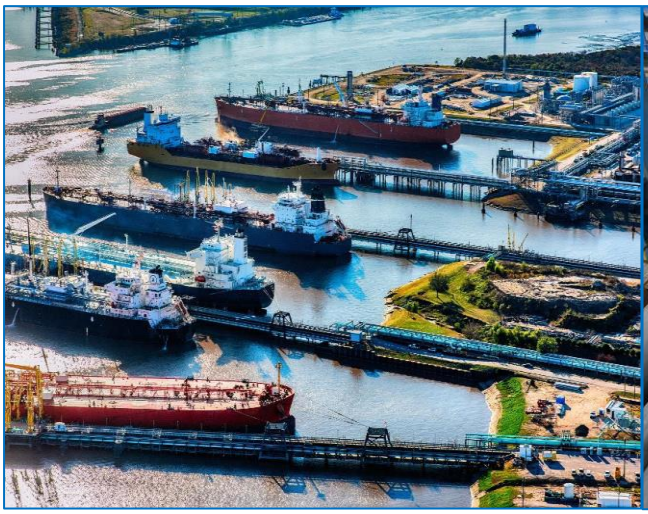
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LM118:
International Oil Supply, Transportation, Refining & Trade

Training Description:

This training course is designed to give participants a comprehensive picture of the international oil supply, transportation, refining and trade. Further, this intensive training course will include crude oil and refined markets, risks, legal and regulatory issues involved in the international trading of crude oil and refined products. The training course is presented with the wide range of essential practices of petroleum industry spanning, exploration, extraction, refining; and global oil supply, reserves, production & trade flows. With the overview of these essential upstream and midstream practices, the industry downstream operations dealing with crude oil and refined products trading and its associated risks and uncertainties can be fully understood. Since price volatility always exists, the Price Risk Management appropriate techniques are presented in detail. Sales, Marketing, Trading and Risk Management are crucial and also the most dynamic parts of the value chain, and extremely important for managers to stay on the top of these activities.

The training course will highpoint:

- Essential success factors in exploration, production, and transportation of oil
- Important elements of petroleum refining and its economics
- Improving refinery economics and overall profitability of oil business
- Focusing on strategic planning and tactics to reduce corporate risk
- Logistics of international supply, transportation and storage of oil
- Practical aspects crude oil sales, marketing and trading

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Understand Upstream oil exploration, production & supply principles and practices
- ✓ Understand refining process, compute refinery gross and net margins
- ✓ Understand LP models, and develop crude oil selection criteria
- ✓ Apply petroleum economics, calculate financial benchmarks and prioritize projects
- ✓ Estimate costs, negotiate and compare physical deals and help write contracts for the sale of crude oil and refined products
- ✓ Use Worldscale reference to charter a ship and to calculate the profitability
- ✓ Understand the international markets, their risks and how prices are formed and disseminated
- ✓ Understand the hedging instruments, determine the price risk exposure and manage price risk.
- ✓ Acquire legal and regulatory issues relating to the International aspects of oil trading

Training Designed for:

This course is intended for Business Development managers, Corporate Planning professionals, Lawyers & law firms' personnel, Geoscientists & Engineers, Refiners, Bankers, accountants, Auditors, Members of Board and Senior Oil Executives, Media personnel who interface with traders and trading, Government regulators, Tax & finance advisors, Auditors, Compliance officers, Equity & Financial Analysts and Bankers, Joint Venture officers, Contract Negotiators.

Training Requirement:

"Hand's on practical sessions, equipment and software will be applied during the course if required and as per the client's request."

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Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client's learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

DAY ONE:

- Essential Upstream Practices
- Introduction to the course
- Introduction to how oil was formed
  - Origin, Accumulation and Migration of Petroleum
  - Essential Requirements for Hydrocarbon Accumulation
- Fundamentals of Oil & Gas Geology and Petroleum Engineering
  - Introduction to Oil & Gas Geology
  - Simple Anticline Structural Trap
  - Barrier or Closure – Reservoir Traps - Reservoir Mapping
  - Oil & Gas Drilling Techniques
  - Types of Drilling – Exploration, Delineation, Appraisal, Developmental, Maintain Potential Wells
  - Drilling Circulatory System – Safety and Environmental Impact
- Well Logging and Well Completion
  - Tools and Techniques for Evaluating Oil & Gas Wells
  - Open and Cased Well Logs
  - Functions of Well Casing
  - Benefits of Horizontal Well over Vertical well - Multilateral Well Completions
- Essence of International Oil Supply – Global Reserves, Production & Trade
  - Introduction to global oil business - Exploration, Extraction, Refining, Marketing, Transportation
  - Global Oil Resources – World Oil and Gas Reserves, Production of Oil and Gas
  - Industry units – for the USA, Europe and Asia, Conversion factors
  - Crude Oil Classifications
  - Crude Oil Quality Indictors, crude oil characterization by Assays
  - Crude Oil Distillation – Refined Products
  - Oil Industry Units and Conversion factors
- Fundamentals of Oil Economics
  - Delivered price of crude oil – the concept GPW (Gross Product Worth)
  - Net Refining Margin calculation
  - Value of Crude Oil and the Determining Factors in Crude Selection

