KOLAR Document ID: 1514819

Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1
January 2018
Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 32446
Name: Merit Energy Company, LLC
Address 1: 13727 NOEL ROAD, SUITE 1200
Address 2:
City: DALLAS State: TX Zip: 75240 + 7362
Contact Person: IDANIA MEDINA
Phone: (620) 629-4228
CONTRACTOR: License # 5929
Name: Duke Drilling Co., Inc.
Wellsite Geologist: Merit Energy Geologist
Purchaser:

Designate Type of Completion:
☑ New Well ☐ Re-Entry ☐ Workover
☑ Oil ☐ WSW ☐ SWD
☐ Gas ☐ DH ☐ EOR
☐ OG ☐ GSW
☐ 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 EOR ☐ Conv. to SWD
☐ Plug Back ☐ Liner ☐ Conv. to GSW ☐ Conv. to Producer

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

1/21/2020 Spud Date or Recompletion Date
1/26/2020 Date Reached TD
3/5/2020 Completion Date or Recompletion Date

API No.: 15-081-22200-00-00
Spot Description:
SW- SW- NE -NW Sec. 16 Twp. 28 S. R. 34 ☐ East ☑ West
1184 Feet from ☑ North / ☐ South Line of Section
1340 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☑ NW ☐ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Haskell
Lease Name: GOERING JACOB M Well #: 4
Field Name: Eubank
Producing Formation: Morrow
Elevation: Ground: 3052 Kelly Bushing: 3054
Total Vertical Depth: 5693 Plug Back Total Depth: 5642
Amount of Surface Pipe Set and Cemented at: 1790 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: 1600 ppm Fluid volume: 484 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT
I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY
☐ **Confidentiality Requested**
Date: 05/05/2020
☐ **Confidential Release Date:** 05/05/2022
☑ **Wireline Log Received** ☐ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** Karen Ritter **Date:** 05/05/2020

Operator Name: Merit Energy Company, LLC Lease Name: GOERING JACOB M Well #: 4

Sec. 16 Twp. 28 S. R. 34 ☐ East ☑ West County: Haskell

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 *(Attach Additional Sheets)*	☐ Yes	☑ No	
Samples Sent to Geological Survey	☑ Yes	☐ No	
Cores Taken	☐ Yes	☑ No	
Electric Log Run	☑ Yes	☐ No	
Geologist Report / Mud Logs	☑ Yes	☐ No	

List All E. Logs Run: Attached

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

Name	Top	Datum
Attached	Attached	Attached

CASING RECORD ☑ New ☐ Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1790	C	650	See Attached
Production	7.875	5.5	17	5686	C	210	50 SX RH/See Attached

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ Plug Off Zone	-			
	-			

1. Did you perform a hydraulic fracturing treatment on this well? ☑ Yes ☐ No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☑ No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/ Injection: 3/5/2020	Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	40				

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL: Top	Bottom
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☑ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	5232	5308

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*
2	5232	5234			Morrow Lime/Frac- 1787 bbls, total 20/40 59066 lbs, total N2 2,513,000 SCF
2	5251	5253			" " " " "
2	5268	5270			
2	5276	5281			
2	5301	5308			

TUBING RECORD:	Size:	Set At:	Packer At:
	2.8750	4008	

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Merit Energy Company, LLC
Well Name	GOERING JACOB M 4
Doc ID	1514819

All Electric Logs Run

BOREHOLE COMPENSATED SONIC LOG
COMPOSITE LOG
PHASED INDUCTION SHALLOW FOCUSE SP LOG
SONIC CEMENT BOND LOG

Form	ACO1 - Well Completion
Operator	Merit Energy Company, LLC
Well Name	GOERING JACOB M 4
Doc ID	1514819

Tops

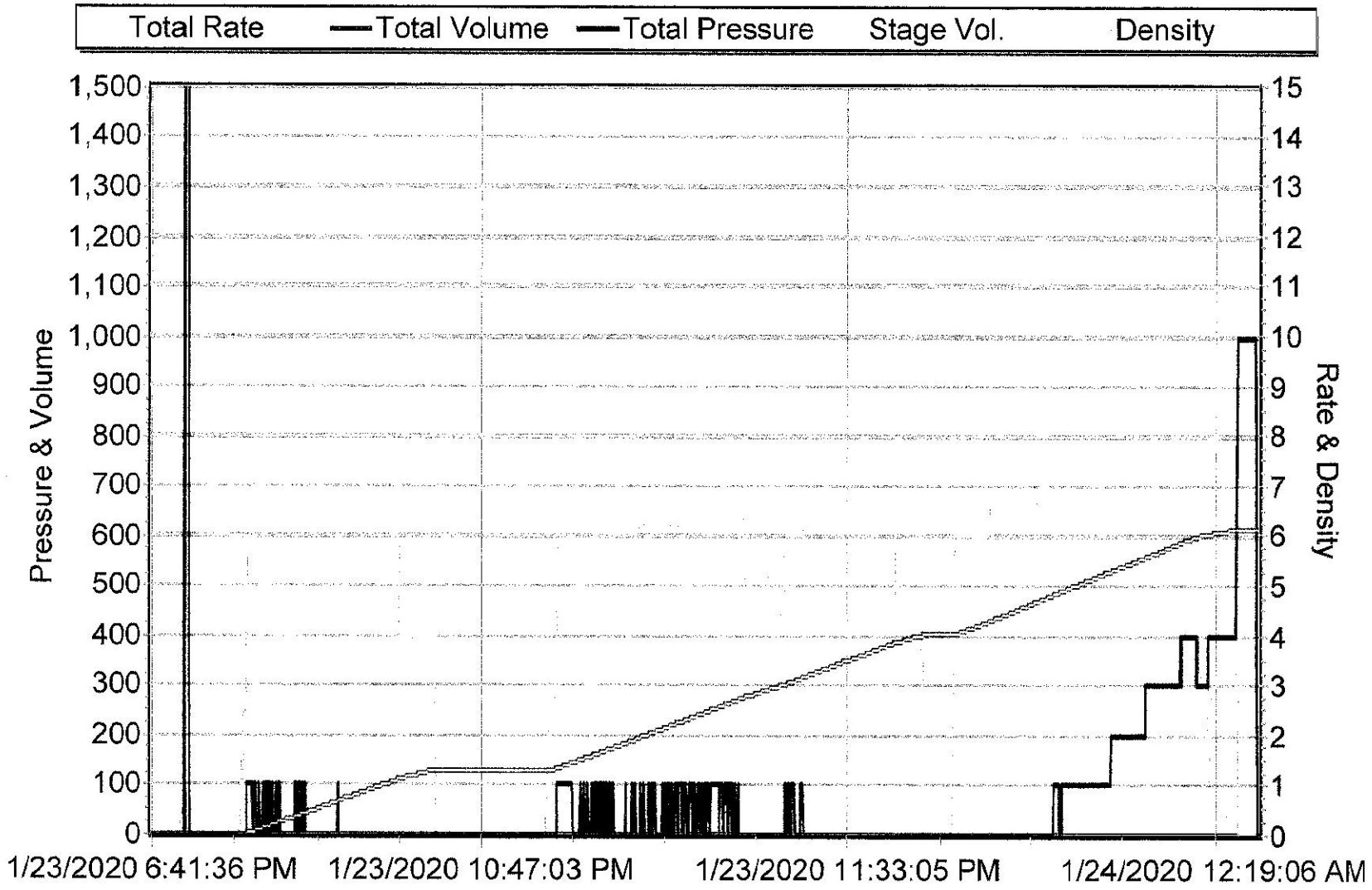
Name	Top	Datum
Heebner	4036	.
Toronto	4052	.
Lansing	4138	.
Swope	4550	.
Hertha	4606	.
Marmaton	4697	.
Pawnee	4806	.
Cherokee	4867	.
Atoka	5046	.
Morrow	5193	.
St Genevieve	5470	.

