Unlock the power of digital transformation in your oilfields

Hikvision Onshore Oilfield Solution
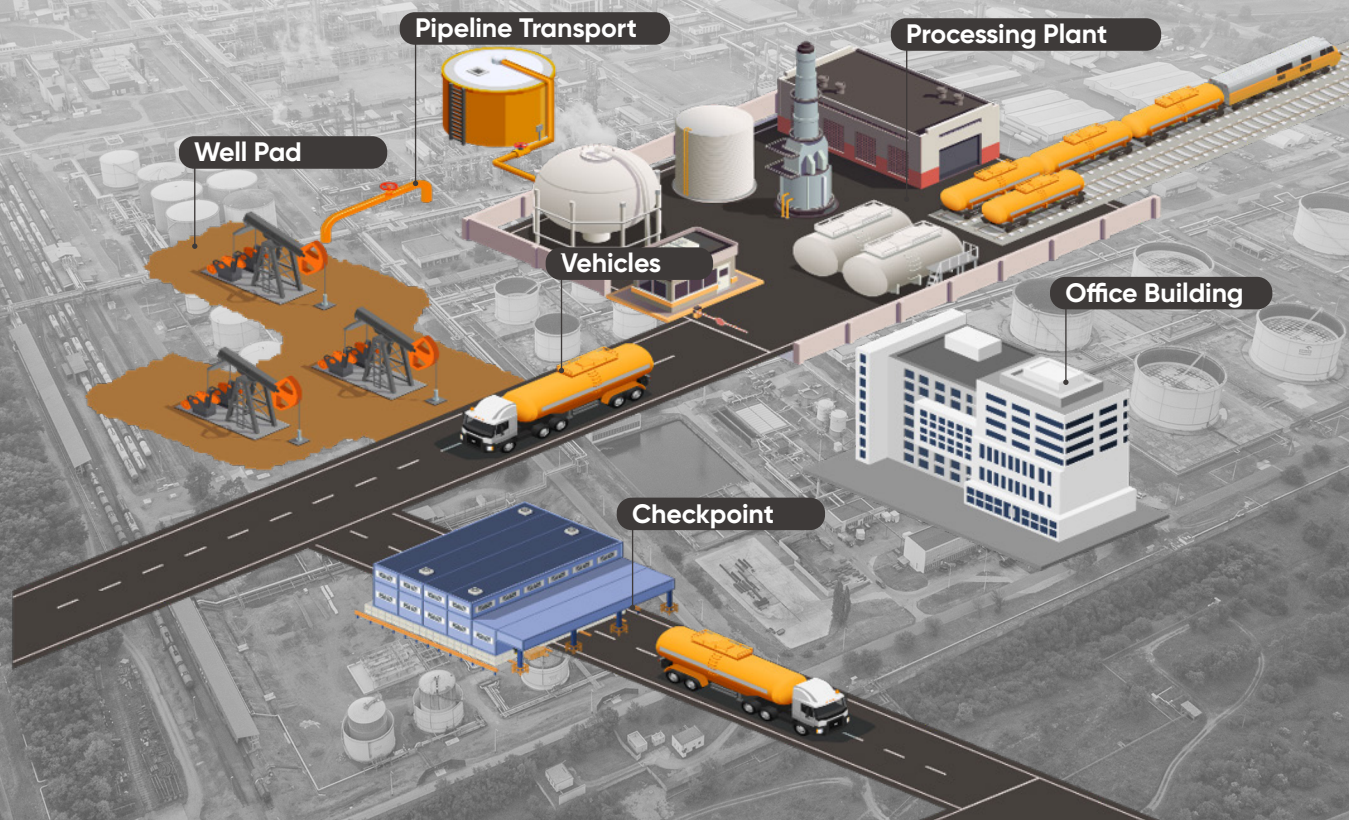
Solutions by Scenario

Onshore oilfields are the primary source of crude oil production and have become a vital component of the global energy mix. Today, digital transformation is essential for oilfield management. However, operators find it challenging when most security solutions only offer basic CCTV monitoring, lacking the necessary digital tools to facilitate all-around security and efficient production.

