Weatherford®

CROSSED DIPOLE
DUAL SHEAR SEMBLANCE

INTERPRETATION &
EVALUATION SERVICES

Company	ALTA MESA SERVICES LLC
Well	FALLON 1-10
Field	WILDCAT
County	PAYETTE
State/Province	IDAHO
Country	U.S.A
UWI/API	11-075-20032
Log Date	19-FEB-2018
Location	SHL:1533' FWL & 2042' FSL
Location 2	
Lat / Long	44.045533 / -116.926035

Permanent Datum GL, Elevation 2155 ft
Log Measured From KB, 12.00 ft above Permanent Datum
Drilling Measured From KB

Elevations	
KB	2167.00 ft
DF	2167.00 ft
GL	2155.00 ft

Date	19-Feb-2018
Run Number	1
Depth Driller	5000.00 ft
Depth Logger	5000.00 ft
First Reading	4973.08 ft
Last Reading	1094.00 ft
Casing Driller	1094.00 ft
Casing Logger	1094.00 ft
Bit Size	8.5 inches
Hole Fluid Type	WBM
Density/Viscosity	12.7 lb/USg / 40 sec/qt
PH/Fluid Loss	6.90 / 3.40 ml/30Min
Sample Source	SUCTION
Rm @ Measured Temp	2.5 ohm-m @ 100 deg F
Rmf @ Measured Temp	1.87 ohm-m @ 100 deg F
Rmc @ Measured Temp	3.12 ohm-m @ 100 deg F
Rm @ BHT	1.49 ohm-m @ 170.0 deg F
Max Recorded Temp	170.00 degF
Engineer	ARBER ÇUKU
Base	CASPER
Service Order	2938-203227578

FIELD
WLS S
TOOL:
SRT;SI
MTI;M
MISD;
MISE;
PRIMA
STRAF
LOGG
METH
HARD
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ABOV

MRD /

BOTT(
2.65 g
BARIT
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HOLE
2470 (
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WASH
MAY /

In interpreting, communicating or providing information and/or ma
or oral, as to logs or test or other data, type or amount of material, or
or manner of performance, or in predicting results to be obtained, the
benefit of the Contractor's best judgment based on its experience an
and workmanlike manner. Any interpretation of test or other data,
description based upon such interpretations, are opinions based upc
empirical relationships and assumptions, which inferences and ass
respect to which professional engineers and analysts may differ.

ACCORDINGLY ANY INTERPRETATION OR RECOMMENDATION RESI
AT THE SOLE RISK OF THE COMPANY, AND THE CONTRACTOR CAN
ACCURACY, CORRECTNESS OR COMPLETENESS OF ANY SUCH INTE
WHICH INTERPRETATIONS AND RECOMMENDATIONS SHOULI
CIRCUMSTANCES BE RELIED UPON AS THE SOLE OR MAIN BASIS FOI
TREATMENT, PRODUCTION OR FINANCIAL DECISION, OR ANY PRO(
SAFETY OF ANY DRILLING ACTIVITY, DRILLING RIG OR ITS CREW
COMPANY HAS FULL RESPONSIBILITY FOR ALL DECISIONS CONCERN

REMARKS
OFTWARE VERSION: 17.05.7583
S RUN IN COMBINATION:
HA;SKJ;MLK;MLK;MLK;SKJ;MBS;MMS;
1GS;MSG;SKJ;SHA;MISD;MDN;MPD;
SHA;SKJ;MDM;MRD;MTD;MISE;MFE;
MAI.
ARY DEPTH REFERENCE WAS PIPE
?.
ED USING MESSENGER SHUTTLE
OD OF DEPLOYMENT.
WARE USED:4 INCH PROFILE PLATE
ON DENSITY
MIS D DECENTRALIZER
E MDN AND BELOW MPD
4" STANDOFFS ON
AND MTD
PINEAPLE ON MAI
OM
/cc DENSITY MATRIX USED.
E CORRECTION APPLIED ON
TY.
VOLUME FROM 5353 FT TO 1094 FT =
CU.FT
ILAR VOLUME FROM 5353 FT TO 1094
SED ON 5.5 INCH CASING = 1771

AND ANNULAR VOLUMES
ULATED FROM DENSITY CALIPER
UREMENTS
OUTS AND BOREHOLE RUGOSITY
AFFECT DATA QUALITY.

king recommendations, either written
Work or other service to be furnished,
Contractor will give the Company the
d will perform all such Work in a good
and any recommendation or reservoir
n inferences from measurements and
umptions are not infallible, and with

JLTING FROM THE SERVICES WILL BE
NNOT AND DOES NOT WARRANT THE
RPRETATION OR RECOMMENDATION,
) NOT, THEREFORE, UNDER ANY
R ANY DRILLING, COMPLETION, WELL
CEDURE INVOLVING ANY RISK TO THE
' OR ANY OTHER INDIVIDUAL. THE
NING THE SERVICES.

PLOT TYPE: CXD MONOPOLE DIPOLE ARRAY SEMBLANCE

DTCQ, DTSXQ and DTSYQ are flags for zones where semblance quality drops below 65%.

Caution should be exercised if DTC, DTSX and/or DTSY are used in analysis and interpretation where these flags occur.

Another flag of potentially inaccurate responses is the borehole rugosity as indicated by the caliper(s).

In the upper portion of the well, above 1504 ft the Shear DT(s) have been nulled due to low confidence, dipole data shows Stoneley contamination due to borehole condition.
,
Velocity Ratio: DTS/DTC

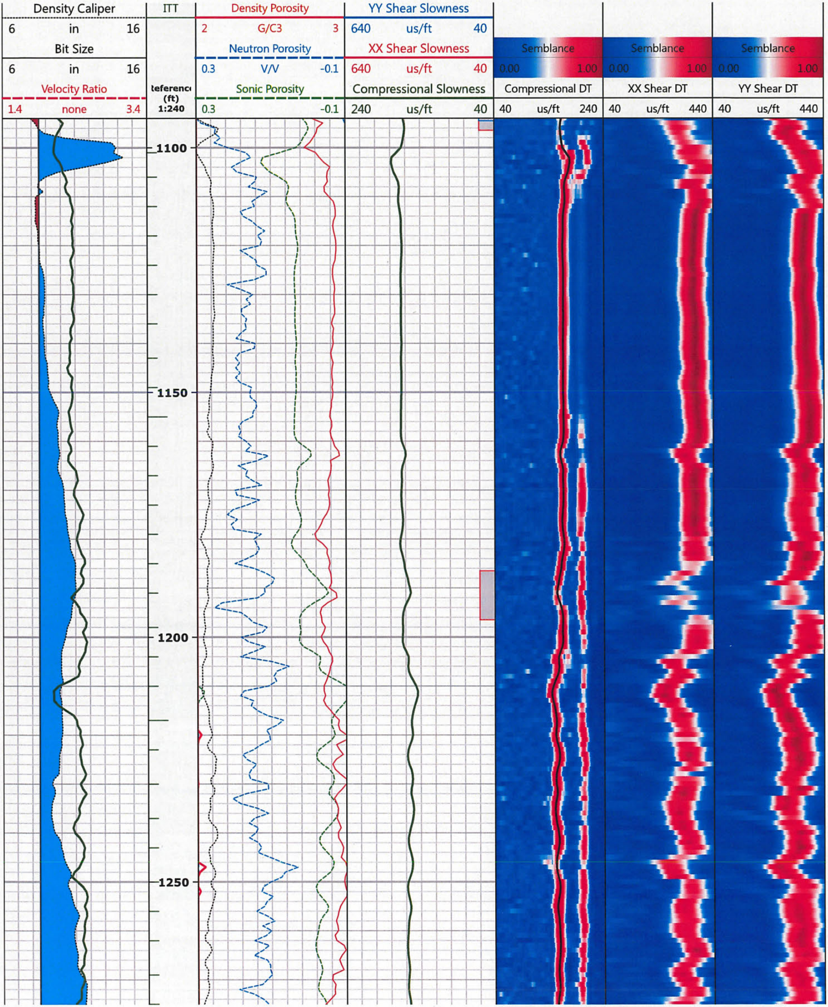
XX DIPOLE Shear Processing
Receiver levels: R1, R2, R3, R4, R5, R6, R7, R8.
Frequency pre-filtered 1000 - 3000 Hz bell filter.
Slowness Configuration 40-640 usec/ft.

