DAVID C. CARTER, M.Sc., P.Geo, FGC.
Senior Geoscientist / President
Hy-Grade Geoscience Limited

Mr. Carter has over 35 years experience in professional geoscience, business and project management. Mr. Carter's career has followed a pathway of increasing technical specialization and management responsibility, including academic, industry and government survey work, resource evaluation, feasibility and development work as well as due diligence, regulatory and stakeholder consultation. He has extensive background in research, mapping and geological evaluation of base metals, energy minerals and industrial minerals. Mr. Carter has reviewed the geological and exploration work and identified targets for a geological mission as well as participating in a comprehensive mining strategy study to Saudi Arabia. He has supervised the extensive exploration, feasibility development and monitoring work associated with salt and potash projects, one leading to the development and production at the Picadilly Mine.

EDUCATION

M.Sc. (Geology), University of New Brunswick (1985).
B.Sc. (Geology), Mt. Allison University, New Brunswick (1982).

PROFESSIONAL EXPERIENCE

Hy-Grade Geoscience (since 2002)

- Mr. Carter is President and Senior Geoscientist. He provides expertise and services in project management, logistics and regulatory work as well as environmental assessment, remediation, monitoring/compliance and exploration, feasibility and development geoscience.

Key geoscience assignments have included:

- Site/Project Geologist, Client Representative, Drilling Supervisor on several evaporate (salt, potash and underground storage) exploration drilling projects; detailed geological and geophysical logging and analysis; preparation of client and assessment reports;

- Regional Geologist-Economic Geologist Specialist; Nova Scotia Department of Mines and Energy, Cumberland Basin Project; diamond drilling at Riverside Corner and Alton, N.S.; detailed mapping of the underground workings of the Pugwash Salt Mine, with a focus on structural and stratigraphic analysis;

- Industrial Minerals Geologist; evaluation of the mineral assessment and potential of the Kingdom of Saudi Arabia in preparation for a Canadian Geological mission to the Kingdom;

- Chief Geologist; exploration (diamond drilling) and economic feasibility program for a potential rock salt mine in western Newfoundland; development of conceptual mining plans and environmental impact assessment data;

- Site Geologist; investigating the water inflow into an operating salt and potash mine; supervised the re-drilling of a previously abandoned diamond drill hole; controlled drilling, downhole cameras and custom designed and fabricated wedges; establish communication with the operating mine; evaluate the in-flow and complete an abandonment grouting program;

- Senior Geologist on a team evaluating the technical and economic development potential, the "highest and best use" of a salt deposit, including the potential development of an underground rock salt mine, a solution mine and/or a hydrocarbon storage facility;

- Senior Geologist on a ten drill hole exploration and delineation drilling program for a potash mine project; focus on core recovery and hole condition for evaluation with downhole geophysical and hydrogeological testing; detailed logging and core photo record;

- Senior Geologist; design, supervision, testing and reporting of the shaft pilot hole for a potash mine project; focus on core recovery, hole condition, directional control (verticality); detailed evaluation of the drill core, geophysical and geotechnical data;

- Senior Geologist for the design and construction of a potash mine materials delivery hole; constructed to deliver grouting materials to the underground workings of the mine; targeted to intersect the mine workings and currently operational;

- Senior Geoscientist/Technical Advisor/Project Management Team; Statia Terminals, Port Richmond Energy Project; evaluate the salt deposit for the development of an underground storage facility, in conjunction with crude oil, natural gas, CNG and LNG development; management and submission of assessment work documentation; development of the project description, environmental permitting and project registration; geotechnical evaluation and design of a solution mining operation (surface facilities, pipelines, water supply, brine discharge, etc.); and preparation for operations as a petroleum handling facility;

- Senior Technical Advisor; site, equipment, resource and reserve evaluation as well as the production capabilities of a large-scale sodium sulphate mining operation in preparation for an offer to purchase;

- Senior Geoscientist; Alton Natural Gas Project; supervision, geological logging and reporting; exploration diamond drill hole to evaluate the Windsor Group, Stewiacke Formation for development of an underground gas storage facility;

- Senior Geoscientist/ Project Manager; property/site selection process to locate a proposed hydrocarbon refining facility in Nova Scotia;

