

Ls Crm-Gry Microxln-Fxn Dns Micrite Cht Lt Gry Op Shp Vit Chalk Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

Ls Crm-Gry Microxln-Fxn Dns Micrite Cht Lt Gry Op Shp Vit Chalk Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

Ls Crm-Gry Microxln-Fxn Dns Micrite Cht Lt Gry Op Shp Vit Chalk Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

STARK SHALE 4640' (- 1802)

Sh Blk Carb Fissil GSG ? Faint Odor No Flor No Stn SG in Blk Sh

KANSAS CITY "SWOPE" (K) 4650' (-1812)

30" CFS @ 4671' Ls Wht-Gry Microxln Dns Micrite Cht Wht-Lt Gry Op Shp Vit Chalk Sh Blk Carb-Char-Gry Fissil ? Faint Odor No Stn Tr ? Min Flor NS

60" CFS @ 4671' Ls Crm-Tan Microxln-Fxn Dns Micrite Grad (Tr 1 Pc) Good Vug OOM Por Med-Good OOM Por (Poor InterOOM Por) Good Leaching Good Develop Chalk Dec Sh Char-Gry (Tr Only) Fissil No Odor No Stn Tr ? Min Flor NS

Ls Wht-Gry Microxln Dns Micrite Cht Wht-Lt Gry Op Shp Vit Chalk Sh Blk Carb-Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

Ls Wht-Gry Microxln Dns Micrite Cht Wht-Lt Gry Op Shp Vit Chalk Sh Blk Carb-Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

Ls Crm-Gry Microxln Dns Micrite Cht Wht Gry Op Shp Vit Chalk Sh Char-Gry-Aqua Fissil No Odor No Stn Tr ? Min Flor NS

Ls Crm-Gry Microxln Dns Micrite Cht Wht Gry Op Shp Vit Chalk Sh Blk Carb-Char-Gry-Aqua Fissil No Odor No Stn Tr ? Min Flor NS

Ls Crm-Drk Gry Microxln Dns Micrite Grad Tr Good Vug OOM Por Good Leaching Good Develop Poor Inter-Connect of Vugs Chalk Abd Sh Blk Carb-Char-Gry-Aqua Fissil No Odor No Stn Tr ? Min Flor NS

Ls Crm-Drk Gry Microxln Dns Micrite Chalk Abd Sh Blk Carb-Char-Gry-Aqua Fissil No Odor No Stn Tr ? Min Flor NS

Ls Tan-Gry Fxn Dns Micritic Barren Cht Drk Gry Op (w/Fos (Crin) & Small Ooid Includ) Sh Char-Gry-Maroon Fissil No Odor No Flor No Stn NS

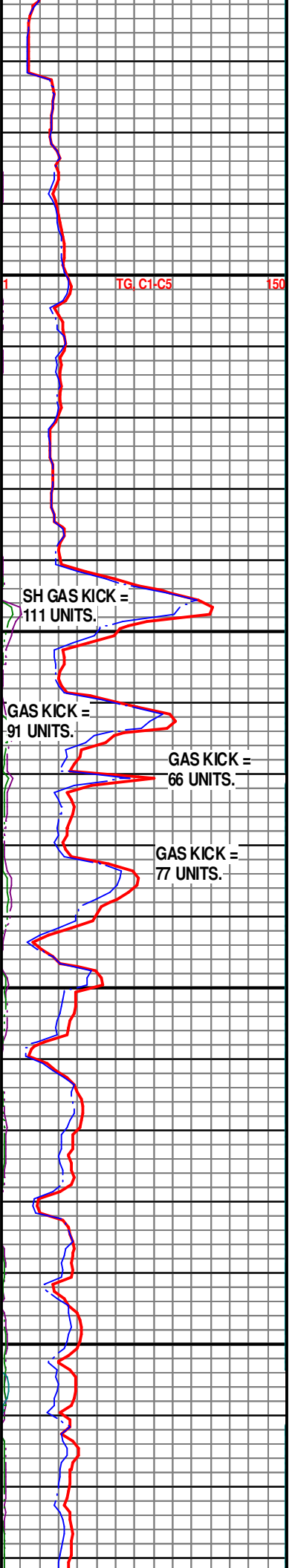
Ls Tan-Gry Fxn Dns Micritic Barren Cht Drk Gry Op (w/Fos (Crin) & Small Ooid Includ) Sh Char-Gry-Maroon Fissil No Odor No Flor No Stn NS

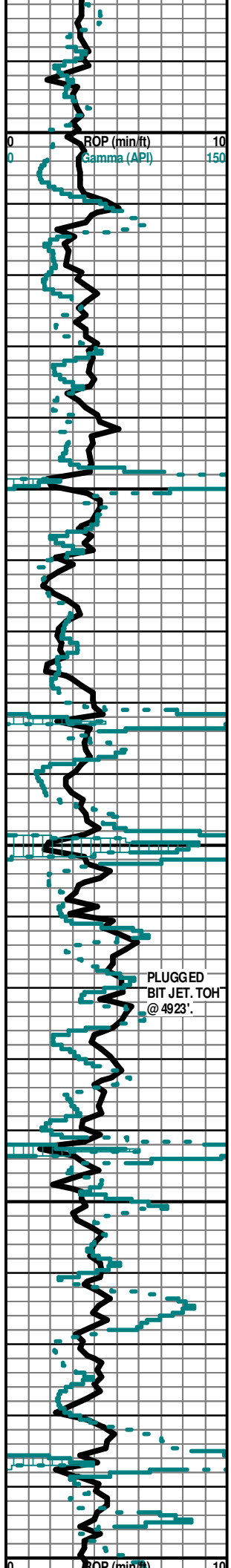
Sh Char-Gry Fissil Ls Gry Fxn Poor Ixln Por Micritic Dns Barren Chalk Wht Soft Fos (Fuss) No Odor No Flor No Stn NS