But now, Hikvision's professional onshore oilfield solution uses smart technologies and products to improve security, assist production, and ensure the safety of personnel.

Read on to learn how it works.

Ensuring Security and Control Throughout
the Entire Process

The onshore oilfield industry relies on six main scenarios. With the help of Hikvision's AI-enabled cameras and smart technologies, operators can increase visibility of the assets and operational status in these locations, ensuring safety across their environment, equipment and personnel at every stage.

Pipeline Transport

Processing Plant

Well Pad

Vehicles

Office Building

Checkpoint

Checkpoints
Securing the First Line of Defense

The checkpoint is the first barrier before entering the oilfield. It requires reliable and high-performance systems to guarantee high-level security.
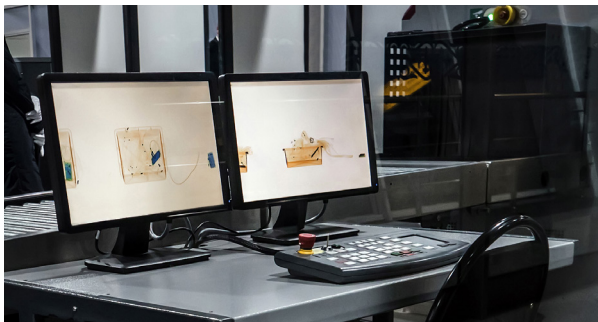

Automatic speed measurement

Hikvision's automatic speed measurement system monitors passing vehicles to ensure safe driving. Speeding violations are reported to the command center and displayed on an LED screen.

Entrance & exit management

Hikvision's barrier gate system efficiently manages entrances and exits by detecting and recording vehicle information. Only authorized vehicles are allowed, further securing the site.

Effective security inspections

Hikvision's AI-based X-ray system accurately detects prohibited items, reducing pressure on personnel and improving screening efficiency. The system can integrate with video monitoring for easy event tracing.
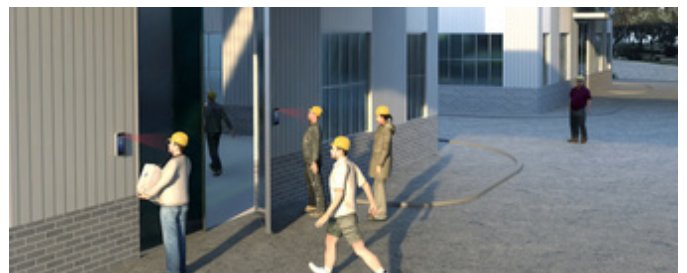
Personnel access control

The employee authentication system uses biometric information to ensure accurate staff access records and enhance the security of the oilfield.

Our online visitor management system provides full-journey control over all personnel.

Visitor Management

Internal Authentication

Well Pads and Pipelines
Precise Protection Prevents Risks

Intrusions targeting the well pads, pipelines, and other remote site have become an ever-present threat. Here, Hikvision provides a comprehensive intrusion detection system to protect vulnerable and valuable infrastructure.

24/7 Video monitoring

Hikvision's 360-degree video monitoring detects pipeline attacks and damage, with real-time notifications for timely emergency response.

Our cost-effective solar-powered cameras are designed to handle extreme environments. With no need for electrical cabling, these powerful kits resolve the difficulties of remote installations and extend the reach of the whole security system.

Reduced false alarms

By leveraging deep learning algorithms, Hikvision can help reduce false alarms caused by animals, rain drops, or leaves, and only send alarms triggered by detection of persons or vehicles.
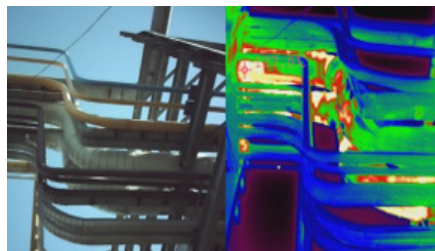
Processing Plants
Maintaining Fluid, Continuous Operations

Efficient and safe operations are essential at processing plants. Hikvision uses leading products and platforms to maximize productivity and staff efficiency.

