Baker & O’Brien’s services to the legal community and its clients have included: (a) asset valuations; (b) accident investigations of process plant accidents and incidents to determine cause and liability; (c) property damage and business interruption insurance losses; (d) contract disputes involving engineering, construction, and operations of process plants and pipelines; (e) product quality issues in the transportation, storage, and processing of hydrocarbons; and (f) assessments of procedures and safe practices employed in operations. Our clients in the legal community include some of the world’s largest law firms.

In performing dispute resolution work, our consultants have advised legal teams on a wide range of technical and economic issues across the hydrocarbon processing industries. This has often included discovery requests and preparation of deposition questions. We have performed damage calculations, standard of care analyses, and normal industry practice analyses for our clients. Our analyses and conclusions have been presented at court proceedings where our expert testimony has been relied upon by judges, juries, and arbitrators.
PRIMARY CONTACTS

Donald L. Flessner
President
Dallas

Peter W. Halliday
Vice President
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Charles G. Kemp
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J. David Morgan
Vice President, Houston Office Manager
Houston
RELATED EXPERIENCE

- **Air Emissions Dispute**
  Reviewed air emissions data and categorized events; provided understanding and analysis to air events with respect to process equipment and refinery and chemical plant operations.

- **Ammonia Manufacturing Litigation**
  Assisted an equipment manufacturer in defending allegations that its equipment was the cause of a multi-million dollar business interruption claim. Assisted in discovery, evaluated operating records, estimated business interruption losses due to a power outage, and provided expert testimony.

- **Ammonia Plant Insurance Dispute**
  Assisted in evaluating insurance claims asserted by a major ammonia manufacturer. Work included evaluation of the technical basis for claims involving construction defects and warranty work amounting to $3 million. Assisted in documenting claims, inspected the plant, evaluated project records, and reviewed maintenance records.

- **Ammonia/Urea Plant Failure Analysis**
  Worked in support of client and its attorneys to investigate the cause of a reactor failure and defend against claims by OSHA and third parties. Work involved extensive analysis of process equipment and operating practices used in ammonia and urea manufacture.

- **Application of Superfund Tax to Gas Processors**
  Reviewed legislation relating to the Superfund Tax and its applicability to natural gas processors who produce natural gasoline at their facilities. Compared natural gas processing with crude oil processing in order to show whether the Superfund Tax was intended to be levied on gas processors.

- **Asbestos Exposure Litigation**
  Assisted a manufacturer of industrial equipment in defending personal injury claims related to asbestos exposure. Assisted in discovery, assessed the likelihood and degree of employee exposure to asbestos during maintenance activities, and reviewed equipment specifications, project histories, and maintenance records for various power generation units. Provided opinions regarding the potential for personal injury due to asbestos exposure in the course of normal work activities.

- **Benzene Exposure**
  Assessed possibility of employee exposures to benzene during prior refinery operations. Reviewed plant operating history and emissions records and provided preliminary opinions regarding potential benzene exposure to plaintiffs.

- **Business Interruption Damages Claim by Concrete Supplier**
  Assisted in a dispute between a concrete products producer and marketer against an oil refiner for damages allegedly incurred as a result of an incident at the oil refinery. Examined the timeline of the incident and provided an independent damage estimate.

- **Business Interruption**
  Performed an analysis of the schedule delay and financial impact from chemical plant downtime due to a major equipment fabrication error.

- **Caustic Soda Contract Dispute**
  Reviewed caustic soda plant expansion and the ability of supplier to deliver the required volume of caustic soda under contract. Advised on the reasonableness of the expansion construction schedule based on review of environmental permits, public data, and internal documents on construction activities.

- **Chemical Plant Accident Investigation**
  Investigated an accident at a polyethylene production and storage facility. Reviewed equipment design, inspection and repair
history, training of personnel, industry practices, and standards of care.

- **Chemical Plant Insurance Claim Support**
  Provided comprehensive technical and accounting support for a property damage claim settlement and analysis for a chemical manufacturing plant that was damaged during a hurricane. Work included review of all repair cost estimates and invoiced repair invoices, as well as analysis of claimed damages discovered and submitted post-recovery. Assistance was also provided during final claim settlement negotiations.

- **Class Action Environmental Litigation**
  Provided assistance in evaluating environmental issues which led to a neighborhood lawsuit. Reviewed plant operating and emissions history and provided preliminary opinions regarding the potential for future impact on local community.

- **Cogeneration Plant Property Tax Dispute**
  Assisted municipality in developing preliminary value estimates for cogeneration facility under appeal. Work focused primarily on income approach values based on various forward pricing scenarios.

- **Commercial Contract Litigation**
  Assisted in a claim related to a force majeure incident related to the recommissioning of a facility after a hurricane. Examined conformance with standard industry protocols and applicable laws, standards, and regulations. Assessed whether the facility operator acted in a reasonably prudent manner with respect to the commercial and technical issues necessary to safely restart the facility as soon as possible.

- **Condensate Feedstock Contract Dispute**
  Assisted in a claim between: (1) a European refiner and ultimate condensate supplier, and (2) an intermediary company, concerning allegations that the intermediary company was prevented from obtaining condensate supplies for sale to the refiner. Studied the potential availability and quality of condensates in the producing region and elsewhere. Identified potentially suitable condensates for the refinery. Based on forecasts of oil and petroleum product prices, prepared an estimate of potential economic damages. Described how term feedstock contracts for condensate are typically concluded. Testified at an arbitration in London.

- **Construction Dispute - Gas Plant**
  Provided expert reports and testimony regarding project management issues, alleged defects, and liquidated damages for international arbitration between owner and contractor. The project involved an offshore platform, an undersea pipeline, an onshore pipeline, an onshore cryogenic gas processing plant, and a sales gas pipeline.

- **Construction Dispute - Petrochemicals Plant**
  Prepared a confidential "Cold Eyes Review" assessment concerning a contemplated claim between an owner and a contractor of a grassroots petrochemical facility. Reviewed draft claims, researched evidence, and interviewed key personnel in order to produce an independent view of the claim.

- **Construction Dispute Litigation - Gas Plant**
  Assisted in a litigated dispute between Owner-Operator and Engineering & Construction Contractor over whether a cryogenic gas plant, as engineered, procured, and constructed, met the stipulated contractual performance guarantees; prepared expert witness rebuttal report with respect to relevant issues.

- **Contamination at Bulk Petroleum Storage Facility**
  Evaluated the potential long-term contamination at a bulk storage facility resulting from the sediment contained in incoming hydrocarbons.

- **Contract Dispute Resolution**
  Evaluated inter-company petrochemical stream transfers and cost allocations pursuant to the mutually agreeable resolution of a
contractual dispute between entities engaged in multiple across-the-fence feedstock and product exchanges.

- **Contractual Dispute**
  Performed a due diligence of owner allegations and contractor claims pertaining to a Lump Sum-Turn Key contract termination. Reviewed documents, schedules, witness statements, and expert reports to advise counsel on implications of contracting strategy and contract management following award.

- **Contractual Dispute - Property Tax**
  Prepared an analysis of property taxes relative to refining complexity for a number of refineries in a particular region, using public information, for hearings with a district appraisal board.

- **Cost Allocation Report**
  Following a refinery fire incident and rebuild, performed an analysis of all elements of the repair costs, and produced a report that assessed and allocated repairs into three categories: identical replacement, functional replacement, and upgrade.

- **Crude Oil Contamination Dispute**
  Investigated a claim that refinery equipment damages were allegedly caused by a sour crude producer that injected high-metals crude into a ultra-sweet crude gathering pipeline. Case settled prior to deposition and trial.

- **Crude Oil Metering Dispute**
  Investigated alleged tampering with crude oil Automatic Custody Transfer volume and quality measuring devices. Reviewed common carrier pipeline tariffs, inspected site, and analyzed measurement data.

