

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 # _____

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

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 #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

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 Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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

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

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

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:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
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>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Indian Oil Co., Inc.
Well Name	ACHENBACH D 2
Doc ID	1422975

Tops

Name	Top	Datum
Kansas City	4380	-2963
BKC	4590	-3173
Cherokee	4746	-3329
Mississippi	4802	-3385
Kinderhook	5050	-3643
Woodford	5138	-3721
Viola	5225	-3808
Upper Simpson	5345	-3928
Arbuckle	5536	-4119

Fracture Start Date/Time:	8/6/18 10:03
Fracture End Date/Time:	8/8/18 11:55
State:	Kansas
County:	Barber
API Number:	15-007-24334-0000
Operator Number:	
Well Name:	Achenbach D2
Federal Well:	No
Tribal Well:	No
Longitude:	-98.5780194
Latitude:	37.0252078
Long/Lat Projection:	NAD27
True Vertical Depth (TVD):	4,868'
Total Clean Fluid Volume* (gal):	369,030



(e.g. XX-XXX-XXXXX-0000)

Trans Pacific

Ingredients Section:

Trade Name	Supplier	Purpose	Ingredients
Water	Operator	Carrier/Base Fluid	Water
Sand	Superior Silica Sand	Proppant	Crystalline Silica in the form of quartz
Plexicide P5	Chemplex	Biocide	Methanol

*Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

All component information

Additive	Specific Gravity	Additive Quantity	Mass (lbs)	
WATER	1.00	369,030	3,079,555	gal
Sand	2.65	258,600	258,600	lb
Plexcide P5	0.96	36	288	gal
Plexcide P5	0.96	36	288	gal
Plexsurf 580 ME	0.95	91	721	gal
Plexsurf 580 ME	0.95	91	721	gal
Plexsurf 580 ME	0.95	91	721	gal
Plexsurf 580 ME	0.95	91	721	gal
Plexsurf 580 ME	0.95	91	721	gal
Plexgel 907L-EB	1.02	292	2,485	gal
Plexgel 907L-EB	1.02	292	2,485	gal
Plexslick 957	1.02	243	2,068	gal
Plexgel XPA	1.03	70	602	gal
Clayplex 650	1.15	365	3,503	gal
				gal
				gal
				gal
				gal
				gal
			Total Slurry Mass (Lbs)	
			3,353,483	

Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% bv mass)**	Mass per Component (LBS)	Maximum Ingredient Concentration in HF Fluid (% bv mass)**	Comments
7732-18-5	100.00%	3,079,555	91.83154%	
14808-60-7	100.00%	258,600	7.71139%	
67-56-1	20.00%	58	0.00172%	



Claimant Company	Claimant First Name	Claimant Last Name	Claimant Email	Claimant Phone (nnn-xxx-xxxx)

CHEMICAL / ACID DATA:

DISCOUNT TOTAL 3/15	
SUB TOTAL	6,635.50
MATERIALS	
% TAX ON \$	
SERVICE & EQUIPMENT	
% TAX ON \$	

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
CP103	60/40 Poz	SK	200		2,400.00
CC102	Cellophane	Lb	51		188.70
CC109	Calcium chloride	Lb	51		341.80
E100	unit mileage chaise - pickups, smallish & cis	m.	50		225.00
E113	Heavy Equipment mileage	m.	100		750.00
CE200	Propose the Bulk Delivery Chaises, Pen den mile	In/m	430		1,075.00
CE210	Depn chaise 10-500	4hr	1		1,000.00
5003	Bleains & mixes Service Chaise	SIC	200		280.00
	Service Supervisor first 8 hrs on loc	ES	1		175.00

SIGNED: *[Signature]* (WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).

DATE OF JOB	7/10/2018 DISTRICT P 154 & 115
CUSTOMER	Foreign O.I. Co., Inc
ADDRESS	
CITY	
STATE	
AUTHORIZED BY	
EQUIPMENT#	19843
HRS	1/2
EQUIPMENT#	19918
HRS	1/2
TRUCK CALLED	7:10 AM 9/4
ARRIVED AT JOB	7:10 PM 12/13
START OPERATION	7:10 PM 7:00
FINISH OPERATION	7:10 PM 2:30
RELEASED	7:10 AM 2:45
MILES FROM STATION TO WELL	53

JOB TYPE: 242/858 Sol face

SERVICE CREW: Dain, Mark I, D.92

COUNTY: Barber

LEASE: Achenbach D

STATE: KS

WELL NO:

NEW WELL OLD WELL PROD INJ WDW CUSTOMER ORDER NO.

DATE: _____ TICKET NO. _____

FIELD SERVICE TICKET 1718 16600 A

10244 NE HWY. 61
 P.O. Box 8613
 Pratt, Kansas 67124
 Phone 620-672-1201

BASIC
 ENERGY SERVICES
 PRESSURE PUMPING & WIRELINE

TMH: 25

BASIC ENERGY SERVICES
 PRESSURE PUMPING & WIRELINE

10244 NE Hwy. 61
 P.O. Box 8613
 Pratt, Kansas 67124
 Phone 620-672-1201
 1-355-126

JTMH: 45

FIELD SERVICE TICKET
 1718 16880 A

DATE
 TICKET NO.

DATE OF JOB 7/17/2018 DISTRICT **Pratt**

CUSTOMER **Ingen Oil Co., Inc.**

CITY
 ADDRESS
 AUTHORIZED BY

EQUIPMENT# 19843 HRS 1 1/2
 EQUIPMENT# 21010 HRS 1 1/2

JOB TYPE: **242/51L Consist.**

STATE
 COUNTY **Boyer**
 SERVICE CREW **Dora, E., D. S.**

TRUCK CALLED
 ARRIVED AT JOB **7:16 PM** 3:00
 START OPERATION **7:17 PM** 1:00
 FINISH OPERATION **7:17 PM** 2:15
 RELEASED **7:17 PM** 3:00
 MILES FROM STATION TO WELL **4.8**

NEW WELL OLD WELL PROD INJ WDW
 LEASE **Achenbesh D**
 COUNTY **Boyer** STATE **Ks**
 WELL NO. **2**

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
 The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: (WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

MATERIAL, EQUIPMENT AND SERVICES USED

EM/PRICE REF. NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	\$ AMOUNT
105	BR 2 Cement	SK	200	3.400	680.00
102	Cellulose	SK	50	1.200	60.00
111	55+	SK	50	1.200	60.00
113	Gypsum	Lb	50	3.600	180.00
118	C-17	Lb	1085	1.850	198.00
05	C-41P	Lb	940	5.420	510.00
01	Glonitic	Lb	113	7.050	800.00
07	Rawo Fill Lost Shoe	Lb	94	2.360	221.00
01	5 1/2 Basket (Blue)	Lb	1197	3.760	4498.00
01	5 1/2 Basket Plus & Speller, 5 1/2 (Blue)	ES	1	801	801.00
01	Clymer KCL Substrate	ES	1	376	376.00
01	Mud Flush	ES	1	400	400.00
01	Unit Mixture Cheese - Picrops + Small Usus & Csis	ES	1	1.210	1210.00
01	Messy Equipment Mixture	Gal	5	250	1250.00
01	Poppo's Bulk Delivery Chores, Per ten mile	Gal	500	1.750	875.00
01	Blensins & Mixins Seurer Chorse	m.	500	1.750	875.00
01	Sevir 50m Visor, first & his on loc	m.	500	1.750	875.00
SUB TOTAL					17,872.99
% TAX ON \$					350.00
DISCOUNT TOTAL					17,522.99

10
 TIVE

BASIC

energy services, L.P.

