



# SEIKOWAVE

3D NDT



A large industrial refinery or chemical plant at night, illuminated by numerous lights. Several tall distillation columns and complex piping systems are visible against a dark sky with some clouds. The scene is a wide-angle shot showing the scale of the facility.

# TECHNOLOGY INTRO

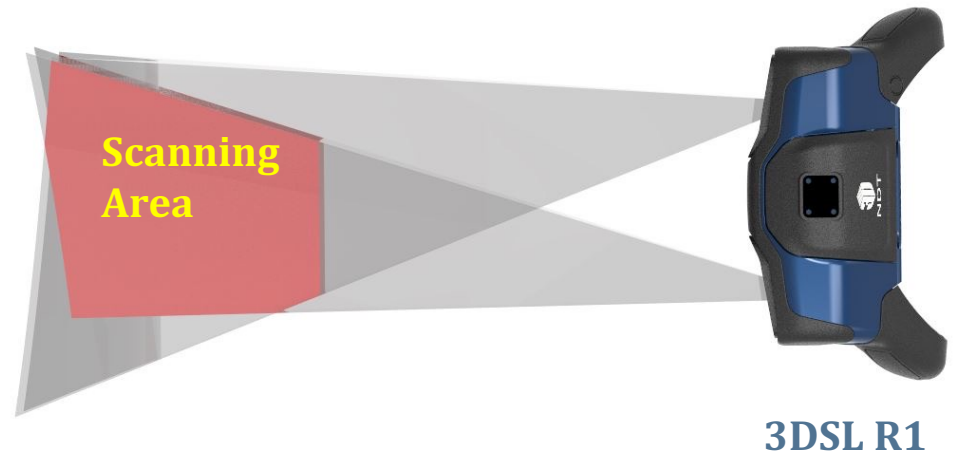
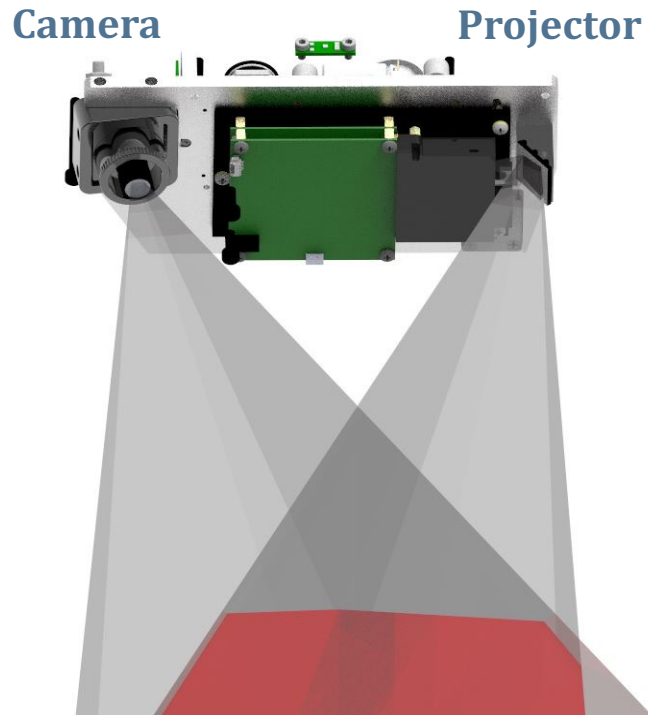
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SEIKOWAVE