MARMATON 4764' (- 1926)

Sh Char-Gry Fissil Ls Gry Fxn Poor Ixln Por Micritic Dns Barren Chalk Wht Soft Fos (Fuss) No Odor No Flor No Stn NS

Ls Wht-Crm Microxln-Fxn Poor Ixln Por Micritic Dns Barren Cht Drk Gry Op Shp Vit Chalk Wht Soft Sh Char-Gry-Grn Fissil No Odor No Flor No Stn NS





4800
4850
4900
4950
5000

Ls Wht-Crm MicroIn-FxIn Poor IxIn Por Micritic Dns Barren Cht Drk Gry Op Shp Vit Chalk Wht Soft Sh Blk Carb-Char-Gry-Grn Fissil No Odor No Flor No Stn NS

Ls Wht-Crm MicroIn-FxIn Poor IxIn Por Micritic Dns Barren Cht Drk Gry Op Shp Vit Chalk Wht Soft Sh Blk Carb-Char-Gry-Grn Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Gry FxIn Poor IxIn Por Micritic Dns Barren Chalk Inc Sh Gry/Grn Fissil No Odor No Flor No Stn NS

Ls Gry-Crm FxIn Poor IxIn Por Micritic Dns Barren Grad Poor-Fair OOL Por (w/Small OOids in p) Poor Dissolu Poor Leaching Chalky Abd Sh Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Tan-Gry FxIn Poor IxIn Por Micritic Dns Barren Grad Poor OOL Por (w/Abd Small OOids in p) No-Poor Dissolu No-Poor Leaching Cht Wht Op Shp Vit Chalk Sh Gry/Grn Fissil No Odor No Flor No Stn NS

Ls Crm-Tan FxIn Poor IxIn Por Micritic Dns Barren Cht Crm-Tan Op Shp Vit Chalk Sh Blk Carb-Char-Gry-Drab Grn-Maroon Soft-Fissil No Odor No Flor No Stn NS

Ls Crm-Tan FxIn Poor IxIn Por Micritic Dns Barren Cht Crm-Tan Op Shp Vit Chalk Sh Blk Carb-Char-Gry-Drab Grn-Maroon Soft -Fissil No Odor No Flor No Stn NS

PAWNEE 4850' (- 2012)

Ls Wht-Crm MicroIn Poor IxIn Por Micritic Dns Barren Cht Wht- Lt Gry Op Shp Vit Chalk Sh Char-Gry-Drab Grn (Tr Only) Fissil No Odor No Flor No Stn NS

Ls Wht-Crm MicroIn Poor IxIn Por Micritic Dns Barren Cht Wht- Lt Gry Op Shp Vit Chalk Sh Char-Gry-Drab Grn (Tr Only w/Pyr Includ) Fissil No Odor No Flor No Stn NS

Ls Wht-Crm MicroIn Poor IxIn Por Micritic Dns Barren Chalk Abd Cht Wht- Lt Gry Op Shp Vit Sh Blk Carb-Char-Gry-Drab Grn (w/Pyr Includ) Fissil No Odor No Flor No Stn NS

LABETTE 4878' (- 2040)

Ls Wht-Crm FxIn Poor IxIn Por Micritic Dns Barren Grad Poor Pin-Pt IxIn Por Grad Poor OOM Por No-Poor Leaching Chalk Abd Cht Lt Gry Op Shp Vit Sh Blk Carb Fissil No Odor No Flor No Stn NS

Ls Wht-Crm FxIn Poor IxIn Por Micritic Dns Barren Grad Poor Pin-Pt IxIn Por Grad Poor OOM Por No-Poor Leaching Chalk Abd Cht Lt Gry Op Shp Vit Sh Blk Carb Fissil No Odor No Flor No Stn NS

CHEROKEE 4898' (- 2060)

30" CFS @ 4923' Sh Char-Gry-Drab Grn (Tr Only w/Pyr Includ) Fissil Ls Wht-Crm FxIn Poor IxIn Por Micritic Dns Barren Grad Poor Pin-Pt IxIn Por Grad Poor OOM Por No-Poor Leaching Chalk Abd Cht Lt Gry Op Shp Vit No Odor No Flor No Stn NS

Sh Char-Gry-Drab Grn (Tr Only w/Pyr Includ) Fissil Ls Wht-Crm FxIn Poor IxIn Por Micritic Dns Barren Grad Poor Pin-Pt IxIn Por Grad Poor OOM Por No-Poor Leaching Chalk Abd Cht Lt Gry Op Shp Vit No Odor No Flor No Stn NS

