



## **DOUGLAS J. CARSTED, C.D., P.Geol.**

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Douglas is a Director and an Associate of Sproule and is involved in the management the Geoscience division of Sproule's International subsidiary. He works in the areas of property evaluation and reservoir studies in Canada and in a number of countries worldwide. Douglas has been a Sproule professional since 1994.

Douglas was born and raised in Winnipeg, Manitoba. After graduating with a B.Sc., he accepted a position with Imperial Oil Limited in Calgary as a Geologist. His experience consists of 12 years with Imperial Oil Limited working in both Exploration and Production Geology. For a two-year period, he worked as a computer systems analyst developing in-house geological software for the Exploration Department. For the last five years at Imperial Oil Limited, he worked in the Reservoir Description Group and Decentralized Operations Group looking after the reservoir management of both carbonate (Devonian) and clastic reservoirs.

Douglas has experience in Argentina, Australia, Bolivia, Canada, China, Colombia, Egypt, India, Indonesia, Iran, Libya, Myanmar, New Zealand, Oman, Russia, Syria, Ukraine, United Kingdom (North Sea), and West Africa.

### *Diplomas and Degrees*

- ❖ B.Sc. (Honours) Geology (1982), University of Manitoba, Winnipeg, Manitoba, Canada
- ❖ B.Sc. Chemistry (1979), University of Winnipeg, Winnipeg, Manitoba, Canada

### *Memberships*

- ❖ Association of Professional Engineers, Geologists and Geophysicists of Alberta (APEGGA)
- ❖ Canadian Society of Petroleum Geologists (CSPG)
- ❖ American Association of Petroleum Geologists (AAPG)
- ❖ Petroleum Society of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM)
- ❖ Canadian Well Logging Society (CWLS)
- ❖ Indonesian Petroleum Association, Professional Division (IPA)

### ***Work Responsibilities***

- ❖ Evaluate geology and petrophysics of oil and gas reservoirs (both sandstone and carbonate) properties and prospects.
- ❖ Map and model oil and gas reservoirs.
- ❖ Conduct regional geological studies.
- ❖ Undertake exploration geology.
- ❖ Generate oil and gas prospects.
- ❖ Teach reservoir geology through courses and seminars offered by Sproule.

### ***Previous Employers***

- ❖ 1983-1994      **Imperial Oil Resources Ltd.**, Calgary, Alberta
  - ❖ 1988 to 1994 – Senior Development Geologist/Reservoir Engineer
    - ❖ Responsible for over 60 properties, both operated and non-operated.
    - ❖ Conducted geological and reservoir evaluation of drilling proposals.
    - ❖ Undertook field development of both carbonate and clastic reservoirs.
  - ❖ 1986 to 1988 – Project Geologist, Exploration – Northern District
    - ❖ Responsible for exploration geology and prospect generation in the Peace River Arch area.
    - ❖ Constructed geological reservoir models.
  - ❖ 1984 to 1986 – Systems Analyst, Systems and Computer Services
    - ❖ Developed computer systems for exploration department, including mapping functions and geological database.
  - ❖ 1983 to 1984 – Project Geologist, Oil Sands Development Group
    - ❖ Conducted log analysis and reservoir mapping and modelling using Exxon's GEOSET three-dimensional model for Esso's Cold Lake Hydrothermal Pilot Project.
- ❖ 1982              **Mobil Oil Canada Limited**, Calgary AB, *Wellsite Geologist*
  - ❖ Supervised logging and wellsite operations.
- ❖ 1979, 1980,  
1981              **Urannerz Exploration and Mining Ltd.**, Saskatoon, Saskatchewan,  
*Field Geologist*
  - ❖ Conducted geological field mapping and prospecting.

### ***Committee Work***

- ❖ 2004 to Present — Petroleum Society of CIM, Chairman
- ❖ 1999 to 2004 — Petroleum Society of CIM; Director
- ❖ 1999 — Canadian Society of Petroleum Geologists Conference: Co-Chairman
- ❖ 1994 to 1998 — Petroleum Society of CIM Economics Sub-Committee: Member, 1994–1997; Chairman, 1997–1998
- ❖ Petroleum Systems Engineering Advisory Committee, University of Regina

### ***Professional Experience in Hearings, Arbitrations and Litigations***

My experience falls under two headings:

- A. Appearance as an expert witness in a proceeding, encompassing the preparation of evidence, assistance in cross-examination of the opposing party and submission to cross-examination of our evidence.
- B. The provision of technical support in a proceeding, with or without the preparation of evidence but without appearance as an expert witness.

