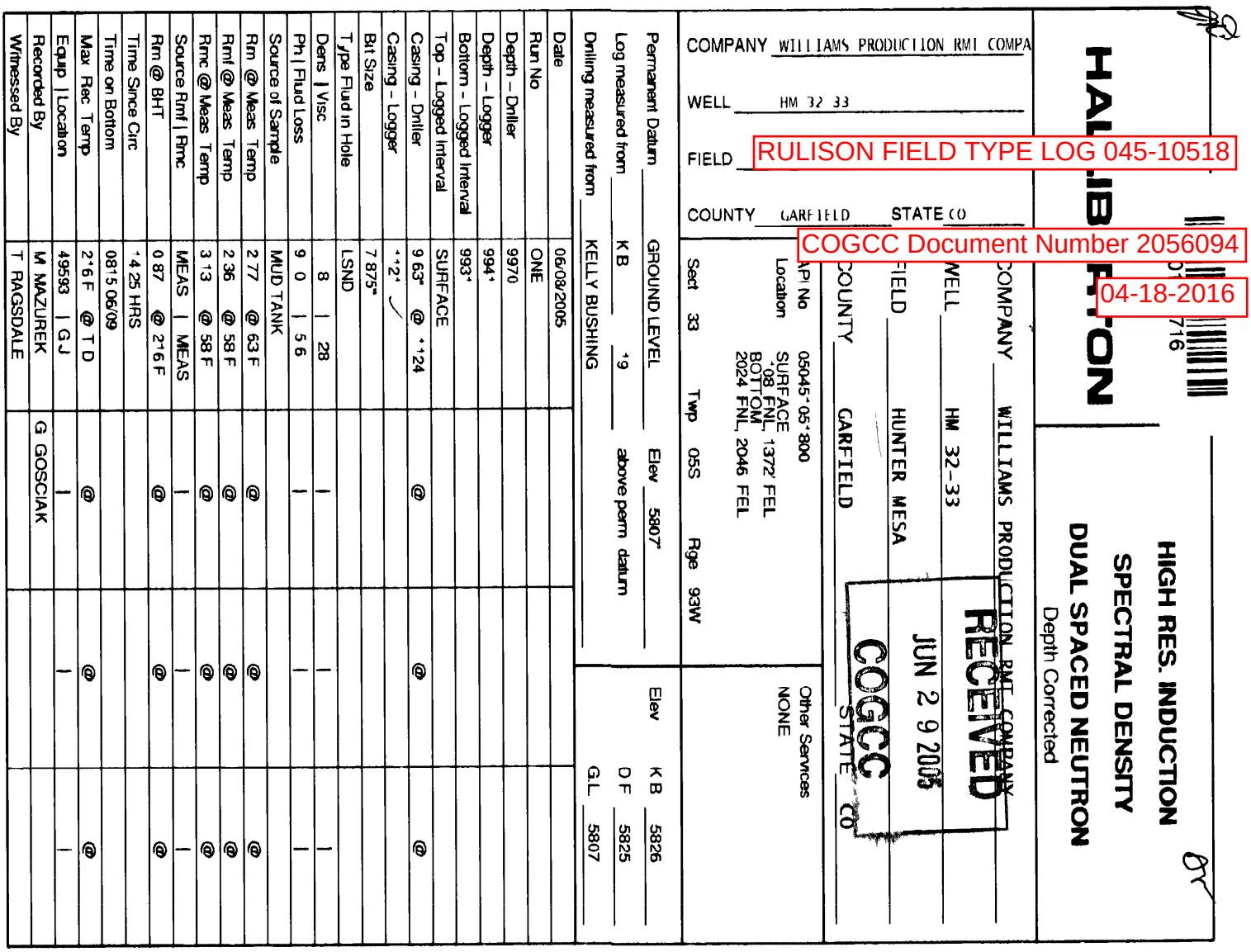


HALLIBURTON

HIGH RES. INDUCTION
SPECTRAL DENSITY
DUAL SPACED NEUTRON
Depth Corrected

COMPANY WILLIAMS PRODUCTION RMT COMPA
WELL HM 32 33
FIELD RULISON FIELD TYPE LOG 045-10518
COUNTY GARFIELD STATE CO

COGCC Document Number 2056094
04-18-2016

COMPANY WILLIAMS PRODUCTION RMT COMPANY
WELL HM 32-33
FIELD HUNTER MESA
COUNTY GARFIELD STATE CO

RECEIVED
JUN 29 2005
COGCC

API No 05045 05 800
Location SURFACE 08 FNL 1372' FEL
BOTTOM 2024 FNL 2046 FEL
Sect 33 Twp 05S Rge 93W

Other Services
NONE

Permanent Datum	GROUND LEVEL	Elev 5807'	
Log measured from	K B 19	above perm datum	
Drilling measured from	KELLY BUSHING		
		Elev	
		K B 5826	
		D F 5825	
		G L 5807	

Date	06/08/2005		
Run No	ONE		
Depth - Driller	9970		
Depth - Logger	9941		
Bottom - Logged Interval	9931		
Top - Logged Interval	SURFACE		
Casing - Driller	9 63" @ 1124	@	
Casing - Logger	1121		
Bit Size	7 875"		
Type Fluid in Hole	LSND		
Dens | Visc	8 | 28	|	
Ph | Fluid Loss	9 0 | 5 6	|	
Source of Sample	MUD TANK		
Rm @ Meas Temp	2 77 @ 63 F	@	
Rmf @ Meas Temp	2 36 @ 58 F	@	
Rmc @ Meas Temp	3 13 @ 58 F	@	
Source Rmf | Rmc	MEAS | MEAS	|	
Rm @ BHT	0 87 @ 216 F	@	
Time Since Circ	14 25 HRS		
Time on Bottom	0815 06/09		
Max Rec Temp	216 F @ TD	@	
Equip | Location	49593 | GJ	|	
Recorded By	M MAZUREK	G GOSCIAK	
Witnessed By	T RAGSDALE		