Sh Char-Gry-Grn Fissil Ls Tan-Gry FxIn Dns Micritic Barren Chalk Abd Cht Amber Translu Shp Vit No Odor No Flor No Stn NS

Ls Crm-Tan-Gry FxIn Dns Micritic Barren Chalk Abd Cht Wht Op Shp Vit Fos (Coral) Sh Char-Gry-Grn Fissil No Odor No Flor No Stn NS

SECOND CHEROKEE SHALE 4941' (- 2103)

Sh Blk Carb-Gry-Grn Fissil (SSG) Ls Crm-Tan-Gry FxIn Dns Micritic Barren Chalk Abd Cht Wht Op Shp Vit No Odor No Flor No Stn SSh Blk Carb

Sh Char-Gry-Grn Fissil Ls Crm-Tan-Gry FxIn Dns Micritic Barren Chalk Abd Cht Wht Op Shp Vit No Odor No Flor No Stn NS

Ls Crm-Tan-Gry FxIn Dns Micritic Barren Chalk Abd Cht Wht Op Shp Vit Sh Char-Gry-Grn Fissil No Odor No Flor No Stn NS

Ls Crm-Tan-Gry FxIn Dns Micritic Barren Chalk Abd Cht Wht Op Shp Vit Sh Char-Gry-Grn Fissil No Odor No Flor No Stn NS

THIRD CHEROKEE SHALE 4982' (- 2144)

Sh Blk Carb-Gry-Grn Fissil (SSG) Ls Tan-Crm-Gry FxIn Dns Micritic Barren Chalk Abd Cht Amber-Tan Translu Shp Vit No Odor No Flor No Stn SSh Blk Carb

Ls Crm-Tan FxIn Dns Micritic Barren Chalk Abd Cht Wht Op Shp Vit Sh Char (w/Pyr Includ) Gry-Grn Fissil No Odor No Flor No Stn NS

TG C1-C5 150

Mudco Ck @
4864' @ 8:25 AM
1/30/14
Vis= 47;
WT= 9.3;
PV= 14;
YP= 15;
WL= 7.6;
Cake= 1;
Chl= 1400;
Cal = 40;
Sol= 7.1%
LCM= 1/2#;
DMC=\$ 2,309.85;
CMC=\$12,148.60

SH GAS KICK = 76 UNITS

SH GAS KICK = 79 UNITS

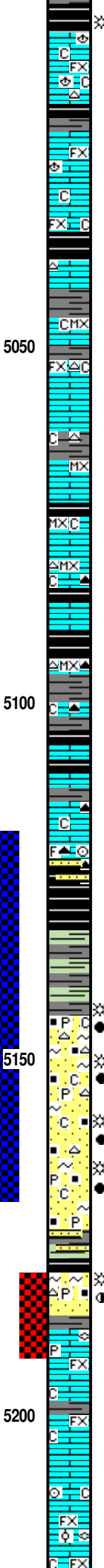
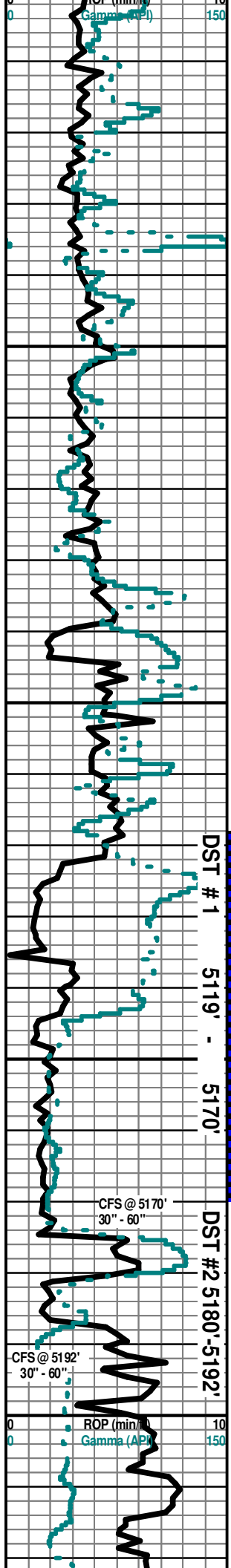
SH GAS KICK = 99 UNITS

SH GAS KICK = 55 UNITS
PIPE STRAP = <0.55'> LONG TO BOARD. NO COR-MADE.

~DST # 1~

Interval: 5119'-5170'.
Times:
5'-90"-75"-180"; Blow:
IF= BOB/0.5". BOB
Blow Back (ISIP).
FF= BOB/1". With GTS @ 8" into FF (See Gauge Report Below).
BOB Blowback (FSIP).
Recovery: 3165' GIP:
1910' TF: 600' GO (21% G & 79% O); 540' GHMCO (7% G, 58% O & 35% M); 100' SOCM (16% O, 84% M); 670' GSMCO (15% G, 76% O & 9% M).

