



PIPELINE OPEN DATA STANDARD

Managing the Lifecycle of a Defect



Pipeline Management Solutions

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Defect Discovery

- ILI Survey discovers the defect
- Understanding ILI Reports
- Understanding the PODS database
- Single Frame of Reference

Discovery of Defects

Microsoft Excel - NewHavenSurveypl1.xls

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NEW HAVEN ENERGY

New Haven Energy
24in Middleten Transport
M.P. 0.00 to M.P. 24.30
Features List

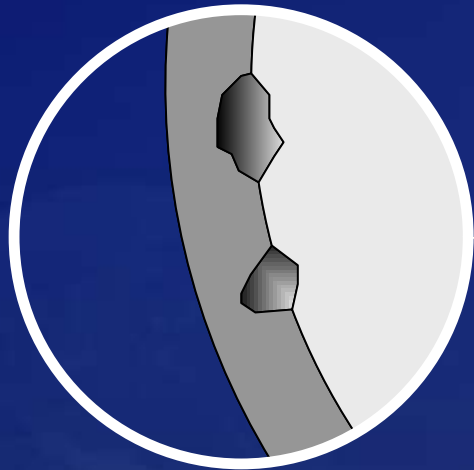
Metal Loss Tool Data:

Item No	Comment	INT/ EXT	Absolute Odometer	Feet to Next Pipeline Feature	Pipe Diameter (in.)	W. T.	Pipe Grade (ks)	Design Factor	MAOP (psi)	Depth (%)	Depth (in.)	Length (in.)	Width (in.)	Q'
1822	1814 Metal Loss	Int.	82612.73	51.09	24	0.219	42	0.72	1038	38%	0.035	0.6	0.4	07
1823	1815 Metal Loss	Int.	82612.73	51.09	24	0.219	42	0.72	1038	30%	0.035	1.0	0.6	07
1824	1816 Girth Weld		82653.83	54.53	24	0.219	42	0.72	1038					
1825	1817 Girth Weld		82718.36	53.59	24	0.219	42	0.72	1038					
1826	1818 Girth Weld		82771.95	51.70	24	0.219	42	0.72	1038					
1827	1819 Girth Weld		82823.65	53.54	24	0.219	42	0.72	1038					
1828	1820 Girth Weld		82877.19	53.60	24	0.219	42	0.72	1038					
1829	1821 Girth Weld		82930.80	53.81	24	0.219	42	0.72	1038					
1830	1822 Girth Weld		82984.60	53.82	24	0.219	42	0.72	1038					
1831	1823 Girth Weld		83038.43	53.29	24	0.219	42	0.72	1038					
1832	1824 Girth Weld		83091.71	53.20	24	0.219	42	0.72	1038					
1833	1825 Girth Weld		83144.92	52.14	24	0.219	42	0.72	1038					
1834	1826 Girth Weld		83197.06	53.35	24	0.219	42	0.72	1038					
1835	1827 Girth Weld		83250.41	53.31	24	0.219	42	0.72	1038					
1836	1828 Girth Weld		83303.73	53.45	24	0.219	42	0.72	1038					
1837	1829 Girth Weld		83357.17	53.25	24	0.219	42	0.72	1038					

