



Targa Midstream Services Limited Partnership's Experience with EPA's Natural Gas STAR Program



Processors Technology
Transfer Workshop
July 27, 2006
Hobbs, NM

Outline



- ★ Monument Gas Plant
- ★ Pipeline Leak Study
- ★ Phase I & II Study- D I & M
- ★ Future Plans



Monument Gas Plant



Monument Gas Processing Facility, Monument, NM



Monument Gas Plant

- ★ 17 old slow speed engines were replaced with 4 high speed reciprocating compressors driven by 2,500 HP electric motors
- ★ 14,000 HP replaced with 10,000 HP more efficient and properly sized compressors
- ★ The old slow speed engines had significant fuel consumption



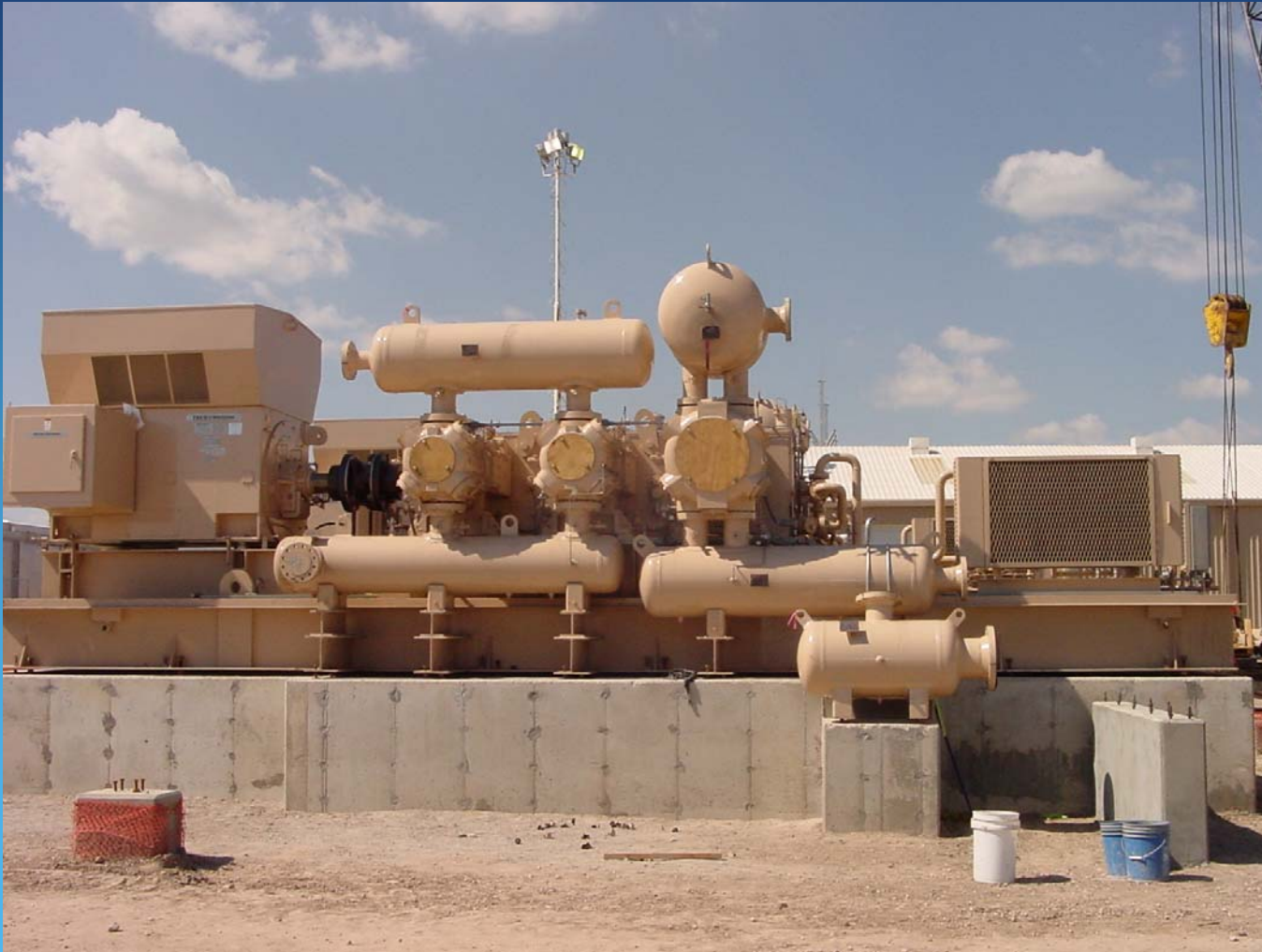
Monument Gas Plant



- ★ Cost of this project \$ 8.3 MM
- ★ Amount of fugitive methane losses saved was estimated at ~41 MMSCF/yr
- ★ Ancillary Benefits Include – Significant reductions in NO_x , CO_2 , CO and HAPs pollutants



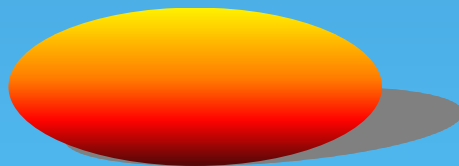
Monument Gas Plant



Monument Gas Plant



Passive Remote Optical Infrared Leak Detection, Quantification, and Speciation



PAT



Pipeline Leak Study



- ★ Driving – visible signs (e.g. vegetation stress)
- ★ Driving with sniffer trucks twice a year
- ★ 25 – 40 miles per day



Pipeline Leak Study



- ★ Mass Balance Discrepancy Identified Need for Survey
- ★ Infrared Remote Sensing from helicopter
- ★ 200-400 miles per day
- ★ Amount of methane estimated at ~146 MM SCF /yr or (0.5 MMSCFD)



Monument Gas Plant



- ★ Infrared survey conducted to identify sources of leakage
- ★ ~200 leaking sources identified
- ★ Largest opportunities - blow down vents, valve packing and relief valve seats.
- ★ Amount of methane saved is ~146 MMSCF/yr \$1022K
@ \$7/MSCF



Phase I Study



- ★ Two gas plants in study
- ★ Cost was \$ 30 K
- ★ Amount methane saved = 100 MMSCF/yr
(\$700K @ \$7/MSCF)
- ★ Savings Realized within 18 Months – Largest
Cost-Effective Leaks Repaired



Phase II Study



- ★ Two plants and four Compressor stations
- ★ Cost was \$ 40 K
- ★ Amount methane saved = 198 MMSCF/yr
(\$1.3 MM @ \$7/MSCF)
- ★ Savings Realized within 12 Months – Largest
Cost-Effective Leaks Repaired



Future Plans



- ★ Planning another electrification project in NM
- ★ Conduct more pipeline Leak Studies in SE New Mexico and West Texas on a periodic basis
- ★ Purchase our own infrared camera to do more frequent surveys



Contact Information

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