Process monitoring

Explosion-proof cameras offer security detection with panoramic and detailed views. Operators can monitor in real-time 24/7 and quickly verify security issues. The CCTV system integrates with industrial control systems like Supervisory Control and Data Acquisition (SCADA) for remote video check-ins and daily assurance.

Industrial thermography

Hikvision's professional thermography cameras detect temperature changes from abnormal oil levels, insulation damage, etc. Thermographic monitoring can drastically minimize the downtime of essential equipment.

Gas leakage detection

Hikvision's specially-designed cameras for gas leakage detection cover wide areas, ensuring safety of environment and personnel. When combined with a Tunable Diode Laser Absorption Spectroscopy (TDLAS) handheld unit, they can precisely detect specific leak points for quick repairs.

Personnel safety compliance

Hikvision's AI-based devices verify the presence of personal protective equipment, preventing safety hazards while achieving legal safety compliance.

Protective helmet

Eye wear

VIS clothes

Protective boots

Dust mask

Ear plugs

Safety gloves

Intelligent inspections

Hikvision uses cutting-edge AI technologies, video imaging, and software for inspections of facilities throughout the field.

It's a traceable, regulated, efficient, and fully-analyzed inspection process, allowing for online planning, inspection, and real-time response. Security managers can remotely view high-definition video clips from all sites, significantly reducing unnecessary risks.
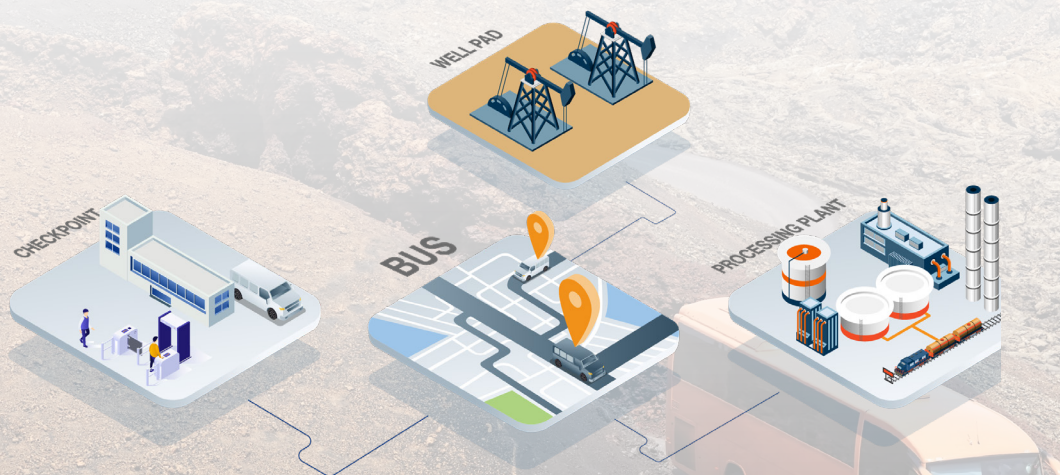
AR live interaction

The live augmented reality map provides extensive insights into the entire station's status. Real-time alarm information can be viewed at any moment, and third-party platform integration supports in-depth data supervision.

Vehicles
Keeping Your Fleet Safe and Efficient

Comprehensive mobile monitoring systems protect people and prevent accidents when driving at oil field sites.

WELL PAD

CHECKPOINT

BUS

PROCESSING PLANT

Real-time vehicle monitoring

enhances traditional GPS positioning with video monitoring to preserve evidence for incident review. In-car alarm buttons also ensure driving safety.

Driver status monitoring

uses specially-design AI analytics products to effectively prevent dangers such as fatigued driving or phone use.

Office Areas
Improving Management Efficiency

With the right tools and technologies from Hikvision, we help create an organized, safe and productive work environment for all personnel.

Emergency mustering

During emergencies such as a fire, the sensor automatically triggers the opening of escape routes and emergency exits. Broadcasts, SMS reminders, and other measures accompany the process of gathering personnel in a safe place.

Centralized management

The video wall facilitates the viewing of video feeds at multiple points. Meanwhile, Hikvision's platform also includes a visual data dashboard, enabling more intuitive understanding of the status and improving your entire management efficiency.

HIKVISION