- **Crude Oil Processing Contract Dispute**
  Served as expert witness concerning a dispute between an international oil trading company (Trader) and an independent refining company (Refiner), between whom there was a crude oil processing contract. The Trader alleged that the Refiner misappropriated products to its own account. Analyzed the refinery production and product disposition under each processing deal over a period of three years and calculated the damages under the alleged misappropriation. Prepared an independent detailed damages claim for insurance purposes and defended the claim at trial.

- **Crude Oil Quality Dispute**
  Acted as expert witness in a dispute between a major oil company and a small crude oil supplier that allegedly delivered “dumbbell” crude into the oil company’s common carrier pipeline system. Prepared a report covering standard industry pipeline practices, crude oil quality acceptance, crude oil trading, and refining values of various crude oils. Calculated damages incurred as a result of the poor quality crude oil delivered and the impact on refiners receiving crude from the pipeline.

- **Crude Oil Royalty Litigation**
  Assisted in a lawsuit between an oil company and a royalty owner of oil company’s crude oil production for alleged underpayment. Work included identification of the various markets for this crude oil to establish whether its value in these markets was consistent with the price received.

- **Crude Oil Sludge Accumulation**
  Following a claim concerning sludge accumulation in crude oil storage tanks over a twenty-year period, advised as to the creation of sludge in crude oil tanks, its accumulation, the ways to prevent or control it, and the conventional ways of dealing with it.

- **Damages from Steam Turbine Failure**
  Assisted in determining economic damages resulting from failures associated with a new steam turbine that was provided and installed by a turbine manufacturer at a power generation facility. Conducted independent assessment of economic losses suffered by electric cooperative as a result of both short-term and long-term performance shortfalls and outages.

- **Defective Product Lawsuit**
Provided an expert report concerning a dispute between a pressure safety relief device manufacturer and an operator of a claim that a device did not operate as designed in a reactor overpressure incident.

- **Defend Wastewater Treater Air Emissions**
  Requested to provide expert witness opinion of industrial standard of care for wastewater treater operations. Issue concerned volatile organic compound (VOC) emissions from a wastewater treater feed tank.

- **Delayed Coker Fire Investigation**
  Assisted client in investigating the cause of a coker hydrocarbon release and fire, which resulted in multiple fatalities. Visited refinery and reviewed procedures and events preceding the incident to identify potential areas of causation and liability. Operating experience and knowledge of technical and safety issues and of industry and management practices helped the client in addressing specific claims issues.

- **Dust Collection System Risk Assessment**
  Performed a quantitative risk assessment on a dust collection system associated with the multifolder process at a large paper products manufacturing facility. Purpose was to determine if OSHA stipulations were appropriate.

- **Economic Damages Litigation - Plant Explosion**
  Retained concerning claims of design errors and failures in project management, following explosions and fires at a petrochemical plant. Conducted in-depth reviews of engineering, procurement, and construction agreements; process technology and design basis; construction records; owner's operating procedures; and actual operating history since start-up of the plant. Evaluated operating system provided against prevailing industry standards and examined potential for equipment failure.

- **Economic Damages Litigation - Plant Fire**
  Following furnace damage and rebuild, provided expert regarding property damage costs and normal maintenance/scheduled turnaround/betterment costs. Similarly, business interruption costs were compiled with reference to market situation and product volumes that were available from inventory.

- **Evaluation of Refinery Competitive Environment**
  Assisted in a dispute between a major oil company and the Federal Trade Commission's claims regarding the anti-competitive nature of the company's proposed acquisition of a West Coast-based refining and marketing company. Prepared a detailed report analyzing the West Coast refining industry. Assessed the competitive position of each West Coast refinery processing Alaskan crude oil and how they might respond to changes in crude oil prices and/or availability.

- **Expert Consulting Services**
  Provided expert consulting services concerning a personal injury incident that involved a weld failure and a release of hydrocarbons.

- **Fair Market Valuation of Refinery for Ad Valorem Tax**
  Fair market valuation of a major US Gulf Coast refinery for the local appraisal district. Provided a critique of the valuation methodology used by the refinery as basis for lawsuit seeking reduced ad valorem taxes.

- **Force Majeure Dispute**
  Provided expert report relating to a claimed force majeure event, due to defects in critical equipment that was required to be installed during a turnaround. The correction to the defects then resulted in the late delivery of the equipment that extended a petrochemical plant turnaround.

- **Formaldehyde Plant Construction Litigation**
  Assisted in a dispute concerning allegations that completion delays and poor plant performance at a European formaldehyde plant resulted in a multi-million dollar damage claim. Assisted with discovery, inspected plant, evaluated plant operating records,
reviewed construction contracts, valued the plant, and calculated damages. Presented and defended conclusions at hearing.

- **Litigation - Fuels Terminal Operations Assessment**
  Performed expert advice on fuels terminal operations that focused on the practices and procedures with an emphasis on the filling of product tanks.

- **Gas Measurement Dispute**
  Performed a preliminary audit of natural gas measurement discrepancies between an unregulated gathering system and an interstate pipeline. Identified periods that meters were out of service and utilized system balance to estimate deliveries.

- **Gas Pipeline Rupture Dispute**
  Performed an independent assessment of the costs incurred, including the lost natural gas inventory, on a ruptured interstate gas transmission line for which the owner requested a multi-million dollar damage reimbursement. A report was prepared for mediation which resulted in a negotiated settlement.

- **Gas Well Incident**
  Prepared expert report on behalf of client versus OSHA. Matter involved failure of a pipe carrying natural gas that injured one contractor. OSHA cited client for failure to provide a safe means of pressure relief for vessel (in-line heater) and piping.

- **Gas Well Production Dispute**
  Reviewed gas well production (meter readings) and pipeline pressure history to determine if gas was delivered into gathering system when the system was not being monitored and the local injection compressor was not operating.

- **Gasoline Contamination Dispute**
  Provided expert report on refinery practices concerning caustic carryover in FCC gasoline mercaptan treaters. Class action plaintiffs, consisting of retail station owners, alleged underground storage tank damage due to gasoline contamination.

- **Gasoline Spill Litigation**
  Assisted in a dispute between a retail marketer and contractor concerning allegations that contractor’s work contributed to a gasoline spill from a retail gas station that contaminated the well water of 130 homes. Assisted in discovery, evaluated the mechanical integrity of equipment, examined unique theories of causation, inspected site, and attended destructive testing procedures.

- **Heliport Pipeline Leak**
  Prepared expert rejoinder report on leakage from fuel storage, pipeline, and loading system located at a heliport and marine dock.

- **HF Alkylation Incident**
  Investigated facts related to pump casing rupture where hydrofluoric acid was released. Reviewed refinery operations, training, and safety practices. Advised attorneys on generally accepted industry engineering practices and standards regarding design, operation, and maintenance of hydrofluoric acid alklylation unit.

- **Historical Refinery Waste Generation**
  Provided expert report on the probable types and amounts of wastes produced by a refinery during its 50-plus year operating life. Study was part of litigation involving assignment of responsibility for an EPA superfund site.

- **Hurricane Rita Claim**
  A petrochemicals facility experienced a loss of steam supply from an outside steam supplier and a subsequent unscheduled shutdown which, in turn, resulted in production losses and major damage to the facility. The steam supplier attributed the steam outage to boiler damage caused by a hurricane, which had made landfall several months earlier. Assisted by investigating the link between the hurricane and the steam supplier boiler outages.

- **Incident Analysis - Petrochemicals**
Performed an investigation analysis following fire and explosion incidents at a major Gulf Coast manufacturing facility. The engagement entailed development of the sequence of events, root cause analysis, assessment of the decision to rebuild, and reconstruction monitoring. An independent project schedule and cost estimate for the plant reconstruction was developed.

