



### AREAS OF EXPERTISE

- Standard of Care
- Project Feasibility
- Accident / Incident Investigation
- Engineering, Procurement, and Construction (EPC)
- Insurance Claims
- Pipeline
- Arbitration
- Expert Witness Testimony
- Operations and Maintenance
- OSHA-related
- Forensic Analysis
- Physical Asset Appraisal
- Gasification

### INDUSTRIES

- Natural Gas and NGLs
- Petroleum Refining
- Transportation and Storage
- LNG

### EDUCATION

- University of Texas at Austin  
B.S. Mechanical Engineering  
(1992)

### SUMMARY OF EXPERIENCE

Mr. Hirst has over 25 years of experience in international project management, refinery/plant engineering, construction management, cost control, and contract administration. Charlie began his career with Caltex Petroleum Corporation and subsequently worked with the Chevron Corporation when Caltex became part of Chevron. While with Caltex and Chevron, Charlie provided technical and project management support to worldwide affiliates.

After completing an assignment as a cost control and project engineer during the construction of a grassroots refinery in Thailand, he served as the Engineering, Construction, and Commissioning Manager on a grassroots lube oil blending plant project in China. Following the successful start-up of that plant, he was assigned as Facility/Project Engineer at the 260,000 barrels per day, Bahrain Petroleum Refinery, where he worked in all areas of plant engineering.

He has conducted refinery incident investigations, participated in HAZOP studies, and conducted troubleshooting activities to resolve equipment performance problems, which are all areas where his experience with the design and maintenance of rotating equipment, columns, piping, tankage, and pressure vessels are a significant asset. Since becoming a consultant in 2007, he has advised clients on a wide range of issues, including project disputes, insurance claims, project monitoring, and industry accidents. Charlie is fluent in Spanish.

### PREVIOUS POSITIONS

*2006-2007: **Chevron Corp.**,  
Superintendent Plant Engineering, Bahrain Refinery*

*2003-2006: **Chevron Corp.**,  
Senior Engineer, Bahrain Refinery*

*1999-2003: **Caltex Petroleum Corp.**,  
Facility & Project Engineer, Bahrain Refinery*

*1997-1999: **Caltex Petroleum Corp.**,  
Engineering, Construction & Commissioning Manager  
Lube Oil Blending Project, China*

*1996-1997: **Caltex Petroleum Corp.**,  
Marketing Project Engineer*

*1993-1996: **Caltex Petroleum Corp.**,  
Cost & Project Engineer, Star Petroleum Refinery Project*

*1992-1993: **Caltex Petroleum Corp.**,  
Associate Engineer, Head Office*