Pressures:
IH= 2502#;
FH= 2500#;



Sh Blk Carb-Gry-Grn Fissil (SSG) Ls Crm-Tan FxIn Dns Micritic Barren Fos (Brach) Chalk No Odor No Flor No Stn SSH Blk Carb

Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns Barren Chalk
Cht-Amber-Tan Translu Shp Vit Fos (Brach) Sh Blk Carb-Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Tan-Lt Brn FxIn Poor IxIn Por Micritic Dns Barren Chalk Sh Blk Carb-Gry Fissil No Odor No Flor No Stn NS

Sh Blk Carb-Gry Fissil Ls Crm-Tan-Lt Brn FxIn Poor IxIn Por Micritic Dns Barren Chalk No Odor No Flor No Stn NS

Ls Crm-Wht-Tan MicroxIn Poor IxIn Por Micritic Dns Barren Chalk
Cht-Amber-Wht Translu-Op Shp Vit Sh Blk Carb-Gry Fissil No Odor No Flor No Stn NS

Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns Barren Chalk Cht-Amber (Abd) Translu Shp Vit Sh Blk Carb-Gry Fissil No Odor No Flor No Stn NS

Ls Gry-Crm-Tan MicroxIn Poor IxIn Por Micritic Dns Barren Chalk
Cht-Amber (Abd) Translu Shp Vit Sh Blk Carb-Gry (Tr Only) Fissil No Odor No Flor No Stn NS

Ls Gry-Crm MicroxIn Poor IxIn Por Micritic Dns Barren Chalk Cht-Lt Gry Translu-Op Shp Vit Sh Blk Carb-Gry (Tr Only) Fissil No Odor No Flor No Stn NS

Sh Blk Carb-Gry Fissil Ls Crm-Wht-Tan MicroxIn Poor IxIn Por Micritic Dns Barren Chalk Cht Tan Drk-Amber Translu-Op Shp Vit No Odor No Flor No Stn NS

Sh Blk Carb-Gry Fissil Ls Crm-Tan MicroxIn Poor IxIn Por Micritic Dns Barren Chalk Cht Wht-Drk-Amber Translu-Op Shp Vit No Odor No Flor No Stn NS

Sh Blk Carb-Gry Fissil Ls Crm-Tan MicroxIn Poor IxIn Por Micritic Dns Barren Chalk Cht Wht-Drk-Amber Translu-Op Shp Vit No Odor No Flor No Stn NS

30" CFS @ 5125' Sh Blk Carb-Gry-Drab Grn Fissil Ls Crm-Tan MicroxIn Poor IxIn Por Micritic Dns Barren Chalk Cht Drk Amber Translu Shp Vit Fos (Crin) Qtz Ss Gry VFGm Poor InterGran Por (w/Carb Includ) No Odor No Flor No Stn NS

MORROW SHALE 5124' (- 2286)

60" CFS @ 5125' Sh Blk Carb-Gry-Drab Grn Fissil Ls Crm-Tan MicroxIn Poor IxIn Por Micritic Dns Barren Chalk Cht Drk Amber (w/Fos Includ) Translu Shp Vit Qtz Ss Wht-Gry (2 Pcs) Lg-VFGm Ang-SubAng Poor InterGran Por (w/Carb Includ) Fair Sort No Odor No Flor No Stn NS

Sh Blk Carb-Gry-Drab Grn Fissil Ls Crm-Tan MicroxIn Poor IxIn Por Micritic Dns Barren Chalk Cht Drk Amber (w/Fos Includ) Translu Shp Vit Qtz Ss Wht-Gry (2 Pcs) Lg-VFGm Ang-SubAng Poor InterGran Por (w/Carb Includ) Fair Sort No Odor No Flor No Stn NS

MORROW SAND 5144' (- 2306)

Qtz Ss Crm-tan-Lt Brn Abd Small-Med Clear Grn Ang-SubAng Clusters Good Igran Por V Friable Well Sort (w/CaCO3 Matrix, Glacu Tr & Carb Tr Includ? Fluvial) GSG & GSFO (Free Oil in Spl Under Wtr w/Heat) Cht Wht Op Vit Shp Good-Strong Odor Dull Flor Pyr Mass Sh Gry "Gummy-Drab Grn Soft-Fissil (Both G & O Do Not Flor) Chalky GSG & GSFO

30" CFS @ 5170' Qtz Ss Lt Brn-Brn V Abd Small-Med Clear Grn Inc Size Ang-SubAng (Upward Fineing) Clusters Good Igran Por V Friable Well Sort (w/CaCO3 Matrix, Glacu Dec & Hvy Blk Carb Inc Includ ? Fluvial) GSG & Abd GSFO (SFO AA) Micro-Lamination Qtz Ss Btw Sh (Aqua-Blk) Cht Wht Op Vit Shp (Tr Only) Pyr Mass Sh Blk Carb-Gry-Drab Grn Fissil Chalk (Tr Only) Good-Strong Odor VGSG & VGSFO

60" CFS @ 5170' Qtz Ss AA Lt-Brn-Gry Fine-Med Grns (w/Glacu Dec Carb Dec Includ) Well Sort Good-Strong Odor GSG & GSFO AA ? Dec Sat Stn

