

Education

Bachelor of Science in Chemical Engineering - 1993 - University of Alberta; Edmonton, Alberta

Professional Status – Registered with APEGGA as a Professional Engineer (member number M55420) operating under Kure Engineering Solutions Inc. (Permit to Practice P-8284) and licensed in the NT/NU

Senior Project Engineer/Project Manager – Gas Liquids Engineering – Calgary, Alberta

2019 – Current, 2016 – 2018 and 2011 – 2012

- Plains Natural Gas Liquids Fractionation and Storage – Project manager for reconfiguration of various feed stock flows for marketing flexibility
- AltaGas Harmattan Gas Plant straddle plant modification - Project scheduling, constructability review, process design, P&ID development, exchanger and vessel design, bidding and purchasing.
- Cenovus – Senior manager of facilities engineering related to the conventional drilling program for Alberta
- Design of 30in Natural Gas Storage Pipeline and metering facilities including P/L alignment
- sheets and preliminary scoping and mechanical design of related facilities.
- Shell Caroline Gas Plant – Project engineering related to the plant turndown and maintenance projects.
- Field Optimization/Debottlenecking of Cavern Wash at Plains. Ft Sask facility- Process modelling, scoping and design for various optimizations on the cavern wash system including temporary high pressure rig pumps to boost wash water volumes.

Process/Project Engineer – Horn River Engineering – Calgary, Alberta

2018 – 2019

- Grassroots plant sour gathering system, sour gas blending facility, product pipeline design including process support, control narrative, P&ID development, mechanical construction drawing, instrumentation specification, project estimation and drafting coordination.
- Metering site junction design for multiple receipt points and gas sources. Development of conceptual process operating modes for gas sales, plot plan and P&ID development, mechanical design, instrumentation specification, purchasing, project estimation and scheduling. Liaison with receipt metering facility design teams.

Project /Facilities Engineer - Millenia Resource Consulting Ltd./Millenia Engineering – Calgary, Alberta

Feb. 1998 – 2016

I have supplied project engineering, project management and process engineering services to Millenia Resource Consulting's clients, Shell Canada, Enerplus, Encana, NAL, Burlington and Apache. I have worked within the Shell Caroline and Burnt Timber Plants periodically for five years and have completed many other projects in Central to Northern Alberta oil and gas fields completing a variety of capital projects, a sampling of which are listed below.

- NGL Storage and Off-loading Facility Engineering and Design for 3rd party NGL fractionation.
- Commercial butane loading facility.
- Sulphur Degassing System Engineering and Design
- Oil and Gas well site facility and pipeline design
- Design and installation of gas plant debutanizer/dehexanizer and heat medium skid
- Acid Gas Enhanced Oil Recovery Systems including design of acid gas injection compressor, pipeline and wellsite facility and production flowback well site facility, pipeline and battery design
- CO2 recovery and compression for reinjection including compression, field separators, Battery VRU systems, tankage and flare system
- Direct pumping of condensate/oil/emulsion from separators
- Battery upgrade, replacing tank farms, new free water knock out and produced water injection skid
- Sour and Sweet Gas Compressor Modeling
- Compressor Installation Projects
- AEUB and AEP Applications and Liaison
- Flare stack evaluations, design and installation
- Process heater conversion to incinerate sour gas

- Shell Caroline Water Balance Study and water conservation strategy
- Cooling water balance and chemistry review
- Water treatment study
- Safeguarding procedures relating to removal of redundant alarms and equipment shut downs
- Replacement of sulphur plant piping and installation of a unique tracing system for new piping
- Upgrade of produced water filter and replacement of piping to FRP piping
- Piping replacement and tracing of sulphur degas vent piping
- Study of steam condensate system to identify process changes to mitigate problem areas. Piping layout, design and costing options to improve the steam condensate system
- Safety platforms and fall arrest systems
- Installation of a spare process heater for mole sieve regeneration
- Process sewer replacement in an active plant
- Sulphur Block runoff pond design and installation
- Steam jacketed duct system for sulphur pit vapours, which were previously being vented to atmosphere
- Underground drain and lube oil tank installation
- Analysis of vibration data, design and procurement of vibration suppression upgrades to sulfinol and MDEA contactor piping
- Spill prevention upgrades to a problem spill area
- Evaluate and implement remediation options for condensate contaminated area.
- New process pump and associated piping
- Process Filter Installations
- Plant Instrument Air Installations
- Amine Plant Corrosion Problem Solving
- Rehabilitation of leaking pipelines using liner systems
- Air Quality Modeling

HAZWOPER Safety Trainer – Various Locations, NWT – 2009/2010/2015

Trained approximately 100 northern students in hazardous material safety and handling procedures with a focus on related DEW Line and Mine Remediation work.