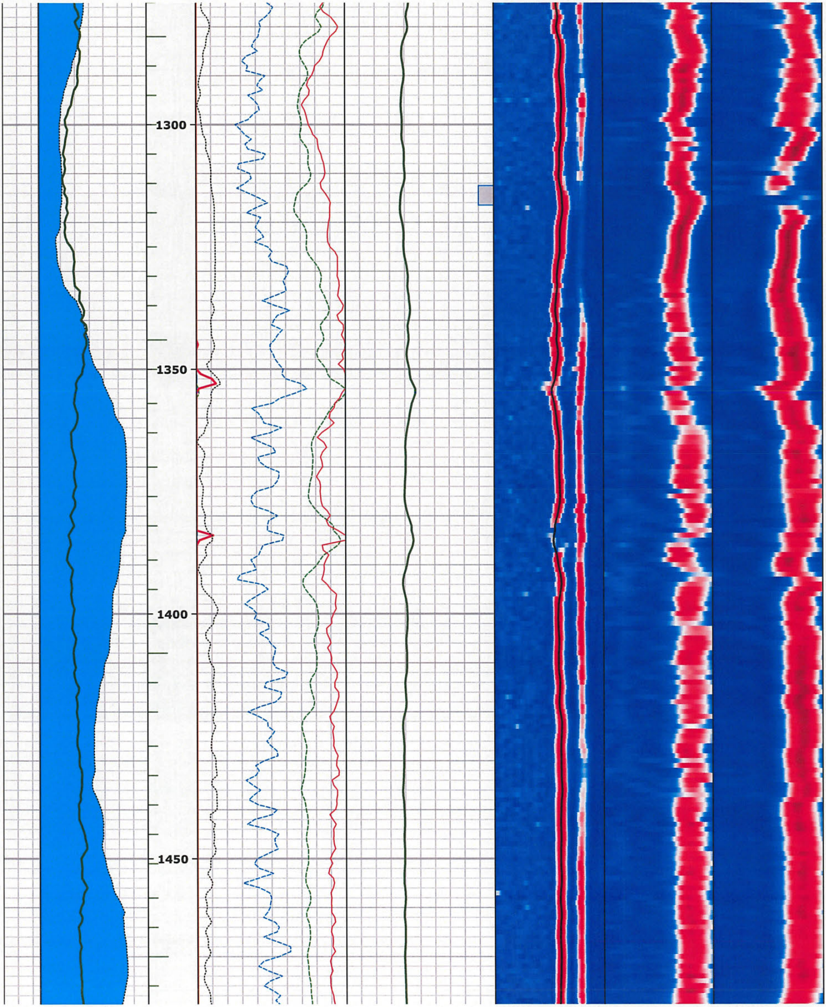
YY DIPOLE Shear Processing
Receiver levels: R1, R2, R3, R4, R5, R6, R7, R8.
Frequency pre-filtered 1000 - 3000 Hz bell filter.
Slowness Configuration 40-640 usec/ft.

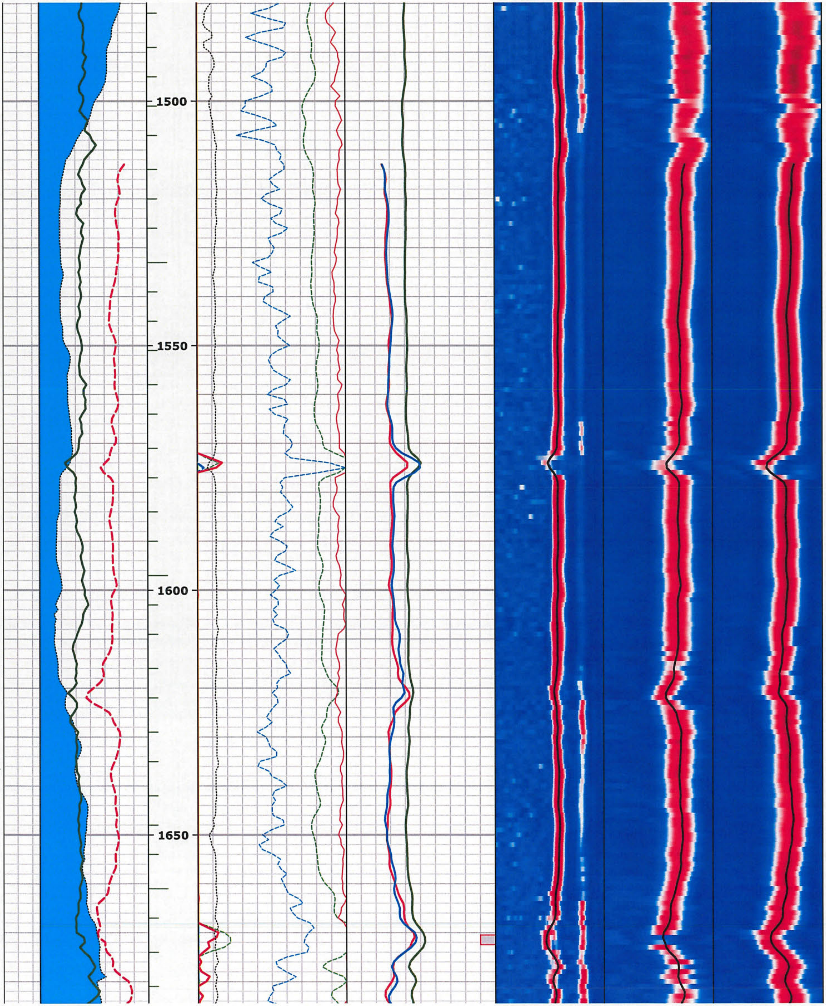
MONOPOLE Compressional Processing
Receiver levels:
R1, R2, R3, R4, R5, R6, R7, R8. First receiver offset 6.8 feet.
Frequency pre-filtered 7000 - 17000 Hz bell filter.
Slowness Configuration 40-240 usec/ft.
****
PROGRAM: P11.1.87.27
****

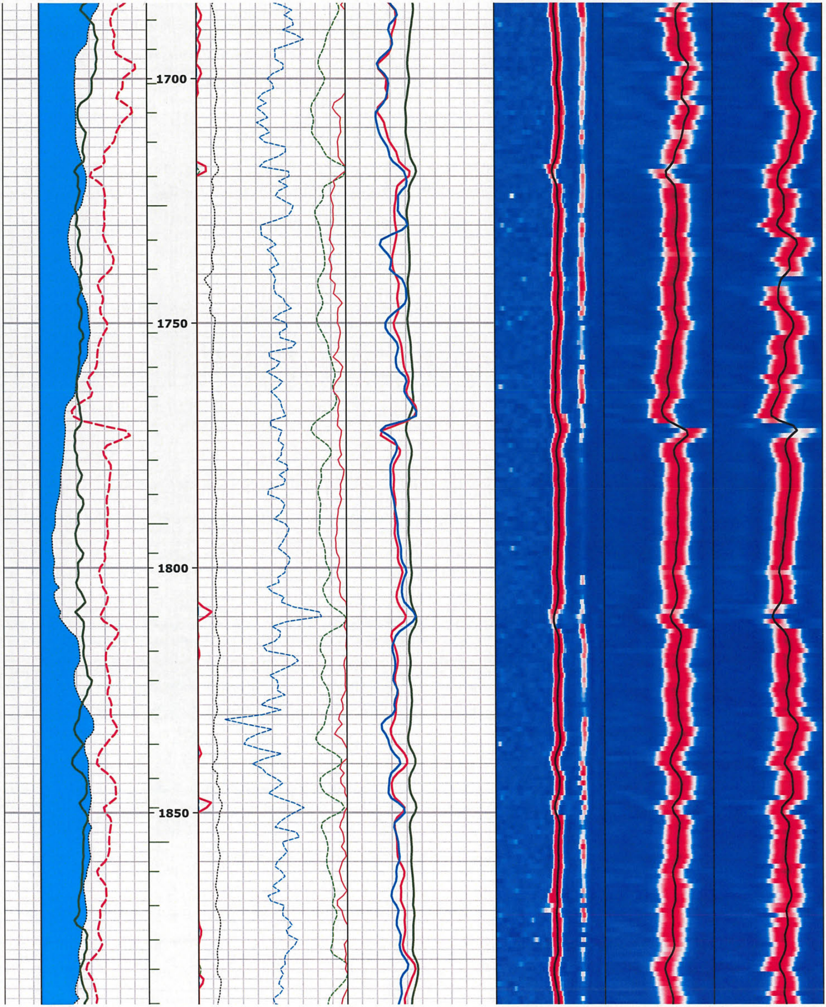
Analysis Date	Log Analyst	Location
FEB-22-2018	D. CARRERO	OKC