#### **A. APPEARANCE AS AN EXPERT WITNESS:**

1. Turgai Petroleum vs PetroKazakhstan Kumkol Resources, Kyzylorda Oblast Court, Kyzylorda, Kazakhkhstan, and Kazakh Supreme Court, Astana, Kazakhstan 2005:
  - a. Forum: Litigation
  - b. Issue: Migration of oil across License Boundary
  - c. Legal counsel: Salans
  - d. Sproule represented defendant
  - e. Outcome: Oblast court awarded damages totaling US \$200 million. This was reduced to US \$25 million by the Supreme Court.
2. Confidential, Technical Arbitration, Melbourne, Australia, November 1998:
  - a. Forum: Technical Arbitration – Reservoir Reserves and Valuation
  - b. Issue: Dispute Resolution Mechanism;
  - c. Legal counsel: Government
  - d. Sproule provided expert assistance on gas reserves, valuation and testimony before the arbitration umpire.
  - e. Outcome: Arbitrator took the average of the two values.

**B. TECHNICAL SUPPORT FOR HEARINGS, ARBITRATIONS & LITIGATIONS:**

1. Imperial Oil Limited v. Gulf Oil, BP Canada, PetroCanada: Calgary, 1994:
  - a. Forum: Litigation
  - b. Issue: Redwater Field Alberta, Unjust Enrichment (68 million dollar claim) - Due to Two Phase Measurement Problems on Other Operators Field Equipment.
  - c. Legal Counsel: Macleod Dixon LLP
  - d. Imperial Oil Limited (ESSO Resources Limited): Identified problem while conducting detailed reservoir study on the Redwater Field, worked two years on proving the validity of the case and prepared the Technical Report which formed the basis of the claim. Prepared and analysed documents in preparation for discovery hearings. Sproule acted as Technical Advisors to Imperial Oil Limited.
  - e. Outcome: Defendants settled out of court just prior to the commencement of discovery hearings, no public disclosure of decision. Imperial Oil assumed ownership of the Gulf Oil and BP Canada properties through asset swaps.
  
2. Samson Cree Nation v. Her Majesty the Queen in Right of Canada Breach of Treaty and Trust Legal Proceedings: Calgary, 1995-2002:
  - a. Forum: Supreme Court of Canada
  - b. Issue: The legal proceedings seek to have the Federal Government (including the Department of Indian Affairs) declared in breach of its treaty, trust, fiduciary and other obligations and duties to the Samson Cree Nation, more specifically, with respect to the management and supervision of the oil and gas relating to the Pigeon Lake Reserve, and with respect to the management of the oil and gas royalty moneys received by the Federal Government in trust for the Samson Cree Nation. An amount of \$1.385 billion, (as well as an accounting and interest) in damages is claimed in the Samson Statement of Claim for the loss of revenue and other losses suffered as a result of the Federal Government's breaches of treaty, trust, fiduciary obligations and other duties.
  - c. Legal Counsel: Parlee McLaws LLP, O'Reilly & Associés, and Rae & Company
  - d. Sproule acted for the Plaintiff in the Oil and Gas issues which have not gone to trial. A technical report was prepared for the court that acts as a primer for oil and gas as well as supporting their claim.
  - e. Outcome: The Oil and Gas issues are part of Phase III of the overall lawsuit. A judge has not yet been assigned to Phase III and no schedule has been set.
  
3. Confidential, The Netherlands, 2005.
  - a. Forum: Litigation, Amsterdam Court
  - b. Issue: Client claimed that defendant had misrepresented the facts in a presentation to the Ministry of Mining and Energy Resources of Kazakhstan that resulted in the Ministry ordering the Claimant to close production from all of its wells located near the boundary of the Concession Licence. Client claiming damages of US \$60 million.
  - c. Legal counsel: CMS Derks Star Busmann
  - d. Provided technical evaluation of several actions taken by the companies.
  - e. Outcome: To our knowledge, no decision has been made on this case.