PIONEER

Pioneer Energy Services

Computer Processed Interpretation

Company	Russell Oil, Inc.
Well	Steinle No. 3-32
Field	
County	Russell
State	Kansas
Location	330' FNL & 1,160' FEL
Sec: 32	Twp: 15S Rge: 14W
Permanent Datum	Ground Level
Log Measured From	Kelly Bushing 12 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing

API No. 15-167-23,905-00-00

Other Services: DIL/CNL/CDL, MEL

Elevation: K.B. 1927, D.F. , G.L. 1915

Date Recorded	10/22/2013
Depth Logger	3460
Curve Definitions	
SW	Water Saturation
SXO	Water Saturation In The Flushed Zone
VCL	Volume Of Clay
PHIE	Density - Neutron Crossplot Shale Corrected
BVW	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	J. Long
Witnessed By	Kitt Noah
Analysis By	T. Martin

<<< Fold Here >>>

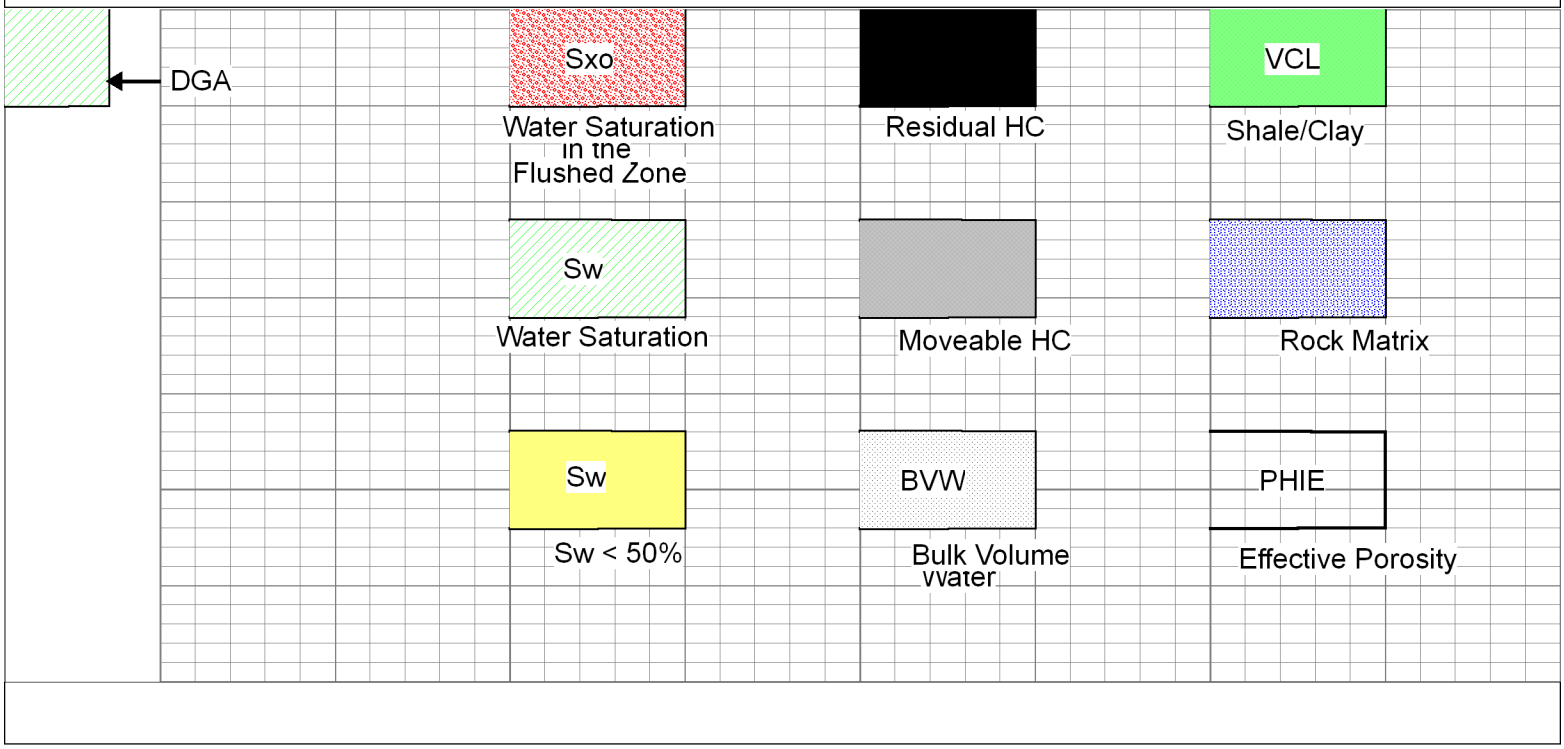
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Thank you for using Log-Tech, Inc.
www.logtechinc.com

