

Agave Energy Company - New Mexico, USA

- Preliminary design calculations for a 0.5MMSCFD acid gas injection scheme including water content, hydrate formation and phase envelopes.

Allen Energy - Como, Texas, USA

- Preliminary design calculations for a 2 MMSCFD (60% H₂S, 40% CO₂) injection scheme including water content and phase envelopes.

APF Energy - Sakwatamau

- Rated the performance of an amine plant to determine process capabilities under a wide range of flow conditions.

B.P. Resources Canada Ltd. - Chetwynd, BC

- Optimization and costing of modification scenarios for a 70 MMSCFD gas plant.

Blue Range Resource Corporation - Hillsdown

- 16 MMSCFD gas plant rating.

Blue Range Resource Corporation - Wood River

- 8 MMSCFD gas plant performance review.

Canada Northwest Energy Limited - Gorzyca, Poland

- Conceptual design and project budgeting for a 24 MMSCFD gas plant (57.9 % N₂) involving 1200 B/D oil, 450 B/D LPG and a 15 USGPM amine plant.

Canada Northwest Energy Limited - Indonesia

- Conceptual design of a 15,000 B/D oil battery plus 6600 B/D water handling comprised of two FWKO, a test separator and test tank, two emulsion separators, oil accumulation and 5 storage tanks, oil transfer pumps, flare stack, water accumulation and skim tanks, water injection pumps.

Canada Northwest Energy Limited - Rozansko, Poland

- Conceptual design and project budgeting for a 120 MMSCFD gas plant (42% N₂) involving 3800 B/D oil, 2065 B/D LPG, nitrogen removal and 250 MW power generation.

Canadian Hunter - Elmworth

- Process study regarding reduction of CO₂ in ethane product by optimizing 575 MMSCFD expander pressure ratios and demethanizer temperatures. Resulted in recommendation to add a CO₂ rectification column to the demethanizer center feed liquid.

Canadian Natural Resources Ltd. - Greencourt

- 35 MMSCFD optimization study of liquid recovery improvement options.

Capilano Holdings Inc. (AZGERNEFT) - Azerbaijan

- Preliminary process design and cost estimate for a \$2 million system of flowlining, field satellites, FWKO, desanding, treating, produced water reinjection, and fuel gas scrubbing.

Chevron Canada Resources - Bigoray

- Preliminary design and process review for a 0.9 MMSCFD acid gas (20% H₂S, 80% CO₂) low-pressure acid gas injection scheme, including injection pressure estimation and water content calculations.
- Design of a novel dehydration unit for acid gas using low temperature methanol injection.

Chevron Research and Technology - Tengiz, Kazakhstan

- Design of a high-volume (250 MMSCFD) high-pressure (9000 psia) sour gas (16% H₂S, 5% CO₂) injection scheme. Generation of methods for estimating physical properties and phase equilibria encountered in the process.

City of Calgary - Bonnybrook

- Evaluation of the digester gas system for the sewage treatment plant.
- Design and specification of the storage compressor.

Crest Energy Consultants - Confidential

- Design of surface facilities for a 6000 B/D ethane injection scheme for miscible flood with process conditions near the critical point of ethane.

Crestar Energy Inc. - Wembley

- Debottlenecking study for the 100 MMSCFD gas plant in order to develop the plant turnaround strategies.

Cymric Resources Ltd. - Steelman

- 0.75 MMSCFD gas plant troubleshooting and feasibility study evaluating various sweetening processes for process improvement.

Devon Canada Corp (formerly Anderson) - Coleman

- Engineering review of 60 MMSCFD sour dehydration facility. (27% H₂S).
- Installation of molesieve regeneration cooler.

Devon Canada Corp (formerly Anderson) - Woking

- Simulation of the gas plant to determine maximum capacity.

Draig Resources Ltd - Chigwell

- Flash calculations on PROSIM to determine the associated gas produced from multiple oil/gas/water mix streams being taken through a two stage pressure drop.

Encana - Deep Panuke, Nova Scotia

- Preliminary design of an offshore acid gas injection scheme to inject 4.5 MMSCFD of acid gas with an approximate composition of 25% H₂S and 75% CO₂.
- Study included compressor design (1200 HP), phase equilibrium calculations and water content.
- Scenarios studied included blending the acid gas with condensate prior to injection.

Enerpro - Bigoray

- Review of acid gas injection scheme due to changes to acid gas composition.

Esso Resources Canada Ltd. - Big Bend

- 11 MMSCFD gas plant process debugging.

Gas Authority of India - Pata, India

- Evaluation of problems at a 400 MMSCFD dehydration facility.

Gas Liquids Engineering Ltd. - Various

- Simulation studies with the Bryan Research and Development Company's software including: Improving the C₂₊ and C₂₊ recovery performance of existing natural gas processing plants based on turbo expander refrigeration and/or absorption. Nitrogen removal from natural gas by cryogenics or absorption. Helium separation by cryogenics. Modeling and simulation of natural gas dehydration with molecular sieves. Modeling and simulation of hydrocarbon separation on activated carbon.

