

16-inch Pre-Commissioning

A successful onshore pipeline reclassification and upgrade status

A midstream company obtained a 50 mile section of 16-inch NGL. The said infrastructure traversed the largest US river basin, and the SOW scheduled this asset to connect with a new PNLG system extending 100 miles to the west.

In order to reclassify the existing asset for liquids operations, the state project permit specified conversion requirements of an MAOP upgrade from 1,120 psig to 1,240 psig. Upon completion, the new phase expected an increase in production of raw-make NGL by 50,000 bpd or approximately 71%.

PLAN OF EXECUTION

- 1. Pipeline Cleaning:**
 - Chemical surfactants
 - Defoaming agents
 - Mechanical pigging systems
 - AquaGel® pigging systems
- 2. Pipeline Flooding:**
 - Utilization of filtered water from an adjacent natural source
 - 1.5 miles of 8-inch ground pipe for source water transportation
- 3. Hydrostatic Pressure Test:**
 - 12-hour pressure stabilization period
- 4. Pipeline Dewatering:**
 - Relinquish used test medium into natural surrounding
 - Test medium discharge satisfied state environmental regulations
 - Mechanical pigging systems
- 5. Pipeline Air Drying:**
 - Achieved Dew Point of -20°F
- 8-hour approved pressure test**
- 30-minute spike test at 139% of MAOP**
- Utilization of real-time electronic data recording instrumentation**

TECHNICAL ACHIEVEMENTS & BENEFITS

- Successfully executed Management of Change (MOC) orders to accommodate clean pipe specifications.
- Real time, responsive chemical engineering provided total-approach solution for unknown, contaminated pipeline conditions.
- Executed 24-Hour SIMOPS schedule to complete SOW for a moving finish date. Successfully executed hydrostatic pressure tests. Jobs completed with zero incidents and no environmental impact.

LOCATION

Louisiana

SPECIFICATIONS

West Pipeline Segment:
19.85 miles
East Pipeline Segment:
29.71 miles

SCOPE OF WORK

The said reclassification and upgrade resulted in multiple pipeline integrity needs: internal pipeline cleaning, pipeline flooding, an 8-hour approved hydrostatic pressure test, pipeline de-watering and internal drying for product preparation.

Upon extensive site audits and risk assessments the final SOW divided the 50 mile segment into two (2) project segments. This divided contingency provided safeguard for several identified risks:

- Protection against a compressed schedule
- < 50% usage of the original test medium quantity
- Enabled opposing segment transition and minimal time loss in the case of necessary repairs