Boston Strategies International
Global growth. Guaranteed.

CASE STUDY #463



Non-Saleable Natural Gas Processing Technology Research



ABOUT THE CLIENT

Industry	Oil & Gas
Revenues	$350 billion
Employees	65,000
Location	Middle East
BSI Service or Solution	Scientific Research

Key Challenges

- In-place gaseous hydrocarbons contained high levels of nitrogen, carbon dioxide and hydrogen sulfide, and were consequently non-saleable.

Why BSI was Selected

- Track record of researching and analyzing complex technologies
- Ability to evaluate technical challenges from a business perspective
- Expertise in upstream oil & gas operations

Project Scope

Investigated approaches to local (in the oil or gas field) processing and economic recovery:
Technologies:
- Membranes
- Nanotechnology
- Absorption
- Adsorption
- Biological

Applications:
- Claus+ Improvements
- Pre-Extraction
- Sub-quality Gas Power Generation
- Nitrogen Separation
- Bio-Desulfurization

Project Approach

- Scanned emerging technologies that could be integrated with conventional gas treatment process such as the Claus process
- Identified non-cryogenic process routes for gas processing separation of contaminant gases.
- Assessed the viability of gas-fed electric, heat and power generation technologies capable of operating on sub-quality natural gas.

Financial Benefits Realized

- Evaluated each technology and application's short-term and long-term potential for capital cost reduction and operating reduction

Operational Benefits Realized

- Evaluated each technology and application's short-term and long-term potential for processing performance (yield and quality) and operating reliability.

© 2019 Boston Strategies International, Inc.