

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1245364
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: _____

1245364

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
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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DIAMOND TESTING

General Information Report

General Information

Company Name FALCON EXPLORATION, INC.
Contact JASON MITCHELL
Well Name JAMES KOEHN #4-31 (NW)
Unique Well ID DST #1, MORROW SS, 5124-5180
Surface Location SEC 31-28S-30W, GRAY CO. KS.
Field WILDCAT
Well Type Vertical
Test Type CONVENTIONAL
Formation DST #1, MORROW SS, 5124-5180
Well Fluid Type 01 Oil

Representative TIM VENTERS
Well Operator FALCON EXPLORATION, INC.
Report Date 2014/12/06
Prepared By TIM VENTERS
Qualified By DAVE WILLIAMS

Start Test Date 2014/12/05
Final Test Date 2014/12/06

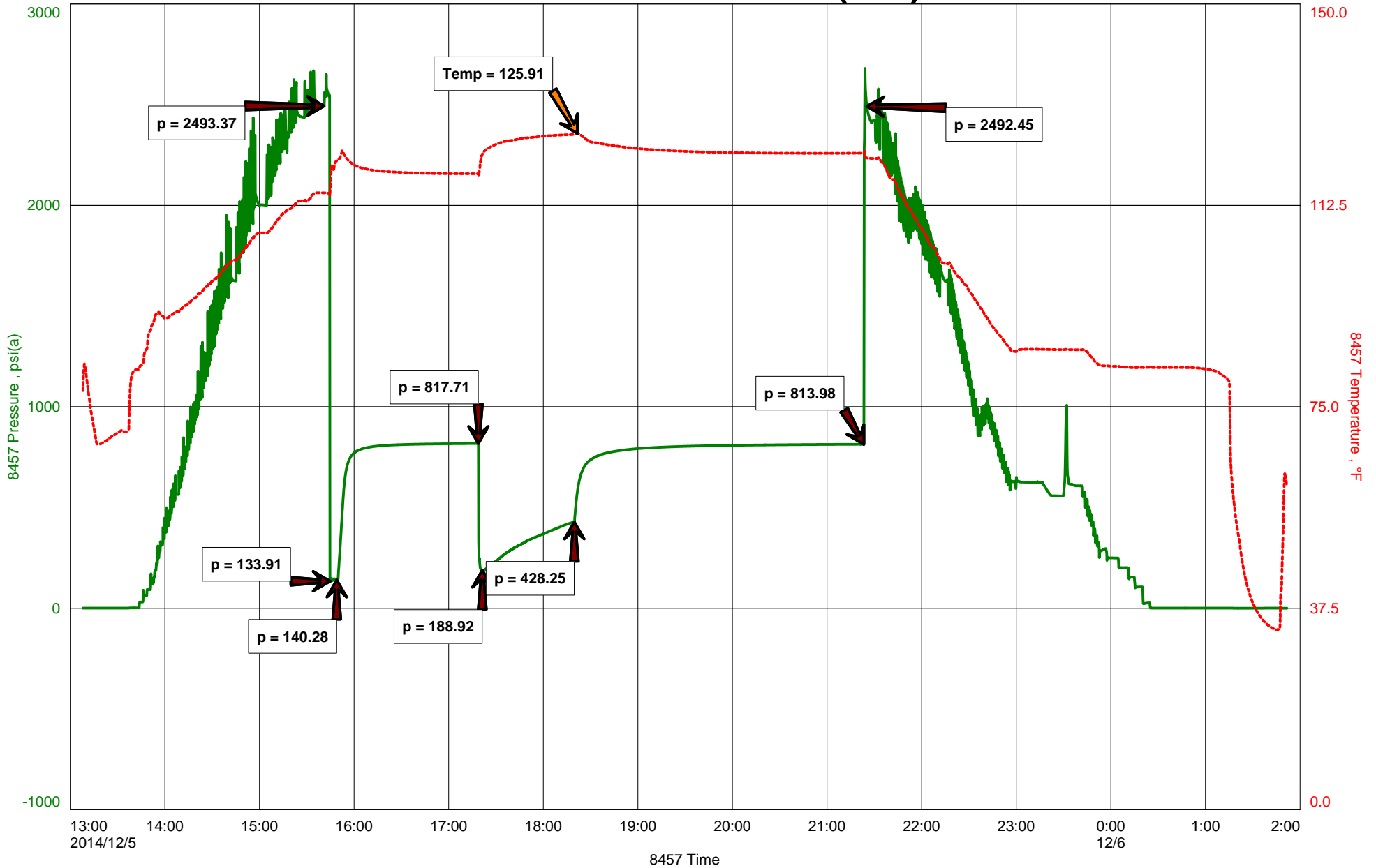
Start Test Time 13:08:00
Final Test Time 01:52:00

Test Recovery:

RECOVERED: 3860' GAS IN PIPE
860' G,SMCO, 21% GAS, 74% OIL, 5% MUD, GRAVITY: 26
310' G,HMCO, 8% GAS, 56% OIL, 36% MUD
60' G,HOCM, 8% GAS, 32% OIL, 60% MUD
1230' TOTAL FLUID

TOOL SAMPLE: GAS BLEW OUT

JAMES KOEHN #4-31 (NW)





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

TIME ON: 13:08 12-5-14
 TIME OFF: 01:52 12-6-14

DRILL-STEM TEST TICKET
 FILE: JAMESKOEHN4-31NWDST1

Company FALCON EXPLORATION, INC. Lease & Well No. JAMES KOEHN #4-31 (NW)
 Contractor STERLING DRILLING COMPANY RIG #2 Charge to FALCON EXPLORATION, INC
 Elevation 2827 KB Formation MORROW SS Effective Pay _____ Ft. Ticket No. T425
 Date 12-5-14 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 5124 ft. to 5180 ft. Total Depth 5180 ft.

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

Packer Depth 5124 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 5105 ft. Recorder Number 8457 Cap. 10,000 P.S.I.

Bottom Recorder Depth (Outside) 5177 ft. Recorder Number 11030 Cap. 5,025 P.S.I.

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

Mud Type CHEMICAL Viscosity 58 Drill Collar Length 216 ft. I.D. 2 1/4 in.

Weight 9.25 Water Loss 9.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in

Chlorides 3,800 P.P.M. Drill Pipe Length 4875 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 24 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: GOOD 2 1/2 INCH BLOW, BUILDING, REACHING BOB 1 1/2 MIN. (4" BB)

2nd Open: STRONG 6 INCH BLOW, BUILDING, REACHING BOB 30 SEC. (BOB BB)

Recovered 3860 ft. of GAS IN PIPE

Recovered 860 ft. of G,SMCO, 21% GAS, 74% OIL, 5% MUD, GRAVITY: 26

Recovered 310 ft. of G,HMCO, 8% GAS, 56% OIL, 36% MUD

Recovered 60 ft. of G,HOCM, 8% GAS, 32% OIL, 60% MUD

Recovered 1230 ft. of TOTAL FLUID

Recovered _____ ft. of _____

Remarks: _____

TOOL SAMPLE: GAS BLEW OUT

Time Set Packer(s) 3:44 PM A.M. P.M. Time Started Off Bottom 9:19 PM A.M. P.M. Maximum Temperature 126 deg.

Initial Hydrostatic Pressure..... (A) 2493 P.S.I.

Initial Flow Period..... Minutes 5 (B) 134 P.S.I. to (C) 148 P.S.I.

Initial Closed In Period..... Minutes 90 (D) 818 P.S.I.

Final Flow Period..... Minutes 60 (E) 189 P.S.I. to (F) 428 P.S.I.

Final Closed In Period..... Minutes 180 (G) 814 P.S.I.

Final Hydrostatic Pressure..... (H) 2492 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 EXPORATION, INC.	Representative	TIM VENTERS
Contact	JASON MITCHELL	Well Operator	FALCON EXPLORATION, INC.
Well Name	JAMES KOEHN #4-31 (NW)	Report Date	2014/12/07
Unique Well ID	DST #2, LWR. MORROW, 5182-5212	Prepared By	TIM VENTERS
Surface Location	SEC 31-28S-30W, GRAY CO. KS.	Qualified By	DAVE WILLIAMS
Field	LONG KNIFE		
Well Type	Vertical		
Test Type	CONVENTIONAL		
Formation	DST #2, LWR. MORROW, 5182-5212		
Well Fluid Type	01 Oil		
Start Test Date	2014/12/06	Start Test Time	12:47:00
Final Test Date	2014/12/07	Final Test Time	00:54:00

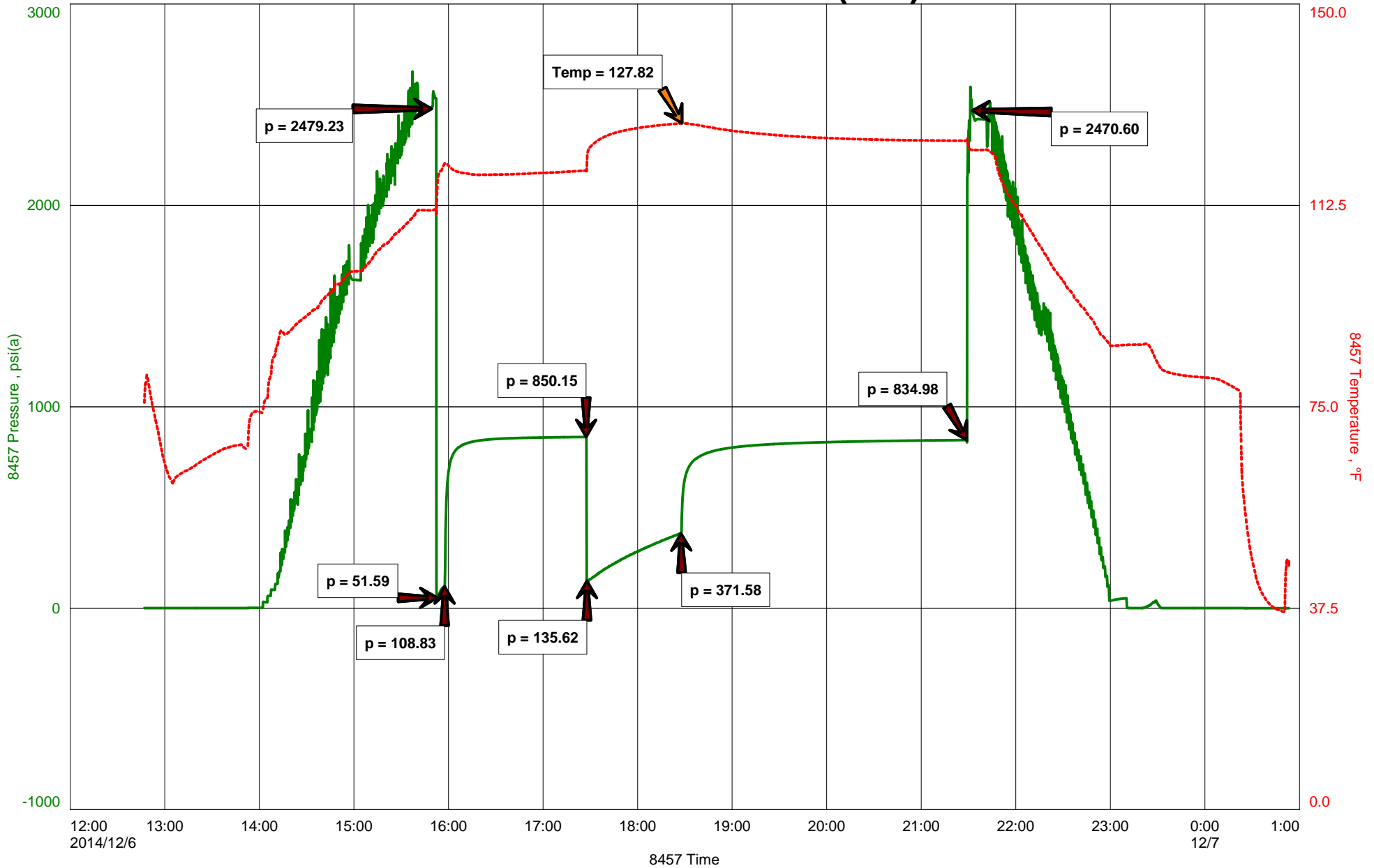
Test Recovery:

RECOVERED: 1110' GAS IN PIPE
45' SO&WCM, 9% OIL, 17% WATER, 74% MUD
65' O,HMCW, 14% OIL, 46% WATER, 40% MUD
320' SMCW W/TR. O, TRACE OIL, 93% WATER, 7% MUD
310' WATER
740' TOTAL FLUID

TOOL SAMPLE: SPOTTY OIL, 100% WATER

CHLORIDES: 144,000 ppm
PH: 5.5
RW: .10 @ 65 deg.

