

MIDWEST WIRELINE

MICRORESISTIVITY
LOG

Company Darrah Oil Company, LLC		Company Darrah Oil Company, LLC	
Well	Knopp #9-13	Well	Knopp #9-13
Field	Bridges Northeast	Field	Bridges Northeast
County	Logan	County	Logan
State	Kansas	State	Kansas
Location: API #: 15-109-21636-00-00		Other Services	
SW SW NW NE 1155 FNL & 2475 FEL SEC 13 TWP 14S RGE 32W		CNL/CDL DIL	
Permanent Datum	Ground Level	Elevation	2815
Log Measured From	Kelly Bushing	K.B.	2824
Drilling Measured From	Kelly Bushing	D.F.	
		G.L.	2815
Date	7/19/2022		
Run Number	One		
Depth Driller	4665		
Depth Logger	4674		
Bottom Logged Interval	4673		
Top Log Interval	3400		
Casing Driller	8.625 @ 232		
Casing Logger	236		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	3000		
Density / Viscosity	9.0 76		
pH / Fluid Loss	10.5 9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.70 @ 86		
Rmt @ Meas. Temp	0.53 @ 86		
Rmc @ Meas. Temp	0.95 @ 86		
Source of Rmt / Rmc	CHARTS		
Rm @ BHT	0.49 @ 123		
Operating Rig Time	3 Hours		
Max Rec. Temp. F	123		
Equipment Number	P-108		
Location	HAYS		
Recorded By	D. Schmidt		
Witnessed By	Macklin Armstrong		

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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline 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.

Oakley,
South to Jayhawk Rd, 1 East, 3/4 North,
East and South into

Log Measured From: Kelly Bushing 9 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC
785-625-3858

Your Midwest Wireline Crew		This Log Record Was Witnessed By	
Engineer: D. Schmidt		Primary Witness: Macklin Armstrong	
Operator:		Secondary Witness:	
Operator:		Secondary Witness:	
Operator:		Secondary Witness:	

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.33			GR-M&W (103)	3.00	3.50	50.00
CNLSC CNSSC	37.23 36.48			CNT-M&W (210)	5.00	3.50	100.00
LSD DCAL SSD	28.18			CDL-M&W (303-03)	8.50	4.00	250.00
	28.17			ML-PSI STKBL ML (401)	7.58	4.00	65.00
	27.68						
MCAL MI MN	19.58						
	19.58						
	19.58						
RLL3F RLL3	15.50 15.50			DIL-M&W (504 HT)	18.25	3.50	220.00
CILD	8.33						
	4.50						
SP	0.20						
Dataset:				darrah_knopp 9-13.db: field/well/stkml/pass2.1			
Total length:		42.33 ft					
Total weight:		685.00 lb					
O.D.:		4.00 in					

Log Variables

DatabaseC:\ProgramData\Warrior\Data\darrah_knopp 9-13.db
Dataset field/well/stkml/pass2.1/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in	degF	in	in	g/cc	2	g/cc
	7.875	100	5.5	0	1		2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m	mmho/m	mV	degF	Off	ft
		0	0	460	0		0

Variable Description

A : Cement Factor (a)
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
M : Cement Exp (m)
MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select
PERFS : Perforation Flag
SNDERR : Deep Sonde Error Correction
SNDERRM : Medium Sonde Error Correction
SPSHIFT : S.P. Baseline Offset
SRFTEMP : Surface Temperature
SZCOR : CN Size Cor. ?
TDEPTH : Total Depth



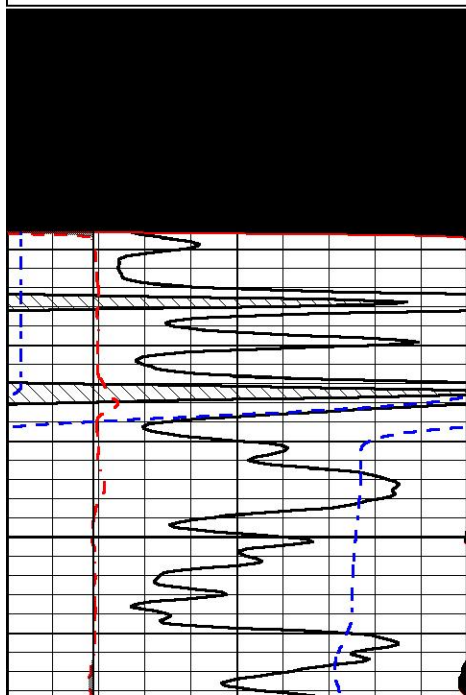
REPEAT SECTION

REPEAT PASS

Database File darrah_knopp 9-13.db
Dataset Pathname stkml/pass2.1
Presentation Format _micro
Dataset Creation Tue Jul 19 07:28:29 2022
Charted by Depth in Feet scaled 1:240