DAY TWO:

- Crude Oil Trading
- The Evolution of International Oil Pricing System – The Big Picture
  - Introduction
  - Evolution of Crude Oil Pricing System
  - The Era of the Posted Price

- The Pricing System Challenged by Independent Oil
- The Emergence & Consolidation OPEC Administered Pricing System
- The Changing Landscape for IOC's/NOC's
- The Collapse of the OPEC Administered Pricing – Net Back Pricing
- The Market-Related Oil Pricing System and Formulae Pricing
- Spot Markets, Long Term Contracts and Formula Pricing
- Benchmarks in Formulae Pricing
- Oil Price Reporting Agencies and Price Discovery Process
- The Brent Market and its Layers
- The US Benchmarks
- The Dubai-Oman Market

❖ Trading Physical Crude Oil and its Logistics – Chap 2 CON

- Trading Fundamentals and Trading Terminology
- Impact of Production Sharing Contracts and its components
  - Fiscal Tools
  - Cost Recovery Component
  - Profit Oil Component
  - Royalty and Tax
  - Tax Implications – Ring Fencing
  - Market Price
- Joint Operating Agreements
- Transportation Agreements
  - Tariffs
  - Value Adjustment Mechanism
  - Terminal Logistics
  - Floating Platform Storage Operations
- Crude Oil Lifting Agreements
- Marine Vessel Nomination
- Physical Sales and Purchase Agreements
- Freight Contracts
  - Freight Costs
  - Laytime
  - Demurrage

❖ The Dissection of Crude Oil Price

- First Component - the Absolute Price
- What are Benchmark crudes
  - Brent
  - WTI
  - ASCI
  - Dubai/Oman
  - TAPIS
  - ESPO
- Criteria for Ideal Benchmarks
- The Regulation of Benchmark Crudes

- Determination of Absolute Value of Crude
  - Forwards and Future
  - Brent Chains
  - Credit Security and Forward Market
- The Futures Market and Absolute Value of Oil
  - Initial Margin
  - Variation Margin
  - Physical Delivery
  - Exchange for Physical Delivery
- Hedging the Absolute Value of Crude Oil
  - Basic Hedging Theory
  - Practical Considerations
  - Dated Brent Risk Hedged with Forward Brent Contract
  - Floating Priced Hedging
- Speculation

❖ Oil Price Formula – The 2nd Component - Time Differential

- Arbitrage
- Swap - the "Contract for Difference"
- What is the right time to set the price?
- What goes on when two traders transact a deal?
- CFD and the time value in Oil Price
- Value Fixation
- Floating Fixing or Hedging value of Oil
- Hedging and the Slope of the Forward Oil Curve
- The Term Contract Pricing of Oil

❖ Oil Price Formula – The 3rd Component - Grade Differential

- The Crude Oil Grade
- The Crude Oil Quality
- The Crude Discount
- The Refining Assay
  - Paraffinic
  - Naphthenic
  - Refining processes
- The Gross Product Worth
- Location and Freight

❖ Price Risk Management - Hedging the Crude Oil Price

- The Types of Risks
- The Strategic Hedging
- Operational Hedging
- Risk Management Considerations
  - Correlations and Basis Rick
  - Tax Basis Risk
- Choosing the Right Tools
  - The Company Risk Profile

    - The Company Risk Appetite
    - Market Price View
  - When to Close a Hedge
  - When Strategic Hedge Go Operational
  - Swaps
  - Options
    - Premium
    - Option Style
    - Option Strategy
    - The Zero Cost Collar
  - Option Valuation
  - Summary

DAY THREE:

- **Refined Products Trading**
- The Trading Refined Products
  - Light Distillate
  - Middle Distillate
  - Fuel Oil
  - Other products
  - Participants in Refined Products Trading
  - Arbitrage
  - The 24/7 Market
  - The Roll of Traders
  - The importance of Location
  - Transportation and Operations
  - Pricing and the Netback War
  - Pricing Policies Latest Trends
  - Price Fixing
  - Storage
  - Types of Oil Products
  - Supply/Demand Balance
  - Production, Consumption and Refinery Capacity
    - Light Distillate
    - Middle Distillate
    - Fuel Oil
    - Other products
  - Future Trends
  - Environmental Products
- Refining I – Basics
  - Simple Chemistry for Non-Chemists
    - Paraffin
    - Olefins
    - Napthenes
    - Aromatics