Fold Here

Service Ticket No	3751053	API Serial No	050451051800
PGM Version	XL v5 1		

CHANGE IN MUD TYPE OR ADDITIONAL SAMPLES

Date | Sample No	|	|
Depth - Driller		
Type Fluid In Hole		
Dens | Visc	|	|
Ph | Fluid Loss	|	|
Source of Sample		
Rm @ Meas Temp	2 77 @ 63 F	@
Rmf @ Meas Temp	2 36 @ 58 F	@
Rmc @ Meas Temp	3 13 @ 58 F	@
Source Rmf | Rmc	CALC | CALC	|
Rm @ BHT	0 87 @ 216 F	@
Rmf @ BHT	0 69 @ 216 F	@
Rmc @ BHT	0 91 @ 216 F	@

RESISTIVITY SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

RESISTIVITY EQUIPMENT DATA

Run No	Tool Type & No	Pad Type	Tool Pos	Other
ONE	HRIDE AB180	N/A	1 5 SO	N/A

EQUIPMENT DATA

GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No	ONE	Run No		Run No	ONE	Run No	ONE
Serial No	A143	Serial No		Serial No	I709P066	Serial No	108734
Model No	NGRT-A	Model No		Model No	SDL_DC	Model No	DSN_II
Diameter	3 625	No of Cent		Diameter	4 5	Diameter	3 625
Detector Model No	102A	Spacing		Log Type	GAM-GAM	Log Type	THERMAL
Type	SCINT			Source Type	CS137	Source Type	AM241BE
Length	4	LSA [Y / N]	NO	Serial No	2189 GW	Serial No	DSN-80
Distance to Source	10	FWDA [Y / N]	NO	Strength	1 5 CI	Strength	18 5 CI

LOGGING DATA

GENERAL	GAMMA	ACOUSTIC	DENSITY	NEUTRON

Run	Depth		Speed	Scale		Scale			Scale			Scale		
No	From	To	Ft / Min	L	R	L	R	Matrix	L	R	Matrix	L	R	Matrix
ONE	T D	SURF	REC	0	200				30%	-10%	2 68	30%	-10%	SAND
											GM/CC			GM/CC