- **Industrial Incident**
  Investigated cause of dust cloud deflagration at a Vitamin E production facility. Assessed that bulk solids handling procedures were modified without considering the original safety design basis for the equipment. Developed expert opinions on causation.

- **Insurance Arbitration**
  Investigated the circumstances surrounding an oil spill at a Gulf Coast refinery following a hurricane. Work focused on whether the refiner acted as a "prudent operator" before and after the hurricane and whether the owner was entitled to a claim for damages based on an insurance policy's pollution exclusion clause. Prepared a written report for submission into evidence in an international arbitration.

- **Insurance Litigation of Refinery Environmental Contamination**
  Provided expert witness testimony and analysis in the litigation of insurance coverage for previous environmental contamination of petroleum refineries located on the East Coast, West Coast, and Midwest. Evaluated both liability and damage claims based on the multiple insurance contracts for each site.

- **Interstate Pipeline Inspection Practices**
  Provided expert testimony on inspection and maintenance practices for interstate petroleum products pipelines. Issues included reasonable depth of additional overfill and width of maintenance right-of-way.

- **Investigate Refinery Heater Explosion**
  Performed root cause analysis of an explosion at a refinery heater and identified contributing factors. Performed a review of safe operating procedures, including shutdown and start-up of heaters. Provided expert testimony.

- **Investigation of Gas Processing Plant Incident**
  Assisted in the investigation of an explosion and fire with resulting failure of natural gas supply from onshore crude oil, condensate, and natural gas processing facilities located offshore. Reviewed facility design, operating, and maintenance standards and prepared expert testimony.

- **Ion-Exchange Resin Plant**
  Performed market study and competitive analysis of an ion-exchange resin plant on behalf of a major government agency bank. Study evaluated the financing of an ion-exchange resin manufacturer in the context of possible sale of the plant.

- **Isobutanol Valuation Study**
  In order to assess the potential value of isobutanol as a gasoline blending component, performed simulations of refinery operations at a select group of West Coast refineries to calculate isobutanol value relative to blending ethanol into gasoline.

- **Jet Fuel Contamination Dispute**
  Following product quality issues in major interstate product pipeline movements, reviewed product injection practices and analyses at pipeline injection point. Evaluated analyses at various points along the pipeline to assess possibility of quality degradation.

- **Jet Fuel Underpayment Claim**
  Assessed jet fuel supply contracts to see if an overpayment claim was justified.

- **Litigation - MTBE**
  Assisted in defense of oil companies charged with supplying gasoline containing the additive MTBE, which was alleged to have contaminated water supplies. Baker & O’Brien was involved in reviewing and analyzing refinery supply, pipeline distribution, and retail marketing of gasoline in the area subject to the dispute.
Litigation - Wastewater Treating
Provided expert consulting support for a refinery wastewater treating environmental criminal matter. The work required previous experience with and a solid understanding of the plant processes and equipment which are used in treating industrial wastewater.

Litigation - MTBE
Prepared expert testimony on the issue that MTBE use in reformulated gasoline (RFG) was the result of a federal mandate to use oxygenates in RFG. The legal result was to consolidate several state MTBE cases into federal court. Several other studies performed, including the ability to use other oxygenates and the costs of ethanol logistics.

LPG Pipeline Specifications
Evaluated pipeline tariffs, product specifications, connection agreements, and liquefied petroleum gas sales agreements, including the determination of fractionator feedstock and product economics, for the export of liquefied petroleum gas to northern Mexico from fractionation facilities in West Texas.

M&A Dispute
Evaluated the foreseeability of project cost overruns that negatively impacted the economics of the acquisition of an EPC Firm.

Marine Cargo Contamination
Investigated causes for contamination of a cargo of gasoline delivered by ship to Ecuador. Work included review of contract requirements, gasoline blending practices, surveyor procedures, and issues related to laboratory testing of gasoline.

Market Value of Natural Gas
Determined the reasonableness of royalty payments for natural gas by comparing available arm's-length contracts, pricing, and actual costs of gathering, compressing, and processing the gas.

Natural Gas Royalty Dispute
On behalf of several producing companies, demonstrated the reasonableness of royalty payments for natural gas by comparing available arm's-length contracts, pricing, and actual costs of gathering, compressing, and processing the gas.

Natural Gas Royalty Litigation
Evaluated the design and historical capital costs of a natural gas pipeline system in western Oklahoma. Reviewed system material balances and operator's natural gas measurement practices.

Natural Gas Tax Dispute
Following the imposition of a new oil and gas taxation regime, a dispute arose regarding the contractual right of local natural gas producers to "pass through" incremental taxes to their customers. Served as expert witness. Key work involved the development of a fair mechanism to allocate recovery and distribution costs between "jointly" produced hydrocarbons, including oil, condensate, natural gas, and natural gas liquids. Prepared and defended specific proposal in the arbitration proceedings.

Nitroparaffins Litigation
Assisted in a dispute between an operator and an EPC firm concerning allegations that the process design contributed to an explosion at a nitroparaffins manufacturing plant. Assisted in discovery, evaluated design issues, and provided expert testimony.

Offshore Pipeline Failure
Following a business interruption claim concerning number of failures on a large subsea crude oil pipeline, examined original construction specifications, maintenance, inspection, and operation records of the pipeline. Also reviewed the repair plans and repair execution of the failed components and made recommendations to include: a) comprehensive metallurgical analyses; b) preparation of an efficient repair and execution schedule; and c) complete subsea modeling of the pipeline for the purpose of failure mode and time to failure predictions.

Offshore Platform Design
Assessed design of elevated platform and ladders on a jack-up oil derrick which was under construction. Compared design to industry standards.

- **Oil Refining Crude Supply Dispute**
  Provided engineering and project management consulting services for litigated dispute between two large oil companies concerning an acidic crude oil supply agreement (high TAN crude, high acid crude). Prepared expert report.

- **Paraxylene (PX) Contract Dispute**
  On behalf of a major international buyer of paraxylene, prepared an expert analysis concerning damages claimed by a large US based supplier. Analysis included a detailed evaluation of supplier's paraxylene manufacturing economics.

- **PVC Plant Litigation**
  Assisted in a dispute concerning allegations that an explosion at a major manufacturer of PVC resins was due to a poor process design that failed to meet government regulations and engineering standards. Assisted in discovery, inspected the plant, evaluated procedures and work methods, reviewed applicable standards, and reviewed operating records.

- **Propane Product Quality Dispute**
  Investigated the design and operation of a natural gas liquid fractionation, storage, and loading facility located on the Red Sea to determine potential causes of alleged hydrogen sulfide contamination of propane cargoes.

- **Polyurethane Foam Litigation**
  Assisted in claims concerning polyurethane foam system products that were alleged to be defective or unfit for their intended use. Assisted in discovery, observed and reviewed work environment and work methods, evaluated manufacturing records, reviewed warranty claims, and prepared trial exhibits.

- **Pulp and Paper Mill Incident**
  Analyzed processing operations and engineering design in a pulp and paper mill to determine sequence of events and possible causes of incident.

- **Refinery and Chemical Plant Feedstock Valuations**
  Identified and developed the financial impact due to the non-compliance with interplant agreements for feedstock and product transfers between a refinery and an adjacent chemical plant.

- **Salt Water Disposal Tank Explosion**
  Investigated the cause and origin of a storage tank explosion at an oil and gas salt water disposal facility in Colorado. Conducted site investigation and facility/equipment inspections, evaluated system design and operation, and conducted witness interviews. Determined cause of explosion and worked with company management to evaluate existing policies and procedures for potential areas of improvement.