INFO

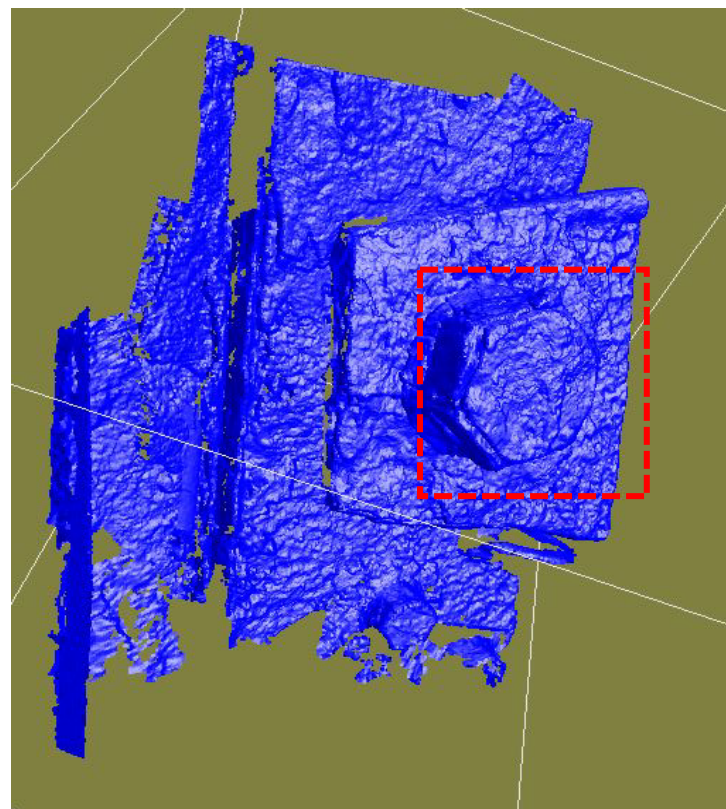
# 3D NDT TOOL

## *STRUCTURED LIGHT TECHNOLOGY*

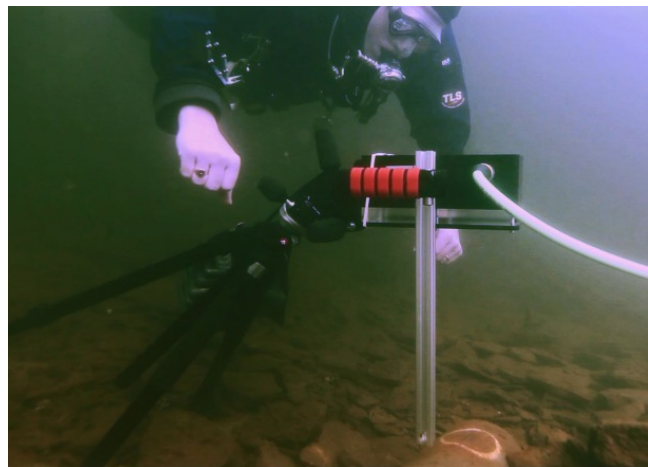




# 3D NDT IMAGE TO SCAN



# 3D NDT IN THE FIELD





A large industrial refinery or chemical plant at night, illuminated by numerous lights. Several tall distillation columns and complex piping systems are visible against a dark sky with some clouds. The scene is a wide-angle shot, capturing the scale of the facility.

