



EXPRO

WELL FLOW MANAGEMENT™

Multifinger Caliper Analysis Report



Client: NAM
Well No.: ROSSUM-WEERSELO-5
Field: ROSSUM-WEERSELO
Country: Netherlands
Survey Date: 25th September 2023
Survey Type: Extended 24-Arm Caliper
Job ID: DAC880

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Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
Survey Date: 25/09/2023	Survey MFC-24 Extended	Job ID: DAC880



Pass no.	Survey Interval (m)	Data Quality	Notes
1	1259 to 0	Good	

Rev	Description	Author	Checked by
0	Report	5.1.2.e	5.1.2.e

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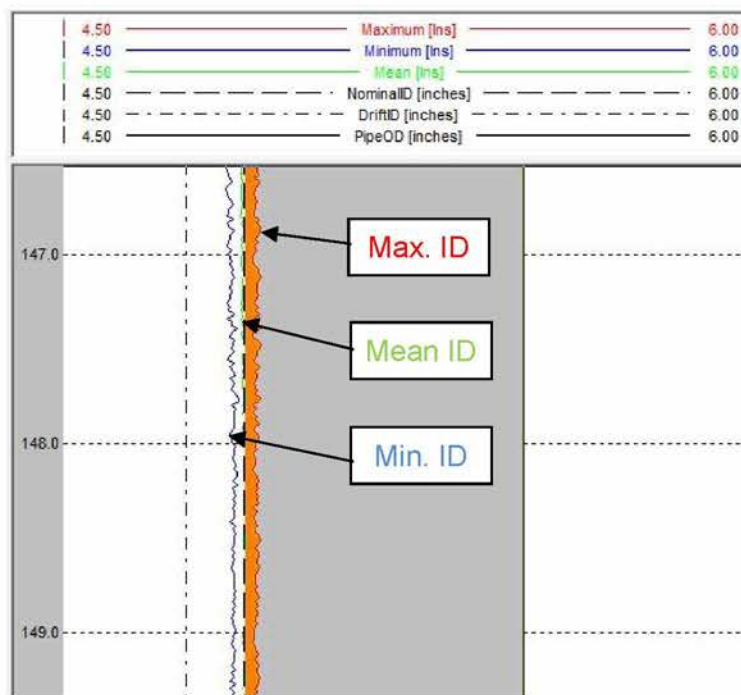
Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
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Definitions

Measured IDs

- Each caliper finger records a radius value at each depth sample. For the purposes of calculating metal loss, this value is multiplied by 2, creating an ID value which can be referenced against the nominal ID and OD of the tubular (all ID values quoted are 2* radius values unless otherwise indicated).
- When calculating restrictions within the tubular caused by features such as deposition or deformation, opposite arm radius values are combined to create an ID value.
- At each depth sample the Maximum ID, Minimum ID and Mean ID is recorded. These can then be plotted against the Drift ID and Nominal ID and OD.



Maximum Percentage Penetration

- The maximum percentage penetration is the maximum recorded radius x 2 value referenced against nominal ID and OD
- $$\text{Maximum percentage penetration} = 100 * \frac{\text{Max.ID} - \text{Nom.ID}}{\text{OD} - \text{Nom.ID}}$$

Maximum Percentage Circumferential Wall Loss

- The maximum percentage circumferential wall loss is the sum of the areal metal loss at each depth sample with reference to nominal ID and OD
- $$\left(\frac{100}{N}\right) * \sum_{i=1}^{i=N} (Si^2 - \text{Nom.ID}^2) \div (\text{OD}^2 - \text{Nom.ID}^2)$$
- N: is the number of caliper sensors on the tool, 24, 40, 60.
- Si: is the measured radius value x 2 for each arm.

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Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
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1. Survey Objectives and Interpretation Summary

Survey Objectives

An extended 24-arm memory multifinger caliper was run to determine the general condition of the tubing and casing within the ROSSUM-WEERSELO-5 well.

Data Analysis

This report highlights the main findings of the analysis. However, for a more detailed view of the tubing condition, the accompanying deliverables (which include the tool data and the MIPS client viewer) can be used to inspect the completion on a joint-by-joint basis.

Processing:

- Centralised
- Depth corrected – to well completion depths, MD in metres
- Recalibrated to remove minor individual arm drift
- Statistical analysis applied

Interpretation Summary

- The 5", 15 lb/ft tubing, 4", 10.9 lb/ft tubing and short surveyed interval of 7", 32 lb/ft casing all appear to be in good condition overall, with no clear evidence of any significant metal loss or damage.
- Time-lapse analysis shows only minor potential change between surveys.

Statistical Data Summary	2023	2022	2021	2020	2019	T.L. Max Difference
Maximum % Penetration	22.3 %	20.4 %	29.2 %	26.7 %	20.2 %	9.0 %
Maximum Penetration Depth	1118.00 m	1124.18 m	1134.81 m	1134.76 m	1128.54 m	-
Average Maximum % Penetration	12.3 %	15.0 %	10.8 %	14.9 %	12.9 %	4.2 %
Maximum % Circumferential Wall Loss	14.0 %	12.1 %	16.1 %	16.9 %	13.7 %	4.0 %
Maximum % Circumferential Wall Loss Depth	1171.69 m	788.71 m	1134.81 m	1134.76 m	1128.54 m	-
Average Recorded Mean ID	4.472 inches	4.413 inches	4.548 inches	4.383 inches	4.320 inches	0.228 inches
Average Maximum % Circumferential Wall Loss	4.9 %	7.3 %	3.4 %	7.2 %	5.3 %	3.9 %
Survey Interval	1259 to surface	1130 to surface	1351 to surface	1151 to surface	1136 to surface	-

Note: All values from statistical analysis are based on the maximum, minimum and mean IDs per tubing or casing joint
Note: Caliper measurement tolerance is 0.03"

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2. Data Interpretation

5", 15 lb/ft Tubing Condition

- The 5", 15 lb/ft tubing appears to be in good condition overall, with all 89 joints logged found to contain maximum recorded percentage penetration values below 18% of the nominal wall thickness, averaging 12% (see Figure 1, Section 3 & Max. Percentage Penetration per Joint vs. Depth Plot, Section 4).
- There is no clear evidence of any significant metal loss or damage within the 5", 15 lb/ft tubing. Furthermore, the average mean recorded ID of 4.426" remains somewhat close the manufacturer specified nominal ID of 4.408" (see Measured ID per Joint vs. Depth Plot, Section 4).
- The minimum recorded ID within the 5", 15 lb/ft tubing was 4.210" at 185.68 m. This relates to what appears to be a small, localised area of deposition or loose well debris (see Figures 2 & 3, Section 3).

4", 10.9 lb/ft Tubing Condition

- The 4", 10.9 lb/ft tubing appears to be in good condition overall, with all 6 joints logged found to contain maximum recorded percentage penetration values below 23% of the nominal wall thickness, averaging 16.3% (see Figure 4, Section 3 & Max. Percentage Penetration per Joint vs. Depth Plot, Section 4).
- There is no clear evidence of any significant metal loss or damage within the 4", 10.9 lb/ft tubing, with toolstring decentralisation effects above and below SPMs responsible for most slightly higher than expected IDs. Furthermore, the average mean recorded ID of 3.498" remains somewhat close the manufacturer specified nominal ID of 3.476" (see Measured ID per Joint vs. Depth Plot, Section 4).
- There are no clear signs of any significant deposition or restrictions within the 4", 10.9 lb/ft tubing, and none of the recorded IDs fall below the manufacturer specified drift ID of 3.351".

7", 32 lb/ft Casing Condition

- The surveyed interval of 7", 32 lb/ft casing appears to be in good condition overall, with all 6 joints logged found to contain maximum recorded percentage penetration values below 20% of the nominal wall thickness, averaging 12.5% (see Figure 5, Section 3 & Max. Percentage Penetration per Joint vs. Depth Plot, Section 4).
- The maximum recorded ID within the surveyed interval of 7" casing was 6.271" (equivalent to a 19.5% penetration) at 1175.75 m. This relates to a joint with a significantly higher overall ID throughout than any other surrounding joints. It is possible that this may simply be a joint of a lower weight, such as 29 lb/ft (see Figures 6 & 7, Section 3).
- There are no clear signs of any significant deposition or restrictions within the 7", 32 lb/ft casing, and none of the recorded IDs fall below the manufacturer specified drift ID of 5.969".

Time-lapse Analysis

- 24-arm caliper surveys have been performed previously within this well by Expro. Time-lapse analysis has been performed by comparing data from surveys conducted on the 14th of November 2019, 12th of November 2020, 26th of June 2021 and 29th of November 2022 with data from the current 2023 survey to give a 5-survey overview (see Time-lapse Plots, Section 4).

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- The 7" casing condition cannot be consistently compared between surveys as this was only surveyed in 2021 and 2023. However, based on these two surveys, it does not appear that the condition has changed significantly.
- It does not appear that there has been any drastic change in the general condition of the 5" or 4" tubing between 2019 to 2023. The plotted curves overlay fairly consistently and show a very similar profile and features. Any variation can most likely be attributed to differences in tool, tool calibration and the rotational path of the toolstring throughout the survey. Nevertheless, there are no clear signs of any severe metal loss present in any of the surveys.

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3. Caliper Graphics

Figure 1: 5", 15 lb/ft Tubing Overview

Figure 2: Minimum Recorded ID Within 5", 15 lb/ft Tubing

Figure 3: Minimum Recorded ID Within 5", 15 lb/ft Tubing (Cross-Section)

Figure 4: 4", 10.9 lb/ft Tubing Overview

Figure 5: 7", 32 lb/ft Casing Overview

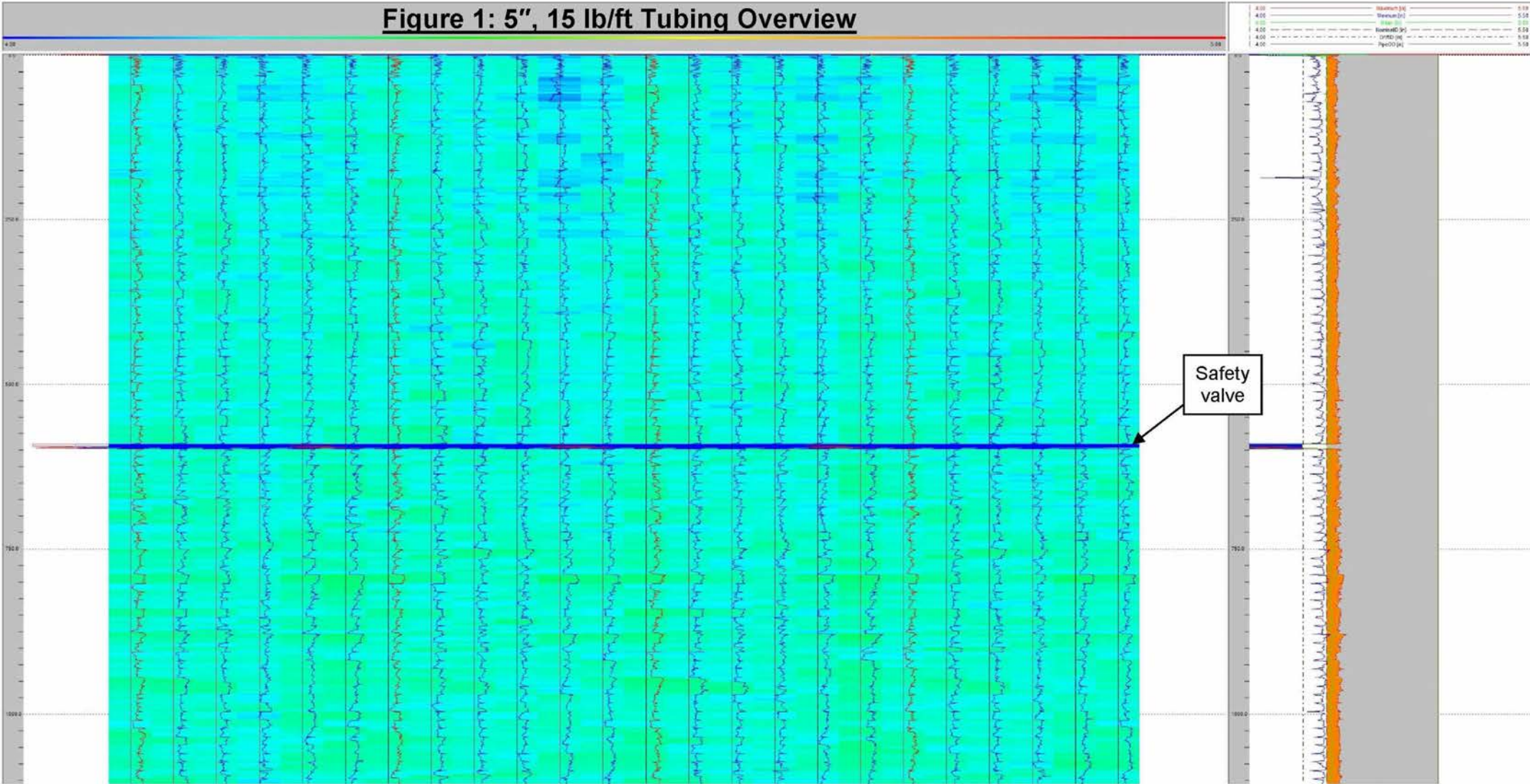
Figure 6: Maximum Recorded ID Within 7", 32 lb/ft Casing