Form	ACO1 - Well Completion
Operator	Merit Energy Company, LLC
Well Name	GOERING JACOB M 4
Doc ID	1514819

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	1790	C	650	See Attached
Production	7.875	5.5	17	5686	C	210	50 SX RH/See Attached

MERIT ENERGY COMPANY
GOERING JACOB M-4
8.625 SURFACE



QUASAR ENERGY SERVICES, INC.
3288 FM 51
Gainesville, Texas 76240
Office: 940-612-3336
Fax: 940-612-3336 | qesi@qeserve.com

Form 185-2c

1/23/20

CEMENTING JOB LOG

CEMENTING JOB LOG

Company:	MERIT ENERGY COMPANY			**Well Name:**	GOERING JACOB # M-4		
Type Job:	Cement- Surface			**AFE #:**	0		
CASING DATA							
Size:	8 5/8	Grade:	J-55	Weight:	24		
Casing Depths	Top: 0	Bottom:	0				
Drill Pipe:	Size: 0	Weight:	0				
Tubing:	Size: 0	Weight:	0	Grade:	0	TD (ft):	1789
Open Hole:	Size: 12 1/4	T.D. (ft):	1789				
Perforations	From (ft): 0	To:	0	Packer Depth(ft):	0		
CEMENT DATA							
Spacer Type:							
Amt.		Sks Yield		$ft^3/_{sk}$		Density (PPG)	
LEAD:	CLASS C - 2% C-45, 2% GYPSEAL, 3% CC, 1/2# POLYFLAKE					Excess	100
Amt.	475	Sks Yield	2.39	$ft^3/_{sk}$		Density (PPG)	12.1
TAIL:	CLASS C - 2% CC, 1/2# POLYFLAKE					Excess	100
Amt.	175	Sks Yield	1.36	$ft^3/_{sk}$		Density (PPG)	14.8
WATER:							
Lead:	158.3333	gals/sk:	14	Tail:	27.0833	gals/sk:	6.5	Total (bbls):	185.4166
Pump Trucks Used:	110 - DP7								
Bulk Equipment:	188 - 660-23 / 136 - 660-24								
Disp. Fluid Type:	FRESH WATER	Amt. (Bbls.)	111	Weight (PPG):	8.33				
Mud Type:				Weight (PPG):					

COMPANY REPRESENTATIVE: RODNEY GONZALEZ **CEMENTER:** KIRBY HARPER

TIME	PRESSURES PSI			FLUID PUMPED DATA		REMARKS
AM/PM	Casing	Tubing	ANNULUS	TOTAL	RATE	
1630						ON LOCATION -- SPOT AND RIG UP
2230						CASING ON BOTTOM - BREAK CIRC.
2245						SAFETY MEETING
2309	5000					PRESSURE TEST
2316	100			202	5	START MIXING LEAD CEMENT @ 12.2 PPG
0024	100			42	5	START MIXING TAIL CEMENT @ 14.8 PPG
0043						SHUT DOWN -- DROP PLUG
0045	100			0	5	START DISPLACEMENT
0017	400			101	2	SLOW RATE
0022	500 - 1000			110		BUMP PLUG
024	1000 - 0					RELEASE PRESSURE -- FLOAT HELD
				100		CIRCULATE CEMENT TO THE PIT
						100 BBLS TO PIT Cement

Form 185-2c

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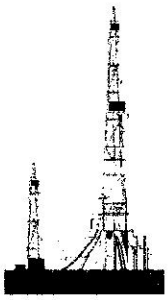
FRACTURING / ACID / CEMENT



BID #: 2405	***AFE#/PO#:*** 0

TYPE / PURPOSE OF JOB	Cement- Surface	**SERVICE POINT**	Liberal, KS
CUSTOMER	MERIT ENERGY COMPANY	**WELL NAME**	GOERING JACOB # M-4
ADDRESS	SUBLETTE.INVOICES@MERITENERGY.COM	**LOCATION**	NORTH SUBLETTE KS
CITY LINDSAY	**STATE** OK **ZIP** 73052	**TYPE AND PURPOSE OF JOB**	
DATE OF SALE 1/23/2020		**COUNTY** HASKELL	**STATE**

QTY.	CODE	YD	UNIT	PUMPING AND EQUIPMENT USED	UNIT PRICE	AMOUNT
50	1000	L	Mile	Mileage - Pickup - Per Mile	$3.15	$ 157.50
150	1010	L	Mile	Mileage - Equipment Mileage - Per Mile	$6.00	$ 900.00
1	5440	L	Per Well	Pumping Charge 0'-3500'	$1,575.00	$ 1,575.00
Subtotal for Pumping & Equipment Charges						**$ 2,632.50**

QTY.	CODE	YD	UNIT	MATERIALS	UNIT PRICE	AMOUNT
650	5632	L	Per Sack	Cement - Class C	$18.90	$ 12,285.00
5	5750	L	Per Gal.	VSC Cement Defoamer Liquid	$44.10	$ 220.50
1,668	5770	L	Per Lb.	Calcium Chloride	$1.26	$ 2,101.68
305	5800	L	Per Lb.	Cello Flakes-Poly Flake 1/8" cut	$2.52	$ 768.60
893	5850	L	Per Lb.	Gypsum	$0.95	$ 848.35
893	5900	L	Per Lb.	Sodium Metasilicate (SMS) C-45	$2.21	$ 1,973.53
1	4780	L	Each	Guide Shoe 8 5/8"	$491.40	$ 491.40
1	4860	L	Each	Float Collar (Red) 8 5/8"	$1,127.70	$ 1,127.70
1	4900	L	Each	Top Rubber Plug 8 5/8"	$87.50	$ 87.50
6	4920	L	Each	Centralizers 8 5/8"	$88.20	$ 529.20
Subtotal for Material Charges						**$ 20,433.46**

WORKERS		
KIRBY HARPER	EDUARDO RODRIGUEZ	
VICTOR CORONA		
OSCAR CHAVEZ		

TOTAL	$	23,065.96
DISCOUNT: 30%	**DISCOUNT**	$ 6,919.79
	DISCOUNTED TOTAL	**$ 16,146.17**

STAMPS & NOTES:

As of 9/22/15 any invoice with a discount must paid within 60 days of the invoice date. After 60 days the discount will be removed and the invoice will reflect full price.

CUSTOMER SIGNATURE & DATE

**All accounts are past due net 30 days following the date of invoice. A finance charge of 1 1/2% per month or 18% annual percentage rate will be charged on all past due accounts.

QUASAR ENERGY SERVICES, INC.
3288 FM 51
Gainesville, Texas 76240
Office: 940-612-3336
Fax: 940-612-3336 | qesi@qeserve.com

Form 185-2c

1/28/19

CEMENTING JOB LOG

CEMENTING JOB LOG

Company:	MERIT ENERGY			**Well Name:**	GOERING JACOB M-4		
Type Job:	Cement- Production			**AFE #:**	0		
CASING DATA							
Size:	5 1/2	Grade:	J-55	Weight:	17		
Casing Depths	Top: 0	Bottom:	0				
Drill Pipe:	Size: 0	Weight:	0				
Tubing:	Size: 0	Weight:	0	Grade:	0	TD (ft):	5686
Open Hole:	Size: 7 7/8	T.D. (ft): 5686					
Perforations	From (ft): 0	To:	0	Packer Depth(ft):	0		
CEMENT DATA							
Spacer Type:	MUD FLUSH						
Amt.	10	Sks Yield		ft $^3/_{sk}$		Density (PPG)	
LEAD:						Excess	
Amt.		Sks Yield		ft $^3/_{sk}$		Density (PPG)	
TAIL:	50/50 POZ CLASS C					Excess	
Amt.	210	Sks Yield	1.54	ft $^3/_{sk}$	323CUFT	Density (PPG)	13.7#
WATER:							
Lead:		gals/sk:		Tail:	7	gals/sk:	35	Total (bbls):	190
Pump Trucks Used:	210-DP11						
Bulk Equipment:	187 - 660-25						
Disp. Fluid Type:	KCL	Amt. (Bbls.)	130.9	Weight (PPG):	8.3		
Mud Type:				Weight (PPG):			

COMPANY REPRESENTATIVE: RODNEY **CEMENTER:** C Lantz

TIME	PRESSURES PSI			FLUID PUMPED DATA		REMARKS
AM/PM	Casing	Tubing	ANNULUS	TOTAL	RATE	
01:00						ON LOC, SAFTEY MTG, SPOT, R.U.
12:04	2000					TEST LINES
12:06	220			10	4	PUMP MUD FLUSH
12:10	220			5	4	H2O SPACER
12:16						PLUG RAT AND MOUSE
12:32	180				6	START MIXING @ 13.7#
13:05				58		SHUT DOWN, DROP PLUG, WASHUP
13:12	50				7	START DISPLACEMENT
13:38	540			115	2	SLOW RATE
13:42	630-1210			131		PLUG DOWN
13:45						RELEASE PSI, FLOAT HELD
						JOB COMPLETE
						THANK YOU FOR YOUR BUSINESS!!!

Form 185-2c

QUASAR ENERGY SERVICES, INC.

