

Mechanical Damage Prevention - Existing Technology

		Subsurface Mapping/Locating	Confidence Level		Boring Equipment /HDD Sensing	Confidence Level		Encroachment Monitoring (Ground)	Confidence Level		Encroachment Monitoring (Air)	Confidence Level
Liquid	1	Ground Probing Radar	M	1	Magnetometer	M	1	ROW patrol (visual)	H	1	Visual/Lidar/GPS ROW (helicopter/fixed wing/UAV) flyover	L
	2	Magnetometer	M	2	Differential Impedence Detection	M	2	Acoustic Monitoring	M	2	Visual/GPS/Satellite ROW Monitoring	M
	3			3	Bit mounted Ground Probing Radar	M	3	Fiber Optic	M	3		
	4			4			4	Impressed Alternating Cycle Current	M	4		
Gas Transmission	1	Ground Probing Radar	M	1	Magnetometer	M	1	ROW patrol (visual)	H	1	Visual/Lidar/GPS ROW (helicopter/fixed wing/UAV) flyover	H
	2	Magnetometer	M	2	Differential Impedence Detection	M	2	Acoustic Monitoring	M	2	Visual/GPS/Satellite ROW Monitoring	M
	3			3	Bit mounted Ground Probing Radar	M	3	Fiber Optic	M	3		
	4			4			4	Impressed Alternating Cycle Current	M	4		
Gas Distribution (Steel)	1	Ground Probing Radar	M	1	Magnetometer	M	1	ROW patrol (visual)	H	1	Visual/Lidar/GPS ROW (helicopter/fixed wing/UAV) flyover	H
	2	Magnetometer	M	2	Differential Impedence Detection	M	2	Acoustic Monitoring	M	2	Visual/GPS/Satellite ROW Monitoring	M
	3			3	Bit mounted Ground Probing Radar	M	3	Fiber Optic	M	3		
	4			4			4	Impressed Alternating Cycle Current	M	4		
Gas Distribution (Non-Metallic)	1	Ground Probing Radar	M	1	Differential Impedence Detection	M	1	ROW patrol (visual)	H	1	Visual/Lidar/GPS ROW (helicopter/fixed wing/UAV) flyover	H
	2			2	Bit mounted Ground Probing Radar	M	2	Acoustic Monitoring	M	2	Visual/GPS/Satellite ROW Monitoring	M
	3			3			3	Fiber Optic	M	3		

This Matrix is considered a guide and represents only those who participated.