



MIDWEST WIRELINE

MICRORESISTIVITY LOG

Company Griffin Management LLC
 Well Amber #1
 Field Turkey Creek Camp
 County Pratt
 State Kansas

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Location: API #: 15-151-22540-00-00
 2310 FNL 330 FEL
 SEC 28 TWP 29S RGE 15W
 Other Services
 CNL/CDL
 DIL
 Elevation
 K.B. 2003
 D.F.
 G.L. 1998

| | |
|------------------------|-------------|
| Date | 2/2/2022 |
| Run Number | One |
| Depth Driller | 4820 |
| Depth Logger | 4819 |
| Bottom Logged Interval | 4818 |
| Top Log Interval | 4450 |
| Casing Driller | 8:625 @ 255 |
| Casing Logger | 256 |
| Bit Size | 7.875 |
| Type Fluid in Hole | Chemical |
| Salinity :ppm CL | 8000 |
| Density / Viscosity | 9.5 59 |
| pH / Fluid Loss | 9.5 8.8 |
| Source of Sample | FLOWLINE |
| Rm @ Meas. Temp | 0.50 @ 50 |
| Rmt @ Meas. Temp | 0.38 @ 50 |
| Rmc @ Meas. Temp | 0.68 @ 50 |
| Source of Rmf / Rmc | CHARTS |
| Rm @ BHT | 0.20 @ 124 |
| Operating Rig Time | 3 Hours |
| Max Rec. Temp. F | 124 |
| Equipment Number | P-24 |
| Location | Hays |
| Recorded By | D. Schmidt |
| Witnessed By | JR Griffin |

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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.

Haviland,
 East to 140th, South to 100th, East to 130th, 1/2 East,
 South into

Log Measured From: Kelly Bushing 5 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: JR Griffin |
| Operator: | Secondary Witness: Eli Felts |
| Operator: | Secondary Witness: |
| Operator: | Secondary Witness: |

| | | | | | | |
|----------|-------------|-----------|-------------|-------------|-----------|-------------|
| Operator | Offset (ft) | Substrate | Description | Length (ft) | C.D. (in) | Weight (lb) |
|----------|-------------|-----------|-------------|-------------|-----------|-------------|

| Sensor | Offset (ft) | Schematic | Description | Length (ft) | O.D. (in) | Weight (lb) |
|--------------------|-------------------------|-----------|------------------|-------------|-----------|-------------|
| GR | 40.33 | | GR-M&W (101) | 3.00 | 3.50 | 50.00 |
| CNLSC CNSSC | 37.23 36.48 | | CNT-M&W (207-MW) | 5.00 | 3.50 | 100.00 |
| LSD DCAL SSD | 28.18 28.17 27.68 | | CDL-M&W (301-01) | 8.50 | 4.00 | 250.00 |
| MCAL MI MN | 19.58 19.58 19.58 | | ML-PSIML (402) | 7.58 | 4.00 | 65.00 |
| RLL3F RLL3 | 15.50 15.50 | | | | | |
| CILD | 8.33 | | DIL-M&W (501 HT) | 18.25 | 3.50 | 220.00 |
| CILM | 4.50 | | | | | |
| SP | 0.20 | | | | | |

Dataset: griffin_amber 1.db: field/well/stkml/pass2.4
 Total length: 42.33 ft
 Total weight: 685.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\griffin_amber 1.db
 Dataset field/well/stkml/pass3.2/_vars_

Top - Bottom

| | | | | | | | |
|-----------|--------------|------------------|-------------------|----------------|------------------|-------|------------------|
| A | BOREID in | BOTTEMP degF | CASEOD in | CASETHCK in | FLUIDDEN g/cc | M | MATRXDEN g/cc |
| 1 | 7.875 | 124 | 5.5 | 0 | 1 | 2 | 2.71 |
| NPORSEL | PERFS | SNDERR mmho/m | SNDERRM mmho/m | SPSHIFT mV | SRFTEMP degF | SZCOR | TDEPTH ft |
| Limestone | 0 | 0 | 0 | 240 | 20 | Off | 4819 |