JAMES KOEHN #4-31 (NW)





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

TIME ON: 12:47 12-6-14
 TIME OFF: 00:54 12-7-12

DRILL-STEM TEST TICKET
 FILE: JAMESKOEHN4-31NWDST2

Company FALCON EXPLORATION, INC. Lease & Well No. JAMES KOEHN #4-31 (NW)
 Contractor STERLING DRILLING COMPANY RIG #2 Charge to FALCON EXPLORATION, INC
 Elevation 2827 KB Formation LOWER MORROW Effective Pay _____ Ft. Ticket No. T426
 Date 12-6-14 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 5182 ft. to 5212 ft. Total Depth 5212 ft.
 Packer Depth 5177 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
 Packer Depth 5182 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 5163 ft. Recorder Number 8457 Cap. 10,000 P.S.I.
 Bottom Recorder Depth (Outside) 5209 ft. Recorder Number 11030 Cap. 5,025 P.S.I.
 Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEMICAL Viscosity 64 Drill Collar Length 216 ft. I.D. 2 1/4 in.
 Weight 8.9 Water Loss 8.0 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
 Chlorides 4,000 P.P.M. Drill Pipe Length 4933 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 30 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: GOOD 2 INCH BLOW, BUILDING, REACHING BOB 2 1/2 MIN. (NO BB)
 2nd Open: GOOD 1 INCH BLOW, BUILDING, REACHING BOB 8 1/2 MIN. (3" BB)

Recovered <u>1110 ft.</u> of <u>GAS IN PIPE</u>	
Recovered <u>45 ft.</u> of <u>SO&WCM, 9% OIL, 17% WATER, 74% MUD</u>	
Recovered <u>65 ft.</u> of <u>O,HMCW, 14% OIL, 46% WATER, 40% MUD</u>	
Recovered <u>320 ft.</u> of <u>SMCW W/TR. O, TRACE OIL, 93% WATER, 7% MUD</u>	
Recovered <u>310 ft.</u> of <u>WATER</u>	Price Job
Recovered <u>740 ft.</u> of <u>TOTAL FLUID</u>	Other Charges
Remarks: _____	Insurance
_____	Total

Time Set Packer(s) 3:52 PM A.M. P.M. Time Started Off Bottom 9:27 PM A.M. P.M. Maximum Temperature 128 deg.

Initial Hydrostatic Pressure..... (A) 2479 P.S.I.
 Initial Flow Period..... Minutes 5 (B) 52 P.S.I. to (C) 109 P.S.I.
 Initial Closed In Period..... Minutes 90 (D) 850 P.S.I.
 Final Flow Period..... Minutes 60 (E) 136 P.S.I. to (F) 372 P.S.I.
 Final Closed In Period..... Minutes 180 (G) 825 P.S.I.
 Final Hydrostatic Pressure..... (H) 2471 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.



Cement Report

Customer <i>Falcon Exploration</i>	Lease No.	Date <i>12-1-14</i>
Lease <i>James Koehn</i>	Well # <i>4-31</i>	Service Receipt <i>1717-05215 A</i>
Casing <i>8 5/8"</i>	Depth <i>1878'</i>	County <i>GRAY</i>
Job Type <i>8 5/8" SURFACE</i>	Formation	State <i>KS</i>
		Legal Description <i>31-28-30</i>

Pipe Data		Perforating Data		Cement Data
Casing size	Tubing Size	Shots/Ft		Lead <i>46 Dets</i> <i>A Con' Blend</i> <i>3% Cact² .2%</i> <i>1/4" Poly Pkts WCR-1</i> Tail in <i>150 sks</i> <i>Premier Phos</i> <i>2% Cact²</i> <i>1/4" Poly Pkts</i>
Depth	Depth	From	To	
Volume	Volume	From	To	
Max Press	Max Press	From	To	
Well Connection	Annulus Vol.	From	To	
Plug Depth	Packer Depth	From	To	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>0200</i>					<i>Called Nat</i>
<i>0600</i>					<i>On Location</i>
<i>0610</i>					<i>Safety Meeting</i>
<i>0830</i>					<i>Run 44' to eqg & float equipment</i>
<i>1000</i>					<i>On Bottom - Circulate</i>
					<i>Test Line</i>
<i>1130</i>	<i>100</i>		<i>20</i>	<i>3</i>	<i>Pump 20 Bbls LCM-Polymer</i>
<i>1137</i>	<i>100</i>		<i>180</i>	<i>5</i>	<i>Mix & Pump Prod Cement</i> <i>460 sks A Con' Blend 12.5 ppv</i>
<i>1205</i>	<i>100</i>		<i>58.5</i>	<i>5</i>	<i>Mix & Pump Tail Cement</i> <i>150 sks Premier Phos 12.3 ppv</i>
					<i>Drop Aug</i>
<i>1245</i>			<i>116.7</i>		<i>Displace</i>
					<i>Last 20 Bbls wait 5 mins Pump 5 Bbls</i>
<i>1340</i>					<i>Land Plug</i>
					<i>Hold</i>

Service Units	<i>89315</i>	<i>38950-19842</i>	<i>30464-37726</i>	<i>33421-10250</i>
Driver Names	<i>Rogers</i>	<i>Carlos</i>	<i>Angel</i>	<i>Rivero</i>

Leid Koehn
 Customer Representative

Jerry Bennett
 Station Manager

Rogers
 Cementer



Cement Report

Customer	Falcon Exploration	Lease No.		Date	12-11-12
Lease	James Keelin	Well #	4-31	Service Receipt	05095
Casing		County	Gray	State	KS
Job Type	242 4 1/2" P.P.	Formation		Legal Description	31-28-30

Pipe Data		Perforating Data		Cement Data
Casing size	Tubing Size	Shots/Ft		Lead
Depth	Depth	From	To	Tail in 160 sk 60/40 Poz
Volume	Volume	From	To	
Max Press	Max Press	From	To	
Well Connection	Annulus Vol.	From	To	
Plug Depth	Packer Depth	From	To	

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
10:00					on loc-site assessment (John)
10:30					spot trucks - rig up
7:00					Safety meeting - JSA
7:15					Pressure test 1000#
7:20					Circ @ 1920'
			13	4	Mix & pump 50sk 60/40 Poz @ 13.5 # - 1.50 ft/sk
			23	4	disp balanced plug circ 810'
7:40			11	4	Mix & pump 40sk 60/40 Poz @ 13.5 # - 1.50 ft/sk
			9	4	disp balanced plug circ @ 60'
8:00			5	3	Mix & pump 20sk 60/40 Poz @ 13.5 # - 1.50 ft/sk
8:15					circ cont to surface plug rat + mouse holes w/ 50sk jobs complete

Service Units	34726	27462	19872-37725		
Driver Names	A. Overa	E. Menloza	G. Perez		

L Keelin
Customer Representative
J Bennett
Station Manager
A Overa
Cementer



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

Well Name: JAMES KOEHN #4-31 (NW)
API: 15 - 069 - 20,490 - 00 - 00
Location: Se-Ne-Nw-NW 1/4 of SEC. 31 - 28 S. - 30 W
License Number: KCC #5316
Spud Date: 11/29/2014
Surface Coordinates: 521' FNL & 1303' FWL

Region: GRAY CO., KS.
Drilling Completed: 12/11/2014

**Bottom Hole
Coordinates:**
Ground Elevation (ft): 2826' **K.B. Elevation (ft):** 2837'
Logged Interval (ft): NA **To: NA Total Depth (ft):** 5400'
Formation: MISSISSIPPIAN "ST. LOUIS"
Type of Drilling Fluid: CHEMICAL/POLYMER/GEL. & MUD DISPLACEMENT @ 2922'.

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

OPERATOR

Company: Falcon Exploration, Inc. KCC #5316
Address: 125 North Market Street, Ste. #1252
Wichita, Kansas 67202

GEOLOGIST

Name: David P. Williams, P.G. #88 KSBTP
Company: DW Energy, LLC (DWE)
Address: 312 North Broadview Street
Wichita, Kansas 67208

CASING & DEVIATION

Surface Casing: Spud at 7:45 pm on 12/29/14. Drilled 12-1/4" to 1883'. Ran 44 joints of new 24#, 8-5/8" casing. Tallied 1867.17'. Set at 1878' KB. Welded straps on GS & bottom 3 joints, then tack welded all collars. Cemented with 460 sks A-Conn; 3% CC, 1/4# FS. Tailed with 150 sks Premium Plus; 2% CC. Cement did circulate. Plug down at 1:30 pm on 12/01/14 Basic Energy Svcs Cementing ticket #05215. Centralizers (6) ;11;18;24;32;37. Baskets (2) 2;24.

Deviation Survey's: @ 1883' = 3/4 degree; @ 5108' = 3 degrees; @ 5180' = 4 degrees; @ 5212' = 4 1/2 degrees; @ 5400' = 3 degrees.

Plugging Data: Received plugging orders 12/11/14 from (Kenny Sullivan). Heavy mud in hole. Top of junk in hole 5125'. Heavy mud in hole. Bottom plug at 1920' with 50 sks. 2nd plug at 810' with 40 sks, top plug at 60' with 20 sks. Plugged RH w/30 sks, MH w/20 sks. Cement was 60/40 POZ with 4% Gel. Plugging complete at 8:45 pm on 12/11/14. Basic Energy Svcs Cementing ticket #05095. Sterling reported to KCC (Eric MacLaren) on 12/12/14.

DSTs

~~DST # 1~~ Interval: 5124'-5180'. Times: 5"-90"-60"-180"; Blow: IF= BOB/1.5". BOB/4" Blow Back (ISIP). FF= BOB/0.5". With GTS @ 10.5" (See Gauge Report Below). BOB Blowback (FSIP).

Recovery: 3860' GIP & 1230' TF: 360' GSMCO (21% G & 74% O & 5% M); 310' GHMCO (8% G, 56% O & 36% M); 60' GHOCM (8% G, 32% O, & 60% M).

Pressures: IH=2493#; FH=2492#; IF=134-140#; FF=189-428#; ISIP=818#; FSIP=814#; Temp.=126 degrees. F.; API Oil Grv.=26 degrees. F..

FF Gas Gauge: @ 20"=2.3 Mcf; @ 50"=TSTM.

~~DST #2~~ Interval: 5182'-5212'. Times: 5"-90"-60"-180"; Blow: IF= Good/2' Build BOB/2.5". No Blow Back (ISIP). FF=Good /1" Builf/BOB/8.5". Had 3" Blowback (FSIP).