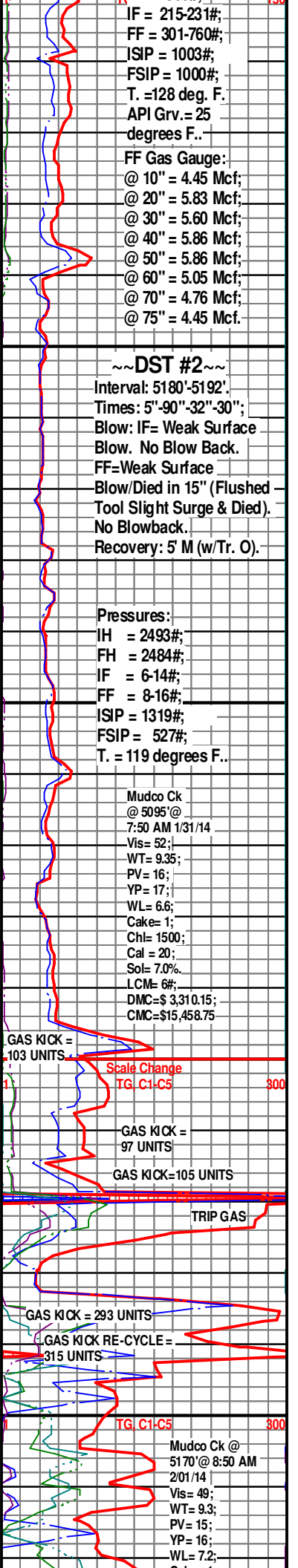
CHESTERIAN 5180' (- 2342)

30" CFS @ 5192' (Morrow ?) Qtz Ss Wht-Lt BrnSmall-Lg Inc Frosted-Clear Grns Ang/Lg Grns SubAng/Small Grn Clusters (w/Pyr Includ) Good Igran Por Friable Med-Well Sort (Glacu Tr & Hvy Blk Carb Includ Tr ? Fluvial) GSG & GSFO (w/Boken Under Heat in Wtr) Pyr Mass Cht Amber Translu Vit Shp (Tr Only) Pyr Mass Sh Blk Carb-Gry Fissil Faint Odor Abd SFO in Spl Tray SG & GSFO

60" CFS @ 5192' (Morrow ?) Ls Crm MicroxIn-FxIn Fair Pin-Pt IxIn Por (w/Fos (Fuss) Includ) Qtz Ss Wht-Lt BrnSmall-LG Inc Frosted-Clear Grns Ang /Lg Grns (Few WO/Glacu) SubAng /Small Grn Clusters (W/Glacu) AA Good Por AA Friable Med-Well Sort AA GSG & GSFO (w/Boken Under Heat in Wtr) Cht AA Pyr AA Sh AA Faint Odor Abd SFO in Spl Tray GSG & GSFO

Ls Wht-FxIn Dns Micrite Grad Fos (Brach & Fos Inclusion) Pyr Mass Chalk Sh Char-Gry-Grn-Blk Carb Fissil No Odor No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Crd Dns Micrite Fos (Crin) Foss Chalky Abd Ch Char Grn Crm Blk



Grad Dns Micrite Fos (Crin, Fuss) Chalk V Abd Sh Char- Gry- Grn- Blk Carb Fissil No Odor No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Dns Micrite Fos (Crin, Fuss) Chalk V Abd Sh Char- Gry- Grn- Blk Carb Fissil No Odor No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Ls CrmTan-Gry FxIn Dns Micrite Chalky Sh Varicolored Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Dns Micrite Grad Pin-Pt lXIn Por Barren Tr Qtz Ss AA (w/SO ? Sluff) Chalky Sh Gry-Grn-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Dns Micrite Grad Pin-Pt lXIn Por Barren Cht Wht Op Shp Vit Chalky Prry Mass Sh Varicolored Blk Carb-Char-Aqua-Red-Maroon (Wash Red) Fissil No Odor No Stn No Flor NS

Qtz Ss Aqua-Wht VFGm Well Rounded-Well Sort Dns Semi-Friable Fair CaCO3 Matrix Barren Ls AA FxIn Barren Sli ? Min Flor Cht Amber Translu Shp Vit Chalky Sh Varicolored AA (Wash Red) Soft-Fissil No Odor No Stn No Flor NS

MISSISSIPPIAN "Ste. GEN" 5278' (- 2440)

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Ls CrmTan-Gry FxIn Dns Micrite AA Tr Qtz Ss AA Cht Wht (w/Fos (Crin/OOL (Drk Gry-Blk Includ) Chalky Sh Varicolored Soft Fissil AA No Odor No Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Ls Crm-Gry FxIn Dns Micrite Chalky Sh Varicolored Fissil No Odor No Stn No Flor NS

Ls Wht-Gry-Sli Aqua FxIn Poor OOL Por (w/Small OOL in pl) "Sandy OOL Ls" Barren Grad Ls Crm-Gry FxIn Dns Micrite Chalky Sh Blk Carb-Gry Fissil No Odor No Stn No Flor NS

Ls Crm-Tan-Wht FxIn Poor OOL Por (w/Smal-Medl OOL in pl) "Sandy OOL Ls" Barren Grad Ls Crm-Gry FxIn Dns Micrite Chalky Sh Blk Carb-Gry Fissil No Odor No Stn No Flor NS

MISS. ST. LOUIS 5320' (- 2498)

