Oil Production:

Spills in the Air—Latest Technology to Identify, Measure and Recover Tank and Facility Emissions

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Spills in the Air – Oil Production

- Four Major Areas of Vent Gas
  - Pneumatic Devices
  - Compressor Stations
  - Casinghead Gas
  - Oil & Condensate Storage Tanks

90 / 10 RULE
Spills in the Air – Oil Production

• Identification
  – Acoustic Detectors
  – RMLD (Infrared Detection)
  – FLIR GasFinder Camera
Spills in the Air – Oil Production

• Identification

GasFinder
Camera
Spills in the Air – Oil Production

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Restricting back pressure holds back the flow of hydrocarbons into the well bore.

Back pressure is relieved from the face of the formation allowing more hydrocarbons to flow into the well bore.
Spills in the Air – Oil Production
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- Measurement
  - Minor Leaks
    - **High Flow Sampler**
  - Major Emissions
    - **Turbine Meters**
    - Ultrasound Meters
    - Recording Manometers
  - Awkward Equipment
    - Calibrated Bags
Spills in the Air – Oil Production
Oil Storage Tank – 24 hour emission test utilizing a turbine meter capable of downloading data to a PC
Spills in the Air – Oil Production

• Gas Capture
  - Associated gas is a technical challenge
    • Typically wet
    • Very low pressure
    • Often contains contaminants such as H2S
  - Vapor Recovery Units
    • Can capture 95% of these gas streams
    • Sized from 5 mcfd to 25 MMcfd
    • Improved automation technology
    • Improved transmitter technology
    • Improved compressor styles for wet, low pressure gas
Spills in the Air – Oil Production

• *In Conclusion ...*
Spills in the Air – Oil Production