## SUMMARY

Qualified Chemical Engineer with extensive experience primarily in the petrochemicals sector in Project Management, Plant Design, Commissioning and Operations roles, Expertise in managing EPC contracts. commissioning new facilities, plant start-ups, and process design, gained through a broad range of assignments in Australia and Asia.

## **QUALIFICATIONS AND TRAINING**

Degree in Chemical Engineering (University of Melbourne) HAZOP Training (including Team Leadership) 1995 Quality Management for Senior Managers 1995 Safety Leadership 1992 Safety and Occupational Health Management 1989 Managing Process Hazards 1987 Kepner-Tregoe Problem Solving and Decision Making

## PUBLICATIONS

- 1. "BTX Extractive Distillation Capacity Increased by Enhanced Packing Distributors" Oil and Gas Journal
- 2. "Operations Management Concepts" developed and presented to Titan Petrochemicals supervisors and engineers
- "Advances in Cracking Furnace Technology" prepared for the Refining Technology Conference 3.

## **PROFESSIONAL EXPERIENCE**

#### 2009 to 2013 JG Summit Olefins Corp.

## Project Manager for the Philippines first Naphtha Cracker.

Responsible to the JGSOC board for

- Ensuring that the project is completed on schedule and within budget
- Reviewing the technical aspects of the EPC contract prior to final sign-off
- $\triangleright$ Ensuring the technologies and plant process configuration proposed by the Licensor were consistent with the project objectives, and potential expansion plans
- Reviewing the plant specifications issued by the EPC contractor, and recommending  $\geq$ changes that would improve the profitability of the project through project savings or value engineering
- Determining whether variations from the Invitation to Bid document were acceptable
- Assessing the proposed plant layout, and recommending changes to reduce costs, improve operational efficiency, or resolve possible maintenance issues
- ≻ Ensuring the Process Performance Guarantees and penalties were consistent with industry practice.
- Recruiting and managing an Engineering team to check that all project documents issued by the EPC contractor were consistent with current industry best practice.

## 2007 to 2009

**KLM Technology** 

Consulting work within the South East Asian region including

- Completing the role of HAZOP Leader for two proposed plants for a Thai petrochemical company, and issuing the final report and recommendations.
- Providing Start-up support or acting as Commissioning Manager for 4 Benzene/Toluene Extraction • plants within the Asian region. Typically responsible for:
  - Technology training of the operations group
  - Final review and punchlisting of plant equipment for consistency with the P & ID's
  - Liaison with the client management team
  - Safe and efficient start-up of the plant
  - Completion of the Performance Guarantee test.  $\triangleright$
- Conducting Training for various international companies and Universiti Teknologi Malaysia (UTM). • Courses completed to date:
  - Monitoring Naphtha Cracker Operations
  - Safety in Plant Operations
  - Commissioning and Start-up Techniques
  - Distillation theory and tower trouble-shooting
  - Benzene purification tower

## (South East Asia)

(Philippines)

(Darwin, Australia)

#### 2006 to 2007 Natural Fuels

Recruited to manage the hand-over, commissioning and start-up of Natural Fuels first biodiesel plant. Responsible for the recruiting and training of all Operations staff, implementation of Permit to Work systems, punchlisting of systems prior to handover, plant commissioning, and resolution of technical issues with the EPC contractor.

#### 2005 to 2006 **Basell Polvolefins**

Assigned as Engineering Manager to the Basell Expansion, a 60M Euro project to effectively double the capacity of an existing plant. This role included:

- Coordinating and supervising the discipline engineering inputs to the EPCM Contractor.
- Advising the Commissioning Manager on pre-commissioning techniques and procedures to enable • the safe, efficient and trouble-free start-up of the new Propylene fractionation system.

### 2003 to 2005 **ICD Asia Pacific**

As Design Manager for an Engineering Consultancy, responsible for the management of a team of up to twenty personnel, which provided project engineering, project management and drafting services to the Shell refinery, Basell and other organizations. Participated in various HAZOPs of planned projects during this period. Responsible to the Company MD for the engineering integrity, customer satisfaction and profitability of the work carried out in the office.

#### 2002 to 2003 **Carlton Chemicals**

Plant Manager of an adhesives manufacturing plant. Responsible to the MD for the safe and efficient operation of the site, with direct management of the production planning, supply chain, QC and operations groups.