Ls Wht FxIn Poor OOL Por (w/Small OOids in pl) "Sandy OOL Ls" Barren Grad Ls Crm-Gry FxIn Dns Micrite Cht Wht Translu-Op Shp Vit (Tr Only) Chalky Sh Char -Gry-Grn-Aqua-Ren Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOids in pl) "Sandy OOL Ls" Barren Grad Ls Crm-Gry FxIn Dns Micrite Cht Wht Translu-Op Shp Vit (Tr Only) Chalky Sh Char -Gry-Grn-Aqua-Ren Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOids in pl) "Sandy OOL Ls" Barren Grad Ls Crm-Gry FxIn Dns Micrite Cht Wht Translu-Op Shp Vit (Tr Only) Chalky Sh Char -Gry-Grn-Aqua-Ren Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOids in pl) "Sandy OOL Ls" Barren Tr Glacu Includ Grad Ls Crm-Gry FxIn Dns Micrite Cht Wht Translu-Op Shp Vit (Tr Only) Chalky Sh Char -Gry-Grn-Aqua-Ren Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOids in pl) "Sandy OOL Ls" Barren Tr Glacu Includ Grad Ls Crm-Gry FxIn Dns Micrite Cht Wht Translu-Op Shp Vit (Tr Only) Chalky Sh Char -Gry-Grn-Aqua-Ren Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Poor OOL Por (w/Small OOids in pl) "Sandy OOL Ls" Tr Glacu Includ Barren Grad Ls Crm-Gry FxIn Dns Micrite Cht Wht Translu-Op Shp Vit (Tr Only) Chalky Sh Char -Gry-Grn-Aqua-Ren Fissil No Odor No Stn No Flor NS

30" CFS @ 5400' Ls Wht Med OOL Por (w/Med OOids in pl) Friable Med-Good InterOOL Por (w/Drk Brn-Blk Stn in Pin-Pt Inter OOL Por) MSG & MSO (w/SFO in Wtr Under Heat) Tr Glacu Includ Cht Wht-Tan Op Shp Vit Chalky V Abd Fair Odor No Flor MSG & MSO

ST. LOUIS LWR "B" Ø 5388' (- 2550)

60" CFS @ 5400' Ls Wht Med OOL Por (w/Med-Lg OOids in pl) Friable Med -Good InterOOL Por (w/Drk Brn-Blk Stn in Pin-Pt Inter OOL Por) Inc in Lower Samples GSG & GSO (w/GSG & GSO in Wtr Under Heat) Cht Wht-Org Op Shp Vit Chalk V Abd Fair Odor No Flor GSG & GSO

60" CFS @ 5410' Ls Wht-Crm FxIn Tr. Med OOL Por AA (w/SSG & SSO AA) Grad Dns Micrite Cht Wht-Peach-Org (w/ Blk Includ) Abd Translu-Op Shp Vit Chalk Dec No Odor No Flor Tr SG & SO AA Mostly NS

Ls Wht FxIn Poor lXIn Por Micritic Dns Barren Grad Tr OOL Por (w/Small OOids in pl) AA Barren Cht Wht-Peach-Org Translu-Op Shp Vit Chalk Sh Vari-Colored Char-Gry (w/Pyr Includ) Blk-Carb-Aqua-Marood Soft-Fissil No Odor No Stn No Flor NS

Ls Wht FxIn Poor lXIn Por Micritic Dns Barren Grad Tr OOL Por (w/Small OOids in pl) AA Barren Cht Wht-Peach-Org Translu-Op Shp Vit Chalk Sh Vari-Colored Char-Gry (w/Pyr Includ) Blk-Carb-Aqua-Marood Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Poor lXIn Por Micritic Dns Barren Grad Tr OOL Por (w/Small OOids in pl) AA Barren Cht Wht-Peach-Org Translu-Op Shp Vit Chalk Sh Vari-Colored Char-Gry (w/Pyr Includ) Blk-Carb-Aqua-Marood Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Poor lXIn Por Micritic Dns Barren Grad Tr OOL Por (w/Small OOids in pl)

Cake= 1;
Chl= 2700;
Cal = 20;
Sol= 7.0%;
LCM= 4#;
DMC=\$ 960.70;
CMC=\$16,419.45

Mudco Ck @
5192' @ 8:50 AM
2/02/14
Vis= 48;
WT= 9.35;
PV= 15;
YP= 16;
WL= 8.0;
Cake= 1;
Chl= 2600;
Cal = 20;
Sol= 7.0%;
LCM= 4#;
DMC=\$ 66.15;
CMC=\$ 16,485.60