Attributes of the Defect

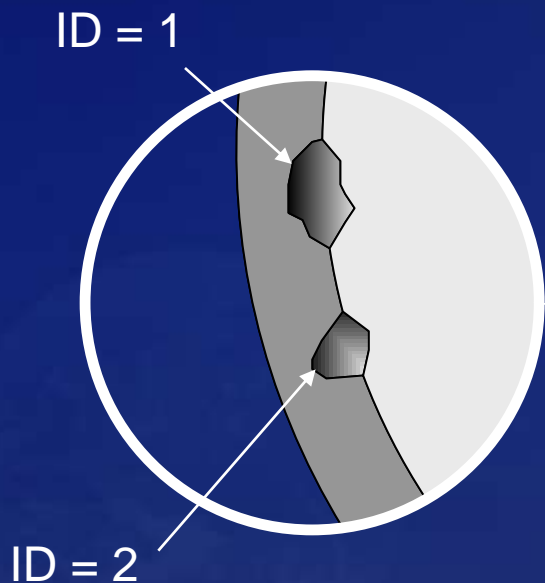


Attributes of the Defect



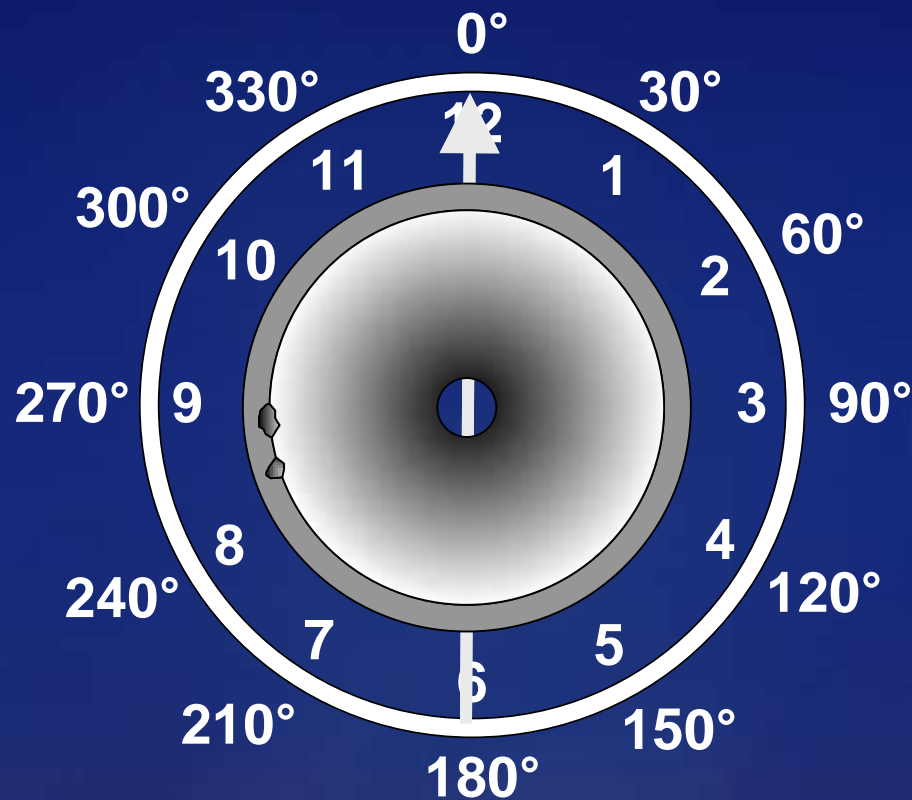
- Absolute Odometer
- Type of Anomaly
- Maximum Depth
- Orientation
- Weld Distance US/DS
- Wall Thickness

Attributes of the Defect



Defect ID	1	2
Odometer	5270.35	5270.36
Anomaly Type	Metal Loss	Metal Loss
Internal External	Internal	Internal
Clock	08:55	08:30
Max Depth Pct	34.05	40.27
Length	1.261	0.632
Width	1.538	0.927
Mod B31G BP	2307.6	2365.0
Mod B31G ERF	.659	.643
Description	Near Joint	