TREATMENT REPORT

Customer Indesa Oil Co., Inc Lease No. _____ Date 7/10/2018
 Lease Achenbach D Well # 2
 Field Order # 16600 Station Pratt, KS Casing 8 5/8 Depth 307 County Barber State KS
 Type Job 242/8 5/8 surface Formation TD-309 Legal Description 1-355-12w

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size	Tubing Size	Shots/Ft		Acid	RATE	PRESS	ISIP	
<u>8 5/8</u>								
Depth <u>307</u>	Depth	From	To	Pre Pad	Max		5 Min.	
Volume <u>193</u>	Volume	From	To	Pad	Min		10 Min.	
Max Press <u>300</u>	Max Press	From	To	Frac	Avg		15 Min.	
Well Connection	Annulus Vol.	From	To		HHP Used		Annulus Pressure	
Plug Depth <u>287</u>	Packer Depth	From	To	Flush <u>Water</u>	Gas Volume		Total Load	

Customer Representative Rick Brainerd Station Manager Justin Westerman Treater Darin Franklin

Service Units	92911	78982	19843	84981	19918				
Driver Names	<u>Darin</u>	<u>msik</u>	<u>msik</u>	<u>D92</u>	<u>D92</u>				

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<u>12:15 pm</u>					<u>On location / Set up machine</u>
					<u>200SK 60/40 P02, 3% CC, 1/4 HCF</u>
					<u>14.8 PPS, 1.21 Voids, 5.18 water</u>
<u>2:00 pm</u>	<u>200</u>		<u>3</u>	<u>5</u>	<u>Pump 3 bbls water</u>
	<u>200</u>		<u>43</u>	<u>5</u>	<u>Mix 200 SK cement</u>
	<u>200</u>		<u>18 1/4</u>	<u>5</u>	<u>Disperse 18.2 bbls water</u>
<u>2:30 pm</u>					<u>Shut in Cement to surface</u>

Job complete / Darin & crew
Thank you!!!



ASIC Energy Services, L.P.

TREATMENT REPORT

Customer Indian Oil Co., Inc.	Lease No.	Date 7/17/2018
Lease Achenbsch D	Well # 2	
Field Order # 16880	Station Prattiks	Casing 5 1/2
Type Job 242/5 1/2 Longstring	Formation TD-56	Depth
		County Barber
		State KS
		Legal Description 1-35S-12W

PIPE DATA		PERFORATING DATA		FLUID USED		TREATMENT RESUME		
Casing Size 5 1/2	Tubing Size	Shots/Ft		Acid		RATE	PRESS	ISIP
Depth 5584	Depth	From	To	Pre Pad	Max			5 Min.
Volume 132.8	Volume	From	To	Pad	Min			10 Min.
Max Press 1300	Max Press	From	To	Frac	Avg			15 Min.
Well Connection	Annulus Vol.	From	To		HHP Used			Annulus Pressure
Plug Depth 5562	Packer Depth	From	To	Flush KCL water	Gas Volume			Total Load

Customer Representative Anthony Frisvold	Station Manager Justin Westerman	Treater Darin Franklin
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Service Units	92511	78982	19843	19959	21010				
Driver Names	Darin	Ed	Ed	Disz	Disz				

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
5:00pm					on location / safety meeting
					A- B-
					200 SK PAZ Cement, 10% SPT, 10% GYP
					0.6% fluid loss, 0.5% defoamer, 0.25 pps Cellulose
					6 pps silsonic, 14.8 pps, 1.54 v. 12, 6.51 water
					50 SK 60/40 PAZ, 1.2% SPT
					14.4 pps, 1.26 v. 12, 5.74 water
1:00pm	400		3	5	Pump 3 bbls water
	400		12	5	12 bbls Flush
	400		3	5	3 bbls water
	400		55	5	Mix 200 SK Cement
			0		Shut down
			3		Wash pump & line Release Plug
	100		0	6	Start displacement
	500		90	6	Lift Pressure
	900		120	3	Slow Rate
2:15pm	500		132	3	Bump Plug
					Float - Held
	50		7	3	Plug Rate hole
	50		3	3	Plug mouse hole
2:45pm					Job Complete / Darin & crew

Geologic Report
Aaron L Young
Drilling Time and Sample Log
Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Achenbach D #2
API: 15-007-24334
Location: Section 1 - T35S - R12W
License Number: 31938
Spud Date: 07 / 09 / 2018
Surface Coordinates: 1415' FSL and 2155' FWL or
SE - NE - SW
Region: Barber Co., KS
Drilling Completed: 07 / 16 / 2018
Bottom Hole
Coordinates:
Ground Elevation (ft): 1405' K.B. Elevation (ft): 1417'
Logged Interval (ft): 4350' To: 5600' Total Depth (ft): 5600'
Formation: Arbuckle
Type of Drilling Fluid: Chemical - MudCo

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

OPERATOR

Company: Indian Oil Co., Inc
Address: P.O. Box 209
2507 SE US 160 HWY
Medicine Lodge, KS 67104+0209

GEOLOGIST

Name: Aaron L. Young, M.S.
Company: Young Consulting LLC
Address: 100 S. Main, Suite 505
Wichita, Kansas 67202

General Info

CONTRACTOR: Fossil Drilling, Rig #3

BIT RECORD:

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	RR	18-18-18	310'	298'	3.50
2	7-7/8	DP506	16-16-16	4879'	4569'	55.25
3	7-7/8	DP506	18-18-18	5600'	721'	17.00

Surveys: 310'-.75, 900'-.5, 1484'-.5, 1988'-1, 2527'-.5, 3064'-.75, 3634'-.75, 4144'-.5, 4879'-1, 5600'-.25

GENERAL DRILLING AND PUMP INFORMATION:

Drilling with 8,000-10,000 lbs. on bit and 75 RPM w/ 9 stands of collars, 550'.
Pumping 950 psi at standpipe @ 54 strokes/min

Daily Status

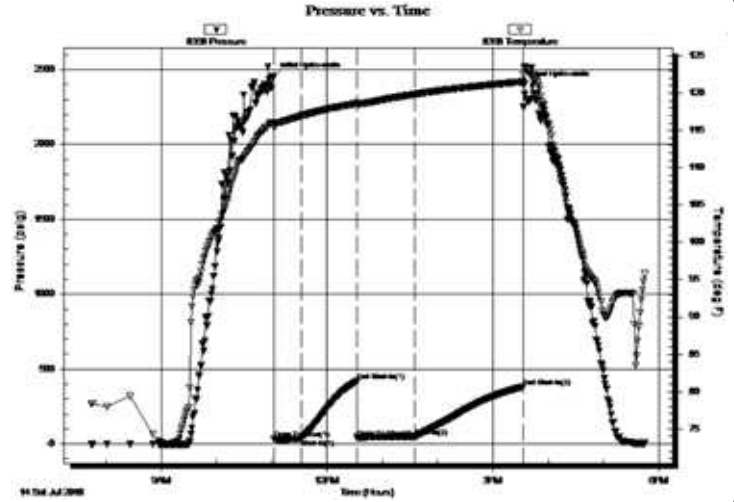
07/09/18 - Spud @ 9:00pm, drilled w/ 12-1/4" bit to 310'
 07/10/18 - Drilling @ 656', drilling rathole with 7-7/8" bit to 900'
 07/11/18 - Drilling @ 1550', Set 8-5/8" 23# surface casing at 307' w/ 200 sx
 07/12/18 - Drilling @ 3002'
 07/13/18 - Drilling @ 4144'
 07/14/18 - DST #1 - 4739'-4879'
 07/15/18 - CFS @ 5175'
 07/16/18 - RTD 5600, Logged, Ran 5 1/2" production casing set at 5584' with 200sx