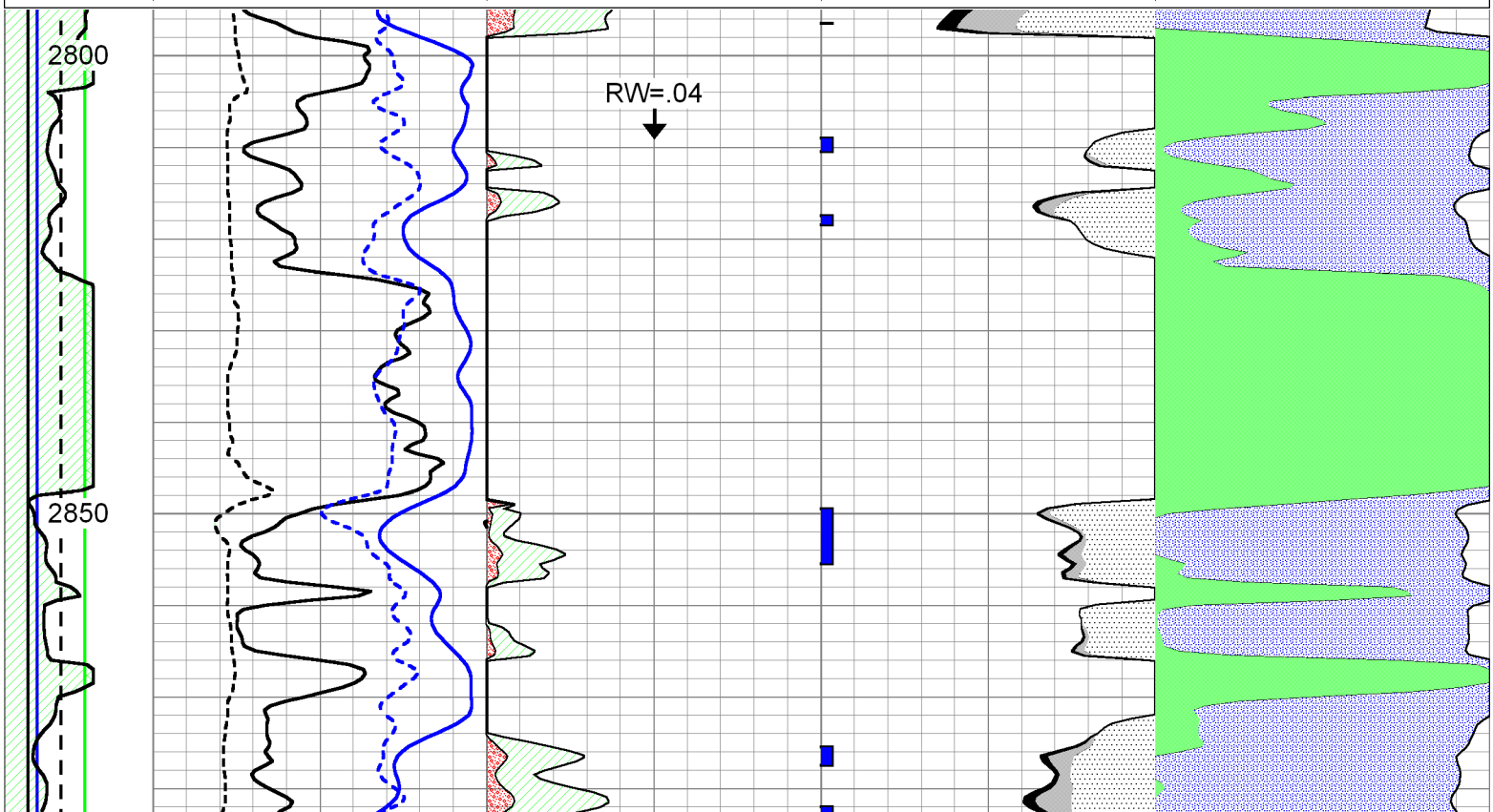
Milberger, 3/4 East, South Into

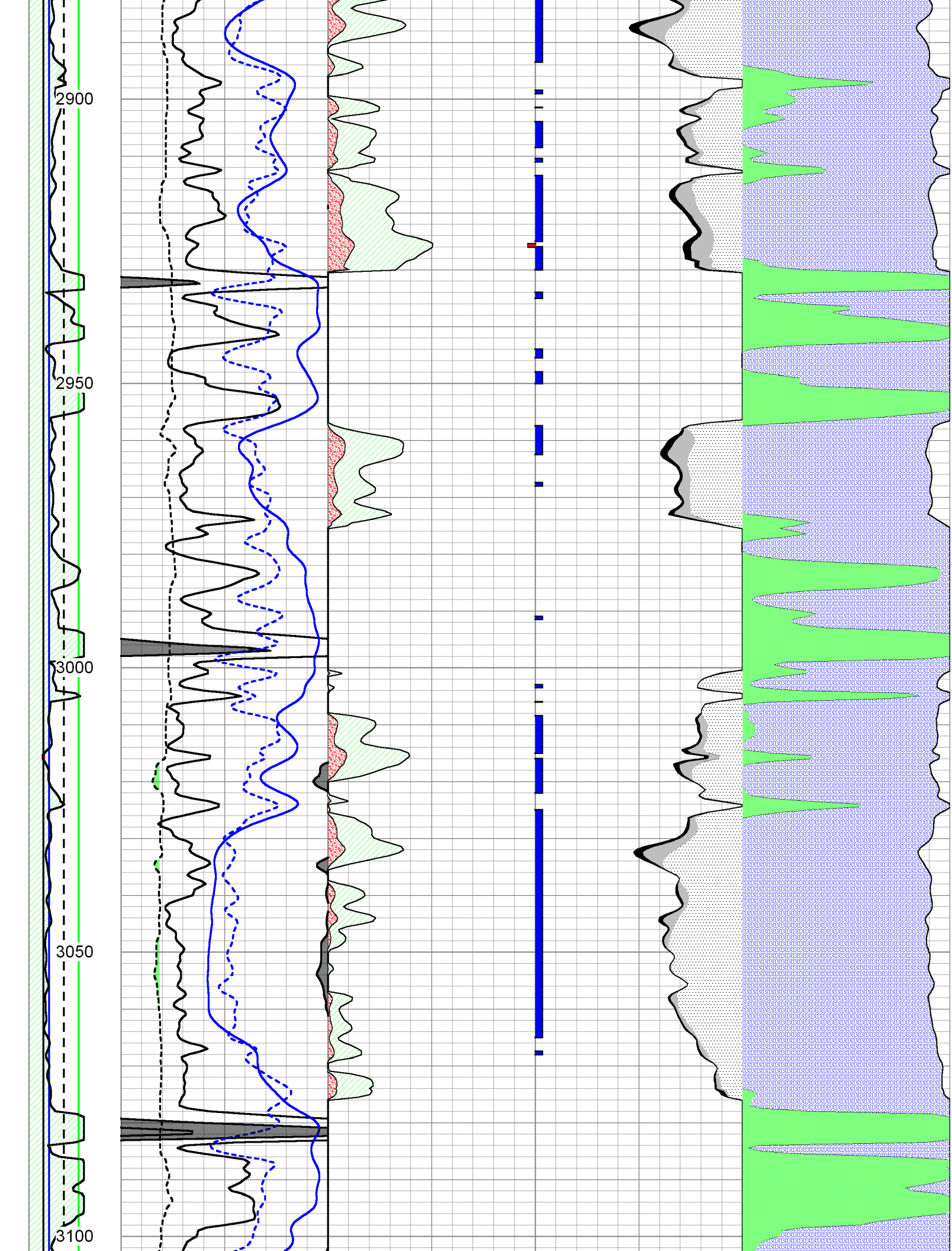
Database File:	c:\warrior\data\cross plots\2wxplt.db
Dataset Pathname:	litho
Presentation Format:	2wxplt
Dataset Creation:	Thu Apr 24 14:32:02 1997
Charted by:	Depth in Feet scaled 1:240