Recovery: 1110' GIP. & 740' TF: 45" SO & WCMO (9% O & 17% Wtr & 74% M); 65' OHMCW (14% O, 46% Wtr. & 40% M); 320' SMCW (w/Tr O) 93% Wtr & 7% M); 310' Wtr. (100% Wtr.).

Pressures: IH=2479#; FH=2471#; IF=52-109#; FF=136-372#; ISIP=850#; FSIP=825#; Temp.=128 degrees F.; Chl.=144,000 Ppm; PH=5.5; Rw=.10 @ 65 deg. F..

~~DST #3~~ Interval 5370' - 5400'. Miss-Run. Tool Stuck. No Recovery.

Comments

From the negative results from DST #3 as the tool was lost in hole. This well was plugged and abandoned.

Respectfully submitted,

David P. Williams, P. G. # 88 KSBTP

ROCK TYPES

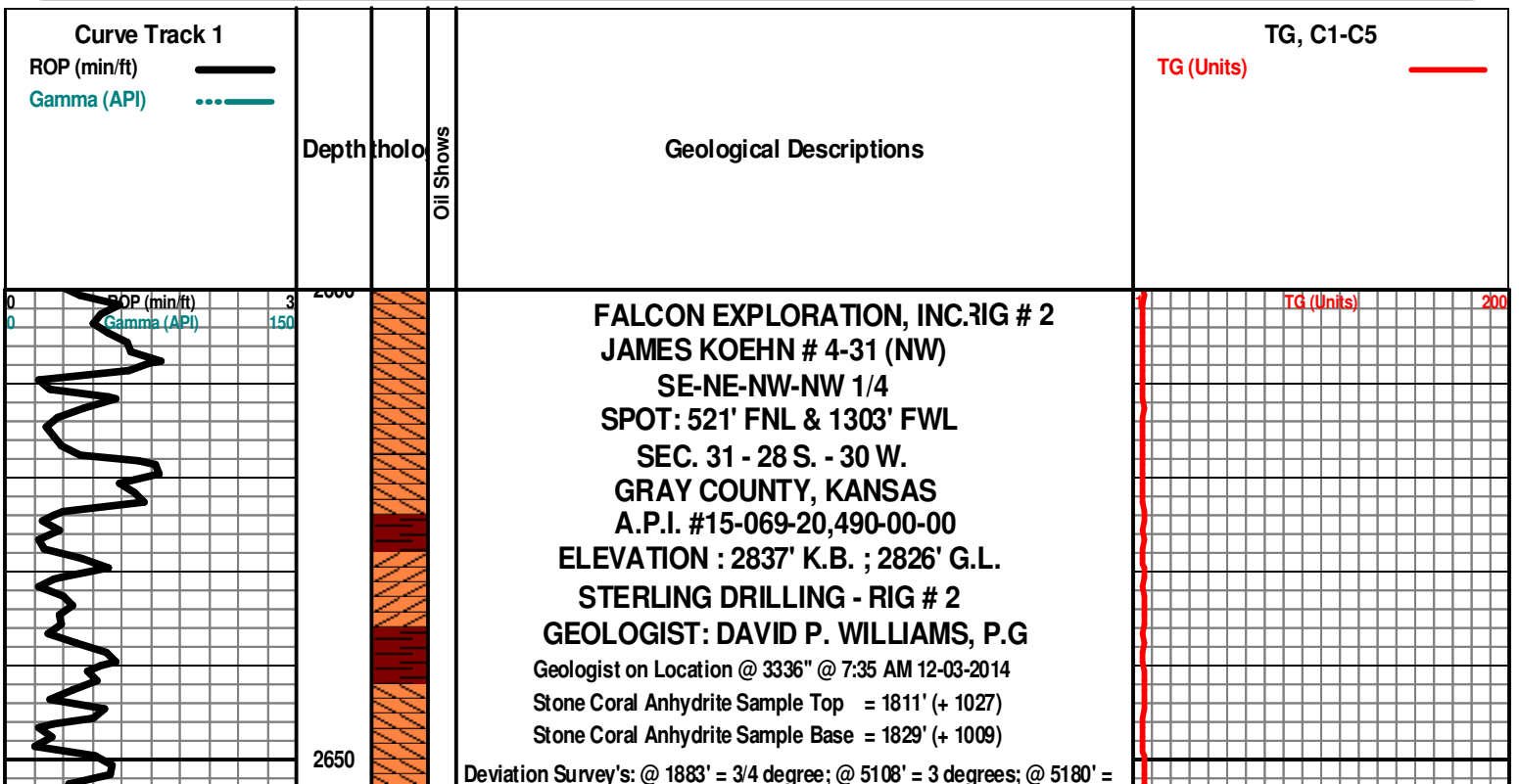
Anhy	Clyst	Gry sh	Mrlst	Shgy
Bent	Coal	Gyp	Red shale	Sltst
Brec	Congl	Igne	Salt	Ss
Carb sh	Dol	Lmst	Shale	Till
Cht	Grn sh	Meta	Shcol	

ACCESSORIES

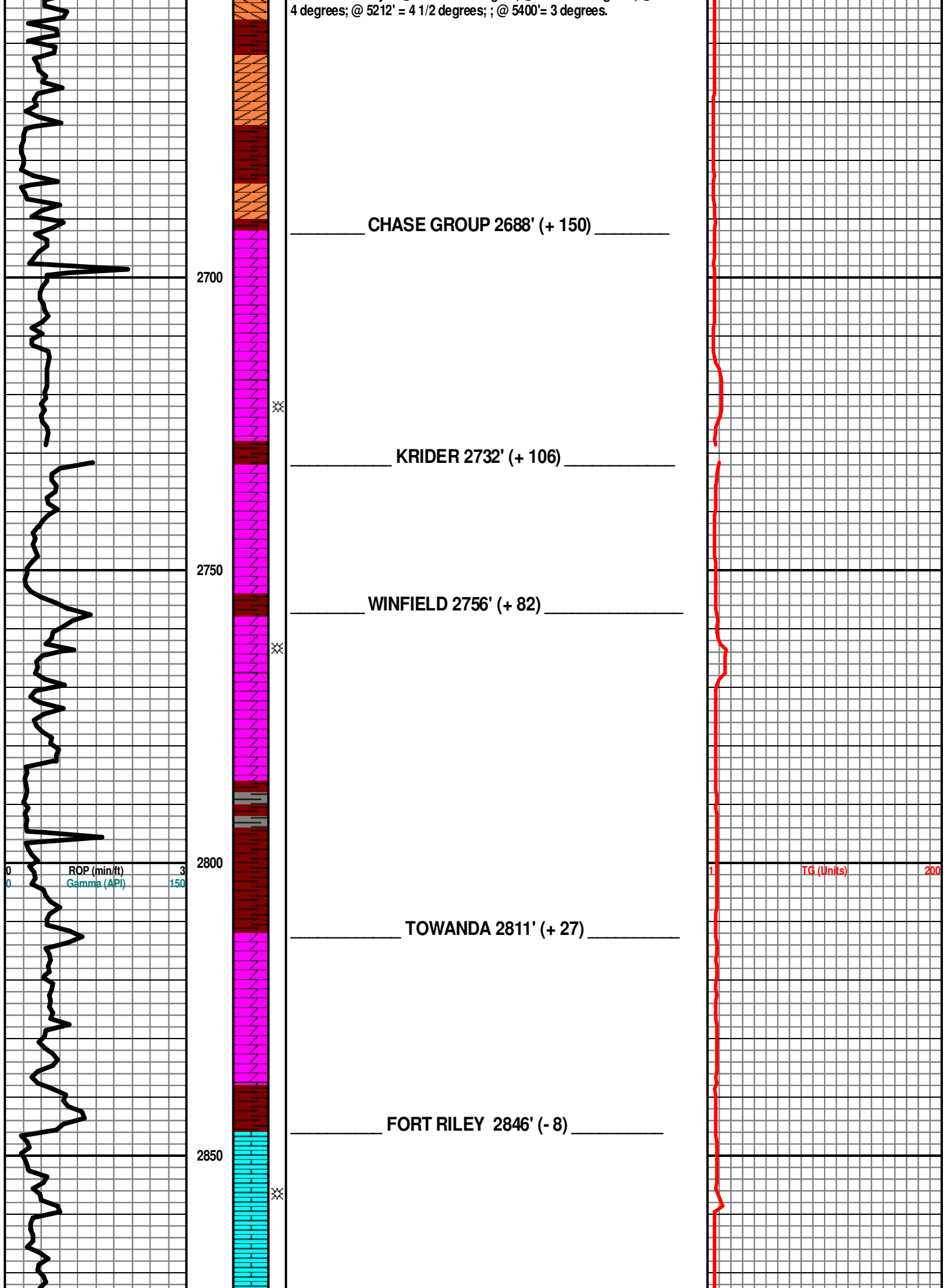
MINERAL	Hvymin	Belm	Pellet	TEXTURE
Anhy	Kaol	Bioclst	Pisolite	Boundst
Arggrn	Marl	Brach	Plant	Chalky
Arg	Minxl	Bryozoa	Strom	Cryxln
Bent	Nodule	Cephal		Earthy
Bit	Phos	Coral	STRINGER	Finexln
Brecfrag	Pyr	Crin	Anhy	Grainst
Calc	Salt	Echin	Arg	Lithogr
Carb	Sandy	Fish	Bent	Microxln
Chtdk	Silt	Foram	Coal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

OTHER SYMBOLS

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



4 degrees; @ 5212' = 4 1/2 degrees; ; @ 5400' = 3 degrees.



CHASE GROUP 2688' (+ 150)

KRIDER 2732' (+ 106)

WINFIELD 2756' (+ 82)

TOWANDA 2811' (+ 27)

FORT RILEY 2846' (- 8)

