



**Computer Processed
Interpretation**

Company HARTMAN OIL CO., INC.
Well DAMME #50
Field DAMME
County FINNEY
State KANSAS

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Location: API #: 15-055-22477-00-00
 2258' FNL & 1225' FEL
 SEC 21 TWP 22S RGE 33W
 Permanent Datum GROUND LEVEL Elevation 2885'
 Log Measured From KELLY BUSHING
 Drilling Measured From KELLY BUSHING
 Other Services: DIL/CNL/CDL MEL
 Elevation: K.B. 2893'
 D.F. N/A
 G.L. 2885'

Date Recorded	02/12/2018
Depth Logger	4822'
	Curve Definitions
SW	Water Saturation
SXO	Water Saturation In The Flushed Zone
VCL	Volume Of Clay
PHIE	Density - Neutron Crossplot Shale Corrected
BWV	Bulk Volume Water
BVWSXO	Bulk Volume Water In Flushed Zone
DCAL	Caliper
SPC	SP Corrected For Baseline
DGA	Apparent Grain Density
Payflag	If: PHIE> 2, VCL< 40, SPC> -10, SW< 50 & DCAL< 11
Recorded By	D. SCHMIDT
Witnessed By	KITT NOAH
Analysis By	DAN SCHMIDT

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All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees.

Comments

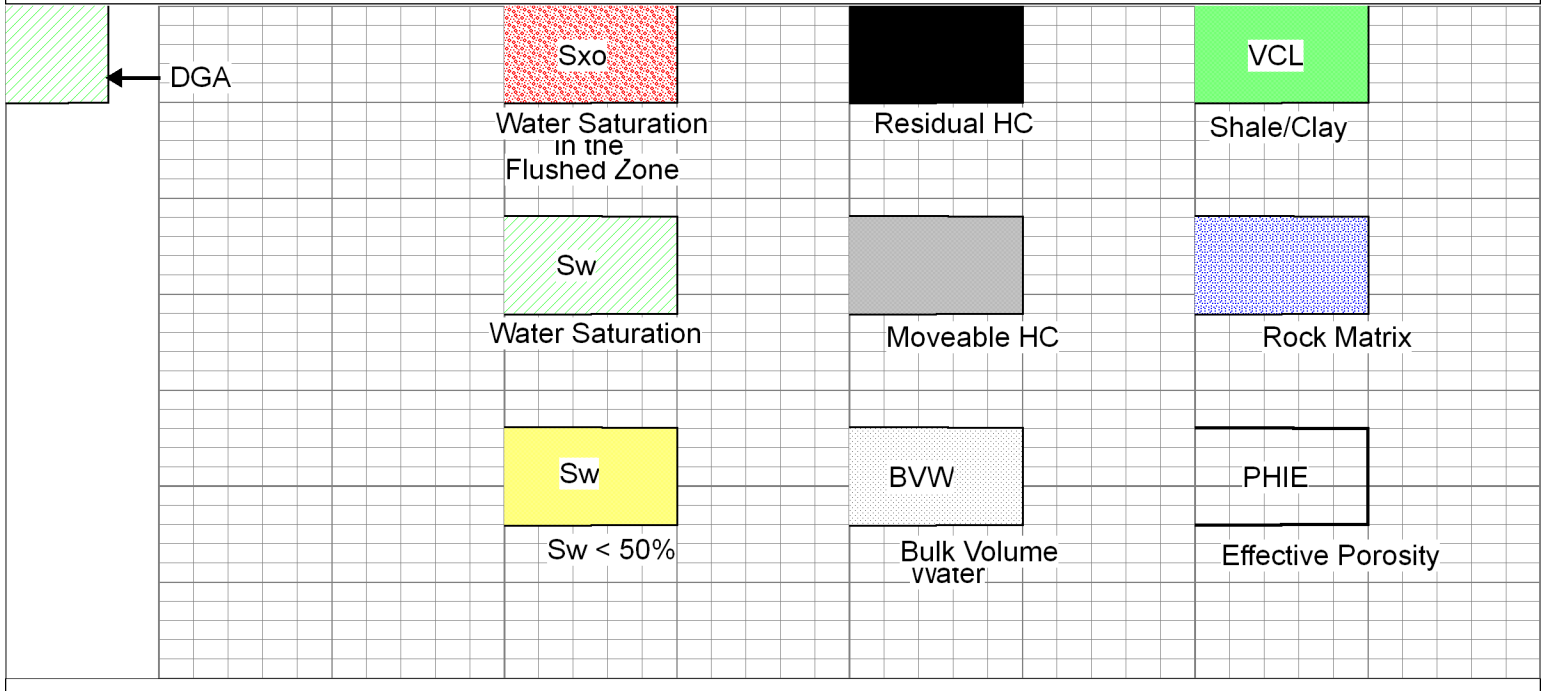
N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
 GARDEN CITY,
 NORTH TO BARLOW ROAD, 3 1/2 WEST
 SOUTH AND EAST INTO

