



MIDWEST WIRELINE

**SIDEWALL NEUTRON /
DENSITY POROSITY**

Company BNL Enterprise
Well Jackson #31 SENW 3054
Field
County Las Animas
State Colorado

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Field
County Las Animas State Colorado

Location: 2071 FNL & 3324 FEL
API #: 05-071-09943
Other Services
DIL
Permanent Datum SEC 31 TWP 30S RGE 54W
Log Measured From Kelly Bushing Elevation 5583
Drilling Measured From Kelly Bushing
K.B. 5587
D.F.
G.L. 5583

Date	2/28/2025						
Run Number	One						
Type Log	SWN / CDL						
Depth Driller	1210						
Depth Logger	1210						
Bottom Logged Interval	1208						
Top Logged Interval	0						
Type Fluid In Hole	Air						
Salinity, PPM CL							
Density							
Level							
Max. Rec. Temp. F							
Operating Rig Time	4 Hours						
Equipment -- Location	P-24 HAYS						
Recorded By	D. Schmidt						
Witnessed By	Peter Kondrat						
Borehole Record							
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	0	38	9.625	36	0	38
Two		38	1074	7	20	0	1074
Three	6.125	1074					
Casing Record							

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

Kim, Co
West to Co Rd 179,
11.3 North, 0.15 East, 0.4 North,
East into

Log Measured From: Kelly Bushing 4 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

Your Pioneer Energy Services Crew		This Log Record Was Witnessed By	
Engineer: D. Schmidt	Operator:	Primary Witness: Peter Kondrat	Secondary Witness:
Operator:	Operator:	Secondary Witness:	Secondary Witness:
Operator:		Secondary Witness:	

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	9.50		GR-M&W (102)	3.00	3.50	50.00
			CDL-M&W (307-25)	8.50	4.00	250.00
LSD DCAL SSD	2.35 2.33 1.85					

Dataset: b&l_jackson 31.db: field/well/cdl/pass3
 Total length: 11.50 ft
 Total weight: 300.00 lb
 O.D.: 4.00 in

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	15.50		GR-M&W (102)	3.00	3.50	50.00
LGRD	11.00		LGRD-M&W (177) Simlec Long Guard	4.00	3.50	40.00
SCAL	5.10		SWN-M&W-SP (701)	10.50	4.00	190.00
SWN	4.45					
SP	0.20					

Dataset: b&I_jackson 31.db: field/well/rag/pass3
 Total length: 17.50 ft
 Total weight: 280.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\b&l_jackson 31.db
 Dataset field/well/dil/pass2/_vars_

Top - Bottom

BOREID in 6.125	BOTTEMP degF 100	CASEOD in 7	CASETHCK in 0	FLUIDDEN g/cc 0	MATRXDEN g/cc 2.68	NPORSEL Sandstone	PERFS No
SNDERR mmho/m 2.5	SNDERRM mmho/m 0	SPSHIFT mV 0	SRFTEMP degF 60	SZCOR Off	TDEPTH ft 1210		

Variable Description

BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 FLUIDDEN : Fluid Density
 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