2700

2750

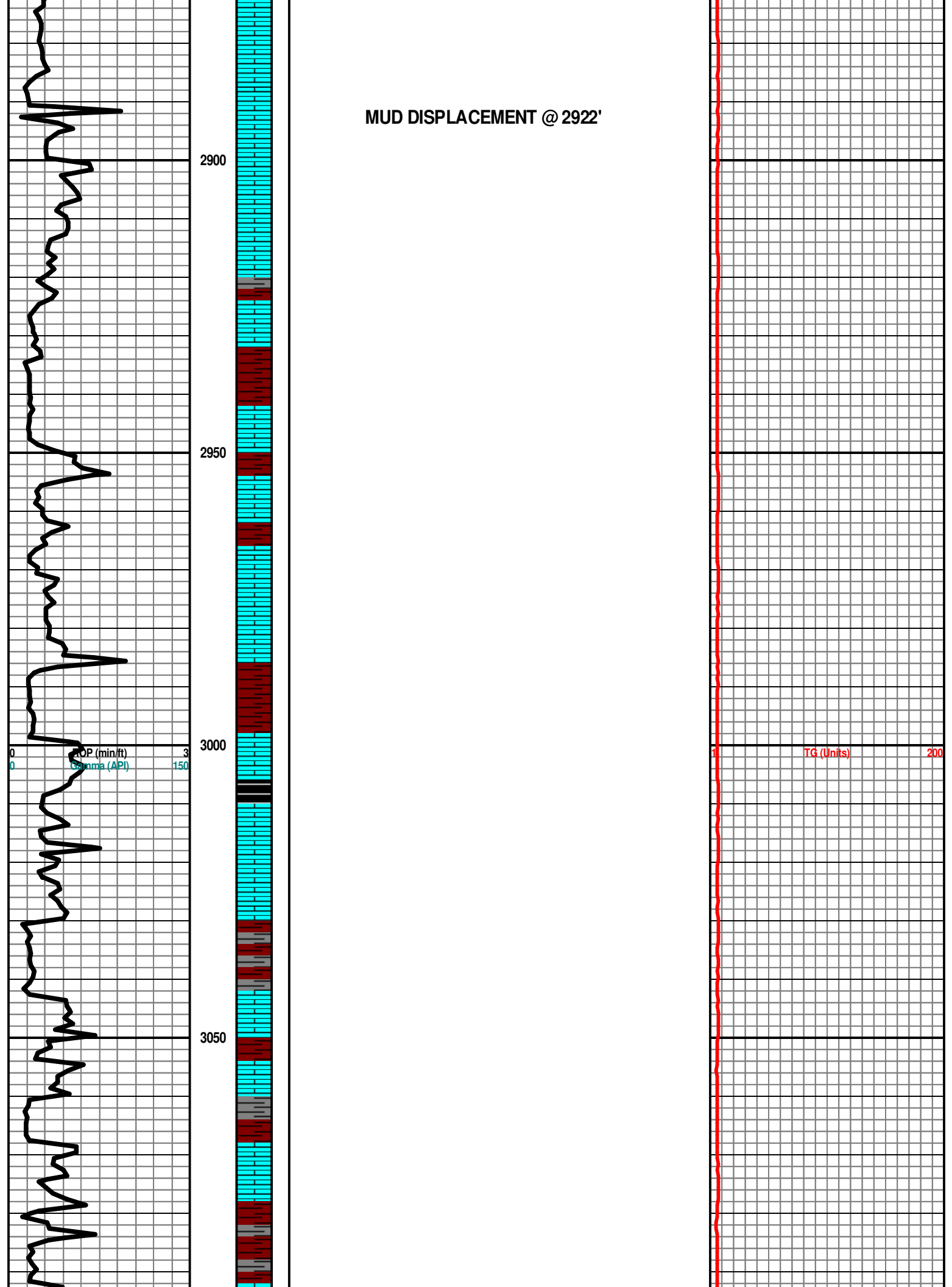
2800

2850

ROP (min/ft) 3
Gamma (API) 150

TG (Units) 200

MUD DISPLACEMENT @ 2922'



3100

COTTONWOOD 3138' (-300)

3150

NEVA 3182' (-344)

3200

TG (Units)

200

ROP (min/ft) 3
Gamma (API) 150

3250

Note: All samples have been lagged to depth by calculated time.

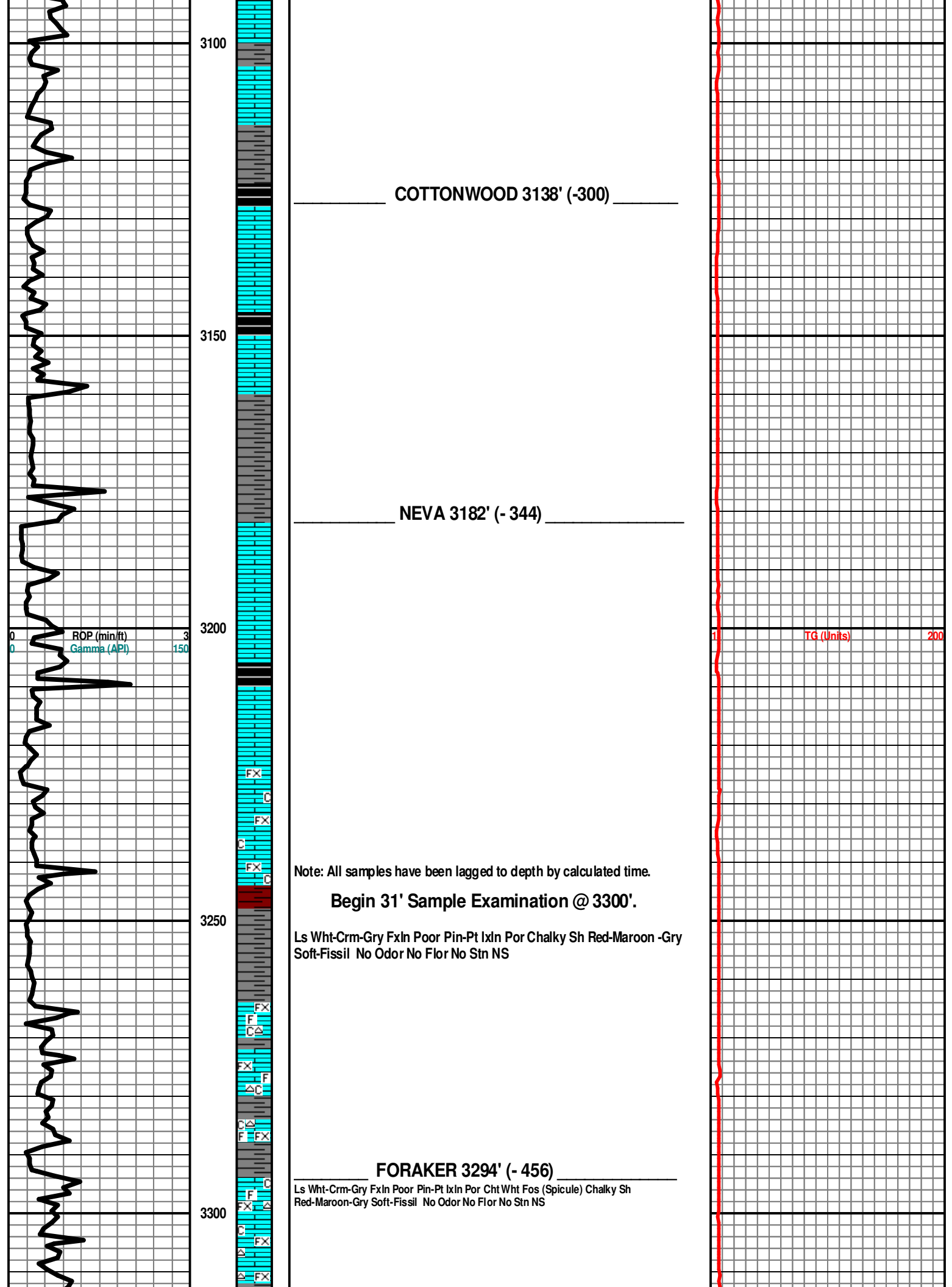
Begin 31' Sample Examination @ 3300'.

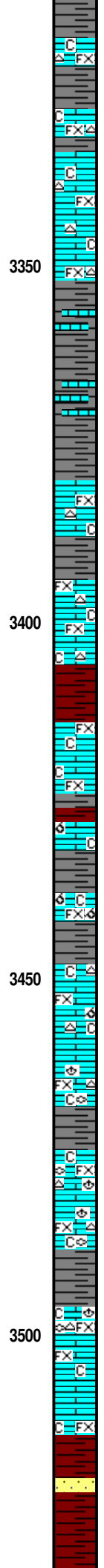
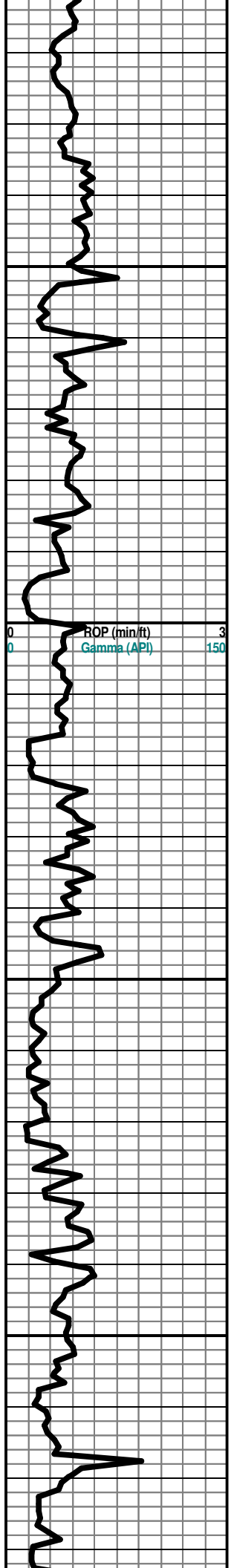
Ls Wht-Crm-Gry FxIn Poor Pin-Pt lXln Por Chalky Sh Red-Maroon -Gry
Soft-Fissil No Odor No Flor No Stn NS

3300

FORAKER 3294' (-456)

Ls Wht-Crm-Gry FxIn Poor Pin-Pt lXln Por Cht Wht Fos (Spicule) Chalky Sh
Red-Maroon-Gry Soft-Fissil No Odor No Flor No Stn NS





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

3350

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

3400

FALL CITY 3414' (- 477)

Ls Crm-Wht-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

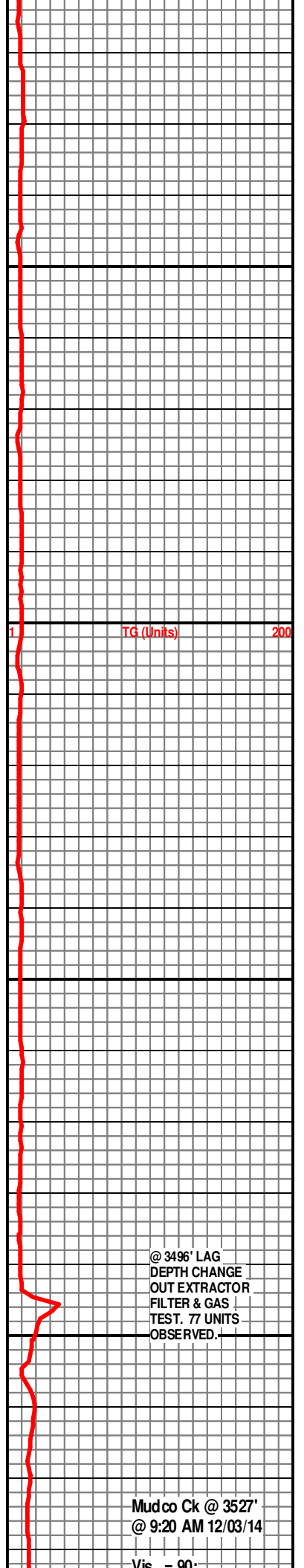
3450

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

3500

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

ROOT SHALE 3514' (- 677)



@ 3496' LAG
DEPTH CHANGE
OUT EXTRACTOR
FILTER & GAS
TEST. 77 UNITS
OBSERVED.