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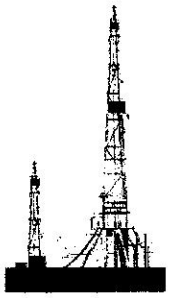
FRACTURING / ACID / CEMENT



BID #: 2427	***AFE#/PO#:*** 0

TYPE / PURPOSE OF JOB	Cement- Production	**SERVICE POINT**	Liberal, KS
CUSTOMER	MERIT ENERGY	**WELL NAME**	GOERING JACOB M-4
ADDRESS		**LOCATION**	
CITY	SUBLETTE **STATE** KS **ZIP**	**TYPE AND PURPOSE OF JOB**	
DATE OF SALE	1/28/2019	**COUNTY** HASKELL	**STATE**

QTY.	CODE	YD	UNIT	PUMPING AND EQUIPMENT USED	UNIT PRICE	AMOUNT
50	1000	0	Mile	Mileage - Pickup - Per Mile	$3.15	$ 157.50
100	1010	0	Mile	Mileage - Equipment Mileage - Per Mile	$6.00	$ 600.00
1	5490	0	Per Well	Pumping Charge 5501'-6000'	$2,022.30	$ 2,022.30
Subtotal for Pumping & Equipment Charges						**$ 2,779.80**

QTY.	CODE	YD	UNIT	MATERIALS	UNIT PRICE	AMOUNT
130	5632	0	Per Sack	Cement - Class C	$18.90	$ 2,457.00
130	5642	0	Per Sack	POZ (Flyash)	$10.90	$ 1,417.00
1	4270	0	Each	Float Shoe (Red) 5 1/2"	$617.40	$ 617.40
1	4340	0	Each	Float Collar (Red) 5 1/2"	$771.12	$ 771.12
1	4420	0	Each	Top Rubber Plug 5 1/2"	$59.40	$ 59.40
20	4450	0	Each	Centralizers 5 1/2"	$63.00	$ 1,260.00
26	2502	0	Per Gal.	Clayplex 650	$44.10	$ 1,146.60
109	5710	0	Per Lb.	C-15 Low Temp-Non Retarding Fluid Loss	$10.71	$ 1,167.39
3	5750	0	Per Gal.	VSC Cement Defoamer Liquid	$44.10	$ 132.30
1,310	5850	0	Per Lb.	Gypsum	$0.95	$ 1,244.50
1,310	5860	0	Per Lb.	Kol-Seal	$0.78	$ 1,021.80
500	5870	0	Per Gal.	Mud Flush	$1.26	$ 630.00
1,516	5890	0	Per Lb.	Salt	$0.32	$ 485.12
53	5800	0	Per Lb.	Cello Flakes-Poly Flake 1/8" cut	$2.52	$ 133.56
Subtotal for Material Charges						**$ 12,543.19**

WORKERS					
			TOTAL	$	15,322.99
			DISCOUNT: 30%	**DISCOUNT**	$ 4,596.90
				DISCOUNTED TOTAL	$ **10,726.09**

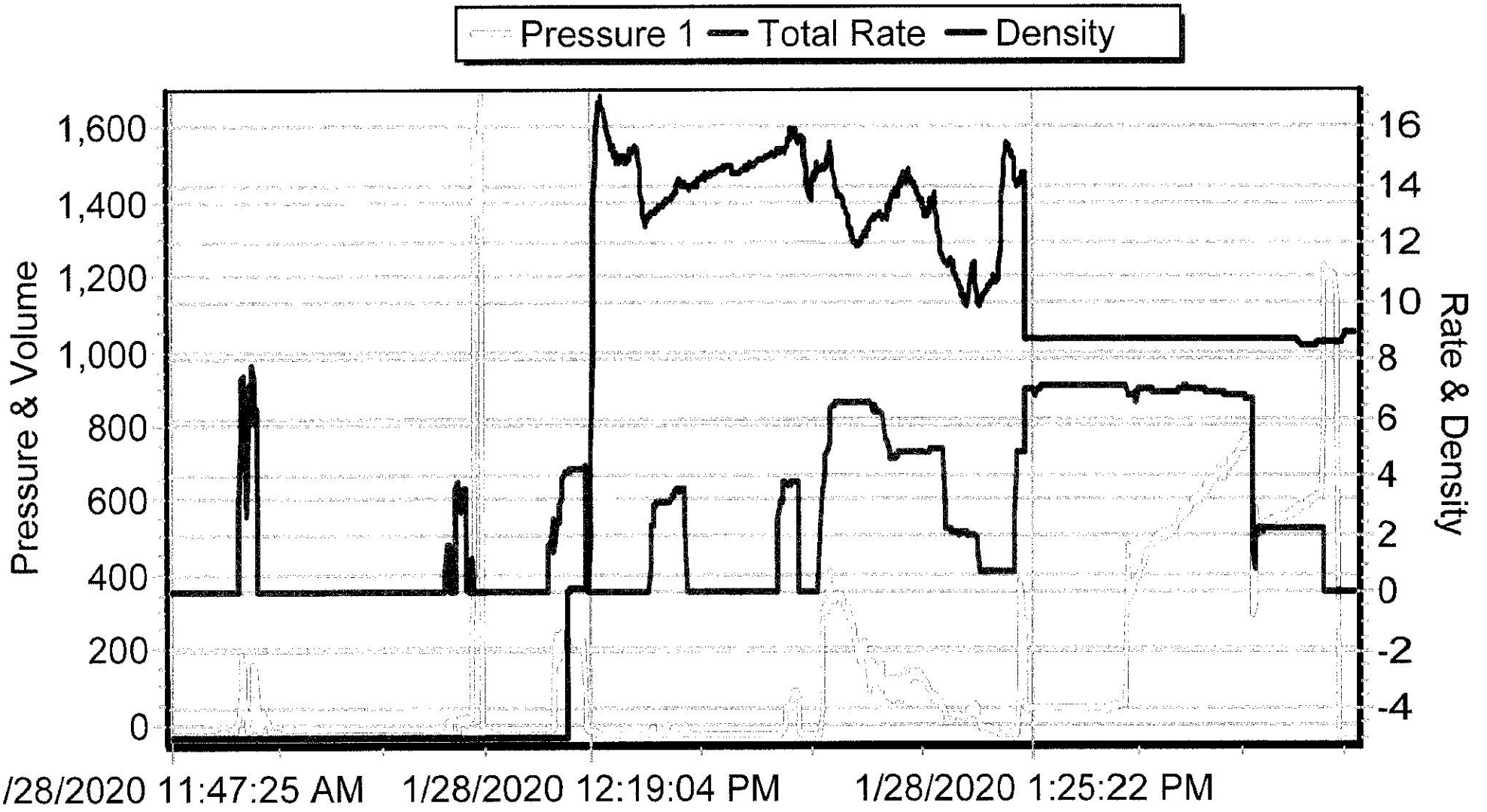
STAMPS & NOTES:

As of 9/22/15 any invoice with a discount must paid within 60 days of the invoice date. After 60 days the discount will be removed and the invoice will reflect full price.

CUSTOMER SIGNATURE & DATE

**All accounts are past due net 30 days following the date of invoice. A finance charge of 1 1/2% per month or 18% annual percentage rate will be charged on all past due accounts.

MERIT
GOERING JACOB M-4 5 1/2 L.S.



MBC WELL LOGGING LLC

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

Well Name:	GOERING JACOB M-4 AFE 65115 MERIT ENERGY CO LLC
Well Id:	API 15-081-22200-00-00
Location:	HASKELL COUNTY, KANSAS USA
License Number:	32446 Region: EUBANK
Spud Date:	1-22-2020 Drilling Completed: 01-27-2020
Surface Coordinates:	1340'fwl- 1184'fnl- SW/SW/NE/NW SEC 16-T28S-R34W
	DUKE RIG 9 #5929 RODNEY GONZALES CO-MAN
Bottom Hole Coordinates:	STEP WLS-DIL/SP/GR CNL/CAL/PE/BHV SONIC SFC- GR TO SFC'
Ground Elevation (ft):	3051 K.B. Elevation (ft): 3064
Logged Interval (ft):	4000 To: 5693 Total Depth (ft): Elog 5691
Formation:	ST LOUIS RUN PROD CSG
Type of Drilling Fluid:	MUDCO JUSTIN WHITING CELL (620)-214-3630

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

OPERATOR

Company: MERIT ENERGY CO LLC
Address: ATTN CAMERON GUTHRIE GEOLOGY
13727 NOEL RD STE 1200
DALLAS, TEXAS 75240

MUDLOGGER

Name: AUSTIN GARNER// TROY FOWLER
Company: MBC WELL LOGGING LLC
Address: 21156 RD 22
MEADE, KANSAS 67864

ROCK TYPES

Anhy
Brec
Cht
Coal
Congl
Shly dolomite
Chty sndy shly dolo
New symbol
Dolo new
New dolomite 2012
Newdolo ls 2

Ls & ooids
Oolitic ls -1
Stgensndy-arkos
New ls-1
Carby shale
Lmy carby sh-3
Carb sh
Gyp
Sltst
Salt
Sndy sh--red

Sndy sh
Sltst-1
Slty-shale
Lmy ss-1
Arkosic snd
Ss
Grn sh strk
Grn mott gy sh
Lmy sh-2
Shale-1
Red sh-1