Log Measured From: KELLY BUSHING 8 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

Your Pioneer Energy Services Crew	This Log Record Was Witnessed By
Engineer: D. SCHMIDT Operator: Operator: Operator:	Primary Witness: KITT NOAH Secondary Witness: Secondary Witness: Secondary Witness:

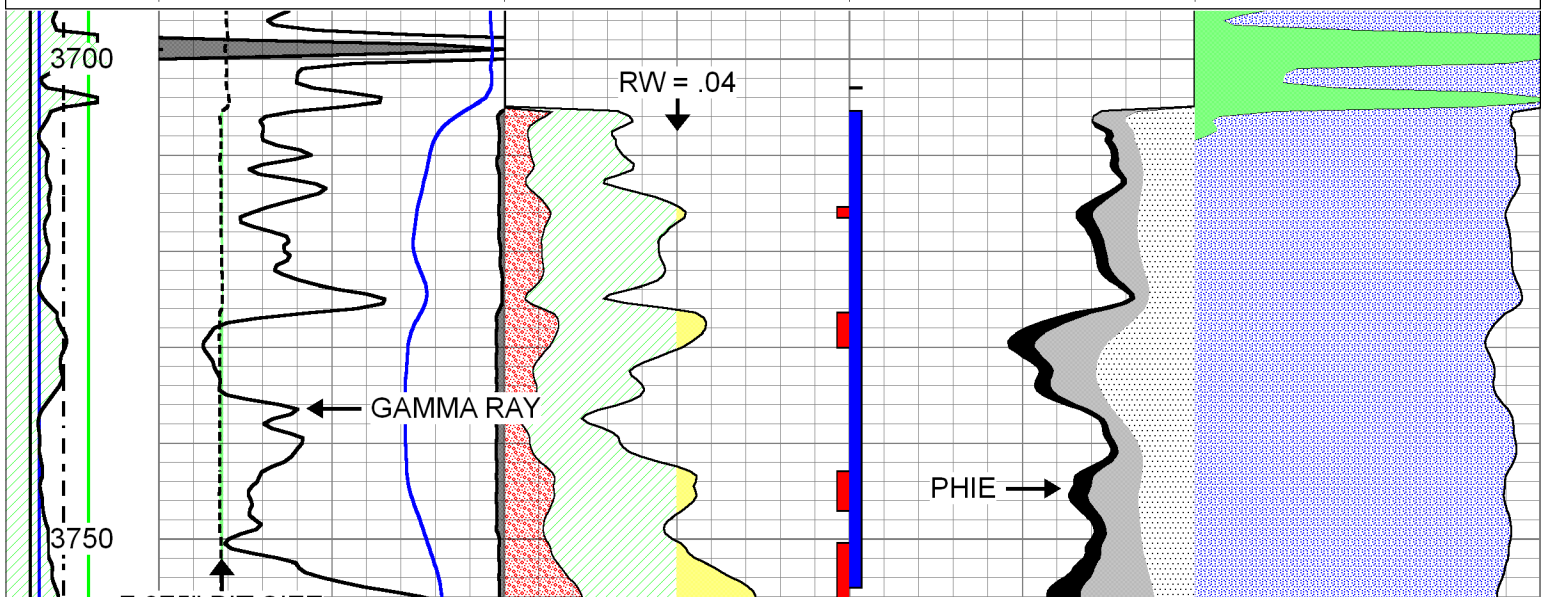
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 Dataset Pathname litho
 Presentation Format 2wxplt
 Dataset Creation Thu Apr 24 13:32:02 1997
 Charted by Depth in Feet scaled 1:240