Mudco Ck @ 3527'
@ 9:20 AM 12/03/14

STOTLER 3533' (- 695)

Vis - 90-

STOILEN 3533 (-693)

VS = 30;
WT = 8.95;
PV = 22;
YP = 25;
WL = 9.2;
Cake = 1;
Chl = 5,800;
Cal = 120;
Sol = 3.9%
LCM = 2#;
DMC = \$ 5,040.20;
CMC = \$11,498.45

30" CFS @ 3570' Ls Wht-Crm-Gry Microxln-Fxln Ixln Por Micritic Dsn Barren Grad Fair OOM Por (w/OOL (Small) in pl) Fair InterOOM/OOL Por Fair Leaching Fair Disolu Chalk Sh Grn-Red Soft No Odor Med-Good Flor No Stn NS

60" CFS @ 3570' Ls Wht-Crm-Gry Microxln-Fxln Ixln Por Micritic Dsn Barren Grad Fair OOM Por (w/OOL (Small) in pl) Fair InterOOM/OOL Por Fair Leaching Fair Disolu Fos (Fuss, Spicule) Chalk Sh Grn-Red Soft No Odor Med-Good Flor No Stn NS

TARKIO 3600' (- 763)

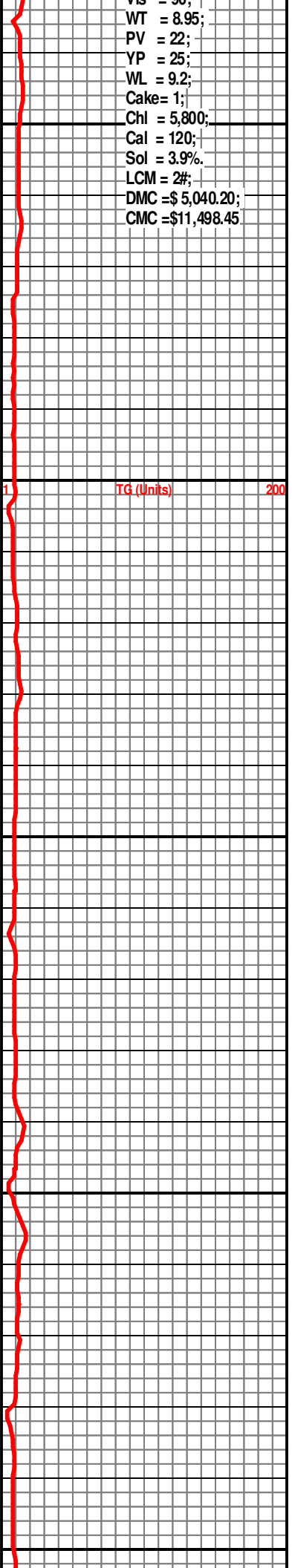
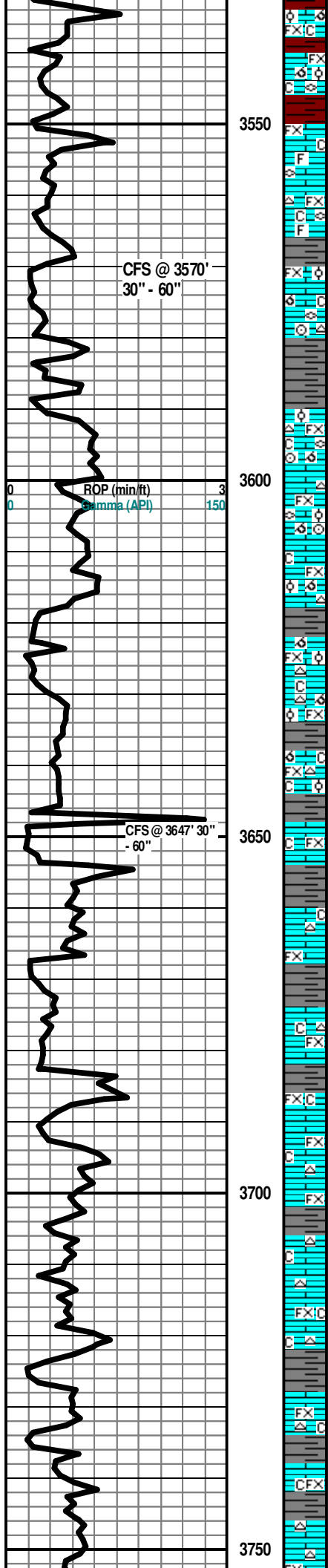
30" CFS @ 3647' Ls Wht-Crm Fxln Ixln Por Grad Fair OOM Por (w/OOL in pl) Fair-Med InterOOM Por Poor Disolu Cht Wht Op Shp Vit Fos (Crin, Fuss) Abd Chalk Sh Grn-Red-Char Soft Fissil No Odor No Stn Fair-Med Flor (Lt Grn-Lt Wht) NS

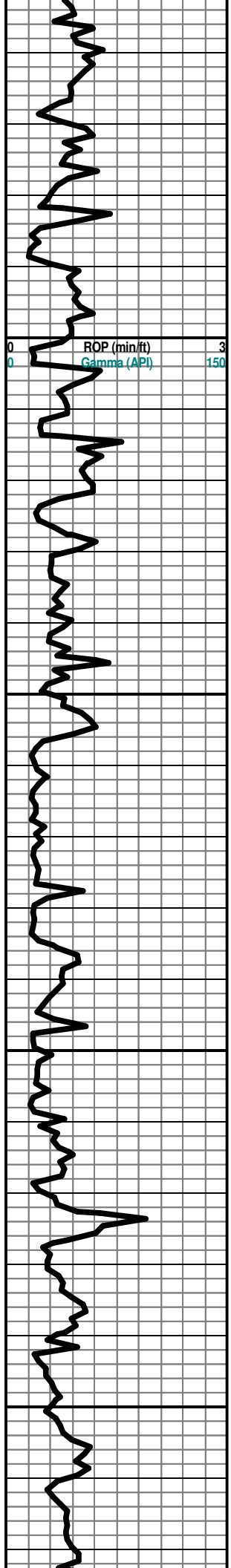
60" CFS @ 3647' Ls Wht-Crm Fxln Ixln Por Grad Fair OOM Por (w/OOL in pl) Fair-Med InterOOM Por Poor Disolu Cht Wht Op Shp Vit Chalk Sh Grn-Red-Char Soft Fissil No Odor No Stn Fair-Med Flor (Lt Grn-Lt Wht) NS

BERN 3674' (- 837)

Ls Wht-Gry Fxln Poor Ixln Ppt Por Grad Micritic Dsn Barren Chalk Sh Gry-Char-Tr/ Blk-Carb Fissil No Odor No Flor No Stn NS

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





Ls Wht-Crm FxIn Poor IxIn Por Grad Micritic Dsn Barren Chalk Sh
Char-Grn-Aqua-Red No Odor No Flor No Stn NS

TOPEKA 3804' (- 967)

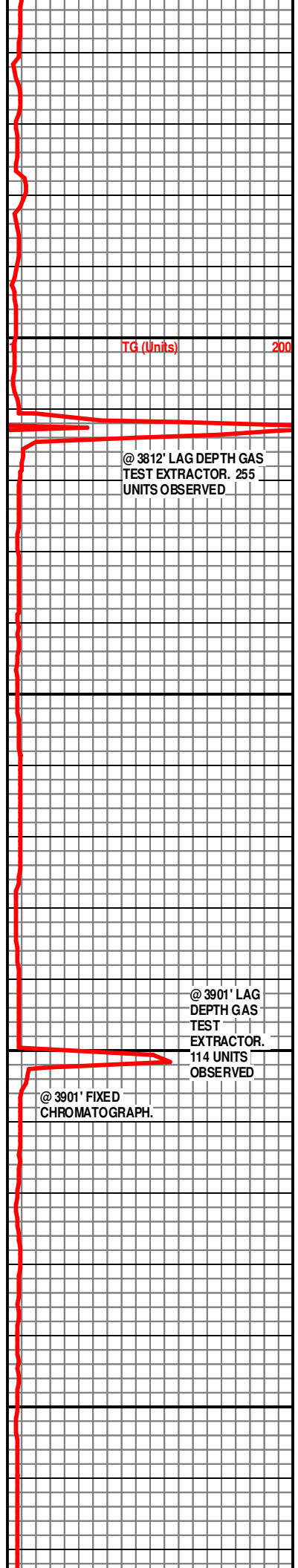
Ls Wht-Crm-Gry FxIn Poor IxIn Por Grad Micritic Dsn Barren Chalk Abd
Cht Wht Op Shp Vit Sh Char-Grn Fissil Soft No Odor No Flor No Stn NS

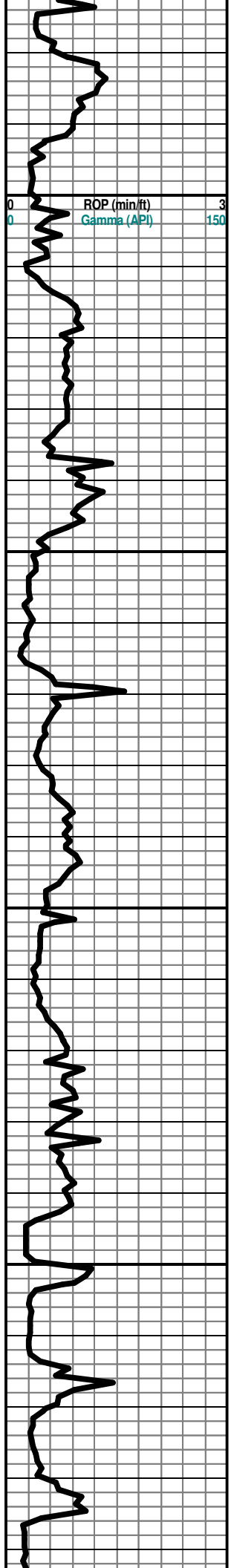
Ls Wht-Crm FxIn Poor IxIn Por Grad Micritic Dsn Barren Chalk Wht Abd
Cht Wht-Gry Transl-Op Shp Vit Sh Char-Red Fissil Soft No Odor No Flor
No Stn NS

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

Ls Wht-Crm MicroIn-FxIn IxIn Por Micritic Dsn Barren Grad Poor OOM
Por Poor InterOOM Por Poor Leaching Poor Disolu Chalk Sh Char-Gry No
Odor No Flor No Stn NS

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





4000
4050
4100
4150



LeCOMPTON 4002' (- 1165)

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

Ls Wht-Crm FxIn Poor IxIn Por Grad Micritic Dsn Barren Chalk Abd Sh Blk
Carb Fissil No Odor No Flor No Stn NS

QUEEN HILL 4064' (- 1227)

OREAD 4068' (- 1231)

Ls Crm-Gry FxIn Poor-Fair IxIn Por Chalk Sh Char-Grn Fissil No Odor No
Stn No Flor NS

Ls Crm-Gry FxIn Poor-Fair IxIn Por Cht Wht-Tan (Banded) Op Shp Vit
Chalk Abd Sh Char-Grn Fissil No Odor No Stn No Flor NS

HEEBNER 4142' (- 1305)

Sh Blk Carb-Gry-Char Soft-Fissil Ls Wht-Crm-Gry FxIn Dns Micrite Grad
Poor Ppt IxIn Por Chalk No Odor No Flor No Stn SG in Blk Sh

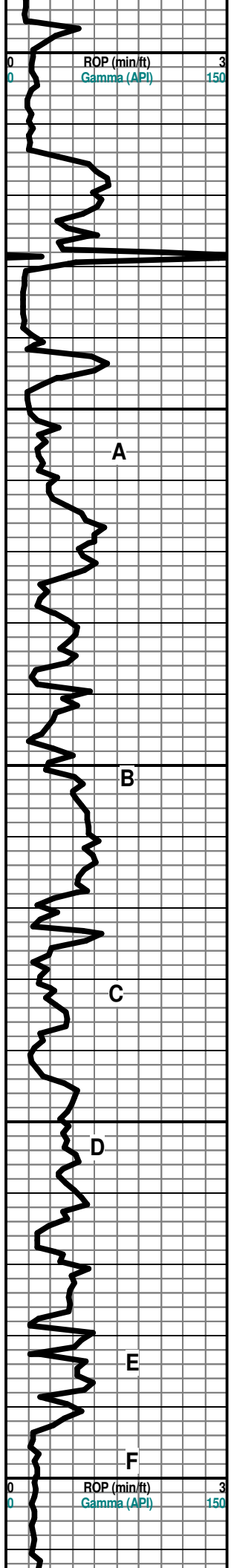
TORONTO 4162' (- 1325)

DOUGLAS 4180' (- 1343)

Sh Char-Drab Grn-Aqua-GrySoft-Fissil Ls Crm FxIn Dns Micrite Poor IxIn

TG (Units) 200

SH GAS KICK = 26 UNITS



Por Chalk Cht Wht Translu-Op Shp Vit Sh Blk Carb-AA Fissil No Odor No Stn No Flor NS

