

# Clay Noble, PE

- ◆ **Clay Noble is a Senior Engineer with Targa Resources. He has been with Targa Resources and Dynegy Midstream Services for 22 years and prior to that with Shell Western E&P for 16 years. He is currently responsible for facilities planning for the North Texas, West Texas and New Mexico regions of Targa Resources. He has been involved with nearly all aspects of the upstream and midstream gas industry, including drilling, production, processing and storage. Over the years he has held various positions in operations, engineering and business development. His current specialty is gathering system pipeline modeling. Clay is a graduate of Texas A&M with a BS in Mechanical Engineering.**

# Design Requirements

- ◆ **Two Compressor Stations.**
- ◆ **Station capacities from 30 to 100 MMcfpD each.**
- ◆ **Unprocessed natural gas.**
- ◆ **Suction Pressure = 15 to 25 PSIG.**
- ◆ **Discharge Pressure = 1050 to 1150 PSIG**
- ◆ **3 Stage reciprocating compressors preferred.**
- ◆ **Natural gas engine driven.**
- ◆ **Equity / rental mix.**
- ◆ **Units considered:**
  - ❖ Cat 3516 Ariel JGT4 3 stage
  - ❖ Cat 3606 Ariel JGC4 or JGD4 3 stage
  - ❖ Cat 3608 Ariel JGC4 3 stage
  - ❖ Cat 3612 Ariel KBZ6 3 stage
  - ❖ Cat 3616 Ariel KBZ6 3 stage

# Design Selection

- ❖ Selected Cat 3606 Ariel JGC4 3 stage
- ❖ Good reputation.
- ❖ Third party recommendations.
- ❖ We had other Ariel JGC4's in area with good experience.
- ❖ Met full range of suction and discharge pressures with low rod loading in 3 stage configuration.
- ❖ Could be used at other locations if needed.
- ❖ Units readily available as equity and rental.
- ❖ Largest unit that could be set on gravel pad or concrete foundation.
- ❖ Vertical engine driven coolers required minimum electricity.
- ❖ Cat 36xx engines had better fuel economy than Cat 35xx engines.

# Cat 3606 Ariel JGC4 Compressors

