

Pipeline operations software



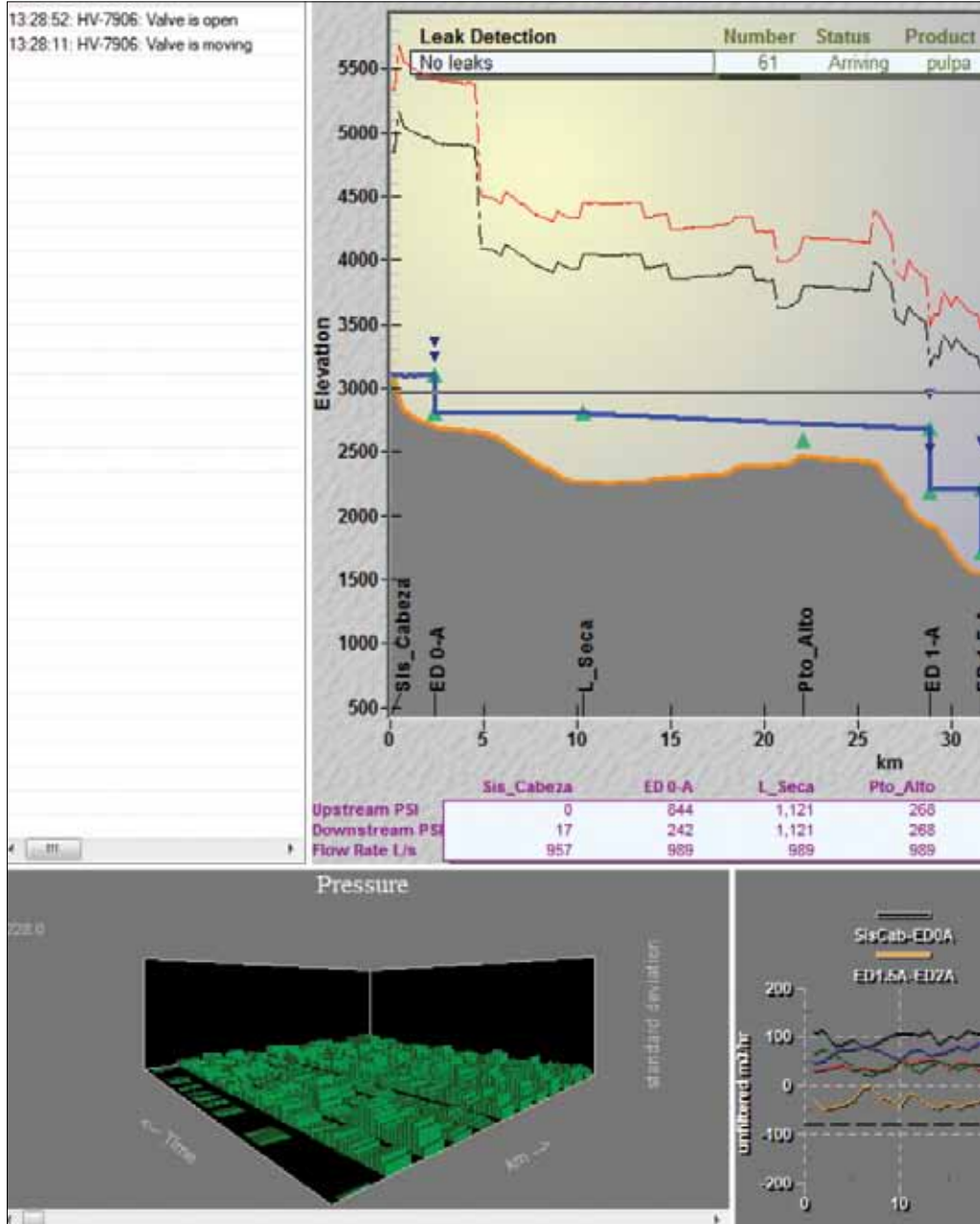
Pipeline operations software



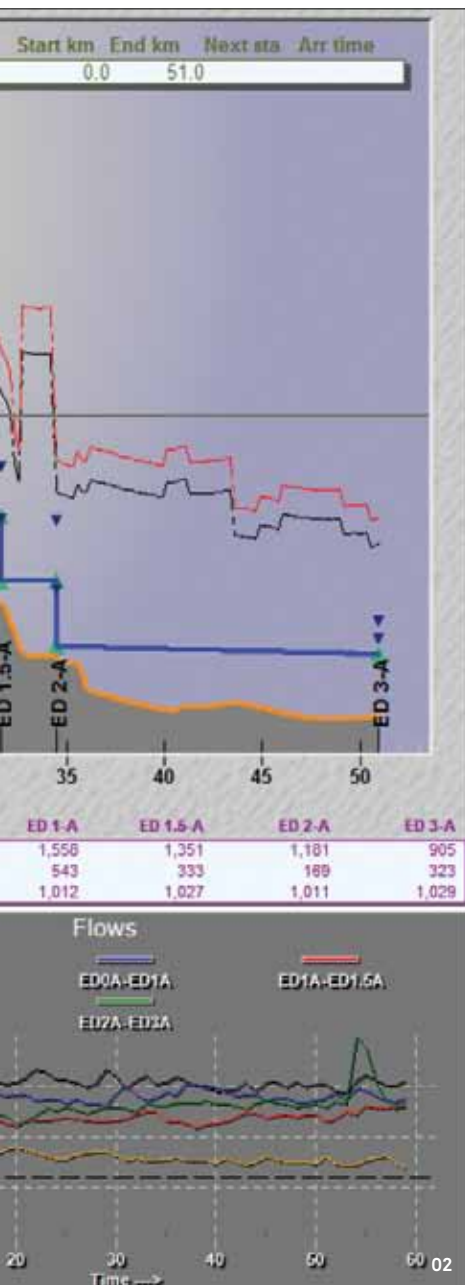
Ausenco is a leading global provider of engineering and project management services to the resource and energy sectors. We combine ingenuity with insight to deliver effective end-to-end solutions for our clients.