DST #1 Mississippi 4739'-4879'

IF: BOB in 17 min, built to 13.5"
 ISI: No return
 FF: BOB in 38 min, built to 15.25"
 IFI: No return

Rec'd: 65' OSM (100% M)

SIP: 418-383#, FP: 33-35#, 39-50#, HP: 2453-2399#



ROCK TYPES

	Anhy
	Bent
	Brec
	Cht
	Clyst
	Coal
	Congl
	Dol

	Gyp
	Igne
	Lmst
	Meta
	Mrlst
	Salt
	Shale
	Shcol

	Shgy
	Sltst
	Ss
	Till
	Carb sh
	Dol
	Dtd
	Gry sh

	Sandylms
	Shale
	Sltstn
	Shlyslts
	Sltysch
	Lms

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr



- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff
- Chlorite
- Dol
- Sand
- Silty

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram



- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom
- Fuss
- Oomold

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg
- Carbsh



- Clystn
- Dol
- Grysh
- Gryslt
- Lms
- Sandylms
- Sh
- Sltstn

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

OIL SHOWS

- Even
- Spotted
- Ques
- Dead
- Gas show

INTERVALS

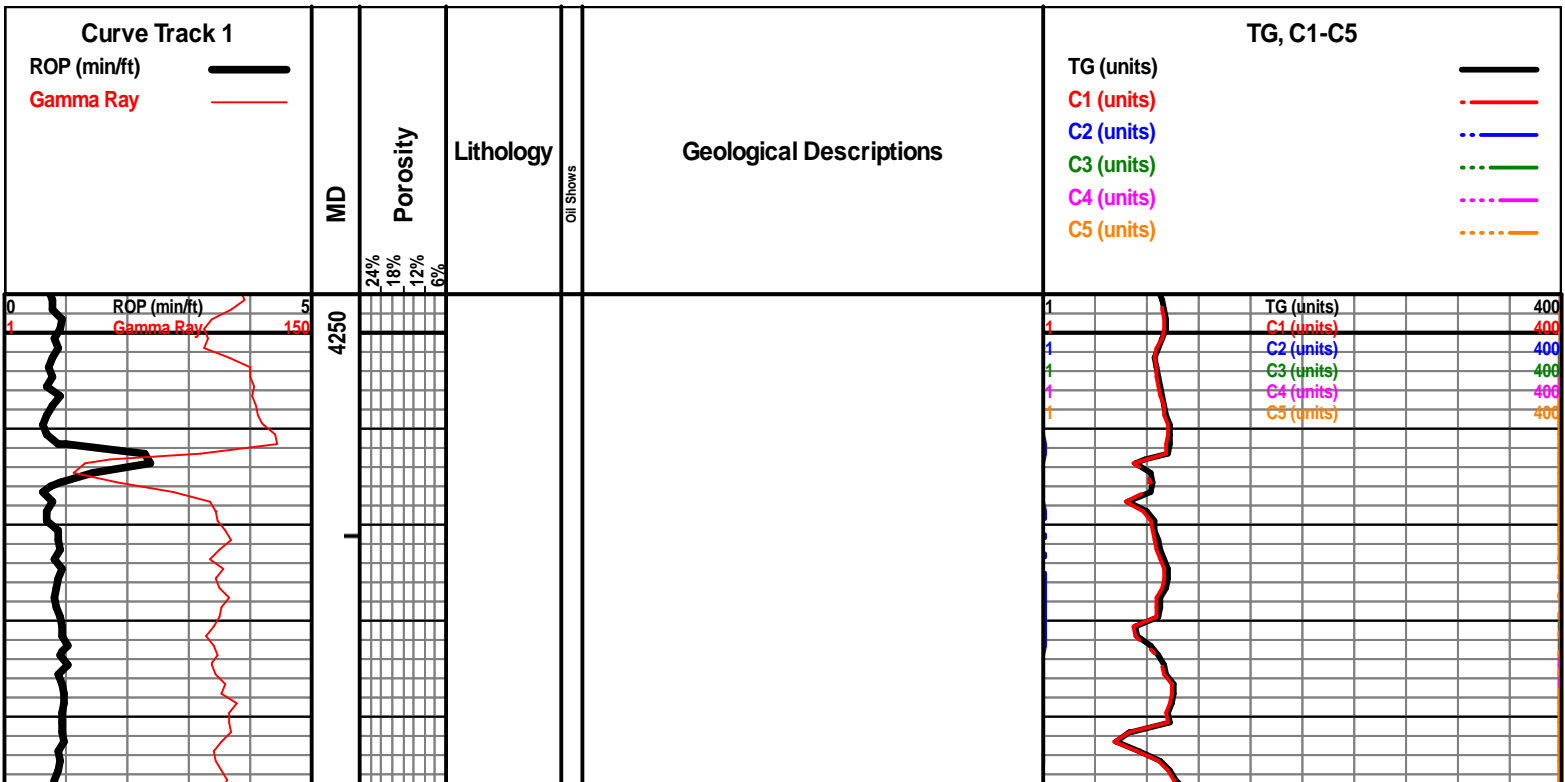
- Core
- Dst

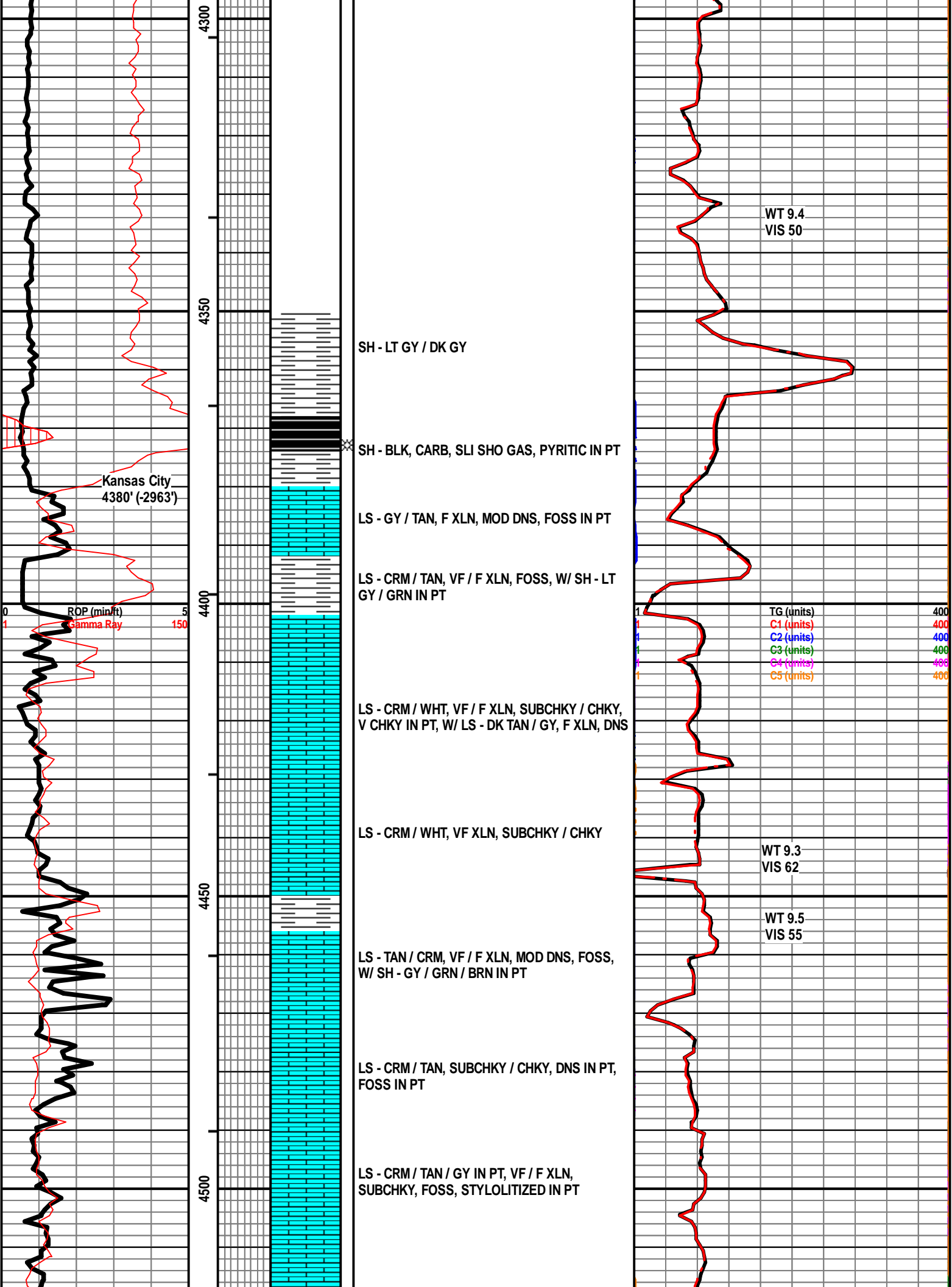


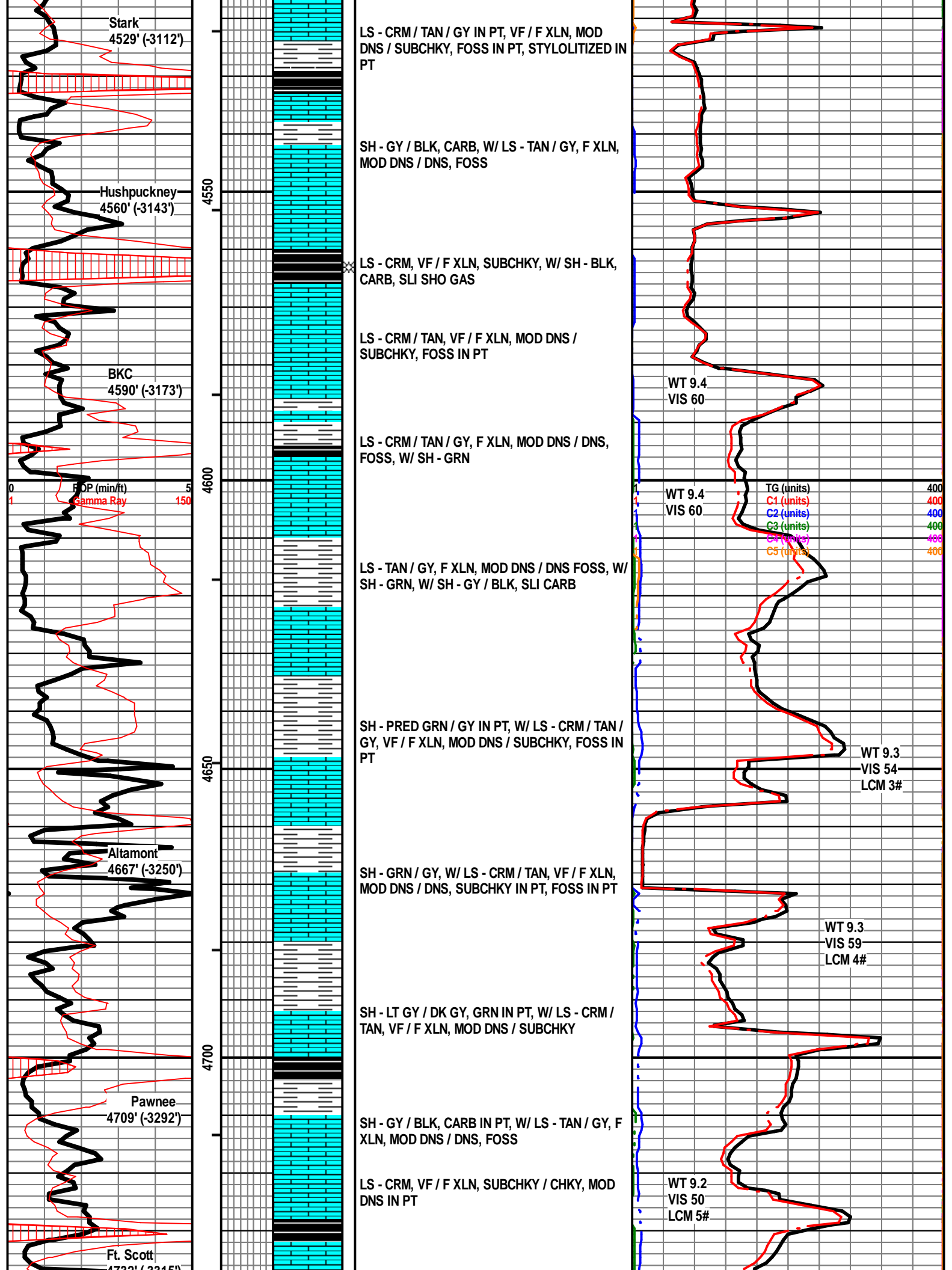
Dst

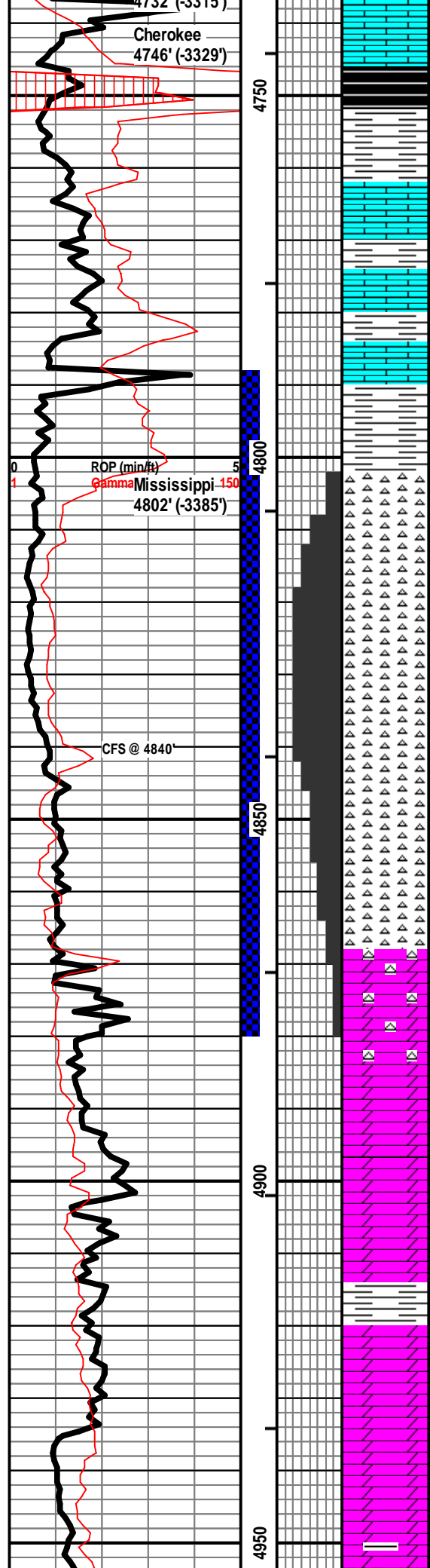
EVENTS

- Rft
- Sidewall
- Conn









SH - BLK, CARB, G SHO GAS, SLI ODOR, W/ LS
- GY, VF XLN, DNS, FOSS IN PT

SH - BLK, CARB, W/ SH - GY

SH - GY / GRN, W/ LS - TAN, F XLN, MOD DNS /
DNS, FOSS

SH - LT GY

CHT - WHT / GY, OPAQ, FRSH IN PT, PRED
WEATH, F WEATH POR, GSFO, G SHO GAS,
VUG POR IN PT, SLI YEL-GRN FLUOR, F ODOR