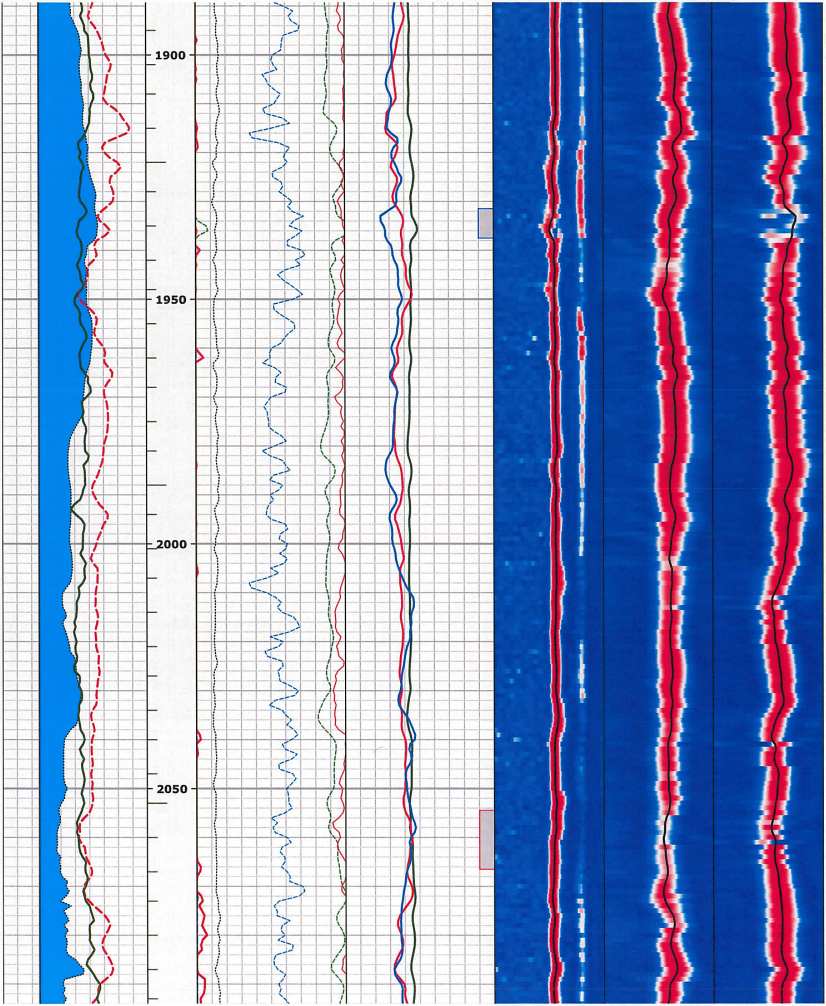
Auxiliary Curves	Porosity	Slowness Curves	Monopole Semblance	XX Dipole Semblance	YY Dipole Semblance
🟥 Mudcake / 🟦 Washout					
Gamma Ray 0 gAPI 150	Bulk Density Correction -0.1 g/cm3 0.9	Semblance Quality Flag			