### 1998 to 2002 **Titan Petrochemicals** 1993 to 1996

Originally recruited as Engineering Supervisor in 1993 to support the commissioning and start-up of Titan's first Naphtha cracker. Subsequently promoted to Technical Manager.

Returned to Titan in 1998 as Commissioning Manager for the Phase 2 projects - second (larger) Naphtha cracker, Benzene recovery unit and Cogeneration plant. Following the successful startup of these plants, reassigned as Technical Manager, then Plant Utilities Manager.

- As Engineering Supervisor/Technical Manager
  - Implemented a HAZOP based Engineering Change system to ensure the comprehensive review of all proposed plant changes, to maintain plant safety and operability. Over 100 changes were requested during this period.
  - Direct supervision, management and training of up to twelve gualified engineers ./
  - $\checkmark$ Ensured the team provided technical support and trouble-shooting assistance to the Operations group.
  - Led the development of any proposal for major expansions or debottlenecks
  - Assessed limitations found during plant load tests to evaluate proposed expansion options. These studies found 8% additional capacity in the existing plant.
- As Commissioning Manager
  - Determined the additional infrastructure required to enable the effective integration of the new units with the existing plants
  - ✓ Proposed, wrote or approved all procedures used in pre-commissioning for the projects. This included air blowing, steam blowing or flushing of lines, chemical cleaning of key items. mechanical runs of turbines, compressors and pumps, and system leak testing and inerting
  - ✓ Continually updated the pre-commissioning schedule to ensure construction delays did not impact start-up timing
  - Completed final plant inspections for compliance to P&ID specifications
  - Coordinated the Performance Test runs (as part of the lump sum turnkey contract) on both the original Naphtha cracker and the Benzene recovery unit.
  - Detailed all plant design deficiencies for both the second Naphtha cracker and the Benzene 1 recovery unit, and supported the Project Manager in the negotiated settlement for acceptance of these items. This resulted in a multi-million dollar payout to Titan.

(Geelong, Australia)

(Geelong, Australia)

(Melbourne, Australia)

(Pasir Gudang, Malaysia)

(Melbourne, Australia)

## 1996-1998 Dussek Campbell Asia Pacific

Operations Manager for a wax blending and emulsion manufacturing facility

- Responsible to the CEO for the safe and efficient operation of the wax blending/emulsion manufacturing facilities, initially in two states
- Planned and successfully executed the transfer of production from a satellite site to the primary production facility, despite major logistical and supply chain problems.
- Debottlenecked the wax emulsion unit through the resolution of heat exchange problems to enable a 10% capacity increase.

# 1989-1993Altona Petrochemical Company (now Qenos)(Melbourne, Australia)1979-1988

During 13 years with this ExxonMobil managed company, which operated two ethylene production units (a Gas Oil and an Ethane cracker), promoted through various positions including Senior Process Engineer, Process Engineering Supervisor, Operations Supervisor, Shift Manager, Unit Manager and Operations Specialist.

Rehired in 1989 to resolve both operational and reliability issues as a result of a plant upgrade. Achievements include

- Led the optimization team responsible for maximizing ethylene yields through the adjustment of key plant operating conditions
- Managed the effective and timely shut down and startup of all units of the Gas Oil cracker during 2 turnarounds
- Responsible for the design of key processing equipment including surface condensers, process heat exchangers, pumps and tower internals
- Devised and implemented innovative startup procedures for both single processing units and the entire Gas Oil cracker, to both minimize the amount of flaring and reduce the time to on specification production
- Developed a 5-year business plan to forecast and improve company profitability. Changes to enhance shift team performance and improve maintenance productivity were ultimately instituted as part of a major restructuring program based on these recommendations.
- Successfully coached plant operators in the rehabilitation process and reinforced their belief in the safety of resuming operations, during a 6-month period of plant down time, following a fatal fire and explosion

## 1988-1989 ICI Australia

(Melbourne, Australia)

As newly appointed Site Manager of a ceramics manufacturing facility, following a hostile takeover

- Integrated new staff into an existing production team, which met all production objectives during a period of increasing orders
- Managed overall staff of 30, which included purchasing, personnel, operations, Maintenance, planning and regulatory compliance (OSHA and EPA) functions.