Stgensndy-arkos
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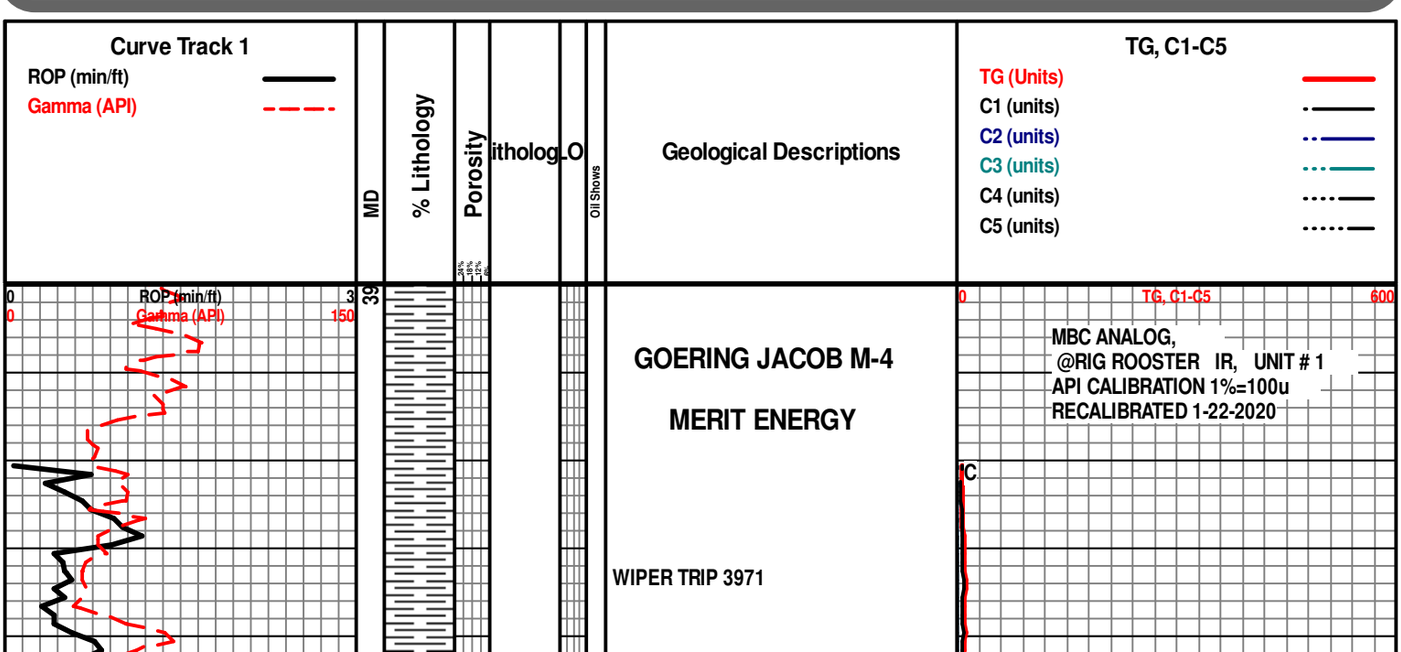
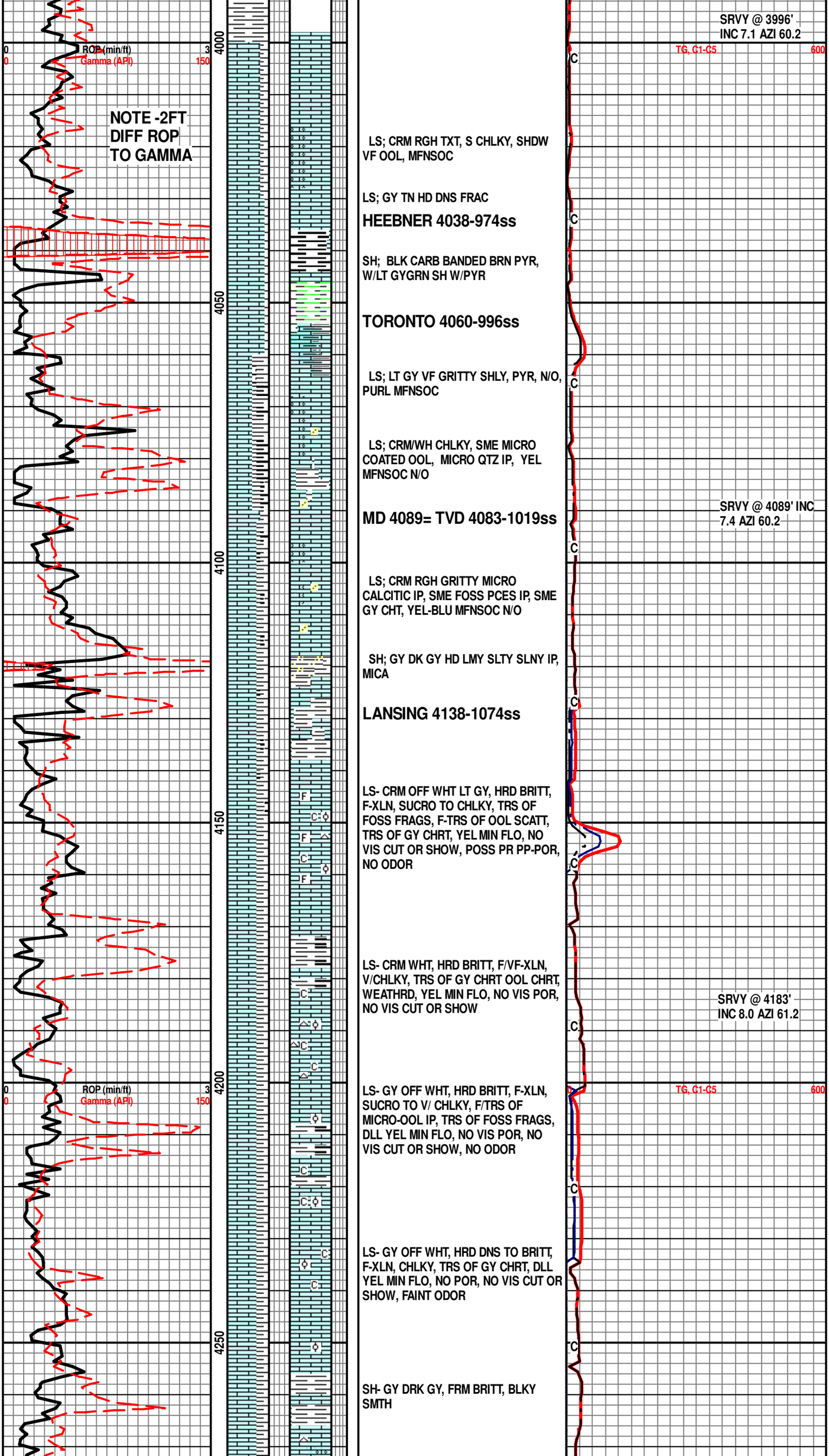
