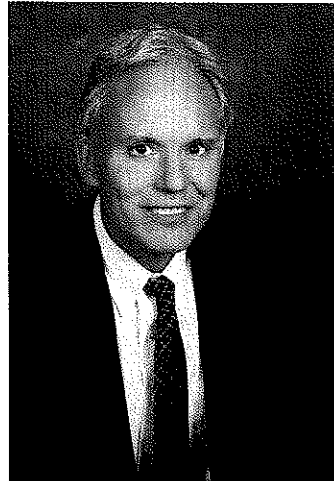


JOHN R. AUERS, P.E.
Executive Vice President
Turner, Mason & Company

Professional Expertise:

Thirty-four years experience in the petroleum downstream industry, including with Exxon's refining organization prior to joining TM&C. Specific expertise in the areas of economic forecasting, supply and demand analysis, price/margin forecasting, linear program (LP) modeling, refinery valuations, crude oil evaluations, refining economics and planning, litigation support, operations support, computer control, process design and project engineering.



Academic Background:

- B.S. Chemical Engineering, University of Nebraska, 1980
- MBA, University of Houston, 1985

Professional Affiliations:

- Registered Professional Engineer (Texas and Nebraska)
- Member of Tau Beta Pi, NSPE, TSPE and AIChE

Industrial Experience:

- Associated with Exxon Company, USA for seven years in operations support, facilities development and process control at the Baytown refinery.

Representative Past Engagements:

- Team leader or senior contributor on numerous engagements with Canadian bitumen and synthetic crude producers generally related to placement of upgraded or diluted bitumen from their operations in U.S. refining centers or specific refineries.
- Conducted a study for a public midstream company related to changing U.S. refining appetites for specific crude oil grades related to a decision for reversing a crude oil pipeline.

- Also led or was a senior contributor on numerous studies for U.S. refiners seeking to partner with Canadian bitumen or heavy crude producers.
- Led our firm's due diligence review for a large mid-stream company prior to the acquisition of strategic Bakken Field assets in North Dakota.
- Senior contributor to numerous TM&C Independent Engineer reports used by Goldman Sachs in arranging financing totaling ~\$1 billion for projects at HOVENSA's St. Croix, USVI refinery. The largest project was for a new 58,000 B/D delayed coker and other units to enable the refinery to run very heavy, sour crude oil from Venezuela.
- Helped evaluate various technical and commercial issues during negotiations, then co-authored TM&C's Independent Engineer report for a \$500 million financing of PDVSA-Phillips 58,000 BPD delayed coker joint venture at Phillips' Sweeny, Texas refinery.
- Team leader of TM&C's **CRUDE OIL & REFINED PRODUCTS OUTLOOK**, a multi-client 20-year outlook for supply, demand and pricing of crude oils and petroleum products for U.S. regions and other worldwide refining centers.
- Team leader of TM&C's **NORTH AMERICAN CRUDE OIL OUTLOOK**, a multi-client forecast of upstream, midstream and downstream developments related to the explosion in growth of light, sweet crude production from shale oil plays.
- Directed a downstream strategic study for an integrated oil company, including an assessment and ranking of the competitiveness of all of the U.S. and European refineries in the study group.
- Provide weekly assessment of parity values for 14 crudes in two different refining centers in the US for a major U.S. refiner that is part of an international National Oil Company.
- Assessed the value of the refining assets of a multi-refinery European company for one of the company's outside investors.
- Performed a detailed evaluation of a major new crude stream for a major international refiner for the purpose of determining the economics of the stream in their refining system.
- Developed a 15-year forecast of the worldwide crude oil supply balance for a major integrated oil company, including a detailed breakdown by crude type and an analysis of inter-regional movements.
- Performed independent review of a capital plan for CITGO's Lemont refinery for optimizing clean fuels and heavy crude expansion options.

RYAN M. COUTURE
Senior Consultant
Turner, Mason & Company

Professional Expertise:

Six years experience in the downstream oil & gas industry, including over five years with ExxonMobil's downstream organization. Experienced in technical writing, economic and demand forecasting, and process simulations. Expertise in the areas of refinery process engineering, water/wastewater treating, project/turnaround support, catalyst selection and reactor loading activities.