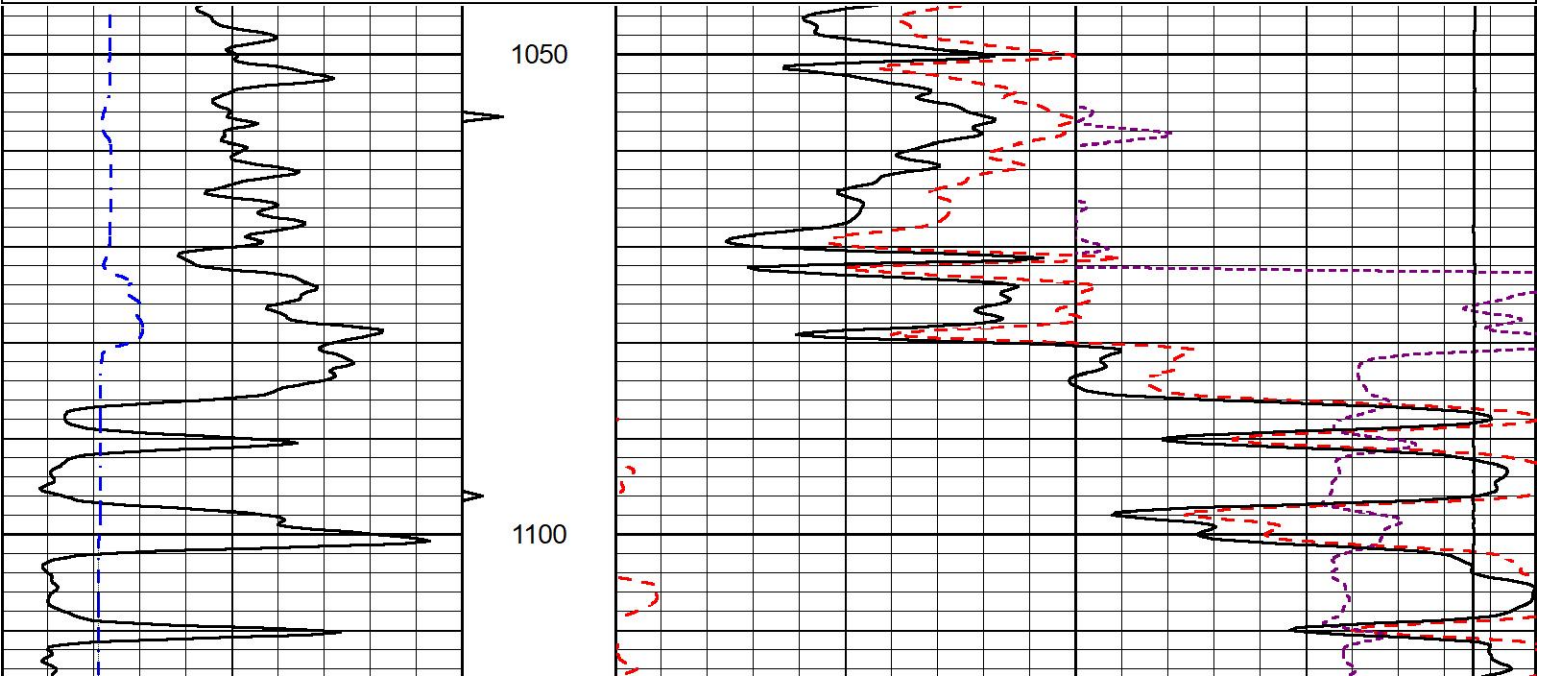


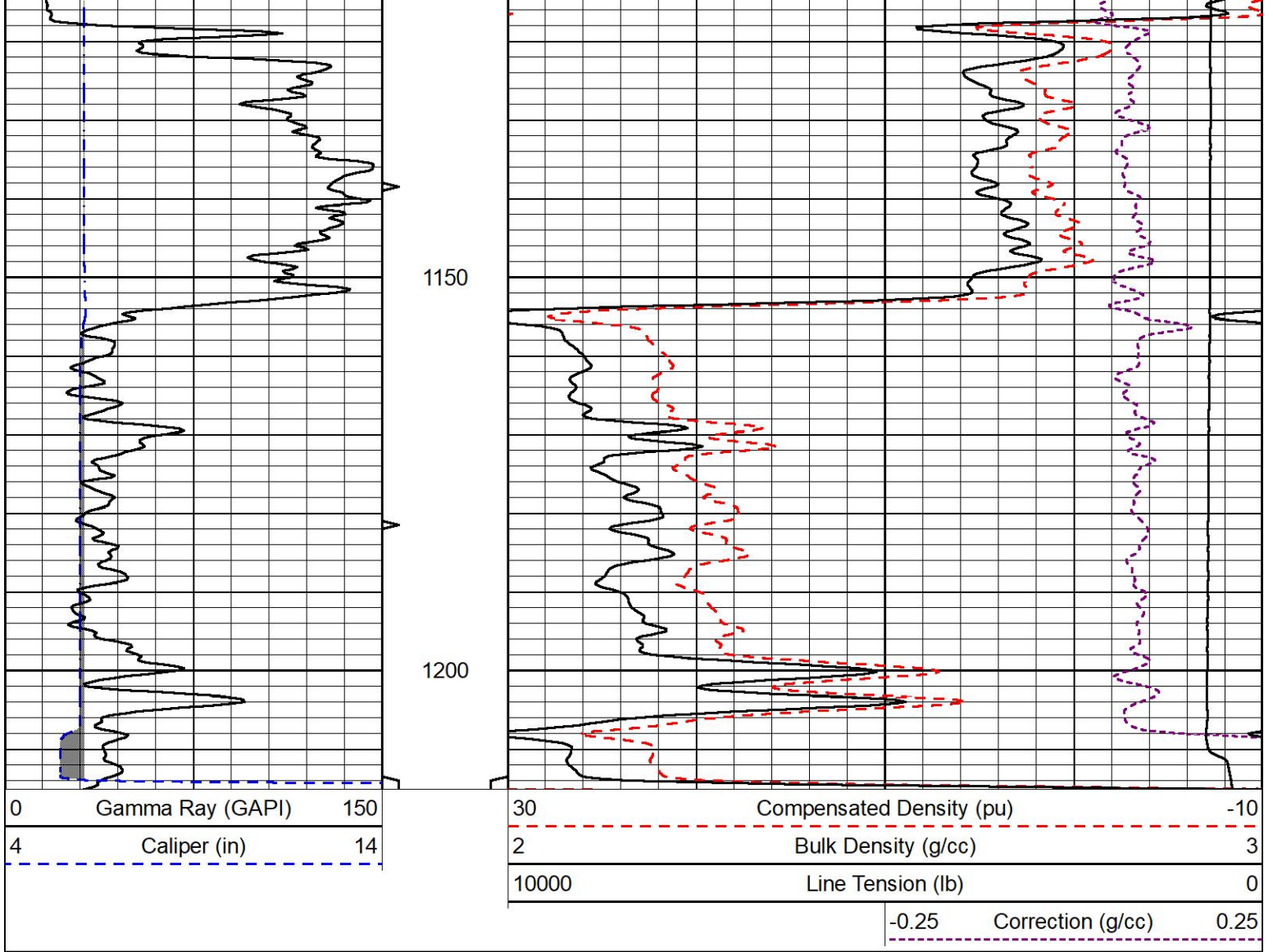
5" SCALE BULK DENSITY

MAIN PASS

Database File b&l_jackson 31.db
 Dataset Pathname dil/pass2.2
 Presentation Format _cdl
 Dataset Creation Fri Feb 28 13:20:23 2025
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	30	Compensated Density (pu)	-10
4	Caliper (in)	14	2	Bulk Density (g/cc)	3
			10000	Line Tension (lb)	0
				-0.25 Correction (g/cc)	0.25