- Catalysts
- Crude Oil Properties
  - API and Sulfur
  - Acid
  - Salt
  - Water
  - Metals
  - Other
- The Crude Oil Assay
- Basic Refining Processes
  - Separation
  - Treatment
  - Upgrading Conversion
- Blending Refinery Economics
  - Gross Product worth
  - GPW and refiner Margin
  - Team Work

❖ Refining II – Conventional Refinery Upgrading
- Cat Cracking
- Hydrocracking
- Visbreaking
- Coking

❖ Oil Products and their Qualities
- Physical Oil Products and the Grade Value of Crude
- Quality
- Petroleum Gases
  - Methane
  - Ethane
  - Propane
  - Butane
- Light Distillate
  - Naphtha
  - Gasoline
- Middle Distillate
  - Kerosene
  - Gas Oil
  - Diesel
- Fuel Oil
- Straight Run Fuel
- Cracked Fuel Oil
- LSWR
- Bunker Fuel Oil
- Specialty Products
  - Lubes

- Waxes
- Bitumen
- Coke/Carbon Black

❖ Oil Logistics and the Art of Trade
- Delivering Oil Products
  - Shipping
  - Pipeline
  - Rail Car
  - Road Truck
- Delivery Term
- Other Pricing Bases for Refined Products
- Oil Contracts
  - Split Weekends
  - Counterparties
  - Grade/Quality
  - Quantity
  - Delivery
  - Price
  - Payment Clause
  - Irrevocable Documentary Letter of Credit
  - Standby Letter of Credit
  - Parent Company Guarantee
  - Open Credit
  - Dispute Resolution
  - Nominations
  - Vetting
- Storage

❖ The Price of Refined Oil Products
- History of Oil Prices and How the Benchmarks evolved
- The Components of the Oil Price
- The Absolute Value of Products Price: The Role of Benchmark
  - The Characteristics of Bench Marks
  - Choosing the Right Benchmark: Price Reporting Agencies
  - The Bid-Offer Spread
  - Regulatory Oversight?
  - The Regulatory Investigation
- The Time Differential Value of Product Price
  - Bulls and Bears
  - The Contango Arbitrage
- Trading the Time Spread: Contango without Getting Physical
- The Value of Product Grade Differential

DAY FOUR:

❖ The Risk Management

❖ Oil Products Price Risk Management

- Measuring Risk
  - Strategic Hedging
  - What is a Hedge
  - What is a Hedge Loss
  - Hedging and Speculation Compared
  - The Role of Risk Manager
  - Operational Hedging
  - The Long and the Short of it
  - Opening and Closing Hedges
  - Basis Risk
- The Forward Market
- The Future Market
- The Swaps Market
- The Options
  - The Size of the Premium
  - The Option Style
  - The Zero Cost Collar
- Crack Spreads

DAY FIVE:

- **Legal and Regulatory**
- Legal and Regulatory Issues
  - Contractual
  - Regulatory
- International
  - International Aspects of Oil Trading
  - Special Trade Terms
  - Standardization of Terms
  - International Sales of Goods
  - General Trade Laws
  - World Trade Organization
  - Financial Issues
  - Banks's Role
  - Shipping Laws
  - Marine Insurance
  - Dispute Resolution
  - Impact of National Laws
  - US an UN Trade Sanctions
  - Sovereign Immunity
- United States
  - Oil Trading in the US
  - General Commercial
  - Anti-Trust Legislation
  - Sovereign Immunity Act
  - Foreign Corrupt Practices Act

- Commodity Trading Law
- Specific Contracts
  - Futures & Options Contracts
  - Exchange of Futures for Physical (EFP)
  - Swaps

❖ United Kingdom
- Oil Trading in the UK
- General Commercial Law
- Competitive Law
- Finance and Banking Law
- Protection of Trading Interest Act
- Financial Services Law
- International Petroleum Exchange

❖ Singapore
- Oil Trading in Singapore
- Singapore Exchange
- Comparison with London and New York

❖ Controlling Financial Risk
- What is trading Risk?
- Other Potential Sources of Loss
- What are Characteristics of Energy Markets
- Determination of Risk
- Operations

❖ Course Conclusion
❖ POST-ASSESSMENT and EVALUATION

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

TBA as per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:

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