Orientation Conversion



Time * 720 = Degrees

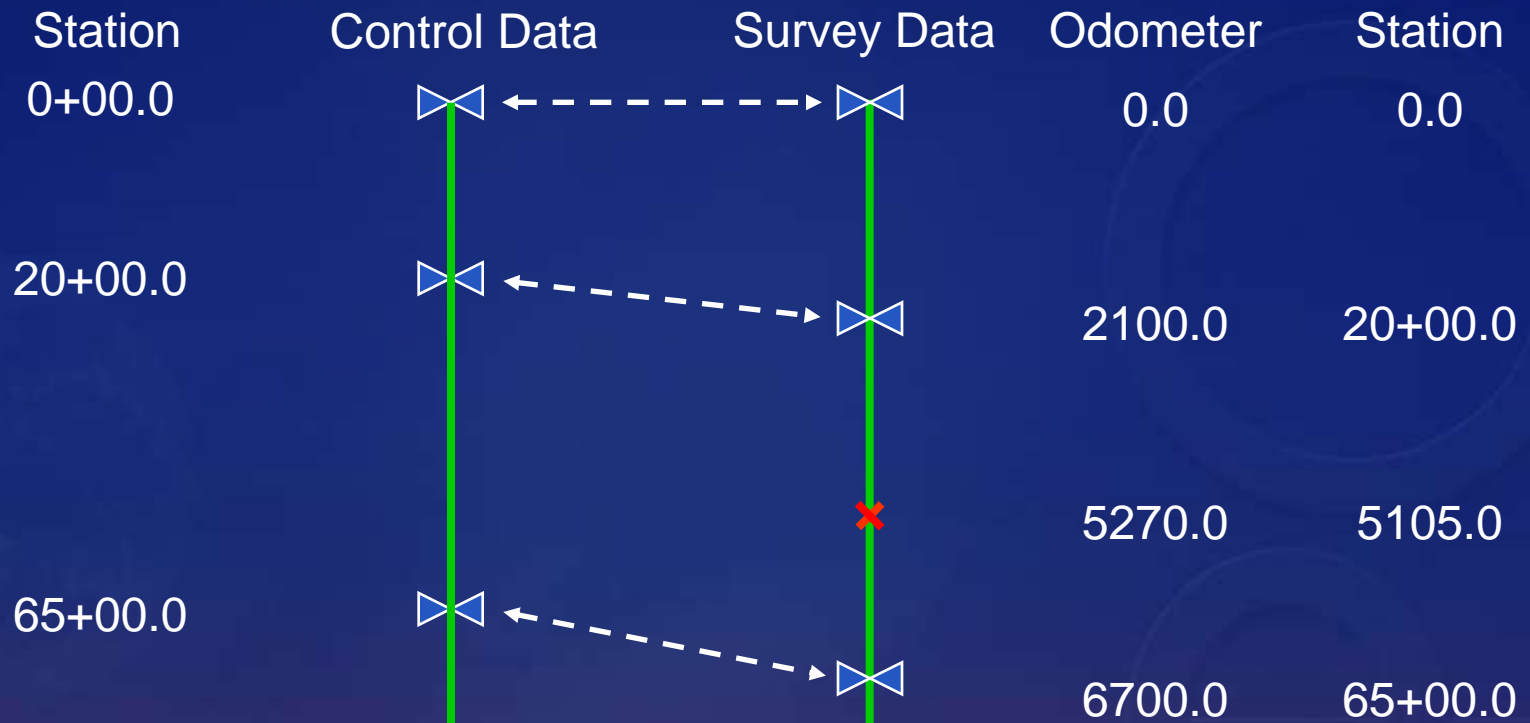
Only for Excel

08:55 * 720 = 267.5

08:30 * 720 = 255.0

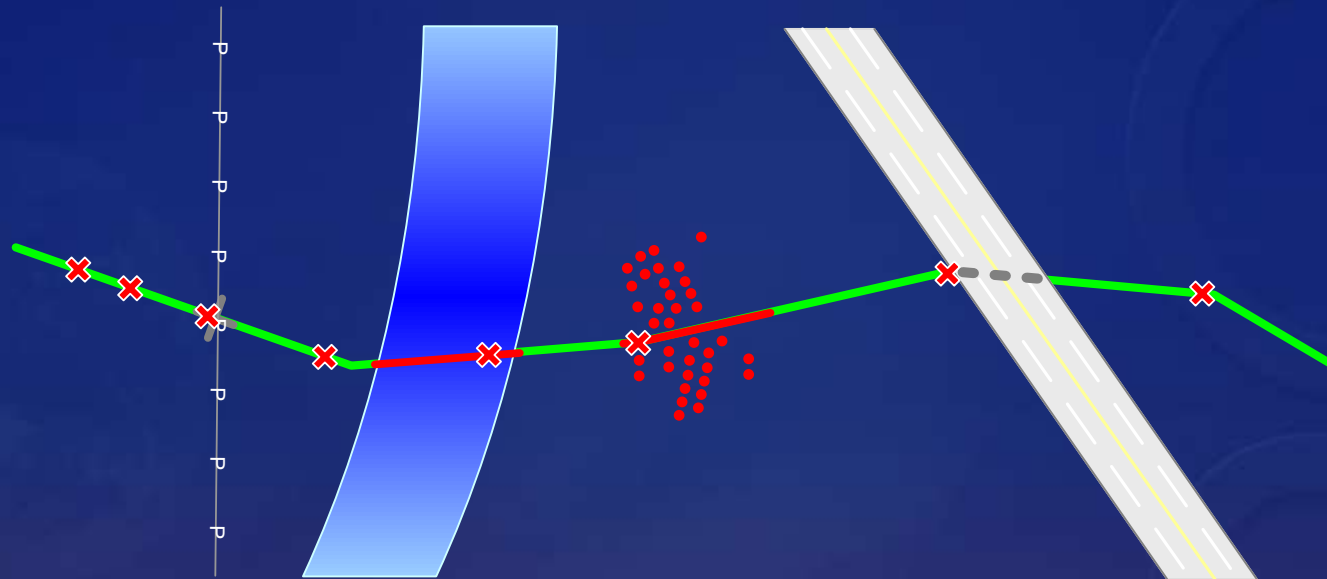
Defect Alignment