- **Refinery Finance Litigation**
  Economic damages were claimed by the sponsors of a refinery project in Russia due to a failure to obtain funding from a financial institution. Examined claim basis, economic assumptions relied on for the project feasibility study, and actual financial results that would have been realized if the refinery had been built. Provided testimony concerning the relationship between industry margins and the losses incurred by the project sponsors.

- **Power Plant Construction Dispute**
  Provided expert report and oral testimony on roles and responsibilities of: (1) an EPC contractor under a Lump Sum-Turn Key contract; (2) owners in awarding and managing such projects; and (3) the capabilities of owner's and contractor's project management teams. The project involved provision of EPC services to retrofit selective catalytic reduction equipment to existing power generation units, as mandated by the regulatory authorities.
Refinery Business Interruption
Prepared detailed analyses of property damage, business interruption, and demurrage claims resulting from a vessel allision with a refinery dock.

Refinery Valuation Study
Provided an opinion as to the fair market value of a large European refinery that changed ownership during the 1980s. Party filed arbitration proceedings against its former partner, claiming that the refinery was sold for well below market value. Prepared several reports that were submitted as evidence.

Underground Storage Tanks Claim
Assisted in a dispute concerning an allegation that Underground Storage Tanks (USTs) at a retail outlet had released gasoline vapors, resulting in contamination of groundwater with MTBE. Assignment included review of procedures for delivery of gasoline from tankers to UST, review of equipment and fittings used in UST, review of hydrogeological data regarding groundwater and contamination plumes, review of the design of vapor recovery systems, and calculations of vapor composition and amounts released. Prepared report to document findings and testified in deposition.

Power Plant Construction Dispute
Provided advice on a construction dispute between owner and contractor regarding a project to upgrade and modify a power plant in the Caribbean, which had alleged defects related to the boiler heat recovery section, the desalination plant, seawater cooling piping, and instrumentation.

Piping Subcontractor Claim Evaluation
Evaluated claims for additional quantities of materials needed, due to owner caused delay and disruption on a specialty chemical plant project.

Reciprocating Compressor Accident
Reviewed details of non-fatal accident involving a restart of skid-mounted gas compression machinery at a producing well. Upon investigation of the facts, prepared report detailing the proximate cause of the incident.

Pipeline Contamination Dispute
Assisted in a claim involving an alleged y-grade/NGL pipeline contamination from a gas processing facility. Examined the following key areas to evaluate the claim: pipeline hydraulics, laboratory records, chronology of pipeline sample data, reasonableness of claimed expenses, gas processing facility operation, and records.

Pipeline Quality Bank Dispute
Assisted in a dispute involving crude oil quality bank payments demanded by a pipeline consortium transporting a company's oil through Central Asia. Studied the quality bank calculation procedure in order to demonstrate if the methodology described in the tariff had been properly applied. Provided examples of methodologies used in other quality banks. Prepared quality bank calculations based on application of the methodology. Testified at an arbitration in London.

Tank Truck Explosion Investigation
Investigated the potential causes and sources of ignition for an explosion that destroyed a road tanker, used to haul raw natural gas liquids from a gas treating plant, that was in a repair shop for the replacement of a pressure relief valve.

Petroleum Refinery Dispute
Provided overview of turnaround practices and industry standards utilized in the United States and Europe. Evaluated decisions and practices utilized at the subject refinery to determine if those decisions were in compliance with standard practices and whether a decision to optimize the turnaround execution date was a factor in a plant incident.

Refinery Valuation Dispute
Assisted in a dispute between minority shareholders and company management concerning claims that certain refinery assets were improperly valued when the group's ownership interests were purchased by the company's management. Prepared a detailed valuation of the refinery assets in question and showed how their location, processing capability, and access to feedstocks contributed to their value relative to the competition. Prepared an expert report and testified in Federal Court.

**Refinery Business Interruption**
Determined the economic damages suffered by a refiner as a result of multiple incidents which eventually led to reduced feed to the refinery. Project required the analysis of all refining units, including their actual and planned operations and maintenance. Alternative utilizations of feedstock and supply of products were also investigated.

**Pressure Vessel Failure**
Investigated the cause of a hydrocarbon release resulting from the brittle fracture of a pressure vessel during start-up at a petrochemical plant. Incident involved multiple injuries and deaths and extensive property damage. Issues studied include ethylene plant design, operating practices and procedures, start-up operations, instrumentation, and safety training.

**Polyolefins Plant Explosion**
Assisted attorneys and company in preparation for litigation and negotiation with government agencies while investigating the cause of an explosion which caused the death of over 20 people. Assisted risk management in preparing and negotiating property damage and business interruption claims in excess of $1.3 billion.

**Refinery Fair Market Value Dispute**
On behalf of one of the interested parties in a bankrupt oil refinery, conducted a technical and economic evaluation of the facility to determine if the plant was economically viable and had value as a "going concern." Study was submitted into evidence before an international arbitration tribunal established to determine the ultimate disposition of the facility.

**Refinery Construction Dispute**
Engaged to assess claims that poor EPC performance resulted in significant cost increases and schedule delays in the construction of a residue catalytic cracking unit. Case centered around whether the prime contractor had fulfilled all of its obligations under the sub-contract and had taken all agreed steps to contain identified potential cost overruns and other factors impacting the schedule. Prepared an expert report on the project and provided evidence at the hearing.

**Pipeline Contractual Dispute**
Assisted in a claim between a major U.S. energy provider and project promoters concerning claims that the energy provider defrauded project promoters when it proceeded with the construction of an international natural gas pipeline. Submitted report outlining the differences between energy provider's project and the promoters' project.

**Polybutylene Pipe Litigation**
Assisted municipal water districts in asserting claims for tens of millions of dollars in damages resulting from defective polybutylene pipe. Assisted in discovery, evaluated research and development records, reviewed state-of-the-art issues, and provided expert testimony.

**Polypropylene Manufacturing**
Assisted in a dispute concerning insurance claims for property damage and business interruption in connection with a reactor incident during construction of a production facility.

**Refinery Construction Dispute**
Assisted law firm representing Russian refiner in dispute with U.S. engineering firm that provided a refinery for a location in Russia. Ascertained construction status of units and reviewed issues in dispute regarding design basis, scope of work, and costs for a modular refinery constructed in the U.S.
**MTBE Litigation**
Prepared declaration of gasoline distribution issues in northern California, including rebuttal of other experts' analyses of gasoline distribution.

**Arbitration - Refinery Valuation**
In support of a valuation dispute, developed an economic model to assess the value of a fuels refinery. Submitted an expert report and provided testimony.

**Refinery Force Majeure Claims**
Prepared expert reports and testified in an international arbitration involving multiple product supply disputes between a refinery and an adjacent chemical plant. Reviewed force majeure claims related to catalytic cracking technology, product supply contracts, and utility supply interruptions.

**Asphalt Refinery Valuation**
Concerning an owner’s capability and obligation to pay a prior arbitration award, determined a retrospective fair market value of an asphalt refinery and provided testimony regarding the estimated value of the refinery assets.

**Project Cost Overrun Dispute**
For a large sour condensate stripper facility, evaluated a significant project cost increase over the original estimate, taking into account work scope changes, market escalation, the accuracy of the original estimate, and the impact of project delays. An assessment was made of the reasonableness in each category and the likelihood of success with respect to cost recovery via litigation proceedings from a technical standpoint. The project was designed and constructed during a period of rapidly escalating labor and material costs.

**Gas Processing Metallurgy Replacement**
Evaluated the reasonableness of a large project’s cost to replace the piping with a different metallurgy for a high-pressure, high-temperature sour gas reinjection facility in Central Asia. Also opined on the industry knowledge of the proper metallurgy at the time of construction of the original facility.

**Fall Protection Evaluation**
Investigated circumstances concerning the injury to a person who fell from a loading dock. Provided opinions regarding general safety requirements, industry practices, and fall protection requirements for this type of activity.

