



Pioneer Energy Services

Computer Processed Interpretation

15-101-22414-00-00

API No.

Company **Flatirons Resources, LLC**

Well **Munsell #11-23**

Field **Demand Northwest**

County **Lane** State **Kansas**

Location

330' FNL & 1295' FWL

Other Services
DIL/CNL/CDL
MEL

Sec: **23** Twp: **16S** Rge: **28W**

Elevation

Permanent Datum **Ground Level** Elevation **2645**

Log Measured From **Kelly Bushing** 10 Ft. Above Perm. Datum

Drilling Measured From **Kelly Bushing**

K.B. 2655
D.F. 2645
G.L. 2645

Date Recorded **12/22/2012**

Depth Logger **4560**

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**

BWMSXO **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 **Ken Wallace**

Analysis By **T. Martin**

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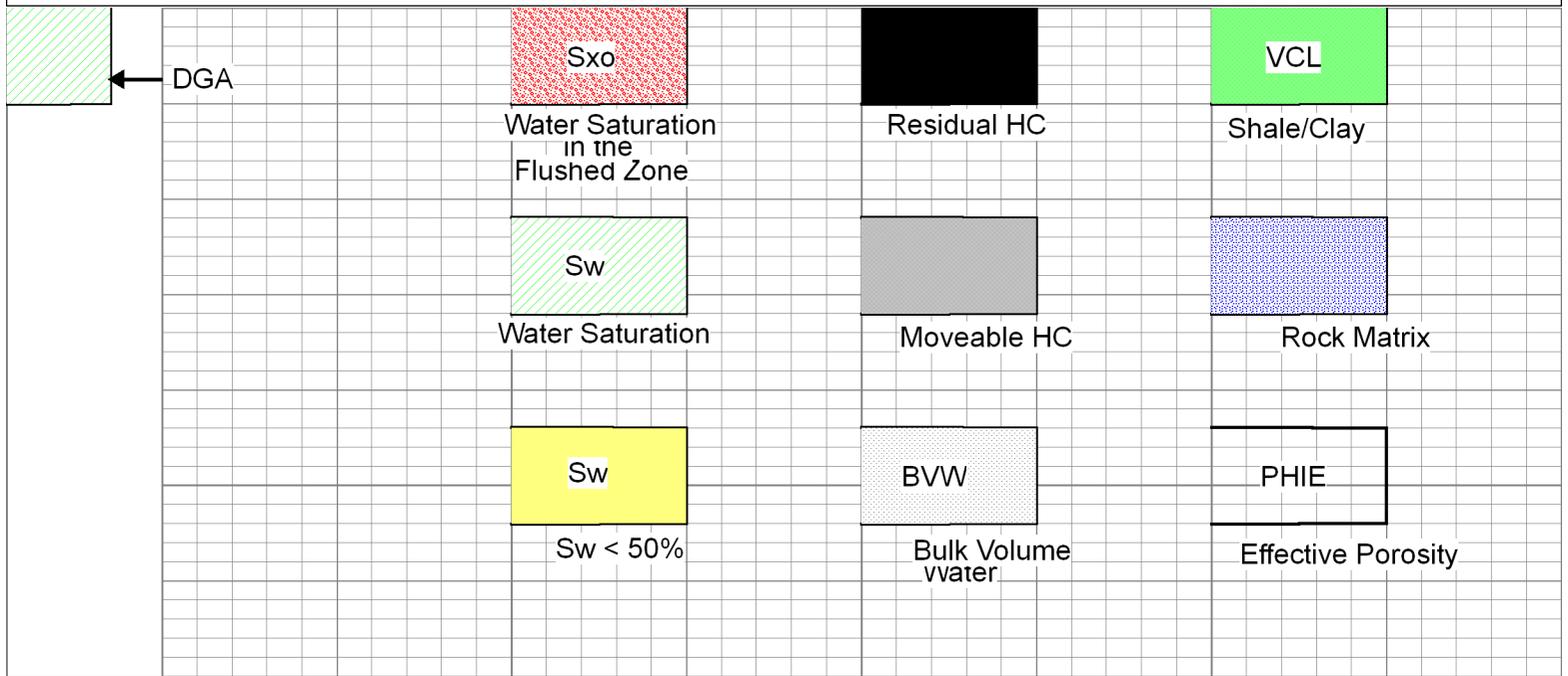
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Comments

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Pendennis,
2 1/2 West to Pawnee Rd, 1 1/8 North,
West 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: flatirons_122212hd.db
 Dataset Pathname: dil/fltspi
 Presentation Format: calc
 Dataset Creation: Sat Dec 22 12:31:58 2012
 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	SXO	0	0	PERM	30			
	SPC (mV)	0			0.3	BVWSXO	0			