Figure 7: Maximum Recorded ID Within 7", 32 lb/ft Casing (Cross-Section)

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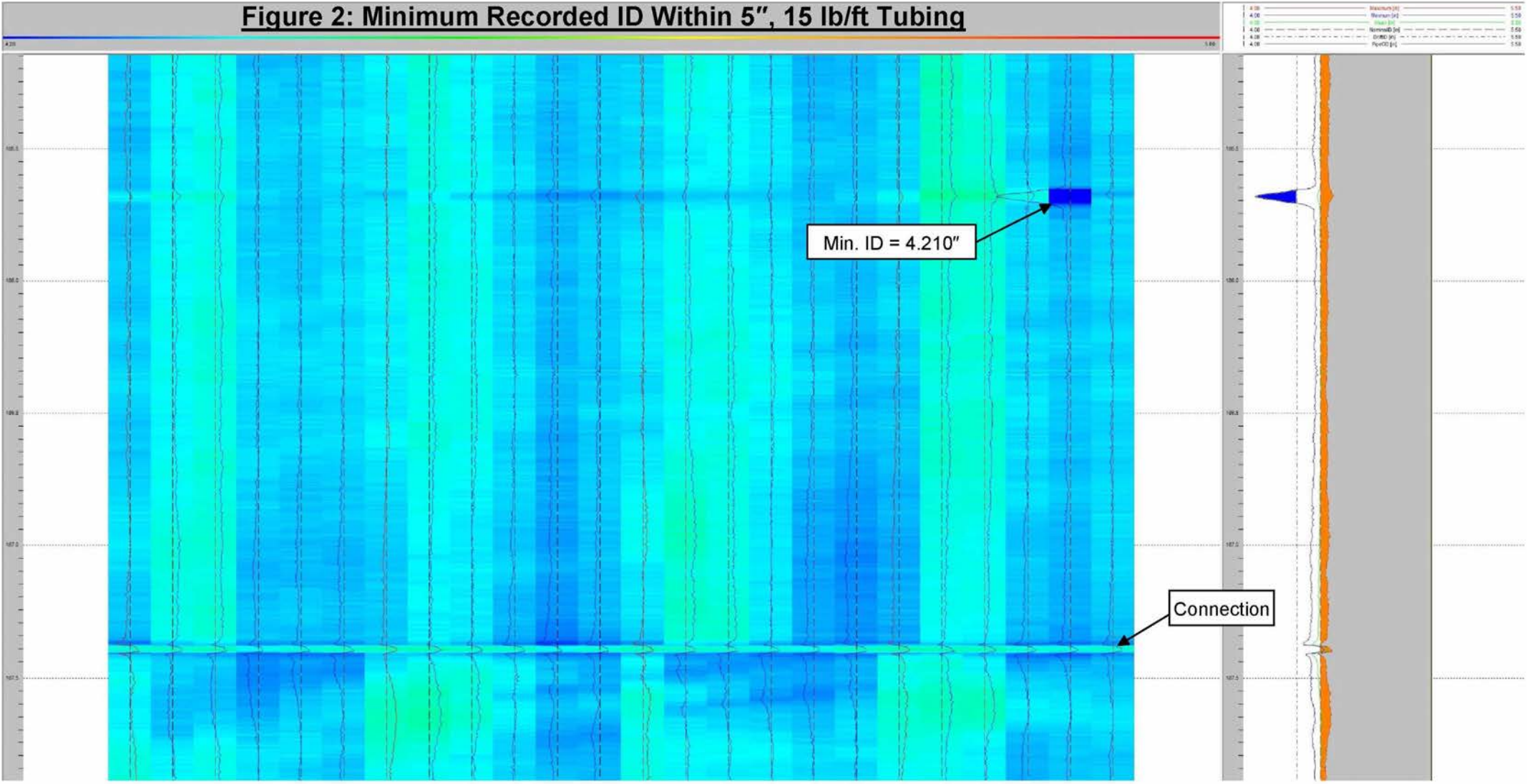
Figure 1: 5", 15 lb/ft Tubing Overview



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Figure 2: Minimum Recorded ID Within 5", 15 lb/ft Tubing

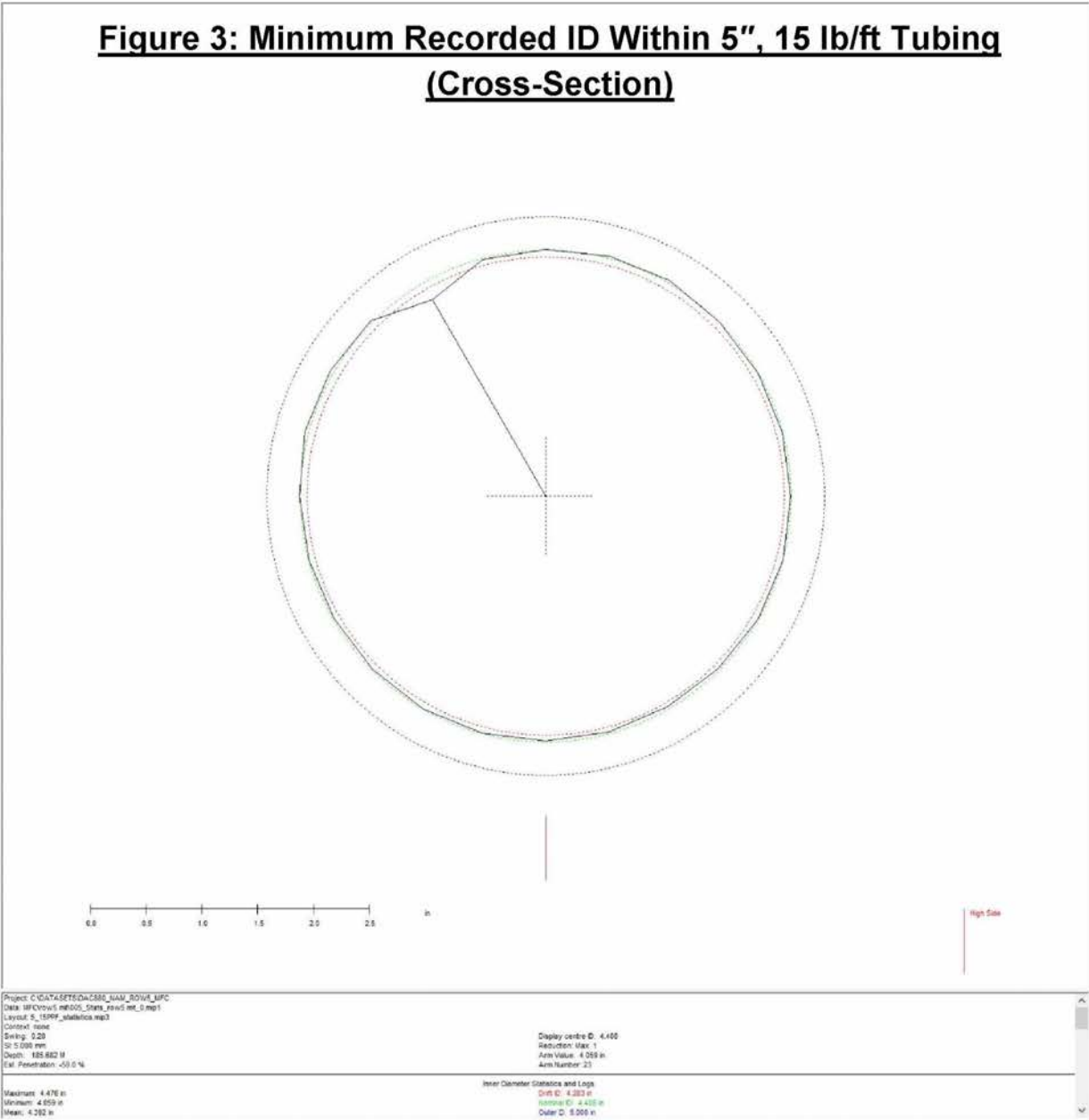


4.20	Minimum [in]	5.50
4.20	Maximum [in]	5.50
0.20	Wall [in]	0.20
4.20	Normalized ID	5.50
4.20	DIWD [in]	5.50
4.20	Perfor [in]	5.50

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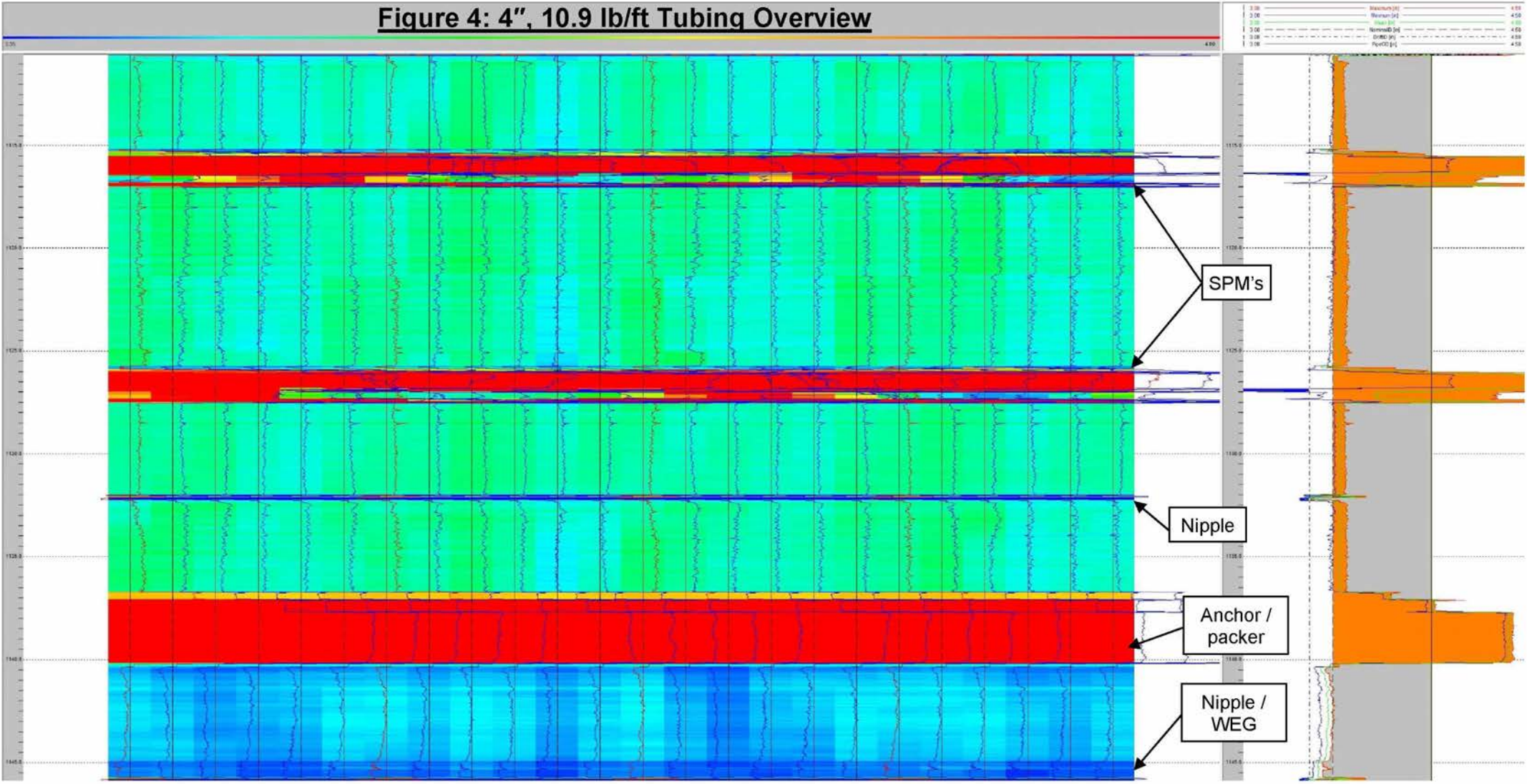
**Figure 3: Minimum Recorded ID Within 5", 15 lb/ft Tubing
(Cross-Section)**