# FITNESS FOR SERVICE (RSTRENG)

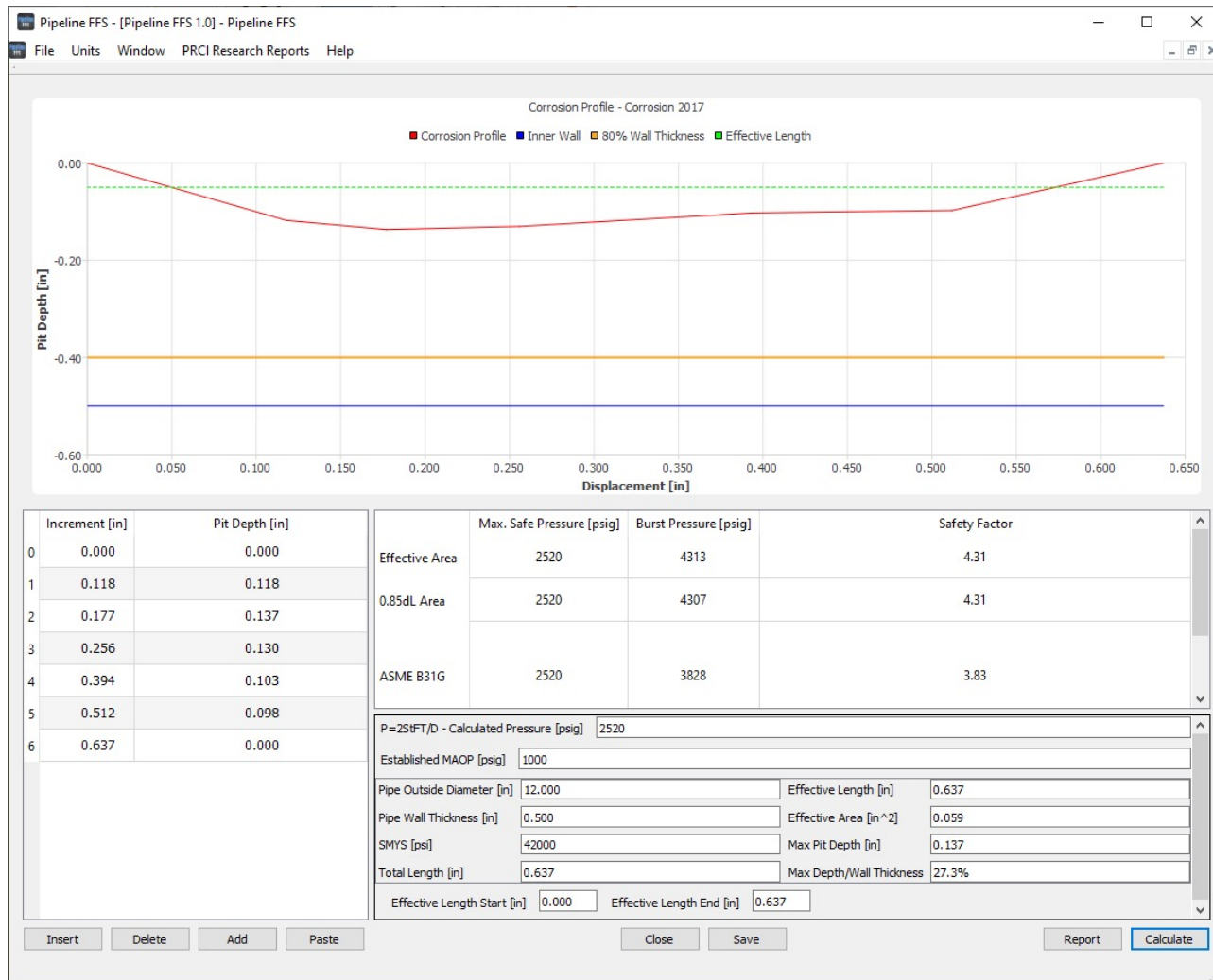
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SEIKOWAVE

INFO

# FITNESS FOR SERVICE

## *CALCULATION OF REMAINING STRENGTH*



# FITNESS FOR SERVICE

## REPORT

Site: Home Office

Station: 1

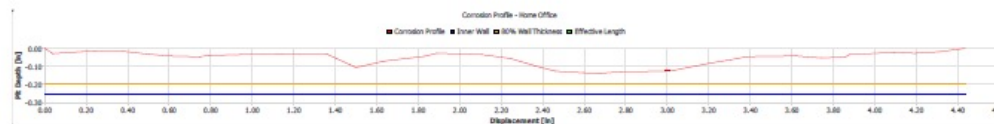
Date: 2016/7/19

P = 2StFT/D[psi] - Calculated Pressure	812		
Established MAOP [psi]	800		
Pipe Outside Diameter [in]	16.000	Effective Length [in]	3.937
Pipe Wall Thickness [in]	0.250	Effective Area [in]^2	0.240
SMYS [psi]	52000	Max. Pit Depth [in]	0.138
Design Factor	0.50	Max. Depth/Wall Thickness	55.3%
Total Length [in]	4.436		
Effective Length: Start [in]	0.374	End [in]	4.311

### RESULTS OF ANALYSIS:

METHOD	Max. Safe Pressure [psi]	Burst Pressure [psi]	Safety Factor
RSTRENG - Effective Area	812	1689	2.11
RSTRENG - 0.85 dL	671	1342	1.68
ASME B31G	677	1353	1.69

### CORROSION PROFILE:





A large industrial refinery or chemical plant at night, illuminated by numerous lights. Several tall distillation columns and storage tanks are visible against a dark sky with some clouds. The scene is complex with many pipes, ladders, and structural elements.