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

IATAN (BROWN LIME) 4242' (- 1405)

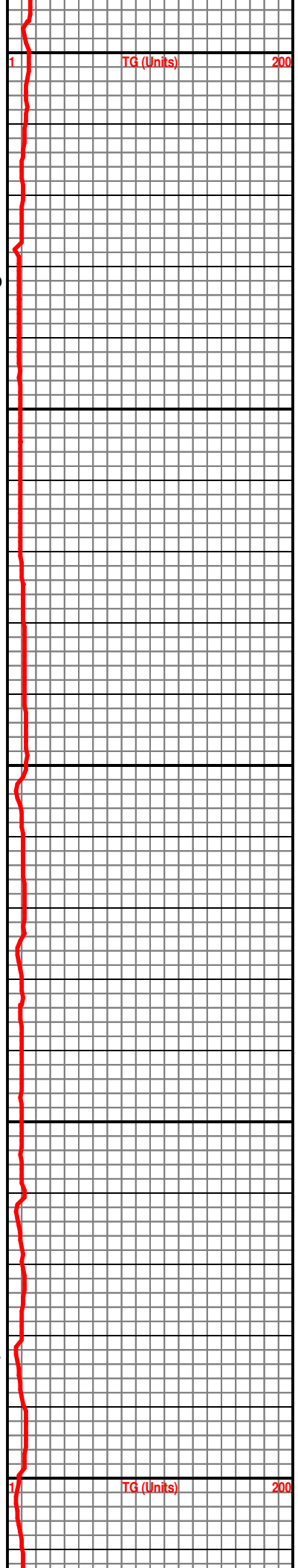
LANSING 4252' (- 1415)

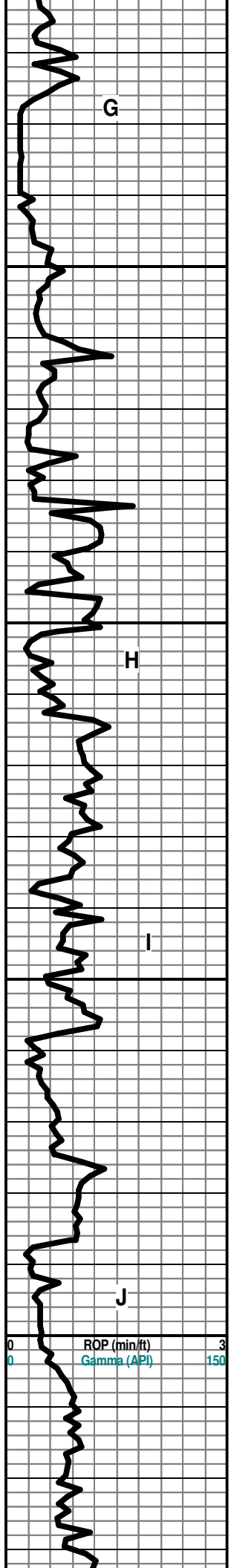
Ls Wht MicroxIn-FxIn Micritic Grad Fair InterOOL Por (w/Small OOL in pl) Poor-Fair Leaching Por Barren Fair Flor (Lt Grn-Wh) Cht Wht-Gry Op Shp Vit Abd Chalk Sh Char-Gry-Grn Fissil No Odor Fair Scat ? Min Flor No Stn NS

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

Ls Wht-Crm MicroxIn-FxIn Poor IxIn Por Grad Grad Poor InterOOL Por (w/Small Ooids in pl) Chalk Sh Char-Gry/Grn-Red Fissil No Odor No Stn Sli Flor (Lt Grn) NS

Ls Wht-Crm MicroxIn-FxIn Poor IxIn Por Grad Micritic Grad Poor InterOOL Por (w/Small Ooids in pl) Cht Wht (w/Fos(Fuss) Includ) Op Shp Vit Chalk Sh Char-Gry Fissil No Odor No Stn ? Sli Min Flor NS





Ls Wht-Crm-Tan Fxln Poor OOM Por (w/OOL (Small-Med Ooids Includ in pl) Poor Inter-OOM/OOL Por Poor Leaching Cht Wht Op Shp Vit Sh Char-Gry-Maroon Fissil No Odor No Flor No Stn NS

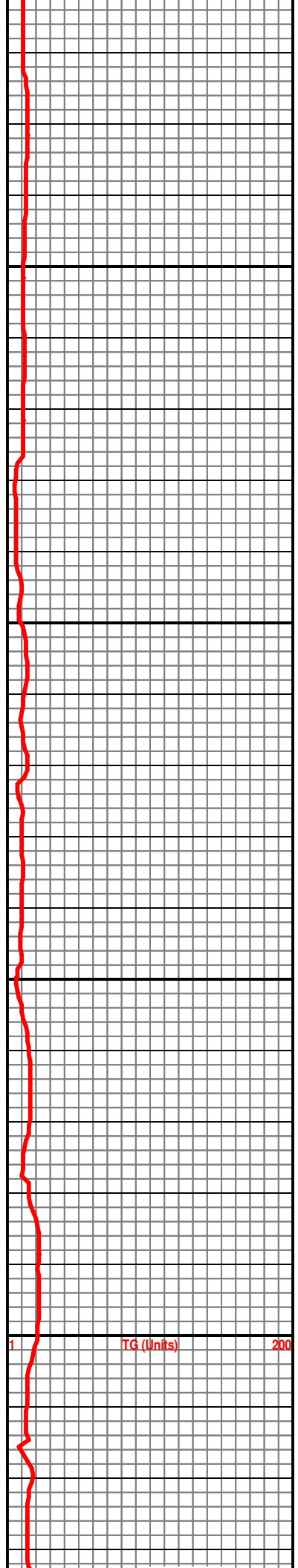
Ls Crm-Gry Fxln Good OOM Por Grad Poor Ixln Por Micritic Barren Dns Chalky Sh Gry-Grn-Aqua Fissil No Odor No Stn No Flor NS

Sh Char-Gry-Blk Carb Fissil Ls Crm-Tan Fxln Micritic Grad Fair-Med OOM (w/Small OOL in pl) Fair Dissolu Barren Cht Wht-Drk Gry Op Shp Vit Chalky No Odor No Flor No Stn NS

Ls Crm-Tan Fxln Micritic Grad Fair-Med OOM (w/Small OOL in pl) Por Fair Dissolu Barren Cht Wht-Drk Gry Op Shp Vit Chalky Sh Char-Gry-Blk Carb Fissil No Odor No Flor No Stn NS

Ls Wht-Crm Fxln Micritic (w/Pyr Includ Cht Wht-Drk Gry (w/ Fos Includ) Op Shp Vit Chalk Abd Sh Char-Gry-Grn-Blk Carb Fissil No Odor No Flor No Stn NS

Ls Crm-Tan Fxln Dns Micritic Barren Cht Wht Op Shp Vit Fos (Crin) Pyr Mass Chalk Sh Gry-Grn Fissil No Odor No Flor No Stn NS



STARK SHALE 4636' (- 1799)

SH GAS KICK = 78 UNITS.

KANSAS CITY "SWOPE" (K) 4646' (-1809)

Ls Crm-Gry MicroIn-FxIn Dns Micrite Chalky Sh Char-Gry Fissil No Odor No Stn Tr ? Min Flor NS

Ls Crm-Tan FxIn Poor OOM Por (w/OOL in pl) Poor-Fair Dissolu Grad Micritic Chalk Sh Blk Carb-Char-Gry Fissil No Odor No Flor No Stn NS

Sh Char-Gry Fissil Ls Crm-Tan-Gry FxIn Poor IxIn Por Micritic Dns Barren Grad Poor OOM (w/Small OOids in pl) Por Chalk Fos (Fuss) No Odor No Flor No Stn NS

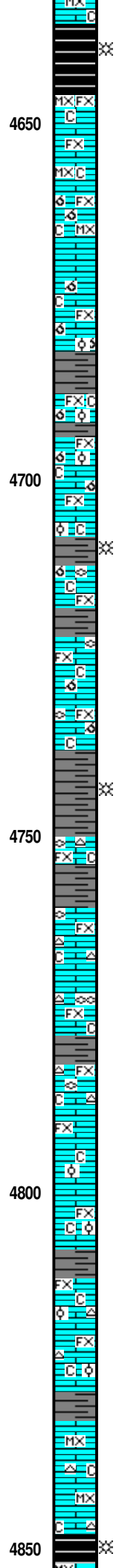
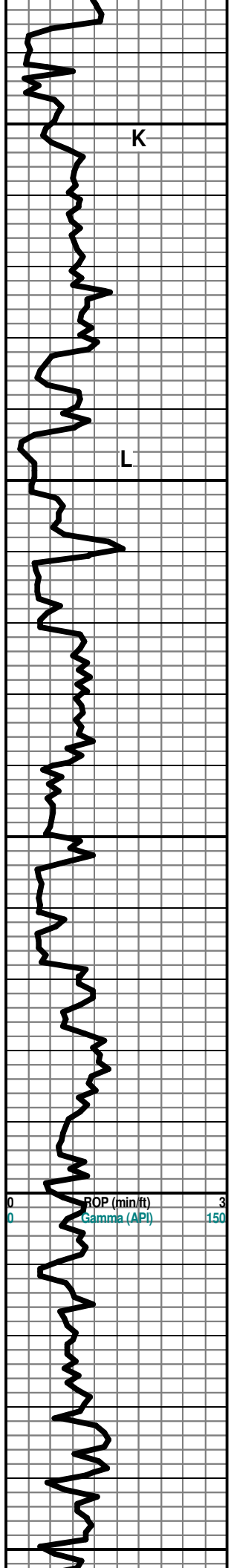
MARMATON 4761' (- 1924)

Ls Wht-Crm FxIn Poor IxIn Por Micritic Dns Barren Cht Wht (w/Fos (Fuss) Includ) Chalk Wht Soft Sh Char-Gry Fissil AA No Odor No Flor No Stn NS

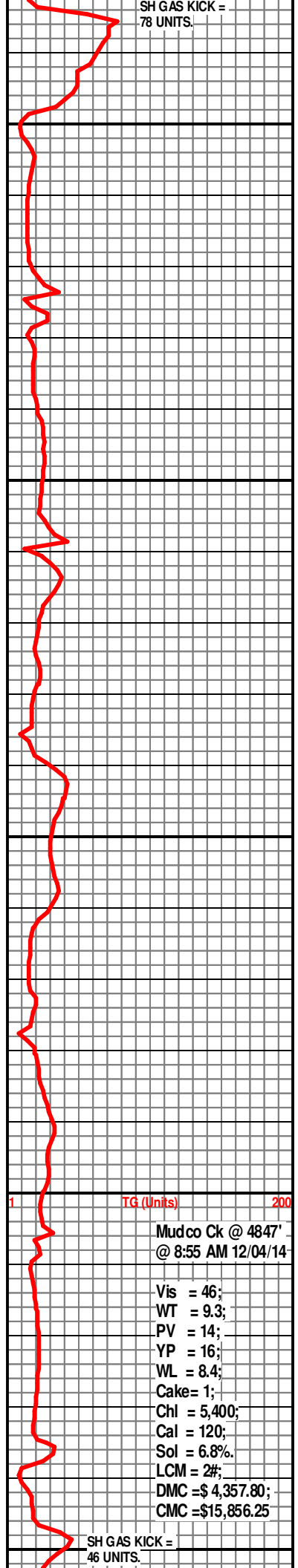
Ls Crm-Tan-Gry FxIn Poor IxIn Por Micritic Dns Barren Grad Poor OOL Por (w/Small OOids in pl) Poor Dissolu Cht Wht Op Shp Vit Chalk Sh Gry/Grn Fissil No Odor No Flor No Stn NS

PAWNEE 4852' (- 2015)

SH GAS KICK = 46 UNITS.