Project Superintendent and Hazardous Waste Specialist – E. Grubens Transport-Tuktoyaktuk, NWT – 2009 – 2012

Managed four environmental clean-up projects in NWT and NU of former bulk fuel depot (Johnson Point, Banks Island) and DEW Line Stations (PIN-B, PIN-D and PIN-E and PIN-2). The work sites consisted of 40+ person remote camps on the arctic coast and heavy equipment required for the clean-up. Supervised removal of contaminated soil, landfill excavation and hazardous materials by local workforce. Managed construction of engineered landfills and regarded “freeze-back” landfills. Oversaw the treatment of contaminated hydrocarbon soil and provided general technical assistance for the projects.

Technical Team Leader – Aspen Bio-Energy – Calgary, Alberta - Oct. 2007 – 2012

Provided technical evaluation of biomass to ethanol process proposed for Rimbey, Alberta. Reviewed the proposed process for technical and commercial feasibility, and aided in the preparation of the environmental applications related to the project.

Project /Facilities Engineer – Concise Design/LanMark Engineering – Calgary, Alberta

Jan. 2004 – 2007

Concise Design/LanMark Engineering have used my project engineering expertise on many projects such as:

- Flare and knockout problem solving and installation
- Sweetening vessel design and installation
- Gathering system and compressor installation
- Re-licensing of pipelines for sour service
- Design and installation of sour battery and compressor
- Sour battery evaluation and upgrade of produced water injection facilities
- Sour gas wellsite tie-in and pipeline engineering design and project management

Project Manager/Environmental Engineer – IEG Environmental (Formerly Sorel Environmental) - Calgary

Feb. 1997 - 2012

- Audit of DEW Line Landfill performance including visual inspection, soil and groundwater sampling
- Environmental audit of oilfield facilities identifying non-compliance areas and recommending improved operating practices

- Developed environmental management systems (EMS) for three Alberta upstream petroleum companies
- Hazardous materials specialist and hazmat crew leader (supervising up to 20 workers) for asbestos abatement, landfill excavation, soil remediation, PCB painted material demolition, drum characterization, and waste manifesting at four clean-ups of Distant Early Warning Radar (DEW Line) sites on the arctic coast. Technical advisor to Inuvialuit Land Administration for the DEW Line site clean-ups
- Design and implementation of a new in-situ biological soil treatment technology,
- Regional air quality research and modeling for the Lubicon Land Claim region. Air quality monitoring program design.
- Design and construction of a bio-remediation cell for contaminated soil excavated from flare pits and other contaminated areas
- Managed a large PCB contaminated soil remediation project in Manitoba
- Conducted a geophysical and subsurface assessment for DDT at a military construction camp along the Alaska Highway in the Yukon
- Home water treatment technologies
- Ongoing DEW Line Soil, Groundwater and Landfill Monitoring
- Northern hydrocarbon remediation of former oil and gas sites.

Other Consulting Activities – Red Deer, Alberta

Jan. 1997 – Current

- Small scale combined heat and power biomass/waste gasification system development
- Researching construction & demolition waste sorting and recycling for WasteCo, attending Montreal Waste to Resources conference
- Rural water treatment systems
- Air monitoring program for mining facility decommissioning
- Environmental assessment and remediation projects for commercial and industrial properties for AWARE Engineering and Tagish Engineering around Central Alberta
- Completed an environmental management system (EMS) for Novagas Clearinghouse Ltd. for facilities in Northeast BC

Farmer - Kure Family Farm - Red Deer, Alberta

Aug. 1996 – present

Management and operation of the family grain farm (Kurefarm Ltd.) southwest of Red Deer, two to four months of the year. In recent years it has not necessary for me to block time off during seeding and harvest as my children are now capable of handling the work.

Project Manager/Environmental Engineer - Terracon Environmental, Inc.-Rock Island, Illinois.

Sept. 1993 - June 1996

I had responsibility for concurrent projects, including client communication, scheduling, logistics, budgeting, information collection, completion of field tasks, and report preparation. The projects involved:

Risk Assessment	<i>Agricultural Chemical Assessments</i>	<i>ASTM Phase I Environmental Site Assessments (Property Transfer Assessments)</i>
<i>Air Permitting</i>	Remedial System Design	
Storm Water Permitting	<i>Secondary Containment Design</i>	Phase II Environmental Site Assessments (Intrusive Assessments)
<i>Facility Closure Assessments</i>	Engineering Oversight of Remedial Activities	
Process Sewer Environmental Evaluation		

Shell Canada Limited - Environmental Engineering Intern - Caroline Gas Plant, Caroline, Alberta

Summers of 1991 and 1992

- Facility upstream waste management program for the Caroline Gas Plant. Identifying waste streams and disposal/treatment option for each.
- Design and initiation of environmental monitoring programs for the Plant
- Developed audit system for environmental compliance during construction of the facilities at Caroline