



MAESTRO
CONSULTANTS

CRUDE OIL TESTING, EVALUATION, SAMPLING & EQUIPMENT

COURSE OUTLINE 2024

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TRAINING TITLE

CRUDE OIL TESTING, EVALUATION, SAMPLING & EQUIPMENT

VENUE

Dubai, UAE

DURATION

5 Days

DATES

22 - 26 January 2024

PRICE

\$5,250 per attendee including training material/handouts, morning/afternoon coffee breaks and Lunch buffet.

TRAINING INTRODUCTION

Crude oil is the single largest traded commodity in the world. Proper sampling, analysis, and reporting of data according to established standards is of paramount importance, especially with the volatility in price, and the market proliferation of synthetic, high TAN, and extra heavy crude oils. Whether crude oil is refined in the near-term or stored for an extended period, it is fundamentally important that recognized procedures and standards be used in sampling and analysis. This is true from the time crude oil is produced, through transportation and interim storage, until it is ultimately refined. Analytical data must be accurate and reliable as they are the basis for decisions on whether a given crude oil can be effectively processed and yield the desired product slate. These data are also used by engineering personnel in planning refinery upgrades.

TRAINING OBJECTIVES

Upon successful completion of this course, the delegates will be able to:

- ✓ Discuss the history of crude oil as it relates to supply and training patterns
- ✓ Define and discuss key terminology
- ✓ Discuss sample protocols
- ✓ Review and discuss case studies

TRAINING AUDIENCE

- Laboratory technicians and chemists responsible for the analysis of crude oil samples for quantity and quality purposes
- Refinery personnel responsible for evaluating crude oil to determine their processing characteristics

- Operating (field) personnel responsible for collecting samples will also benefit from a better understanding of how test results are directly dependent on proper sample collection and handling
- Traders and buyers involved in sale, purchase, or exchanges of crude oil.

TRAINING OUTLINE

DAY 1

- Crude Oil History; Supply and Trading Patterns
- Definitions and Terms
- Quality Variations and Their Causes
- The Complexities of Crude Oil Composition
- Sampling Protocols
- Sampling Containers and Sample Integrity

DAY 2

- Composition and Classification
- Inspection Analyses (Cursory Assay)
- Comprehensive Analyses (Full Assay)
- Other Important Crude Oils and Fraction Properties
- Basics of Crude Oil Processing Evaluation

DAY 3

- Bitumen and Extra Heavy Crude Oils
- Crude Oil Quality (Case Studies)
- ASTM Crude Oil Proficiency Testing Program
- Challenges Presented to the Analyst by Heavier, Higher Sulfur Feed stock and Opportunity Crude Oils
- Future Needs in Crude Oil Characterization and Analytical Test Method Requirements

DAY 4

- Typical oilfield processing
- Production fluid treatment objectives
- Production fluid separation
- Emulsion
- Theory
- Stabilization
- Destabilization
- De-emulsifier

DAY 5

- Dehydration
- Oil treatment basics
- Desalting

- Stoke's law of settling theory or gravity separation
- De-emulsifier requirements and selection
- Group discussion on the chemicals used

TRAINING CERTIFICATE

MAESTRO CONSULTANTS Certificate of Completion for delegates who attend and complete the training course

METHODOLOGY

Our courses are highly interactive, typically taking a case study approach that we have found to be an effective method of fostering discussions and transferring knowledge. Participants will learn by active participation during the program through the use of individual exercises, questionnaires, team exercises, training videos and discussions of "real life" issues in their organizations.

The material has been designed to enable delegates to apply all of the material with immediate effect back in the workplace.