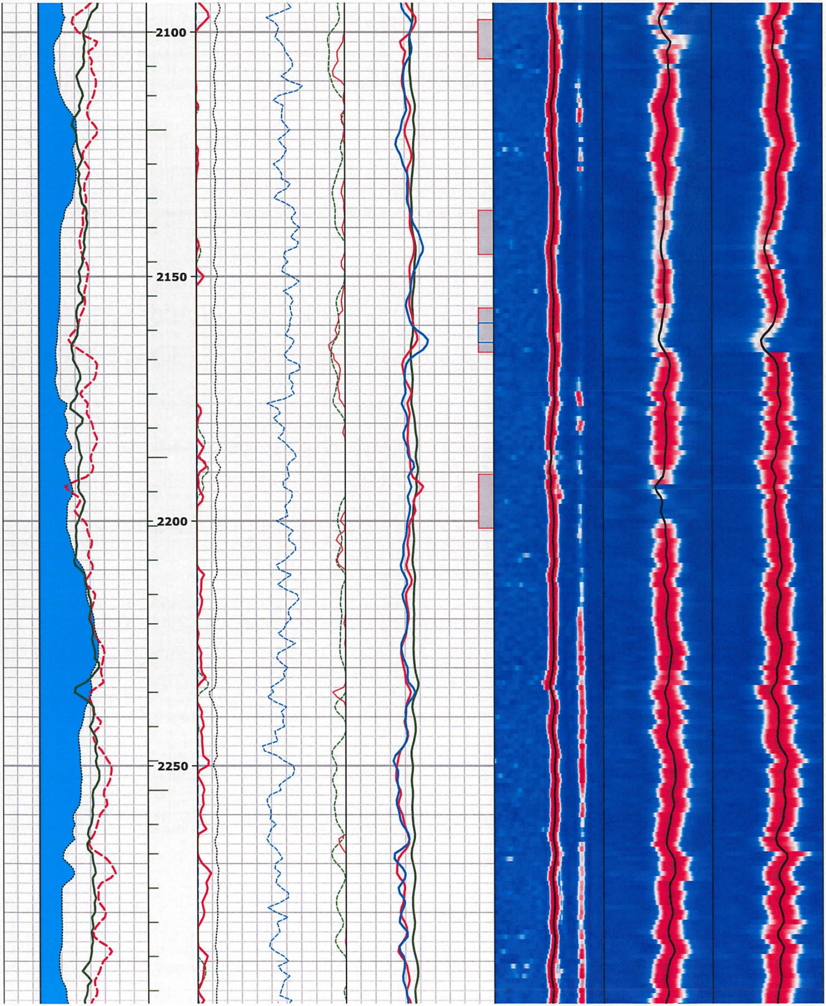


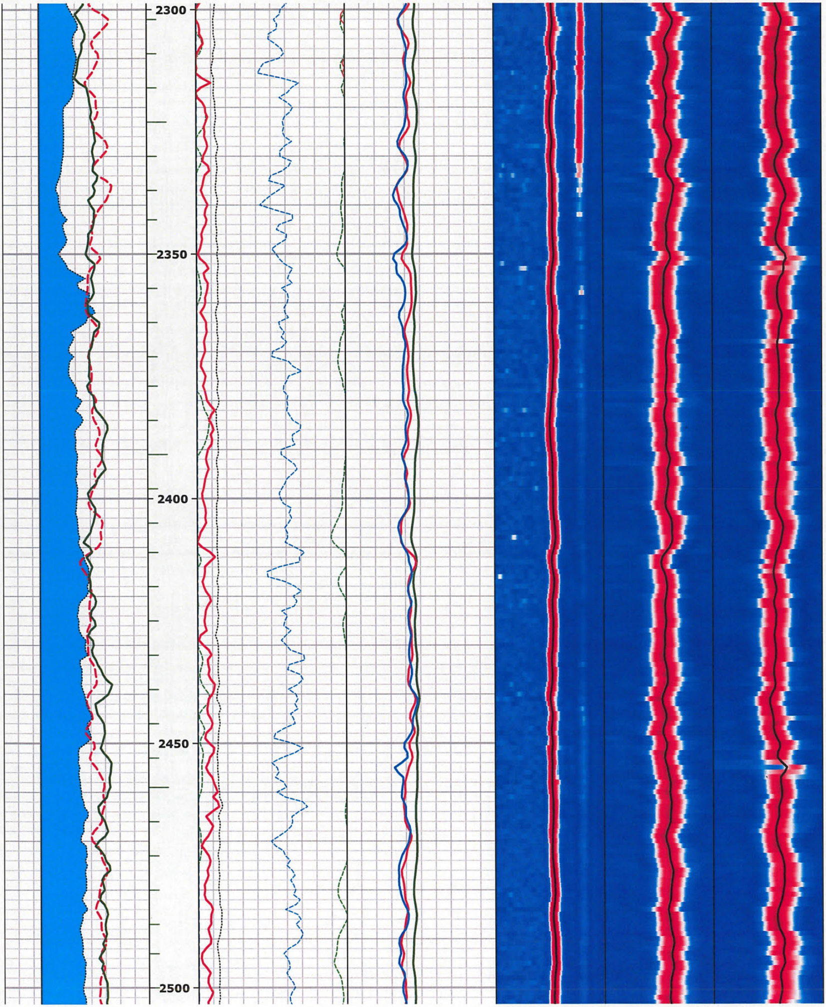


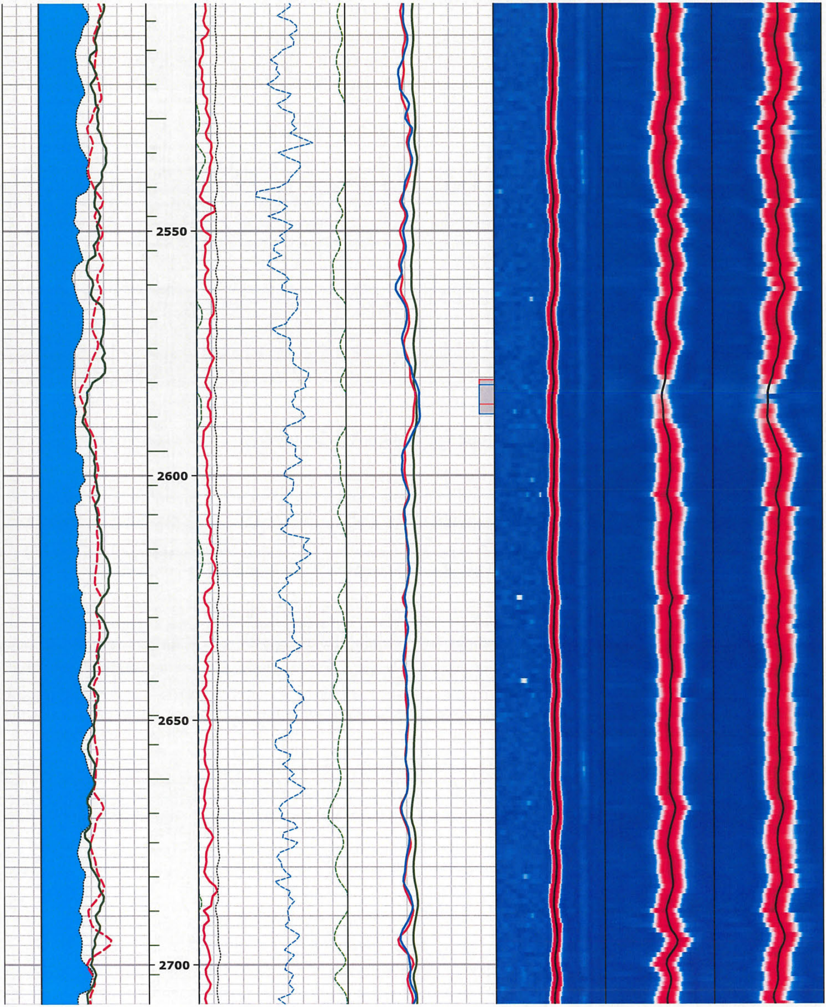


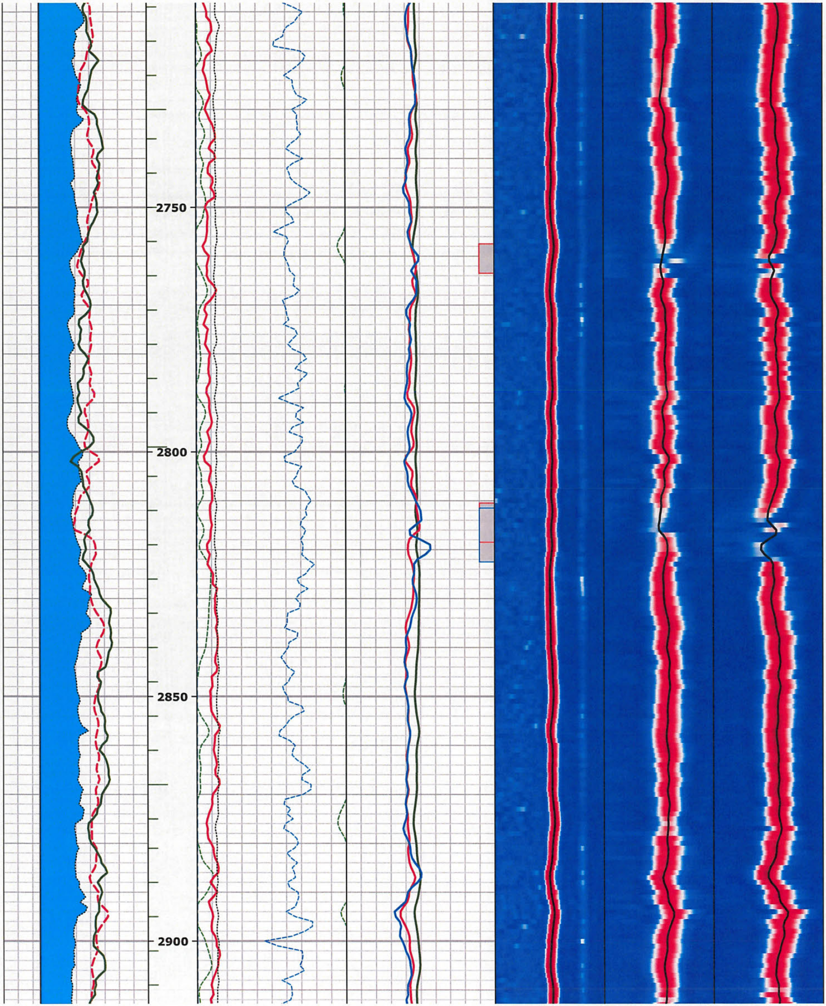


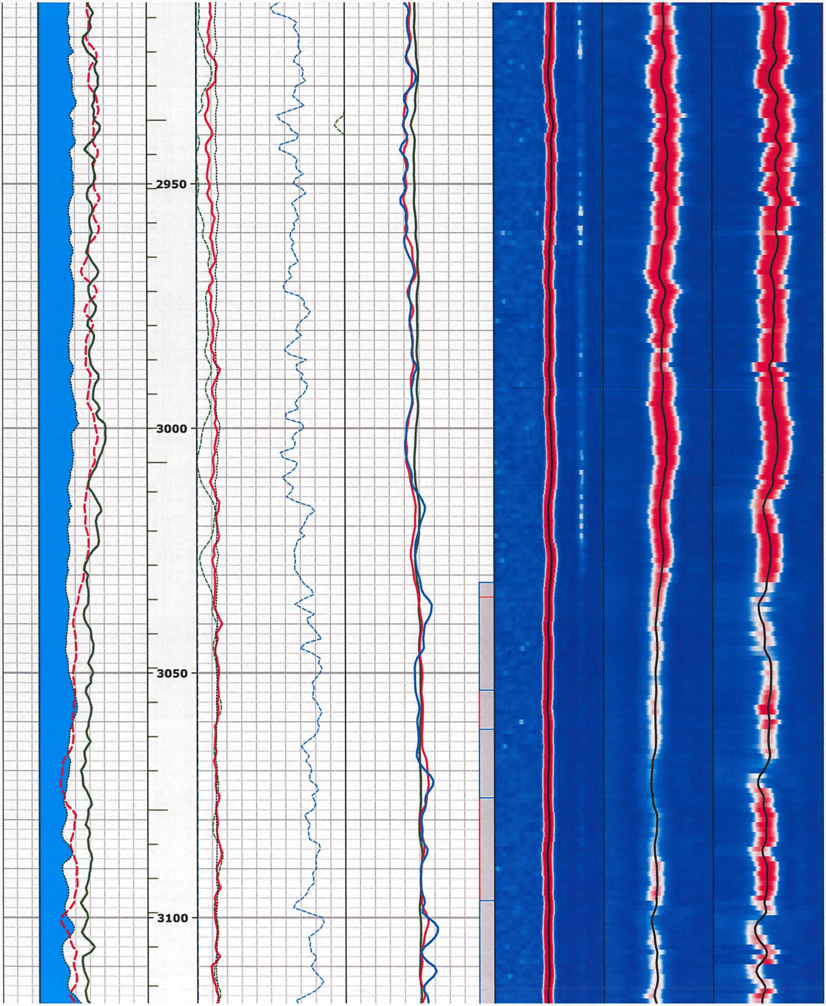


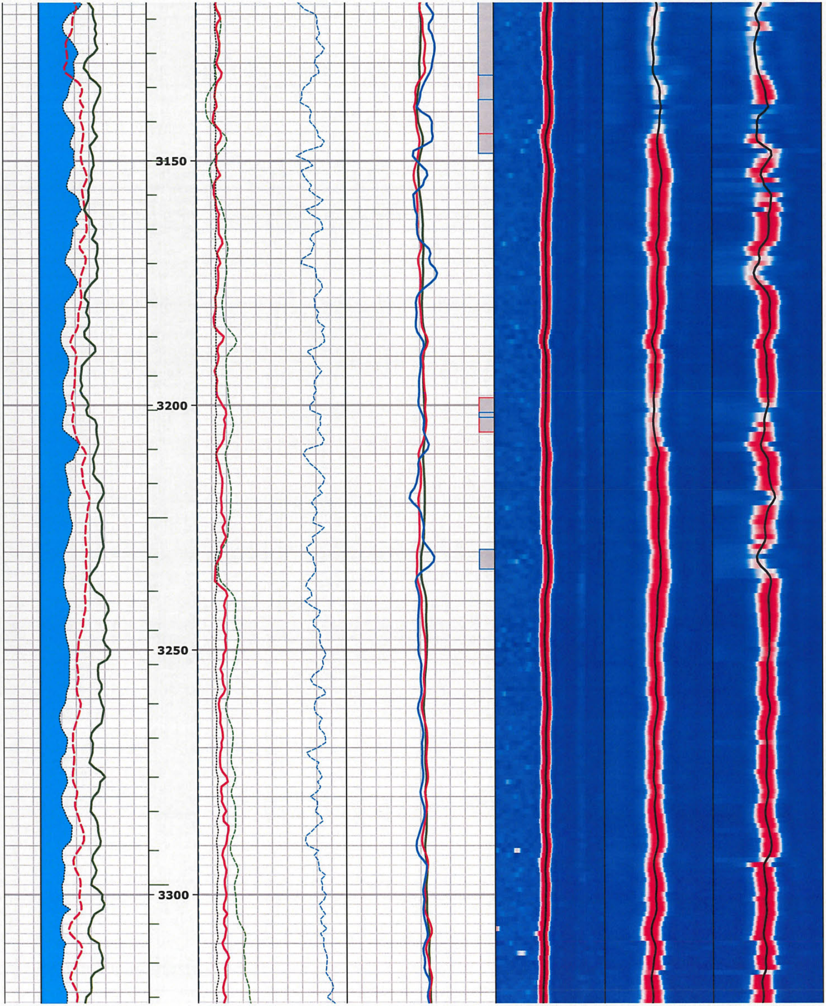


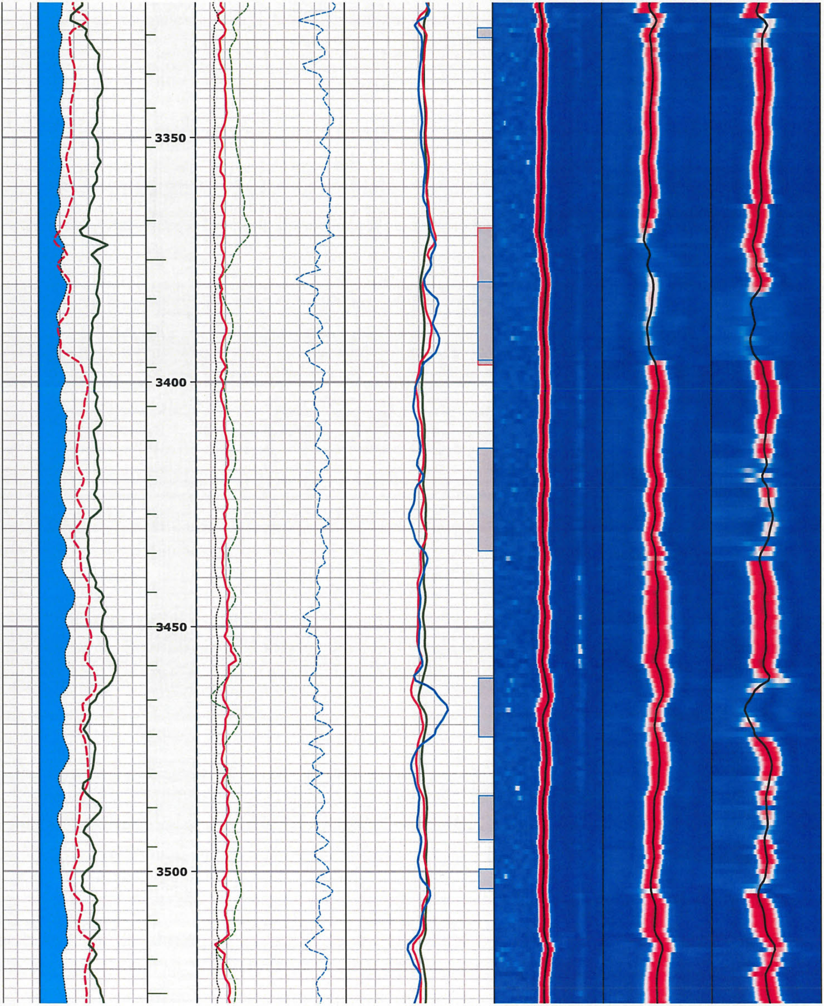