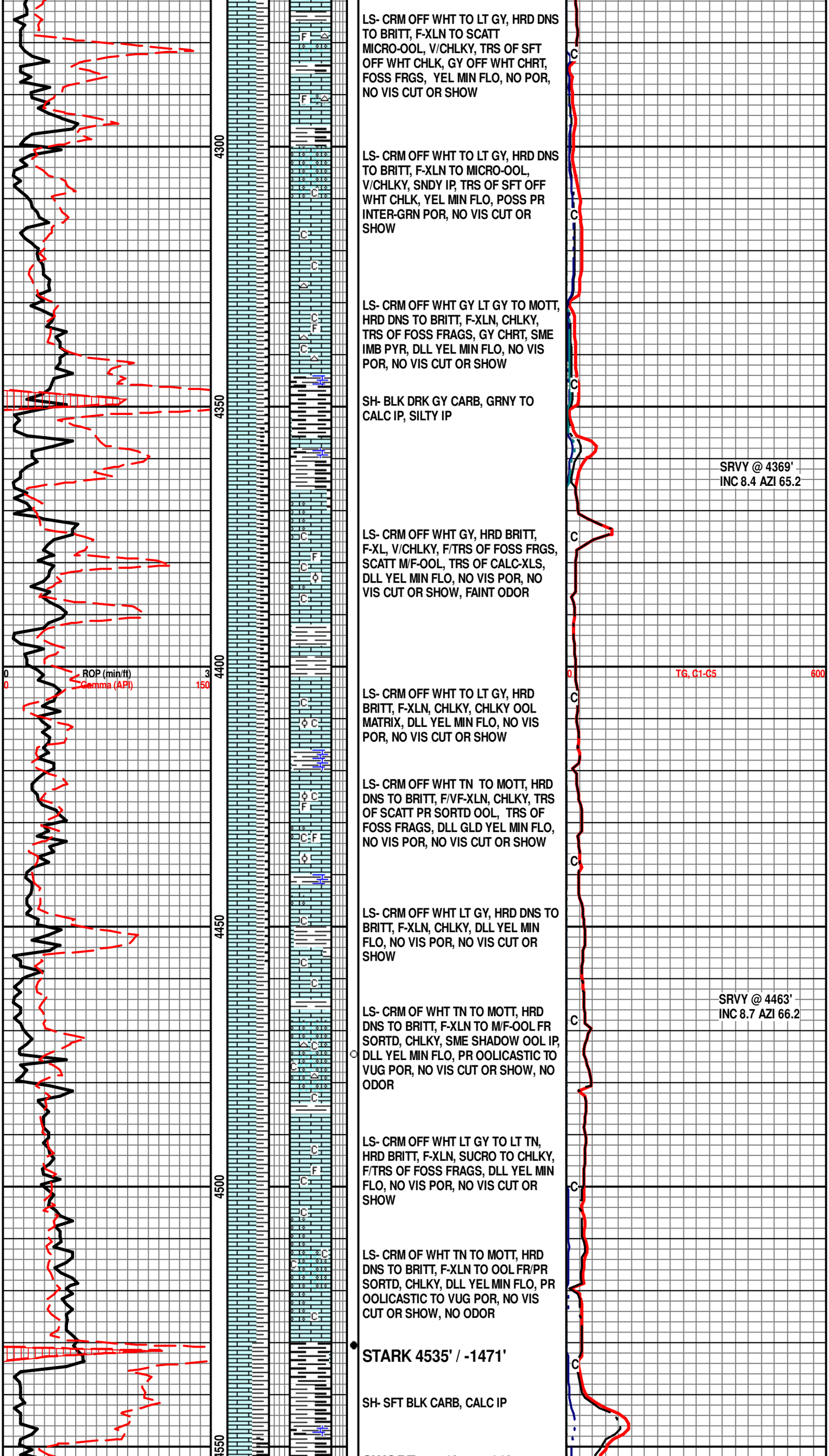
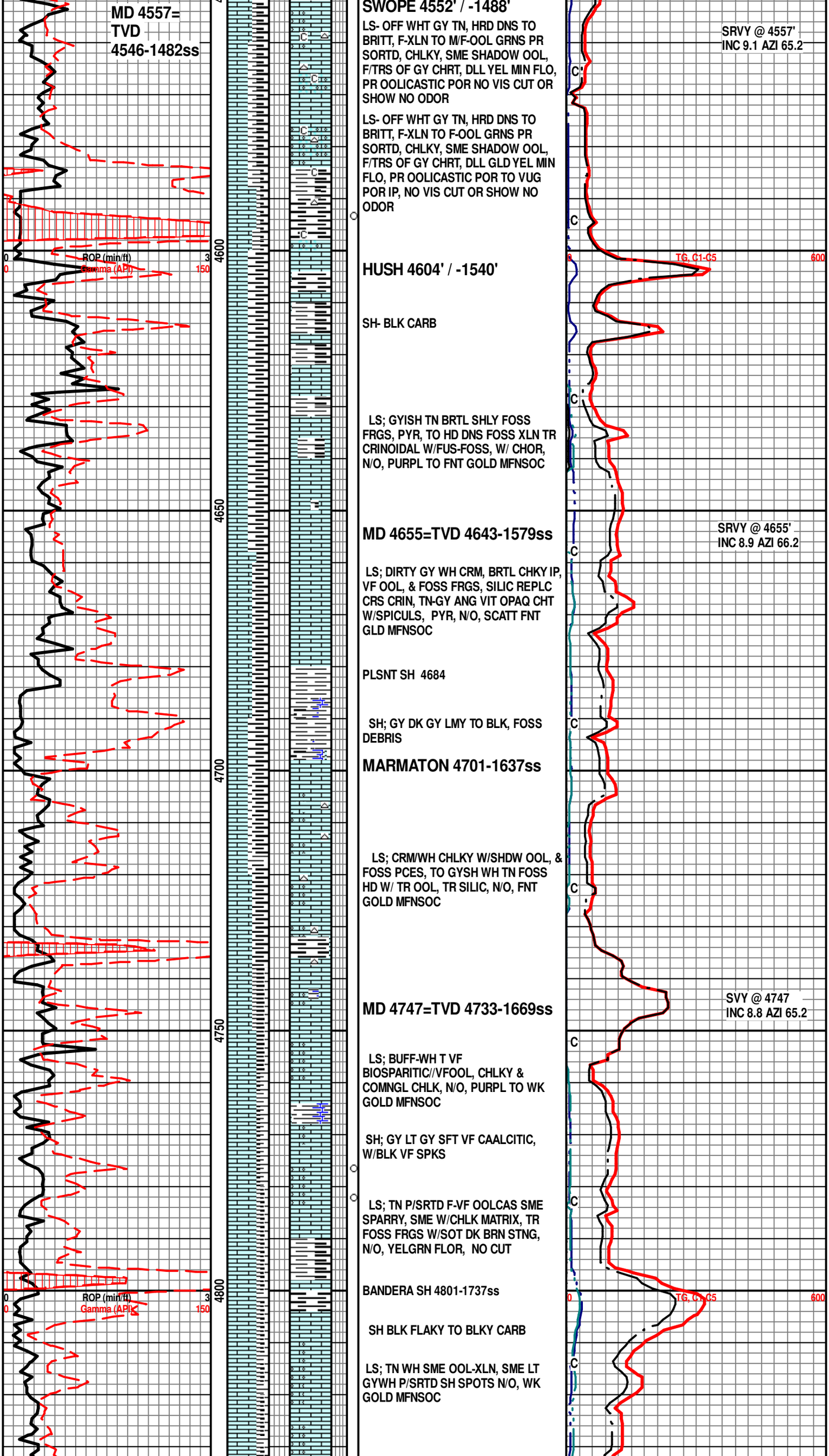
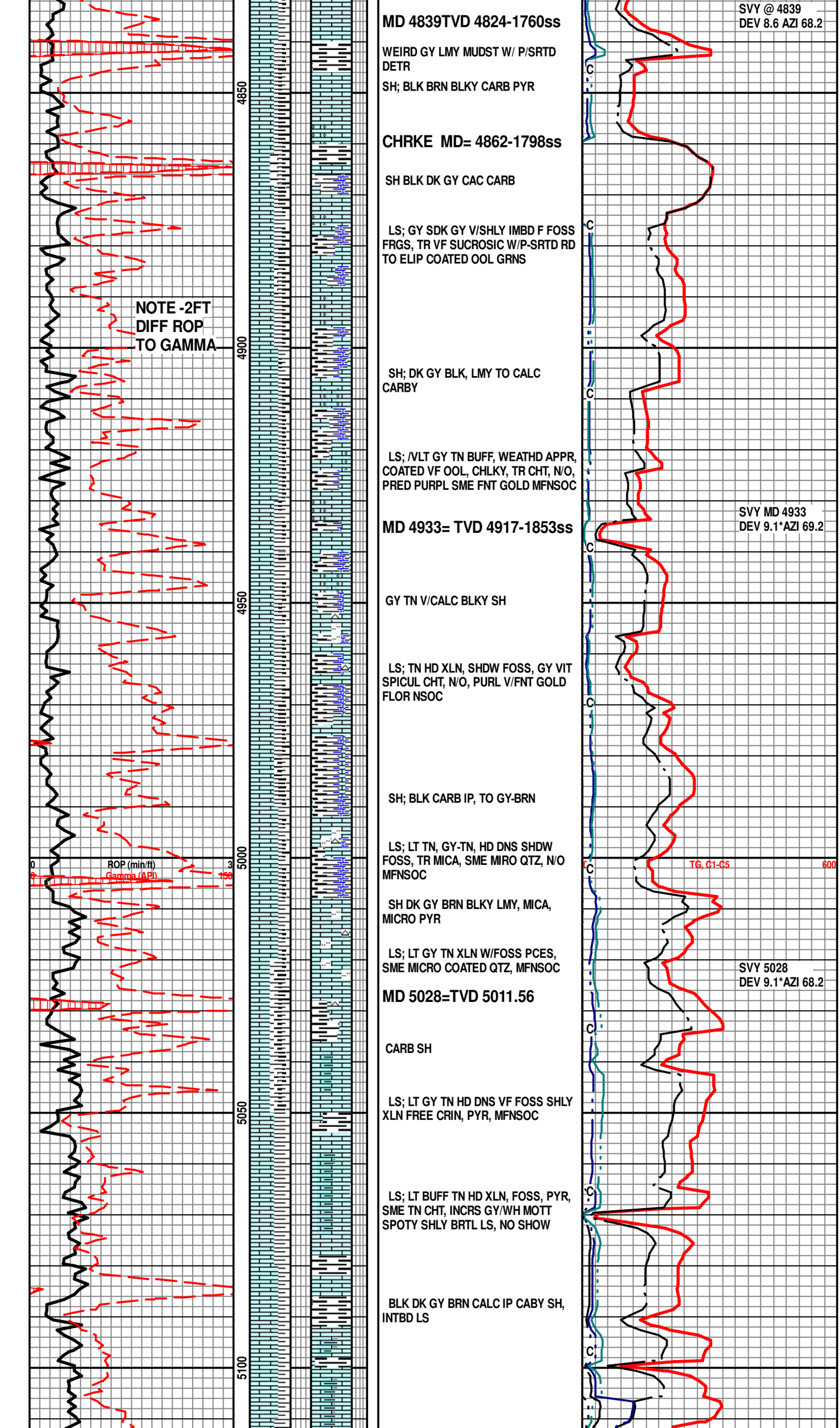
Calc shale
Granitewash
Ls shly-b
Poor sortd ss
Snd-ls-sh

