Summary

This course is designed to familiarize participants with the basic aspects of crude oil production and the common processes and equipment used in gathering and processing. It is ideally suited to technical, operations and maintenance personnel involved in oil gathering and processing who have had limited exposure in this area, or for professionals involved in other areas of the petroleum industry who require a comprehensive overview of oil gathering and processing.

Learning Outcomes

Participants will learn to:

1. Recognize the characteristics of crude oil that impact flow and processing.
2. Identify the lease elements required for oil production.
3. Describe the various types of separators.
4. Describe the components of a pipeline.
5. List typical elements of an oil battery.
6. Identify options for produced water disposal.
7. Discuss tankage requirements on a facility.

Duration and Training Method

This is a two-day classroom course comprising lectures illustrated with real-world examples. Participants will earn 1.6 CEUs (Continuing Education Credits) or 16 PDHs (Professional Development Hours).

Who Should Attend

This course is designed for technical, operations and maintenance personnel involved in oil gathering and processing who have had limited exposure in this area, or for professionals involved in other areas of the petroleum industry who require a comprehensive overview of oil gathering and processing. It is not intended for Facility Engineers with more than two years of experience.

Prerequisites and Linking Courses

There are no prerequisites for this course.

Related courses on oil and gas field surface facilities include N612 (Introduction to Natural Gas Gathering and Processing), N613 (Natural Gas Processing - Dehydration, Refrigeration, and Fractionation) and N631 - Introduction to Centrifugal, Reciprocating and Rotary Pumps - Design, Application and Operation.

Course Content

Day One

1. Introduction
2. Characteristics of Oil, Water and Gas Production
3. Vapor/Liquid Separation
4. Sales Product Specifications  
5. Fluid Flow – Pipelines  
6. Satellites

**Day Two**

1. Oil Well Production Facility: Battery  
2. Inlet Separation and Free Water Knockout  
3. Oil Treating  
4. Storage Considerations  
5. Water Handling and Distribution  
6. Compression  
7. Stabilization  
8. Tankage  
9. Vapor Recovery  
10. Utility Systems