RELIANCE
OILFIELD SERVICES

Pulsed Neutron Gamma Ray Casing Collar Log

Company	TEP Rocky Mountain LLC
Well	Ware SR 424-12
Field	Rulison
County	Garfield
State	Colorado

Company TEP Rocky Mountain LLC
Well Ware SR 424-12
Field Rulison
County Garfield State Colorado
Location: API # : 05-045-23450
SEC 12 TWP 7S RGE 94W
Other Services
RBL

Permanent Datum	Ground Level	Elevation	7479'	Elevation
Log Measured From	Kelly Bushing	24 FT		K.B. 7503' D.F. 7502'
Drilling Measured From	Kelly Bushing			G.L. 7479'

Date	19-FEB-2018
Run Number	Two
Depth Driller	9666 FT
Depth Logger	9596 FT
Bottom Logged Interval	9589 FT
Top Log Interval	5531 FT
Open Hole Size	8.750"
Type Fluid	Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	---
Estimated Cement Top	---
Time Well Ready	---
Time Logger on Bottom	---
Equipment Number	---
Location	Grand Junction, CO
Recorded By	Z. Fisher
Witnessed By	---

Borehole Record				Tubing Record		
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size (in)	Wgt (lbs/Ft)	Grade	Top	Bottom
Surface Casing	9 5/8	32.3	H-40	Surface	1104 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	9625 FT
Intermediate #2					
Liner					

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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

Log ran as per customer request
Depth referenced to Reliance Bond Log Dated 17-FEB-2018
Log ran from 9589 FT to 5531 FT
Pulsed Neutron Data logged with the Hunter RAS Tool

Thank you for choosing Reliance Oilfield Services, LLC!!

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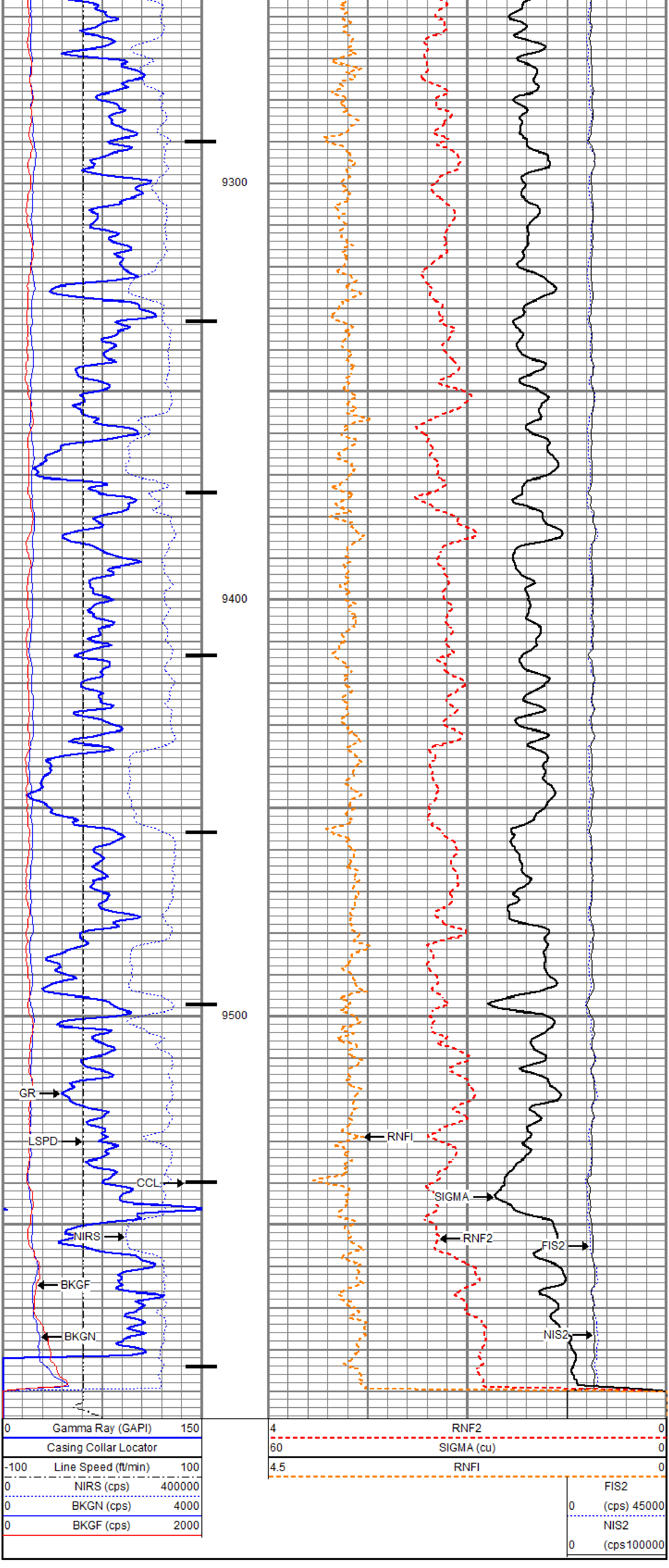
Main Pass