RULISON FIELD TYPE LOG 045-10518

DIRECTIONAL INFORMATION

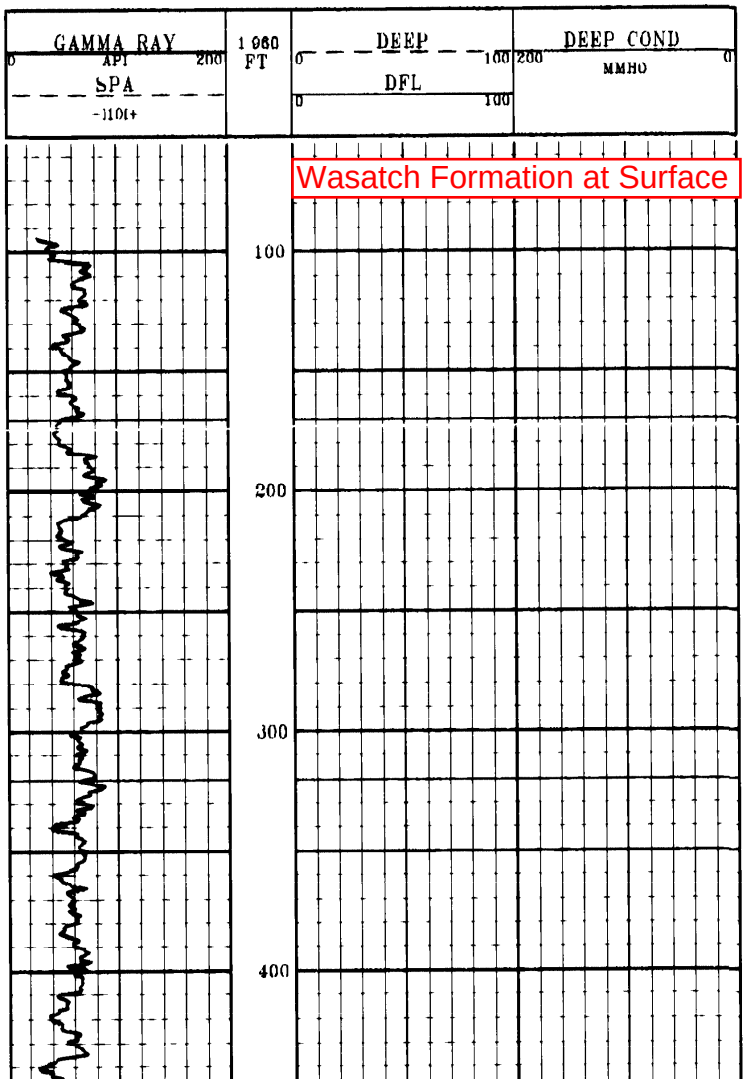
Maximum Deviation | deg @ | KOP

Remarks

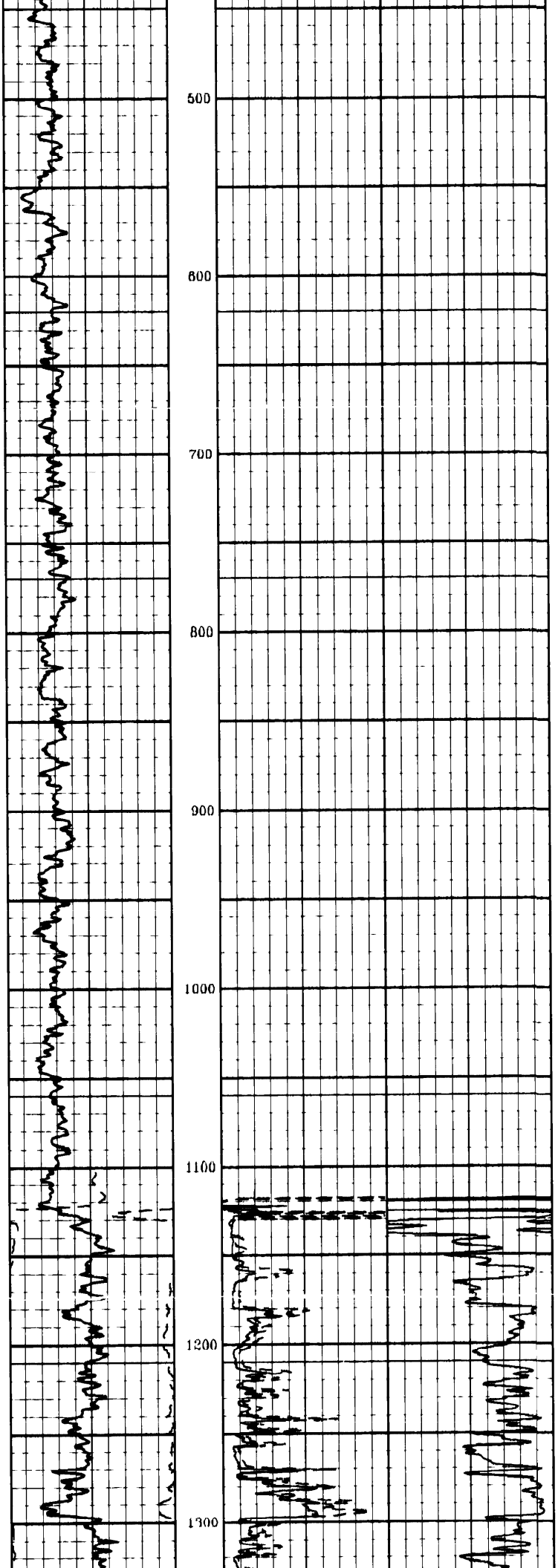
GR-DSN-SDL-MSFL-HRIDE WERE RUN IN COMBINATION
HOLE RUGOSITY AND TENSION PULLS MAY AFFECT LOG QUALITY
CHLORIDES REPORTED AT 400 mg/l
A H V CALCULATED FOR 4 5" CASING
DEPTH CORRECTED TO SCHLUMBERGER FMI DATED 6-8-05

LATITUDE 39 34 N // LONGITUDE 107 49 W
YOUR CREW TODAY IS J ZLOMKE, J BROWNLEE, D CORBY RIG NABORS 723
THANK YOU FOR USING HALLIBURTON ENERGY SERVICES G J , CO 970 523-3600

MAIN PASS 1"=100'