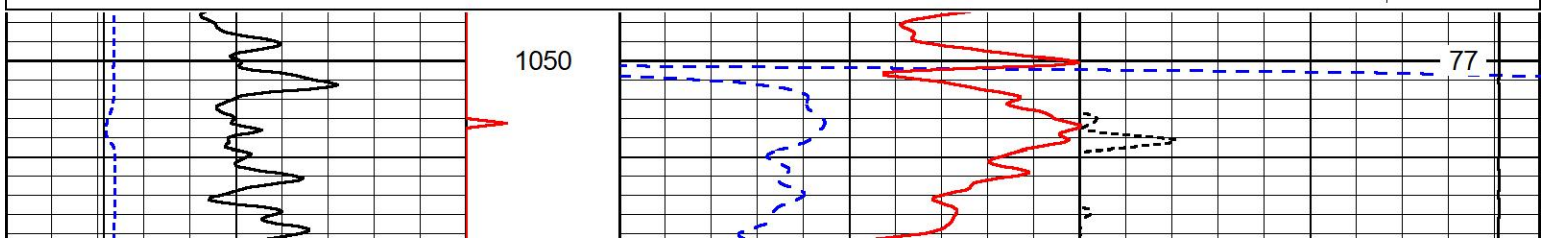
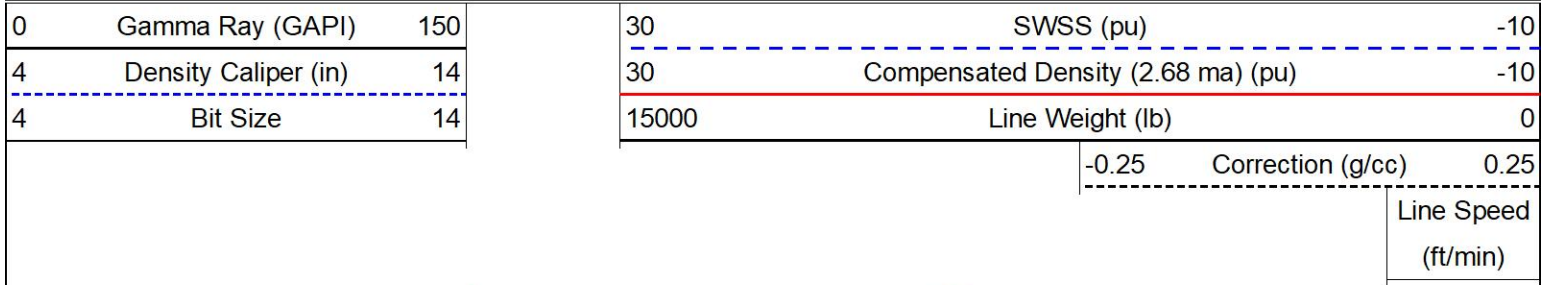