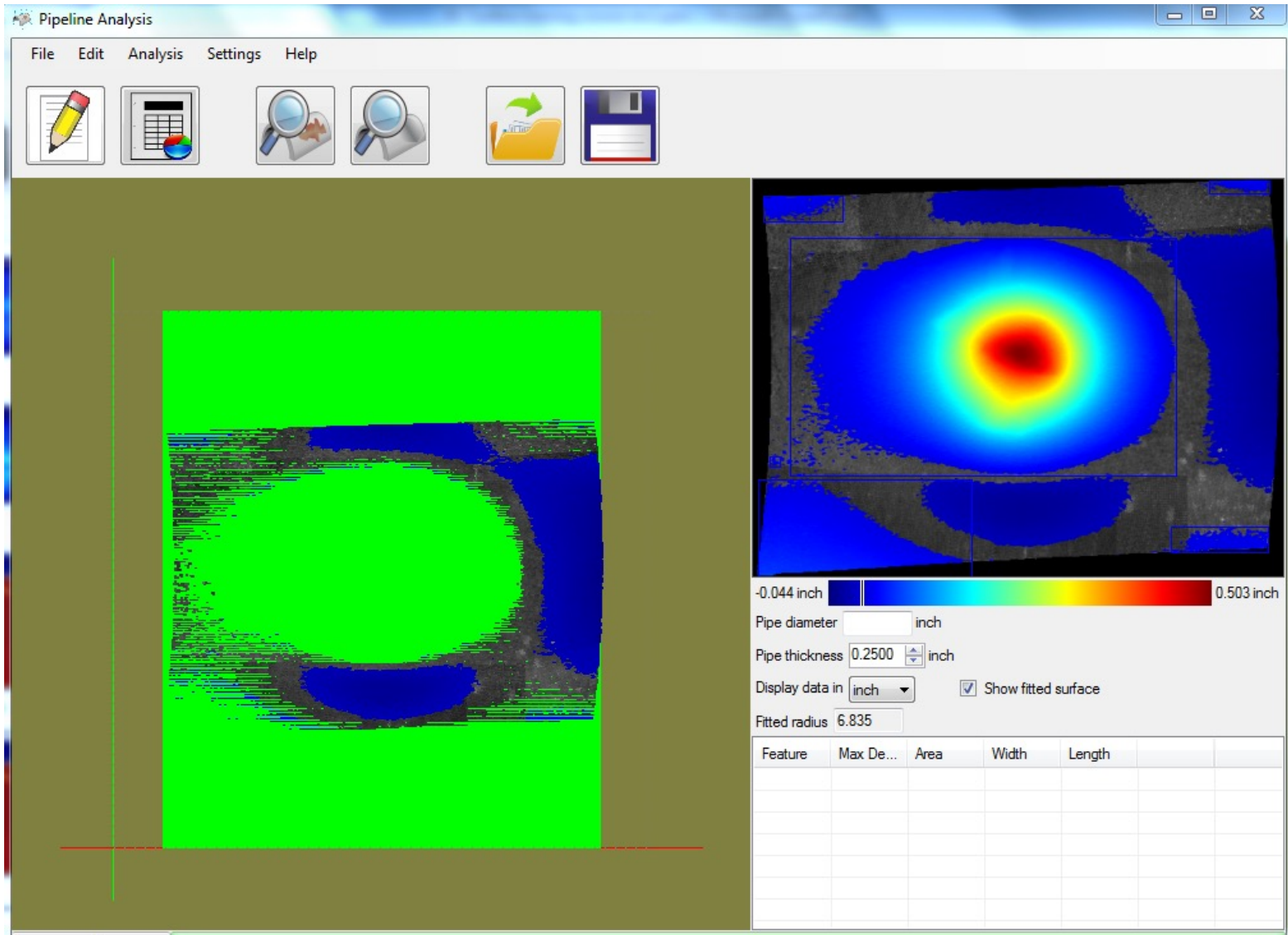
# DENTS ANALYSIS

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SEIKOWAVE