CHT - WHT / GY, OPAQ, F / G WEATH & VUG
POR, G SHO GAS, G ODOR, SLI YEL-GRN
FLUOR

CHT - WHT / GY, OPAQ, P / F WEATH & VUG
POR, FSFO, SLI SHO GAS, V SLI FLUOR

CHT - WHT / GY, OPAQ & TRANSLUCNT, 50%
FRSH W/ EDGS STN, 50% P / F WEATH POR IN
PT, FSFO, F ODOR, SLI SHO GAS, NO FLUOR

CHT - WHT / GY, OPAQ & TRANSLUCNT, PRED
FRSH W/ EDGE STN IN PT, P WEATH POR IN
PT, FSFO, SLI ODOR, SLI SHO OF GAS, F
MINERAL FLUOR

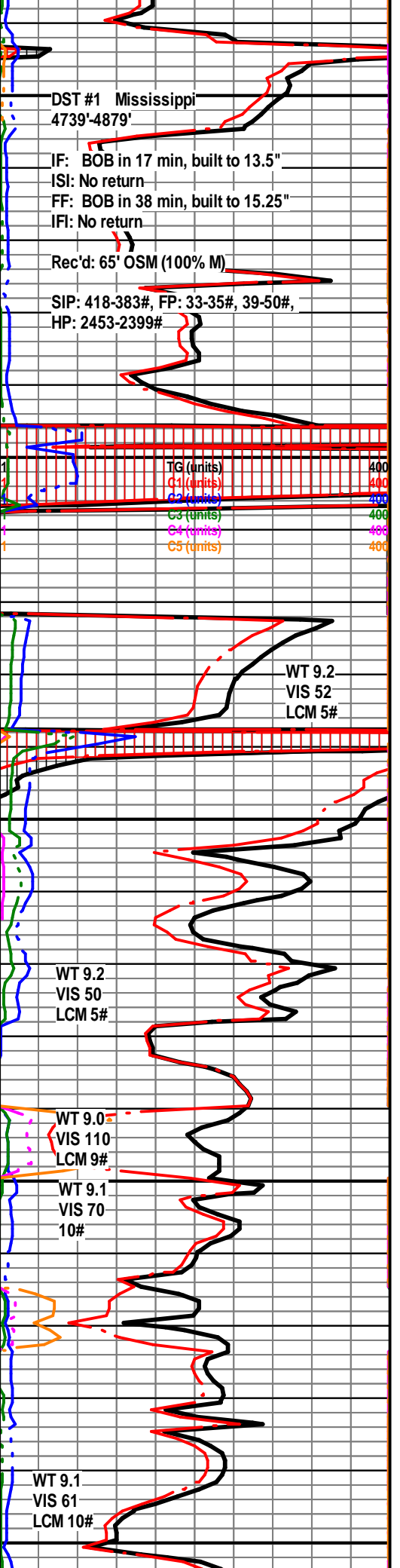
DOLO - CRM / TAN / GY, VF / F XLN, CHTY, DNS,
P INTXLN POR IN PT, SSFO, SLI ODOR, SLI
SHO GAS, SLI MINERAL FLUOR

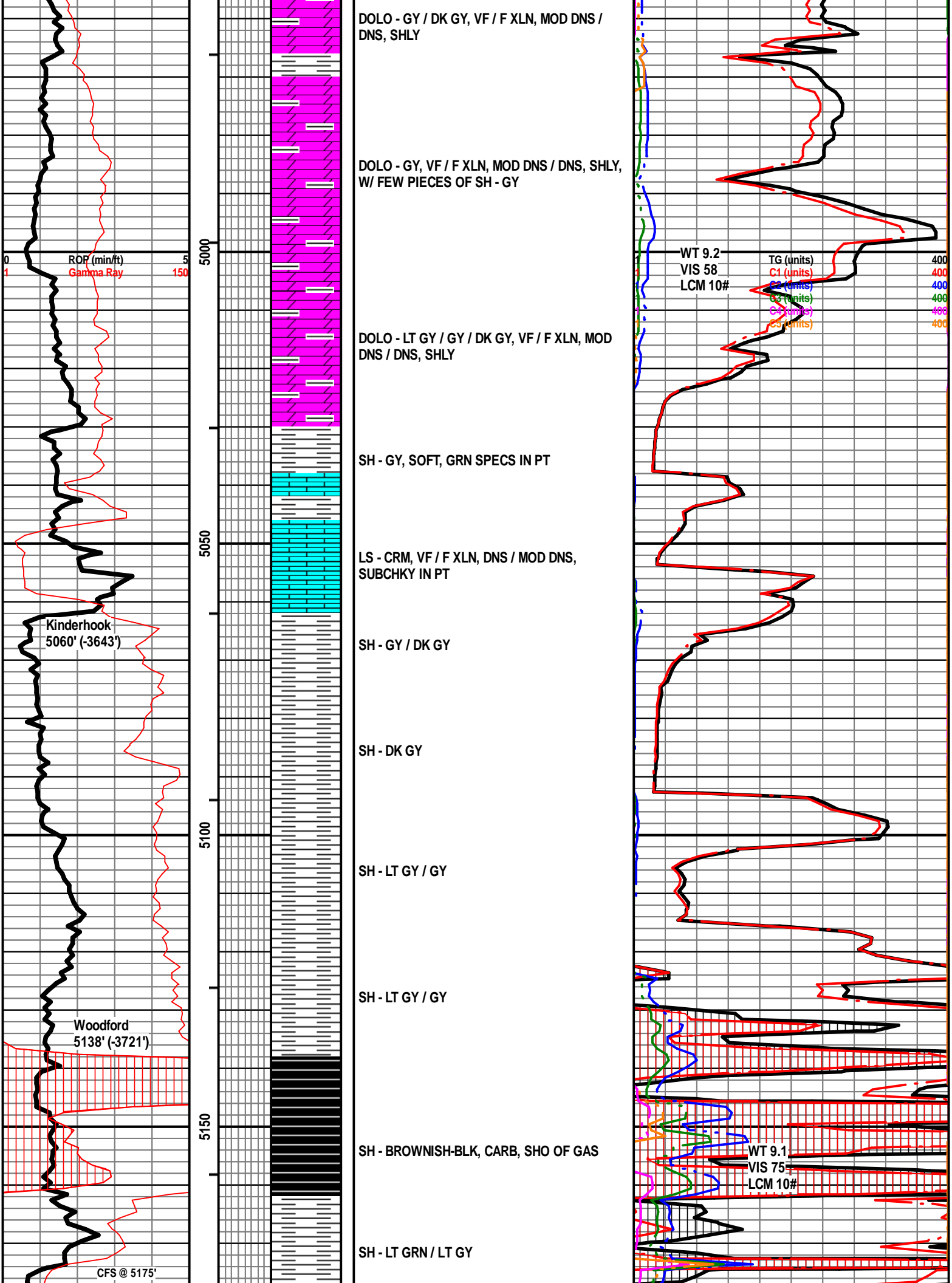
DOLO - CRM / TAN / GY, VF / F XLN, PRED DNS,
P INTXLN PR IN PT, SSFO, SLI ODOR, F
MINERAL FLOUR

