

# Flowline Audit Topics

## I. Flowline Material and Design

- Pipe Material
- Standards used for construction/selection of piping
- H<sub>2</sub>S present
- Type of process fluids
- Flowline Diameters and Lengths
- Coatings used
- Maximum Anticipated Operating Pressures
- Lines Buried or Above Ground
- Markers or Tracer lines used
- Insulation/heat tracing used
- Types of well pumps used
- Weld X-rays/Ultrasonic Testing used

## II. Flowline Locations

- Relevant counties and basins
- Number of Producing Wells
- Flowline maps created/digitized
- Wells drilled by operator or legacy assets acquired

## III. Flowline Monitoring and Maintenance

- Corrosion protection used
- Cathodic Protection Used
- Frequency of AVO inspections
- Continuous Monitoring Capabilities
- SCADA used
- LDAR/SPCC program established
- Sniffer/Soaping/FLIR camera used
- Database for flowline specs/pressure test records etc.

## IV. Flowline Pressure Testing

- Pressure Test to MAOP before start up
- Lines tested annually
- Actions taken if failed pressure test
- Proof of exempt line pressures
- Duration of test
- Fluids used for testing
- SOP for tests documented

## V. Flowline Spills and Repair

- Root Cause Analysis performed and documented
- Typical repairs made when leaks are found
- Protocol for recurring releases on same line
- Contractor used for repair?

## VI. Other Flowline Details

- Member of One-Call
- Concerns of the Operator (freezing, joint failures)
- Variance desired