Academic Background:

- B.S. Chemical Engineering, University of Connecticut, 2008
 - Minors: Chemistry, Materials Engineering

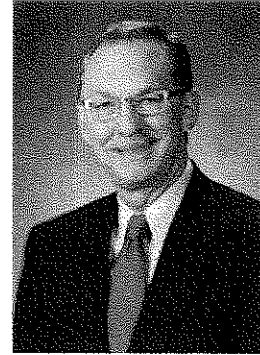
Industrial Experience:

- Over five years with ExxonMobil's downstream organization.
 - 2.5 years in ExxonMobil's Research and Engineering headquarters in Fairfax, VA. Supported global refinery water and wastewater treating design and support activities. Participated in algae biofuels program, algae harvesting and life cycle analyses.
 - 1 year in ExxonMobil's Area Engineering Office in Baytown, TX. Worked in hydroprocessing section, supporting America's refining circuit. Aided in operations and turnaround support, energy optimization, catalyst selection and global catalyst management.
 - 2 years at ExxonMobil's refinery in Billings, MT. Served as process engineer for the hydrocracker and hydrogen plant. Supported turnarounds for several hydrotreaters, light ends, FCC, HF alkylation and hydrogen plant equipment. Performed process optimization and modeling support for refinery units.

Past Engagements:

- Participated in TM&C's **CRUDE OIL & REFINED PRODUCTS OUTLOOK**, a multi-client 20-year outlook for supply, demand and pricing of crude oils and petroleum products for U.S. regions and other worldwide refining centers.
- Supported study of Bakken crude quality, evaluating regional and processing variations to better define properties and proper techniques to ensure safe handling and transportation.

- Frequent contributor to TM&C's *Turning Point* publications, authoring many of the firm's weekly publications.
- Participant in quarterly *Perspectives* publications, covering timely issues in the oil and gas industry.
- Due diligence support for renewable fuel producer sustainability evaluations, to help ensure compliance with U.S. requirements for producers.
- Aided in audit of inline gasoline blending and laboratory procedures, as well as attestation support for fuels compliance and renewable fuels obligations for U.S. refiners and obligated parties.



**DENNIS L. SUTTON
PRINCIPAL CONSULTANT**

Mr. Sutton is a 1979 Phi Beta Kappa chemistry graduate of the University of Colorado, with extensive industry experience in analytical chemistry, petroleum refining, crude oil and product quality, feedstock acquisition and related areas of the energy/industrial sector. His experience and industry knowledge cover over 40 years in petroleum research, refinery operations, laboratory management implementing quality and control procedures, and feedstock acquisition, ensuring the quality of over \$50 billion of crude oil annually. He has published peer reviewed articles in technical journals such as Analytical Chemistry and the Journal of High Resolution Chromatography & Chromatography Communications. With his ability to communicate technically complex information in an easy to understand manner, he has been an invited speaker at various internal and external conferences.

Mr. Sutton's areas of expertise include analytical techniques including gas chromatography, nuclear magnetic resonance spectroscopy, infrared spectroscopy, fractional distillation, and various physical property testing, such as API gravity, flash point, sulfur, pour and cloud point, vapor pressure, bromine number, and asphalt specific tests. He has performed investigations on the identity of leaked and spilled material, managed petroleum refinery laboratories, developed analytical methods accepted by ASTM, coordinated and managed crude assay programs, and was responsible for developing quality testing programs to ensure the quality of feedstocks for one of the largest US refiners.

EDUCATION AND PROFESSIONAL ASSOCIATIONS

B.A. - Chemistry – University of Colorado, Denver, Colorado
American Chemical Society- Member
Crude Oil Quality Association- Executive Director
Canadian Crude Quality Technical Association- Board of Directors
Sigma Xi, the Scientific Research Society- Former Member

EMPLOYMENT HISTORY

2014-Present	PetroQual, LLC	Principal
2014-Present	Crude Oil Quality Association	Executive Director
2001-2013	Marathon Petroleum	Feedstock Quality Manager
1994-2001	Marathon Petroleum	Lab Supervisor
1993-1994	Marathon Petroleum	Advanced Chemist
1992-1993	Marathon Petroleum	Lab Supervisor
1980-1992	Marathon Oil	Chemist, Advanced Chemist
1972-1980	Marathon Oil	Assistant Technician, Technician

DENNIS L. SUTTON

DETAILED PROFESSIONAL EXPERIENCE:

PETROQUAL, LLC

2014 – PRESENT

Principal

Providing consulting services in the area of analytical chemistry and petroleum related quality issues. Most recently, provided services in the capacity of crude oil characterization and analytical design to Turner, Mason & Co. for the North Dakota Petroleum Council Study on Bakken Crude Properties.

CRUDE OIL QUALITY ASSOCIATION

2014 – PRESENT

Executive Director

Responsible for the all aspects of the operation of this not-for-profit industry organization. This includes negotiating with hotels for meeting venues; managing the budget; collecting annual membership dues; organizing agendas for meetings; leading the technical meetings; maintaining the corporate web site; and communicating with media and other industry contacts on crude quality issues.