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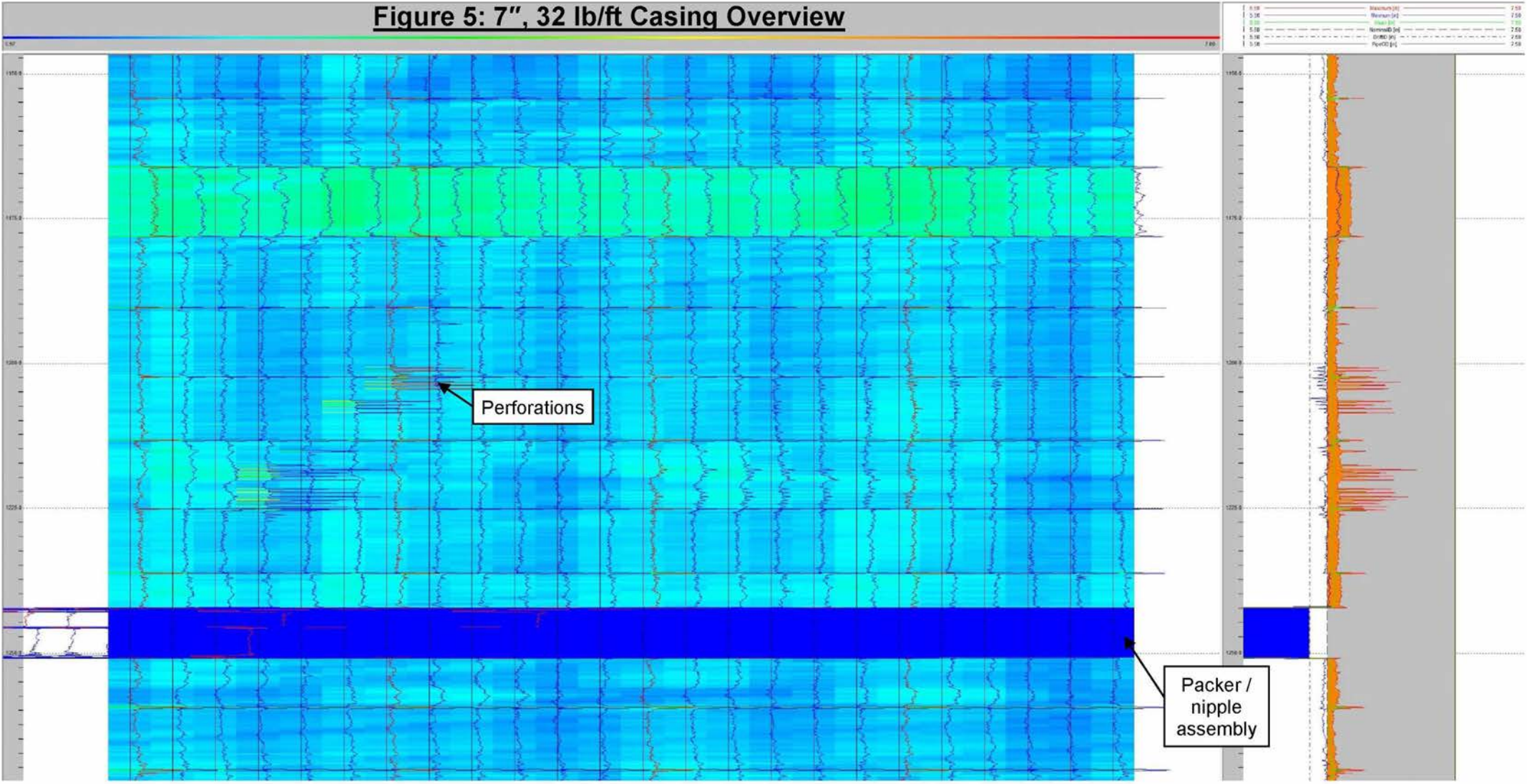
Figure 4: 4", 10.9 lb/ft Tubing Overview



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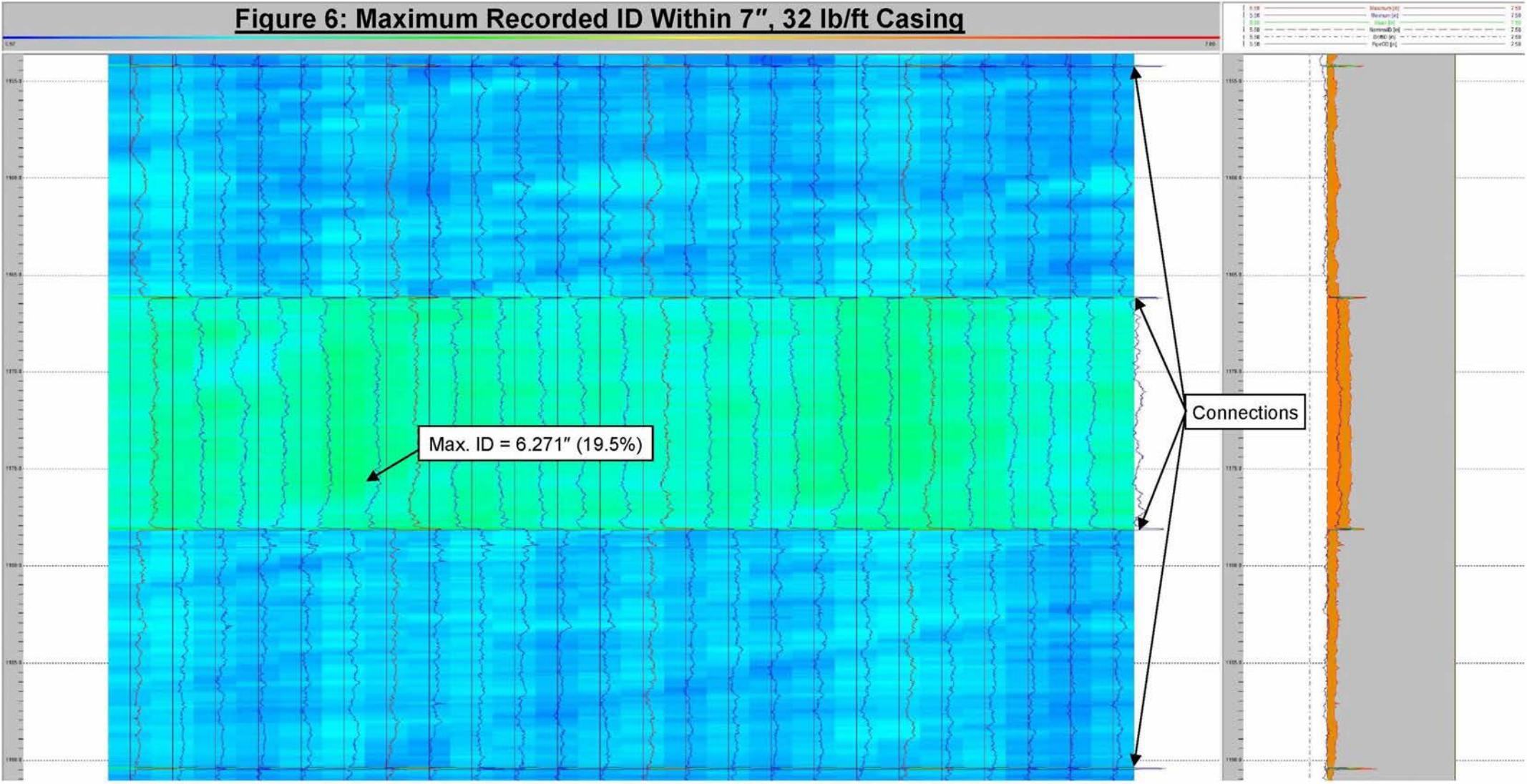
Figure 5: 7", 32 lb/ft Casing Overview



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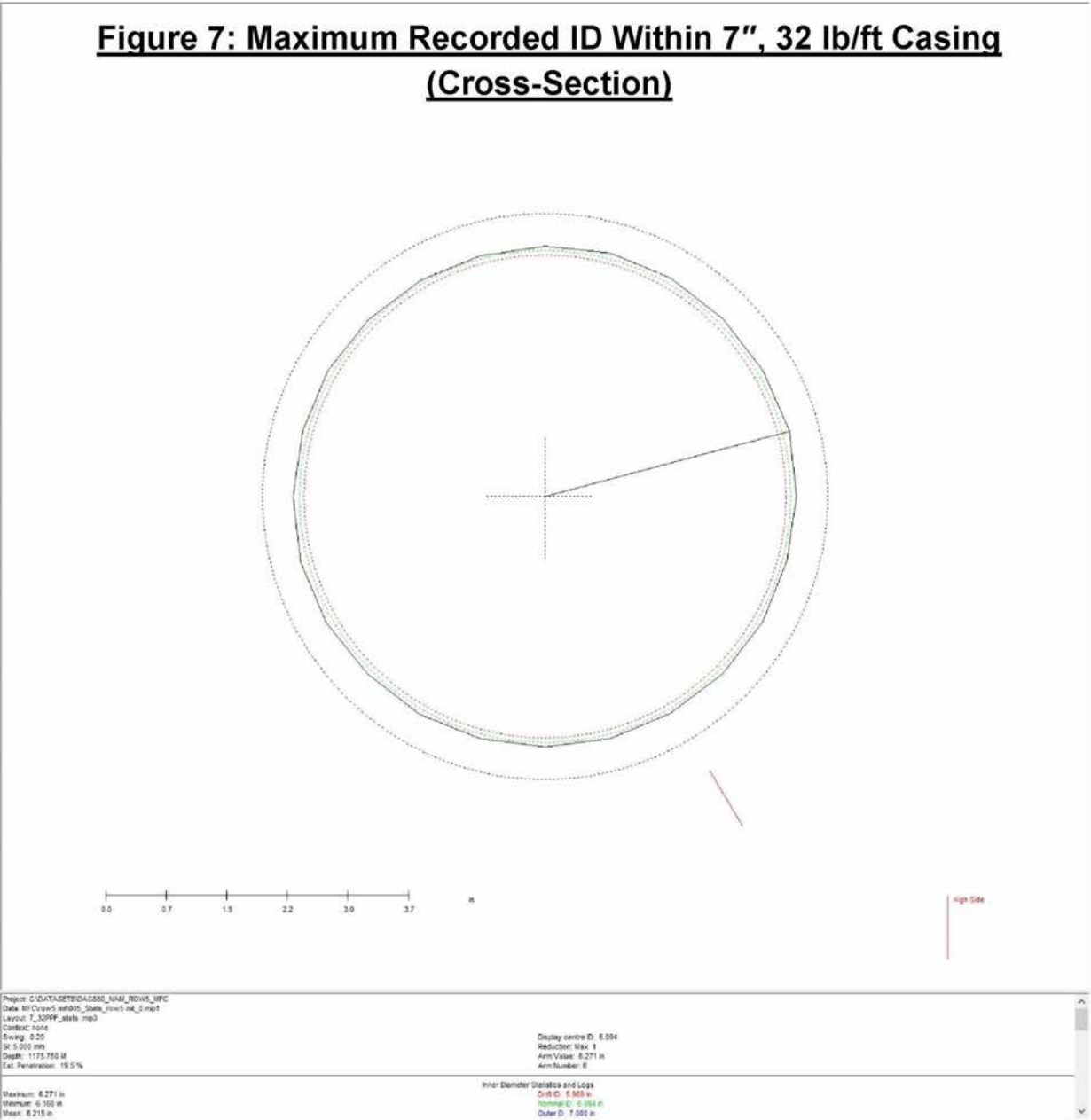
Figure 6: Maximum Recorded ID Within 7", 32 lb/ft Casing