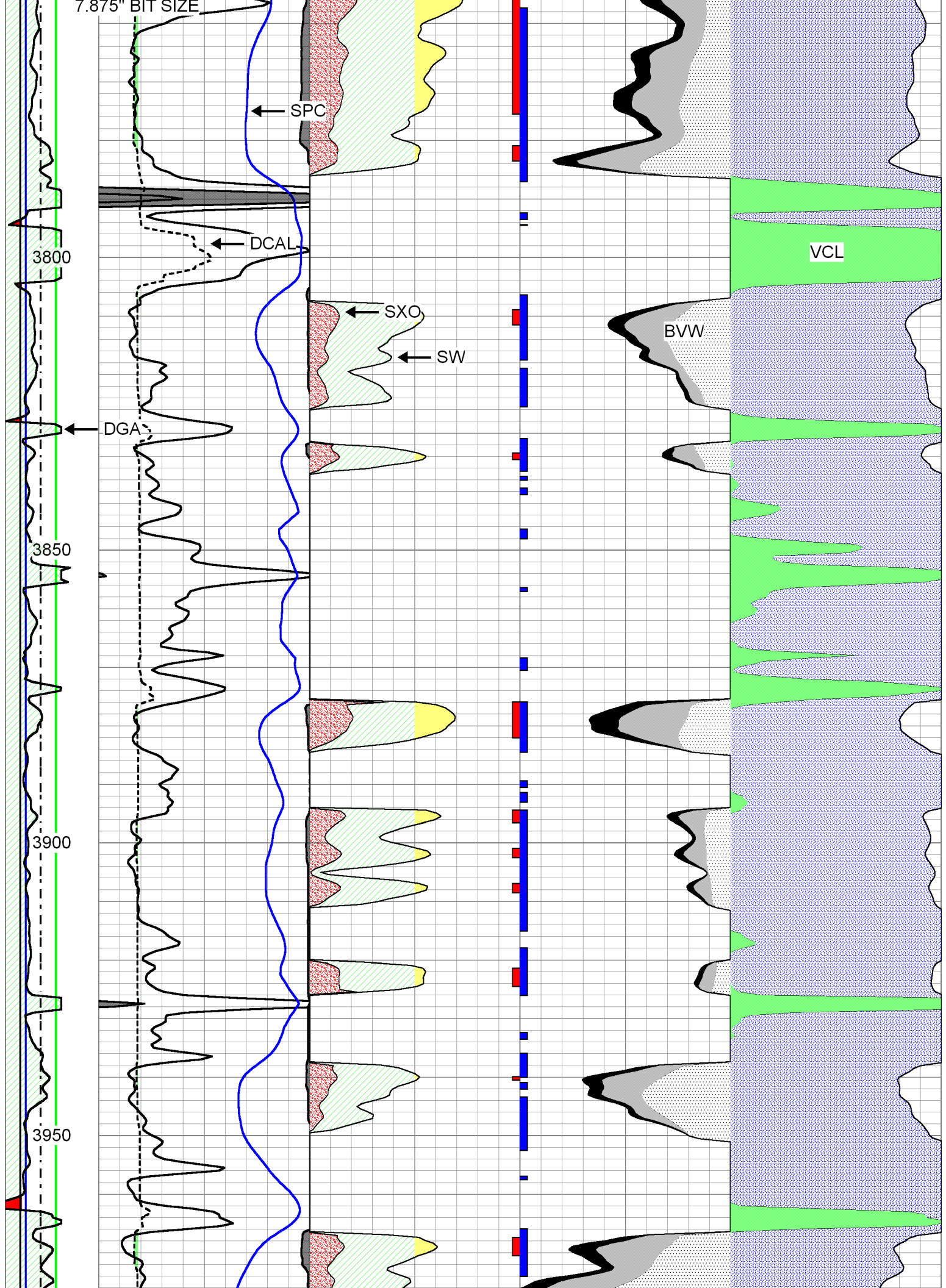
CPI

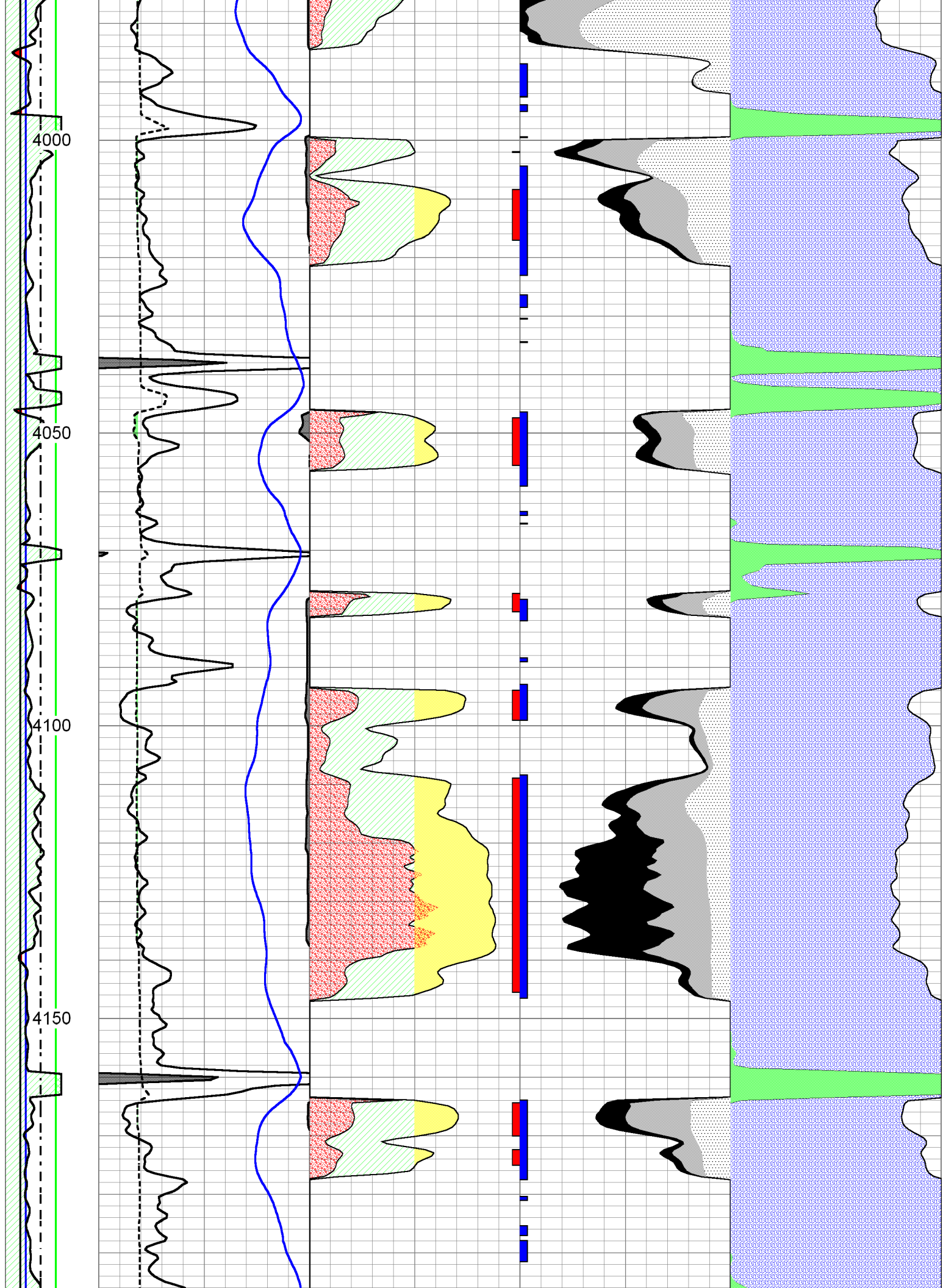
Database File hartmanoil_damme#50hd.db
 Dataset Pathname CPI/hartcpi
 Presentation Format calc
 Dataset Creation Tue Feb 20 16:16:15 2018
 Charted by Depth in Feet scaled 1:240

