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#### Methane Reduction Projects LDAR program

# Leak Detection and Repair

### **Detection by Optical Gas imaging**

#### **Sniffing**

 Sniffing between 700-800 sources/day, concentration measurement, converted into loss using correlation tables (detection limit 9-100.000 ppm)

#### Optical Gas Imaging (IR camera)

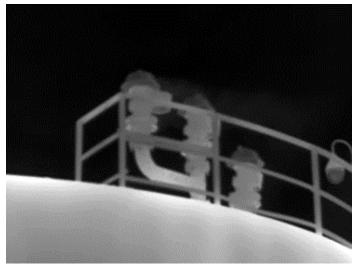
• OGI, between 2000-5000 sources/day, only qualitative, converted into loss using Leak-no-leak factors (detection limit 5.000-100.000 ppm)













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## LDAR - Findings

#### Detection by sniffing and OGI: Pilot in Germany:

#### Gas dehydration Plant 1

- Total number of sources: 2451 (information from P&ID's)
- 7 registered leaks\*; total leakage rate 3656 kg/yr
- 6 of the leaks above the repair threshold value of 1000ppm
- 5447 Sm<sup>3</sup> = 5 apartments gas consumption/year

#### Gas dehydration Plant 2

- Total number of sources 2926 (information from P&ID's)
- 4 registered leaks\*; total leakage rate 119kg/yr
- 1 of the leaks above the repair threshold of 1000ppm
- 177 Sm<sup>3</sup> = 1 apartment 2 months gas consumption



Picture of plant 1 Völkersen, Gas North, Germany