RULISON FIELD TYPE LOG 045-10518



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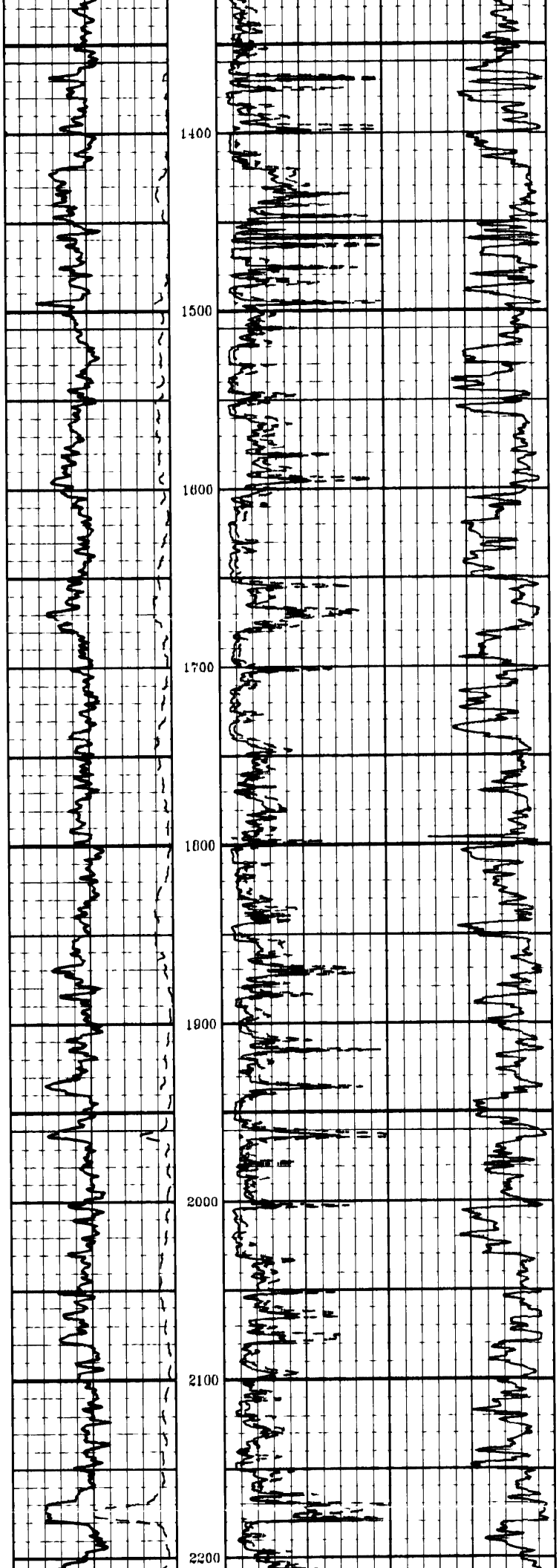
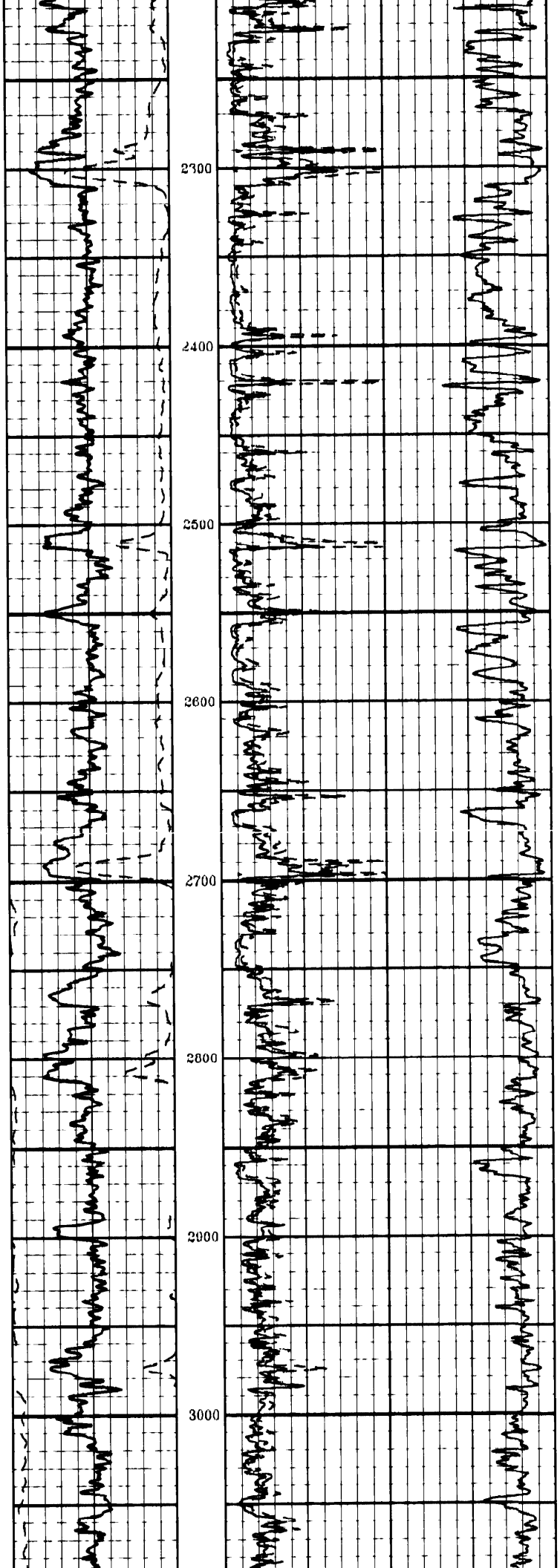
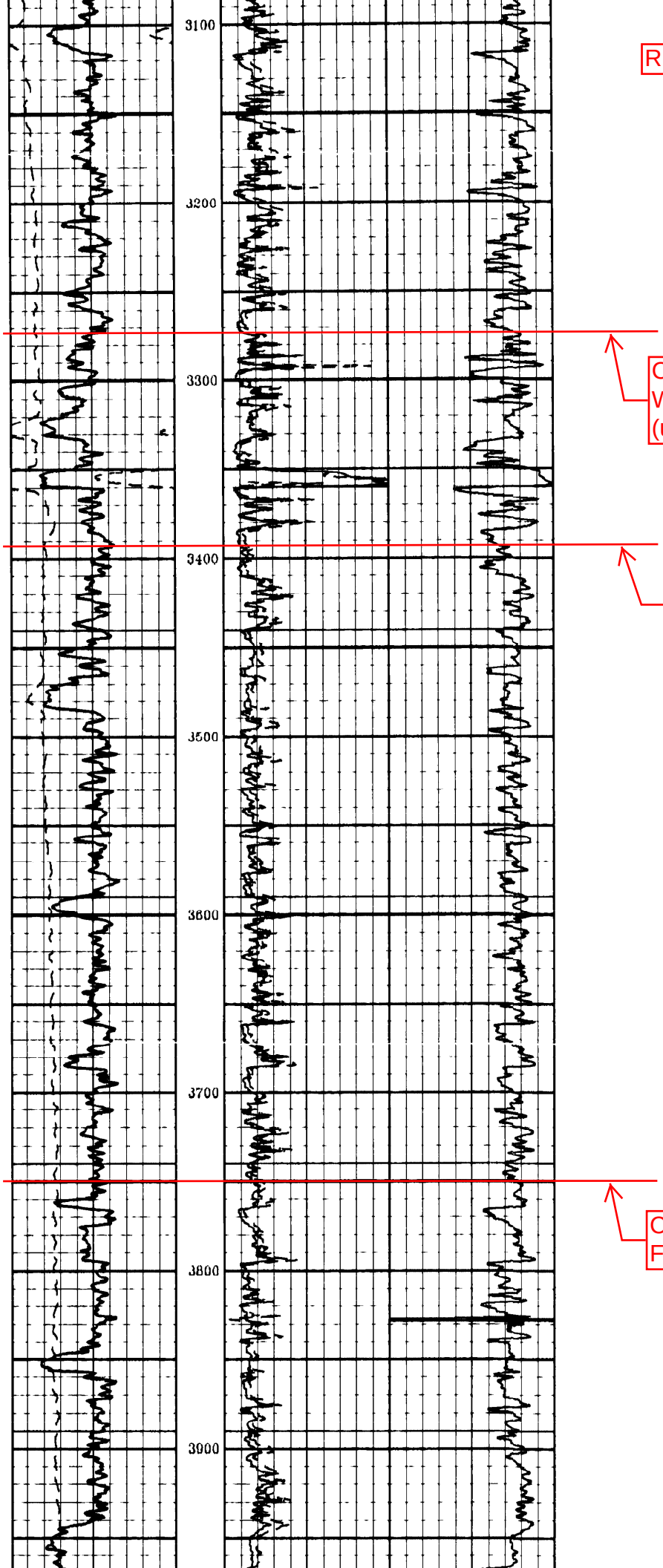