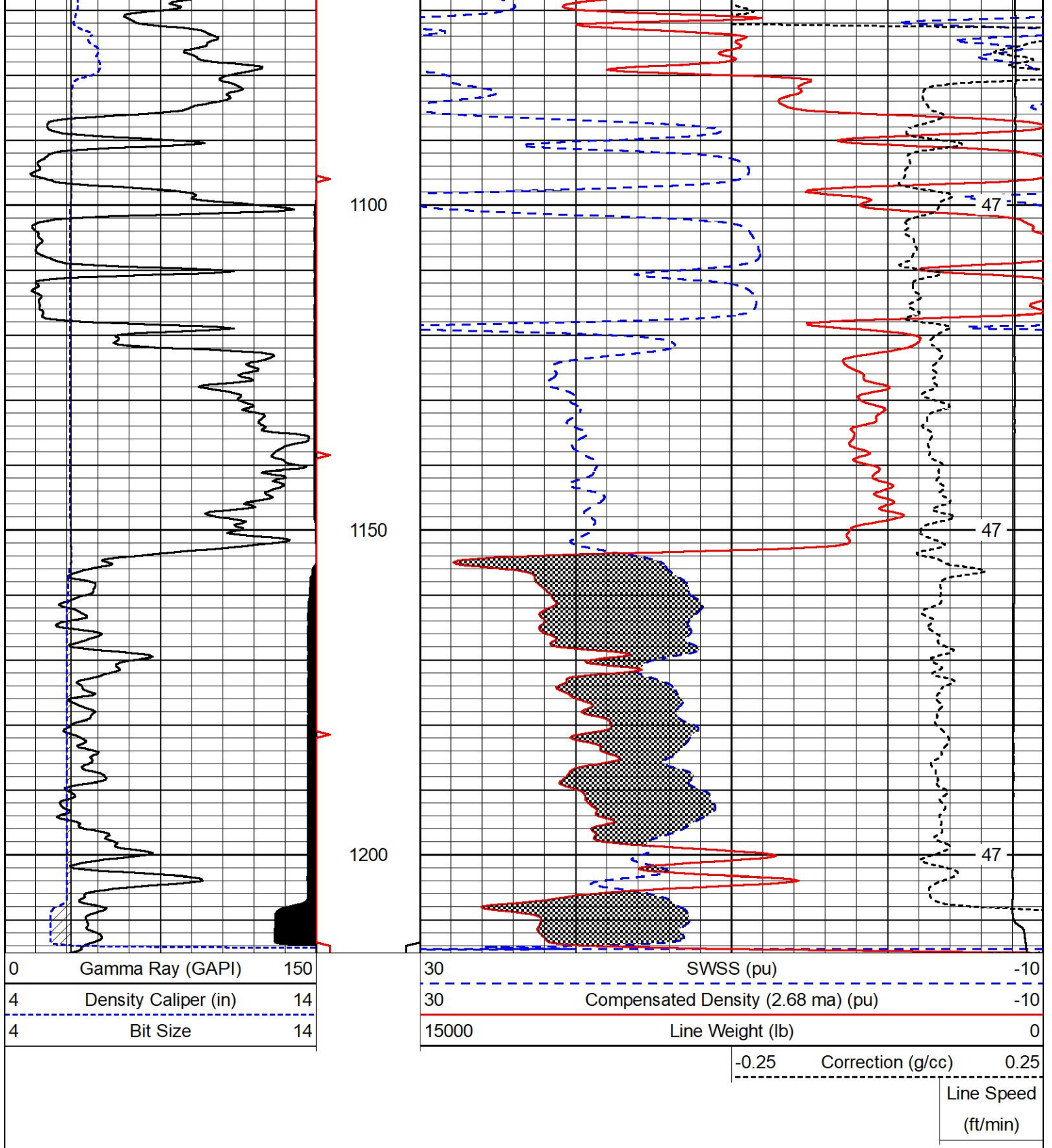
MIDWEST WIRELINE

DETAIL SECTION

MAIN PASS

Database File b&l_jackson 31.db
 Dataset Pathname dil/pass2
 Presentation Format swncdl
 Dataset Creation Fri Feb 28 10:37:15 2025
 Charted by Depth in Feet scaled 1:240