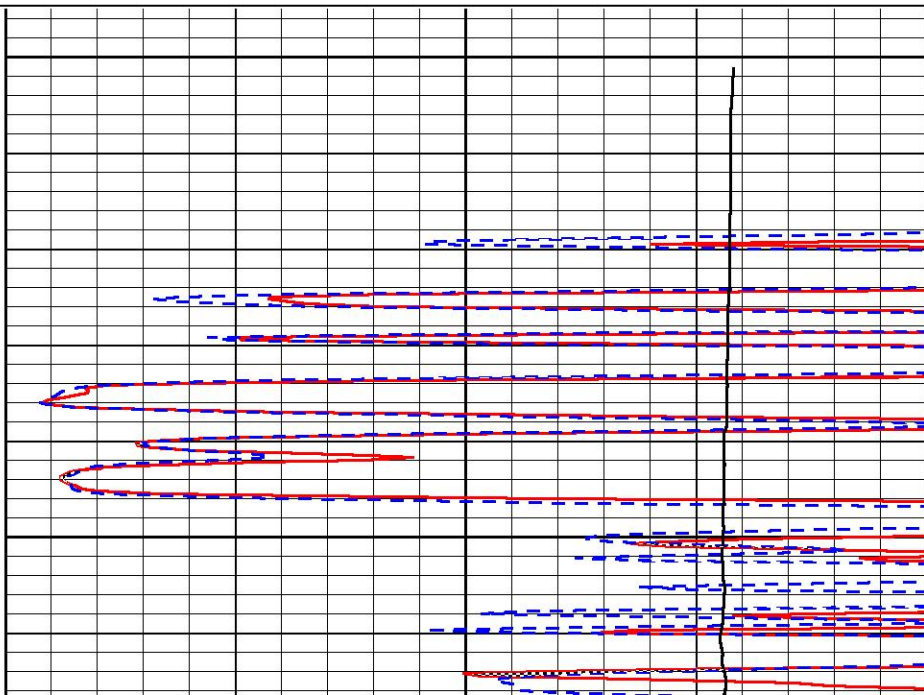
0	Gamma Ray (GAPI)	150
6	Caliper (in)	16
2.875	mcal (in)	7.875
-200	SP (mV)	0

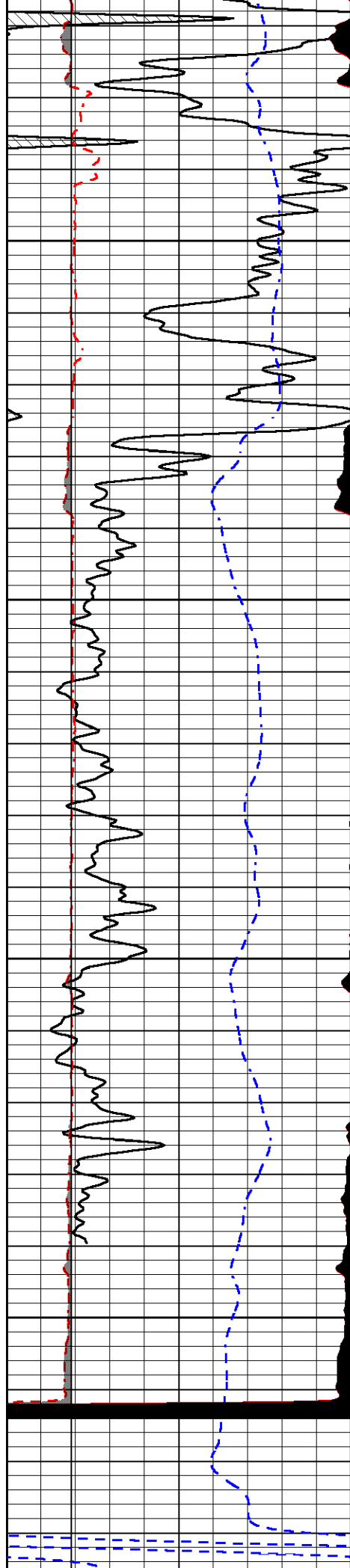
0	Micro Inverse 1 X 1 (Ohm-m)	40
0	Micro Normal 2" (Ohm-m)	40
10000	Line Weight (lb)	0