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**Figure 7: Maximum Recorded ID Within 7", 32 lb/ft Casing
(Cross-Section)**



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4. Statistical Analysis

Max. Percentage Penetration per Joint vs. Depth Plot

Max. Percentage Circumferential Wall Loss per Joint vs. Depth plot

Measured ID per Joint vs. Depth Plot

Tabulated Data

Time-lapse Percentage Penetration Histogram Plot

Time-lapse Max. Percentage Penetration per Joint vs. Depth Plot

Time-lapse Max. Percentage Circumferential Wall Loss per Joint vs. Depth Plot

Time-lapse Maximum ID per Joint vs. Depth Plot

Time-lapse Mean ID per Joint vs. Depth Plot

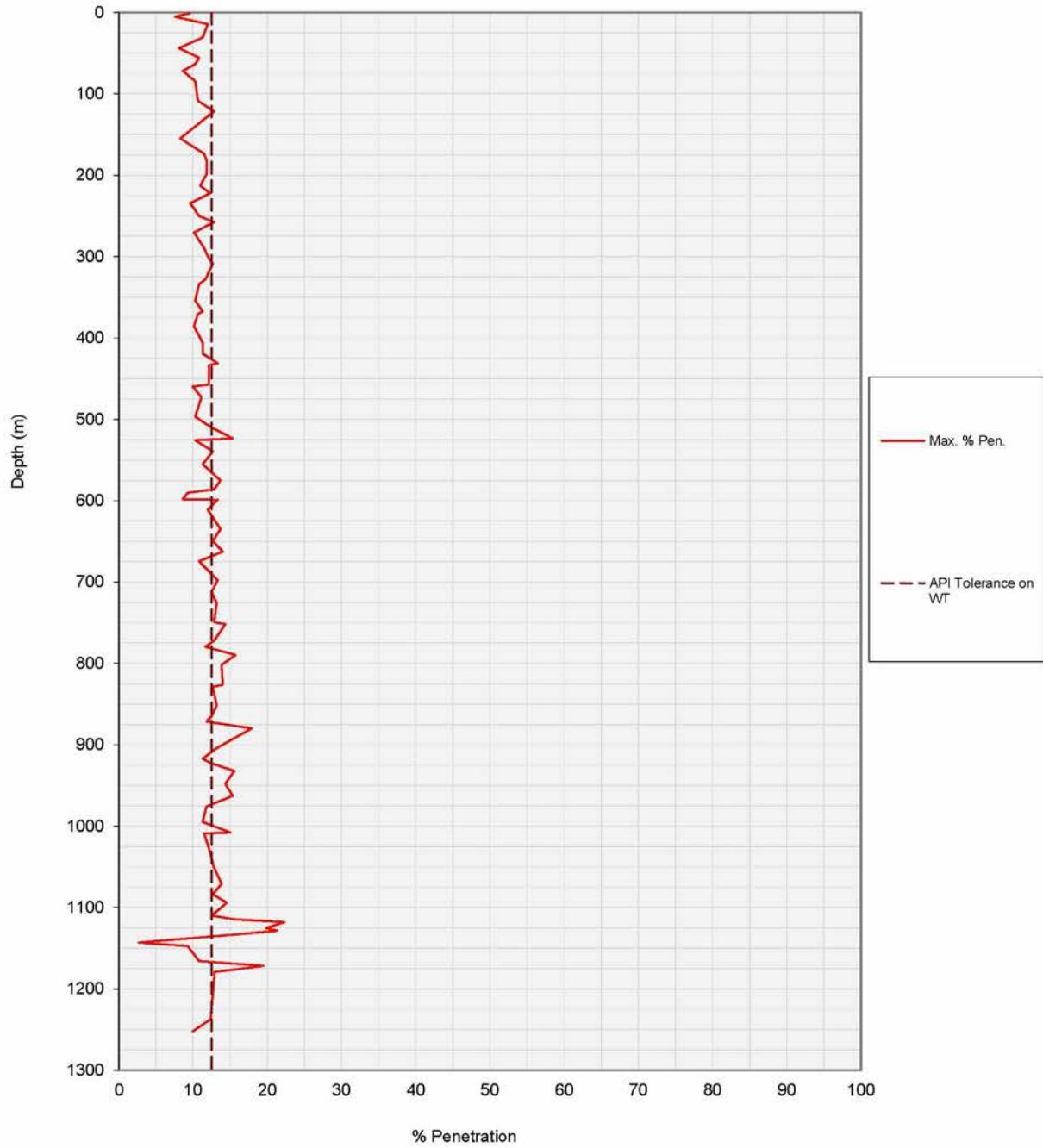
Time-lapse Minimum ID per Joint vs. Depth Plot

(Note: All values from statistical analysis are based on the maximum, mean & minimum recorded ID's from each tubing or casing joint)

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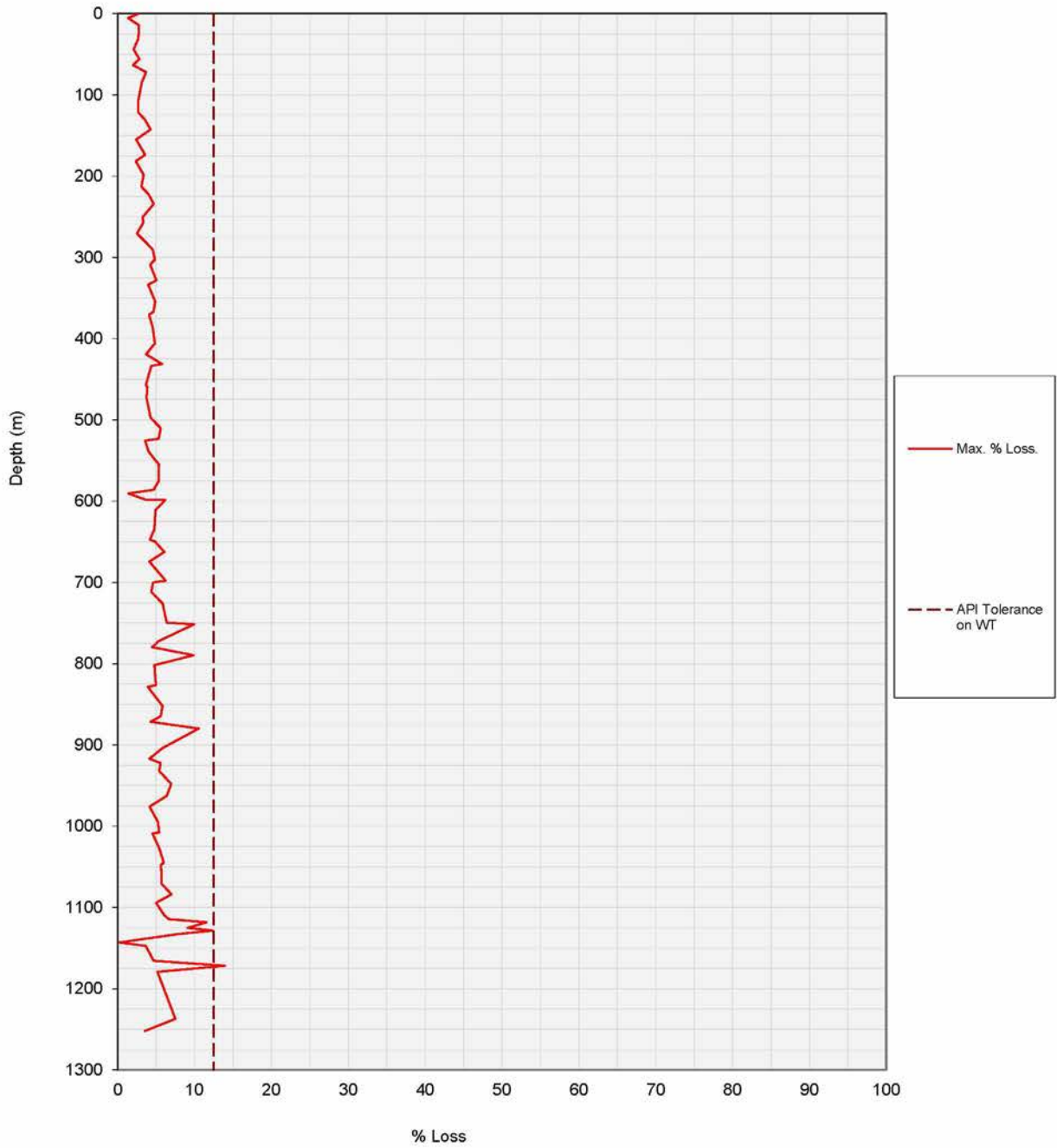
Max. Percentage Penetration per Joint vs. Depth Plot



Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
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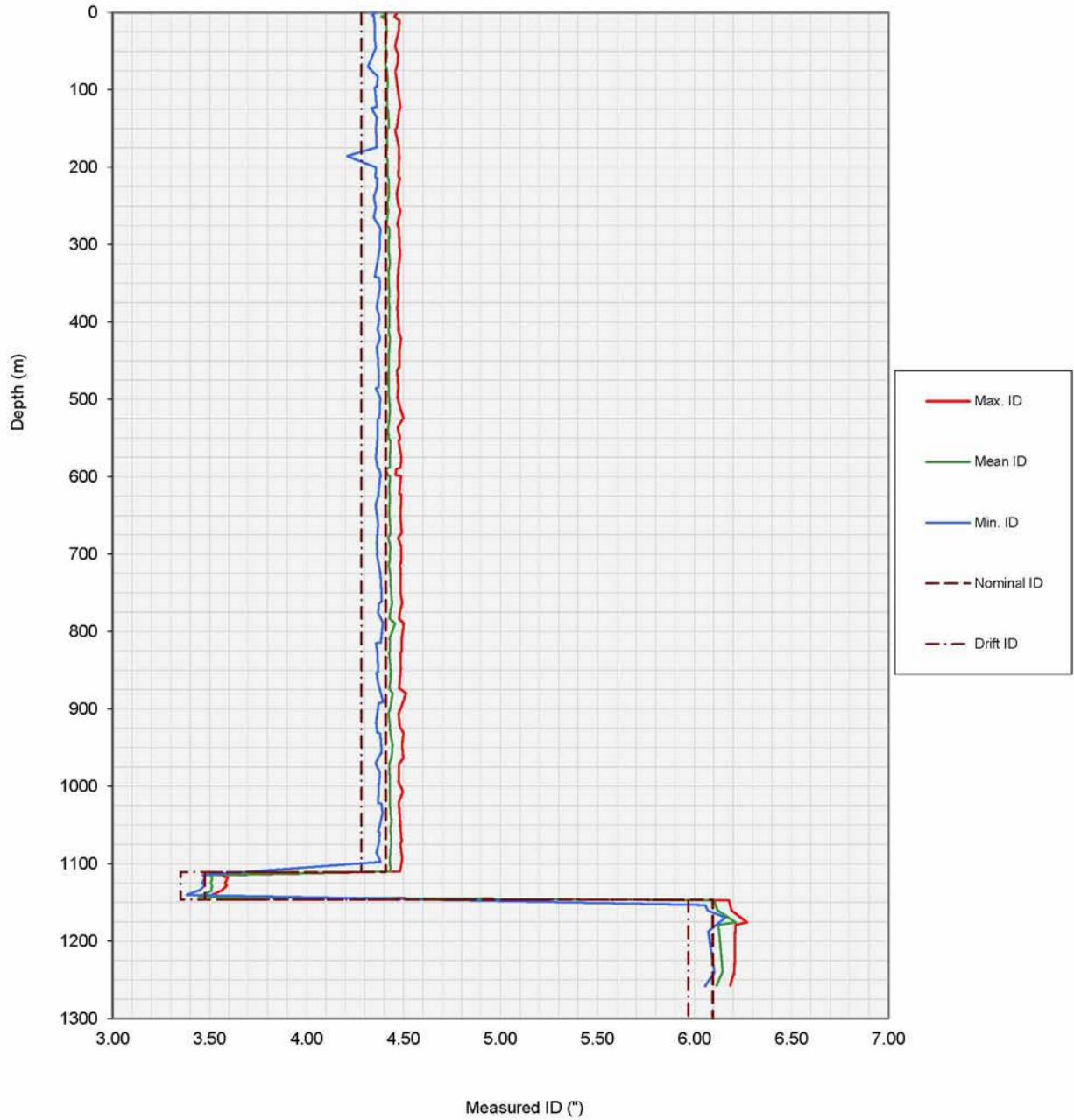
Max. Percentage Circumferential Wall Loss per Joint vs. Depth Plot



Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
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Measured ID per Joint vs. Depth Plot



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Client: NAM
Well: ROW-5

Survey Date: 25th September 2023

Tubulars Surveyed: 5", 15 lb/ft
4", 10.9 lb/ft
7", 32 lb/ft

Nom. ID: 4.408

Nom. ID: 3.476

Nom. ID: 6.094

Drift ID: 4.283

Drift ID: 3.351

Drift ID: 5.969

Nom. OD: 5.000

Nom. OD: 4.000

Nom. OD: 7.000

Max. % Penetration

Max. % Circumferential Loss

0 - 20%	20 - 40%	40 - 50%	50 - 100%
0 - 10%	10-20 %	20 - 25 %	25 - 100 %

Ref.	Top (m)	Bottom (m)	Length (m)	Max. ID (")	Dep. Max. (m)	Max. Pen. (%)	Max. Loss (%)	Min. ID (")	Dep. Min. (m)	Mean ID (")	Tubular OD (")	Completion Item
1	-7.97	-0.74	7.23	7.948	-4.24	-	-	3.946	-7.92	4.776	5.000	Hanger assembly
2	-0.48	1.76	2.24	4.465	1.44	9.6	2.6	4.362	-0.47	4.414	5.000	Pup joint
3	1.96	5.45	3.49	4.453	5.43	7.6	1.4	4.338	2.62	4.386	5.000	Pup joint
4	5.56	18.66	13.10	4.479	10.08	12.0	2.8	4.349	5.61	4.413	5.000	
5	18.75	31.67	12.92	4.475	24.76	11.3	2.7	4.353	19.23	4.414	5.000	
6	31.81	44.78	12.97	4.456	43.62	8.1	2.1	4.353	35.48	4.408	5.000	
7	44.94	57.28	12.34	4.472	54.56	10.8	2.8	4.357	45.59	4.415	5.000	
8	57.71	70.68	12.97	4.469	66.35	10.3	2.0	4.317	70.19	4.405	5.000	
9	70.96	83.27	12.32	4.459	76.24	8.6	3.7	4.367	82.81	4.416	5.000	
10	83.56	96.09	12.54	4.469	96.08	10.3	3.1	4.362	96.05	4.418	5.000	
11	96.43	109.29	12.86	4.471	99.69	10.6	2.7	4.353	96.80	4.415	5.000	
12	109.71	122.62	12.92	4.484	122.27	12.8	2.7	4.362	122.14	4.415	5.000	
13	122.90	135.73	12.83	4.477	127.75	11.7	3.6	4.335	123.38	4.420	5.000	
14	135.93	148.29	12.36	4.467	148.07	10.0	4.3	4.363	136.34	4.425	5.000	
15	148.56	161.49	12.93	4.457	152.22	8.3	2.4	4.358	149.08	4.415	5.000	
16	161.78	174.62	12.84	4.476	173.19	11.5	3.6	4.362	174.24	4.417	5.000	
17	174.91	187.32	12.41	4.478	185.68	11.8	2.3	4.210	185.68	4.411	5.000	
18	187.50	200.52	13.02	4.478	190.31	11.8	3.4	4.357	199.99	4.417	5.000	
19	200.74	213.77	13.03	4.473	211.86	11.0	3.1	4.356	213.24	4.418	5.000	
20	214.05	225.80	11.75	4.481	214.64	12.3	4.0	4.365	214.16	4.422	5.000	
21	226.08	237.83	11.76	4.465	234.26	9.6	4.7	4.362	226.48	4.425	5.000	
22	238.23	251.22	12.99	4.472	247.55	10.8	3.3	4.348	238.67	4.417	5.000	
23	251.49	264.46	12.97	4.484	256.50	12.8	3.3	4.357	251.89	4.421	5.000	
24	264.74	277.57	12.83	4.468	273.59	10.1	2.5	4.347	264.98	4.413	5.000	
25	277.70	290.74	13.04	4.476	278.84	11.5	4.6	4.380	278.73	4.427	5.000	
26	290.93	303.47	12.54	4.480	301.81	12.2	4.8	4.378	303.44	4.425	5.000	
27	303.89	316.51	12.62	4.483	312.94	12.7	4.2	4.371	316.36	4.426	5.000	
28	316.80	329.02	12.22	4.477	323.64	11.7	5.0	4.371	316.96	4.431	5.000	

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Ref.	Top (m)	Bottom (m)	Length (m)	Max. ID (")	Dep. Max. (m)	Max. Pen. (%)	Max. Loss (%)	Min. ID (")	Dep. Min. (m)	Mean ID (")	Tubular OD (")	Completion Item
29	329.30	341.99	12.69	4.472	335.18	10.8	4.0	4.353	341.64	4.422	5.000	
30	342.27	355.20	12.94	4.469	354.21	10.3	4.9	4.376	342.79	4.424	5.000	
31	355.48	367.97	12.49	4.475	363.35	11.3	4.6	4.378	355.94	4.428	5.000	
32	368.39	381.37	12.99	4.471	372.87	10.6	4.1	4.362	381.02	4.424	5.000	
33	381.65	393.52	11.87	4.468	381.78	10.1	4.6	4.375	393.50	4.428	5.000	
34	393.93	406.83	12.90	4.475	405.90	11.3	4.9	4.369	406.45	4.427	5.000	
35	407.14	420.04	12.90	4.475	412.21	11.3	3.7	4.365	407.62	4.423	5.000	
36	420.32	432.02	11.70	4.487	421.26	13.3	5.8	4.379	420.76	4.431	5.000	
37	432.43	445.35	12.92	4.480	436.08	12.2	4.4	4.362	432.87	4.426	5.000	
38	445.62	458.24	12.63	4.480	457.67	12.2	3.7	4.368	446.11	4.425	5.000	
39	458.66	471.62	12.96	4.467	462.50	10.0	3.9	4.374	471.12	4.422	5.000	
40	471.91	484.69	12.79	4.474	483.53	11.1	3.8	4.372	484.29	4.423	5.000	
41	485.11	497.81	12.70	4.469	496.95	10.3	4.3	4.357	485.49	4.425	5.000	
42	498.23	511.08	12.85	4.482	510.07	12.5	5.6	4.380	498.73	4.429	5.000	
43	511.26	524.27	13.00	4.499	523.74	15.4	5.3	4.375	523.65	4.427	5.000	
44	524.51	537.46	12.95	4.469	536.49	10.3	3.6	4.368	524.96	4.421	5.000	
45	537.78	550.20	12.42	4.483	550.04	12.7	4.1	4.366	538.18	4.423	5.000	
46	550.49	562.83	12.34	4.475	553.70	11.3	5.4	4.366	550.58	4.433	5.000	
47	563.11	576.03	12.93	4.489	575.05	13.7	5.4	4.358	575.60	4.431	5.000	
48	576.32	589.07	12.76	4.484	588.11	12.8	4.7	4.367	589.07	4.429	5.000	
49	589.28	590.35	1.07	4.463	590.24	9.3	1.4	4.375	589.59	4.405	5.000	Pup joint
50	590.45	597.84	7.40	4.281	594.83	-	-	3.808	594.91	3.938	5.000	Safety valve
51	597.98	598.42	0.44	4.459	598.10	8.6	3.6	4.383	598.43	4.421	5.000	Pup joint
52	598.60	609.71	11.11	4.487	599.09	13.3	6.2	4.380	599.85	4.430	5.000	
53	609.99	622.78	12.79	4.479	621.79	12.0	4.9	4.371	622.45	4.427	5.000	
54	623.00	635.77	12.77	4.489	623.15	13.7	4.8	4.372	623.06	4.430	5.000	
55	636.04	648.81	12.77	4.484	648.30	12.8	4.2	4.357	636.47	4.426	5.000	
56	648.99	661.36	12.38	4.483	651.15	12.7	4.9	4.369	661.15	4.428	5.000	
57	661.72	673.17	11.45	4.491	672.19	14.0	6.1	4.365	673.03	4.434	5.000	
58	673.44	685.90	12.46	4.472	679.13	10.8	4.1	4.362	685.82	4.421	5.000	
59	686.09	698.84	12.74	4.487	689.66	13.3	6.3	4.366	698.38	4.433	5.000	
60	699.04	711.66	12.62	4.486	711.48	13.2	4.6	4.362	699.11	4.428	5.000	
61	711.85	724.72	12.87	4.482	713.66	12.5	4.4	4.380	724.38	4.423	5.000	
62	724.97	737.44	12.48	4.486	725.56	13.2	5.9	4.384	736.80	4.433	5.000	
63	737.62	750.41	12.80	4.484	749.47	12.8	6.4	4.387	750.05	4.435	5.000	
64	750.60	763.63	13.04	4.493	762.69	14.4	10.0	4.389	761.09	4.441	5.000	

Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
Survey Date: 25/09/2023	Survey MFC-24 Extended	Job ID: DAC880



Ref.	Top (m)	Bottom (m)	Length (m)	Max. ID (")	Dep. Max. (m)	Max. Pen. (%)	Max. Loss (%)	Min. ID (")	Dep. Min. (m)	Mean ID (")	Tubular OD (")	Completion Item
65	763.91	775.40	11.49	4.484	771.51	12.8	5.4	4.372	764.36	4.434	5.000	
66	775.63	788.40	12.77	4.477	783.39	11.7	4.5	4.371	776.16	4.428	5.000	
67	788.62	801.54	12.91	4.501	789.58	15.7	9.9	4.394	788.62	4.457	5.000	
68	801.72	814.57	12.85	4.490	809.16	13.9	4.8	4.383	814.35	4.429	5.000	
69	814.79	827.21	12.42	4.491	825.17	14.0	5.0	4.359	815.10	4.430	5.000	
70	827.45	840.30	12.85	4.483	828.22	12.7	3.9	4.366	828.00	4.426	5.000	
71	840.59	852.67	12.09	4.486	848.06	13.2	5.8	4.371	852.39	4.434	5.000	
72	852.92	865.62	12.71	4.482	862.20	12.5	5.6	4.360	853.21	4.434	5.000	
73	865.85	878.53	12.68	4.478	873.20	11.8	4.3	4.369	866.49	4.427	5.000	
74	878.86	891.83	12.97	4.514	879.79	17.9	10.5	4.396	891.07	4.443	5.000	
75	892.13	904.84	12.71	4.486	899.00	13.2	5.8	4.372	892.63	4.432	5.000	
76	905.16	917.91	12.76	4.475	905.98	11.3	4.1	4.359	917.48	4.423	5.000	
77	918.20	930.93	12.73	4.481	922.59	12.3	5.6	4.365	930.52	4.431	5.000	
78	931.22	944.05	12.83	4.500	931.62	15.5	5.4	4.380	931.62	4.432	5.000	
79	944.37	956.89	12.52	4.493	946.29	14.4	7.0	4.388	956.45	4.443	5.000	
80	957.18	969.40	12.22	4.499	963.82	15.4	6.4	4.383	957.37	4.439	5.000	
81	969.69	982.47	12.79	4.478	970.56	11.8	4.2	4.356	970.15	4.427	5.000	
82	982.75	995.67	12.92	4.475	994.22	11.3	5.2	4.379	982.76	4.430	5.000	
83	995.94	1008.72	12.78	4.497	1006.84	15.0	5.4	4.374	996.23	4.430	5.000	
84	1008.99	1021.35	12.36	4.476	1020.84	11.5	4.5	4.370	1021.35	4.430	5.000	
85	1021.63	1034.19	12.56	4.480	1033.24	12.2	5.4	4.386	1021.98	4.433	5.000	
86	1034.47	1046.31	11.84	4.483	1045.34	12.7	6.0	4.393	1034.77	4.438	5.000	
87	1046.50	1059.03	12.53	4.483	1052.31	12.7	5.7	4.369	1058.87	4.433	5.000	
88	1059.45	1071.73	12.28	4.490	1071.43	13.9	5.7	4.378	1059.92	4.437	5.000	
89	1072.01	1084.75	12.74	4.483	1074.11	12.7	7.0	4.374	1072.35	4.436	5.000	
90	1084.93	1097.17	12.24	4.494	1093.56	14.5	5.0	4.360	1085.56	4.429	5.000	
91	1097.59	1110.52	12.93	4.482	1109.87	12.5	6.1	4.382	1097.64	4.433	5.000	
92	1110.59	1110.88	0.29	4.287	1110.59	-	-	3.460	1110.85	3.499	4.000	X-over
93	1111.01	1115.16	4.15	3.558	1114.90	15.6	6.7	3.464	1114.54	3.502	4.000	Pup joint
94	1115.21	1116.94	1.73	5.571	1116.39	-	-	3.384	1115.22	4.090	4.000	SPM
95	1117.04	1121.34	4.30	3.593	1118.00	22.3	11.6	3.476	1117.09	3.514	4.000	Pup joint
96	1121.42	1125.70	4.28	3.580	1125.08	19.8	9.1	3.461	1125.61	3.506	4.000	Pup joint
97	1125.74	1127.49	1.75	5.409	1126.92	-	-	3.388	1125.74	4.108	4.000	SPM
98	1127.60	1131.96	4.35	3.588	1128.53	21.4	12.4	3.477	1127.60	3.512	4.000	Pup joint
99	1131.99	1132.26	0.27	3.654	1132.08	-	-	3.308	1132.26	3.400	4.000	Nipple
100	1132.38	1136.68	4.29	3.559	1135.05	15.8	7.6	3.451	1133.97	3.510	4.000	Pup joint
101	1136.77	1140.12	3.35	4.442	1139.93	-	-	3.746	1136.88	4.271	4.000	Anchor / packer assembly
102	1140.41	1144.87	4.46	3.490	1142.91	2.7	0.3	3.381	1140.44	3.442	4.000	Pup joint
103	1144.99	1146.27	1.27	5.348	1146.27	-	-	3.302	1146.15	3.476	4.000	Nipple / WEG assembly
104	1146.37	1154.11	7.73	6.178	1147.22	9.3	3.7	6.057	1153.27	6.102	7.000	
105	1154.44	1165.93	11.50	6.192	1160.38	10.8	4.7	6.068	1160.39	6.119	7.000	

Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
Survey Date: 25/09/2023	Survey MFC-24 Extended	Job ID: DAC880

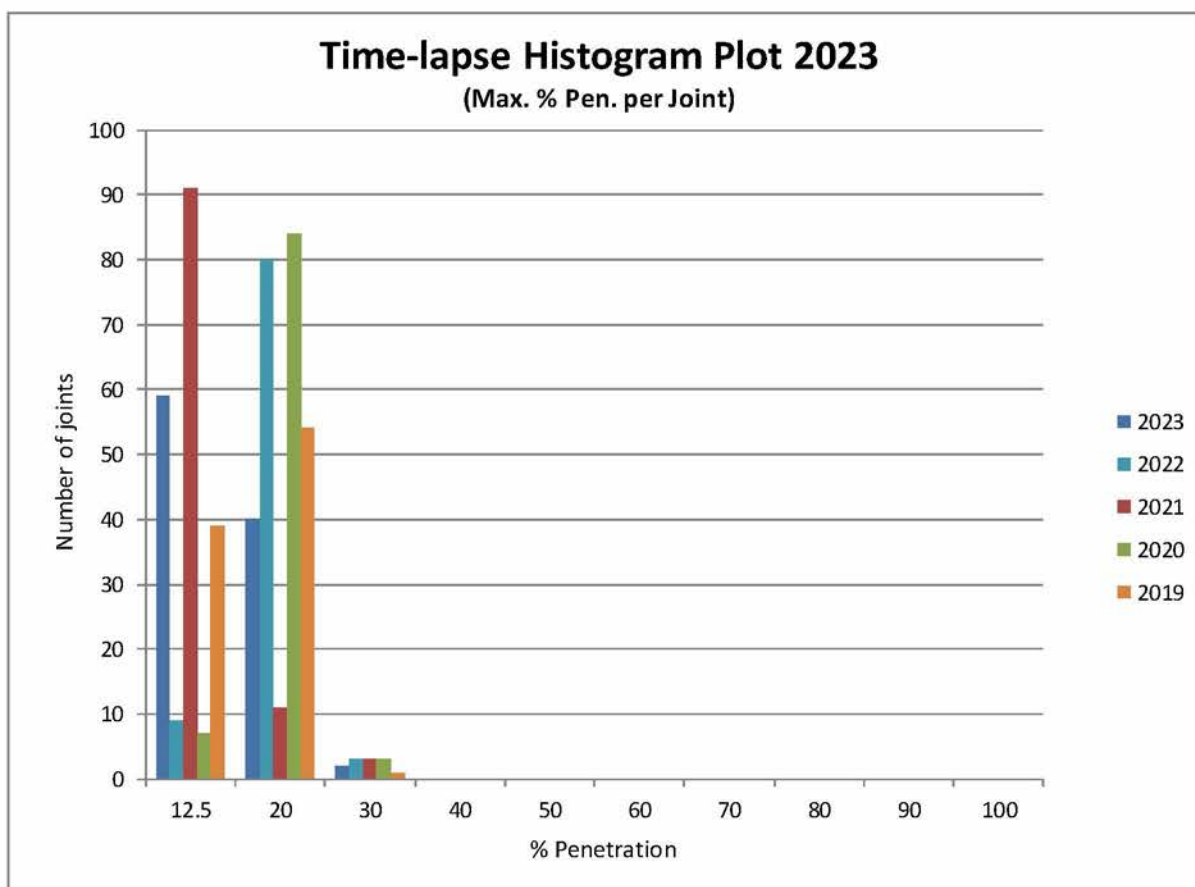


Ref.	Top (m)	Bottom (m)	Length (m)	Max. ID (")	Dep. Max. (m)	Max. Pen. (%)	Max. Loss (%)	Min. ID (")	Dep. Min. (m)	Mean ID (")	Tubular OD (")	Completion Item
106	1166.40	1177.93	11.53	6.271	1175.75	19.5	14.0	6.160	1169.80	6.213	7.000	
107	1178.25	1190.24	12.00	6.211	1178.92	12.9	5.2	6.072	1187.65	6.124	7.000	
108	1190.60	1202.15	11.55	6.516	1201.29	-	-	6.048	1201.36	6.117	7.000	Perforated joint
109	1202.61	1213.13	10.52	6.609	1203.21	-	-	6.055	1206.03	6.128	7.000	Perforated joint
110	1213.53	1224.96	11.43	6.725	1218.34	-	-	6.054	1220.17	6.133	7.000	Perforated joint
111	1225.25	1236.08	10.83	6.508	1225.35	-	-	6.075	1226.00	6.128	7.000	Perforated joint
112	1236.49	1241.93	5.44	6.206	1239.33	12.4	7.5	6.104	1240.40	6.146	7.000	
113	1242.25	1250.69	8.44	5.150	1242.25	-	-	2.732	1250.48	3.530	7.000	Packer / nipple assembly
114	1251.11	1259.08	7.98	6.184	1257.41	9.9	3.5	6.054	1258.33	6.113	7.000	
115	1259.78	1269.85	10.07	6.178	1269.07	-	-	6.062	1261.31	6.111	7.000	Perforated joint
116	1270.28	1271.97	1.69	6.271	1270.68	-	-	6.090	1271.84	6.125	7.000	Perforated joint

Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
Survey Date: 25/09/2023	Survey MFC-24 Extended	Job ID: DAC880



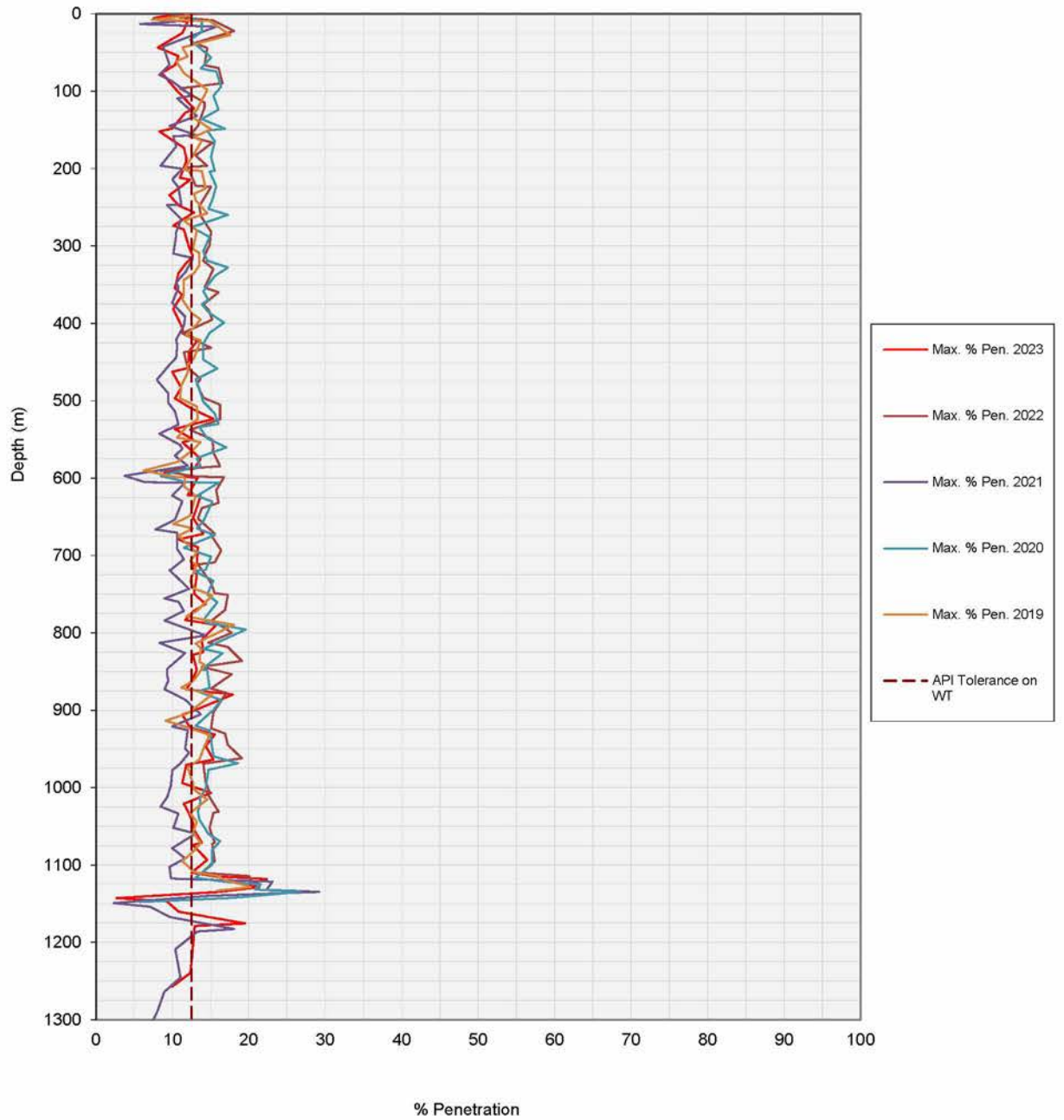
Total number of joints logged: 101			
59	Joints with Max. % Penetrations Between	0	and 12.5 %
40	Joints with Max. % Penetrations Between	12.5	and 20 %
2	Joints with Max. % Penetrations Between	20	and 30 %
0	Joints with Max. % Penetrations Between	30	and 40 %
0	Joints with Max. % Penetrations Between	40	and 50 %
0	Joints with Max. % Penetrations Between	50	and 60 %
0	Joints with Max. % Penetrations Between	60	and 70 %
0	Joints with Max. % Penetrations Between	70	and 80 %
0	Joints with Max. % Penetrations Between	80	and 90 %
0	Joints with Max. % Penetrations Between	90	and 100 %



Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
Survey Date: 25/09/2023	Survey: MFC-24 Extended	Job ID: DAC880