RULISON FIELD TYPE LOG 045-10518





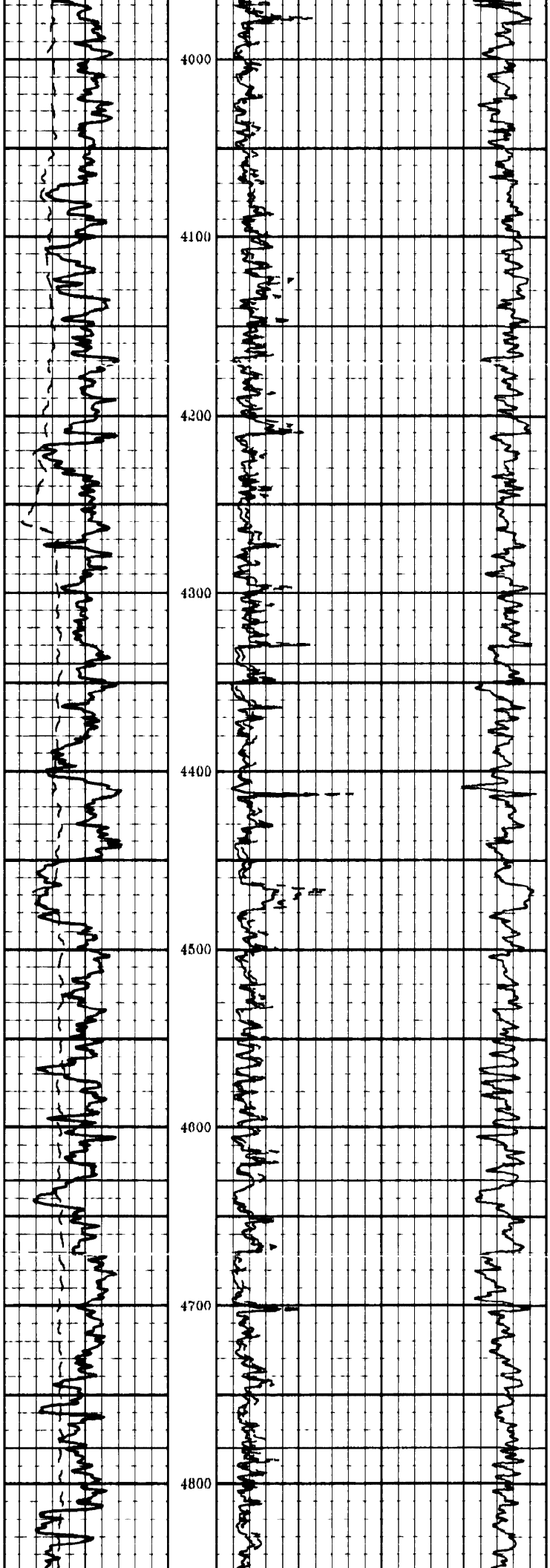
RULISON FIELD TYPE LOG 045-10518

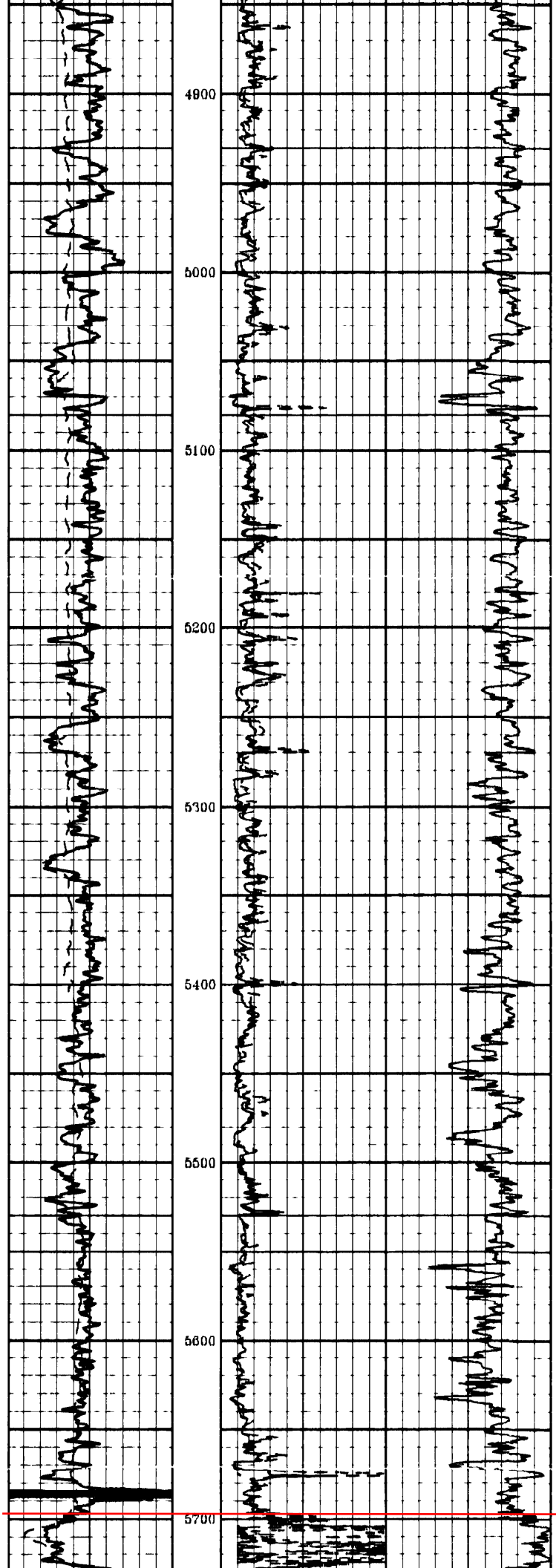
COGCC pick for Wasatch G Sand top (upper interval)