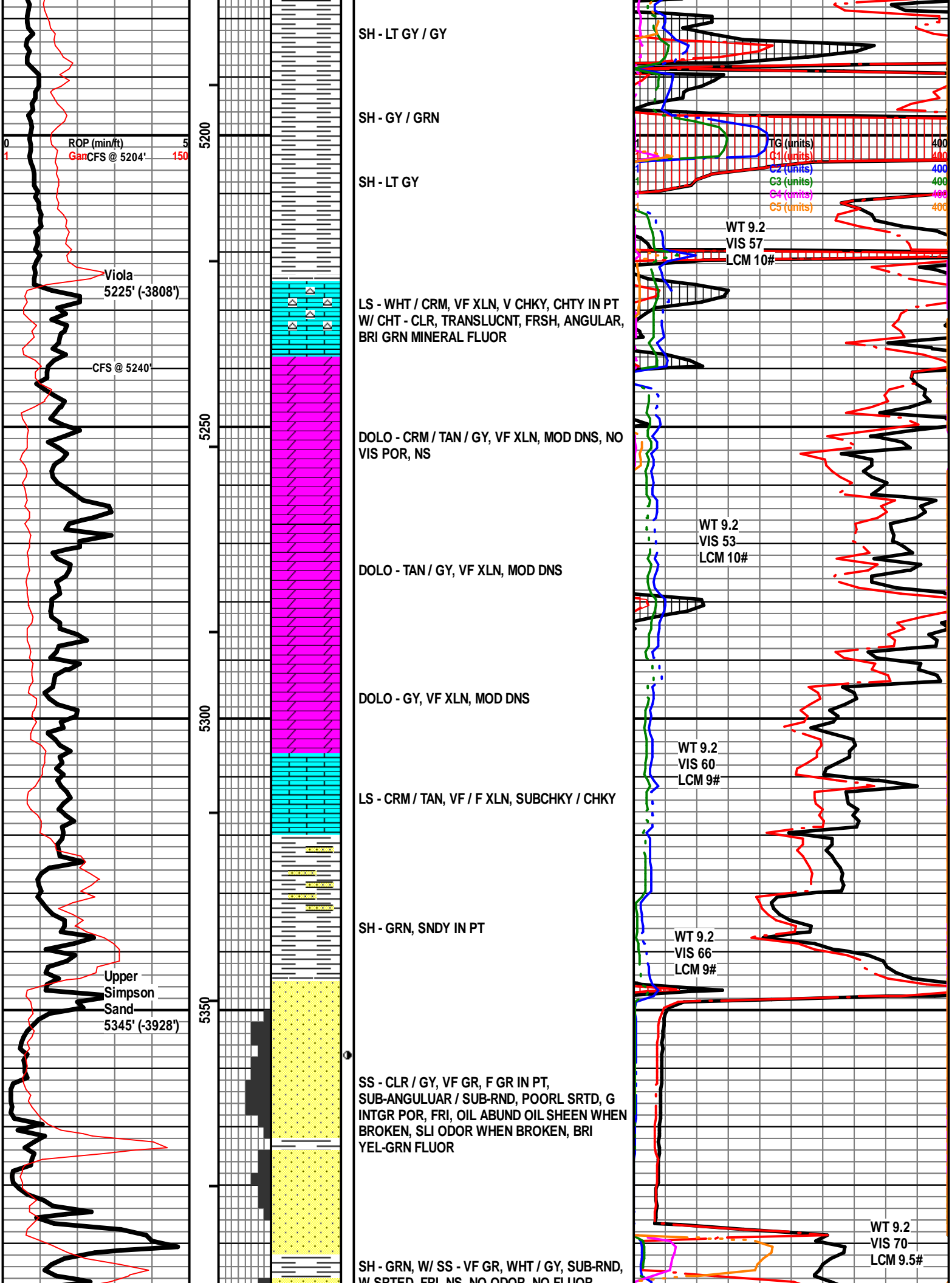
DOLO - GY, VF / F XLN, MOD DNS / DNS, NO
VIS POR, NS

DOLO - DK GY, VF XLN, MOD DNS / DNS, SHLY,
W/ SH - GY

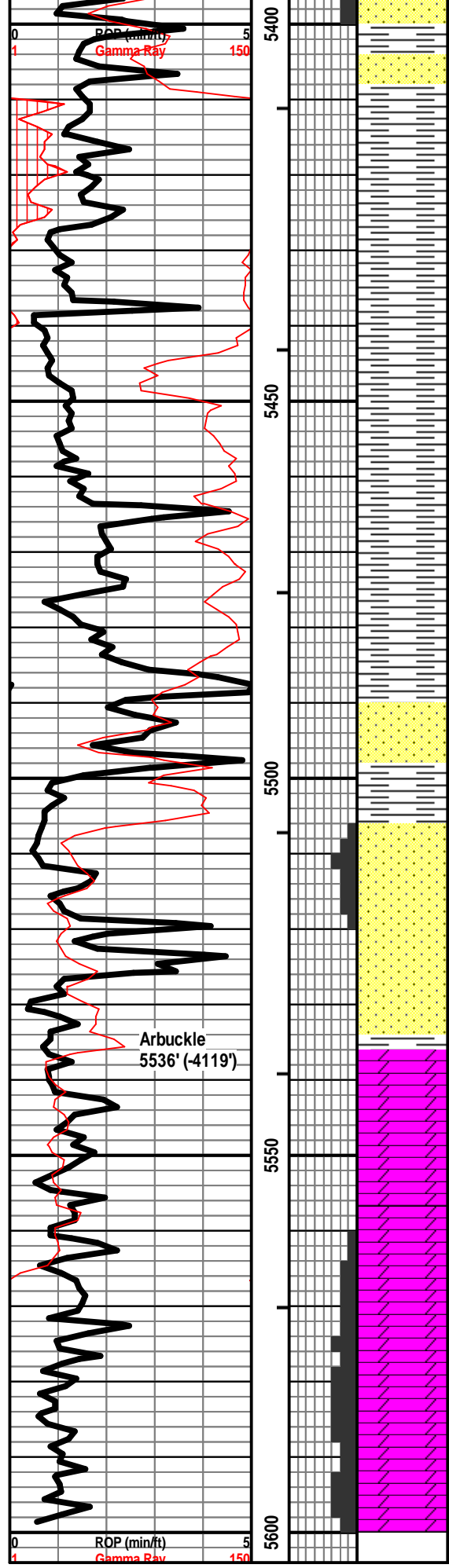
DOLO - GY / DK GY, VF / F XLN, MOD DNS,
SHLY