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



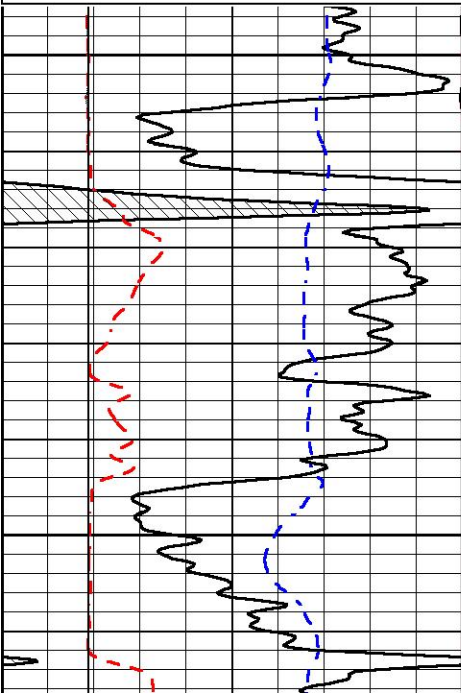
DETAIL SECTION

MAIN PASS

Database File griffin_amber 1.db
 Dataset Pathname stkml/pass2.3
 Presentation Format _micro
 Dataset Creation Thu Feb 03 00:37:50 2022
 Charted by Depth in Feet scaled 1:240

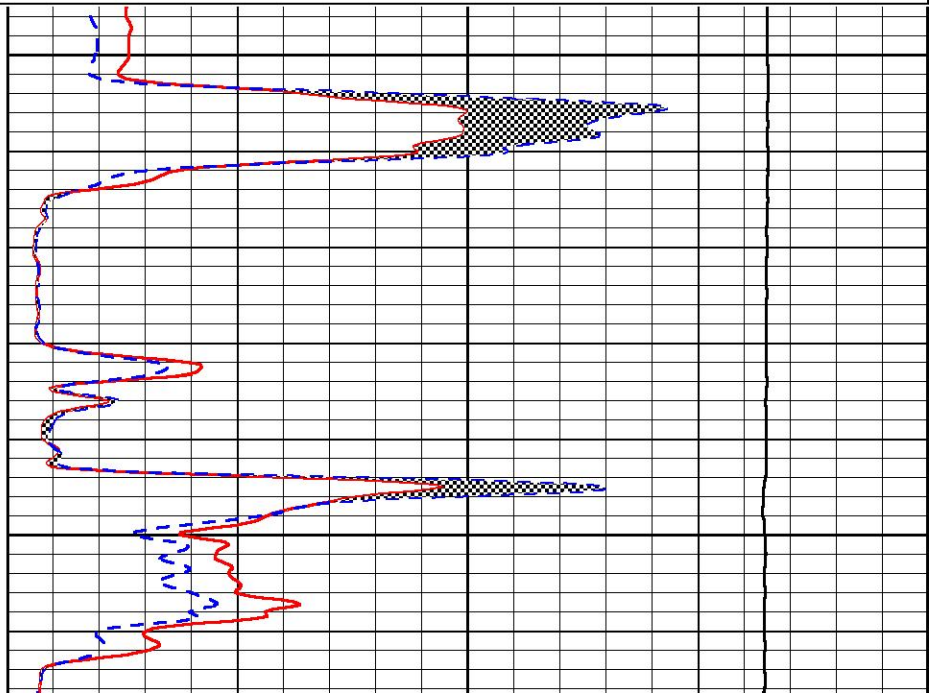
| | | |
|--------|------------------|-------|
| 0 | Gamma Ray (GAPI) | 150 |
| 6 | Caliper (in) | 16 |
| -2.875 | mcal (in) | 7.875 |
| -200 | SP (mV) | 0 |

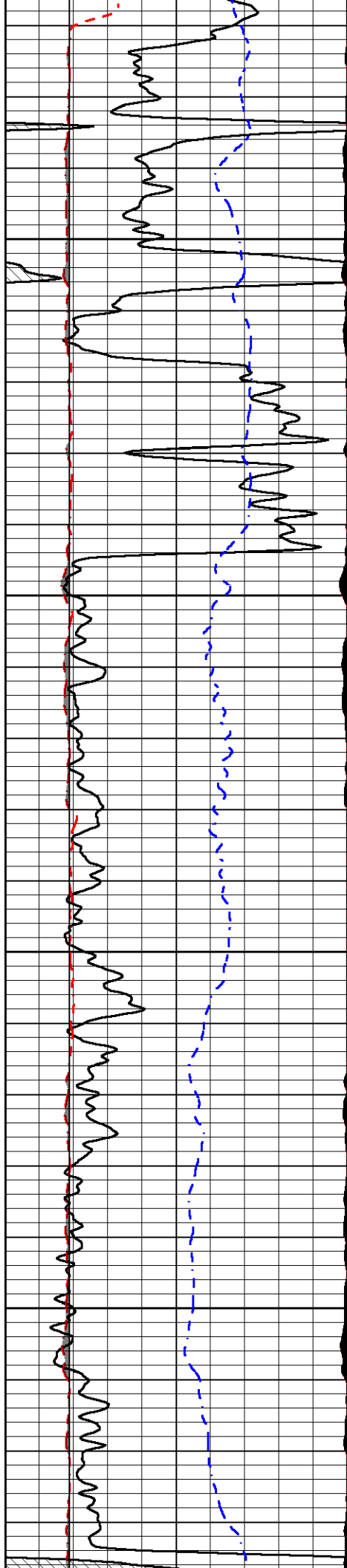
| | | |
|-------|-----------------------------|----|
| 0 | Micro Inverse 1 X 1 (Ohm-m) | 40 |
| 0 | Micro Normal 2" (Ohm-m) | 40 |
| 10000 | Line Weight (lb) | 0 |