**Misappropriation of Trade Secrets**
Using chemical engineering expertise, process design background, and experience in operations and manufacturing, provided an opinion on the likelihood of another firm’s ability to produce the same pharmaceutical chemical with comparable quality and value as the original product without utilizing trade secrets learned from the intellectual property owner.

**Gasoline Pricing Dispute**
Analyzed gasoline price anomalies that developed after a major hurricane made landfall on the U.S. Gulf Coast. Provided technical support for the use of Gulf Coast spot market pricing as the basis for gasoline sales contracts.

**Crane Accident Claim Analysis**
Analyzed business interruption and property damage insurance claim by a refinery operator resulting from a crane accident. This included analysis of the cost to repair the physical damage from the accident, the impact to schedule and cost of a process unit turnaround that was in progress at the time of the accident, and valuation of lost production due to the accident.

**Gas Plant Emergency Shutdown Design Analysis**
To determine whether a system complied with key requirements, reviewed design of cryogenic gas plant emergency shutdown system in connection with a fire event to assess conformance with API RP 521 (Guide for Pressure Relieving and Depressuring...
Refinery Lost Profits Claim
Developed an opinion of reasonable lost profits, in excess of $100 million, resulting from a crude oil supply force majeure and refinery downtime after a fire. Reviewed testimony and refinery linear program files.

MTBE Litigation
Supported joint defendants in litigation involving alleged MTBE contamination in groundwater. Analyzed gasoline supply issues to central Illinois over the period 1980 to 2006.

Tennessee Gasoline and Ethanol Blending
Provided an expert report and expert testimony on the production and distribution of ethanol and gasoline, particularly branded gasoline, in the state of Tennessee. Provided a refiner perspective of the impact of the Renewable Fuel Standard on gasoline blending, distribution, and marketing operations.

Oil Field Pipe Dispute-Insurance Claim
Reviewed a claim involving an insurance dispute relating to proper preservation of drilling pipe in a storage yard following a hurricane.

Refinery Construction Dispute
Evaluated dispute between a mechanical subcontractor and owner on a refinery expansion project in the Middle East. Evaluated issues related to delay and disruption caused by material delivery delays.

Refinery Contractor Indemnification Dispute
Provided expert opinion concerning an indemnification dispute between a refiner and contractor, as well as the standard of care and practice in the industry concerning the design and construction of a piping relief system. Also opined on the refinery owner’s responsibilities concerning the acceptance and maintenance of completed piping systems.

Gas Producer Contractual Dispute
Provided expert report and testified in federal bankruptcy court concerning disposal costs of produced salt water, reasonableness of a farm-out joint venture agreement, costs of capital, and salvage value of production equipment.

Refinery Explosion, Subrogation of Insurance Claim
Assisted in a dispute concerning a rebuild estimate, which was the subject of subrogation, for an oil refinery process plant damaged by an explosion.

MTBE Litigation
Provided expert report that evaluated and discussed the issues concerning why MTBE was chosen over ethanol to the federal oxygenate requirements in the early 1990s. Also included was a discussion of how gasoline was supplied to the local region in California over the 1990s and early 2000s.

Wellhead Value - Natural Gas
Provided opinion with respect to effect of capital recovery of production facility costs on wellhead value of natural gas.

Project Development Dispute
Prepared an expert report and delivered a deposition and testimony at jury trial in a dispute involving a project development claim. The dispute focused on the value and likelihood of successful completion for two projects in the early stages of development: a natural gas salt dome storage facility and a petroleum products terminal.

Offshore Oil Lease Development Dispute
Provided an assessment and expert report that determined estimates of the economic value for an undeveloped oil block in offshore Sierra Leone. The analysis synthesized an FPSO development approach and various scenarios of reserve volumes.
development timelines, and oil prices to arrive at an indicative value for lease development.

- **Dust Explosion Capability Testing**
  Provided assistance in testing of explosiveness of resin dust during the operation of hand tools in a confined space. Dust test results were videotaped and used for litigation support.

- **Dispute Support - Groundwater Contamination**
  Provided expert witness support regarding a groundwater contamination claim at a closed refinery. Provided opinions regarding the standards of care and operation of the former refinery. Prepared a written expert report.

- **Biodiesel Plant Construction Dispute**
  Evaluated engineering and construction practices in a dispute between an owner and EPC contractor due to cost overruns. Issues included engineering and project management practices which required rework, and construction practices which created safety and operability issues. Cost estimates were prepared for correcting the deficiencies.

- **Production Sharing Dispute**
  Reviewed amended field development plan with respect to a PSA dispute between government and operator consortium over a proposed multi-billion dollar increase in projected final costs. Prepared expert report, reply report, and provided oral testimony.

- **Chlorine Contract Dispute**
  In a lawsuit involving a long-term chlorine supply contract, provided litigation support relating to a series of force majeure events. Analyzed the chlorine producers options to mitigate the loss of contracted sales volumes.

- **Horizontal Drilling Property Damage**
  Reviewed damage to private property (farmland) allegedly caused during the installation of an underground pipeline. A portion of the pipeline was installed using the technique of horizontal directional drilling (HDD).

- **Natural Gas Gathering Fee Dispute**
  Reviewed natural gas contracts to opine on whether addition of a gas gathering fee was consistent with typical commercial experience on intrastate pipelines.

- **Hurricane Damage Insurance Dispute**
  Assessed the impact of a hurricane to a refinery and its impact on turnarounds being executed at residue upgrading process units. Support included investigating failures incurred to a flare and to a heater, their relationship to the hurricane, and subsequent shutdowns of process units.

- **Refinery Risk Assessment**
  In support of questions relating to company stock valuation, assessed the technical and commercial risks inherent in several refineries owned by a U.S. refining company.

- **Settlement Hearing**
  Testified on a dispute between an independent producer and a processor regarding the fairness of a proposed natural gas processing agreement in the Fort Worth Basin.

- **Supply Contract Dispute**
  Assisted in breach of contract claims regarding a helium supply agreement from a large natural gas processing/treating complex. Analyzed historical operation and performance of processing and extraction facilities, including sources and composition of gas supplies, plant shutdowns, and plant turndown capabilities. Reviewed plant performance, including operating costs, efficiencies, and operating modes to support defendant's plant operations.

- **Terminal Operations**
  Provided litigation support assistance and expert opinion for case involving historic Standard of Care issues with petroleum product
Terminals.

**Trans-Alaskan Pipeline (TAPS) Quality Bank**
Provided expert testimony before extended hearings of both the Federal Energy Regulatory Commission (2004) and the Alaskan Public Utilities Commission (2007) with respect to the methodology used to value various Alaskan crude oil streams entering TAPS. Issues included how to calculate the refining values of such crude oils in U.S. West Coast refineries and how changes in the indicated market values of crude oils should be handled from a retrospective basis.

**Pipeline Operating Dispute**
Assisted in a dispute between an owner and an operator of a recently-constructed crude oil pipeline. Prepared an expert report concerning: (1) the facilities that should have been provided as part of the capital project to construct the pipeline; (2) the equipment necessary to operate and maintain the pipeline; and (3) whether defects found during the early operating period were the result of improper equipment design specifications and construction, or improper operation and maintenance. Testified at arbitration in London.

**Marine Accident Investigation**
Investigated causes for contamination of a cargo of residual fuel aboard a barge that exploded and sank.

**Upstream Process Equipment: Intellectual Property Infringement**
In support of a dispute between a technology owner and a manufacturer, provided an opinion on the likelihood or not of another firm’s ability to produce the same equipment with comparable features as the original product without utilizing trade secrets learned from the intellectual property owner.