- Single Frame of Reference



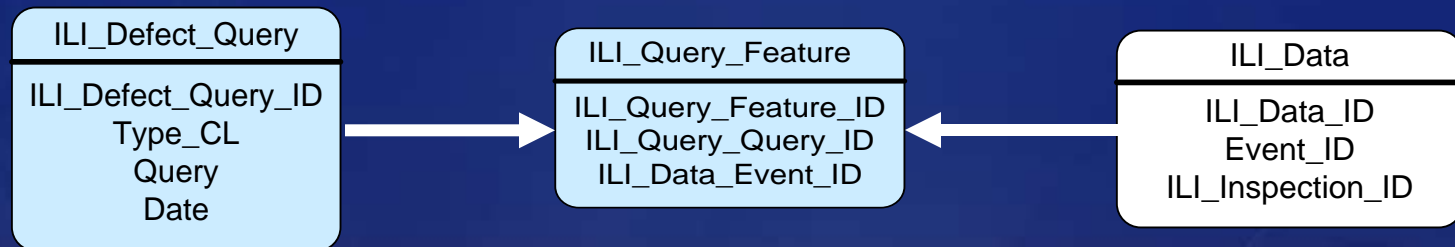
Analyze the Defect

- Attribute
- Proximity

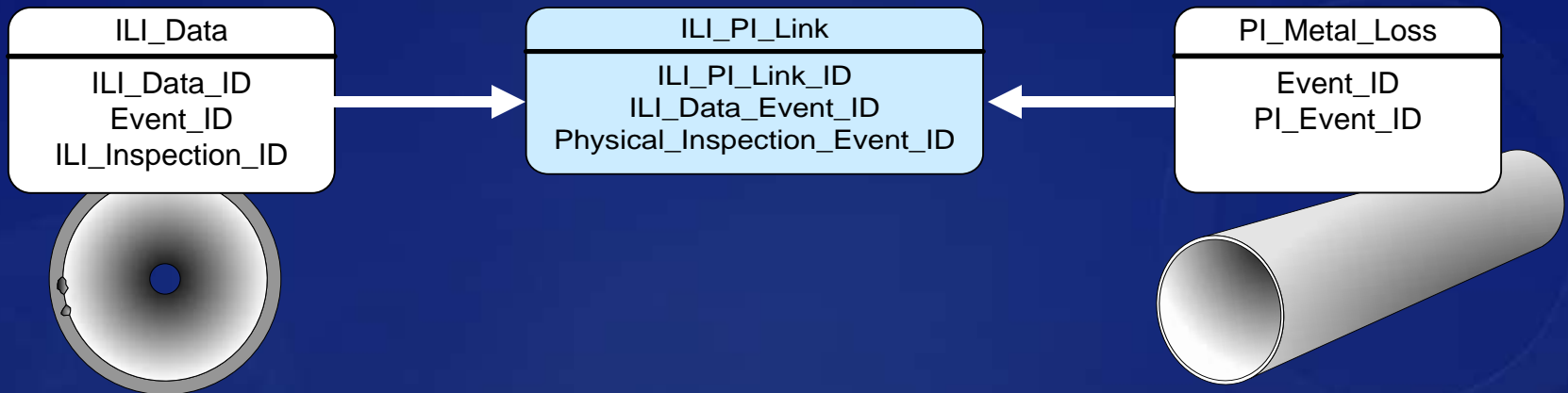


Analyze with Queries