MIDWEST WIRELINE

REPEAT SECTION

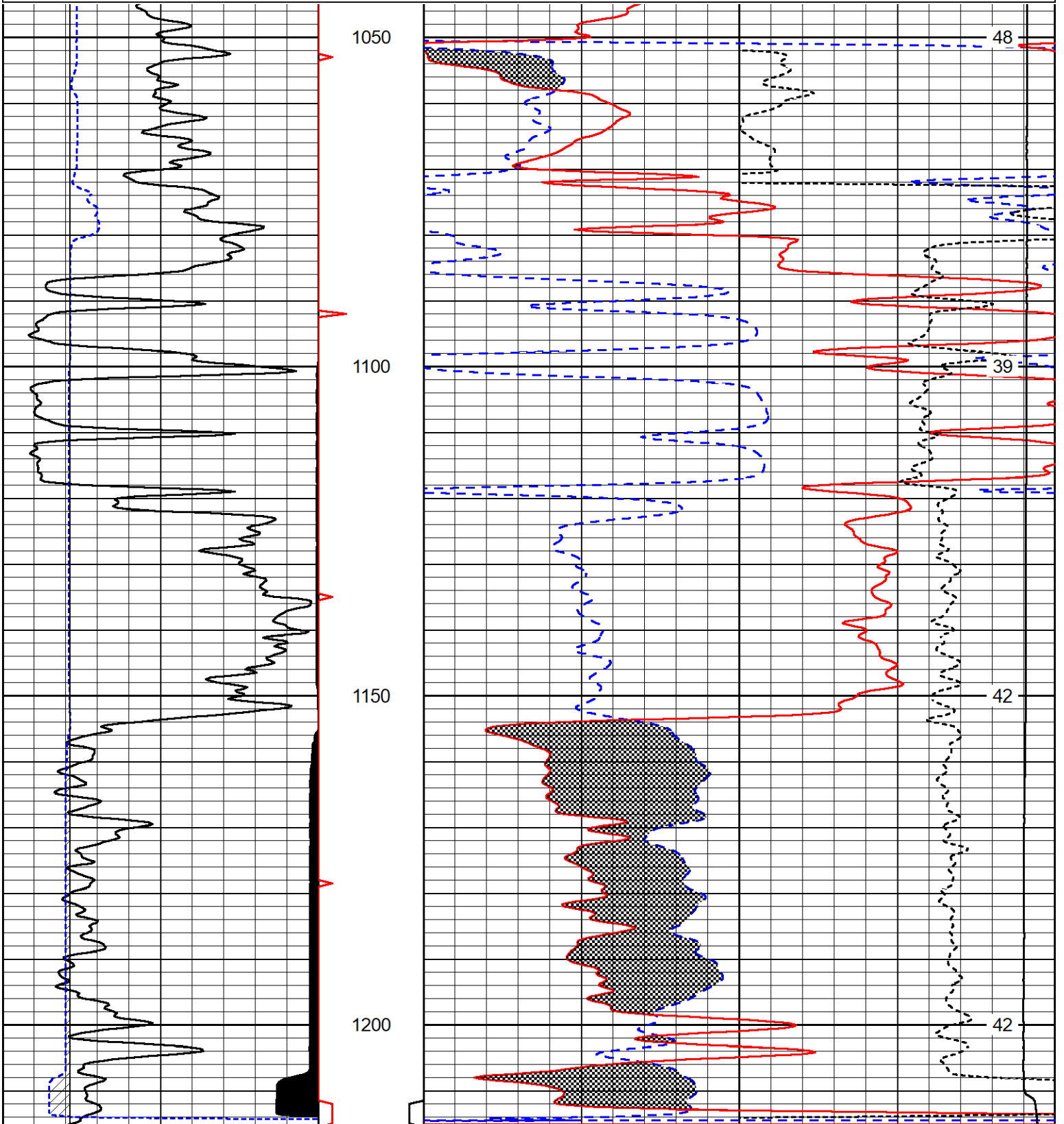
REPEAT PASS

Database File b&I_jackson 31.db
 Dataset Pathname dil/pass1.1
 Presentation Format swncdl
 Dataset Creation Fri Feb 28 13:04:47 2025
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
4	Density Caliper (in)	14
4	Bit Size	14

30	SWSS (pu)	-10
30	Compensated Density (2.68 ma) (pu)	-10
15000	Line Weight (lb)	0

-0.25	Correction (g/cc)	0.25
		Line Speed (ft/min)



0	Gamma Ray (GAPI)	150
4	Density Caliper (in)	14
4	Bit Size	14

30	SWSS (pu)	-10
30	Compensated Density (2.68 ma) (pu)	-10
15000	Line Weight (lb)	0

-0.25	Correction (g/cc)	0.25
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Calibration Report

Database File b&I_jackson 31.db
 Dataset Pathname cdl/pass3
 Dataset Creation Fri Feb 28 12:23:22 2025

Compensated Density Calibration Report

Serial-Model: 307-25-M&W
 Source / Verifier: 77782B / 2ci
 Master Calibration Performed: Thu Sep 5 12:41:28 2024
 Before Survey Verification Performed:
 After Survey Verification Performed:

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.680	g/cc	5469.44	6716.35	cps
Aluminum	2.570	g/cc	1182.63	4474.79	cps
Spine Angle = 75.15			Density/Spine Ratio = 0.562		
	Size		Reading		
Small Ring	6.00	in	1.16		
Large Ring	18.00	in	1.01		

Gamma Ray Calibration Report

Serial Number: 102
 Tool Model: M&W
 Performed: Mon Sep 25 22:02:33 2023

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.5250 GAPI/cps

Calibration Report

Database File b&I_jackson 31.db
 Dataset Pathname rag/pass3
 Dataset Creation Fri Feb 28 11:47:48 2025

Sidewall Neutron Calibration Report

Serial Number: 701
 Tool Model: M&W-SP

SWN Calibration Thu Sep 27 19:55:51 2012

Readings	Target	Normalization
2566.42 cps	1085.00 cps	0.4100

Caliper Calibration Thu Sep 27 19:55:51 2012

Readings	Reference	Gain	Offset
0.90	4.00	-13.50	16.10
0.21	14.00		

Gamma Ray Calibration Report

Serial Number:	102	
Tool Model:	M&W	
Performed:	Mon Sep 25 22:02:33 2023	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.5250	GAPI/cps



MIDWEST WIRELINE

Company	BNL Enterprise
Well	Jackson #31 SENW 3054
Field	
County	Las Animas
State	Colorado