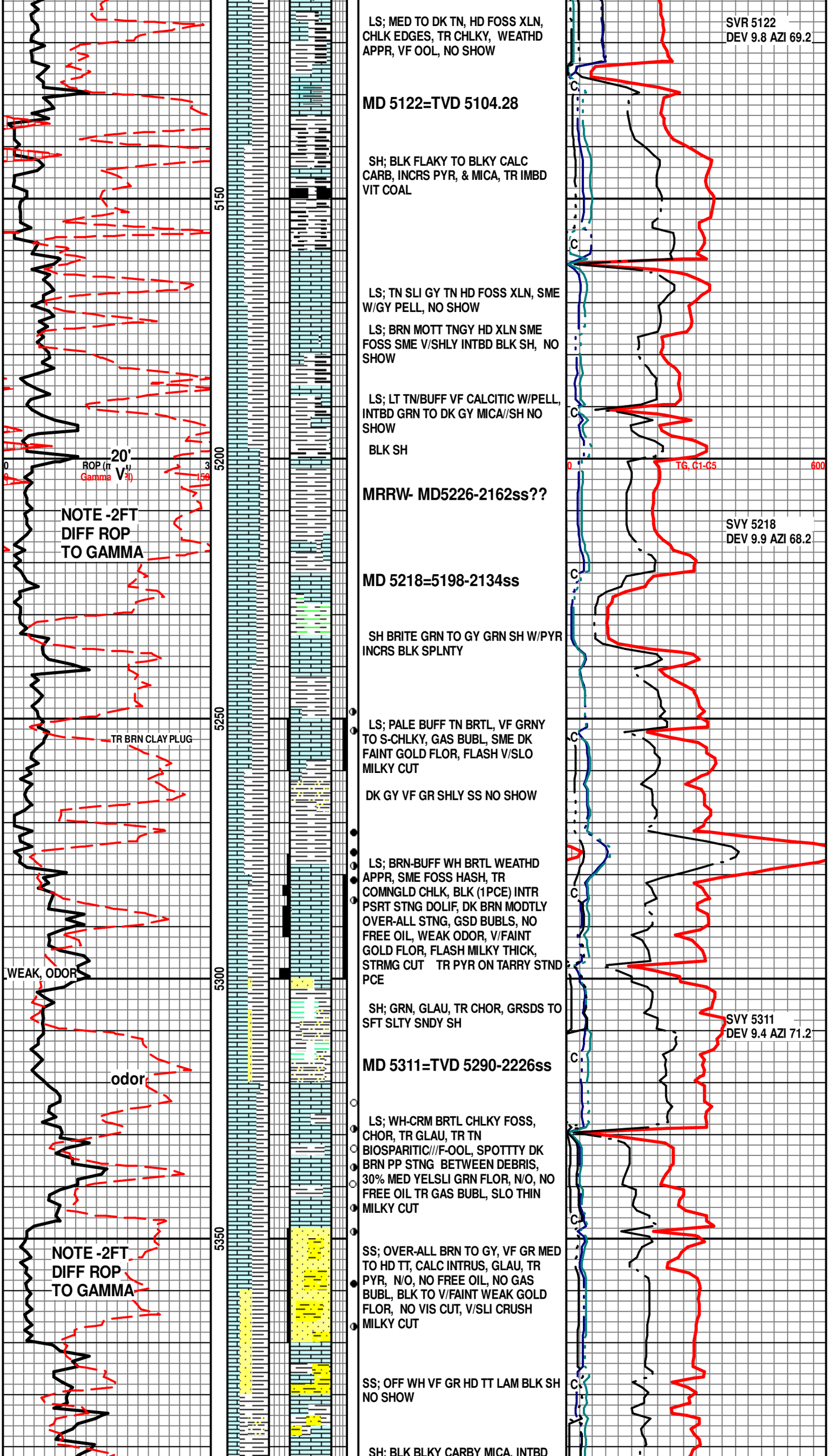


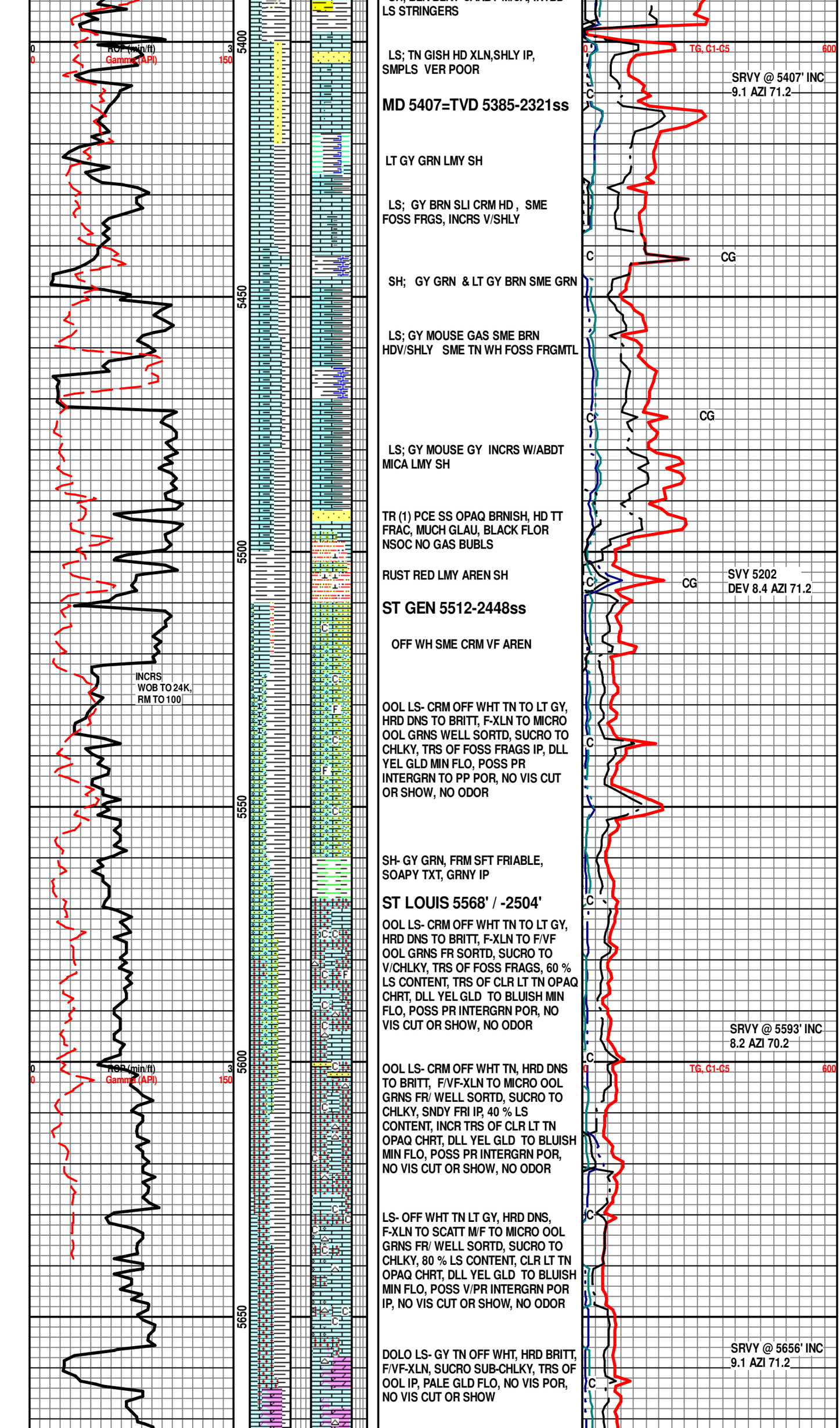

0
ROP (min/ft)
3
0
Gamma (API)
150
NOTE -2FT
DIFF ROP
TO GAMMA
4000
4050
4100
4150
4200
4250
LS; CRM RGH TXT, S CHLKY, SHDW VF OOL, MFNSOC
LS; GY TN HD DNS FRAC
HEEBNER 4038-974ss
SH; BLK CARB BANDED BRN PYR, W/LT GYGRN SH W/PYR
TORONTO 4060-996ss
LS; LT GY VF GRITTY SHLY, PYR, N/O, PURL MFNSOC
LS; CRM/WH CHLKY, SME MICRO COATED OOL, MICRO QTZ IP, YEL MFNSOC N/O
MD 4089= TVD 4083-1019ss
LS; CRM RGH GRITTY MICRO CALCITIC IP, SME FOSS PCES IP, SME GY CHT, YEL-BLU MFNSOC N/O
SH; GY DK GY HD LMY SLTY SLNY IP, MICA
LANSING 4138-1074ss
LS- CRM OFF WHT LT GY, HRD BRITT, F-XLN, SUCRO TO CHLKY, TRS OF FOSS FRAGS, F-TRS OF OOL SCATT, TRS OF GY CHRT, YEL MIN FLO, NO VIS CUT OR SHOW, POSS PR PP-POR, NO ODOR
LS- CRM WHT, HRD BRITT, F/VF-XLN, V/CHLKY, TRS OF GY CHRT OOL CHRT, WEATHRD, YEL MIN FLO, NO VIS POR, NO VIS CUT OR SHOW
LS- GY OFF WHT, HRD BRITT, F-XLN, SUCRO TO V/ CHLKY, F/TRS OF MICRO-OOL IP, TRS OF FOSS FRAGS, DLL YEL MIN FLO, NO VIS POR, NO VIS CUT OR SHOW, NO ODOR
LS- GY OFF WHT, HRD DNS TO BRITT, F-XLN, CHLKY, TRS OF GY CHRT, DLL YEL MIN FLO, NO POR, NO VIS CUT OR SHOW, FAINT ODOR
SH- GY DRK GY, FRM BRITT, BLKY SMTH
SRVY @ 3996'
INC 7.1 AZI 60.2
TG, C1-C5
600
C
SRVY @ 4089' INC
7.4 AZI 60.2
SRVY @ 4183'
INC 8.0 AZI 61.2

