

**Vladimir Vikalo M.Eng, P.Eng.**  
**Epic Consulting Services**  
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### SKILLS SUMMARY

- 16+ years of engineering experience; seven and half years as a reservoir engineer in Canada
- Ability to independently initiate and manage projects, and successfully deliver project results
- Excellent knowledge of Western Canadian Sedimentary Basin. Analyzed OOIP, OGIP and reserves for each type of pool in Alberta, Saskatchewan and BC and estimate remaining recoverable reserves by applying different EOR and processes.
- Possess a good understanding of reservoir geology and simulation as well as EOR techniques
- Well testing knowledge including modeling and interpretation of complex well configurations
- Well developed interpersonal and communication skills in both independent and team environments

### WORK EXPERIENCE

2001 – Present

**Project Manager, Reservoir Engineer**  
**Epic Consulting Services Ltd. – Calgary AB**

- Procyon Energy Corp. (Regil Dunlevy A Pool) Determined remaining oil in place as well as “fillup time”. Made recommendations for development planning based on simulation results.
- Yellow Brick Energy (Gas Pools) Determined new reserves for various gas pools in Alberta with infills and extended drilling
- Manitoba Government (Oil Pools) Determined incremental recovery factor for various pools in Manitoba using miscible CO<sub>2</sub> flood in order to reduce CO<sub>2</sub> pollution
- NAL (Medicine River) Waterflood feasibility study with analytical methods
- Enhanced Energy (Pembina Cardium) Determined permeability and porosity distribution based on core data analysis
- Outrider (Whitecourt Elerlie Greenfield) Simulation study using Eclipse 100. Updated existing model and determined risk associated with different size of gas cup
- Schlumberger ( Thermal Simulation ) Determined potential of properties using Steam Flood.

Study includes determination of recovery factor using simulation with Eclipse 300 and CMG Stars

- Twin Butte Energy (Provost) Waterflood feasibility study. Determined remaining oil in place and proper development plan with simulation and various analytical methods
- Synenco (Various Athabasca Properties) Determined upside potential of various Athabasca Properties using SAGD and CSS processes.
- Crescent Point (Viewfield) Simulation Study of Bakken property. Determined upsides with horizontal wells drilling as well as with waterflooding
- PrimeWest Energy Inc ( USA Flat Lake Nisku Unit) Waterflood Optimization Study using Eclipse 100. Asses remaining oil in place and identify location of unswept oil
- OneFour Energy (Senex Slave Point A Pool) Waterflood optimization based on simulation study with Eclipse 100.
- Triaxon ( Pembina Cardium) Waterflood optimization based on simulation study with Eclipse 100 and Streamline simulation. Determined upsides for new horizontal wells
- Outrider (Whitecourt Elerlie Greenfield) Analytical and simulation study of new property, Determined upsides with waterflooding
- Suncor ( Alberta Oil Pools) – Screen all Alberta Oil Pools for miscible CO<sub>2</sub> Flood and determine potential location of pipeline for CO<sub>2</sub>
- Wrangler West (Riviere) – Determined remaining oil in place using simulation study with Eclipse 100. Recommended new development plan
- Masters Energy (Little Bow-Upper Manville) – Simulation study with CMG software, Waterflood optimization and polymer flood
- Crescent Point (Tatagwa) – Waterflood simulation study with Eclipse 100 – determine new infill wells location
- PennWest Energy Trust (Pembina Cardium Unit 31) – Waterflood Optimization Study – Eclipse 100 Simulation Study on 300+ wells , more than 1 million grid cells model
- PennWest Energy Trust (Pembina Cardium Unit 31) – CO<sub>2</sub> Compositional model – Eclipse 300 on 75 + wells
- Apache Canada ( House Mountain Unit 3 and Unit 4) – Waterflood Optimization Study using Eclipse 100. Simulation Study on field with 90+ wells. Multiple realization of geological model
- Hygait Energy (Flat Lake Bakken Pool) Simulation, RTA and Analog pool analysis to determine potential of Flat Lake Bakken formation in Saskatchewan
- Swan Hills (Devon Canada) Analytical and 1 D. simulation model CO<sub>2</sub> miscible and Hydro Carbon miscible flood
- NAL Resources (Nottingham Pool in Saskatchewan) Used simulation study to determine optimum development for pool in Saskatchewan
- APA / Pengrowth (Bodo/Cactus Pool ) Determined future development plan based on simulation and analytical study
- SaskPower (CO<sub>2</sub> EOR study ) Enhanced oil recovery in Saskatchewan. Using CO<sub>2</sub> in EOR Processes
- PTAC (Thermal Energy Potential ) Determination of Thermal Potential from Aquifers in Alberta
- PennWest Energy Trust (Pembina Cardium Unit 9) Analytical Study to Determine Waterflood Potential