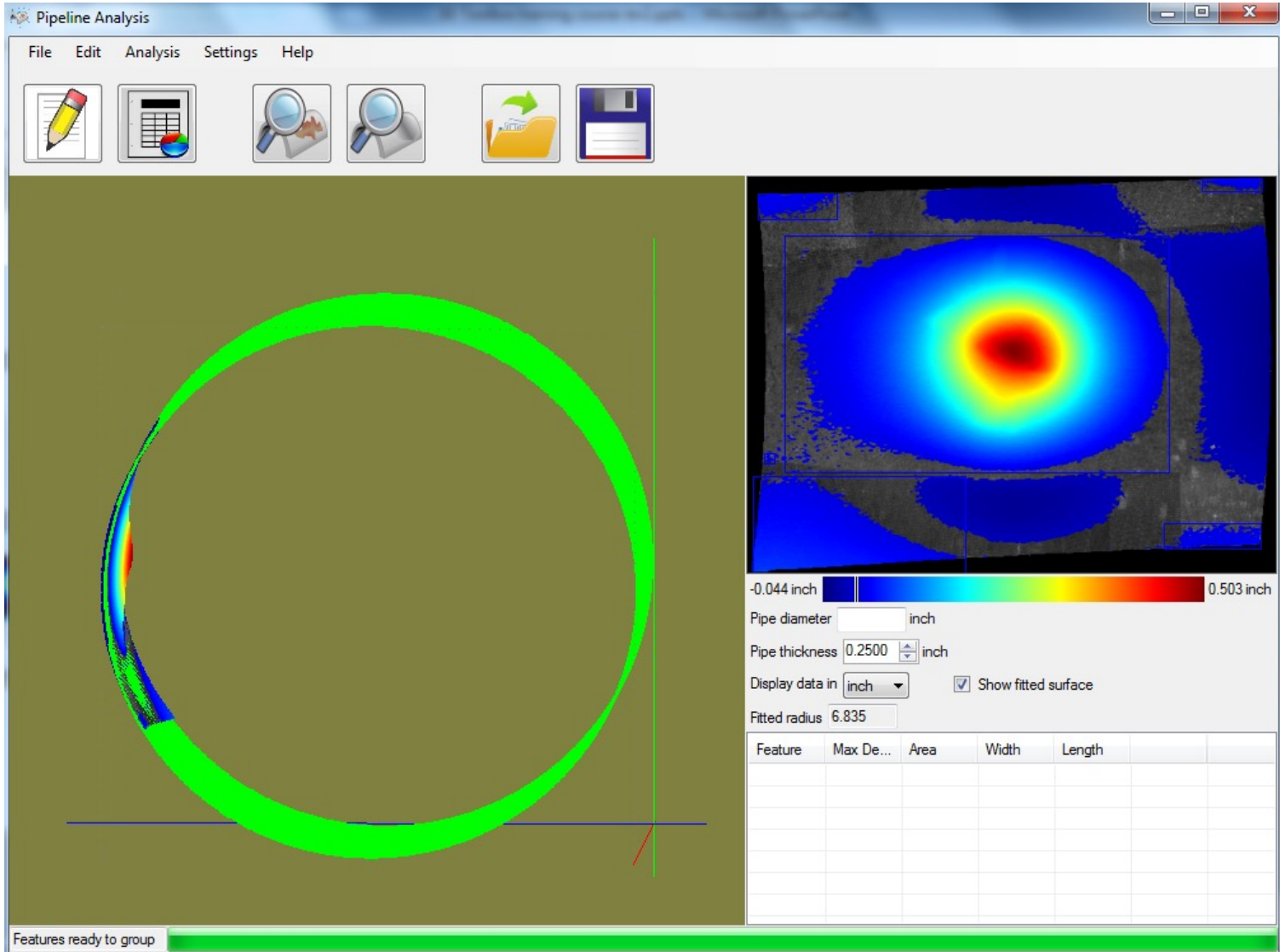
INFO

## DENT ANALYSIS



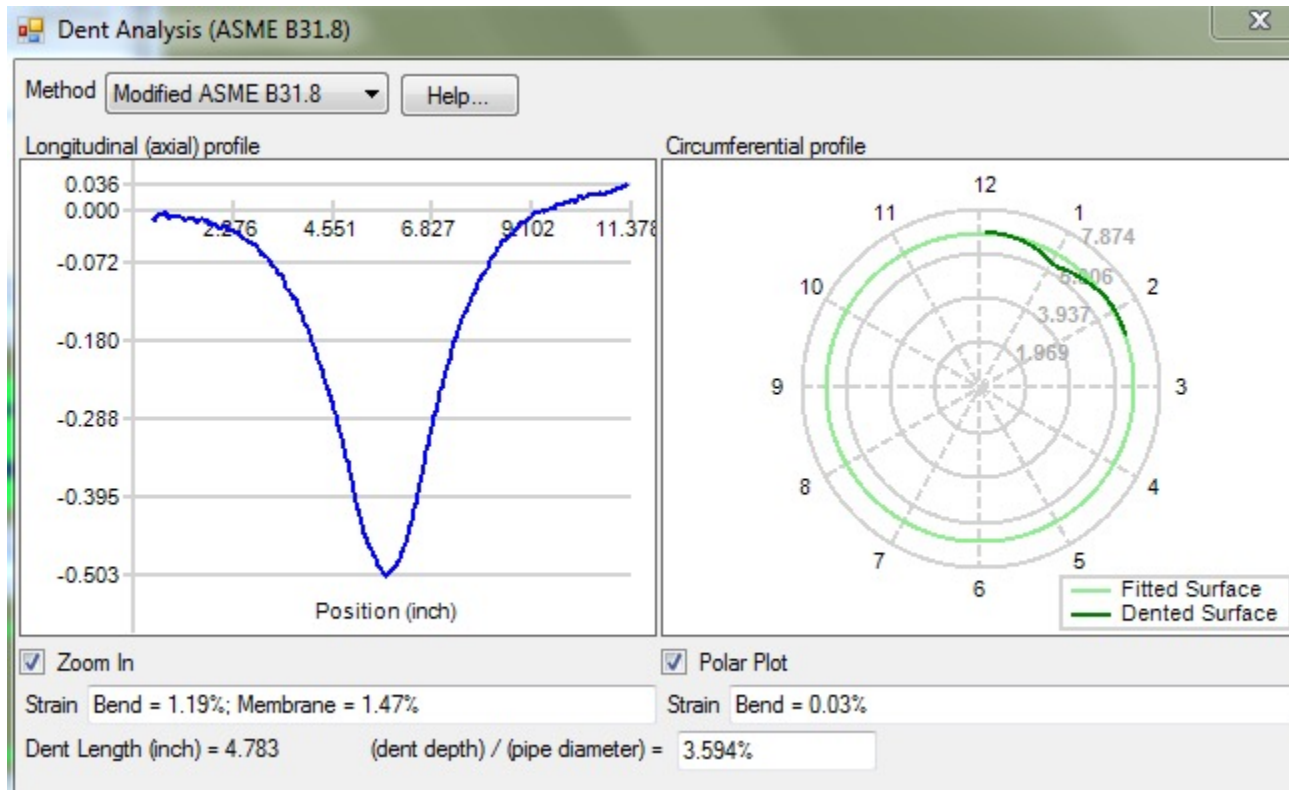