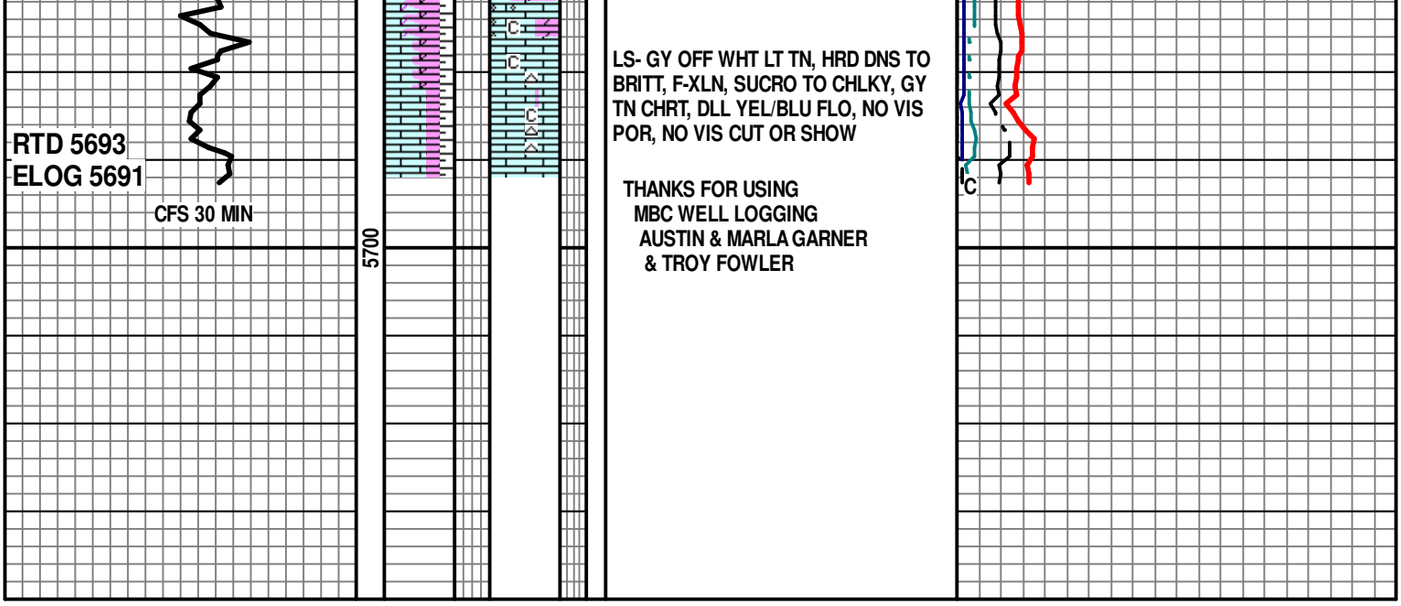

4300
4350
4400
4450
4500
4550
0
ROP (min/ft)
3
0
Gamma (API)
150
0
TG, C1-C5
600
LS- CRM OFF WHT TO LT GY, HRD DNS TO BRITT, F-XLN TO SCATT MICRO-OOL, V/CHLKY, TRS OF SFT OFF WHT CHLK, GY OFF WHT CHRT, FOSS FRGS, YEL MIN FLO, NO POR, NO VIS CUT OR SHOW
LS- CRM OFF WHT TO LT GY, HRD DNS TO BRITT, F-XLN TO MICRO-OOL, V/CHLKY, SNDY IP, TRS OF SFT OFF WHT CHLK, YEL MIN FLO, POSS PR INTER-GRN POR, NO VIS CUT OR SHOW
LS- CRM OFF WHT GY LT GY TO MOTT, HRD DNS TO BRITT, F-XLN, CHLKY, TRS OF FOSS FRAGS, GY CHRT, SME IMB PYR, DLL YEL MIN FLO, NO VIS POR, NO VIS CUT OR SHOW
SH- BLK DRK GY CARB, GRNY TO CALC IP, SILTY IP
SRVY @ 4369'
INC 8.4 AZI 65.2
LS- CRM OFF WHT GY, HRD BRITT, F-XL, V/CHLKY, F/TRS OF FOSS FRGS, SCATT M/F-OOL, TRS OF CALC-XLS, DLL YEL MIN FLO, NO VIS POR, NO VIS CUT OR SHOW, FAINT ODOR
LS- CRM OFF WHT TO LT GY, HRD BRITT, F-XLN, CHLKY, CHLKY OOL MATRIX, DLL YEL MIN FLO, NO VIS POR, NO VIS CUT OR SHOW
LS- CRM OFF WHT TN TO MOTT, HRD DNS TO BRITT, F/VF-XLN, CHLKY, TRS OF SCATT PR SORTD OOL, TRS OF FOSS FRAGS, DLL GLD YEL MIN FLO, NO VIS POR, NO VIS CUT OR SHOW
LS- CRM OFF WHT LT GY, HRD DNS TO BRITT, F-XLN, CHLKY, DLL YEL MIN FLO, NO VIS POR, NO VIS CUT OR SHOW
SRVY @ 4463'
INC 8.7 AZI 66.2
LS- CRM OF WHT TN TO MOTT, HRD DNS TO BRITT, F-XLN TO M/F-OOL FR SORTD, CHLKY, SME SHADOW OOL IP, DLL YEL MIN FLO, PR OOLICASTIC TO VUG POR, NO VIS CUT OR SHOW, NO ODOR
LS- CRM OFF WHT LT GY TO LT TN, HRD BRITT, F-XLN, SUCRO TO CHLKY, F/TRS OF FOSS FRAGS, DLL YEL MIN FLO, NO VIS POR, NO VIS CUT OR SHOW
LS- CRM OF WHT TN TO MOTT, HRD DNS TO BRITT, F-XLN TO OOL FR/PR SORTD, CHLKY, DLL YEL MIN FLO, PR OOLICASTIC TO VUG POR, NO VIS CUT OR SHOW, NO ODOR
STARK 4535' / -1471'
SH- SFT BLK CARB, CALC IP


MD 4557=
TVD
4546-1482ss
SWOPE 4552' / -1488'
LS- OFF WHT GY TN, HRD DNS TO BRITT, F-XLN TO M/F-OOL GRNS PR SORTD, CHLKY, SME SHADOW OOL, F/TRS OF GY CHRT, DLL YEL MIN FLO, PR OOLICASTIC POR NO VIS CUT OR SHOW NO ODOR
LS- OFF WHT GY TN, HRD DNS TO BRITT, F-XLN TO F-OOL GRNS PR SORTD, CHLKY, SME SHADOW OOL, F/TRS OF GY CHRT, DLL GLD YEL MIN FLO, PR OOLICASTIC POR TO VUG POR IP, NO VIS CUT OR SHOW NO ODOR
SRVY @ 4557'
INC 9.1 AZI 65.2
ROP (min/ft)
Gamma (API)
TG, C1-C5
HUSH 4604' / -1540'
SH- BLK CARB
LS; GYISH TN BRTL SHLY FOSS FRGS, PYR, TO HD DNS FOSS XLN TR CRINOIDAL W/FUS-FOSS, W/ CHOR, N/O, PURPL TO FNT GOLD MFNSOC
MD 4655=TVD 4643-1579ss
SRVY @ 4655'
INC 8.9 AZI 66.2
LS; DIRTY GY WH CRM, BRTL CHKY IP, VF OOL, & FOSS FRGS, SILIC REPLC CRS CRIN, TN-GY ANG VIT OPAQ CHT W/SPICULS, PYR, N/O, SCATT FNT GLD MFNSOC
PLSNT SH 4684
SH; GY DK GY LMY TO BLK, FOSS DEBRIS
MARMATON 4701-1637ss
LS; CRM/WH CHLKY W/SHDW OOL, & FOSS PCES, TO GYSH WH TN FOSS HD W/ TR OOL, TR SILIC, N/O, FNT GOLD MFNSOC
MD 4747=TVD 4733-1669ss
SVY @ 4747
INC 8.8 AZI 65.2
LS; BUFF-WH T VF BIOSPARITIC//VFOOL, CHLKY & COMNGL CHLK, N/O, PURPL TO WK GOLD MFNSOC
SH; GY LT GY SFT VF CAALCITIC, W/BLK VF SPKS
LS; TN P/SRTD F-VF OOLCAS SME SPARRY, SME W/CHLK MATRIX, TR FOSS FRGS W/SOT DK BRN STNG, N/O, YELGRN FLOR, NO CUT
BANDERA SH 4801-1737ss
SH BLK FLAKY TO BLKY CARB
LS; TN WH SME OOL-XLN, SME LT GYWH P/SRTD SH SPOTS N/O, WK GOLD MFNSOC
4600
4650
4700
4750
4800