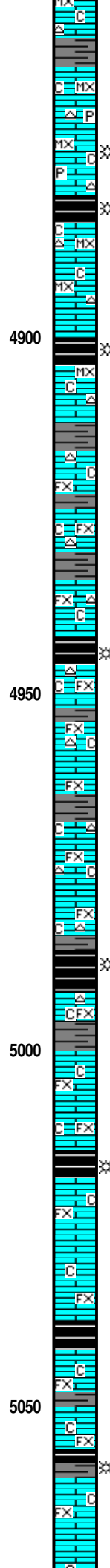
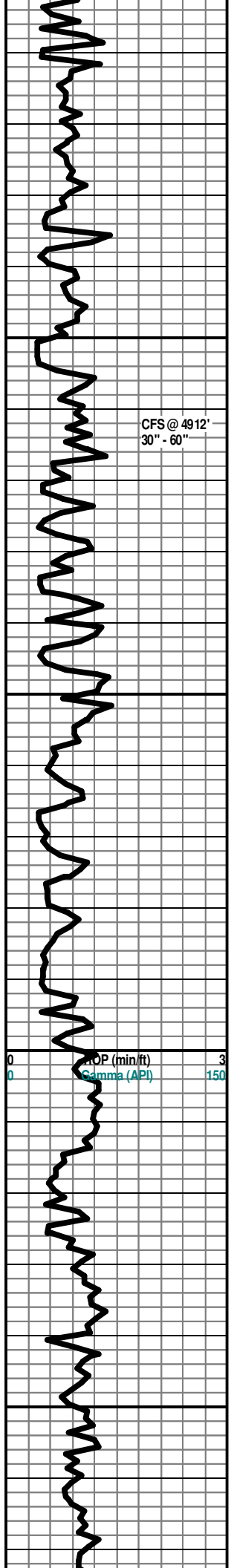


Descriptive text for geological units: STARK SHALE, KANSAS CITY "SWOPE" (K), MARMATON, and PAWNEE.



Mudco Ck @ 4847' @ 8:55 AM 12/04/14

- Vis = 46; WT = 9.3; PV = 14; YP = 16; WL = 8.4; Cake = 1; Chl = 5,400; Cal = 120; Sol = 6.8%; LCM = 2#; DMC = \$4,357.80; CMC = \$15,856.25



Ls Wht-Crm-Tan MicroIn-FxIn Poor Granular IxIn Por Micritic Dns Barren
 Cht Wht-Lt Gry Op Shp Vit Chalk (Abd) Sh Blk Carb-Char-Gry- Drab Grn
 (w/Pyr Incls) Fissil Faint ? Odor Sli ? Min Flor No Stn ? SG

LABETTE 4880' (- 2053)

30" CFS @ 4912' Ls Wht-Crm MicroIn Poor IxIn Por Micritic Dns Barren
 Cht Wht- Lt Wht-Crm-Tan Op Shp Vit Chalk (Abd) Sh Blk
 Carb-Char-Gry-Drab Grn Fissil No Odor Sli ? Min Flor No Stn NS

CHEROKEE 4900' (- 2073)

60" CFS @ 4912' Sh Blk Carb-Char-Gry-Drab Grn Fissil Ls Wht-Crm
 MicroIn Poor IxIn Por Micritic Dns Barren Cht Wht-Lt Wht-Crm-Tan Op
 Shp Vit Chalk No Odor Sli ? Min Flor No Stn NS

SECOND CHEROKEE SHALE 4942' (- 2115)

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

THIRD CHEROKEE SHALE 4984' (-2157)

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

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

GAS KICK =
35 UNITS.

SH GAS KICK =
46 UNITS

SH GAS KICK
= 74 UNITS

SH GAS KICK
= 79 UNITS

SH GAS
KICK= 53
UNITS

SH GAS KICK=
49 UNITS

SH GAS KICK=
67 UNITS

~DST # 1~

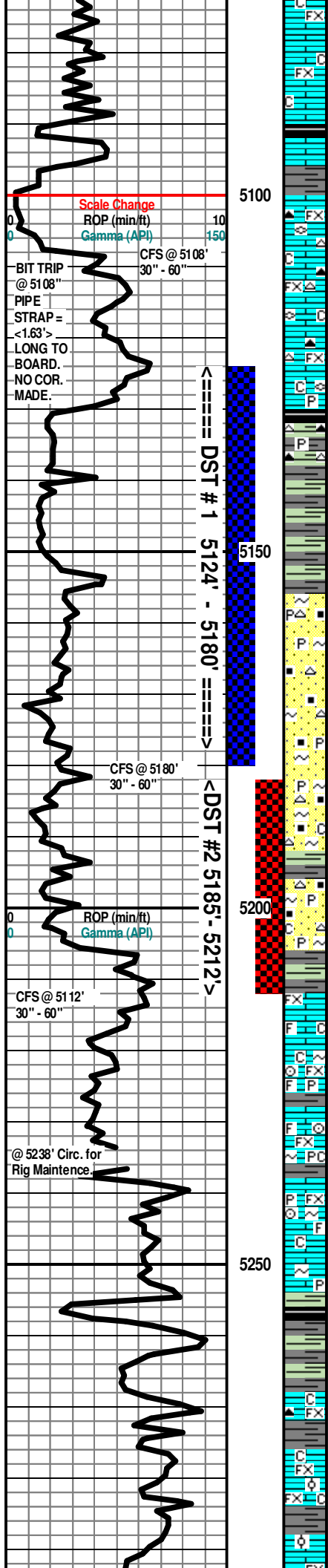
Interval: 5124'-5180'.
 Times: 5"-90"-60"-180";
 Blow: IF= BOB/1.5". BOB/4"
 Blow Back (ISIP).
 FF=BOB/0.5". With GTS @
 10.5" (See Gauge Report
 Below). BOB Blowback
 (FSIP).

Recovery: 3860' GIP. &
 1230' TF: 360' GSMCO(21%
 G & 74% O & 5% M); 310'
 GHMCO (8% G, 56% O &
 36% M); 60' GHOCM (8% G,
 32% O, & 60% M)

CFS @ 4912'
30" - 60"

ROP (min/ft) 3
Gamma (API) 150

TG (Units) 200



30" CFS @ 5108' Ls Crm-Wht-Tan FxIn Por Micritic Dns Barren Cht Amber-Gry Translu-Op Shp Vit Chalk Sh Blk Carb- Char-Gry Fissil No Odor No Flor No Stn NS

60" CFS @ 5108' Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns Barren Cht Amber-Gry Translu-Op Shp Vit Chalk Fos (Fuss) Sh Blk Carb-Char-Gry Inc Fissil No Odor No Flor No Stn NS

75" CFS @ 5108' Ls Crm-Wht-Tan FxIn Poor IxIn Por Micritic Dns Barren Cht Amber-Gry Translu-Op Shp Vit Chalk Fos (Fuss) Sh Blk Carb-Char-Gry Inc Fissil No Odor No Flor No Stn NS

Begin 10' Samples Wet & Dry @ 5140'

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

MORROW SHALE 5130' (- 2293)

Sh Blk Carb-Gry-Drab Grn Fissil "Gummy" Ls Crm-Tan MicroxIn Poor IxIn Por Micritic Dns Barren Chalk Cht Drk Amber (w/Fos Inklus) Translu Shp Vit Pyr Mass No Odor No Flor No Stn NS

Sh Blk Carb-Gry-Drab Grn Fissil "Gummy" Ls Crm-Tan MicroxIn Poor IxIn Por Micritic Dns Barren Chalk Cht Drk Amber (w/Fos Inklus) Translu Shp Vit Pyr Mass No Odor No Flor No Stn NS

MORROW SAND 5156' (- 2319)

Qtz Ss Clear-Wht Fair IGrn Por Ang-Sub Ang (cl. = 350-500 Microns = 1.5 - 1.0 Ø) Med-Well Sort Sli Tr CaCO3 Matrix (w/Carb & Glacu Inklus) Friable (w/GS & SFO (Lt Brn)) Cht Wht Op Shp Vit Sh AA Pyr Mass No Flor No Odor Sli ? Lt Brn Stn) SG & SFO

30" CFS @ 5180' Qtz Ss Wht-Clear Med-Lg IGrn Por Ang-Sub Ang-Sub Rd (vcL = 1000-1410 Microns = 0.0 - 5 Ø) Well Sort Sli-None CaCO3 Matrix (w/Carb & Glacu Inklus) V Friable (w/Abd Indiv Sd Grns Present-w/GSG & GSFO (Lt Brn)) Cht Wht Op Shp Vit Sh AA Pyr Mass No Flor Faint Odor Fair-Med (Lt Brn Stn) GSG & GSFO

60" CFS @ 5180' Qtz Ss Wht-Clear Med-Lg IGrn Por Ang-Sub Ang-Sub Rd (cJ = 710-1000 Microns = 0.5 - 0.0 Ø) Well Sort Med CaCO3 Matrix (w/Carb & Glacu Inklus) Friable (w/Abd Indiv Sd Grns Present-w/GSG & GSFO (Lt Brn)) Cht Tan Op Shp Vit Sh AA Pyr Mass No Flor ? Faint Odor Fair-Med (Lt Brn Stn) GSG & GSFO

30" CFS @ 5212' Qtz Ss Clear-Wht Med-Lg IGrn Por Ang-Sub Ang (vcL = 1000-1410 Microns = 0.5 - 0.0 Ø) Well Sort Tr/CaCO3 Matrix (w/Carb & Glacu Inklus & Hvy Gilsonitic Residue) V Friable (w/Abd Indiv Sd Grns Present-w/GSG & GSFO (Lt Brn)) Cht Amber-Yell Translu-Op Shp Vit (w/Pyr Inklus) Chalky Sh AA No Flor Faint Odor Med-Good (Lt Brn & Drk Blk Stn) GSG & GSO

60" CFS @ 5212' Qtz Ss Clear-Gry-Wht-Lt Brn Med-Lg Inc Frosted-Clear Grns Ang-Sub Ang Grad Med-Lg Grns & Clusters (w/Carb & Glacu Inklus & Hvy Gilsonitic Residue) AA Good Igrn Por V Friable Med-Well Sort GSG & GSFO Cht (Tr Only) Pyr Mass Chalky Sh AA Faint Odor Abd SFO in Spl Tray GSG & GSFO

Sh Char-Drab Grn-Gry-Aqua-Drk Brn Fissil Ls Wht FxIn Dns Micrite Cht Drk Blk Op Shp Vit Chalky No Odor No Stn No Flor NS

Ls Wht-Crm FxIn Dns Micrite (w/Chlorite or Glacu Inklus) Grad Fair-Med IxIn Ppt Pt Por Fos (Crim) Pyr Mass Chalk Sh Char-Gry/Grn-Aqua Fissil No Odor No Flor NS

Ls Wht-Crm FxIn Dns Micrite (w/Chlorite or Glacu Inklus) Grad Fair-Med IxIn Ppt Pt Por Fos (Crim) Pyr Mass Chalk Sh Char-Gry/Grn-Aqua Fissil No Odor No Flor NS

Ls Wht-Crm FxIn Dns Micrite (w/Chlorite or Glacu Inklus) Grad Fair-Med IxIn Ppt Pt Por Fos (Crim) Pyr Mass Chalk Sh Char-Gry/Grn-Aqua Fissil No Odor No Flor NS