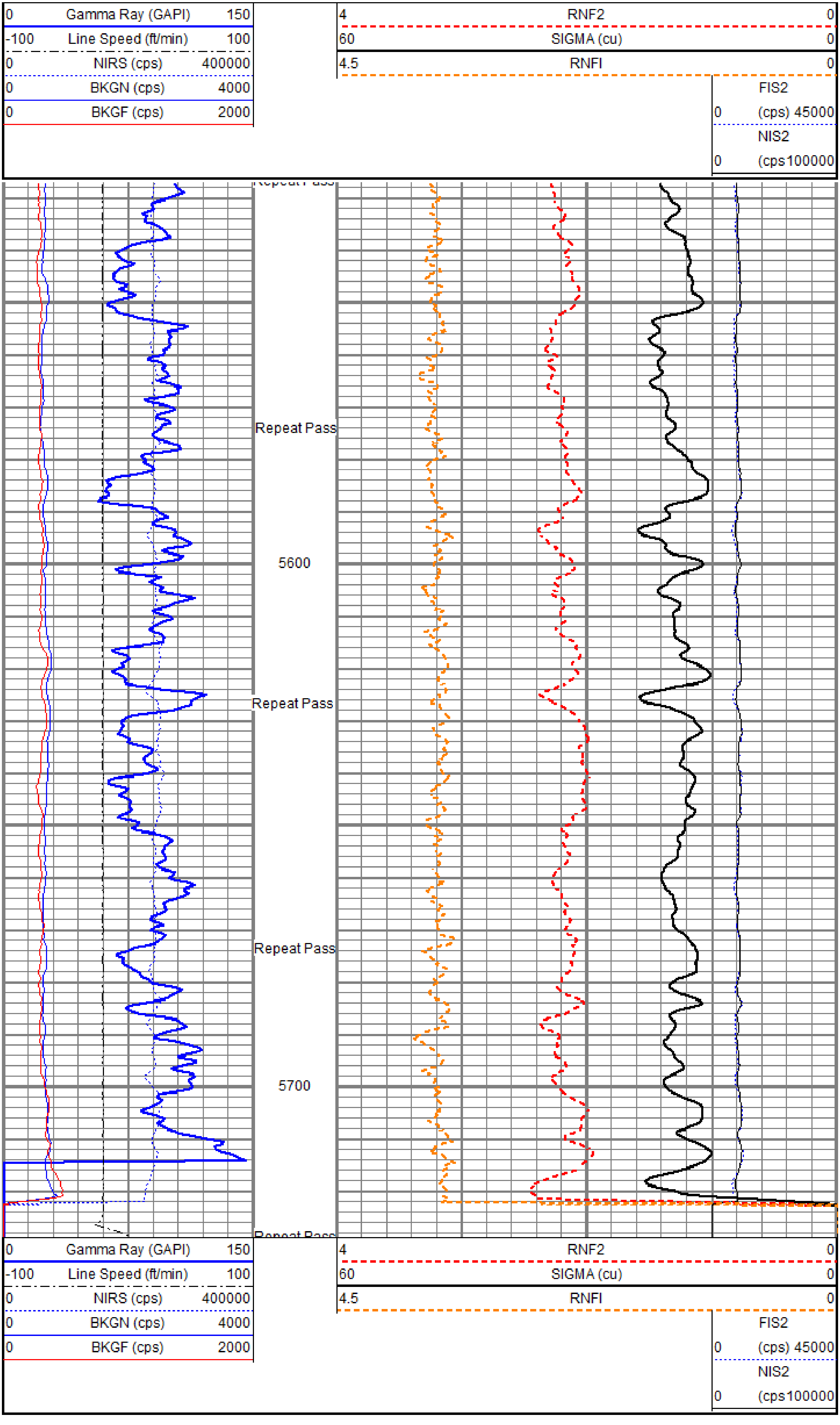
Database File	tep\sr 424-12\tep_ware sr 424-12_pn_02-18-18.db
Dataset Pathname	ware_sr_424-12_pn_main_shift
Presentation Format	ros_pdn_hunter
Dataset Creation	Thu Feb 22 10:30:14 2018
Charted by	Depth in Feet scaled 1:240

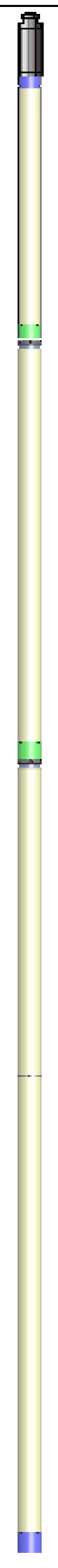
Min	Curve	Max
0	Gamma Ray (GAPI)	150
	Casing Collar Locator	
-100	Line Speed (ft/min)	100
0	NIRS (cps)	400000
0	BKGN (cps)	4000
0	BKGF (cps)	2000
4	RNF2	0
60	SIGMA (cu)	0
4.5	RNFI	0
0	FIS2 (cps)	45000
0	NIS2 (cps)	100000



Repeat Pass

Database File tep\sr 424-12\tep_ware sr 424-12_pn_02-18-18.db
Dataset Pathname repeat/ware_sr_424-12_pn_repeat_shift
Presentation Format ros_pdn_hunter
Dataset Creation Thu Feb 22 10:31:42 2018
Charted by Depth in Feet scaled 1:240



Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan_Electric_Cable_Heads-Titan_1-11/1 Electric Cable Head with 1" Fishing Neck	1.03	1.69	5.40
			Telemetry-Antares Antares Telemetry / Gamma / CCL	4.07	1.70	17.60
			Generator-Antares Antares Neutron Generator	19.03	1.70	85.80

Dataset: pdn tool.db: field/well/run1/PDN_Tool_Diagram
Total length: 24.13 ft
Total weight: 108.80 lb
O.D.: 1.70 in

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