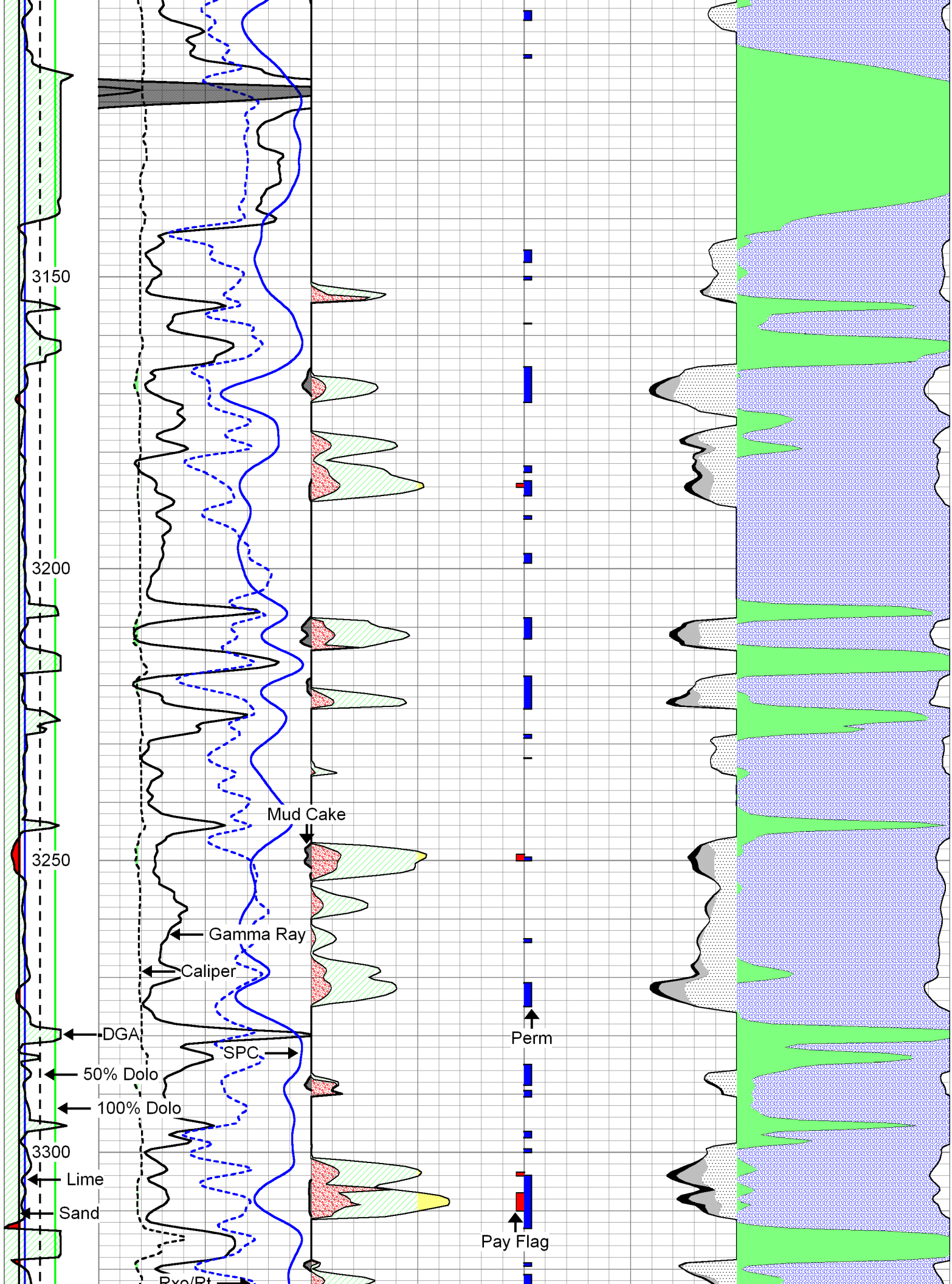


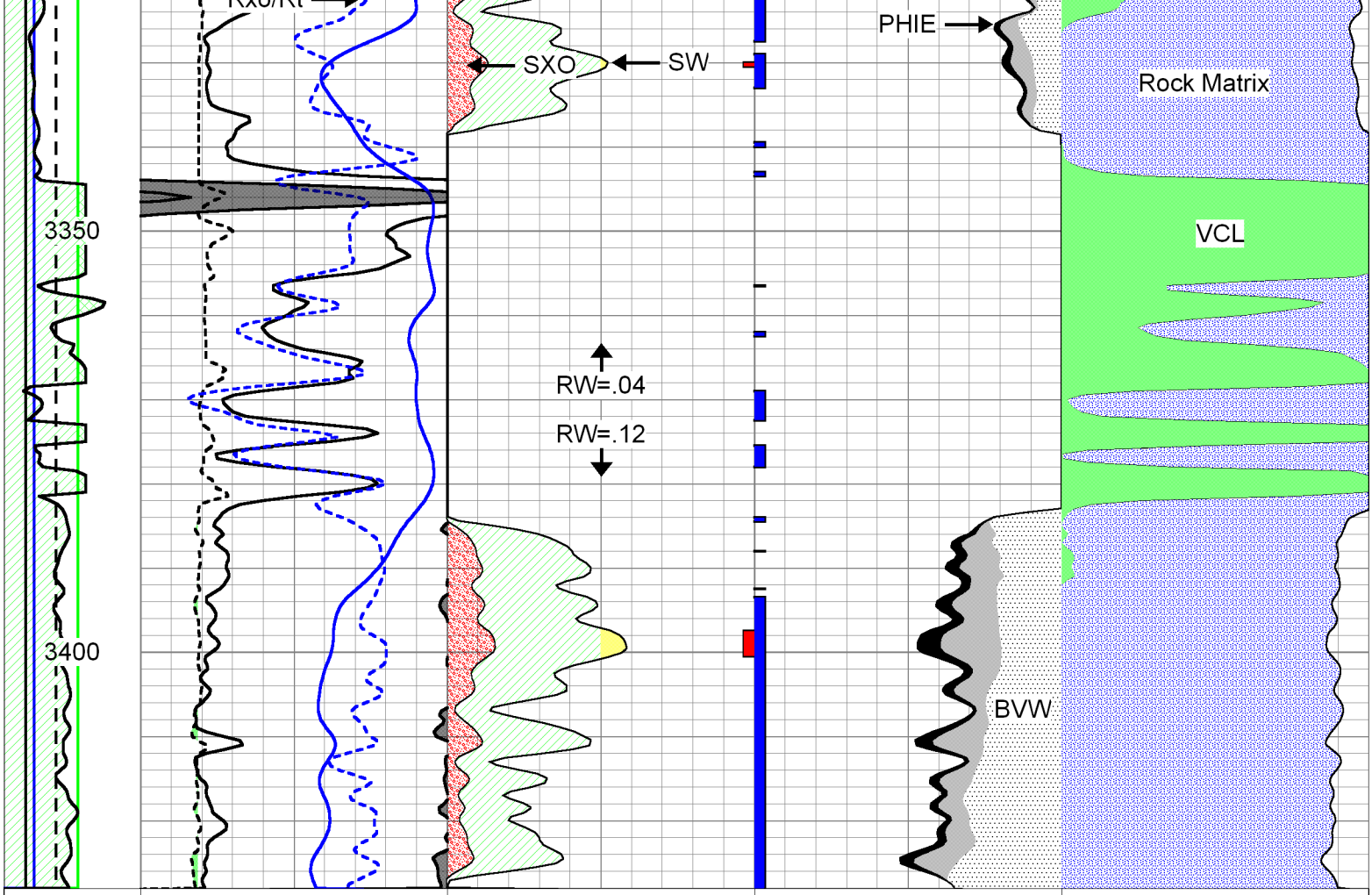
Database File: russelloil_steinle_3-32hd.db
Dataset Pathname: dil/russcpi
Presentation Format: calc
Dataset Creation: Wed Oct 23 14:51:17 2013
Charted by: Depth in Feet scaled 1:240

DGA	Gamma Ray		1 SW 0	0.3 PHIE 0	0 VCL 1
(g/cc)	0 (GAPI) 150		30 PAYFLAG 0	0.3 BVW 0	1 PHIE 0
2.6 3.1	6 DCAL (in) 16		1 SXO 0	0 PERM 30	
	-150 SPC (mV) 0			0.3 BVWSXO 0	




2900
2950
3000
3050
3100


3150
3200
Mud Cake
3250
Gamma Ray
Caliper
DGA
SPC
50% Dolo
100% Dolo
3300
Lime
Sand
Perm
Pay Flag



DGA	Gamma Ray	1 SW 0	0.3 PHIE 0	0 VCL 1	
(g/cc)	0 (GAPI) 150	30 PAYFLAG 0	0.3 BVW 0	1 PHIE 0	
2.6 3.1	6 DCAL (in) 16	1 SXO 0	0 PERM 30		
	-150 SPC (mV) 0		0.3 BVWSXO 0		