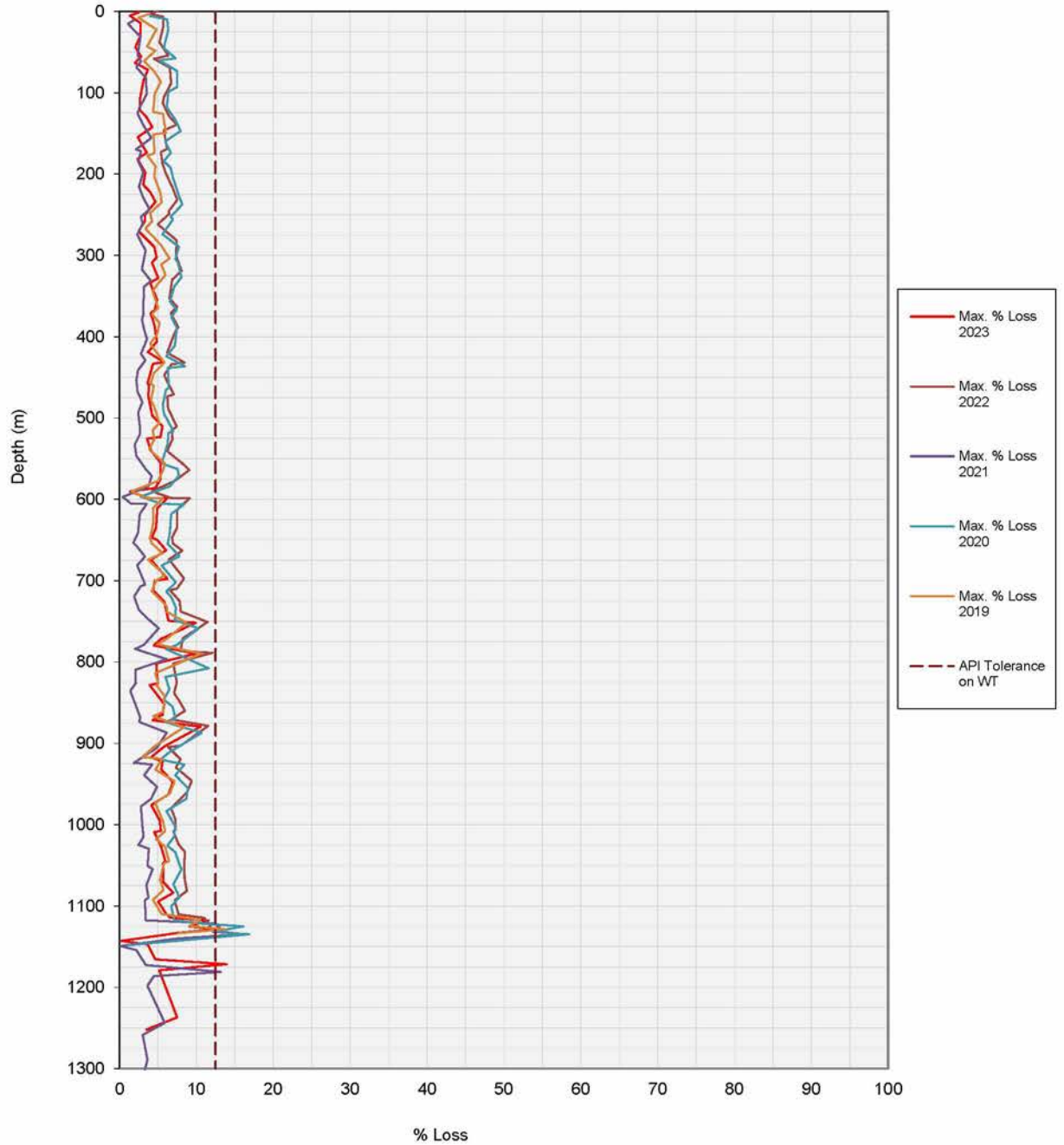
Time-lapse Max. Percentage Penetration per Joint vs. Depth Plot



Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
Survey Date: 25/09/2023	Survey: MFC-24 Extended	Job ID: DAC880



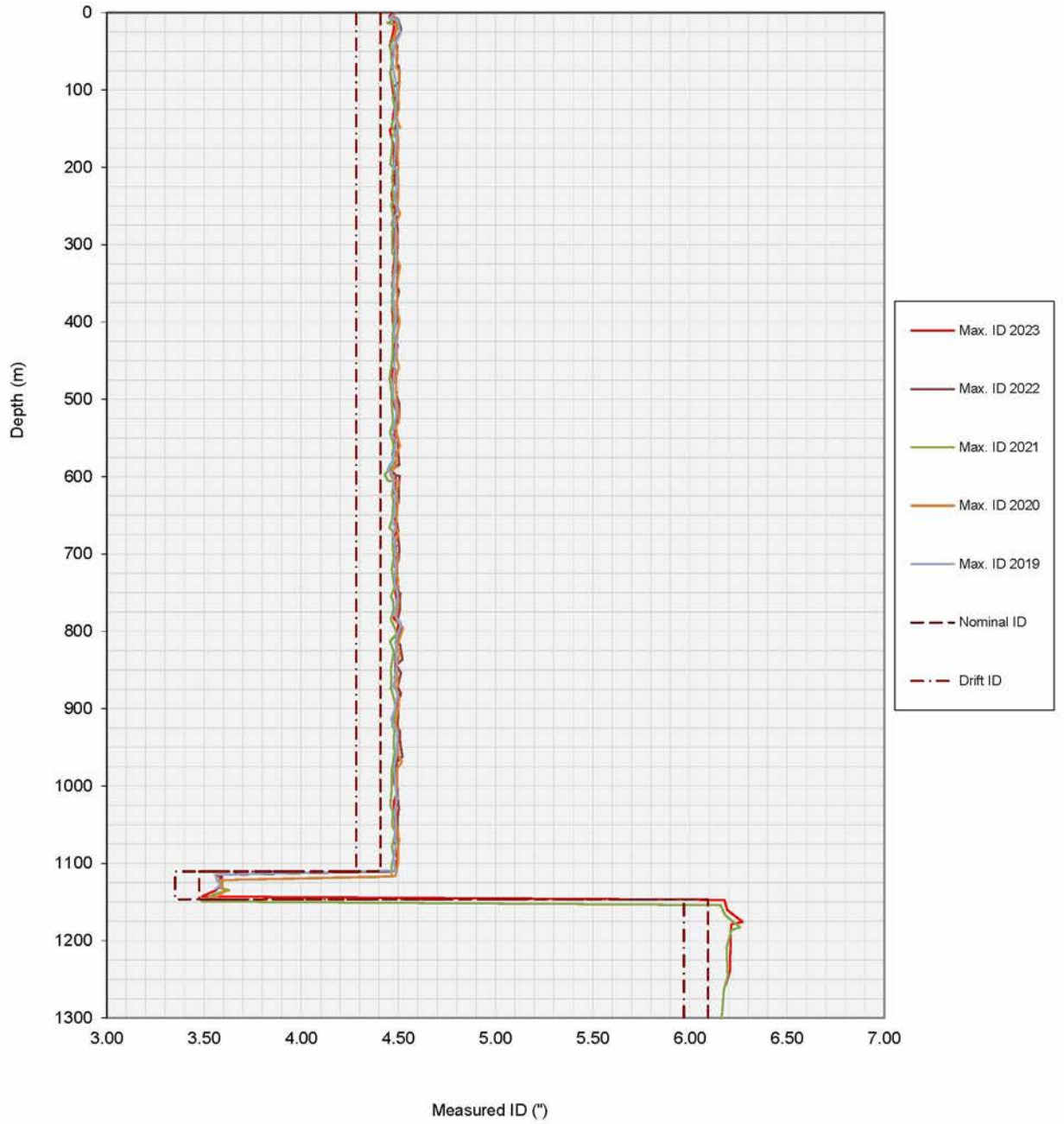
Max. Percentage Circumferential Wall Loss per Joint vs. Depth Plot



Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
Survey Date: 25/09/2023	Survey: MFC-24 Extended	Job ID: DAC880



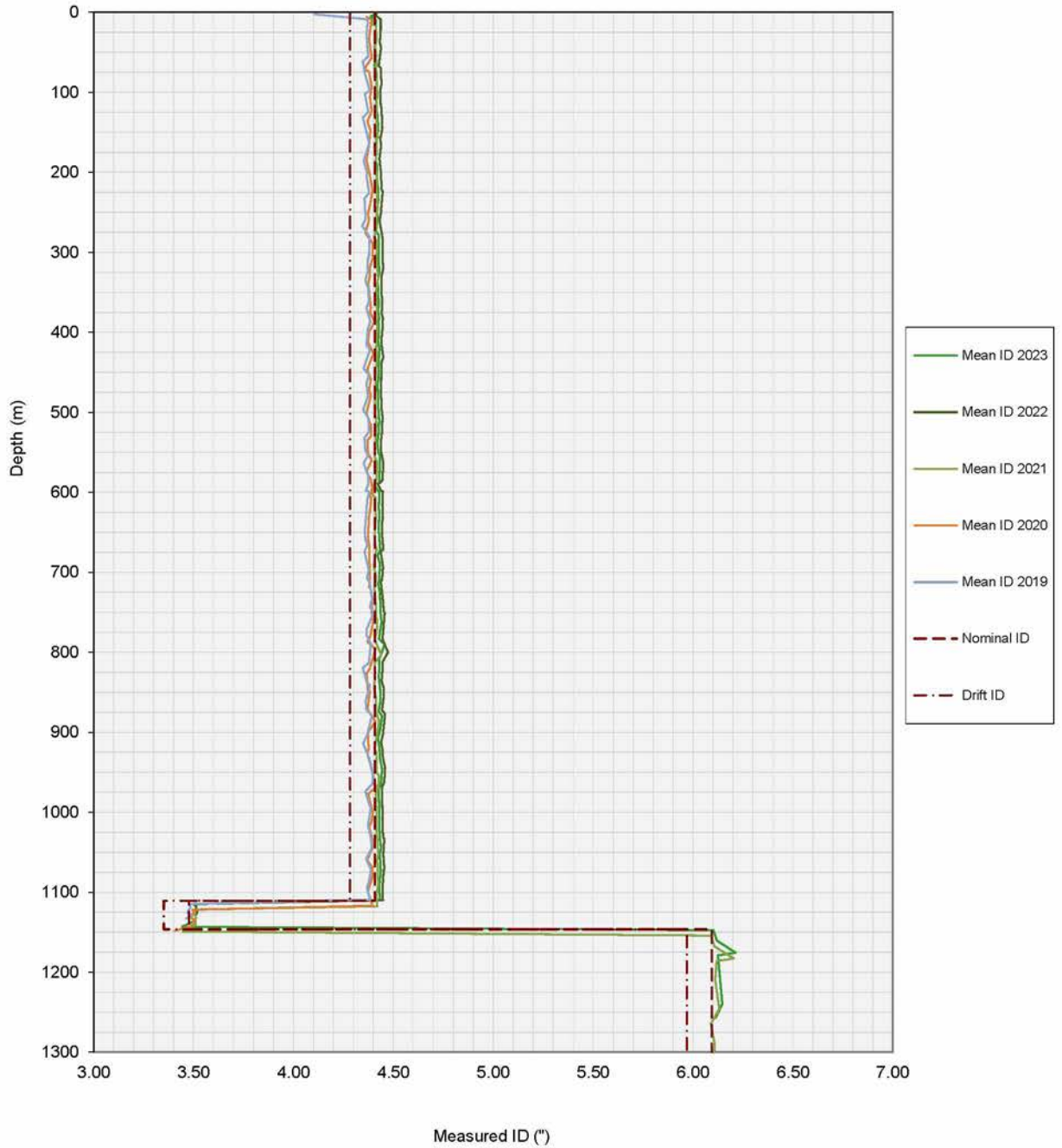
Time-lapse Maximum ID per Joint vs. Depth Plot



Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
Survey Date: 25/09/2023	Survey: MFC-24 Extended	Job ID: DAC880