4450

4500



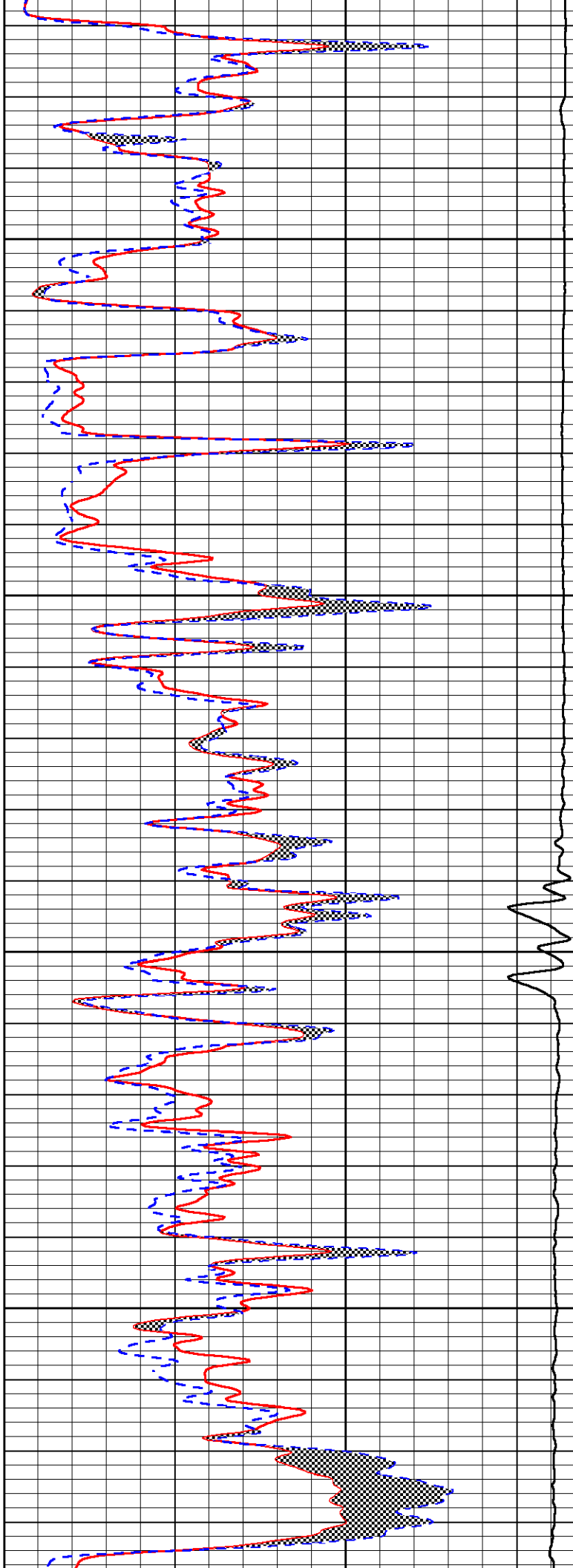


4550

4600

4650

4700



Compensated Density Calibration Report

Serial-Model: 301-01-M&W
 Source #: 20762B
 Master Calibration Performed: Fri Dec 10 13:06:08 2021

Master Calibration

| | <u>Density</u> | | <u>Far Detector</u> | <u>Near Detector</u> | |
|---------------------|----------------|------|-----------------------------|----------------------|-----|
| Magnesium | 1.755 | g/cc | 3559.05 | 2566.81 | cps |
| Aluminum | 2.675 | g/cc | 664.63 | 1636.12 | cps |
| Spine Angle = 74.98 | | | Density/Spine Ratio = 0.530 | | |
| | <u>Size</u> | | <u>Reading</u> | | |
| Small Ring | 8.00 | in | 1.16 | | |
| Large Ring | 13.00 | in | 1.01 | | |

Compensated Neutron Calibration Report

Serial-Model: 207-MW-M&W
 Source #: 100046B
 Master Calibration Performed: Mon Nov 29 15:06:24 2021

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: 101
 Tool Model: M&W
 Performed: Mon Jan 24 19:14:46 2022

Calibrator Value: 500.0 GAPI

Background Reading: 24.0 cps
 Calibrator Reading: 637.0 cps

Sensitivity: 0.5500 GAPI/cps



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