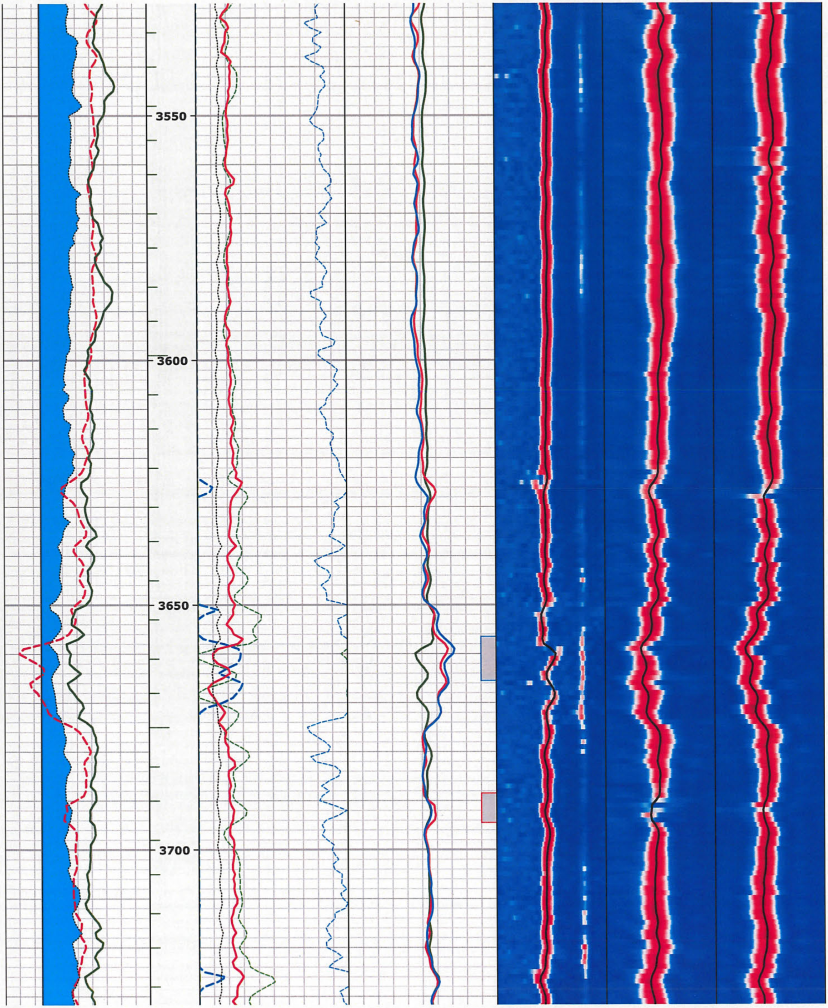


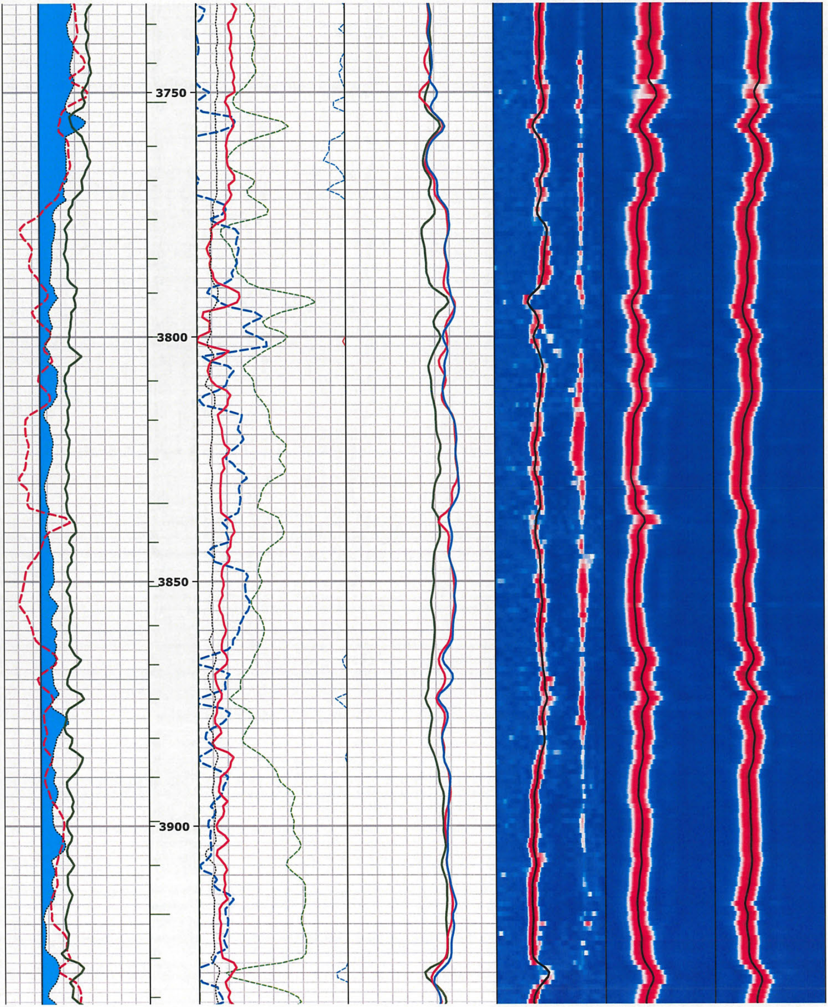


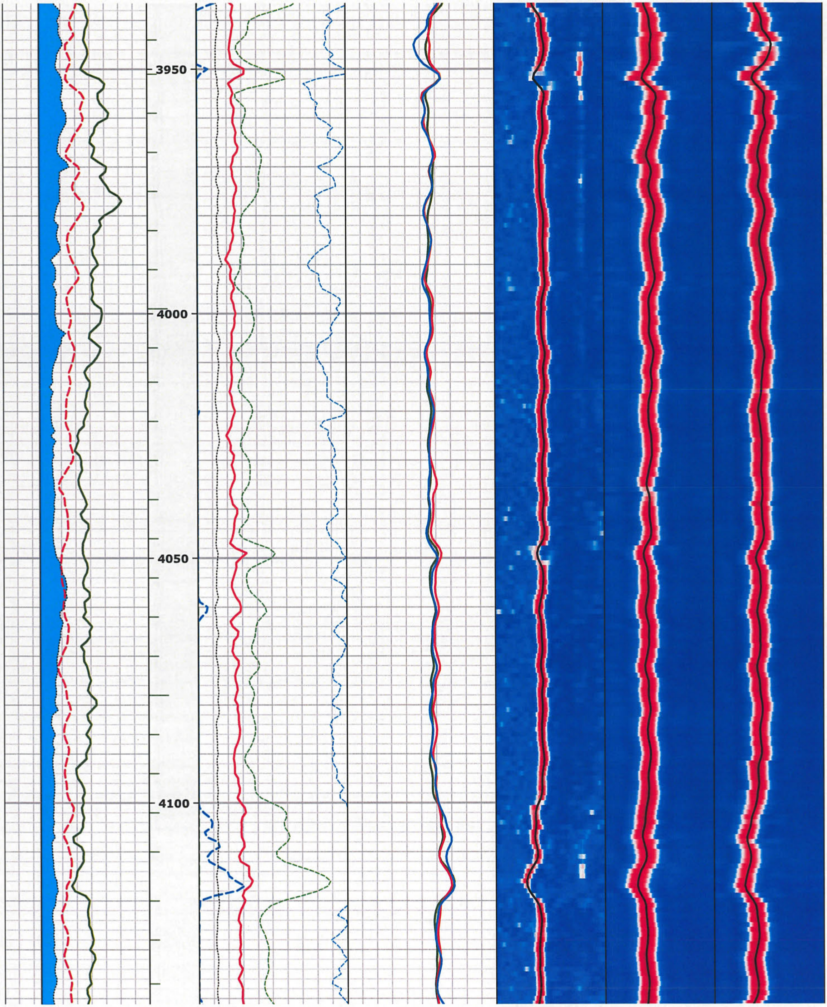


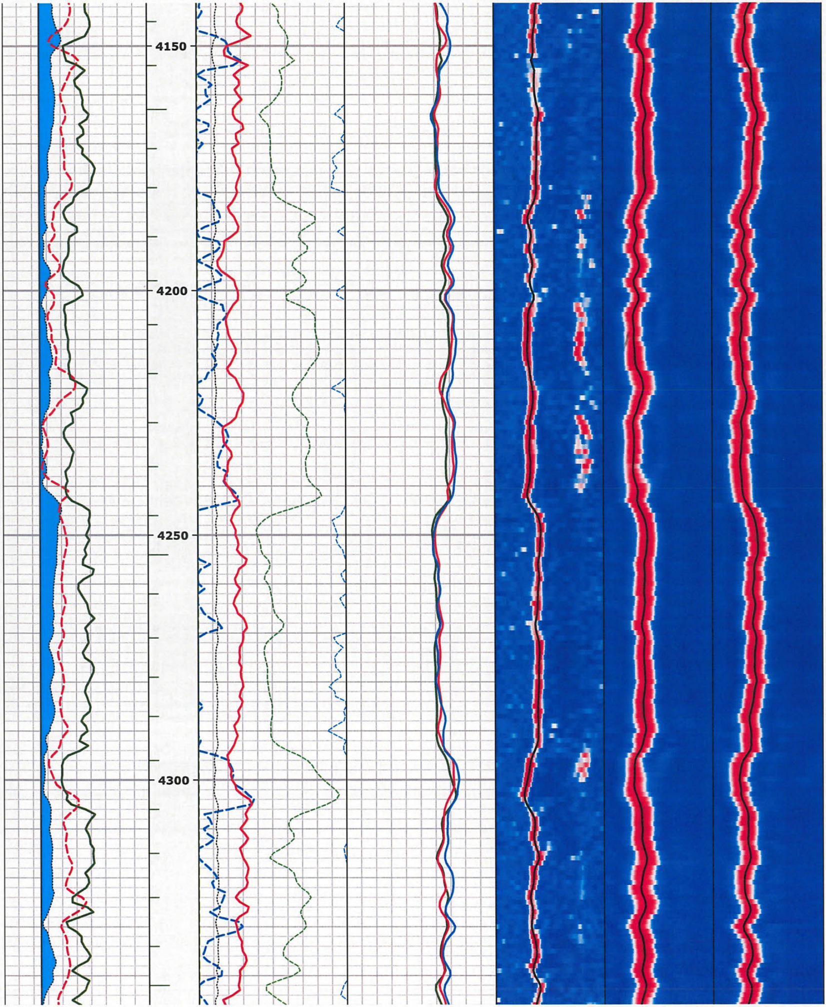


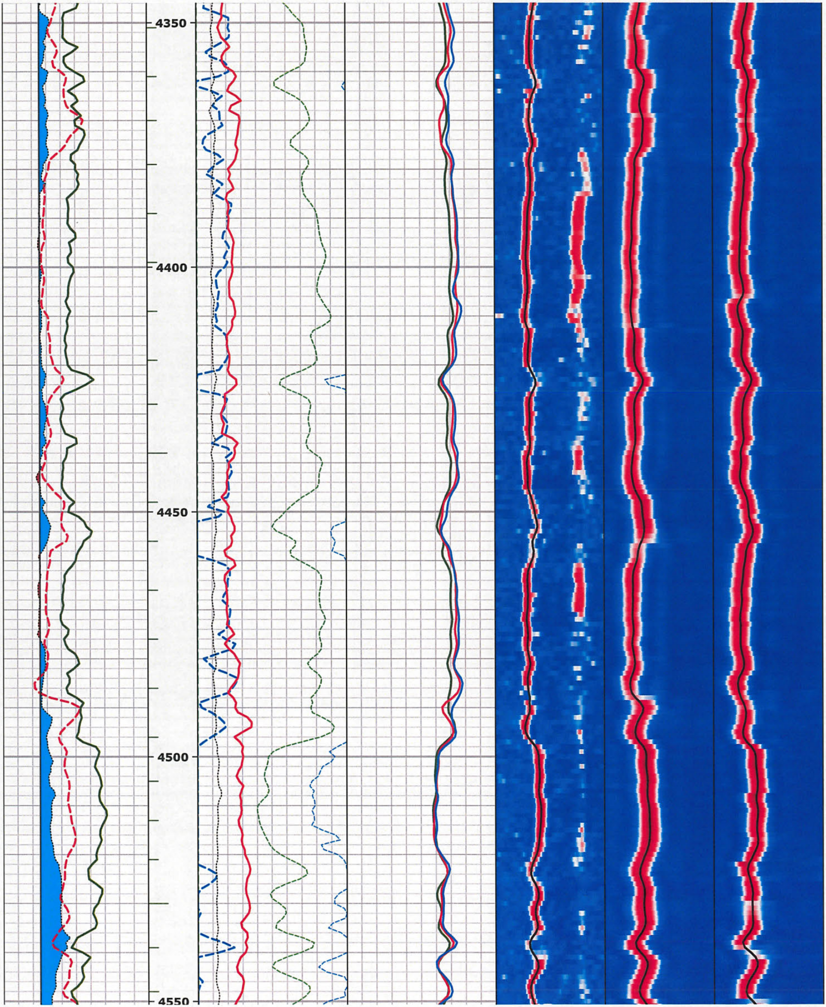


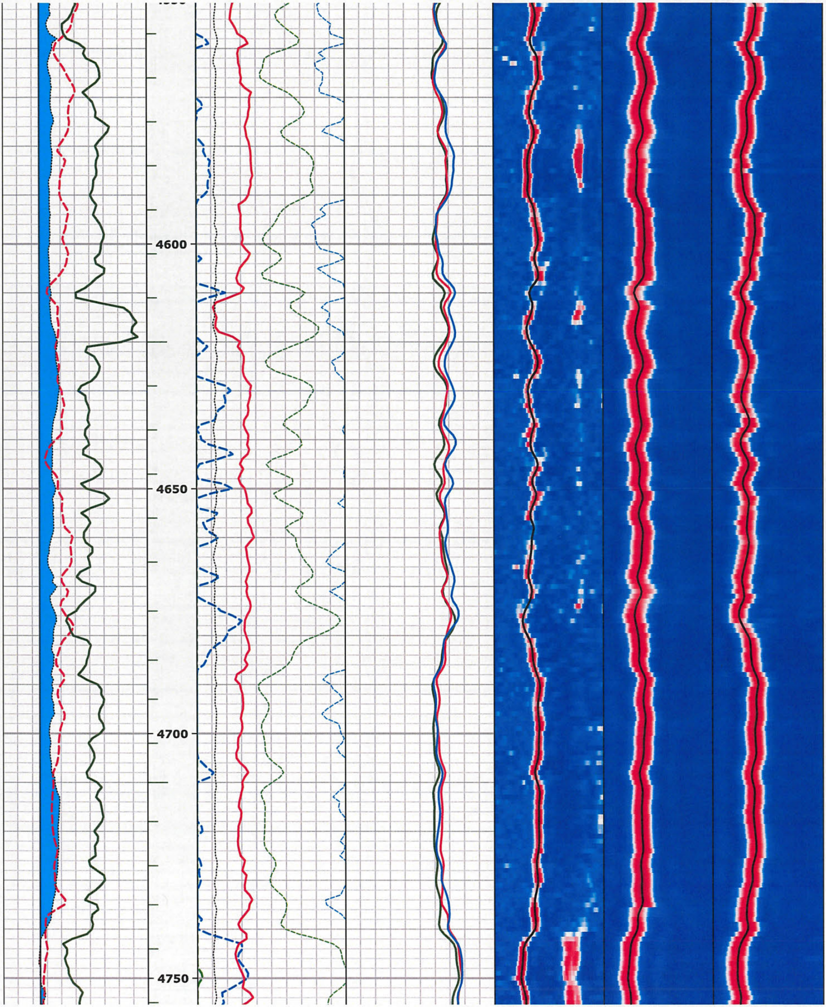


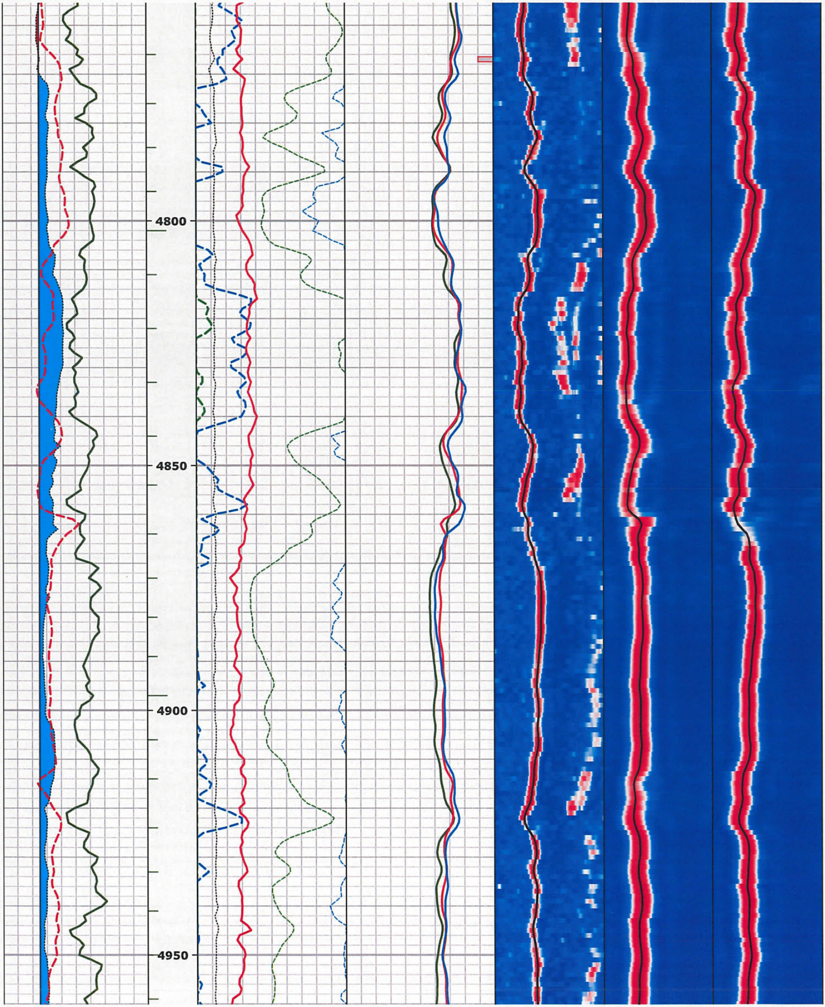


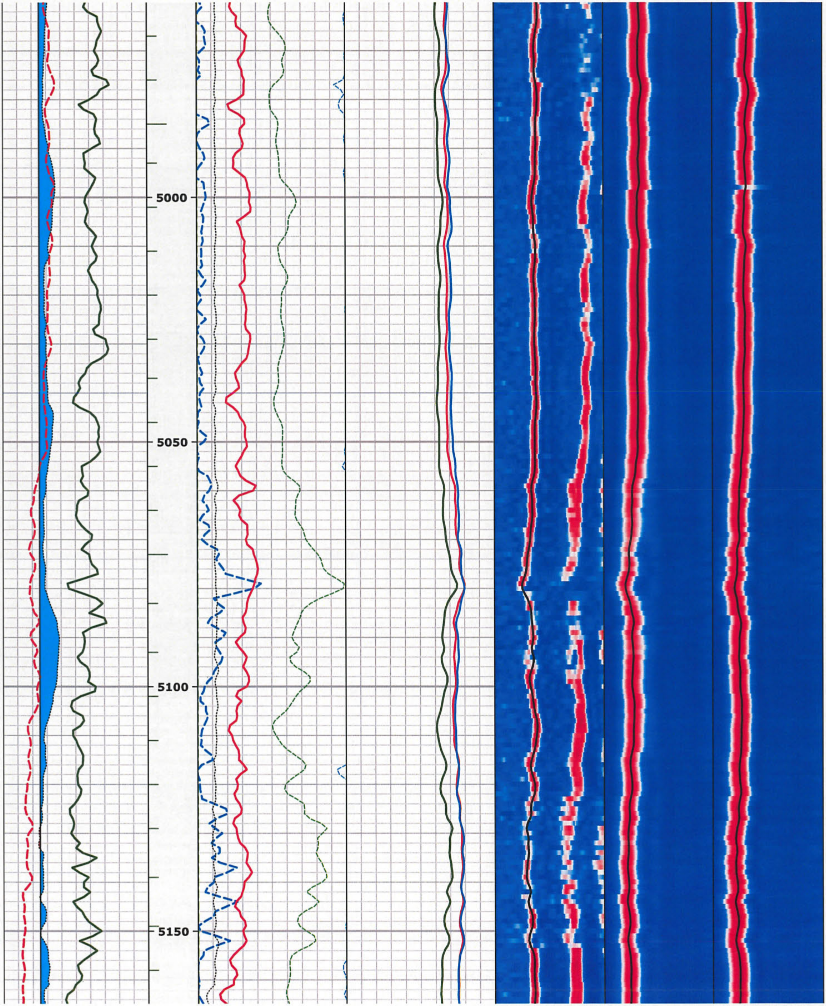


