

# Pipeline Anomalies Matrix



	Axial Crack				Circumferential Crack		Metal Loss				Geometry	Mapping
	EVO UC	EVO UCx	EVO Eclipse UCx	PROTON	EVO UCc	EVO UCcx	EVO UMp	EVO UMp*	EVO UMx	ART Scan	EVO Geometry	EVO Mapping (IMU)
Operational	Liquid medium	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Gas medium										✓	
	Natural Gas Liquids (NGLs)	✓	✓	✓	+	✓	✓				✓	✓
	Multi diameter										✓	
	Dual diameter	+	+		+	+	+	+	+	+	✓	+
	Bidirectional					+		+			✓	
	Thick wall pipe > 12,7 mm (> 0.5 in)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Low flow/ low pressure	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	CRA clad pipe	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Waxy lines inspection	+	+	+	+	+	+	+	+	+	✓	+
Cracks	Axial crack	■	◆	◆	◆							
	Circumferential crack					■	◆					
	Cracks in dents		◆ *	◆ *								◆ **
	Girth weld crack					■	◆					
	Tilted crack	●	▲	◆	◆							
	Skewed crack	●	▲	◆	◆							
	Hydrogen Induced Cracking (HIC)	■	▲	◆	◆	■	◆					
	Lack of fusion	▲	◆	◆	◆	■	▲					
	Longitudinal weld crack	■	▲	◆	◆							
	Stress Corrosion Cracking (SCC)	▲	◆	◆	◆	▲	◆					
Corrosion and Metal Loss	Stacked cracks	■	▲	◆	◆	■	▲					
	General corrosion							■	▲	◆	■	
	External							■	▲	◆	■	
	Internal							■	▲	◆	■	
	Pinholes							■	▲	◆	■	
	Complex corrosion							■	▲	◆	■	
	Highly corroded							■	▲	◆	■	
	Narrow axially oriented							■	■	◆	■	
	Circumferentially oriented							■	▲	◆	■	
	Wall thinning/erosion							■	◆	◆	■	●
	Corrosion cluster							■	▲	◆	■	
	Girth weld anomaly							■	▲	◆	■	
	Gouging							■	▲	◆	■	
	Microbacterially Induced Corrosion (MIC)							■	▲	◆	■	
	Pilferage							■	■	■	■	
Geometry	Pitting						■	▲	◆	■		
	Lamination	●	●	●	●		◆	◆	◆	■		
	Seam weld anomaly						■	◆	◆	■		
	Spiral weld anomaly						■	▲	◆	■		
	Local wall thickness						◆	◆	◆	■	■	
	Bending											◆
	Buckle											◆
	Dent						●	●	●	■	◆	
	Dent with metal loss						■ *	▲ *	◆ *	■	◆ ***	
	Pipe expansion						●	●	●	●	◆	
Roof topping				●		●	●	●	■	◆		
Ovality						●	●	●	■	◆		
Pipe movement											◆	
Wrinkle											◆	

\* Requires the use of geometry technology  
 \*\* Requires the use of a suitable crack technology  
 \*\*\* Requires the use of a suitable metal loss technology

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