COGCC pick for Wasatch G Sand top (lower interval)

COGCC pick for Fort Union top

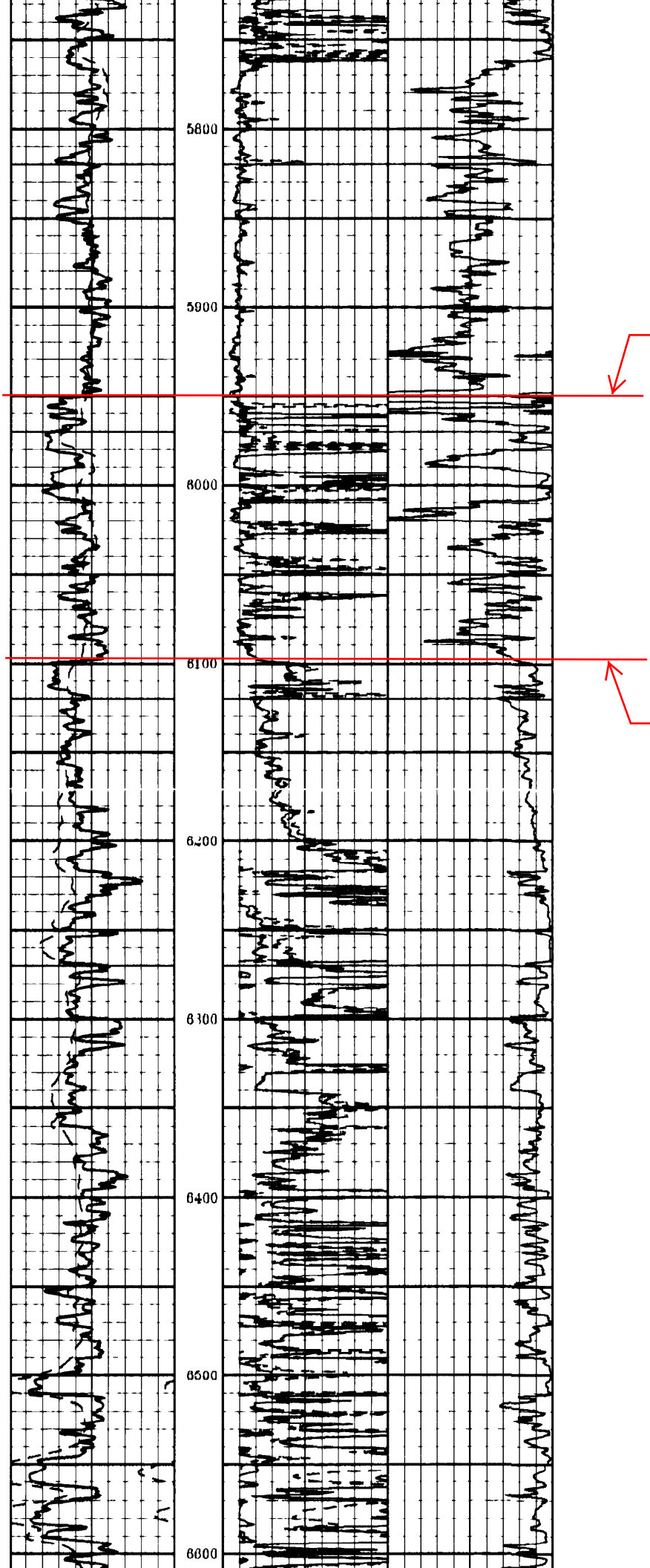
RULISON FIELD TYPE LOG 045-10518



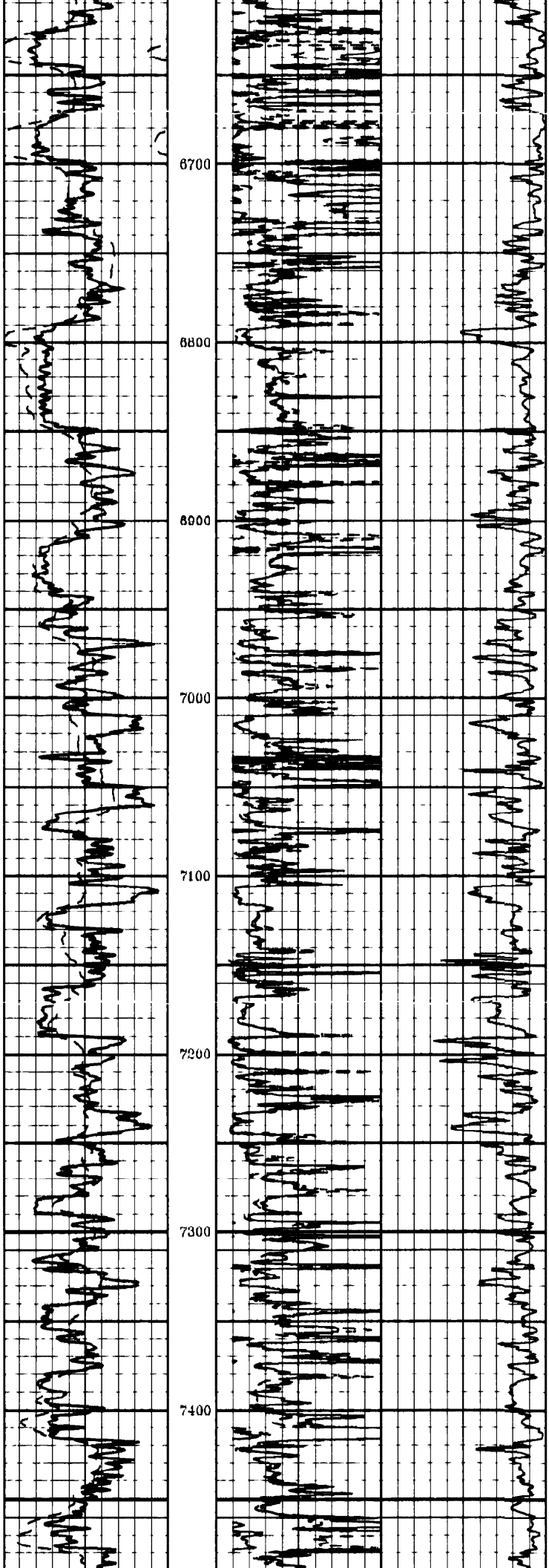


