Production ExPRESS

Rapid production response solutions

Schlumberger

Never Lose a Single Barrel of Oil

Production ExPRESS* rapid production response solutions combine extensive Schlumberger domain expertise with an advanced portfolio of surface well test equipment to ensure production continuity—no matter your challenge. Whether you need an "express" early production facility (EPF), surface pressure boosting, fluid preconditioning, debottlenecking, or pipeline or facility commissioning and maintenance, these Production ExPRESS solutions are interim methods to avoid plant shutdown. That way, you can generate continuous or early cash flow.

The solutions leverage modular and standard yet customizable surface well test equipment for capex-light operations. Because the equipment is designed for transportability, connectability, operability, and availability, conventional equipment or infrastructure constraints are removed, ensuring quick deployment for efficient, agile operations in both brown- and greenfields.

Around the Production Facility

Around the Wellhead
or Wellsite

Production ExPRESS

Rapid production response solutions

Our domain experts help you develop fit-for-purpose solutions to meet your production objectives. With Production ExPRESS solutions, you have access to comprehensive engineering support that combines expertise from surface testing and midstream processing.

Comprehensive design and process engineering support to ensure production continuity.

Production ExPRESS solutions enable you to overcome planned or unexpected events that may interfere with production performance:

- reservoir changes
- production events
- equipment maintenance or upgrade.

We provide quick, interim solutions to ensure well deliverability.

Practical solutions and technical engagement throughout your campaign.

Express EPF

Challenge

The typical timeline for production facility delivery can be lengthy, locking up cash flow and time to first oil. You may need to

- install a temporary production solution during the construction of a dedicated pipeline or facility
- produce from remote satellite fields while avoiding new infrastructure
- collect representative well data for infrastructure feasibility decisions
- perform well cleanup and produce while acquiring essential well data
- perform extended well testing to assess reservoir potential after fracturing operations
- obtain a proof of concept to ensure hydrocarbon recovery from a reservoir, requiring essential field information and reservoir characterization
- gain early access to processed, treated, and stabilized hydrocarbons ready for export
- deploy a quick production-delivery solution, especially in time-sensitive colder regions.

Solution

Our express EPF solution uses standard yet customizable surface well test equipment to start up production faster than a conventional EPF and can be deployed while a dedicated facility is being built for early cash flow. This mobile, efficient solution enables you to acquire additional reservoir information while fast-tracking hydrocarbon production, with effluents (basic sediment and water, H_2S, salt, oil in water, and other impurities) meeting specified criteria. We facilitate early recovery by

- processing and treating fluid, including heavy oil, emulsions, gas condensate, and water
- stabilizing gas condensate to specified criteria
- performing frac flowback and solids handling.

What's unique

- Rapid response to generate early cash flow from production
- Modular, adaptable, and fit-for-purpose package to meet plant requirements
- Temporary deployment of equipment
- Effluent handling, all types

How you benefit

- **Enable** precommercial and fast-tracked production for early cash flow
- **Mobilize** existing Schlumberger equipment for capex-light operation
- **Treat** fluid to meet plant specifications
- **Compensate** for production decline with early production of exploration wells
- **Confirm** long-term reservoir deliverability with extended dynamic reservoir evaluation
- **Enable** derisking field development plans
- **Enhance** dedicated production facility design considering actual well parameters
- **Facilitate** early monetization of stabilized and processed gas otherwise flared

Fluid Preconditioning

Challenge

During initial well flowback, fluids that were introduced into the well and debris that accumulated in the wellbore come back to surface (production fouling). Production facilities may be sensitive to such fluid, and many are not designed to handle its contents. This results in potentially shutting down the plant, losing production, and the inability to bring on new wells to maintain or increase production. To avoid this, wells need to be cleaned of brine, drilling fluid, acid, cuttings, and debris before they can be diverted to the production facility.

Solution

By combining advanced surface well test equipment, customization, and domain expertise, we create a more sustainable, fit-for-purpose fluid preconditioning package to ensure fluid meets the plant's acceptance criteria. Produced fluids are efficiently collected, separated, and treated—generating earlier returns and saving significant opex.

What's unique

- Rapid response to production fouling challenges
- Modular, adaptable, and fit-for-purpose package to meet plant requirements
- Temporary deployment of equipment

How you benefit

- **Maintain** production continuity to avoid plant shutdown
- **Mobilize** existing Schlumberger equipment for capex-light operation
- **Treat** fluid to meet plant specifications
- **Enable** bringing new wells to production
- **Reduce** carbon emissions by sending hydrocarbons back to pipeline
- **Generate** early returns via more efficient fluid preconditioning

Surface Pressure Boosting

Challenge

Production decline mainly results from pipeline backpressure and insufficient well pressure to kick off production or move fluids into the production process. In many mature fields, well surface pressure is lower than the production system or pipeline pressure, limiting well production. However, workover rigs for intervention or artificial lift can be complex and time-consuming methods to increase production.

Solution

Using our portfolio of surface well test equipment, we can design a fit-for-purpose production boosting package to revitalize mature wells quickly and cost efficiently by overcoming pressure challenges associated with well depletion, production system limitations, and high line backpressure—improving production performance.