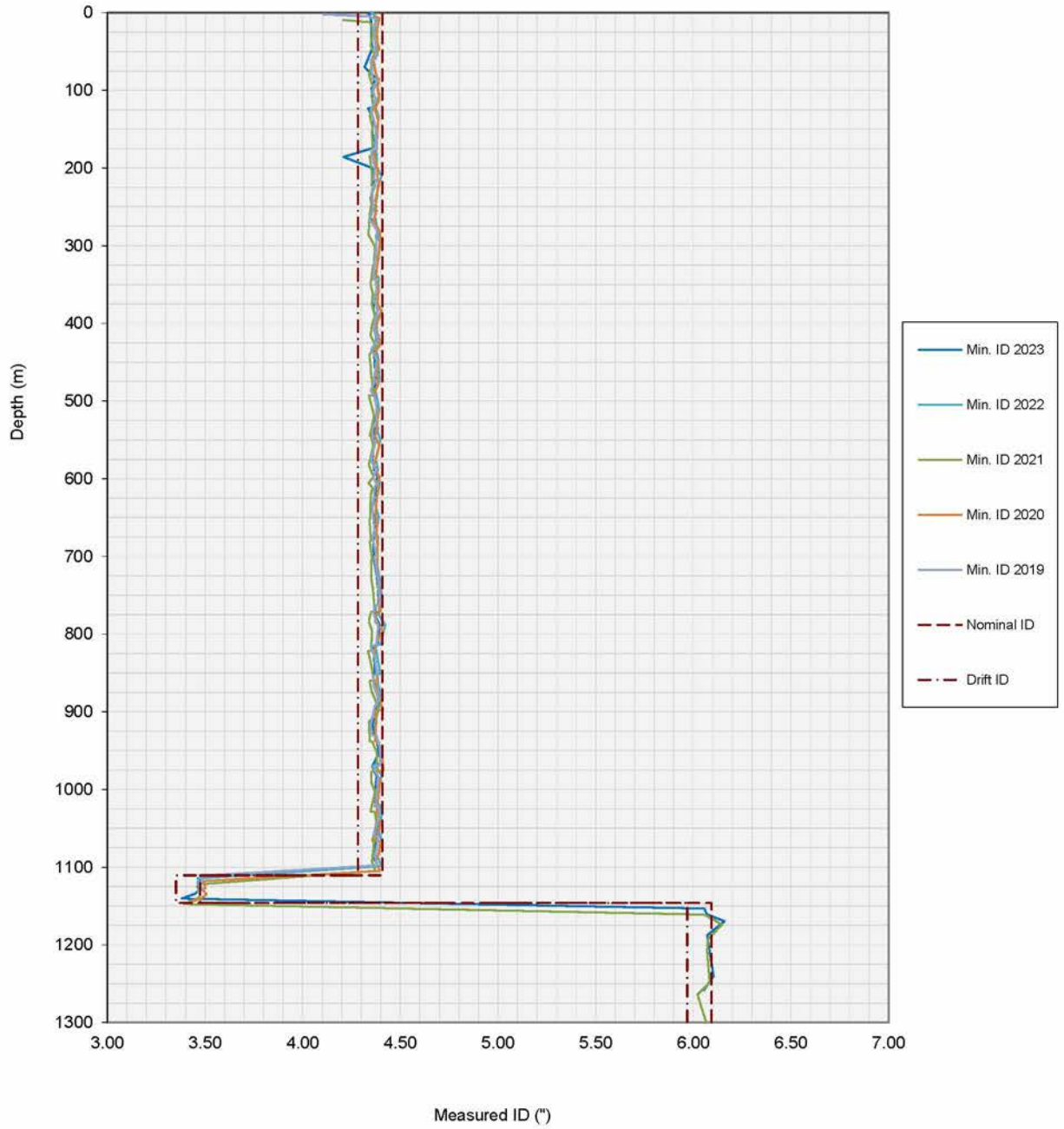
Time-lapse Mean ID per Joint vs. Depth Plot



Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
Survey Date: 25/09/2023	Survey: MFC-24 Extended	Job ID: DAC880




Time-lapse Minimum ID per Joint vs. Depth Plot



Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
Survey Date: 25/09/2023	Survey MFC-24 Extended	Job ID: DAC880

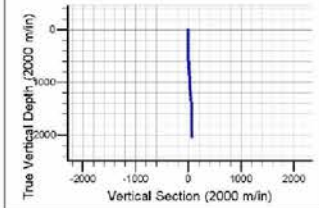


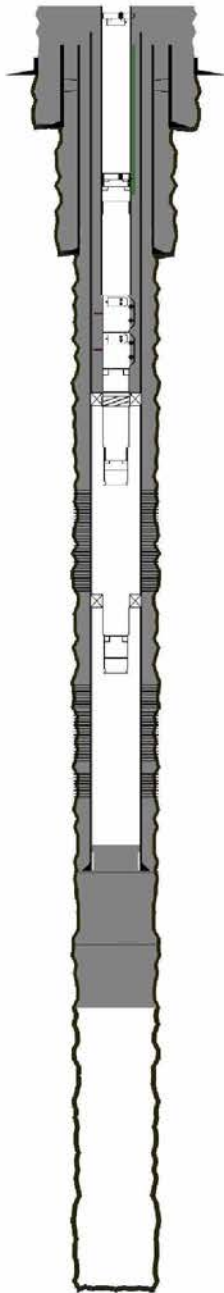
5. Well & Survey Information



Site: ROSSUM-WEERSELO-5
Well Name: ROSSUM-WEERSELO- 5
Wellbore Name: ROW- 5
Wellbore No: 01
Legal Wellbore Name: ROSSUM-WEERSELO- 5-1
Original Spud Date: 04/06/1972
Spud/Kick-off date: 04/06/1972
Tree Cap Connection:
 H2S Present: Y
 LSA Present: N
Well Comments:
 NOTE: For further detail: consult OpenWells/Wellfile
 Schematic Datum: TBF @ 22.52m

Casing Assemblies		
Name	Top MD(m)	Base MD(m)
Conductor - driven	0.99	29.40
Surface Casing	0.99	243.72
Intermediate Casing	0.99	738.06
Production Casing	0.51	1,375.13



Top Perf's	Casing Details	Schematic last update (30/09/2023)	Completion Details	Body ID / Min ID	H2O ORDERED AT DEPTH NOT AT DATE III
24.000' / 26.40m			-1.07m, LDO TENTION TBG HGR, 4.00" SA-PROFILE, 5.0" - 15.0# VAM, 5.14" RAISE CL, 11#	4.000m / 4.000m	
16.000' / 243.72m			-1.06m, WILLK 4.000,22-SAMA-40001070.SA,1100R500 H2S, L33495	1.750m / 1.750m	
			-1.05m, WLF2.275,17-BPV-20684SLB,BPV3600,H2S,N, 2.75' EQ sub + 8x2mm holes, PV2285	0.000m / 0.000m	
			-0.55m, TBNG 5.0" - 15.0# VAM, L80, .	4.408m / 4.408m	
10.750' / 798.06m			589.20m, TGPU 5.0" - 15.0# VAM, L80, 4 ft, .	4.408m / 4.408m	
			594.81m, WLLM,3.81,810RQ3101,RQ201013320,H2S, LJM213	2.620m / 2.620m	
			590.40m, FLOP, 5.0" - 15.0# VAM x 4.1/2" - 12.8# VAM, 9C1Mo, .	3.885m / 3.885m	
			594.92m, WLF3.31,824-76-5812,RV065,5K,2200FT,H2S/CO2,E, EQ, OPD=140, FILL=140, CL=180 size, + Outings, FV2471	2.500m / 2.500m	
			594.96m, LNSV, 3.813" RRQ-PROFILE, 4.1/2" - 12.6# VAM, 9C1Mo, .	3.813m / 3.813m	
			595.62m, FLOP, 4.1/2" - 12.6# VAM x 5.0" - 15.0# VAM, 9C1Mo, .	3.865m / 3.865m	
			598.32m, TGPU 5.0" - 15.0# VAM, L80, 2 ft, .	4.408m / 4.408m	
			598.32m, TBNG 5.0" - 15.0# VAM, L80, .	4.408m / 4.408m	
			1.110.80m, TCOO 5.0" - 15.0# VAM x 4.0" - 10.9# VAM, .	3.478m / 3.478m	
			1.110.85m, TGPU 4.0" - 10.9# VAM, L80, 16 ft, .	3.478m / 3.478m	
			1.115.30m, DUMMY VALVE, 1 inch, .	/	
		1.115.20m, SPIRA 4.0" - 10.9# VAM, KBMG, SOUR, 4130, BxG, .	3.356m / 3.356m		
		1.117.10m, TGPU 4.0" - 10.9# VAM, L80, 16 ft, PxP, .	3.478m / 3.478m		
		1.121.40m, TGPU 4.0" - 10.9# VAM, L80, 16 ft, .	3.478m / 3.478m		
		1.125.80m, Cameco Dummy Valve E, 1 inch, .	/		
		1.125.70m, SFMA 4.0-10.9 VAM, KBMG, SOUR, 4130, .	3.356m / 3.356m		
		1.127.60m, TGPU 4.0" - 10.9# VAM, L80, 16 ft, PxP, .	3.478m / 3.478m		
		1.132.00m, LN, 3.313" X-PROFILE, 4.0" - 10.9# VAM, 9C1Mo, .	3.313m / 3.313m		
		1.132.40m, TGPU 4.0" - 10.9# VAM, L80, 16 ft, .	3.478m / 3.478m		
		1.136.79m, ANCHOR SEAL, SNAT, SIFA47, KBH-22, 4.0" - 10.9# VAM, BU, .	4.3750m / 3.750m		
1.200.00m		1.136.80m, PACKER 7.0" 83FAB47, 5.0" - 15.0# VAM, BD, 4140, .	4.000m / 4.000m		
1.204.05m		1.137.80m, TGPU 5.0" - 15.0# VAM, C75, 7 ft, PxP, .	4.408m / 4.408m		
1.214.18m		1.140.00m, TCOO 5.0" - 15.0# VAM x 4.0" - 10.9# VAM, .	3.478m / 3.478m		
1.221.16m		1.140.25m, TGPU 4.0" - 10.9# VAM, C75, 16 ft, .	3.478m / 3.478m		
		1.144.79m, FLOP, 4.0" - 10.9# VAM, 9C1Mo, .	3.356m / 3.356m		
		1.145.59m, LN, 3.313" X-PROFILE, 4.0" - 10.9# VAM, 9C1Mo, .	3.313m / 3.313m		
		1.145.87m, ENTRY GUIDE 3.313", 4.0" - 10.9# VAM, 9C1Mo, .	3.313m / 3.313m		
		1.243.10m, PACKER 7.0" 83FAB47, 5.0" - 15.0# VAM, BD, 4140, .	4.000m / 4.000m		
		1.244.10m, TGPU 5.0" - 15.0# VAM, C75, 7 ft, PxP, .	4.408m / 4.408m		
		1.248.31m, TCOO 5.0" - 15.0# VAM x 3.1/2" - 10.2# VAM, .	2.821m / 2.821m		
		1.248.64m, TGPU 3.1/2" - 10.2# VAM, C75, 16 ft, .	2.822m / 2.822m		
1.267.68m		1.251.10m, LN, 2.750" X-PROFILE, 3.1/2" - 10.2# VAM, 9C1Mo, .	2.750m / 2.750m		
1.272.96m		1.251.40m, ENTRY GUIDE 2.75, 3.1/2 VAM, 9C1Mo, .	2.750m / 2.750m		
1.275.38m					
1.295.05m					
		7.000' / 1,375.13m			

Prepared By: EUROPE/ 5.1.2.e Date: 30/08/2023

Data QA/QC'd by: Date: QA/QC'd:

Client: NAM	Well No.: ROSSUM-WEERSELO-5	Field: ROSSUM-WEERSELO
Survey Date: 25/09/2023	Survey MFC-24 Extended	Job ID: DAC880



Sensor	Offset (m)	Schematic	Description	Length (m)	O.D. (in)	Weight (lb)
			MBH-025 (10018758) Memory Battery Housing (5CC)	0.74	1.69	11.00
			UMT-007 (11297923) Ultrawire Memory Tool (1GB)	0.32	1.69	6.60
			PKJ-013 (00499) Production Knuckle Joint	0.17	1.69	3.50
			PKJ-013 (11136402) Production Knuckle Joint	0.17	1.69	3.50
			PRC-034 (C-1224) Production Roller Centraliser (4 Arm)	0.84	1.69	13.00
MIT	1.51		MIT-034 (11140595) Multifinger Imaging Tool (UW 24F Ext.)	1.29	1.69	20.70
			PRC-034 (11187221) Production Roller Centraliser (4 Arm)	0.84	1.69	13.00
			BUL-006 (212792) Bullnose	0.07	1.69	1.50
Dataset: Sondex Ultrawire Memory MIT/MTT Total length: 4.44 m Total weight: 72.80 lb O.D.: 1.69 in						