- Pennwest Energy Trust (Back Lake ) – CO2 Sequestration
- Annapolis Capital Ltd. (Bakken Pool ) – Bakken Potential in Saskatchewan
- Real Resources Ltd (Sakwatmau well ) Determination of Potential for New Discovered Well
- CNRL Canada ( Ojay Well) Simulation Study of Water Coning in Gas wells in British Columbia
- EnCana (Miscible CO2 displacement ) Determination of incremental oil production for ten pools operated by EnCana using CO2
- Real Resources Ltd. (Bakken Development) – completed a reservoir simulation study to aid in the field development plan for this new oil pool.
- ARC Energy (“Jack Pool”) located in USA. Determination of OOIP using material balance and decline technique. Forecasting using analytical methods and design depletion plan.
- Canadian Forest (Keg River & Granite Wash North Pool) – perform pool analyses using streamline simulator and Eclipse black oil simulator. Design depletion plan and future development strategy.
- Innova Energy Inc (Bakken Pool)- used simulation study to estimate the oil target. Develop strategy for future development. Analyze Waterflood assets.
- Enerplus Resources Fund (Pembina Cardium Block B) – perform analytical Waterflood analyses to determine upside potential.
- Suncor Energy Inc. – Evaluation of CO<sub>2</sub> flood potential by estimation of CO<sub>2</sub> requirements in tandem with ultimate recovery factors achievable for all of Alberta.
- Waterous & CO. – perform Waterflood analyses of Wainwright East and West pools by analytical and simulation study using streamline simulator 3DSL to determine upside potential of these pools currently operated by EnCana.
- ARC Energy (Cranberry Pool)- estimation of OOIP, well test analysis and determination of rock compressibility for Slave Point D formation.
- Production optimization and economic analysis of Waterflooding heavy oil reservoirs in Alberta and Saskatchewan with focus on Loydminster area.
- PTAC Study Increased Recovery of Oil and Gas Business Case Project (10000 Oil Pools and 40000 Gas Reserves) - developed Super Data Base that combine potential of every single oil and gas pool in Alberta. Analyzed OOIP, OGIP and reserves for each type of pool in Alberta to estimate remaining recoverable reserves by applying different EOR processes.
- Gained an understanding of how reserves estimates have changed with time to forecast future behavior of oil and gas reservoirs using decline analysis, material balance and simulation techniques
- Determination of proven, probable, and possible reserves using Monte Carlo simulation combined with volumetric and material balance methods.
- Modeled, analyzed and forecasted oil production from reservoirs undergoing gas and water coning.
- Investigated and modeled inflow performance of oil and gas reservoirs for both vertical and horizontal wells.
- Analysis of gas production in tight gas reservoirs – determine pressure and production profile in communicating compartments using analytical models and Eclipse.
- Well testing using drawdown and buildup pressure data in homogeneous and naturally fractured reservoirs.

- PVT data analysis for oil and natural/sour gas reservoirs.

2000 – 2001                    **Reservoir Engineer - Reservoir Modeling, Simulation and Design**  
**Fekete Associates Inc. – Calgary AB**

- Flow simulation and transient pressure analysis in multi-compartment rectangular-shaped reservoirs
- History matched and predicted reservoir behavior using decline curve analysis methods as well as drawdown and buildup pressure data
- Research and development of Rate Transient Analysis
- Modeled and designed fluid flow in naturally fractured oil and gas reservoirs by programming the model with an object-oriented language and created Windows applications for these models

May – Aug 2000                **Reservoir Modeling**  
**University of Calgary**  
**Department of Chem. and Petroleum Engineering**

- Developed method for determination of gas in place suitable for tight formation
- Modeled and investigated miscible displacement in naturally fractured reservoirs
- Designed and evaluate numerical models to predict recovery for naturally fractured reservoirs and created Windows applications for these models

1998 – 2000                    **Tutored Math Students**  
**Bow Valley College, Calgary AB**

1993 – 1994                    **Manager of Research & Development Department**  
**Rikard Bencic, Rijeka, Croatia**

- Technical management of 15-20 engineers and technologists
- Modeled physical phenomena and energy generation during production processes

1986 – 1993                    **Manager of Production Processes**  
**UNIS – Vitezit, Yugoslavia**

- Managed more than 20 people and controlled production processes.
- Modeled chemical, mechanical and thermal processes.
- Modeled and simulated various processes to improve production and minimize environmental impact.

## EDUCATION

- 2000 – 2003            **Master of Engineering**  
University of Calgary  
Specialization: Petroleum Reservoir Engineering  
Masters Project:  
                                Forecasting Oil and Gas Reservoirs Producing Under Different  
                                Recovery Mechanisms
- 1982 – 1986            **B.Sc. in Chemical Engineering**  
The University of Zagreb, Croatia

## RELEVANT PETROLEUM ENGINEERING COURSES from U of C

Advanced Reservoir Engineering  
Reservoir Simulation  
Secondary and Tertiary Recovery  
Thermal Recovery Methods  
Miscible Displacement in Fractured Reservoir  
Naturally Fractured Reservoirs  
Reservoir Engineering I  
Oil and Gas Production Engineering  
Risk Analysis – Statistics approach in reservoir eng  
Well Test Interpretation – CIM  
Advanced Topics in Heat Transport and Fluid Dynamics  
Fundamentals of Transport Phenomena  
Applied Numerical Methods

## INDUSTRIAL CURSES

CMG-STAR – Simulation of Thermal Recovery Methods  
CIM - Well Test Interpretation  
Palisade – Risk Analysis in Engineering

## PUBLICATIONS

"Computerized Modeling and Design of Chemical Processes"  
YUKEM, Zlatibor 1987, Yugoslavia

## LANGUAGE FLUENCY

English, German, and Serb-Croat