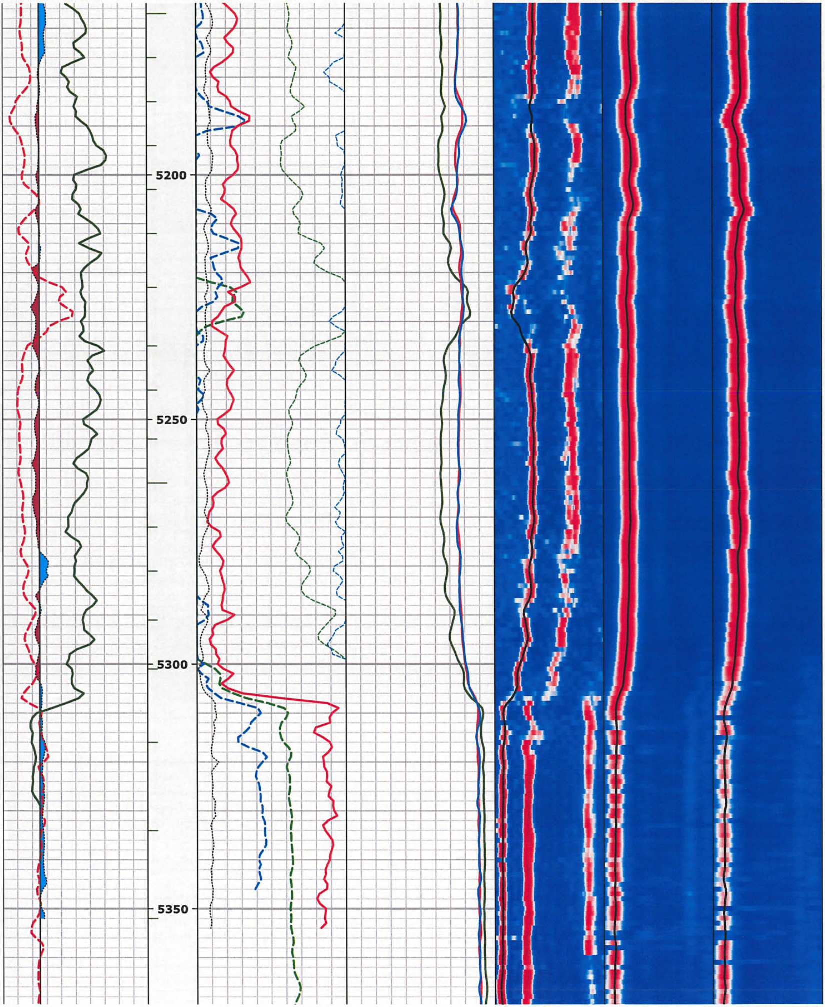


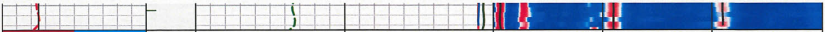












Mudcake / Washout						
Gamma Ray		Bulk Density Correction	Semblance Quality Flag			
0 gAPI 150		-0.1 g/cm3 0.9				
Density Caliper	ITT	Density Porosity	YY Shear Slowness			
6 in 16		2 G/C3 3	640 us/ft 40			
Bit Size		Neutron Porosity	XX Shear Slowness	Semblance	Semblance	Semblance
6 in 16		0.3 V/V -0.1	640 us/ft 40	0.00 1.00	0.00 1.00	0.00 1.00
Velocity Ratio	Referenc (ft) 1:240	Sonic Porosity	Compressional Slowness	Compressional DT	XX Shear DT	YY Shear DT
1.4 none 3.4		0.3 -0.1	240 us/ft 40	40 us/ft 240	40 us/ft 440	40 us/ft 440
Auxiliary Curves		Porosity	Slowness Curves	Monopole Semblance	XX Dipole Semblance	YY Dipole Semblance

Company	ALTA MESA SERVICES LLC
Well	FALLON 1-10
Field	WILDCAT
State/Province	IDAHO
UWI/API	11-075-20032

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DUAL SHEAR SEMBLANCE