**Gasification Process: Unauthorized Use of Proprietary Trade Secrets**
In support of a dispute between a technology owner and a start-up company, provided an opinion regarding the extent to which the start-up company may have relied on confidential and proprietary trade secrets, know-how, and other specific process information. In developing an opinion, reviewed all pertinent technical information, including experimental results and plant data, design details, and drawings from each party. Engineering and design experience provided the background needed to understand if proprietary information had been incorporated in a new design.

**Acetic Acid Process: Intellectual Property Infringement**
Using chemical engineering expertise, process design background, and experience in operations and manufacturing, provided an opinion on the likelihood of another firm’s ability to produce the same organic acids with comparable quality and value as the original product without utilizing trade secrets learned from the intellectual property owner.

**Jet Fuel Supply Contract Dispute**
Assisted a large refining client that was a defendant in a claim related to a force majeure declaration resulting from a hurricane. The dispute centered around a jet fuel supply contract and Baker & O’Brien assessed the supply conditions, transportation and other parameters related to the case.

**Industrial Gas Contract Evaluation**
Evaluated a contract for supply of nitrogen to petrochemical facilities. Specifically assessed the nitrogen pricing terms and interpretations.

**Wholesale Supply Contract Dispute**
Reviewed supply contract dispute and claims that customer was overcharged for product delivered to customer's retail locations. Completed an analysis of refinery gate prices, regional wholesale pricing, and transportation charges for deliveries to each location to determine if overall charges to customer were consistent with transportation logistics and contractual obligations.

**Gas Plant Construction Dispute**
Provided expert advice with respect to standard and customary practices of gas plant design and construction.

- **MTBE Contamination Litigation**
  Supported several oil company clients in defense of claims that the inclusion of MTBE in gasolines supplied to the State of New Hampshire caused contamination of water wells in the state. Provided information on the supply of MTBE-blended gasolines to the State and assessed availability of other oxygenates (primarily ethanol) to meet EPA requirements for oxygenated fuels. Testified at trial.

- **PET Manufacturer Business Interruption Claim**
  Assisted in a dispute concerning a petrochemicals business interruption claim and lawsuit after a declaration of force majeure by the manufacturer. Reviewed pertinent data provided by defendant's counsel and prepared written reports, affidavits, and deposition regarding the claims.

- **Fuel Contamination Investigation**
  Investigated an occurrence of contaminated diesel fuel at a mine facility, as well as the claimed property damage and business interruption claims. Assessed the root cause of the fuel contamination and prepared a presentation of our findings.

- **Dock Collision Business Interruption Claim**
  Assisted in a dispute concerning a refinery business interruption claim and lawsuit after a marine vessel allision with a refinery dock. Analyzed need for extraordinary refined product marine and pipeline movements, as well as trading activity and demurrage claims.

- **Pipeline Pigging Incident Investigation**
  Following a plant incident caused by the ingress of water, we investigated upstream pipeline activities and operating records to determine the root cause of the incident.

- **Heat Exchanger Failure Investigation**
  Investigated cause and events surrounding the rupture of process precooler involving one fatality. Assisted outside counsel by evaluating plant maintenance, safety and operator training procedures compared to industry accepted practices, as well as developing an understanding of probable circumstances that led to the event.

- **Gasoline Supply Contract Dispute**
  Represented a major refiner in a dispute related to lack of performance alleged by a large local service station chain. Reviewed the contract terms and provided testimony via deposition.

- **Engineering & Construction - Liquidated Damages Dispute**
  Reviewed claim relating to assessment of liquidated damages and inadequate delivery of Operating Manuals.

- **Refinery Construction Dispute and Arbitration**
  Following previous arbitrations regarding liability for change orders and delays associated with a refinery expansion/upgrade, Baker & O’Brien was engaged to estimate the “quantum” amounts associated with over 400 individual claims that had been addressed by the arbitration tribunal and its technical advisor. We testified regarding our estimates at a final arbitration hearing.

- **Hot Fuel Class Action Claim**
  Provided expert witness testimony and litigation support in a class action lawsuit claiming that sales of retail gasoline should be temperature corrected at the pump. Evaluated seasonal gasoline property variability, among other key factors.

- **Ethanol Class Action Litigation**
  Assisted a major Florida fuel marketer in Florida in defense against class action claims that ethanol-blended fuels had resulted in damaged boat engines, fuel tanks, and other marine/recreational equipment. Reviewed terminal blending and quality control practices, the actual quality and formulation of gasolines delivered to Florida consumers, and state specifications controlling the
quality of such gasolines.

- **MTBE Litigation - East Coast**
  Supported joint defendants in litigation involving alleged MTBE contamination in groundwater. Analyzed gasoline supply issues to the New York Long Island area over the period 1980 to 2006 and submitted expert report.

- **Hydrogen Pipeline Construction Cost Dispute**
  Assisted client in a dispute concerning settlement costs in regards to a canceled construction contract for a hydrogen pipeline.

- **North Carolina Gasoline and Ethanol Blending Analysis**
  Provided an expert report on the production and distribution of ethanol and gasoline, particularly branded gasoline, in the state of North Carolina. Provided a refiner's perspective of the impact of the Renewable Fuel Standard on gasoline blending, distribution and marketing operations, considering the options, alternatives and risks of selling gasoline without ethanol.

- **MTBE Litigation - West Coast**
  Supported joint defendants in litigation involving alleged MTBE contamination in groundwater. Analyzed gasoline supply issues to the Los Angeles basin over the period 1980 to 2006. Expert report submitted and deposition taken, however case settled prior to trial.

- **Sulfuric Acid Plant Fire Investigation**
  Investigated cause for sulfuric acid plant fire. Reviewed plant operating conditions prior to the fire and the unit design to identify the cause and potential contributing causes to the fire and subsequent explosions.

- **Coker Incident and Design Assessment**
  Reviewed project management procedures and facilities design of an oil refinery project after a subsequent structural failure. Provided written report and oral deposition regarding design responsibility and failure liability.

- **Ethanol Contract Dispute**
  Assisted in a dispute between gasoline marketing firm and an ethanol producer in arbitration over a long-term ethanol supply contract from a new production facility. Testified in arbitration regarding the development of the contract pricing formula, how it was to be applied, and the shortcomings associated with it.

- **MTBE Litigation and Expert Report**
  Provided expert report on behalf of a joint defense group of gasoline marketing companies that discussed the many issues concerning why MTBE was chosen over ethanol to meet the federal gasoline oxygenate requirements in the early 1990s. Also included was a discussion of how gasoline was supplied to the local region in California over the 1990s and early 2000s.

- **Air Compressor Incident Investigation**
  Provided independent assessment of an accident that occurred at a container manufacturing facility involving an air compressor and high pressure piping. Efforts included reviewing the compressor operators' work practices and potential causes of the incident.

- **Petroleum Revenue Override Dispute**
  Reviewed contract, evaluated contract terms and key definitions and analyzed royalties related to a large West African oil, gas, LNG and petrochemical complex.

- **Heat Exchanger Failure Investigation**
  Investigated circumstances concerning a heat exchanger failure that resulted in a fire and explosion, fatally injuring several employees. Investigation included evaluating relevant operating records and comparing these with design specifications to evaluate whether exchanger was operated, inspected and maintained in accordance within design parameters and industry practices. Prepared expert report.

- **Refinery Valuation Dispute and Arbitration**
Developed an opinion of the value of a joint venture company that owned and operated a large petroleum refinery in Eastern Europe. Evaluated the refinery's financial performance, capabilities and competitive position, as well as other valuation metrics, such as replacement cost and comparable refinery transactions. Provided testimony at international arbitration.

**Tank Truck Fatality Incident**
Provided inspection of truck tank and tank cleaning facilities related to a fatality accident. Investigation including collecting samples of tanker contents for further testing.