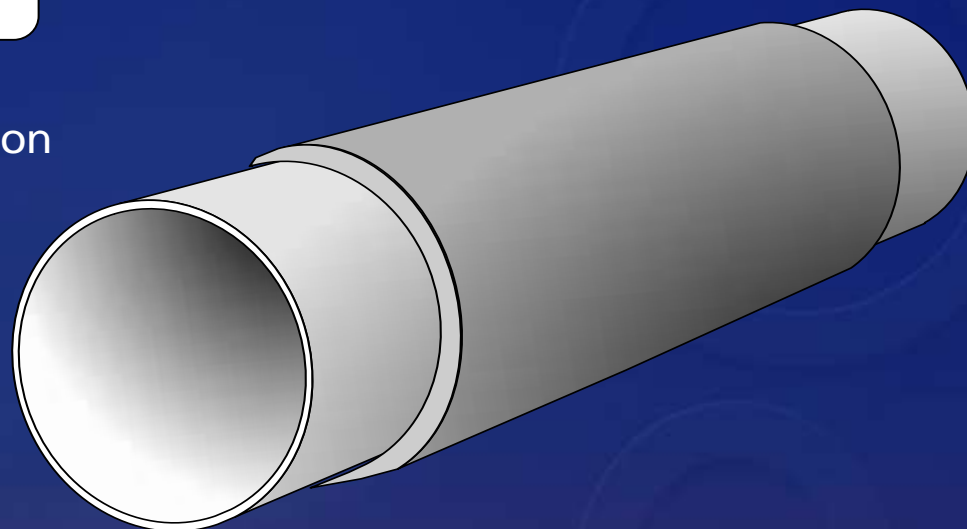
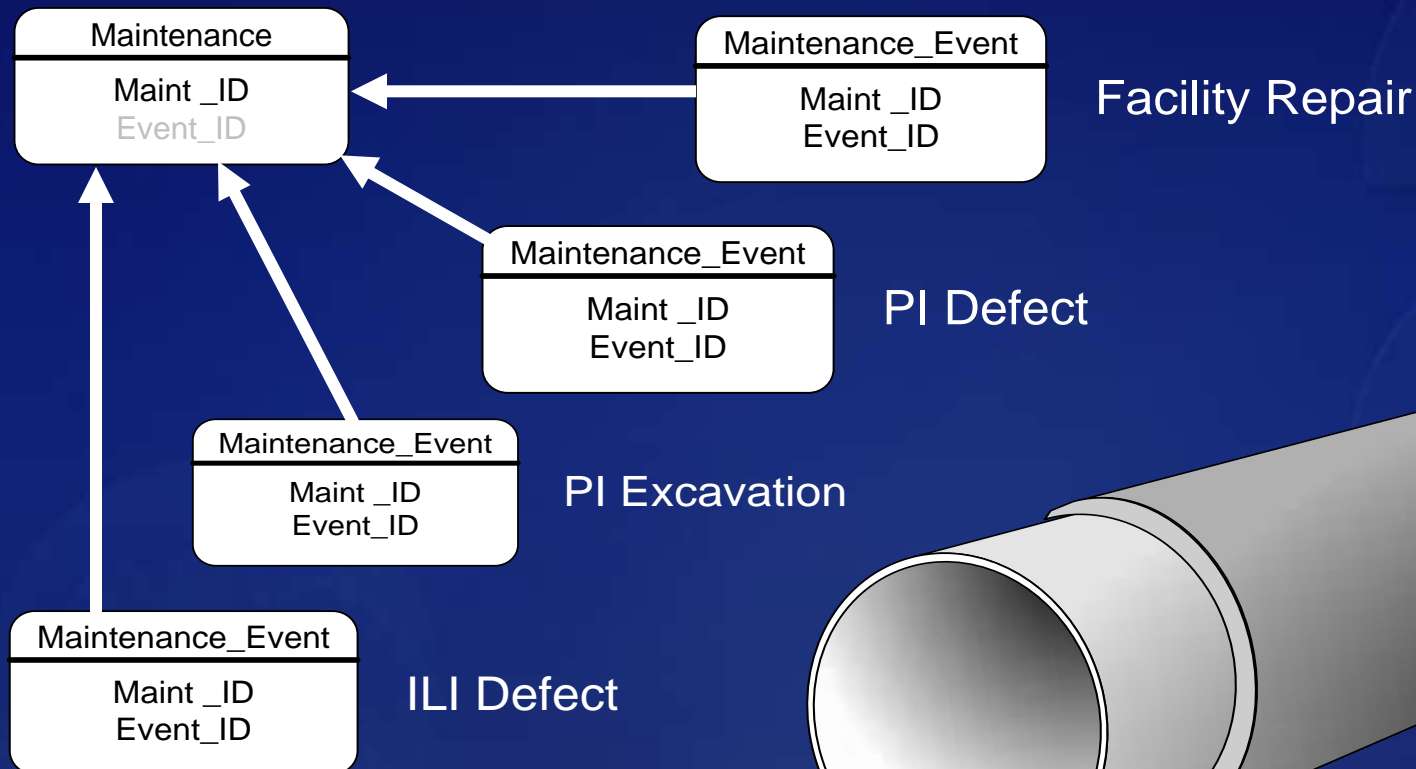
- Predicted Burst Pressure < MOP
- Metal Loss > 80%
- Dent located on Bottom near Metal Loss, Cracking or a Stress Riser