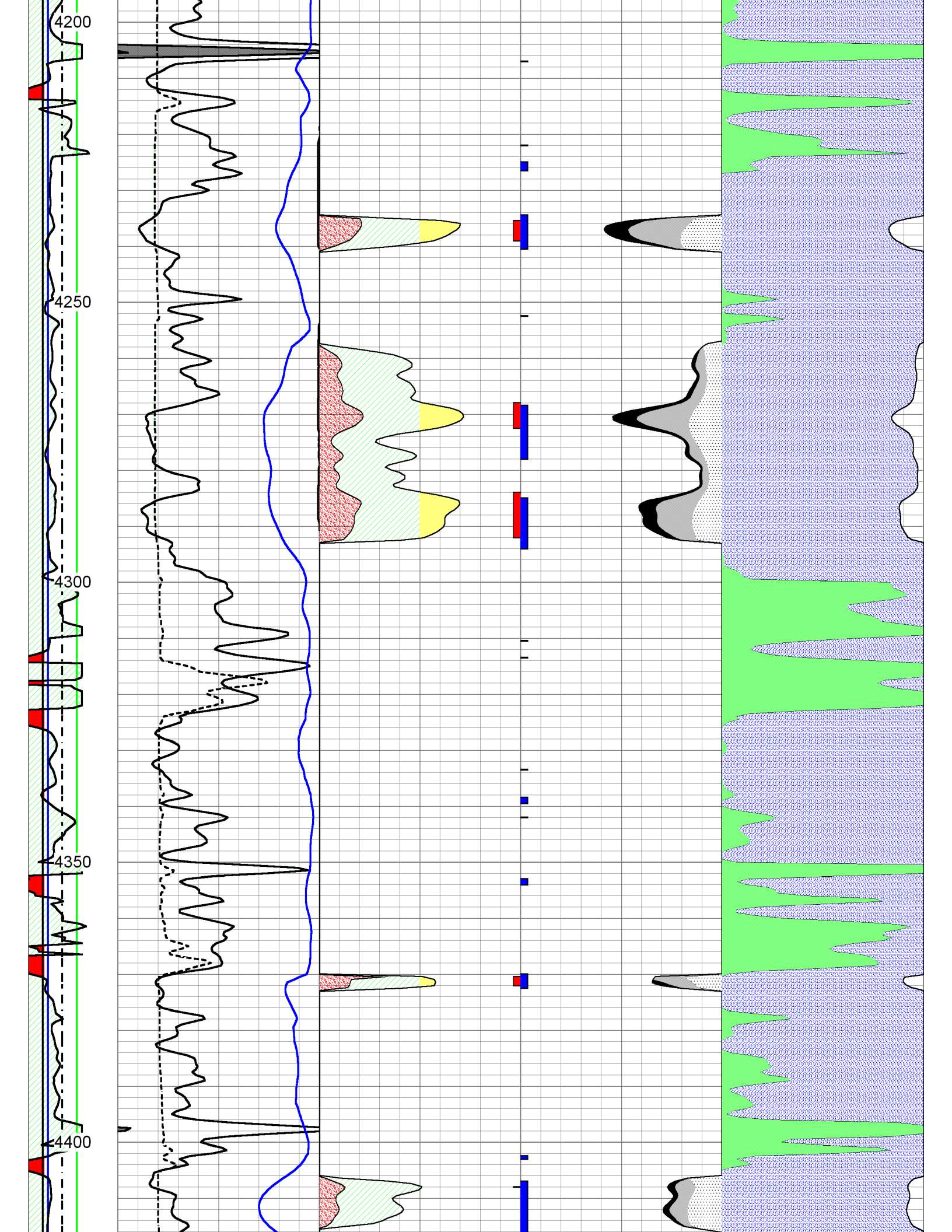
DGA	Gamma Ray	1	SW	0	0.3	PHIE	0	0	VCL	1
(g/cc)	(GAPI)	150	PAYFLAG	0	0.3	BVW	0	1	PHIE	0
2.6 3.1	DCAL (in)	16	1	SXO	0	0	PERM	30		
	SPC	0			0.3	BVWSXO	0			