W SRTEED, FRI, NS, NO ODOR, NO FLUOR



SH - GRN, SLTY AND SNDY IN PT

SH - GRN, WAXY, SLTY IN PT

SH - LT GY / DK GRN, WAXY

SH - GRN, WAXY, PYRITIC IN PT

SH - GY / DK GRN

SS - WHT / GY, VF / F GR, SUB-RND, MOD SRTD, WELL CEM, DNS, V GLAUC

SS - GY / TAN / BRN IN PT, VF GR, SUB-RND, WELL SRTEED, V WELL CEM, V DNS, PYRITIC INT PT, NS

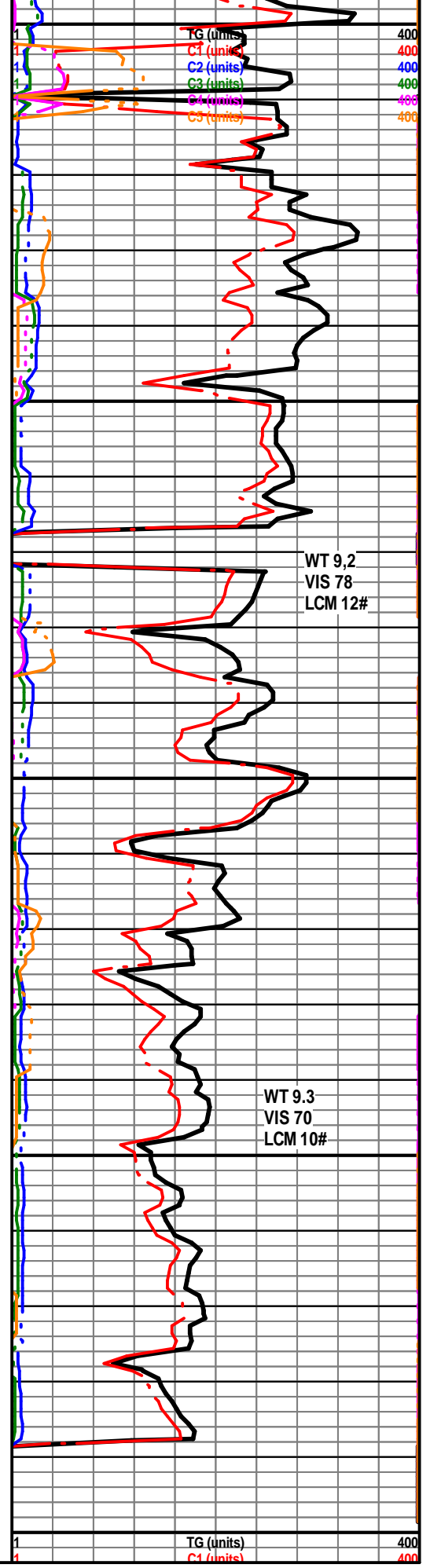
SS - CLR / WHT, F GR, WELL RND, WELL SRTEED, P / F INTGR POR, FRI IN PT, NS, NO ODOR, NO FLUOR

DOLO - LT GY, F XLN, MOD DNS, NO VIS POR, NS, BRI YEL-GRN MINERAL FLUOR

DOLO - GY / TAN / LT BRN, F XLN, MOD DNS, NS, DULL MINERAL FLUOR

DOLO - GY / BRN, F XLN, P INTERXLN POR IN PT, NS, DULL - BRI MINERAL FLUOR

RTD 5600'



WT 9.2
VIS 78
LCM 12#

WT 9.3
VIS 70
LCM 10#

Arbuckle
5536' (-4119')

ROP (min/ft)
Gamma Ray

TG (units)
C1 (units)



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Indian Oil Co., Inc.
PO BOX 209
2507 SE US 160 HWY
Medicine Lodge KS 67104+0209
ATTN: Aaron Young

1-35S-12W Barber KS

Achenbach 'D' #2

Job Ticket: 63917

DST#: 1

Test Start: 2018.07.14 @ 07:44:00

GENERAL INFORMATION:

Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:02:15
 Time Test Ended: 17:45:30
 Interval: **4739.00 ft (KB) To 4879.00 ft (KB) (TVD)**
 Total Depth: 4879.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Spencer J. Staab
 Unit No: 84
 Reference Elevations: 1417.00 ft (KB)
 1405.00 ft (CF)
 KB to GR/CF: 12.00 ft

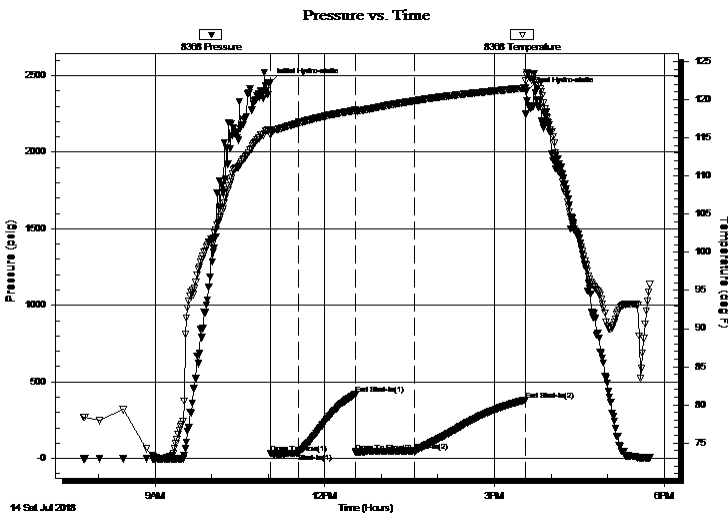
Serial #: 8368

Inside

Press@RunDepth: 49.84 psig @ 4743.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.07.14 End Date: 2018.07.14 Last Calib.: 2018.07.14
 Start Time: 07:44:15 End Time: 17:45:30 Time On Btm: 2018.07.14 @ 11:02:00
 Time Off Btm: 2018.07.14 @ 15:33:45

TEST COMMENT: 30-IF-Fair Blow ; BOB in 17 mins; Built to 13&1/2"
 60-ISI-No Return
 60-FF-Fair Blow ; BOB in 38 mins; Built to 15&1/4"
 120-FSI-No Return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2453.00	116.10	Initial Hydro-static
1	32.57	115.34	Open To Flow (1)
30	34.88	117.04	Shut-In(1)
91	417.55	118.61	End Shut-In(1)
91	39.33	118.48	Open To Flow (2)
153	49.84	119.85	Shut-In(2)
271	382.51	121.54	End Shut-In(2)
272	2398.87	123.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	OSM 100%O	0.92