- Senior Geoscientist; Greenland Drilling Project; mineral exploration drilling project (nickel); western Greenland (Nugssuaq Pensuila); project planning, contracts management and logistics for crews and equipment; regulatory contact and reporting; 42 km of access road and a helicopter supported camp; control of natural gas flow; seal and abandon wells; the crews and equipment were demobilized without injury or incident;

- Senior Geoscientist/ Technical Advisor; potash mine monitor well project; design, construction and instrumentation of a series of shallow (50 m) and deep (750 m) monitor wells; work plan and budget, contractors and suppliers, RFP's, contract management; geological, geophysical, geochemical, and hydrophysical evaluation; installation of vibrating wire piezometers were installed to monitor changes during mining;

- Senior Geoscientist/ Technical Advisor for a potash mine inflow control project; design, contracting, construction and instrumentation of two monitor wells (as above); geological and technical supervision of the inflow control grouting program; evaluate and control the fresh water inflow to the mine workings; construct two drill pads and thirty-eight deviated (whipstock) holes to intersect the fracture system and deliver grouting/stabilization materials (approximately 200,000 tonnes);

- Senior Geoscientist/ Technical Advisor for a potash mine shafts sinking project; on-going geological and technical monitoring, logging and reporting on the shafts sinking operations; working with and reporting to the mine engineering staff and technical services group;

- Senior Geoscientist/ Technical Advisor on the successful decommissioning of two deep injection wells (one bitumen well and one grout well) at a former potash mine; the wells were successfully re-entered, the downhole conditions were evaluated, they were sealed and abandoned.

- Senior Geoscientist/ Project Manager, several hydrocarbon exploration projects in NS and PEI; the project team includes Project Geologist, Senior Engineer and a Senior Biologist; regulatory permitting, public consultation, water supply, liquid and solid waste characterization and management as well as well-site monitoring work; site selection; permit application, contracts and logistics; baseline, operational and post-operational monitoring; preparation of client and regulatory reports.

- Senior Geologist/ Technical Advisor, due diligence review of the NI 43-101 compliant technical report on a lithium carbonate and potash brine production project located in Argentina.

- Senior Geoscientist/ Qualified Person for the NI43-101 compliant, mineral resource evaluation of a potential salt and potash deposit.

- Senior Geoscientist/ Project Manager for the pre-construction, baseline, potable water investigation (water quality and flow testing) and the follow-up, post-construction, evaluation related to the construction of a natural gas distribution pipeline.

- Senior Geoscientist/ Qualified Person (QP) for the NI43-101 compliant, due diligence investigation of a "fracking" sand quarry mining operation; greenfield/preliminary evaluation of three (3) additional potential quarry locations.

- Executive Director and Registrar of the Association of Professional Geoscientists of Nova Scotia (APGNS); under a Professional Services Contract Agreement (since 2010); this is a part-time position dealing with all aspects and operations of the Association as well as the supervision of part-time administrative staff.

- David has completed over 300 environmental geoscience projects throughout Atlantic Canada; phased environmental site assessments and site remediation to monitoring, regulatory compliance and close out of remediation systems; ranging in scope from domestic furnace oil spills, to gas station/bulk plant upgrades, to decommissioning of petroleum handling and refining facilities. He has also undertaken greenfield/brownfield site selection, project description and environmental site assessment work for industrial developments.

- He had a lead role in the drafting and submission of the *Geoscience Profession Act* (2002) and the APGNS by-laws. He has also led the review and revision of the *Geoscience Profession Act* and the *Geoscience Profession Regulations*. The governance review and development of the new Act (submitted to the NS Legislature and pending review). He was lead author for the *Geoscience Professional Practice Guideline for Conducting Phase 1 and Phase 2 Environmental Site Assessments in Nova Scotia* and also the *Self-Designation as a Site Professional under the NSE Contaminated Sites Regulations; A Joint Practice Guide* (in preparation with Engineers Nova Scotia).

PROFESSIONAL MEMBERSHIPS

Founding member and past-President, Association of Professional Geoscientists of Nova Scotia (#001).

Member, Professional Engineers and Geoscientists of Newfoundland and Labrador (#04424).

Member, Association of Professional Engineers and Geoscientists of New Brunswick (#L4816).

LANGUAGES

English (fluent).