Ls Wht FxIn Dns Micrite (w/Chlorite or Glacu Inklus) Grad Fair-Med IxIn Ppt Pt Por Pyr Mass Chalk Sh Blk Carb-Char-Gry/Grn-Aqua Fissil No Odor No Flor NS

Sh Char-Gry-Grn (w/Pyr Inklus) Fissil Ls Wht-Grn/Gry MicroxIn Dns Micrite Fos (Crim) Chalk No Odor No Flor NS

MISSISSIPPIAN "Ste. GEN" 5269' (- 2432)

Sh Char-Drab Grn-Gry-Aqua-Drk Brn Fissil Ls Wht MicroxIn Dns Micrite Cht Drk Blk Op Shp Vit Chalky No Odor No Stn No Flor NS

Ls Wht-Gry FxIn Poor OOL Por (w/Small OOL in pl w/ Qtz Ss Crm-Tan VFGm Ang-Sub Ang Inklus (fL=125-177 Microns= 3.0-225 Ø) "Sandy OOL Ls" Barren Grad Ls CrmTan-Gry FxIn Dns Micrite Chalky Sh Char-Blk Carb-Gry-Drab Grn-Aqua Fissil No Odor No Stn No Flor NS

Ls Wht-Gry FxIn Poor OOL Por (w/Small OOL in pl w/ Qtz Ss Crm-Tan VFGm Ang-Sub Ang Inklus (fL=125-177 Microns= 3.0-225 Ø) "Sandy OOL Ls" Barren Grad Ls CrmTan-Gry FxIn

Pressures:
IH = 2493#;
FH = 2492#;
IF = 134-140#;
FF = 189-428#;
ISIP = 818#; FSIP = 814#;
Temp. = 126 deg. F.
API Grv. = 26 deg. F.
FF Gas Gauge:
@ 20" = 2.3 Mcf;
@ 50" = TSTM.

Mudco Ck @ 5180' @ 9:40 AM 12/05/14
Vis = 58;
WT = 9.25;
PV = 19;
YP = 20;
WL = 9.2;
Cake= 1;
Chl = 3,800;
Cal = 20;
Sol = 6.2%
LCM = 3#;
DMC = \$ 2,379.05;
CMC = \$18,235.30

Mudco Ck @ 5212' @ 10:00 AM 12/06/14
Vis = 64;
WT = 8.9#;
PV = 18;
YP = 19;
WL = 8.0;
Cake= 1;
Chl = 4,000;
Cal = 20;
Sol = 4.1%
LCM = 3.5#;
DMC = \$ 958.20;
CMC = \$19,193.50

GAS KICK = 33 UNITS

GAS KICK = 43 UNITS

GAS KICK = 169 UNITS

? TRIP GAS

GAS KICK = 142 UNITS

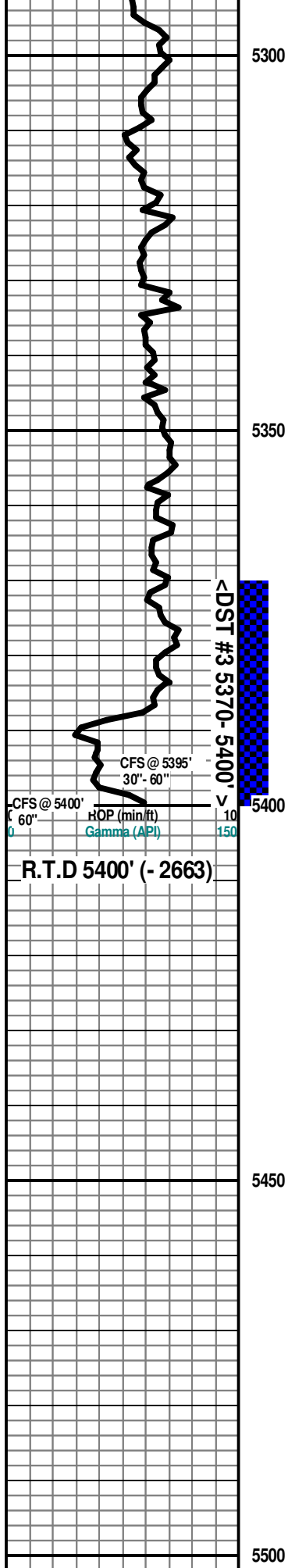
Scale Change
IG (Units) 400

~DST # 2~

Interval: 5182'-5212'
Times: 5'-90"-60"-180";
Blow: IF= Good/2' Build BOB/2.5'. No Blow Back (ISI P). FF=Good /1"
Build/BOB/8.5". Had 3"
Blowback (FSIP).
Recovery: 11 10' GIP. & 740' TF: 45" SO & WCMO (9% O & 17% Wtr & 74% M); 65' OHMCW (14% O, 46% Wtr & 40% M); 320' SMCW (w/Tr O) 93% Wtr & 7% M); 310' Wtr (100% Wtr.).

Pressures:
IH = 2479#;
FH = 2471#;
IF = 52-109#;
FF = 136-372#;
ISIP = 850#; FSIP = 825#;
Temp. = 128 degrees. F.
Chl. = 144000 Ppm
PH = 5.5;
Rw = .10 @ 65 degrees F.

Mudco Ck @ 5238' @ 9:10 AM 12/07/14
Vis = 51;
WT = 9.05#;
PV = 16;
YP = 17;
WL = 8.4;
Cake= 1;
Chl = 4,400;
Cal = 20;
Sol = 4.8%
LCM = 2.5#;
DMC = \$ 485.75;
CMC = \$19,679.25



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

Ls Wht-Gry FxIn Poor OOL Por (w/Small OOL in pl w/ Qtz Ss Crm-Tan VFGrn Ang-Sub Ang Includ (fL=125-177 Microns= 3.0-225 Ø) "Sandy OOL Ls" Barren Grad Ls CrmTan-Gry FxIn Dns Micrite Chalky Sh Char-Gry-Grn-Aqua-Maroon- Red Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Gry FxIn Poor OOL Por (w/Small OOL in pl w/ Qtz Ss Crm-Tan VFGrn Ang-Sub Ang Includ (fL=125-177 Microns= 3.0-225 Ø) "Sandy OOL Ls" Barren Grad Ls CrmTan-Gry FxIn Dns Micrite Chalky Sh Char-Gry-Grn-Aqua-Maroon- Red Soft-Fissil No Odor No Stn No Flor NS

Ls Crm-Gry FxIn Poor OOL Por (w/Small OOL in pl w/ Qtz Ss Crm-Tan VFGrn Ang-Sub Ang Includ (fL=125-177 Microns= 3.0-225 Ø) "Sandy OOL Ls" Barren Grad Ls CrmTan-Gry FxIn Dns Micrite Cht Org-Peach Translu Shp Vit Chalky Sh Blk Carb-Char-Gry-Grn-Aqua-Maroon-Red Soft-Fissil No Odor No Stn No Flor NS

MISS. "ST. LOUIS" 5340' (- 2503)

Ls Wht-Crm-Gry FxIn Poor OOL Por (w/Small OOL in pl w/ Qtz Ss Crm-Tan VFGrn Ang-Sub Ang Includ (mU=350-500 Microns = 1.5- 1.0 Ø) "Sandy OOL Ls" Barren Grad Ls CrmTan-Gry FxIn Dns Micrite Fos (? Conodant) Chalky Sh Blk Carb-Char-Gry-Grn-Aqua-Maroon-Red Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Poor OOL Por (w/Small OOL in pl w/ Qtz Ss Crm-Tan VFGrn Ang-Sub Ang Includ (mU=350-500 Microns = 1.5- 1.0 Ø) "Sandy OOL Ls" Barren Grad Ls CrmTan-Gry FxIn Dns Micrite Chalky Sh Blk Carb-Char-Gry- Grn-Aqua-Maroon-Red Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Poor OOL Por (w/Small OOL in pl w/ Qtz Ss Crm-Tan VFGrn Ang-Sub Ang Includ (mU=350-500 Microns = 1.5- 1.0 Ø) "Sandy OOL Ls" Barren Grad Ls CrmTan-Gry FxIn Dns Micrite Chalky Sh Blk Carb-Char-Gry- Grn-Aqua-Maroon-Red Soft-Fissil No Odor No Stn No Flor NS

Ls Wht-Crm-Gry FxIn Poor OOL Por (w/Small OOL in pl w/ Qtz Ss Crm-Tan VFGrn Ang-Sub Ang Includ (mU=350-500 Microns = 1.5- 1.0 Ø) "Sandy OOL Ls" Barren Grad Ls CrmTan-Gry FxIn Dns Micrite Chalky Sh Blk Carb (w/Pyr Includ) Char-Gry-Grn-Aqua Soft-Fissil No Odor No Stn No Flor NS

ST. LOUIS LWR "B" Ø 5388' (- 2551)

30" CFS @ 5395' Ls Wht Med-Lg OOL Por (w/Med-Lg OOids in pl) V Friable Med -Good Inter-OOL Por (w/Lt & Drk Brn/Blk Stn in Pin-Pt Inter-OOL Por w/Abd Med-Lg Indiv OOids in tray) Med-Good Leaching Of Ooid Arag/Calcite Ctrs Good Develop ((w/GSG & GSFO (Lt Brn) in Wtr Under Heat) Chalk Abd Fair Odor No Flor GSG & GSO

60" CFS @ 5395' Ls Wht Med-Lg OOL Por AA V Friable Good Inter-OOL Por (w/Lt & Drk Brn/Blk Stn AA in Pin-Pt Inter-OOL Por w/Abd OOid Clusters Good Leaching Good Develop (w/GSG & GSFO AA) Fos (Coral) Chalk Abd Fair-Med Odor No Flor GSG & GSO

60" CFS @ 5400' Ls Wht Med-Lg OOL Por AA V Friable Good Inter-OOL Por (w/Lt & Drk Brn/Blk Stn AA in Pin-Pt Inter-OOL Por w/OOid Clusters Good Leaching Good Develop (w/GSG & GSFO AA) Chalk Abd Fair-Med Odor No Flor GSG & GSO

Geologist left location @ 12:00 P.M. on 12/11/2014

Scale Change
G (Units) 200

Mudco Ck @ 5395' @
9:30 AM 12/08/14
Vis = 50;
WT = 9.2#;
PV = 16;
YP = 17;
WL = 10.2;
Cake= 1;
Chl = 4,400;
Cal = 20;
Sol = 6.2;
LCM = 4#;
DMC = \$ 1,559.25;
CMC = \$21,230.50

GAS KICK = 73 UNITS

DST # 3

Interval: 5371'-5400'. Miss-Run. Tool Stuck.

12/11/14 Run in hole with tool. Tool to bottom with no resistance. Opened to oil and had no packer seat. Attempted to pull up and reset packer Stuck on bottom. Pulled 240,00 lbs. Jars will not activate. Most likely reason is that drill collars are stuck and need that weight to activate jars Dropped the bar down drill pipe to shear the pin on the circulating sub. Then tried circulating down pipe by pumping through 2" hose and circulating head Can't circulate through drill string. Pressures up. Logging truck on location. At 3:15 am ran in hole with spear on wireline to shear pin. Then tried pumping down drill string with same 2" hose and circulating sub. Pressures up. Closed BOP and pumped down annulus at an idle. Able to circulate. Attempted pump-down drill string again and pressures up. At 6:00 pumping down backside again with BOP closed. Pumping at an idle it will take 1-1/2 hours to circulate bottoms up inside drill string. bottoms up inside the drill string.

12/10/14 Can circulate down backside with BOP close Unable to circulate down drillstring. Plugs off every time. Free point shows free above 5101'. Perforated bottom drill collar Then pumped mud successfully out the perforation. Spotted 130 oil at 5:00 pm.

