PROJECT PROFILE NGL STORAGE FACILITY EXPANSION



Client: A MAJOR OIL & GAS MANUFACTURING AND LOGISTICS COMPANY Location: BRAZORIA COUNTY, TEXAS

Audubon supported the natural gas liquid (NGL) storage demand via a contract for a brownfield expansion of an NGL storage facility in Brazoria County, Texas.

The five cavern greenfield design and construction support for phase I was completed in 2014. Phase II included process design and engineering for the facility's topsides, total installed cost (TIC) estimating, piping and instrumentation diagrams (P&ID), and process hazard analysis (PHA) and layers of protection analysis (LOPA) reviews.

Additional services included performing a <u>front-end engineering design</u> (FEED) study to determine the scope of work and EPC schedule and risk register. The project schedule for the 6 MMbbl NGL storage project was accelerated and completed within 18 months.

Project Overview

- Salt dome storage terminal expansion
- 2 underground NGL salt-dome storage caverns
- 2 MMbbl brine pond
- Brine de-gasification system
 - 9,200 GPM of brine flow
- Over 1 mile of pipeline
- 6 million barrels for underground NGL storage
- 2 motor control center buildings
- 14MW substation #2 –integrated to substation #1
- Bi-directional product manifold expansion for five pipeline & 7 cavern tie-ins
- Design capabilities
 - 6 MMbbl of NGL
 - Cavern depth: 4,500 ft.

Scope of Work

- Facilities topsides design
- Process design
- Multidisciplinary engineering
- Electrical & control system design
- Procurement Support
- TIC estimating
- PHA & LOPA reviews
- Survey
- 3D laser scanning



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