Genra Resources - Ferrier

- Simulations for sweetening of stabilizer overheads gas.

Gulf Canada Resources Limited - Brazeau

- 1 - 2 MMSCFD acid gas injection study involving a process and cost analysis for various options.

Gulf Canada Resources Limited - Red Earth

- 11,000 m³/d water flood simulation and study of surface equipment and pipeline systems.

HCO Energy Inc. - Ansell

- Rated the performance of the 10 MMSCFD gas plant at existing conditions.
- Through simulations, identified the bottlenecks and recommended the equipment changes that would be needed to optimize the plant performance.

Industrie Meccaniche Scardellato SpA - Italy

- Design of a skid-mounted nitrogen rejection unit.

IPE Bolivia SRL - Santa Cruz, Bolivia

- Multiphase pipeline simulation.
- Pipeline simulations to increase gas production from 2 MMSCFD to 16 MMSCFD including five compressor stations and pipeline looping.

Jacobs Canada - Alberta

- Review of acid gas injection design drawings.

James E. Smith & Associates - Tyler, USA

- Design of an acid gas injection scheme for the disposal of up to 3 MMSCFD of acid gas including injection pressure calculation, water content optimization and compression design.

KCS Resources - Texas, USA

- Preliminary design calculations for a 2.5 MMSCFD acid gas (50% H₂S, 50% CO₂) injection scheme.

Long Petroleum - Louisiana, USA

- Design calculations for a proposed scheme for the injection of 1.5 MMSCFD of sour gas (6% H₂S, 6% CO₂) including injection pressure estimation, water content, compressor sizing and hydrate calculations.

Moiibus - Achesen

- Preliminary design of a sour gas plant (7 MMSCFD) and acid gas injection scheme (80% CO₂, 20% H₂S).

Nova Chemicals - Sarnia, Ontario

- Calculations for the prevention of hydrate formation in a liquids ethane pipeline.

PDVSA/PPC - Caracas, Venezuela

- Evaluation and recommendations to improve the accuracy and reliability of 120 gas metering stations in Maturin District.

PDVSA/Tivenca – Maracaibo, Venezuela

- Conceptual design of multiple processing options for 1200 MMSCFD gas stream including CO₂ removal, ethane recovery, turbo-expander facility, mercury removal and a nitrogen rejection facility.

Pembina Resources Limited - Slave / Seal

- Process simulations for the amine plant.

Pembina Resources Limited - Viking/Kinsella

- Study of liquids recovery improvement scenarios.

Petro Operating Company - Florida, USA

- Acid gas injection data analysis.

Polish Oil and Gas Company - Chobienice, Poland

- Design basis memorandum and project specifications for Chobienice Gas Plant.

Polish Oil and Gas Company - Poland

- Compression system design and evaluation for two new gas fields.

Prime West Energy - Sundre

- Rated the ability of an existing refrigeration plant (two Mycom P250S compressors) to process 28 MMSCFD of natural gas.

Ranger Oil Limited - Josephine

- 50 MMSCFD process optimization study/plant expansion scoping.

Rigel Energy Corporation - Bucking Horse

- 60 MMSCFD process optimization study/plant expansion scoping.

Rigel Energy Corporation - Progress

- 35 MMSCFD process optimization study/plant performance testing.

Rio Alto Exploration Ltd. - Ante Creek

- 18 MMSCFD optimization study and costing of modification scenarios.

Scimitar Petroleum (Egypt) Ltd - Egypt

- Conceptual design of a commercial heavy oil facility producing 10,000 bbl/d oil and 30,000 bbl/d water.

Shell Research Centre - Calgary

- 15,000 psi design of small pressure vessels for core research projects. High viscosity fluids were involved in this very cost sensitive project.

Solex Energy Inc. - Edmonton

- Conceptual process design for purification (COS and mercaptans) and fractionation of a 30,000 B/D condensate stream to yield propane, butane and heavier fractions.

Suncor Inc. - Adsett

- Preliminary scoping and process design for an amine plant.

Suncor Inc. - Fort McMurray

- Preliminary design of modifications to an existing 2 MMSCFD vapour recovery unit to switch Freon AZ 50 refrigeration to propane refrigeration.

Tecna S.A. - El Porton, Argentina

- Basic engineering of acid gas injection compressor facility.

Total Petroleum Canada Ltd. - Buckinghorse

- Gas plant capacity test and debottlenecking study for a 60 MMSCFD facility.

Total Petroleum Canada Ltd. - Hythe

- 12 MMSCFD gas plant capacity test and debottlenecking study.

Total Petroleum Canada Ltd. - Josephine

- 50 MMSCFD process optimization study and plant expansion scoping.

Total Petroleum Canada Ltd. - Progress

- 35 MMSCFD gas plant capacity test and debottlenecking study.