NOTE -2FT
DIFF ROP
TO GAMMA
4850
4900
4950
5000
5050
5100
0
ROP (min/ft)
3
0
Gamma (API)
150
MD 4839TVD 4824-1760ss
WEIRD GY LMY MUDST W/ P/SRTD DETR
SH; BLK BRN BLKY CARB PYR
CHRKE MD= 4862-1798ss
SH BLK DK GY CAC CARB
LS; GY SDK GY V/SHLY IMBD F FOSS FRGS, TR VF SUCROSIC W/P-SRTD RD TO ELIP COATED OOL GRNS
SH; DK GY BLK, LMY TO CALC CARBY
LS; /VLT GY TN BUFF, WEATHD APPR, COATED VF OOL, CHLKY, TR CHT, N/O, PRED PURPL SME FNT GOLD MFNSOC
MD 4933= TVD 4917-1853ss
GY TN V/CALC BLKY SH
LS; TN HD XLN, SHDW FOSS, GY VIT SPICUL CHT, N/O, PURL V/FNT GOLD FLOR NSOC
SH; BLK CARB IP, TO GY-BRN
LS; LT TN, GY-TN, HD DNS SHDW FOSS, TR MICA, SME MIRO QTZ, N/O MFNSOC
SH DK GY BRN BLKY LMY, MICA, MICRO PYR
LS; LT GY TN XLN W/FOSS PCES, SME MICRO COATED QTZ, MFNSOC
MD 5028=TVD 5011.56
CARB SH
LS; LT GY TN HD DNS VF FOSS SHLY XLN FREE CRIN, PYR, MFNSOC
LS; LT BUFF TN HD XLN, FOSS, PYR, SME TN CHT, INCRS GY/WH MOTT SPOTY SHLY BRTL LS, NO SHOW
BLK DK GY BRN CALC IP CABY SH, INTBD LS
SVY @ 4839
DEV 8.6 AZI 68.2
SVY MD 4933
DEV 9.1*AZI 69.2
SVY 5028
DEV 9.1*AZI 68.2
C
TG, C1-C5
600


LS; MED TO DK TN, HD FOSS XLN, CHLK EDGES, TR CHLKY, WEATHD APPR, VF OOL, NO SHOW
MD 5122=TVD 5104.28
SVR 5122
DEV 9.8 AZI 69.2
SH; BLK FLAKY TO BLKY CALC CARB, INCRS PYR, & MICA, TR IMBD VIT COAL
LS; TN SLI GY TN HD FOSS XLN, SME W/GY PELL, NO SHOW
LS; BRN MOTT TNGY HD XLN SME FOSS SME V/SHLY INTBD BLK SH, NO SHOW
LS; LT TN/BUFF VF CALCITIC W/PELL, INTBD GRN TO DK GY MICA//SH NO SHOW
BLK SH
5150
5200
5250
5300
5350
20'
ROP (m
Gamma
TG, C1-C5
600
MRRW- MD5226-2162ss??
NOTE -2FT DIFF ROP TO GAMMA
SVY 5218
DEV 9.9 AZI 68.2
MD 5218=5198-2134ss
SH BRITE GRN TO GY GRN SH W/PYR INCRS BLK SPLNTY
LS; PALE BUFF TN BRTL, VF GRNY TO S-CHLKY, GAS BUBL, SME DK FAINT GOLD FLOR, FLASH V/SLO MILKY CUT
DK GY VF GR SHLY SS NO SHOW
TR BRN CLAY PLUG
LS; BRN-BUFF WH BRTL WEATHD APPR, SME FOSS HASH, TR COMNGLD CHLK, BLK (1PCE) INTR PSRT STNG DOLIF, DK BRN MODTLY OVER-ALL STNG, GSD BUBLS, NO FREE OIL, WEAK ODOR, V/FAINT GOLD FLOR, FLASH MILKY THICK, STRMG CUT TR PYR ON TARRY STND PCE
WEAK, ODOR
SH; GRN, GLAU, TR CHOR, GRSDS TO SFT SLTY SNDY SH
SVY 5311
DEV 9.4 AZI 71.2
MD 5311=TVD 5290-2226ss
odor
LS; WH-CRM BRTL CHLKY FOSS, CHOR, TR GLAU, TR TN BIOSPARITIC///F-OOL, SPOTTTY DK BRN PP STNG BETWEEN DEBRIS, 30% MED YELSLI GRN FLOR, N/O, NO FREE OIL TR GAS BUBL, SLO THIN MILKY CUT
SS; OVER-ALL BRN TO GY, VF GR MED TO HD TT, CALC INTRUS, GLAU, TR PYR, N/O, NO FREE OIL, NO GAS BUBL, BLK TO V/FAINT WEAK GOLD FLOR, NO VIS CUT, V/SLI CRUSH MILKY CUT
NOTE -2FT DIFF ROP TO GAMMA
SS; OFF WH VF GR HD TT LAM BLK SH NO SHOW
SH; BLK BLKY CARBY MICA, INTBD


LS STRINGERS
LS; TN GISH HD XLN,SHLY IP, SMPLS VER POOR
MD 5407=TVD 5385-2321ss
LT GY GRN LMY SH
LS; GY BRN SLI CRM HD , SME FOSS FRGS, INCRS V/SHLY
SH; GY GRN & LT GY BRN SME GRN
LS; GY MOUSE GAS SME BRN HDV/SHLY SME TN WH FOSS FRGMTL
LS; GY MOUSE GY INCRS W/ABDT MICA LMY SH
TR (1) PCE SS OPAQ BRNISH, HD TT FRAC, MUCH GLAU, BLACK FLOR NSOC NO GAS BUBLS
RUST RED LMY AREN SH
ST GEN 5512-2448ss
OFF WH SME CRM VF AREN
INCRS WOB TO 24K, RM TO 100
OOL LS- CRM OFF WHT TN TO LT GY, HRD DNS TO BRITT, F-XLN TO MICRO OOL GRNS WELL SORTD, SUCRO TO CHLKY, TRS OF FOSS FRAGS IP, DLL YEL GLD MIN FLO, POSS PR INTERGRN TO PP POR, NO VIS CUT OR SHOW, NO ODOR
SH- GY GRN, FRM SFT FRIABLE, SOAPY TXT, GRNY IP
ST LOUIS 5568' / -2504'
OOL LS- CRM OFF WHT TN TO LT GY, HRD DNS TO BRITT, F-XLN TO F/VF OOL GRNS FR SORTD, SUCRO TO V/CHLKY, TRS OF FOSS FRAGS, 60 % LS CONTENT, TRS OF CLR LT TN OPAQ CHRT, DLL YEL GLD TO BLUISH MIN FLO, POSS PR INTERGRN POR, NO VIS CUT OR SHOW, NO ODOR
OOL LS- CRM OFF WHT TN, HRD DNS TO BRITT, F/VF-XLN TO MICRO OOL GRNS FR/ WELL SORTD, SUCRO TO CHLKY, SNDY FRI IP, 40 % LS CONTENT, INCR TRS OF CLR LT TN OPAQ CHRT, DLL YEL GLD TO BLUISH MIN FLO, POSS PR INTERGRN POR, NO VIS CUT OR SHOW, NO ODOR
LS- OFF WHT TN LT GY, HRD DNS, F-XLN TO SCATT M/F TO MICRO OOL GRNS FR/ WELL SORTD, SUCRO TO CHLKY, 80 % LS CONTENT, CLR LT TN OPAQ CHRT, DLL YEL GLD TO BLUISH MIN FLO, POSS V/PR INTERGRN POR IP, NO VIS CUT OR SHOW, NO ODOR
DOLO LS- GY TN OFF WHT, HRD BRITT, F/VF-XLN, SUCRO SUB-CHLKY, TRS OF OOL IP, PALE GLD FLO, NO VIS POR, NO VIS CUT OR SHOW
ROP (min/ft)
Gamma (API)
TG, C1-C5
SRVY @ 5407' INC 9.1 AZI 71.2
CG
SVY 5202 DEV 8.4 AZI 71.2
SRVY @ 5593' INC 8.2 AZI 70.2
SRVY @ 5656' INC 9.1 AZI 71.2


RTD 5693
ELOG 5691
CFS 30 MIN
5700
LS- GY OFF WHT LT TN, HRD DNS TO BRITT, F-XLN, SUCRO TO CHLKY, GY TN CHRT, DLL YEL/BLU FLO, NO VIS POR, NO VIS CUT OR SHOW
THANKS FOR USING
MBC WELL LOGGING
AUSTIN & MARLA GARNER
& TROY FOWLER
C