



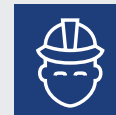
## APPLICATION SPOTLIGHT—Oil & Gas



Improve  
Reliability



Positive Public  
Perception



Improve  
Safety

# LIQUID LEAK DETECTION

## DETECT OIL LEAKS FROM PIPELINES EARLY WITH THERMAL IMAGING

### THE CUSTOMER'S CHALLENGE

While pipelines are still the safest mode of transporting oil, above-ground fluid spills, sprays, and pooling are difficult to avoid. Human error during maintenance, sabotage, corrosion, and aging pipes and fittings are all known to be contributing factors that cause leaks. Especially susceptible sections of the pipeline infrastructure include controlling valves, pig traps, pig receivers, meters, and pressure gauges. Pipeline leaks often start small, and they can be challenging to detect until it's too late. Once a leak gets bigger and more unmanageable, it can be detrimental to an oil and gas company. Delayed detections can cost millions of dollars in financial losses, damage the company's reputation, and wreak havoc on the environment.

### A SOLUTION

Thermal imaging technology can help oil pump stations remotely monitor for leaks in an automated way — detecting them within seconds. A solution that combines visual cameras with a thermal imaging temperature sensor, such as the FLIR A65, can reveal oil leaks as small as 0.36 cubic meters per hour from a distance of up to 60 meters. GenICam-compliant software can then automatically analyze the event based on user-defined leak parameters and, if an alarm condition is determined, an alarm notification with image and video is generated for instant verification. As a system designed to accommodate multiple applications, the leak-analytic software can be combined with security surveillance analytics to monitor sites and assets for intrusion, loitering, theft, and other related events.

### THE RESULTS

Using a combination of visual cameras and thermal imaging, oil companies can monitor the safety of above-line piping facilities on a continuous basis, 24/7. Leaks may be found swiftly with a high degree of accuracy in almost any kind of weather condition — both day and night — without the need for extra illumination. It also helps organizations to enhance response time, reduce man power, and save costs.

For more information about FLIR in the oil and gas industry or to schedule a product demonstration visit:

[www.flir.com/oilandgas/transmission-transportation](http://www.flir.com/oilandgas/transmission-transportation)

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*Most conventional leak detection methods include manned or unmanned aerial and ground surveillance, Supervisory Control and Data Acquisition (SCADA) by remote control rooms, and other computational pipeline monitoring systems.*



*The combination of visual and thermal sensors is an efficient way to monitor the safety of above-line piping facilities.*



FLIR A65