Link Physical Inspection Records to the Defect

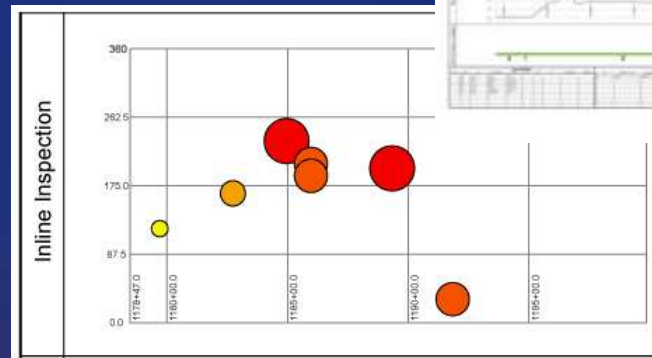
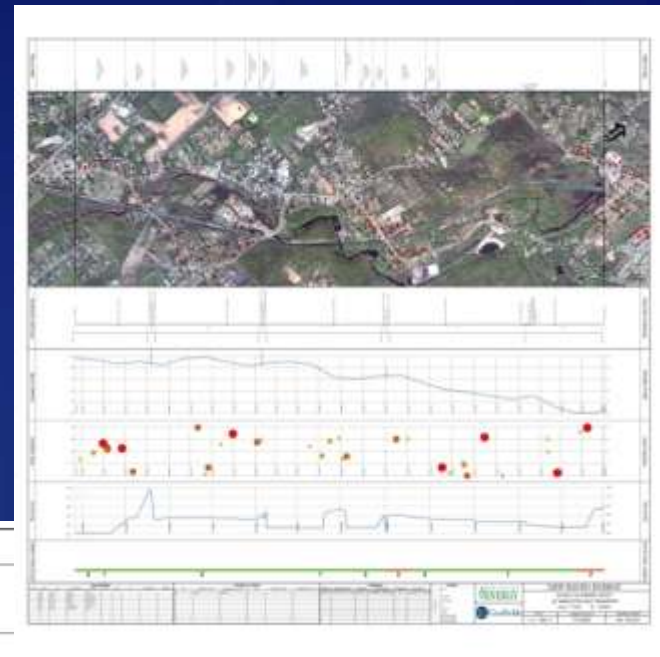


Defect Maintenance



Advantages to PODS Database Management

- Structural Integrity
- Risk Analysis
 - Corrosion Threat
- Generate Alignment Sheets
 - Integrity Sheets



Why Use PODS to Manage Defects?

- Desktop databases no longer cut it
- Extendable to create linkages
- Assessable to all
- Standardizes data
- Establishment of defect workflows

Q & A

- Question & Answer