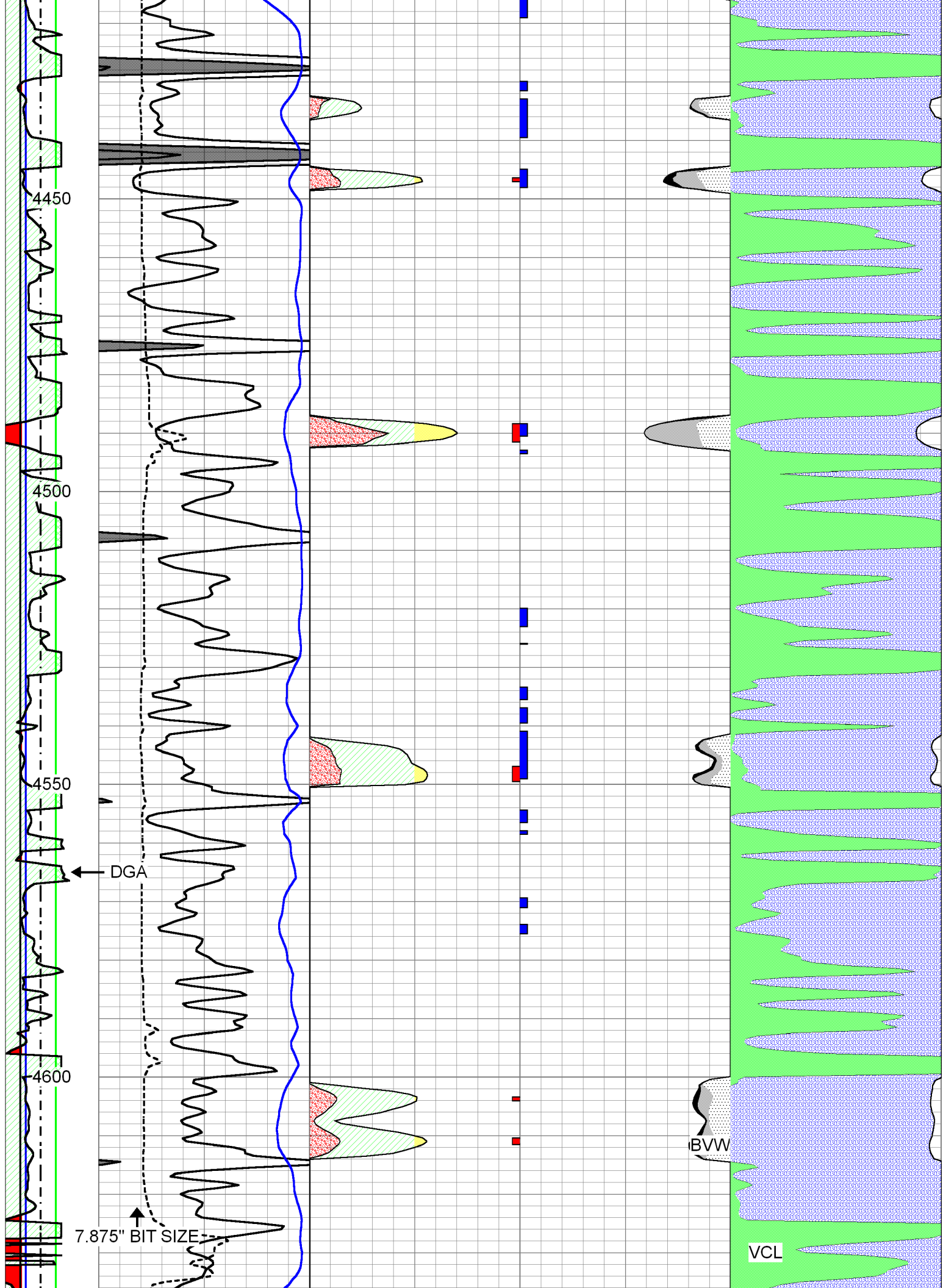


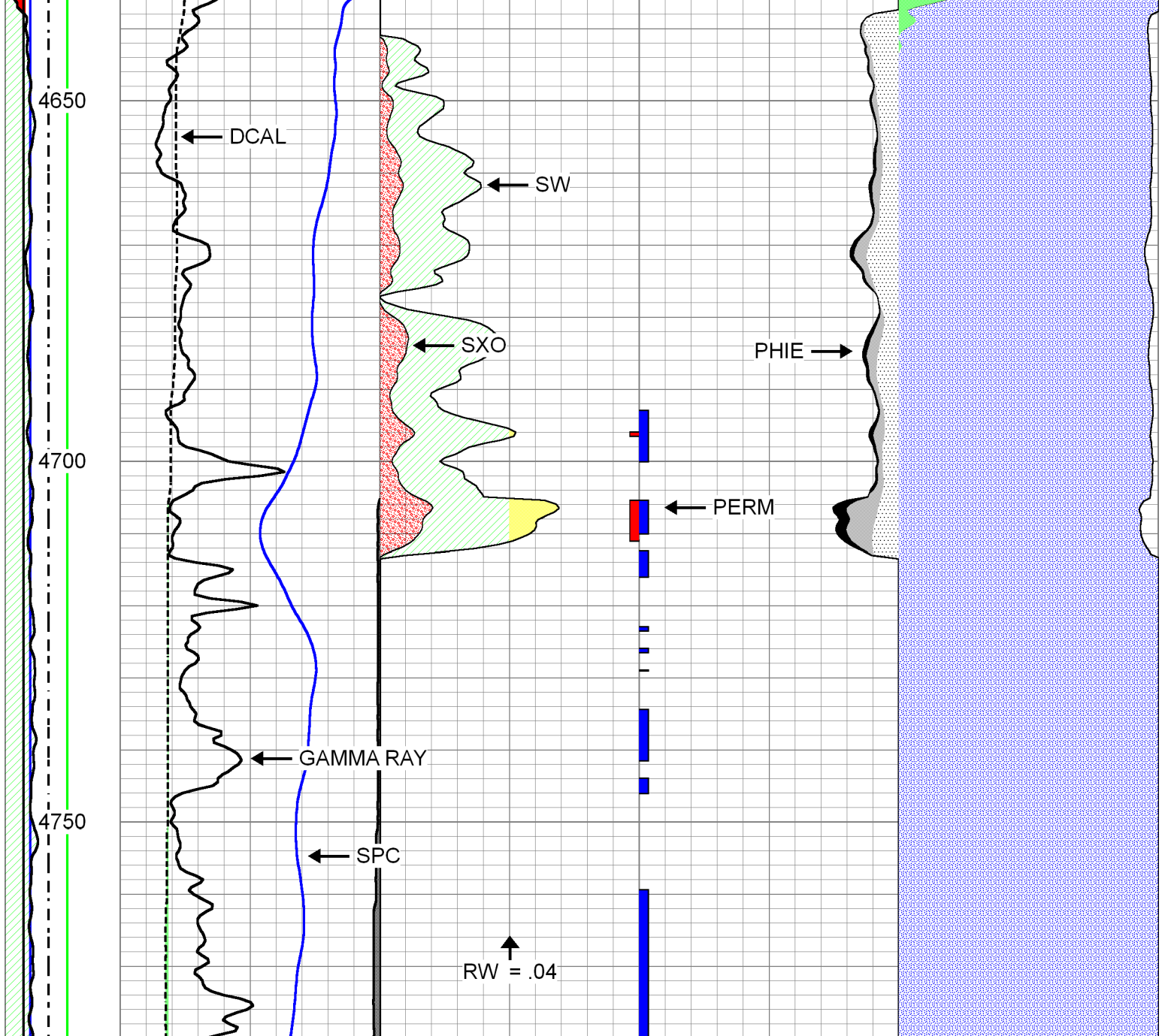
7.875" BIT SIZE











DGA	Gamma Ray	1	SW	0 0.3	PHIE	0 0	VCL	1
(g/cc)	(GAPI)	150	PAYFLAG	0 0.3	BVW	0 1	PHIE	0
2.6 3.1	DCAL (in)	16	SXO	0 0	PERM	30		
	SPC	0		0.3	BVWSXO	0		



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