



Directional Log
with Azimuth

Pioneer Energy Services

API No.

15-109-21,292-00-00

Company New Gulf Operating, LLC

Well Marius No. 1-15

Field

County Logan

State

Kansas

Location

SW-SW-NW-SE
1388' FSL & 2379' FWL

Other Services
CNL/CDL
DIL/MEI

Sec: 15 Twp: 14S Rge: 34W

Permanent Datum Ground Level Elevation 3029
Log Measured From Kelly Bushing 9 Ft. Above Perm. Datum
Drilling Measured Front Kelly Bushing

Elevation
K.B. 3038
D.F. 3029
G.L. 3029

Date 9/7/14

Run Number Two

Depth Driller 4765

Depth Logger 4764

Bottom Logged Interval 4760

Top Log Interval 300

Casing Driller 8.625 @ 252

Casing Logger 263

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity, ppm CL 7,000

Density / Viscosity 9.1 56

pH / Fluid Loss 10.0 9.6

Source of Sample Flowline

Rm @ Meas. Temp .28 @ 74

Rmf @ Meas. Temp .21 @ 74

Rmc @ Meas. Temp .38 @ 74

Source of Rmf / Rmc Charts

Rm @ BHT .17 @ 124

Operating Rig Time 5 Hours

Max Rec. Temp. F 124

Equipment Number 108

Location Hays

Recorded By J. Henrickson

Witnessed By John Goldsmith

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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

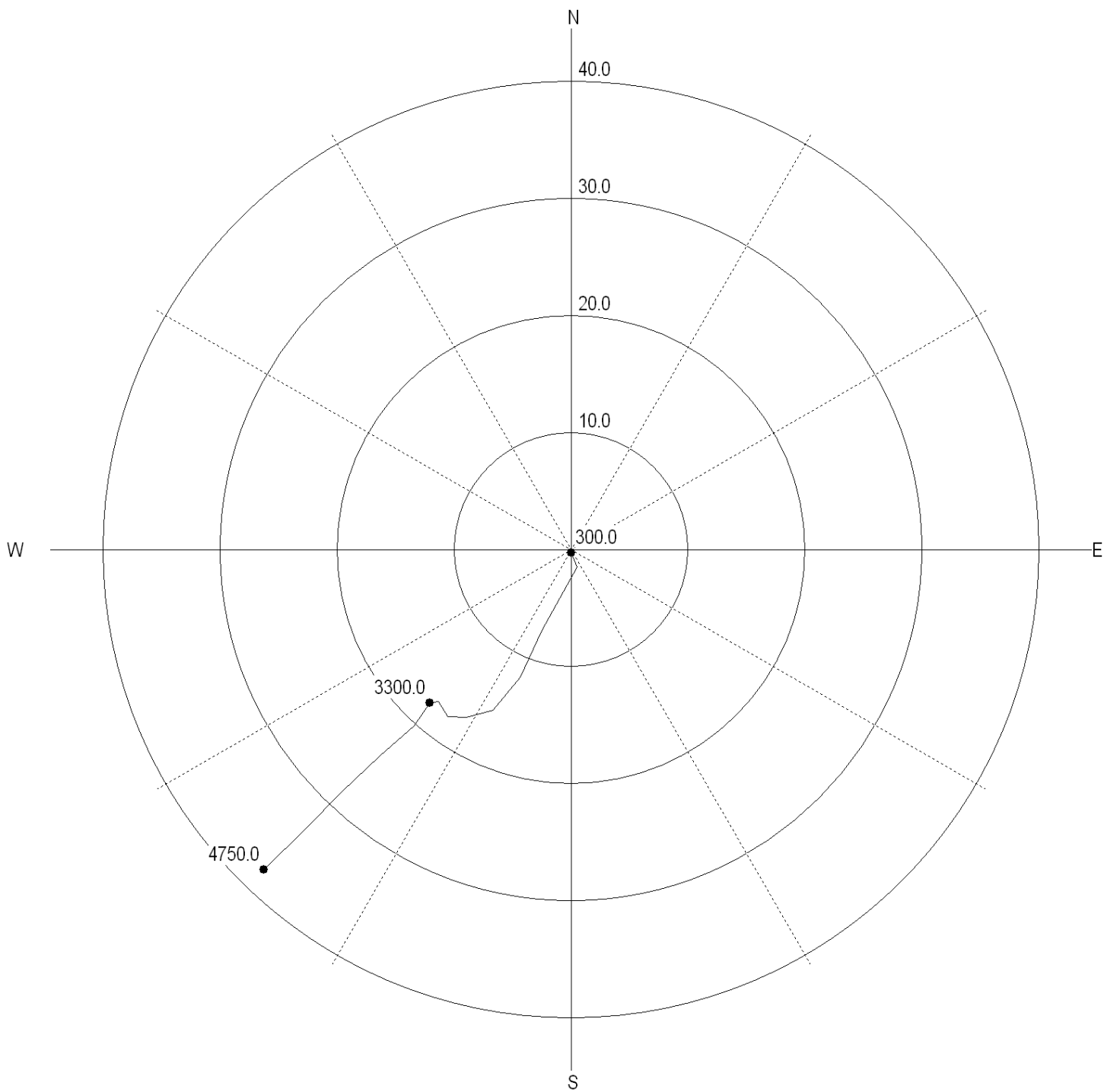
Thank you for using Pioneer Energy Services