~DST #3~

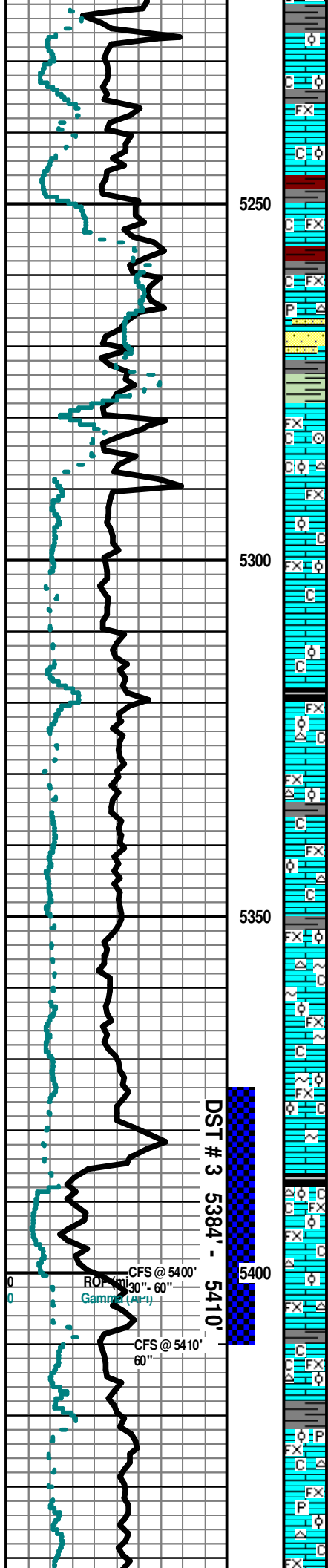
Interval: 5384'-5410'.
Times:
5"-90"-60"-180"; Blow:
IF= Weak Surface
Blow/1". No Blow
Back. FF=Weak
Building To
BOB/56.5". No
Blowback.
Recovery: 190' GIP;
25' SOCM (8% O &
92% M).
Tool Spl: (25% O, 48%
M & 27% Wtr).
Chl. = 25,000 Ppm.
PH=7.0. RW= 0.36 @
61 degrees F..

Pressures:
IH = 2585#;
FH = 2582#;
IF = 8-9#;
FF = 10-17#;
ISIP = 1463#;
FSIP = 1463#;
T. = 124 degrees F..

GAS KICK = 96 UNITS

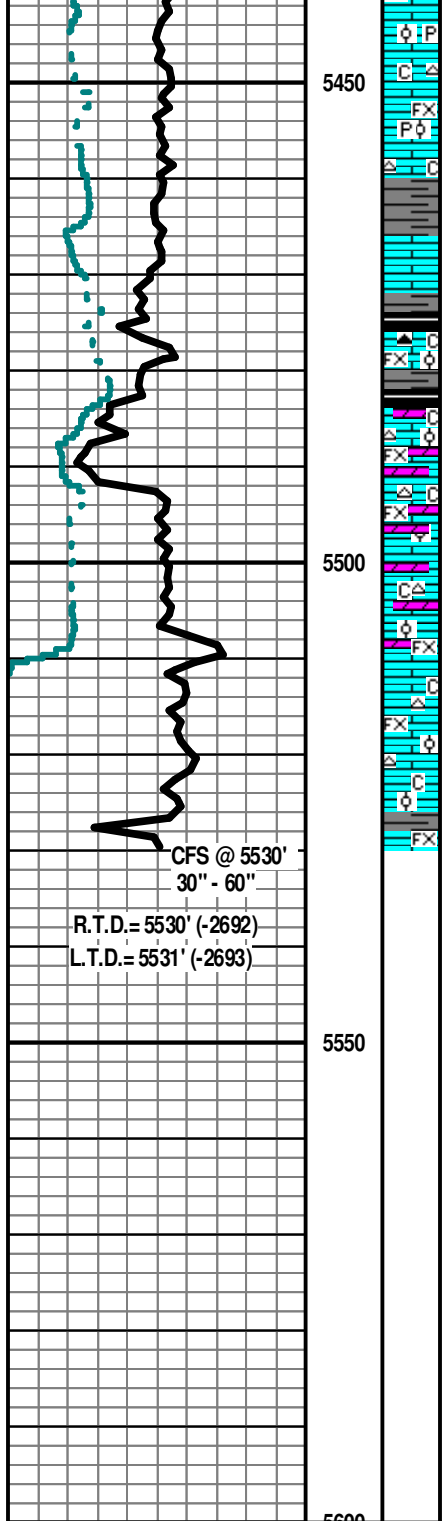
TG C1-C5 300

Mudco Ck @
5410' @ 9:10 AM
2/03/14
Vis= 50;
WT= 9.35;
PV= 16;
YP= 16;
WL= 7.0;
Cake= 1;
Chl= 2100;
Cal = 20;
Sol= 7.0%;
LCM= 4#



DST # 3 5384' - 5410'

CFS @ 5400' 60"
CFS @ 5410' 60"



5450

Ls Wht-Crm FxIn Poor lxn Por Micritic Dns Barren Grad Tr OOL Por (w/Small OOids in pl)
 AA Barren Cht Wht-Peach-Org Translu-Op Shp Vit Chalk Sh Vari-Colored Char-Gry (w/Pyr Includ) Blk-Carb-Aqua-Marood Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Poor lxn Por Micritic Dns Barren Grad Tr OOL Por (w/Small OOids in pl)
 AA Barren Cht Wht-Gry Translu-Op Shp Vit Chalk Sh Vari-Colored AA Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Poor lxn Por Micritic Dns Barren Grad Tr OOL Por (w/Small OOids in pl)
 AA Barren Cht Wht-Gry Translu-Op Shp Vit Chalk Sh Vari-Colored AA Soft-Fissil No Odor No Stn No Flor NS