Our standard surface well test equipment includes multiphase pumps with high gas volume fraction (GVF) to enable well unloading and production boosting in such way that the single- or multiphase effluent can be pumped into the production line.

What's unique

- Rapid response to declining well production
- Modular, adaptable, and fit-for-purpose design to meet plant requirements
- Temporary deployment of equipment
- Integration with Schlumberger services and technologies (fracturing, artificial lift, etc.)

How you benefit

- **Maintain** production continuity to avoid plant shutdown
- **Mobilize** existing Schlumberger equipment for capex-light operation
- **Revitalize** depleting wells
- **Restore** production rates and maintain production continuity
- **Overcome** production system pressure limitations
- **Enable** well unloading (startup and kickoff) of idle wells

Facility Commissioning and Maintenance

Challenge

Access to and mobilization of equipment during the following is essential to ensure production continuity.

Startup commissioning

The commissioning of new oil and gas facilities is complex and challenging and can often face timeline delays. This results in additional project costs and production plan failure.

Unplanned events

Unplanned events, such as a leaking connection or equipment malfunction, might require stopping the facility (thus production) to repair and ensure the equipment works within a reliable operational envelope.

Planned maintenance activities

Plant maintenance is a highly expensive period of regeneration. During this time, part of the operation is offline with reduced production while the plant is inspected and revamped.

Restoring existing facilities

Restoring a facility is necessary to overcome changes in the reservoir's production profile, such as process pressure or fluid properties, that are not anticipated during the initial field startup.

Solution

Our standard yet customizable surface well test equipment seamlessly integrates with existing production facilities. The equipment is designed for transportability, connectability, operability, and availability to maintain or increase production, enabling commissioning or maintenance work to continue as planned to avoid delays. During maintenance, our solution enables you to check, inspect, test, and troubleshoot processes to ensure all systems of the plant work per operational requirements.

What's unique

- Rapid response to facility commissioning and maintenance challenges
- Modular, adaptable, and fit-for-purpose package to meet plant requirements
- Temporary deployment of equipment

How you benefit

- **Maintain** production continuity during planned or unplanned commissioning and maintenance events to avoid production delays
- **Provide** support during facility commissioning
- **Mobilize** existing Schlumberger equipment for capex-light operation

Debottlenecking

Challenge

A bottleneck occurs when a plant's facility does not have enough capacity to handle fluid production. This can be the result of fluid composition changes, flow rate changes where target production rates are increased beyond an anticipated level, or even a dated facility design.

Typical bottlenecking challenges:

- Several wells commingled into one production line: With time, pressure of those wells will change, and stronger wells can push back weaker wells, preventing them from producing.
- Production profile changes: Production lines are designed for an initial production profile; however, with time, phase distribution in multiphase flow can differ from initial production, and the wells might become incapable of handling larger amounts of gas or water.
- Elevation changes: The pipeline design can result in water slugs accumulating in low points, restricting production.

Solution

Our standard yet customizable surface well test equipment enables you to increase production capacity. We examine the overall operating conditions of your facility by comparing current operating parameters and system settings with the design specifications of process equipment. Debottlenecking services include changing system parameters, advanced engineering, water separation from hydrocarbons, and additional production trains.

What's unique

- Rapid response to bottlenecking challenge
- Modular, adaptable, and fit-for-purpose design to meet plant requirements
- Temporary deployment of equipment
- High production rates

How you benefit

- **Maintain** production continuity to avoid plant shutdown
- **Enhance** production capacity by allowing recovery from new wells
- **Enable** early cash flow while upgrading production facilities
- **Mobilize** existing Schlumberger equipment for capex-light operation

Pipeline Commissioning and Maintenance

Challenge

Pipelines require constant monitoring and intervention to ensure production operations remain reliable for the people and environment where the pipelines extend. Production can decline if pipelines are not regularly maintained.

Fluids management during scheduled or unscheduled pipeline maintenance can be a hard task to complete. The size, distribution, and design of the pipeline can increase the difficulty of commissioning and maintenance activities. In addition, the nature of the intervention might require special care to ensure responsible handling of effluent and an efficient commissioning or maintenance operation. Typical operations include

- pipeline inspection
- flushing
- cleaning
- pigging
- pressure testing
- dewatering
- purging.

Solution

Our modular surface well test equipment enables you to perform more reliable and efficient fluid management tasks associated with pipeline interventions, such as receiving pipeline fluid, diverting fluid as needed, and safely disposing returns. This can also be applied during pipeline decommissioning stages.

Large volumes of single- or multiphase hydrocarbons with varying properties and fluids such as CO_2, N_2, or fuel can be present in the line during pipeline commissioning or maintenance. With our solution, you can better manage these fluids.

What's unique

- Rapid response to pipeline commissioning and maintenance challenges
- Modular, adaptable, and fit-for-purpose package to meet plant requirements
- Temporary deployment of equipment
- Integration with Schlumberger services and technologies
- Customer-oriented procedures

How you benefit

- **Maintain** production continuity during intervention
- **Mobilize** existing Schlumberger equipment for capex-light operation
- **Achieve** reliable fluid handling and disposal
- **Enable** monetization of recovered hydrocarbon

Schlumberger has a worldwide footprint with available assets to quickly deploy fit-for-purpose solutions. We leverage this **extensive technology portfolio** to help you meet your production objectives.


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