☐☐785.625.3858

Russell Springs Kansas

1/2 East to 270 Rd, 7 South to Indian Rd, East to 320 Rd, 1 North, West Into

CROSS - SECTION
(Displacement in ft)



TVD Report (Minimum Curvature Method)

Database File: newgulf_marius_1_15.db
Dataset Pathname: .\\..\\.._tvd_\\1
Dataset Creation: Mon Sep 08 00:34:49 2014

Meas. Depth	Incline	Azimuth	TVD	North	East	Dogleg	Closure Dis	Closure Dir	Vert. Sec.
(ft)			(ft)	(ft)	(ft)		(ft)		(ft)
Vertical Section Direction 0.00									
300.0	0.11	186.30	300.00	-0.29	-0.03	0.04	0.29	6.30	-0.29
600.0	0.18	135.51	600.00	-0.91	0.27	0.05	0.95	-16.38	-0.91
900.0	0.10	198.67	900.00	-1.49	0.51	0.05	1.58	-18.98	-1.49
1200.0	0.83	211.35	1199.99	-3.60	-0.70	0.24	3.66	11.03	-3.60
1500.0	0.61	205.78	1499.96	-6.89	-2.53	0.08	7.34	20.13	-6.89
1800.0	1.08	204.85	1799.93	-10.89	-4.41	0.16	11.75	22.03	-10.89
2100.0	0.44	256.87	2099.90	-13.72	-6.72	0.29	15.28	26.09	-13.72
2400.0	0.46	252.54	2399.89	-14.34	-8.99	0.01	16.93	32.07	-14.34
2700.0	0.23	316.38	2699.89	-14.27	-10.55	0.14	17.75	36.49	-14.27
3000.0	0.22	322.27	3000.00	-12.00	-11.41	0.05	17.00	41.07	-12.00

3000.0	0.36	332.07	2999.89	-13.00	-11.41	0.05	17.30	41.27	-13.00
3300.0	0.37	195.74	3299.88	-13.10	-12.11	0.23	17.84	42.76	-13.10
3600.0	0.58	227.30	3599.87	-15.06	-13.49	0.11	20.22	41.85	-15.06
3900.0	0.90	229.00	3899.85	-17.64	-16.39	0.11	24.08	42.89	-17.64
4200.0	0.78	224.75	4199.82	-20.63	-19.60	0.05	28.46	43.53	-20.63
4500.0	0.92	224.19	4499.78	-23.81	-22.72	0.05	32.91	43.66	-23.81
4750.0	1.39	226.41	4749.73	-27.34	-26.31	0.19	37.95	43.90	-27.34