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Indian Oil Co., Inc.
 PO BOX 209
 2507 SE US 160 HWY
 Medicine Lodge KS 67104+0209
 ATTN: Aaron Young

1-35S-12W Barber KS

Achenbach 'D' #2

Job Ticket: 63917

DST#: 1

Test Start: 2018.07.14 @ 07:44:00

GENERAL INFORMATION:

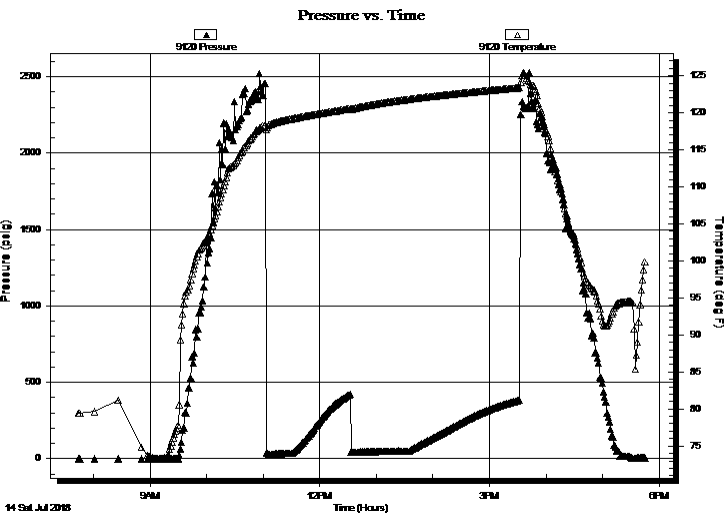
Formation: **Mississippi**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 11:02:15
 Time Test Ended: 17:45:30
 Interval: **4739.00 ft (KB) To 4879.00 ft (KB) (TVD)**
 Total Depth: 4879.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Spencer J. Staab
 Unit No: 84
 Reference Elevations: 1417.00 ft (KB)
 1405.00 ft (CF)
 KB to GR/CF: 12.00 ft

Serial #: 9120

Inside

Press@RunDepth: psig @ 4743.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.07.14 End Date: 2018.07.14 Last Calib.: 2018.07.14
 Start Time: 07:44:15 End Time: 17:45:30 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF-Fair Blow ; BOB in 17 mins; Built to 13&1/2"
 60-ISI-No Return
 60-FF-Fair Blow ; BOB in 38 mins; Built to 15&1/4"
 120-FSI-No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
65.00	OSM 100%O	0.92

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Indian Oil Co., Inc.
PO BOX 209
2507 SE US 160 HWY
Medicine Lodge KS 67104+0209
ATTN: Aaron Young

1-35S-12W Barber KS
Achenbach 'D' #2
Job Ticket: 63917 **DST#: 1**
Test Start: 2018.07.14 @ 07:44:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 47.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.37 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3500.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	OSM 100%O	0.921

Total Length: 65.00 ft Total Volume: 0.921 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: 3#LCM

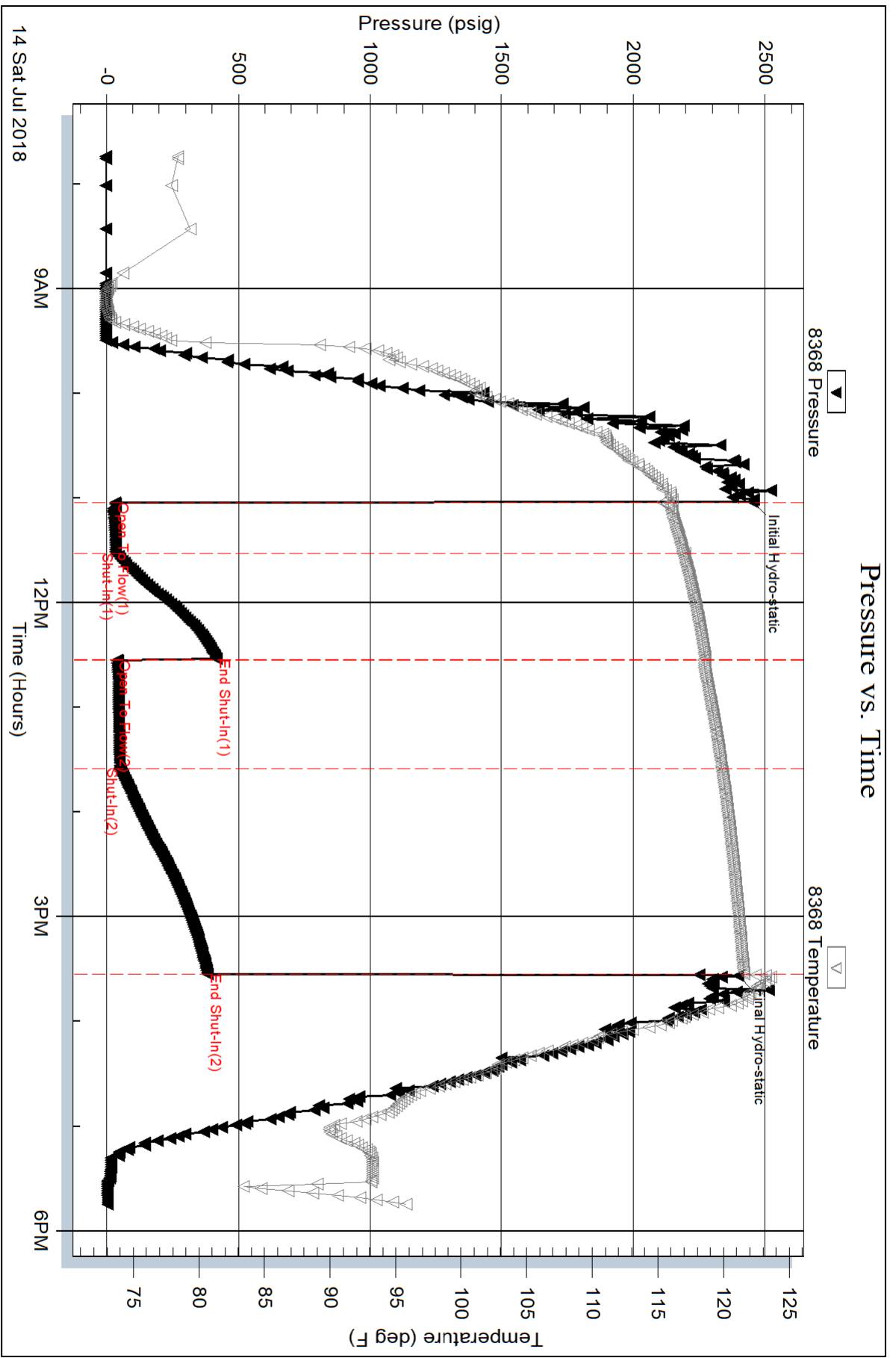
Serial #: 8368

Inside

Indian Oil Co., Inc.

Achenbach ID#2

DST Test Number: 1



Serial #: 9120

Inside

Indian Oil Co., Inc.

Achenbach 'D' #2

DST Test Number: 1