Our professionals offer expertise across every aspect of the resource and energy sectors — in areas including mineral processing; pipelines; transportation systems; ports and terminals; infrastructure; and conventional, renewable and alternative energies. We're also experts in optimising performance through tailored operations and maintenance solutions, and in providing environmental and sustainability strategies that deliver benefits for projects, communities and the environment.

We're skilled in every phase of the project lifecycle. From initial concept through to operation, our people can assess, plan, cost, design and construct ingenious solutions that add value and support your return on investment.



Our software solutions are fully customisable and remarkably easy to use.



Ingenious pipeline solutions

For more than 30 years, our people have participated in the development of pipelines around the world, helping clients to transport a diverse array of products in challenging terrain, extreme climates and remote locations.

We've designed and engineered long-distance pipelines to transport virtually every type of mineral — from concentrates such as copper, zinc, lead and iron to crushed ore, bauxite, nickel laterite, phosphate, limestone and coal.

We also offer expertise in SCADA systems and telecommunications for pipelines. Our specialities include developing SCADA solutions for remote locations—stand-alone, self-sustaining systems that require a minimum of local staff and maintenance.

Pipeline operations software

We've designed and implemented some of the world's most complex slurry pipelines, and we handle the great majority of this specialised market worldwide.

Our sophisticated, customised software packages — Pipeline Advisor™ and Pipeline Simulator™ — have been developed to train pipeline operators and help our clients to operate, control and optimise their pipeline systems.

Pipeline Advisor™ offers pipeline operators real-time advice and monitoring to optimise performance and safety. It provides:

- intuitive pipeline visualisations
- batch tracking (pipeline inventory tracking, arrival alarms, pig tracking)
- production history logging
- leak detection
- remote data analysis.

Pipeline Simulator™ helps users to:

- determine operation sequences
- train operators (including in accident scenarios)
- plan operations
- assess pipeline safety.

Our interactive, comprehensive modelling allows our clients to analyse the pipeline in steady state, transient state and batch mode, as well as evaluate changes in flow, slurry composition and batching scenarios.

Our simulator solutions provide operators with a means to acquire advanced knowledge and decision-making skills that are essential in the event of a pipeline accident, without disrupting pipeline operations.

01
Pipeline operations control room,
Da Hong Shan SCADA System, China

02
Pipeline Advisor main screen

Our experience



Project

Ambatovy Nickel Laterite Slurry Pipeline

Location

Madagascar

Client

Ambatovy Minerals S.A./SNC-Lavalin

Year

2011

Description

In addition to providing Pipeline Advisor™ for leak detection and process optimisation, Ausenco was selected to perform a complete range of services, from design through start-up support, for the world's first commercial nickel laterite slurry pipeline.

The pipeline system is designed to transport 7.2 Mt/y of laterite ore, and includes a 208 km, 24-inch diameter buried concentrate pipeline, one pump station, three pressure monitoring stations, one main valve station and pipeline terminal/choke facilities.

Our controls group also provided a SCADA system with remote power systems and fibre optic telecommunications.



Project

Antamina Multi-Product Slurry Pipeline

Location

Peru

Client

Compañía Minera Antamina S.A./Bechtel International

Year

2001

Description

Ausenco was engaged to provide a full range of engineering services for the client's copper-zinc concentrate slurry pipeline system – the first multi-product slurry pipeline in a mountainous region.

Due to the complex nature of this pipeline, Pipeline Advisor™ and Pipeline Simulator™ were included to assist with critical batch tracking functions and pipeline monitoring. Features like batch arrival alarms assist with critical switchover functions, while features like production history logging and simulations facilitate effective operations planning. In addition, Pipeline Advisor™ enhances overall pipeline operations safety with constant pipeline monitoring, comprehensive displays and expert operations advice.



Project

Bao Tou Iron Concentrate and Water Pipelines

Location

China

Client

Bao Tou Steel Group

Year

2010

Description

In addition to providing complete engineering services, Ausenco also provided Pipeline Advisor™ for Bao Tou's 5.5 Mt/y iron concentrate pipeline and 2,500 m³/h high-pressure water pipeline.

At 145 km, the concentrate pipeline is the longest iron concentrate pipeline in China. In addition, the water pipeline is one of the longest water pipelines in China and is serviced by just one pump station.

Pipeline Advisor™ provides operators with a comprehensive overview of the entire pipeline at a glance, and provides insight into the systems' unique requirements.