4400

4450



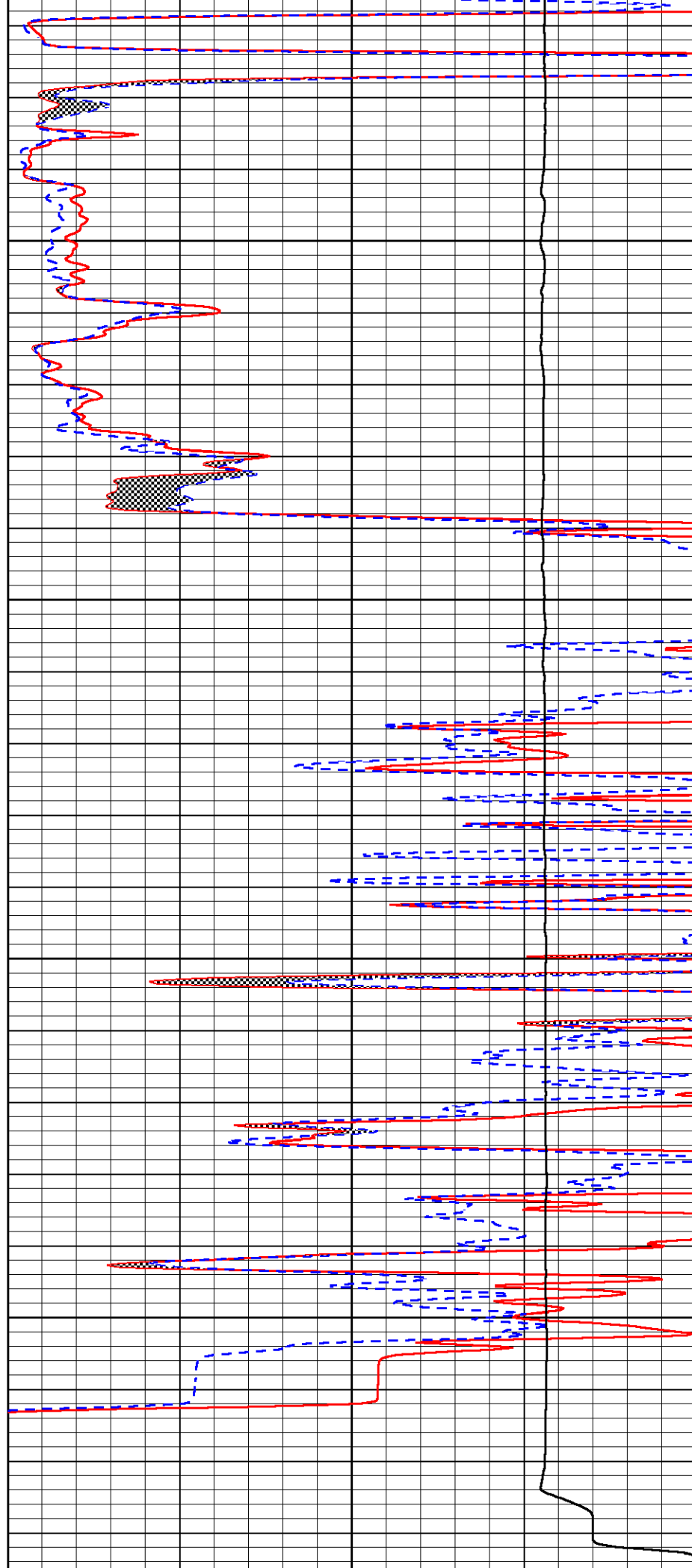


4500

4550

4600

4650



Master Calibration

Detector	Readings	Target	Normalization
Short Space	6240.00 cps	1000.00 cps	1.6025
Long Space	460.00 cps	1000.00 cps	1.9500

Gamma Ray Calibration Report

Serial Number:	103	
Tool Model:	M&W	
Performed:	Fri Dec 3 12:13:24 2021	
Calibrator Value:	500.0	GAPI
Background Reading:	28.0	cps
Calibrator Reading:	986.0	cps
Sensitivity:	0.5700	GAPI/cps



Company	Darrah Oil Company, LLC
Well	Knopp #9-13
Field	Bridges Northeast
County	Logan
State	Kansas