

FAI Clients and Consulting Services Provided

Following is a list of services (excluding Site Specific Machinery Training) provided to various clients globally, arranged by region:

Middle East

- **PetroRabigh Corporation (World's largest Refining and Petrochemical Complex)** – Conducted Machinery Condition Assessment to optimize reliability on whole facility, 24/7 Machinery Assistance Agreement
- **Methanex Egypt Methanol Plant** – Specified, selected and witnessed FAT's for all major Compressor Trains
- **ADGAS LNG** – Specified, selected and witnessed FAT's for major equipment in IGD Project. Witnessed FAT's for OAG Project. Conducted RCFA's on BOG Dry Gas Seal Failure and Steam Turbine (Generator Driver) failure.
- **ARAMCO** – Conducted Machinery Condition Assessments to optimize reliability in the following facilities:
 - **Ras Tanura Refinery**
 - **Riyadh Refinery**
 - **Yanbu Refinery**
 - **Rabigh Refinery**
 - **Jeddah Refinery**
 - **Yanbu Gas Plant and Terminal**
 - **Eastern Regional Distribution Plant**
 - **Juaymah Gas Plant**
 - **Ras Tanura and Juaymah Terminals**
- **SABIC** – Provided the following services for the following facilities:
 - **SHARQ Ethylene Plant** – Machinery Condition Assessment to optimize reliability, 3rd Party Project Cold Eyes 60% Completion Review
 - **AR-Razi Methanol Plant** - 3rd Party Project Cold Eyes 60% Completion Review
 - **NIGC Air Separation Plant** - Air Compressor Train RCFA
 - **Saudi Kayan Ethylene Plant** – Specified and Selected all major Compressor Trains in Ethylene Unit, Conducted Machinery Condition Assessment in Utilities Unit to optimize reliability
 - **YANSAB Ethylene Plant** – Cryogenic Expander RCFA
 - **YANPET Ethylene Plant** - 24/7 Machinery Assistance Agreement
- **DUSUP Margham Gas Field** – Gas Booster Compressor RCFA, Specified and Selected Cryogenic Expander
- **Dubai Petroleum Exploration and Production** – Specified and Selected a Dry Screw Compressor for Off Gas Application

Asia/Europe

- **Titan Malaysia Ethylene** – Specified, Selected and witnessed FAT for all major Compressor Trains in Ethylene Unit # 2
- **Indian Oil Company (IOC) Refining** – Conducted Machinery Condition Assessment to optimize reliability at Panipat Refinery
- **P.T. Badak LNG Indonesia** – Conducted RCFA on Propane Compressor
- **P.T. Arun LNG Indonesia** – Re-designed Oil Seal System for Optimal reliability
- **OMV Sawan Gas Field in Pakistan** – Specified, Selected, witnessed FAT and conducted Pre-commissioning checks for all compressor trains
- **Kuwait Oil Company** – Conducted RCFA on Tank Boil Off Gas Screw Compressors
- **Methanex New Zealand Methanol Plants** – Conducted RCFA's on Syngas and Circulator Compressors.

North America

- **Westlake Chemicals Ethylene Plants** – Conducting Machinery Condition Assessments to optimize reliability in the following facilities:
 - **Calvert City, Kentucky**
 - **Lake Charles, Louisiana**
 - **Longview, Texas**
- **Lanxess Butyl Rubber** – Conducted Machinery Condition Assessment to optimize reliability, Conducted RCFA on N2 Diaphragm Compressor, 24/7 Machinery Assistance Agreement
- **Conoco Phillips Exploration and Production** – Currently working on specifying major equipment for plant upgrade in Alaska
- **Phillips 66 Refineries** – Conducting feasibility study to determine size and type of compressors for plant upgrade. Specified, selected and witnessed FAT for Hydrocracker Recycle Compressor.
- **Cenovus SAGD Oil Production** – Specified, selected and witnessed FAT's for critical pumps. Conducted numerous RCFA's on Bad Actor Pumps and Mechanical Seals. Conducted Machinery Condition Assessment for LM-6000 Gas Turbines.
- **Husky Energy Oil and Gas Production** – Provided the following services for the following facilities:
 - **Rainbow Lake** – Conducted RCFA's on Frame 6 Gas Turbine and several Reciprocating Compressors. Specified and selected 75% H2S Diaphragm Reinjection Pump.
 - **Sierra Gas Plant** – Conducted Machinery Condition Assessment to optimize reliability
- **Citgo Refineries** – Provided the following services for the following facilities:

- **Lake Charles Refinery** – RCFA’s for a Dry Gas Seal Failure and Reformer Recycle Compressor Failure. Conducted Machinery Condition Assessment for FCC Blower.
- **Lamont Refinery** – RCFA on Reformer Recycle Compressor
- **Corpus Christi Refinery** – Project assistance on Hydrocracker Compressor Dry Gas Seal Retrofit. Recommended and Designed upgrades for Oil System.
- **Philadelphia Thermal Power Plant** – Conducted Machinery Condition Assessment to optimize reliability
- **Baltimore Thermal Power Plant** – Conducted Machinery Condition Assessment to optimize reliability
- **Saint Louis Thermal Power Plant** – Conducted Machinery Condition Assessment to optimize reliability
- **Agrium Ammonia Plants** – Conducted Machinery Condition Assessment in the following facilities:
 - **Carseland, Alberta**
 - **Redwater, Alberta**
 - **Borger, Texas (Q4 2017)**
- **Nova Chemicals Ethylene Plants** – Assisted in machinery troubleshooting issues in the following facilities:
 - **Sarnia, Ontario**
 - **Red Deer, Alberta**

South America

- **Methanex Chile Methanol Plants** – Specified, selected, and witnessed FAT’s for all major Equipment for 4 Methanol Plants.
- **Methanex Trinidad Methanol Plants** - Conducted RCFA’s on a Steam Turbine Failure and a Dry Gas Seal Failure
- **IPSL Ammonia Plants** – Troubleshooting to resolve Oil System Issue consisting of redesigning some components.
- **YARA Ammonia Plant** – Conducted RCFA on Ammonia Syngas Turbine Driver