RULISON FIELD TYPE LOG 045-10518

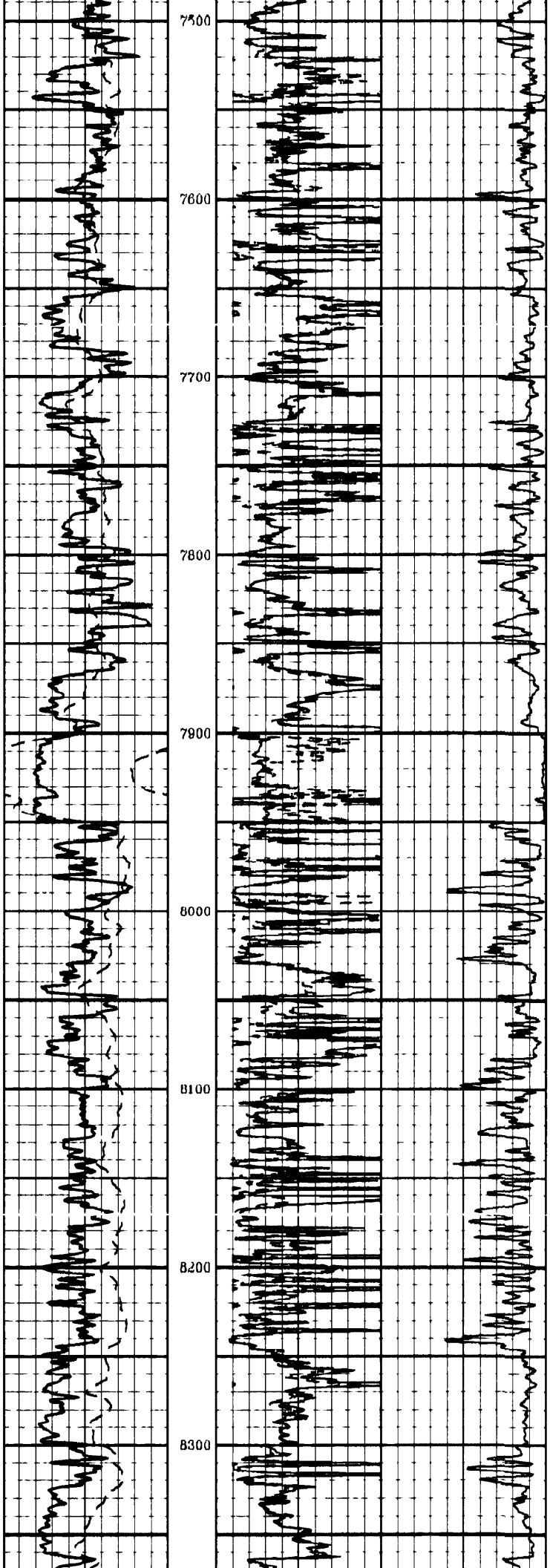
COGCC pick for Lower Wasatch top (cement required 200'/500' above this point, effective 04-18-2016)