**Methanol Contract Dispute**
Provided an expert opinion on several aspects related to a methanol supply contract dispute.

**Refinery Business Interruption Assessment**
Estimated the lost profit (business interruption claim) stemming from a contractor incident which caused an extended refinery outage.

**Hydrogen Sulfide Incident Investigation**
Following a fatality caused by exposure to hydrogen sulfide at a crude oil storage tank with a known sour gas atmosphere, investigated the causes for the incident and the operating and maintenance practices (standard of care) with respect to: supervision, training, and use of personal protective equipment.

**Confined Space Incident and Dispute**
Provided support in a wrongful death dispute regarding a confined workspace incident. The incident involved nitrogen asphyxiation where two maintenance contractors died. Investigated the cause and origin of the incident, including work procedures and practices.

**Piping Purchase Dispute**
Reviewed purchase order documentation for piping material and provided opinion on whether the material met the engineering specification and requirements.

**Refinery Repair Costs Dispute**
Provided expert assistance and a written report for a dispute concerning reasonable contractor repair costs for an oil refinery unit after it had been damaged by fire.

**Storage Tank Spill Incident**
Developed an expert witness report associated with a spill from a sour naphtha storage tank. Reviewed numerous documents and depositions to develop opinions associated with the event. Provided expert opinions on the standards of care and operation of a petroleum refinery.

**Equipment Demolition / Fire Investigation**
Investigated circumstances of a large refinery fire related to a hydrocarbon release from a partially demolitioned open-ended pipe. Developed expert report of findings and provided opinions concerning industry practices and standards of care for the demolition of decommissioned facilities. Provided deposition and arbitration testimony.

**Valve Failure Investigation: Herbicide Plant**
Investigated the design and operations of a batch reactor process for the manufacture of herbicides in relation to a piping failure. Equipment material of construction was the focus of the analysis.

**Bitumen Valuation Dispute**
Initial meeting with attorneys to provide B&OB background on previous bitumen valuation studies.

**Chemical Plant Fire Repair**
Provided technical advice and consultation for recommended repair procedures for vessels and piping damaged in a chemical
Gas Plant Construction Dispute
Prepared expert report for AAA arbitration regarding alleged deficiencies by the EPC contractor relating to compliance with recognized and generally accepted good engineering practice (RAGAGEP) for adherence with OSHA requirements. Multiple issues, including control room safe location, electrical area classification, positive material identification, process hazard analysis, metallurgy selection, and building ventilation design were addressed.

Fall-Related Injury Investigation
Investigated circumstances concerning the personal injury of a contract employee who fell inside a flue gas system during a refinery turnaround. The investigation included evaluation of: (1) refinery safe work practices compared to industry standards; (2) utilization of fall arrest systems to mitigate the presence of fall hazards; (3) the responsibilities of both operating companies and contractors to recognize and develop plans to mitigate fall hazards; and (4) responsibilities of both parties to execute and communicate turnaround work plans.

Flare Tower Design Review
Independently reviewed the design of two flare towers for an LNG onshore facility. Commented on the EPCM contractor's responsibilities to review the work product of subcontractors and vendors.

Stainless Steel Braided Hose Failure
Provided technical expert witness assistance in dispute concerning the failure of a braided stainless steel hose in a medical facility.

Wind Turbine Generator Failure Analysis
Analyzed and provided expert testimony on the frequent failure of doubly-fed electrical generators located at a wind power generation facility. Examined and critiqued: the previous investigations concerning the possible causes, whether possible causes were linked to design, manufacturing or operation; and whether adequate steps had been taken to obviate further failures. Opined on whether the equipment was fit for purpose.

Refinery Valuation for Ad Valorem Taxes
Developed a cost approach estimate for the valuation of process units at a U.S. Gulf Coast Refinery. Calculated a replacement cost new for the process units and adjusted for physical depreciation, functional obsolescence, and economic obsolescence to arrive at a physical asset value for the refinery's process units.

Lawsuit Settlement Analysis (Refinery Metrics)
Provided client with an analysis of key refinery operating data that helped evaluate their liability in an environmental contamination lawsuit. The analysis formed the basis of the client's settlement offer.

Hot Tap Incident
Evaluated and incident involving a "hot tap" on processing pipeline and resultant leak. Assisted refinery owner and outside counsel in action brought against maintenance contractor.

Asbestos Insulation Litigation
Advised client of typical engineering standards regarding the use of asbestos insulation prior to the early 1970s.

Residual Fuel Oil Valuation
Provided an assessment of the quantity, quality, and value of fuel oil recovered during demolition of storage tanks at a power plant.

Ethanol Blending Lawsuit
Working on behalf of a petroleum industry trade organization, in defense of major gasoline branded companies, provided analysis and opinions related to the potential impact on brand quality from allowing ethanol splash-blending by third parties. Provided expert testimony at trial.
Water Treatment/Injection Contract Dispute
Engaged to provide expert witness assistance with technical issues regarding water treatment facilities. Reviewed project, maintenance and operational costs and schedules, in addition to the performance of the facilities. Testified in an ICC arbitration hearing in New York conducted in Spanish/English.

Nitrogen Manifold Failure
Provided litigation support for nitrogen manifold explosion.

Contract Company, Bankruptcy Dispute
Supported client in a contractor bankruptcy case by providing opinions concerning (1) industry practices plant operators (owners) take to vet industrial contractors for consideration to perform work at their site; (2) impact to operations following the suspension of work by a contractor during turnaround without prior notice; and (3) efforts owners may take to mitigate the impact of work suspension. Developed expert report and provided deposition testimony.

Refinery Business Interruption Assessment
Assisted in a dispute concerning factors which may have contributed to an explosion and prepared an estimate of lost profits stemming from the resultant loss incident.

Propane Pricing Analysis
Evaluated the historical development of propane prices in a key North American market, and developed a report that assessed propane supply-demand dynamics and price response, given the increasing availability of supply. Evaluated the evolution of company price postings and compared independently-assessed, third party prices to these postings. Provided opinions on the best propane price reference points to be used in commercial supply contracts.

Refinery Fire Claim
Provided litigation support for a valve supplier with regards to an insurance subrogation claim associated with a refinery fire. Determined extent of damage, cost and time to repair, and estimated business interruption if refinery facility had been designed per normal industry standard.

Pipeline Quality Bank Dispute
Reviewed claims by a crude oil refiner to adjust the valuation of the residuum cut in the TAPS Quality Bank. Reviewed the residual fuel markets and the delayed coking capacities and operations for several West Coast refiners. Provided written and oral testimony before a FERC Administrative Law Judge.

Faulty Equipment Claim
Assisted refinery operator with an insurance claim concerning the delivery and operations of a faulty air cooler. Reviewed documentation and supported client to determine roles and responsibilities of the equipment supplier to design, fabricate and deliver equipment free from manufacturing defects.

Gasoline Supply Analysis
Prepared several regional maps showing sources of gasoline supply to various states including refineries, pipelines and waterborne routes.

Asphalt Refinery Dispute
Provided analyses on locating an asphalt refinery on a property and expert witness deposition testimony involving the construction of an asphalt refinery.

Post-incident Equipment Preservation Review
Assisted client by assessing preservation techniques and "mothballing" efforts following the catastrophic failure of a vessel at a specialty products company. Incident resulted in an insurance claim for damaged equipment and idled equipment in the vicinity of
the vessel failure. Efforts included assessing preservation techniques utilized at the plant compared to industry practices, developing an expert report, and providing expert testimony.

- **Paper Mill Safety Incident**
  Assisted attorneys by investigating the circumstances concerning an incident that occurred at a paper plant during a scheduled turnaround that resulted in a fatality. Issues studied included assessing work practices and safety procedures utilized to prepare equipment for turnaround activities, including vessel entry and paper mill plant design.