## DENT ANALYSIS



# DENT ANALYSIS

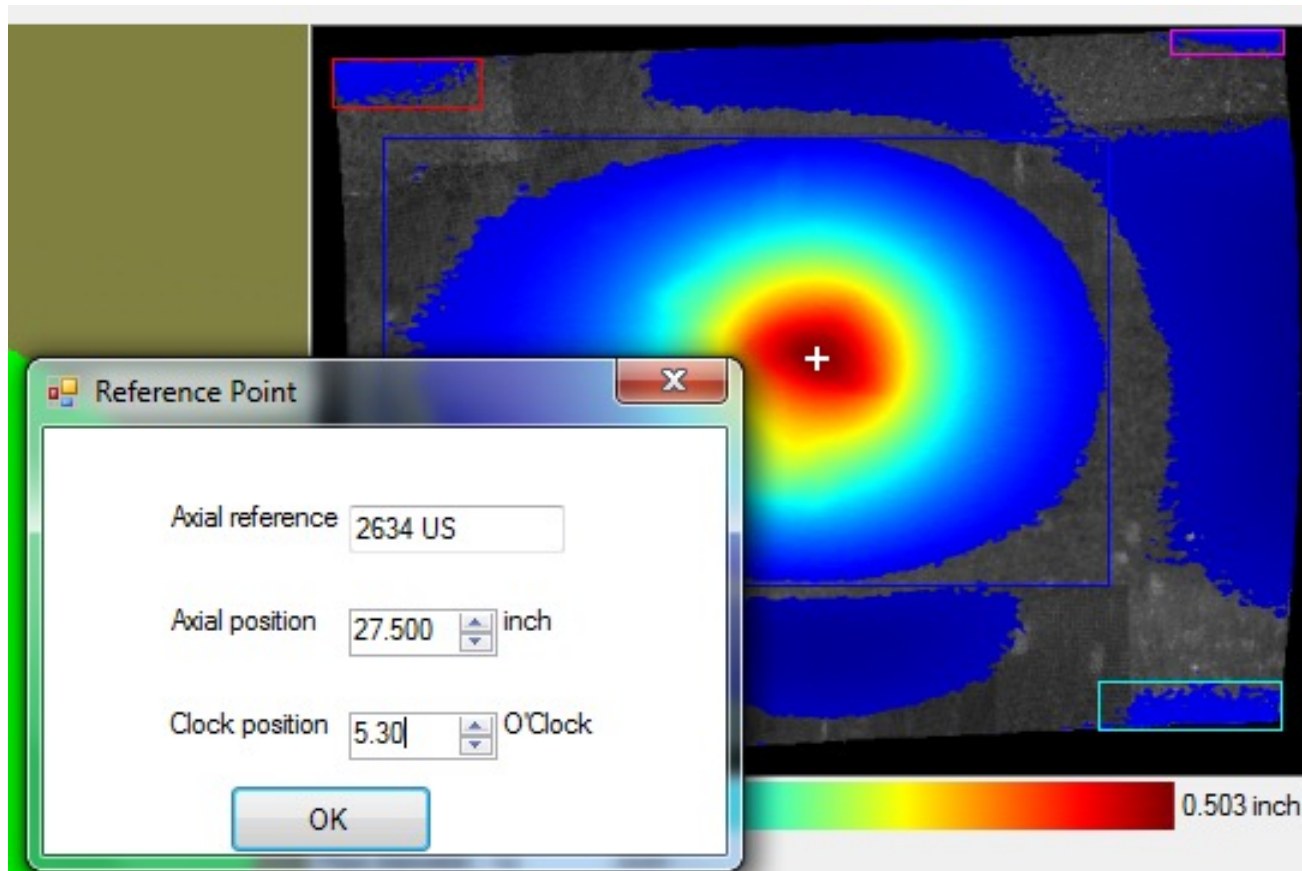
## *CALCULATIONS*





# DENT ANALYSIS

## *REAL-WORLD LOCATION*



# DENT ANALYSIS

## REPORT

- Dent profiles
- Dent depth as a percentage of pipe diameter
- ASME B31.8 Strain calculations