MARATHON PETROLEUM- Houston, TX and Findlay, OH

2001 – 2013

Manager- Feedstock Quality and Measurements

Managed the feedstock quality for the Crude Oil and Feedstock Acquisition group, originally in Houston and then in Findlay, OH. Coordinated the work of the chemists at the technology center for the successful operation of the crude assay program. Developed and implemented a monitoring program for evaluating the quality of received crude oil batches. Worked with IT to originate a comprehensive data base tool for utilization of quality data. Collaborated with crude oil traders and schedulers to ensure optimal crude acquisition decisions. Assisted refinery personnel on feedstock related issues, such as water-in-crude; desalter issues; crude commingling and contamination; refinery fouling; silicon contamination; pour point treatments; and asphalt properties. Developed various "Refining 101" presentations for non-technical personnel, including training course for the Internal Revenue Service. Completed a temporary assignment as Manager of the Technology Center. Successfully incorporated a new major refinery (Galveston Bay) into the crude acquisition system. Initiated quality monitoring and tracking programs for feedstocks such as gas oil, middle distillates, gasoline blendstocks, and butanes. Led the corporate effort to understand, and manage the quality of Utica crude oil.

Served as Secretary for the Crude Oil Quality Association (COQA). Led the COQA effort towards more comprehensive specifications for WTI crude oil. Served as Director of International Membership on the board of the Canadian Crude Oil Quality Association. Served as Marathon's representative on the Total Acid Number project.

DENNIS L. SUTTON

MARATHON PETROLEUM- Texas City, TX

1994 – 2001

Laboratory Supervisor

Managed all aspects of the control laboratory, reporting directly to the Division Manager. Supervised a staff on 13 including chemists and technicians. Responsible for hiring, scheduling, training, and management of personnel; lab budget; coordination with Operations, Product Control, and Engineering departments; and communication of data. Purchased and commissioned a new LIMS system for improved quality assurance and communication of data to operating components. Led the perimeter monitoring team for emergency response. Coordinated the work in identifying criminal crude oil contamination in the production sector of the supply system.

MARATHON PETROLEUM- Robinson, IL

1993 - 1994

Advanced Chemist

Supervised lab technicians. Responsible for development of methodology for the implementation of the EPA mandated Reformulated Gasoline regulations.

MARATHON PETROLEUM- Indianapolis, IN

1992 – 1993

Laboratory Supervisor

Supervised a staff on 10 including chemists and bargaining unit technicians. Responsible for all aspects of the refinery control laboratory, comprising hiring, scheduling, and training; purchase of equipment and chemicals; coordination with Operations and Product Control departments; and communication of data. Managed the successful move to a new laboratory building. Coordinated the closure of the lab in conjunction with the shuttering of the refinery.

MARATHON OIL- Littleton, CO

1972 - 1992

Chemist, Advanced Chemist

Responsible for methods development for operating divisions. Worked jointly with Brae (North Sea) platform personnel to commission offshore analyses for the monitoring of Brae produced fluids. With Marathon, BP and commercial lab personnel, arranged for the acceptance of the Brae/Forties fiscal analyses. Assisted in the development of a portable field test kit for use by marketing personnel in evaluating the use of gasoline additives. Co-authored articles in *Analytical Chemistry* on Crude Oil and Shale Oil and co-authored articles in *Journal of High Resolution Chromatography & Chromatography Communications* on the Kovats Retention Indices of Hydrocarbons. Collaborated on the development and publication of ASTM D5134, "Standard Test Method for Detailed Analysis of Petroleum Naphthas by Capillary Gas Chromatography". Managed all aspects of the crude assay lab, including equipment purchases, development of fractional distillation techniques, and coordination with operations research personnel on the exploitation of the data. Represented Marathon on the Auto/Oil Air Quality Improvement Program. Completed comprehensive evaluation of gasoline blending components in anticipation of Clean Air Act regulations. Developed multiple automated simulated distillation turnkey methods for use at the company's refineries.

DENNIS L. SUTTON

Assistant Technician, Technician

Performed various analytical tests in support of refining, production, and exploration operations, including conducting analyses for the determination of fugitive samples from leak and spill situations. Employed gas chromatography with both packed column and capillary columns to characterize gases, crude oils, petroleum fractions, and products. Maintained equipment including preparation of custom made columns. Utilized various spectroscopic techniques including IR, UV, NMR, and Mass Spec. Led the implementation of laboratory computerization.