Ls Crm FxIn Poor lxn Por Micritic Dns Barren Grad Tr OOL Por (w/Small OOids in pl) AA
 Barren Grad Dolo Gry Fxn Dns Micrite Grad Poor-Fair OOL Por (w/Small OOids in pl)
 Barren (Tr Glacu Includ) Cht Wht-Peach Translu- Op Shp Vit Chalk Sh Blk-CarbSoft-Fissil No Odor No Stn No Flor NS

SALEM (SPERGEN) 5484' (- 2646)

Ls Crm FxIn Poor lxn Por Micritic Dns Barren Grad Tr OOL Por (w/Small OOids in pl) AA
 Barren Grad Dolo Gry Fxn Dns Micrite Grad Poor-Fair OOL Por (w/Small OOids in pl)
 Barren (Tr Glacu Includ) Cht Wht-Peach Translu- Op Shp Vit Chalk Sh Gry Fissil No Odor No Stn No Flor NS

Ls Crm-Tan FxIn Poor lxn Por Micritic Dns Barren Grad Tr OOL Por (w/Small OOids in pl)
 AA Barren Cht Wht-Gry Translu-Op Shp Vit Chalk Sh Blk CarbSoft-Fissil No Odor No Stn No Flor NS

Ls Crm FxIn Poor lxn Por Micritic Dns Barren Grad Tr OOL Por (w/Small OOids in pl) AA
 Barren Grad Dolo Gry Fxn Dns Micrite Grad Poor-Fair OOL Por (w/Small OOids in pl)
 Barren (Tr Glacu Includ) Cht Wht-Peach Translu- Op Shp Vit Chalk Sh Gry Fissil No Odor No Stn No Flor NS

30" CFS @ 5530' Ls Crm-Tan FxIn Poor lxn Por Micritic Dns Barren Grad Tr OOL Por
 (w/Small OOids in pl) AA Barren Grad Dns Micrite Cht Wht-Gry Translu-Op Shp Vit Chalk Sh
 Blk-CarbSoft-Fissil No Odor No Stn No Flor NS

60" CFS @ 5530' Ls Crm-Tan FxIn Poor lxn Por Micritic Dns Barren Grad Tr OOL Por
 (w/Small OOids in pl) AA Barren Grad Dns Micrite Cht Wht-Gry Translu-Op Shp Vit Chalk Sh
 Blk-CarbSoft-Fissil No Odor No Stn No Flor NS

5500

5550

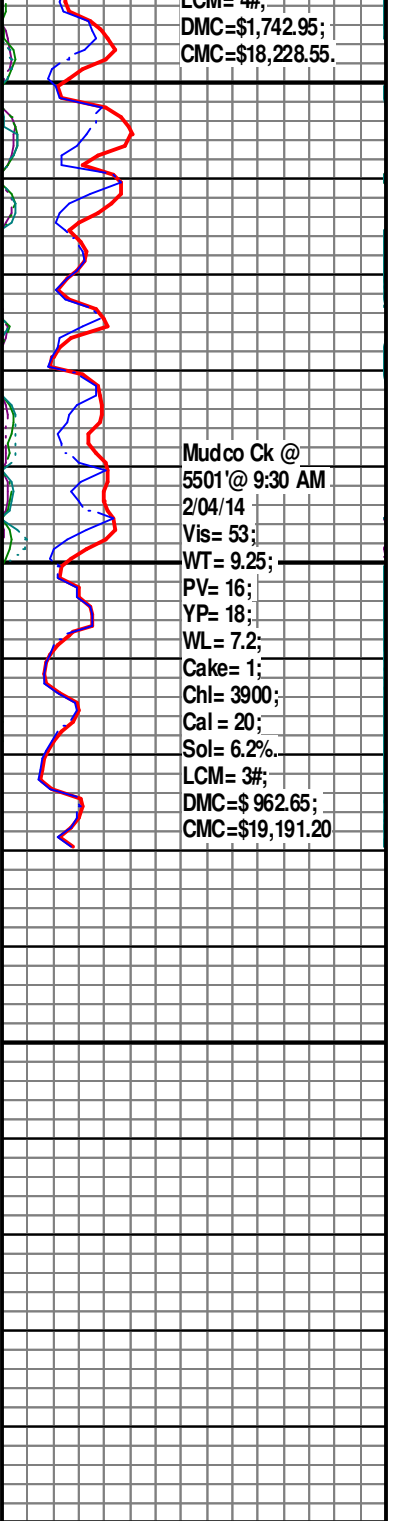
5600

CFS @ 5530'
 30" - 60"

R.T.D.= 5530' (-2692)
 L.T.D.= 5531' (-2693)

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

Geologist left Location @ 9:00 AM on 2-05-14



LCM= 4#;
 DMC=\$1,742.95;
 CMC=\$18,228.55.

Mudco Ck @
 5501' @ 9:30 AM
 2/04/14
 Vis= 53;
 WT= 9.25;
 PV= 16;
 YP= 18;
 WL= 7.2;
 Cake= 1;
 Chl= 3900;
 Cal = 20;
 Sol= 6.2%
 LCM= 3#;
 DMC=\$ 962.65;
 CMC=\$19,191.20