- **Flash Fire Investigation**
  Investigated circumstances concerning a flash fire that occurred during vessel entry and cleaning operations. The investigation included: (1) assessment of refinery safe work practices compared to industry standards and government regulations; (2) utilization of vessel entry and confined space safety practices to mitigate ignition hazards; and (3) responsibilities of both the operating company and contractor organization to recognize, develop, and follow safe work plans to prevent potential flash fires from occurring during vessel entry. Developed and submitted expert report.

- **Litigation Support for Asbestos Claim**
  Asbestos Litigation—provided expert input and litigation support for trial preparation on refinery/chemical personnel's exposure to asbestos gaskets and equipment insulation materials.

- **Refractory Failure Investigation**
  Provided expertise and technical assistance related to the evaluation of a failed refractory in a methanol reformer.

- **Production Facility EPC Dispute**
  Reviewed and opined on different aspects of a dispute between the developer of an oil production facilities project and the EPC contractor. Assessed variation/change orders for entitlement and reviewed claims of preferential engineering (versus functional design).

- **Chemical Plant Construction Dispute**
  Provided expert report on construction dispute concerning prefabricated module manufacturing quality and cost overrun issues.

- **Gas Plant Construction Dispute**
  Prepared expert report and testified regarding alleged performance deficiencies of a general mechanical contractor performing a reimbursable construction project. The project allegedly experienced poor productivity, resulting in cost overruns and schedule delays. Assessed the different potential causes of alleged poor productivity, including project management, scope changes and weather impacts.

- **EPC Construction Dispute**
  Provided expert support in a construction dispute relating to a natural gas processing plant in North America. The dispute primarily concerned engineering design issues and whether the installed facilities met contract, specification, and industrial standard requirements.

- **Standard of Care During Ethylene Plant Outage**
  Reviewed the shutdown and subsequent start-up of an ethylene plant following a utility outage. Reviewed liquidated damage calculations.

- **Gas Pipeline Dispute**
  As a member of the three person dispute resolution board for a gas pipeline construction project, reviewed, evaluated, and determined liability for project claims brought before the board.

- **Electrical Supply Disruption**
  Following the sudden loss of electrical supply to a chemical plant, which resulted in equipment damage, the chemical plant owner
claimed that the electricity supplier was negligent. In addressing the root cause of the equipment damage, our work assessed the following parameters: (1) the nature of the supply contract; (2) the nature of the outage - whether intentional or inadvertent; (3) the chronology of events following the outage; (4) the designs of the electrical systems in question; and (5) the operational procedures in the event of a power outage and whether they were followed.

- **Pipeline Pig Station Incident Investigation**
  Reviewed information concerning a fire associated with the commissioning of a pipeline station and equipment skid. Purpose was to assess cause and origin for the incident and roles and responsibilities of the operating company and equipment supplier associated with the project.

- **IPP/Refinery Power Generation Outage Dispute**
  Assessed the cause(s) of supplier's steam and electricity generation failure and mitigating actions by the refinery/petrochemical customer. Preliminary findings and a document request were provided to the client.

- **Insulation Works Dispute**
  Provided expert witness assistance with technical issues regarding the installation of insulation on an LNG facility. Baker & O'Brien reviewed the technical issues, prepared an expert report, and testified regarding our opinions in an ICC Arbitration hearing.

- **Pulp and Paper Mill Construction Dispute**
  Opined on engineering standard of care issues and issued an expert report for use in a dispute between the owner of a pulp and paper mill and an engineering firm as it related to a major turnaround project.

- **Pipeline Specifications Dispute**
  A new pipeline owner was seeking to impose tighter diesel specifications on a pipeline. Provided an expert report and testimony regarding common carrier pipeline diesel product specifications in a regulatory hearing. The dispute was ultimately settled prior to the hearing.

- **Floating Production Platform Dispute**
  Reviewed, opined, and prepared expert report regarding the project cost differences experienced during construction of the hull and integration of topsides for a semi-submersible platform, which was placed into service offshore of Brazil. Our review included a change in the construction site, changes in construction strategy, and changes in the sequence of construction.

- **Pipeline Operating Practices**
  A lawsuit was filed against a major U.S. pipeline company stating that its operating practices during maintenance at a gas gathering line resulted in a fire and the injury of two contract workers who were the plaintiffs. We were asked to opine on the cause of the fire. The matter was settled out of court prior to reports being issued or testimony being presented.

- **Refinery Construction Dispute**
  Assisted clie

- **Natural Gas Measurement Dispute**
  Assisted client with a "Discovery Request" regarding measurement of shale-play natural gas from a field meter. Reviewed accounting records, photos, and meter specifications to determine if consistent with industry standards for measuring natural gas.

- **Retail Marketing Contamination Dispute**
  A gasoline marketer that had withdrawn from a particular region was being sued for alleged contamination from leaking underground storage tanks at retail marketing locations in that region. We were retained to provide an overview of the gasoline supply chain with an emphasis on the various types of retail operations and to review the plaintiffs’ claims regarding the number of retail outlets that were owned and controlled by that company in the relevant time period.

- **Propane Quality Review**
Reviewed claims regarding a propane quality dispute between a supplier at a new terminal and a retail distributor. Reviewed propane quality test results and bills of lading to compare actual versus reported quality. We provided technical findings to client and assisted in getting the matter settled.

**Acrylonitrile Plant Construction Dispute**
Assisted in a dispute between a major EPC firm and an owner concerning claims that the owner's interference with a lump-sum EPC contract resulted in a large cost overrun. Assisted with discovery, evaluated construction documents, analyzed project disruption, evaluated change orders, and prepared trial exhibits.

**Refinery Flare Incident**
Following a fire during a scheduled flare system maintenance turnaround, retained to assess the feasibility of safely hot tapping the flare header to install a stopple and allow removal of a large gate valve upstream of a flare knock-out drum. In consultation with other parties, assessed: (1) the flare system equipment, (2) the refinery hot tap procedures, and (3) evaluated if the activities could be performed safely.

**Explosion Insurance Claim**
Provided report presenting a reasonable timeline and duration to source, contract, start, and conduct the demolition of the parts the Gas Plant damaged after the plant experienced a fire and explosion.

**Industrial Accident Investigation**
Investigated

**Electrostatic Precipitator Explosion**
Investigated

**Refinery Environmental Consent Decree**
Investigated

**Amortization Study**
Prepared amor

**Refrigerants Manufacturing Arbitration**
Assisted in

**Refinery Incident Claim**
Assisted in

**Petrochemical Cargo Contamination**
Evaluated a c

**Appraisal Services**
Provided appraisal

**Nitrogen Fertilizers Arbitration**
Assisted an i

**Refinery Process Unit Damage Dispute**
Retained to

**Tank Incident Report**
Assisted during

**Ethylene Plant Construction Dispute**
Opined on the

**Assessment of Naturally Occurring Radioactive Material**
Followed clai

- Marine Dock Damage Insurance Claim
  Analyzed the
- Nitrogen Related Incident
  Investigated
- Insurance - Sugar Mill: Lost Production Claim
  A steam-drive
- Pipeline Operation Dispute
  Following an
- Chemical Plant Construction Dispute
  Provided expe
- Natural Gas Distribution System Construction Dispute
  Supported a c
- Natural Gas Measurement Dispute
  Assisted with
- Fractionator Facility Design Issues
  Reviewed cont
- Splitter Performance Review
  Provided guid
- Refinery Economic Analysis
  Provided anal
- Dispute Support - Groundwater Contamination
  Provided expe
- Crude Oil Pipeline Dispute
  Provided expe
- Accident Liability
  Assisted in a personal injury claim following an incident in a petroleum refinery process unit. Examined refinery conformity with the latest available industry technology, regulations, standards, and practices.