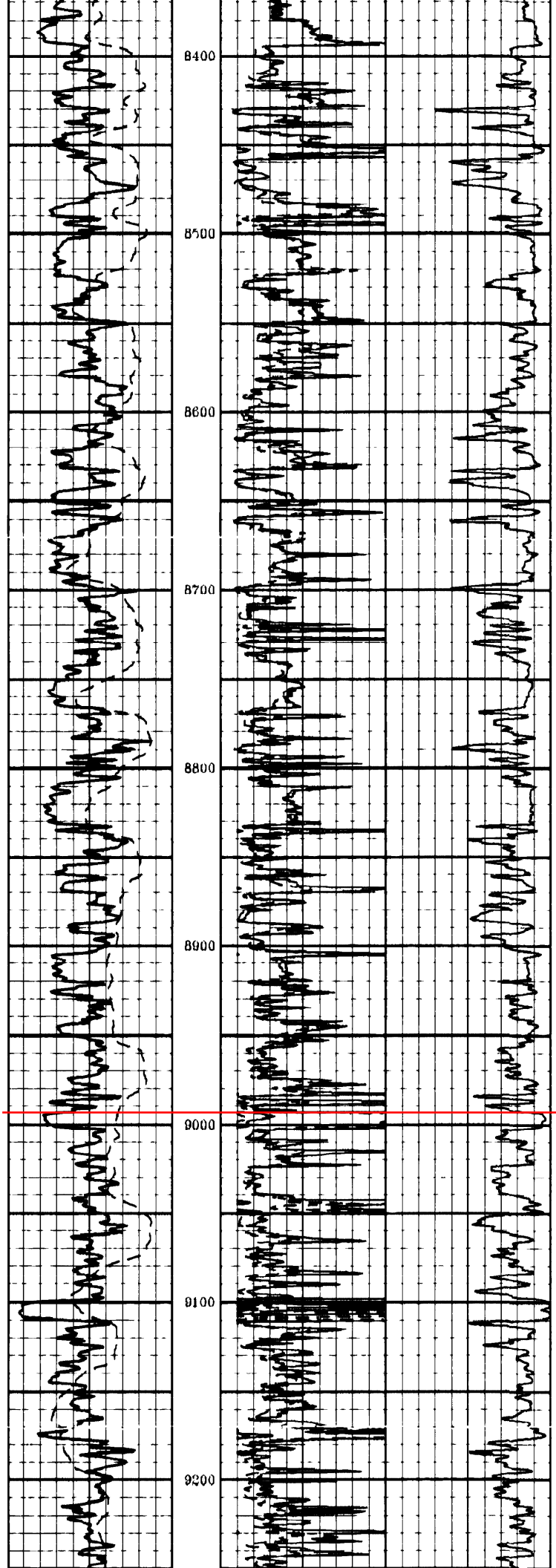

RULISON FIELD TYPE LOG 045-10518
5800
5900
6000
6100
6200
6300
6400
6500
6600
COGCC pick for
Ohio Creek top
Operator pick for
Mesaverde top

RULISON FIELD TYPE LOG 045-10518



RULISON FIELD TYPE LOG 045-10518

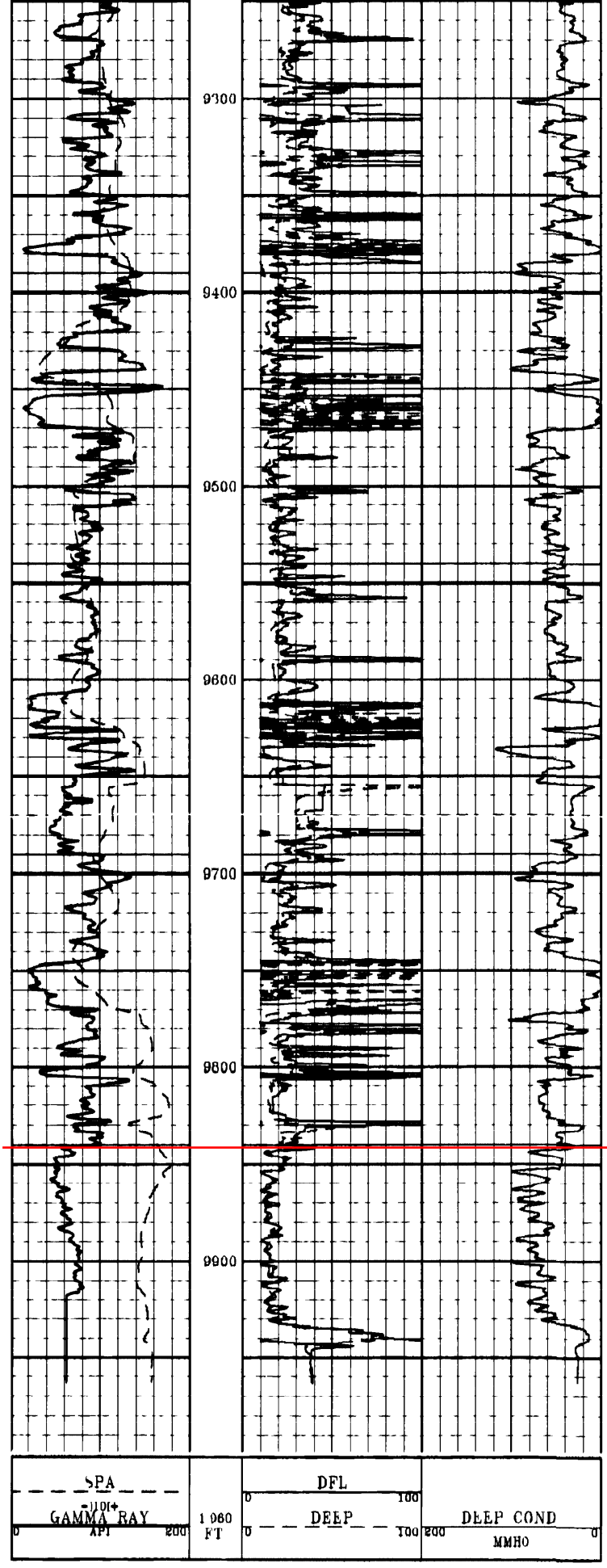




RULISON FIELD TYPE LOG 045-10518

Operator pick
for Cameo top

RULISON FIELD TYPE LOG 045-10518



Operator pick for Rollins top